

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL102115\  
 Data File : VL026250.D  
 Acq On : 21 Oct 2015 23:01  
 Operator : SY/MD  
 Sample : VL1021ABS02  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

Manual Integrations  
 APPROVED

MMDadoda  
 10/22/2015 4:36:12 PM

Quant Time: Oct 22 15:02:57 2015  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL102015AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Oct 22 2015  
 QLast Update : Wed Oct 21 01:20:55 2015  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 6.62  | 49   | 434737   | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 8.30  | 114  | 1353558  | 10.00 | ppbv  | -0.01    |
| 55) Chlorobenzene-d5    | 13.71 | 117  | 1726416m | 10.00 | ppbv  | -0.02    |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 16.26  | 95    | 1288441  | 9.68     | ppbv | -0.02  |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 96.80% |

| Target Compounds               |      |     |         |       |        | Ovalue |
|--------------------------------|------|-----|---------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.62 | 85  | 963005  | 10.69 | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 3.55 | 51  | 584709  | 10.62 | ppbv   | 99     |
| 4) Chloromethane               | 3.73 | 50  | 322380  | 10.86 | ppbv   | 100    |
| 5) Vinyl Chloride              | 3.87 | 62  | 342019  | 10.94 | ppbv   | 98     |
| 6) Bromomethane                | 4.12 | 94  | 253689  | 11.30 | ppbv   | 98     |
| 7) Chloroethane                | 4.21 | 64  | 148718  | 11.34 | ppbv   | 100    |
| 8) Dichlorotetrafluoroethane   | 3.78 | 85  | 857509  | 11.07 | ppbv   | 98     |
| 9) Propene                     | 3.57 | 41  | 268131  | 10.41 | ppbv   | 99     |
| 10) Heptane                    | 9.32 | 43  | 928886  | 10.77 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 4.67 | 101 | 1041308 | 11.78 | ppbv   | 98     |
| 12) 1,1,2-Trichlorotrifluoroet | 5.28 | 101 | 664916  | 11.02 | ppbv   | 98     |
| 13) Ethanol                    | 4.31 | 45  | 21348   | 5.52  | ppbv   | 100    |
| 14) Bromoethene                | 4.43 | 108 | 280474  | 11.02 | ppbv   | 99     |
| 15) Acetone                    | 4.57 | 43  | 618784  | 9.67  | ppbv   | 98     |
| 16) 1,3-Butadiene              | 3.95 | 39  | 306500  | 10.74 | ppbv   | 99     |
| 17) tert-Butyl alcohol         | 5.09 | 59  | 553469  | 12.65 | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 5.06 | 96  | 299740  | 11.00 | ppbv   | 99     |
| 19) Isopropyl Alcohol          | 4.72 | 45  | 276417  | 11.05 | ppbv   | 88     |
| 20) Methylene Chloride         | 5.12 | 84  | 273759  | 10.72 | ppbv   | 95     |
| 21) Allyl Chloride             | 5.20 | 41  | 450693  | 10.78 | ppbv   | 97     |
| 22) trans-1,2-Dichloroethene   | 5.74 | 96  | 391072  | 11.13 | ppbv   | 99     |
| 23) Vinyl Acetate              | 5.96 | 43  | 1239995 | 10.51 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.89 | 63  | 825655  | 11.10 | ppbv   | 100    |
| 25) Ethyl Acetate              | 6.64 | 43  | 1264611 | 10.54 | ppbv   | 99     |
| 26) Hexane                     | 6.63 | 57  | 621478  | 10.37 | ppbv   | 99     |
| 27) Carbon Disulfide           | 5.36 | 76  | 846514  | 11.04 | ppbv   | 97     |
| 28) Methyl tert-Butyl Ether    | 5.92 | 73  | 1178138 | 10.81 | ppbv   | 100    |
| 29) Chloroform                 | 6.72 | 83  | 985277  | 11.32 | ppbv   | 98     |
| 30) Cyclohexane                | 8.26 | 84  | 646209  | 10.78 | ppbv   | 99     |
| 31) cis-1,2-Dichloroethene     | 6.49 | 61  | 606326  | 11.14 | ppbv   | 99     |
| 32) 1,1,1-Trichloroethane      | 7.57 | 97  | 1030312 | 10.68 | ppbv   | 99     |
| 34) 2-Butanone                 | 6.17 | 43  | 802397  | 10.49 | ppbv   | 100    |
| 35) Carbon Tetrachloride       | 8.13 | 117 | 1080983 | 10.48 | ppbv   | 97     |
| 36) Benzene                    | 7.99 | 78  | 1436620 | 10.42 | ppbv   | 100    |
| 37) 1,2-Dichloroethane         | 7.34 | 62  | 798842  | 11.27 | ppbv   | 99     |
| 38) Trichloroethene            | 9.04 | 130 | 604576  | 9.04  | ppbv   | 99     |
| 39) 1,2-Dichloropropane        | 8.80 | 63  | 515211  | 10.63 | ppbv   | 98     |
| 40) 1,4-Dioxane                | 9.09 | 88  | 58371   | 6.41  | ppbv # | 1      |
| 41) Tetrahydrofuran            | 7.09 | 42  | 457177  | 10.32 | ppbv   | 99     |
| 42) Bromodichloromethane       | 8.99 | 83  | 1109899 | 10.89 | ppbv   | 100    |
| 43) Methyl Methacrylate        | 9.24 | 69  | 550347  | 10.97 | ppbv   | 99     |

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL102115\  
 Data File : VL026250.D  
 Acq On : 21 Oct 2015 23:01  
 Operator : SY/MD  
 Sample : VL1021ABS02  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

Manual Integrations  
 APPROVED

MMDadoda  
 10/22/2015 4:36:12 PM

Quant Time: Oct 22 15:02:57 2015  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL102015AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Oct 22 15:02:57 2015  
 QLast Update : Wed Oct 21 01:20:55 2015  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 9.06  | 57   | 2231234  | 10.00 | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 10.62 | 75   | 862300   | 11.01 | ppbv   | 100      |
| 46) cis-1,3-Dichloropropene   | 9.99  | 75   | 998093   | 10.89 | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 10.85 | 97   | 659432   | 10.82 | ppbv   | 100      |
| 48) Dibromochloromethane      | 11.77 | 129  | 1059481  | 10.67 | ppbv   | 100      |
| 49) Bromoform                 | 14.79 | 173  | 857073   | 10.22 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 10.06 | 43   | 1137460  | 11.01 | ppbv   | 100      |
| 51) 2-Hexanone                | 11.58 | 43   | 1083474  | 11.23 | ppbv # | 100      |
| 52) Tetrachloroethene         | 12.76 | 164  | 678852   | 8.59  | ppbv   | 98       |
| 53) Toluene                   | 11.21 | 91   | 1953083  | 10.42 | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 12.11 | 107  | 1024942  | 10.87 | ppbv   | 98       |
| 56) 1,1,1,2-Tetrachloroethane | 13.76 | 131  | 764574   | 9.23  | ppbv   | 97       |
| 57) Chlorobenzene             | 13.79 | 112  | 1621921  | 9.82  | ppbv   | 98       |
| 58) Ethyl Benzene             | 14.38 | 91   | 2810037  | 10.04 | ppbv   | 98       |
| 59) m/p-Xylene                | 14.69 | 91   | 4331646  | 19.78 | ppbv   | 99       |
| 60) o-Xylene                  | 15.46 | 91   | 2214200  | 9.67  | ppbv   | 99       |
| 61) Styrene                   | 15.28 | 104  | 1084018  | 10.46 | ppbv   | 99       |
| 62) Isopropylbenzene          | 16.51 | 105  | 3138901  | 9.85  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 15.46 | 83   | 1438509  | 9.50  | ppbv   | 100      |
| 64) n-propylbenzene           | 17.49 | 120  | 865465   | 9.88  | ppbv   | 89       |
| 65) tert-Butylbenzene         | 18.78 | 119  | 2747964  | 9.45  | ppbv   | 99       |
| 66) Benzyl Chloride           | 19.07 | 91   | 1088088  | 9.06  | ppbv   | 99       |
| 67) sec-Butylbenzene          | 19.38 | 105  | 3979260  | 9.82  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 19.75 | 119  | 3298564  | 9.73  | ppbv   | 100      |
| 70) n-Butylbenzene            | 20.72 | 91   | 3146603  | 10.16 | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 17.40 | 91   | 2340279  | 9.98  | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 17.79 | 105  | 2696546  | 10.12 | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 17.96 | 105  | 2478056  | 9.98  | ppbv   | 100      |
| 74) 1,2,4-Trimethylbenzene    | 18.80 | 105  | 2447435  | 9.50  | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 19.08 | 146  | 1621855  | 9.64  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 19.24 | 146  | 1703154  | 9.69  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 19.99 | 146  | 1646846  | 9.71  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 24.64 | 225  | 659984   | 7.58  | ppbv   | 99       |
| 79) Naphthalene               | 23.90 | 128  | 2022523  | 8.91  | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 26.01 | 142  | 384374   | 9.44  | ppbv   | 97       |
| 81) 1,2,4-Trichlorobenzene    | 23.70 | 180  | 937480   | 8.58  | ppbv   | 100      |

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

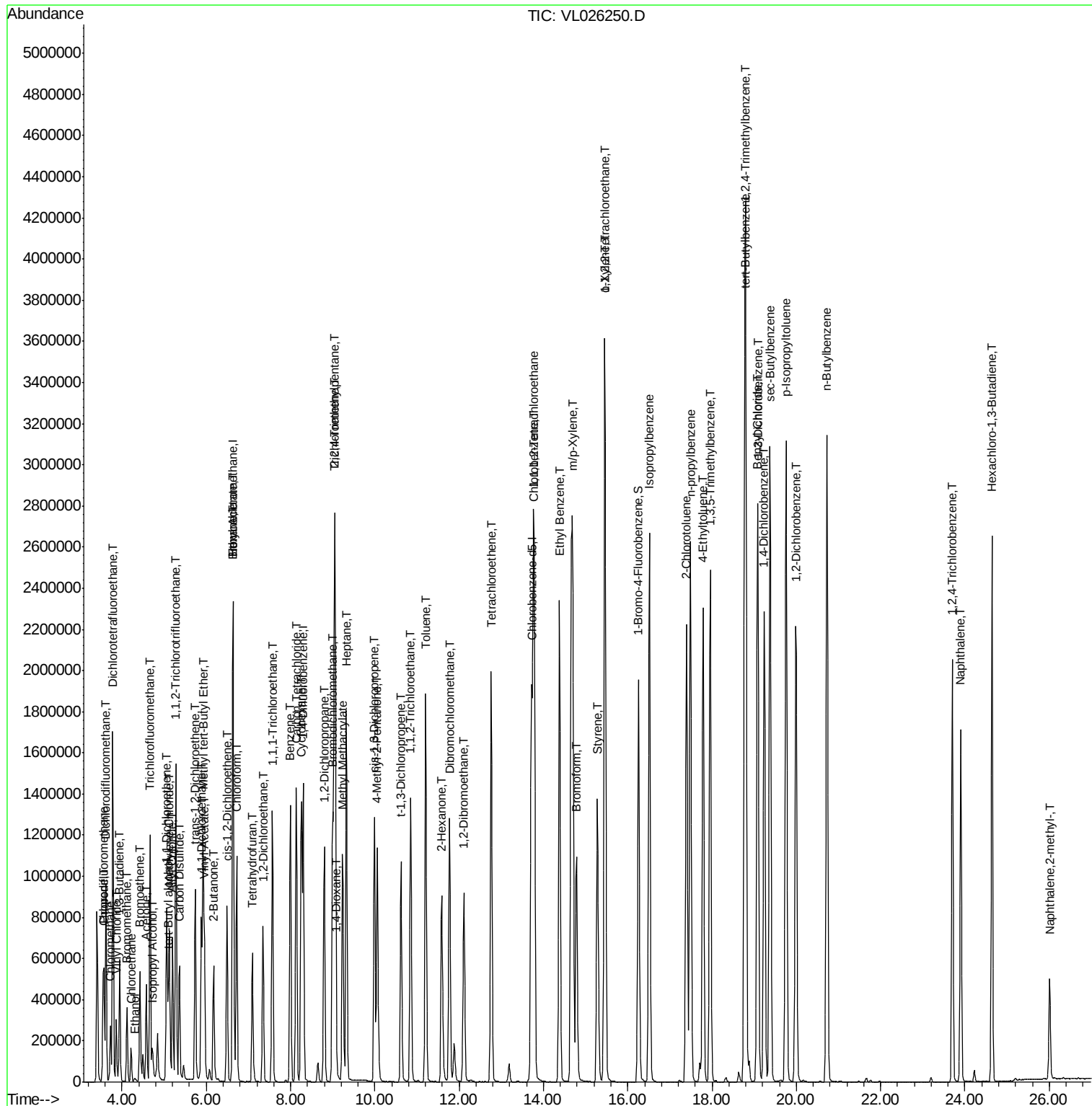
Data Path : W:\HPCHEM1\MSVOA L\DATA\VL102115\  
Data File : VL026250.D  
Acq On : 21 Oct 2015 23:01  
Operator : SY/MD  
Sample : VL1021ABS02  
Misc : 400mL/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

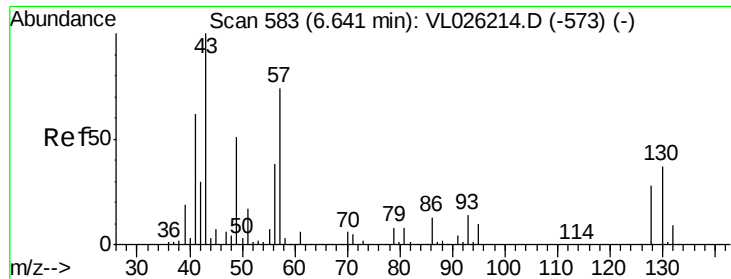
Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

Manual Integrations  
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10/22/2015 4:36:12 PM

Quant Time: Oct 22 15:02:57 2015  
Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL102015AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Oct  
QLast Update : Wed Oct 21 01:20:55 2015  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.62 min Scan# 580

Delta R.T. -0.02 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 49 Resp: 434737

Ion Ratio Lower Upper

49 100

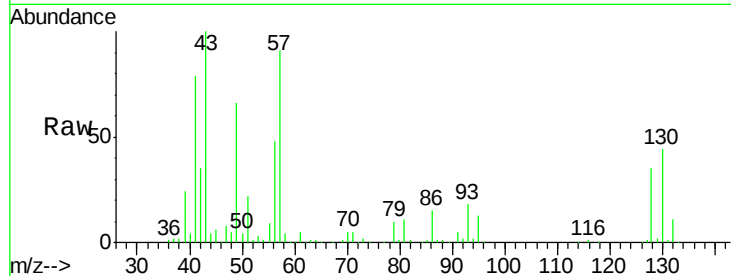
128 54.9 28.2 84.7

130 71.2 36.0 108.1

Manual Integrations  
APPROVED

MMDadoda

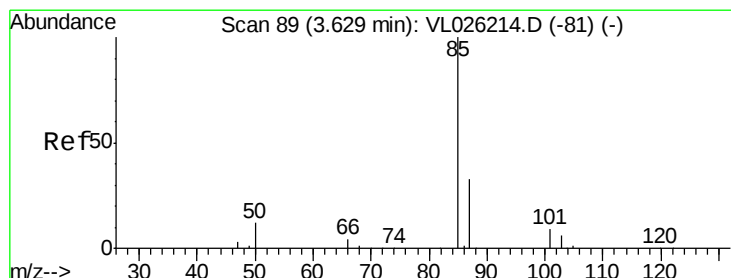
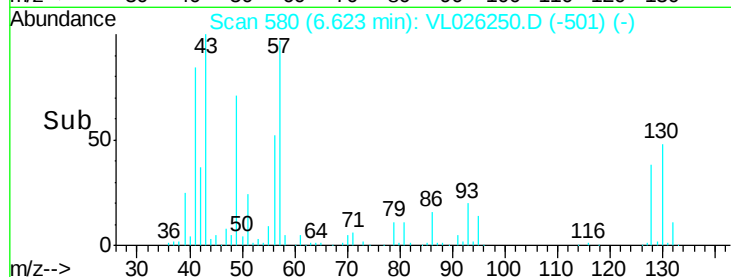
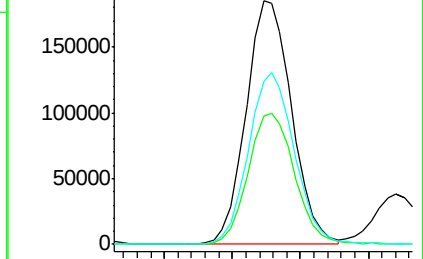
10/22/2015 4:36:12 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 10.69 ppbv

RT: 3.62 min Scan# 87

Delta R.T. -0.01 min

Lab File: VL026250.D

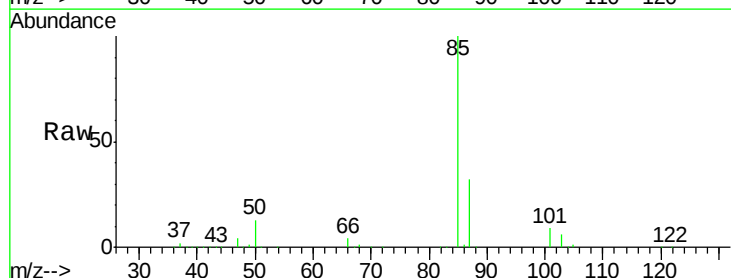
Acq: 21 Oct 2015 23:01

Tgt Ion: 85 Resp: 963005

Ion Ratio Lower Upper

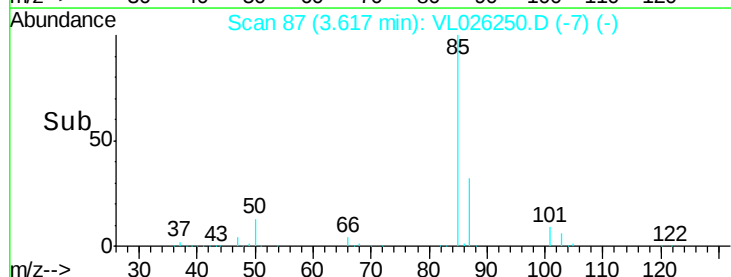
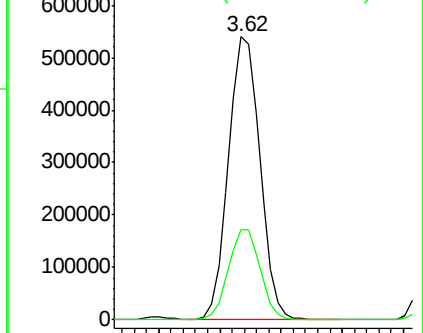
85 100

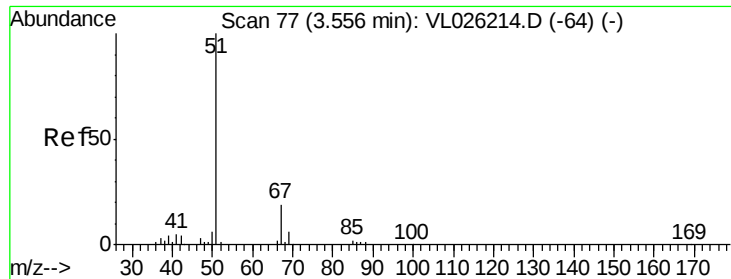
87 32.1 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 10.62 ppbv

RT: 3.55 min Scan# 76

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 51 Resp: 584709

Ion Ratio Lower Upper

51 100

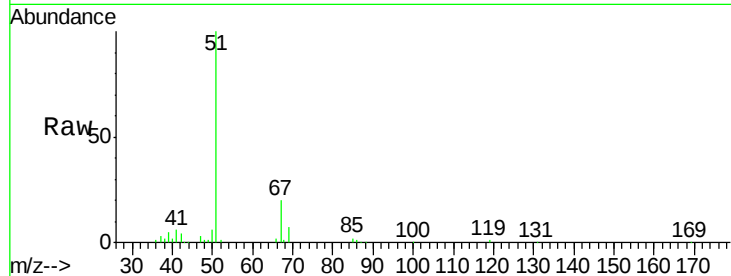
67 19.5 15.3 22.9

Manual Integrations

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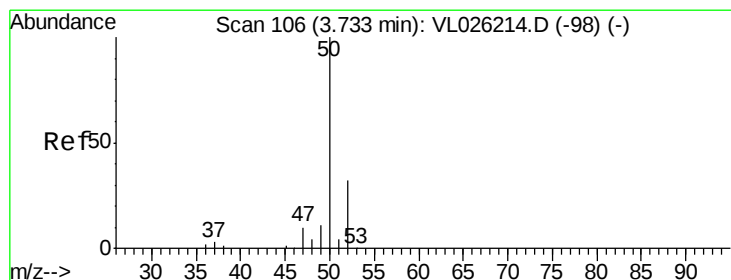
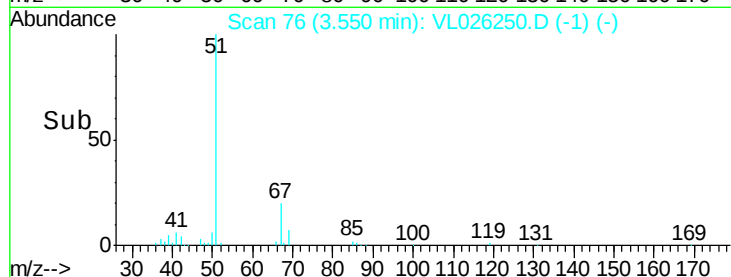
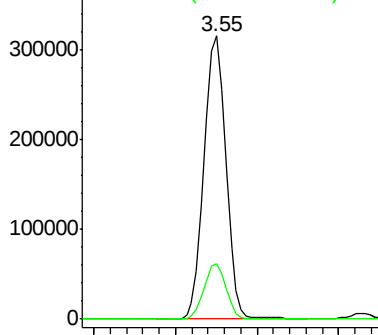
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 10.86 ppbv

RT: 3.73 min Scan# 105

Delta R.T. -0.01 min

Lab File: VL026250.D

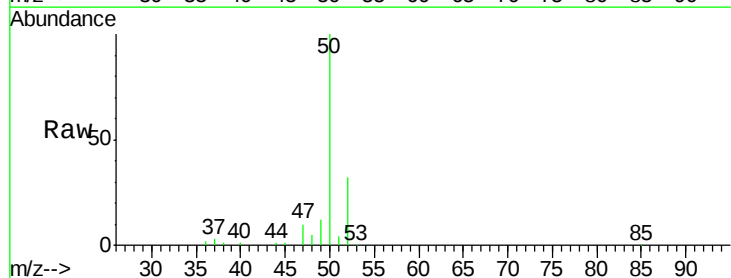
Acq: 21 Oct 2015 23:01

Tgt Ion: 50 Resp: 322380

Ion Ratio Lower Upper

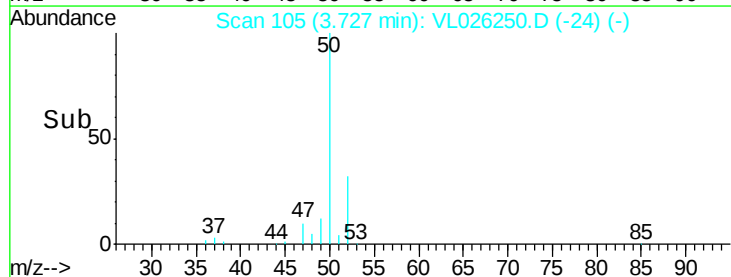
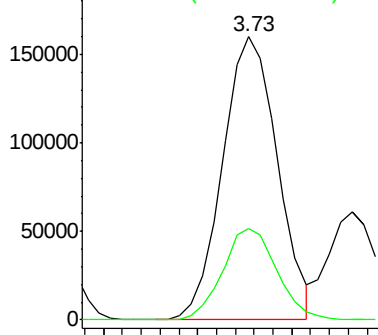
50 100

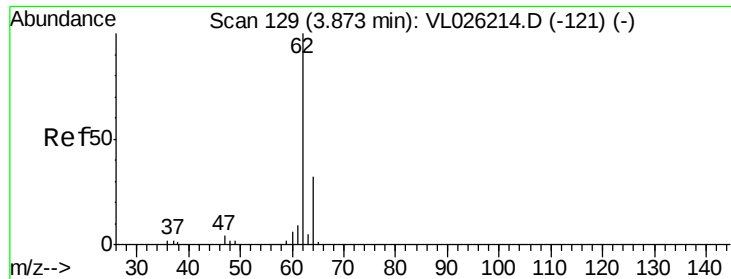
52 32.2 25.8 38.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 10.94 ppbv

RT: 3.87 min Scan# 128

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 62 Resp: 342019

Ion Ratio Lower Upper

62 100

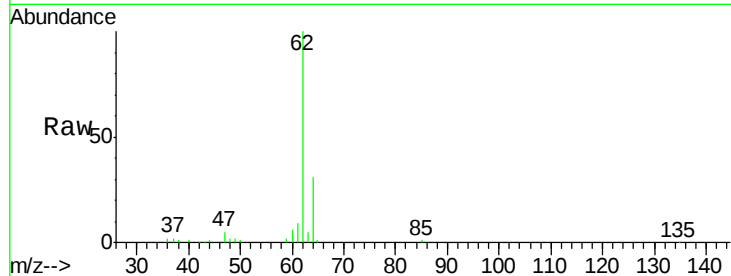
64 31.0 25.6 38.4

Manual Integrations

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Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0

3.87

200000

150000

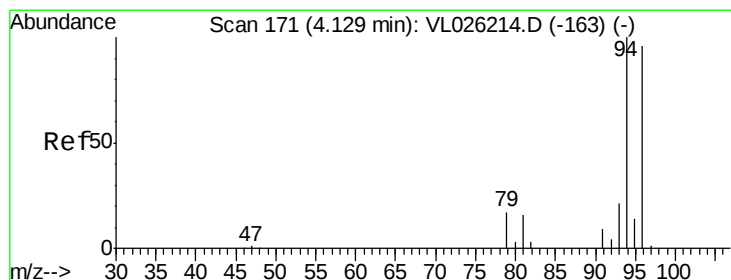
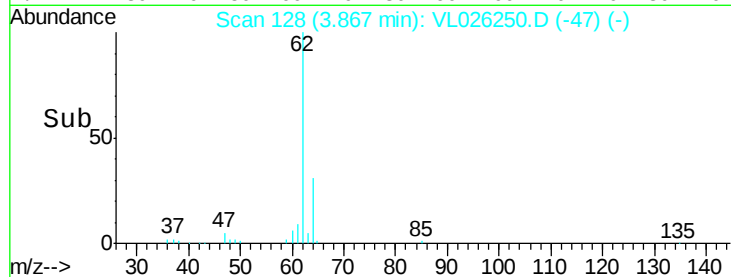
100000

50000

0

3.80 3.85 3.90 3.95 4.00

Time-->



#6

Bromomethane

Concen: 11.30 ppbv

RT: 4.12 min Scan# 169

Delta R.T. -0.01 min

Lab File: VL026250.D

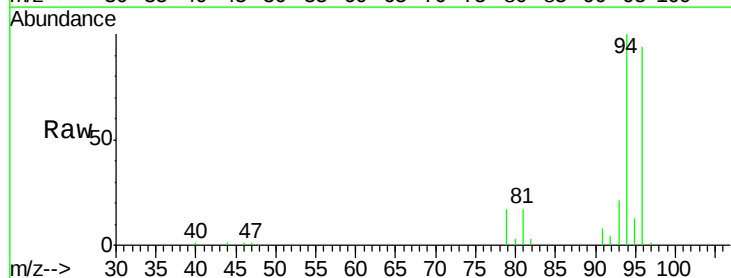
Acq: 21 Oct 2015 23:01

Tgt Ion: 94 Resp: 253689

Ion Ratio Lower Upper

94 100

96 93.4 76.5 114.7



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0

4.12

150000

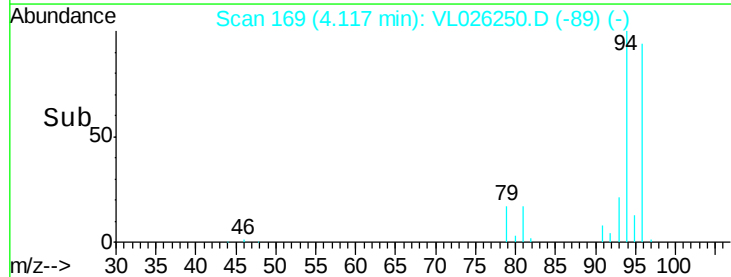
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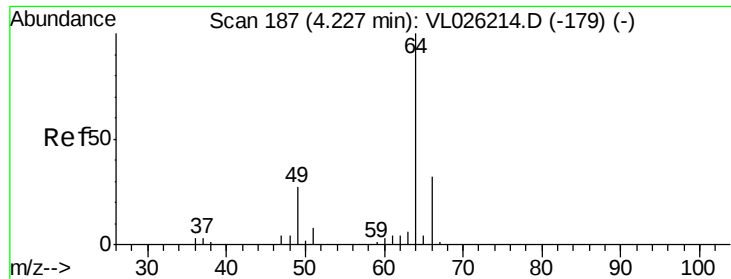
50000

0

4.05 4.10 4.15 4.20 4.25

Time-->





#7

Chloroethane

Concen: 11.34 ppbv

RT: 4.21 min Scan# 185

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 64 Resp: 148718

Ion Ratio Lower Upper

64 100

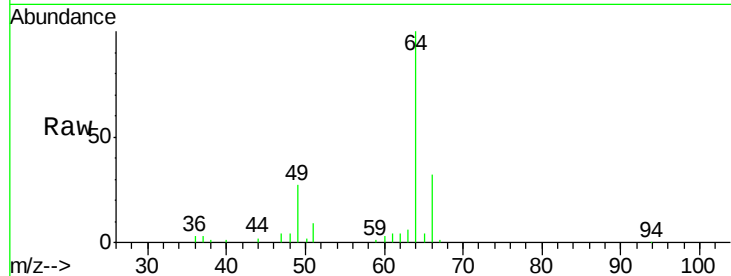
66 31.7 25.4 38.0

Manual Integrations

APPROVED

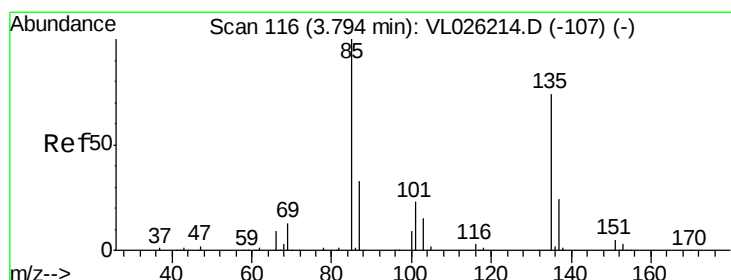
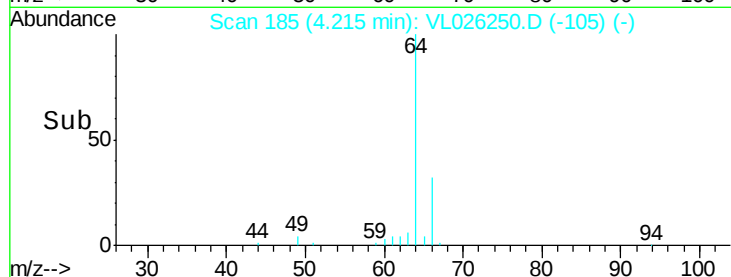
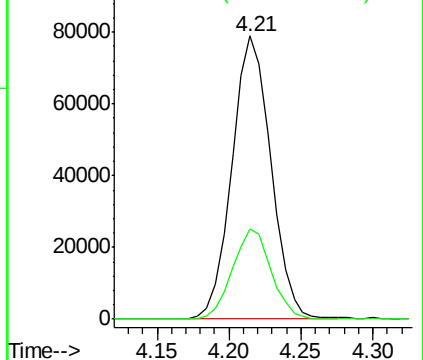
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10/22/2015 4:36:12 PM



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 11.07 ppbv

RT: 3.78 min Scan# 114

Delta R.T. -0.01 min

Lab File: VL026250.D

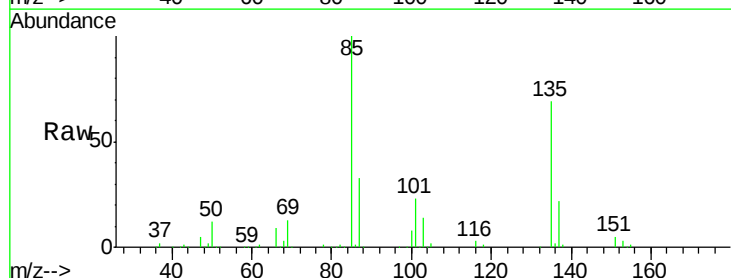
Acq: 21 Oct 2015 23:01

Tgt Ion: 85 Resp: 857509

Ion Ratio Lower Upper

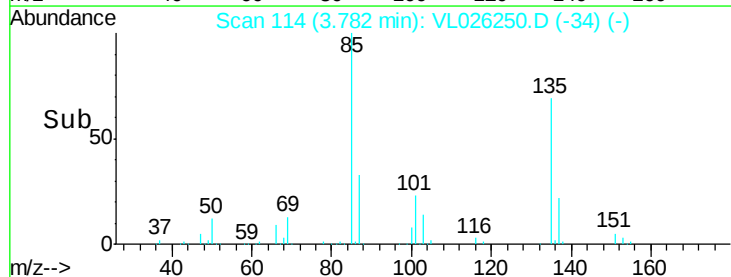
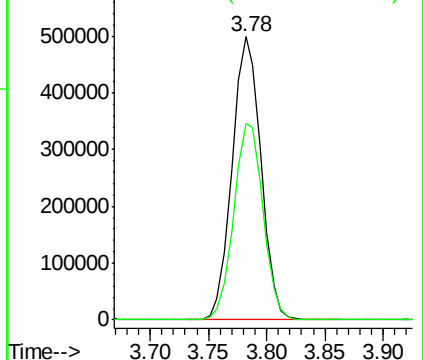
85 100

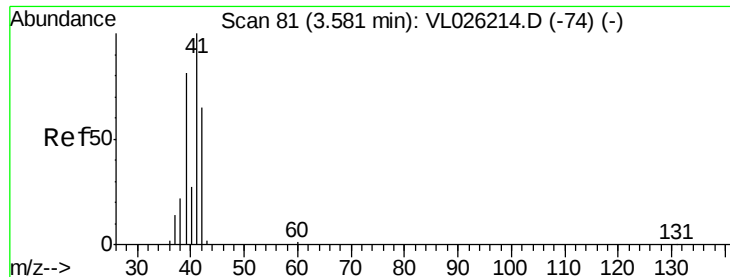
135 71.0 57.8 86.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 10.41 ppbv

RT: 3.57 min Scan# 80

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 41 Resp: 268131

Ion Ratio Lower Upper

41 100

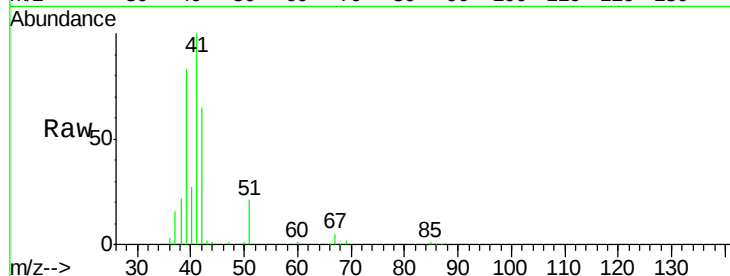
42 66.2 53.8 80.8

Manual Integrations

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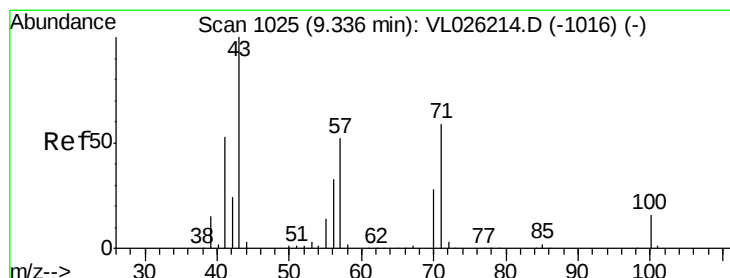
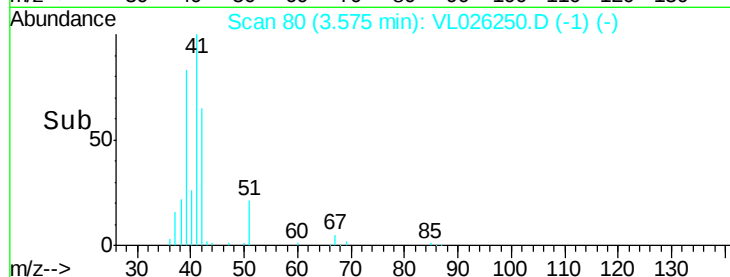
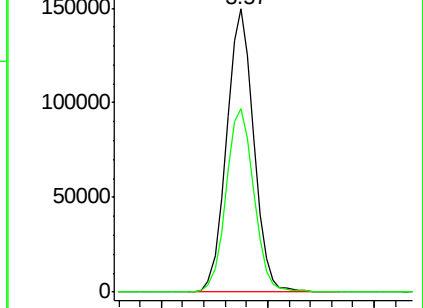
MMDadoda

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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: 10.77 ppbv

RT: 9.32 min Scan# 1023

Delta R.T. -0.01 min

Lab File: VL026250.D

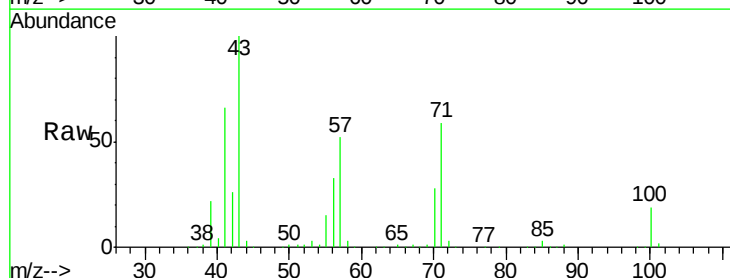
Acq: 21 Oct 2015 23:01

Tgt Ion: 43 Resp: 928886

Ion Ratio Lower Upper

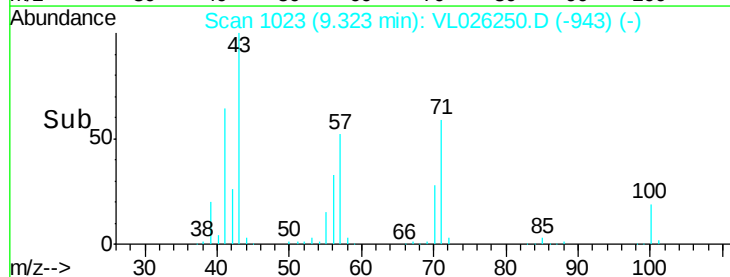
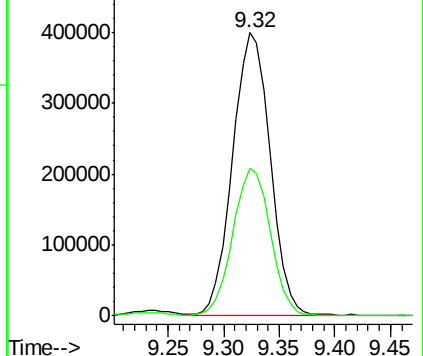
43 100

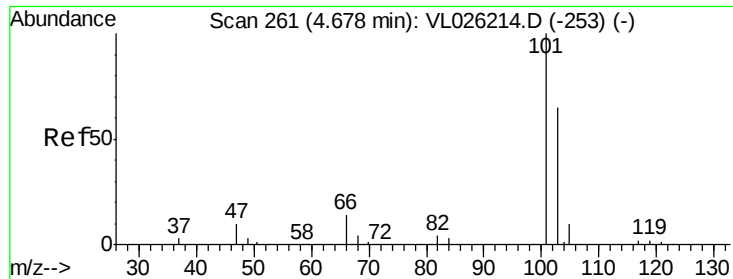
57 53.9 43.7 65.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





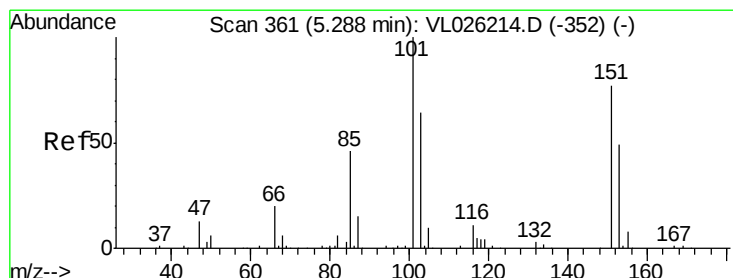
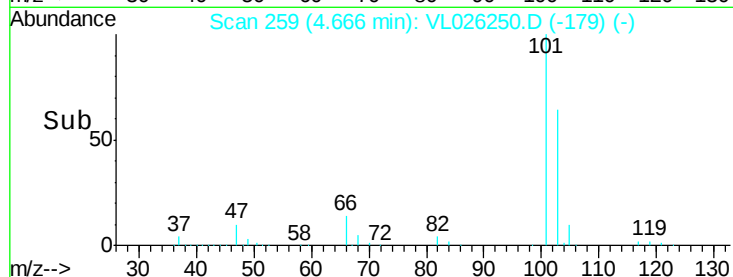
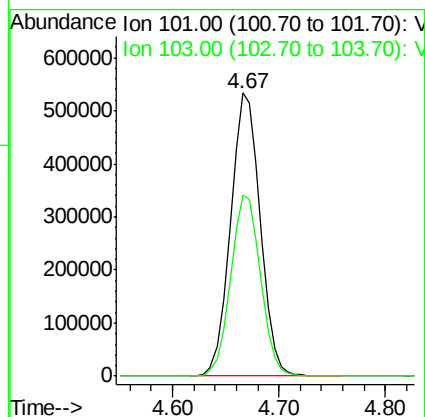
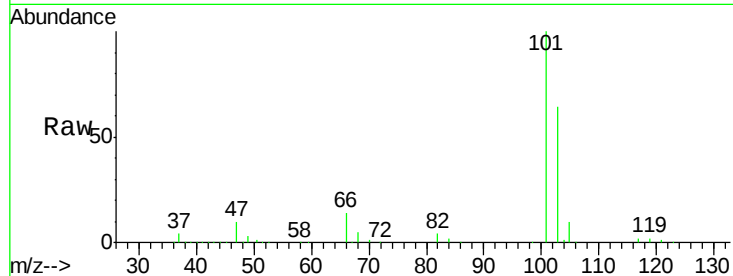
#11  
 Trichlorofluoromethane  
 Concen: 11.78 ppbv  
 RT: 4.67 min Scan# 259  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

Tot Ion:101 Resp: 1041308  
 Ion Ratio Lower Upper  
 101 100  
 103 63.8 52.2 78.2

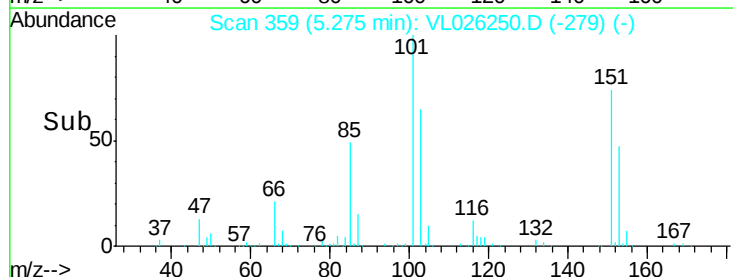
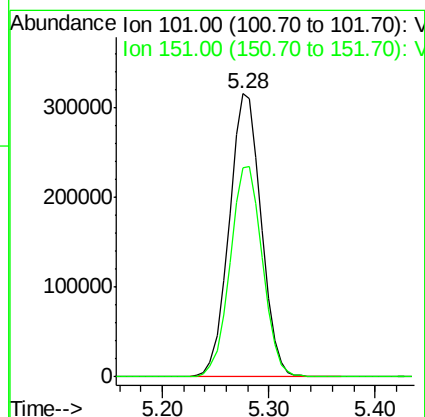
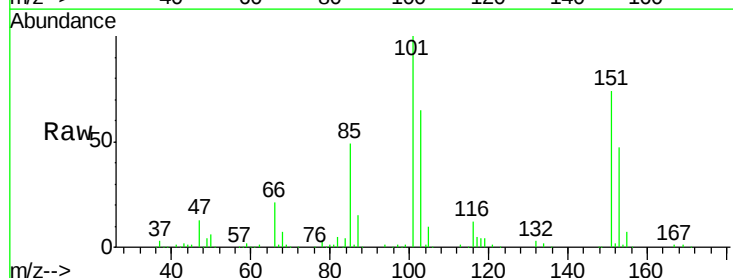
Manual Integrations  
 APPROVED

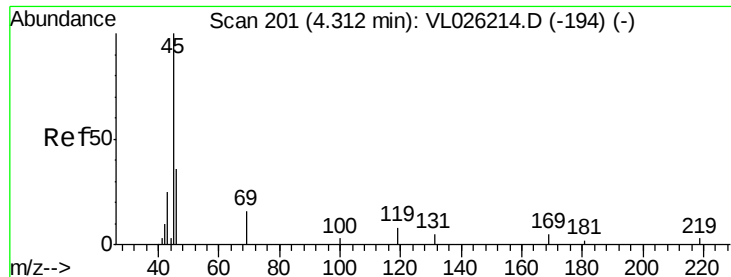
MMDadoda  
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#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 11.02 ppbv  
 RT: 5.28 min Scan# 359  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Tgt Ion:101 Resp: 664916  
 Ion Ratio Lower Upper  
 101 100  
 151 75.1 61.7 92.5





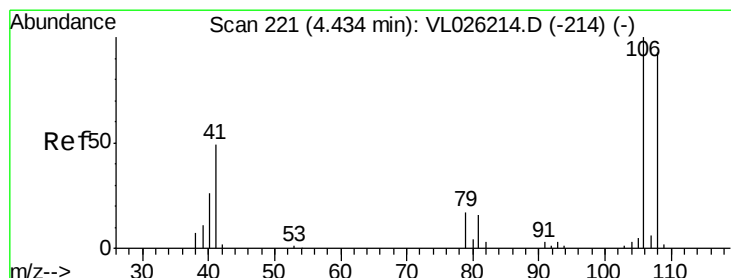
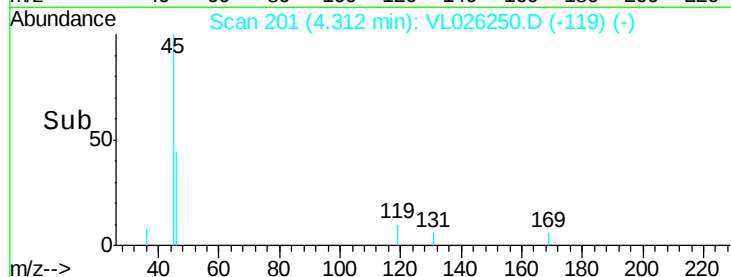
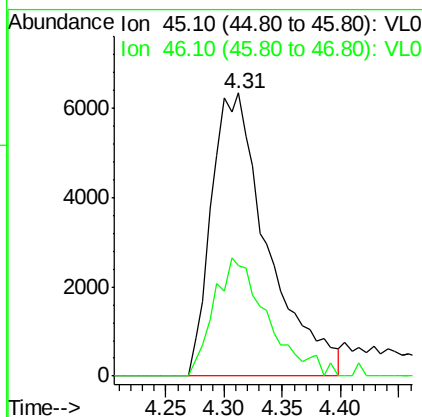
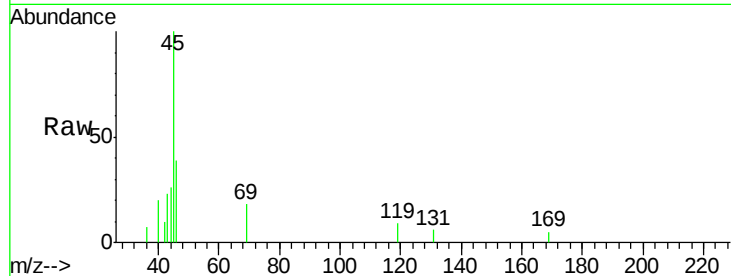
#13  
Ethanol  
Concen: 5.52 ppbv  
RT: 4.31 min Scan# 201  
Delta R.T. 0.00 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

Tot Ion: 45 Resp: 21348  
Ion Ratio Lower Upper  
45 100  
46 39.5 15.8 63.0

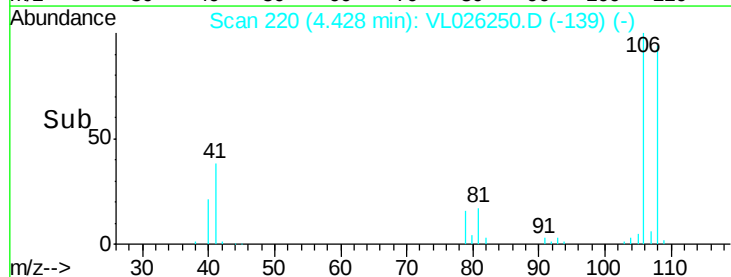
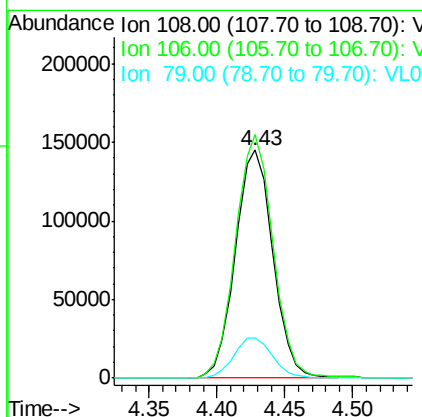
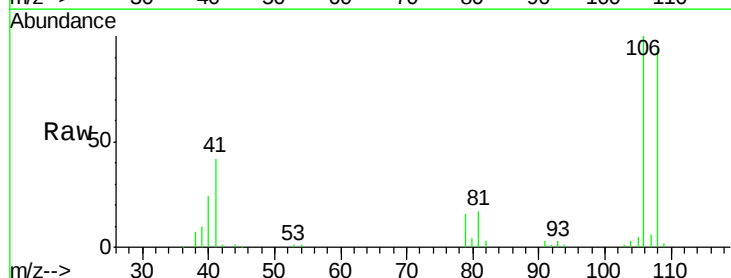
Manual Integrations  
APPROVED

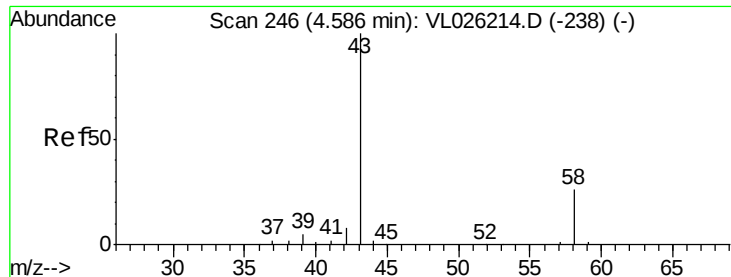
MMDadoda  
10/22/2015 4:36:12 PM



#14  
Bromoethene  
Concen: 11.02 ppbv  
RT: 4.43 min Scan# 220  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Tgt Ion: 108 Resp: 280474  
Ion Ratio Lower Upper  
108 100  
106 107.0 84.7 127.1  
79 18.2 14.0 21.0





#15

Acetone

Concen: 9.67 ppbv

RT: 4.57 min Scan# 244

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 43 Resp: 618784

Ion Ratio Lower Upper

43 100

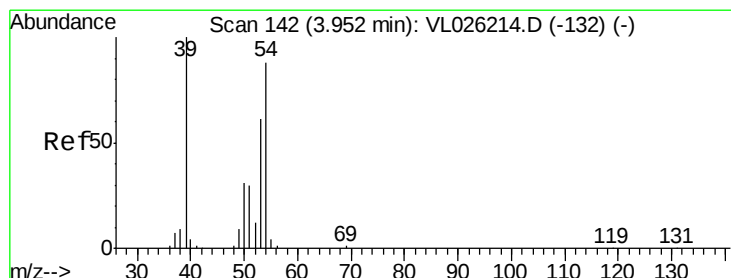
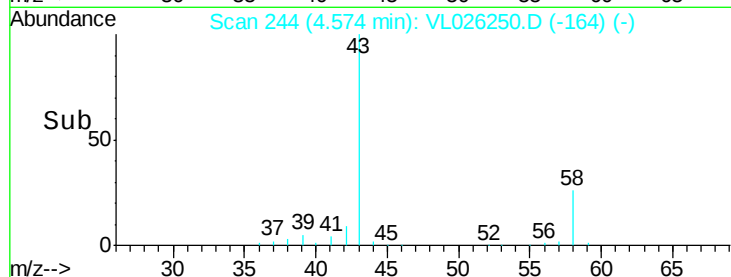
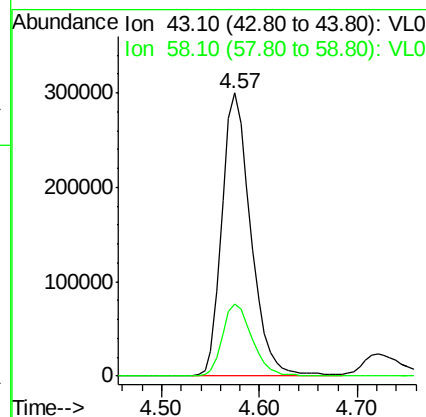
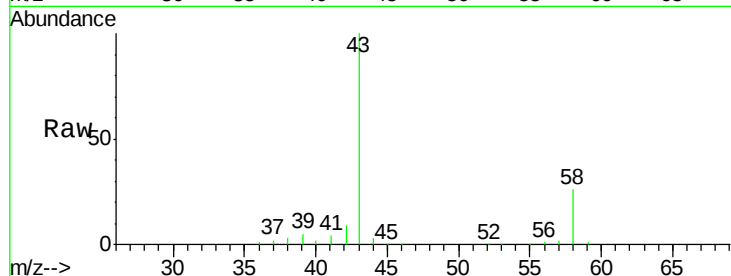
58 26.3 21.8 32.6

Manual Integrations

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#16

1,3-Butadiene

Concen: 10.74 ppbv

RT: 3.95 min Scan# 141

Delta R.T. -0.01 min

Lab File: VL026250.D

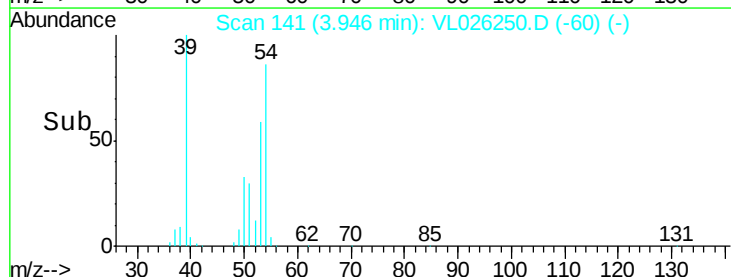
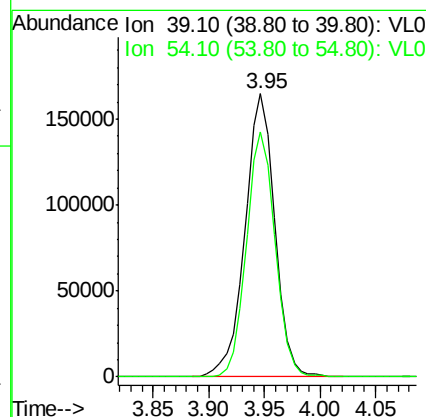
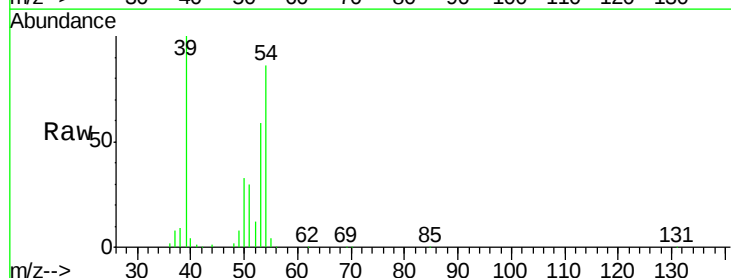
Acq: 21 Oct 2015 23:01

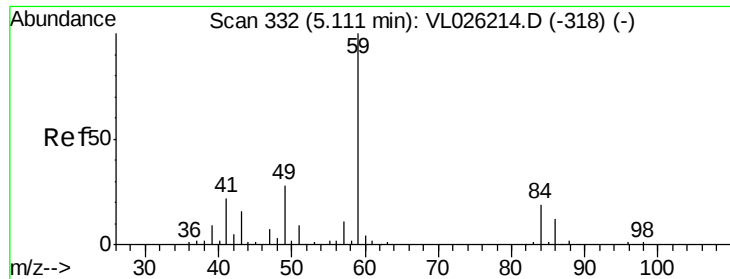
Tgt Ion: 39 Resp: 306500

Ion Ratio Lower Upper

39 100

54 83.1 67.3 100.9





#17

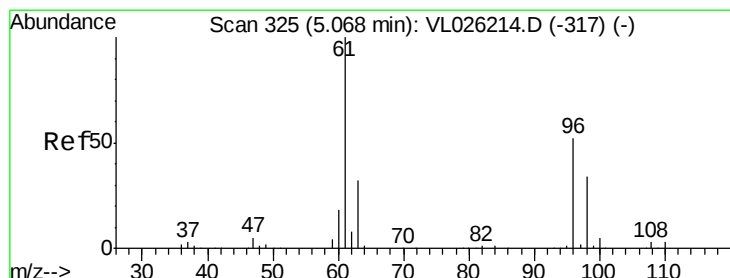
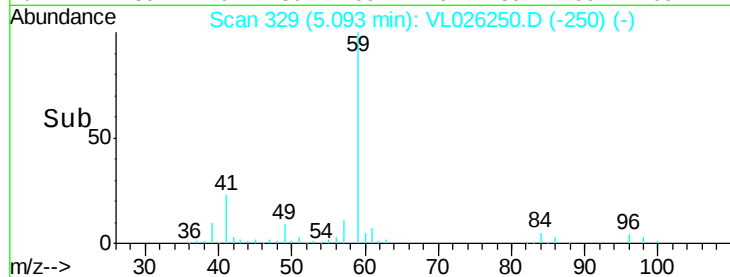
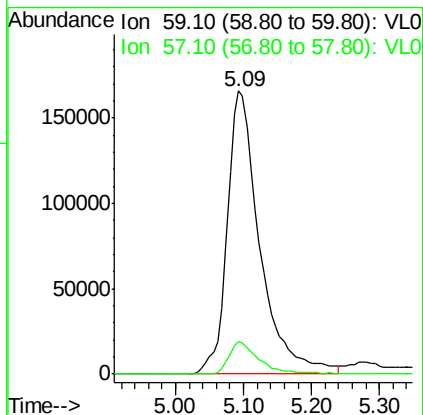
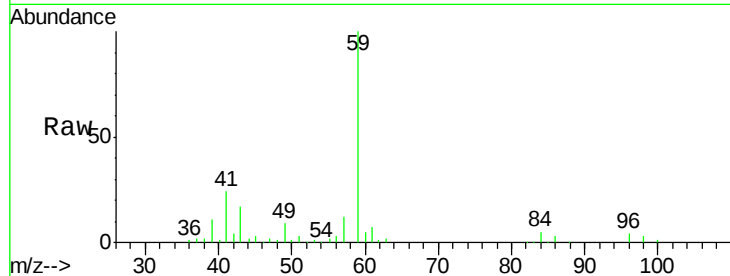
tert-Butyl alcohol  
Concen: 12.65 ppbv  
RT: 5.09 min Scan# 329  
Delta R.T. -0.02 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

Tot Ion: 59 Resp: 553469  
Ion Ratio Lower Upper  
59 100  
57 10.8 8.5 12.7

Manual Integrations  
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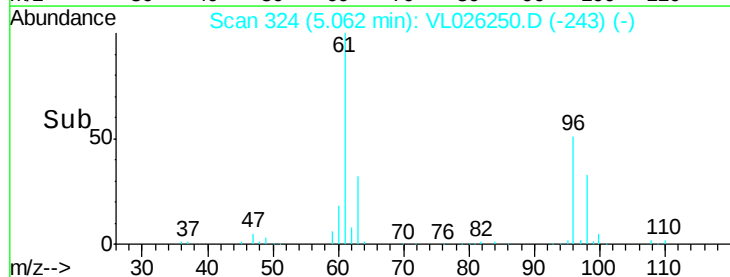
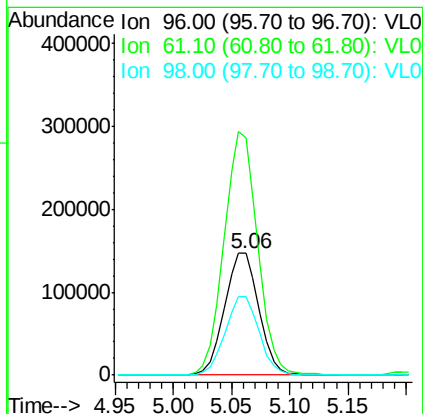
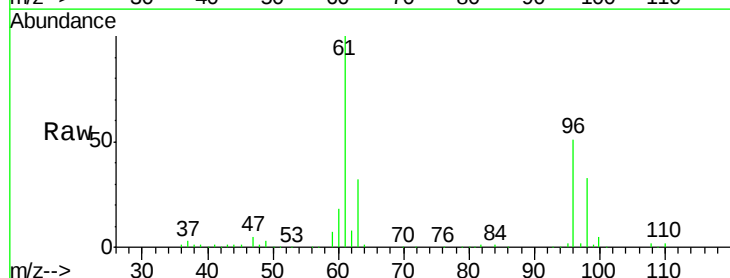
MMDadoda  
10/22/2015 4:36:12 PM

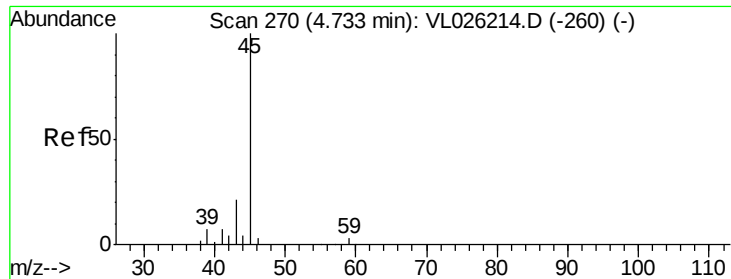


#18

1,1-Dichloroethene  
Concen: 11.00 ppbv  
RT: 5.06 min Scan# 324  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Tgt Ion: 96 Resp: 299740  
Ion Ratio Lower Upper  
96 100  
61 194.5 153.7 230.5  
98 64.0 51.6 77.4





#19

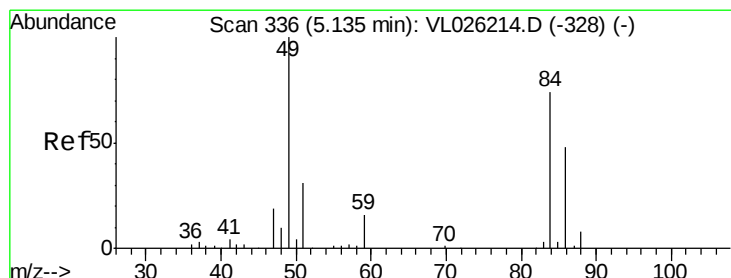
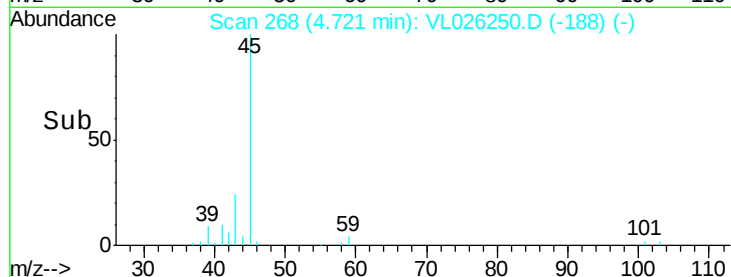
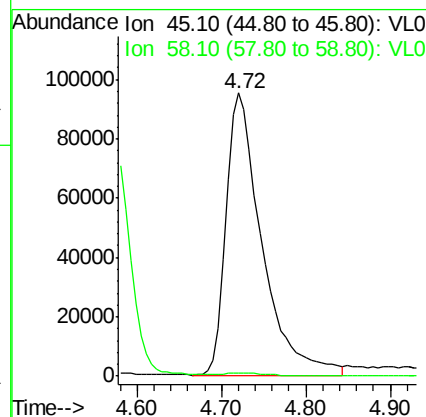
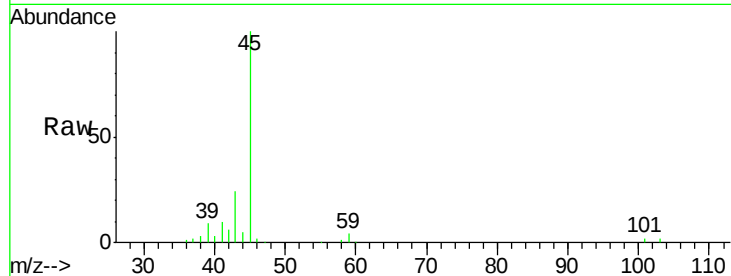
Isopropyl Alcohol  
 Concen: 11.05 ppbv  
 RT: 4.72 min Scan# 268  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VL1021ABS02

| Tot Ion | 45  | 58   | Ratio | 100 | 58.9 | Resp | 276417 | Lower | Upper |
|---------|-----|------|-------|-----|------|------|--------|-------|-------|
| 45      | 100 |      |       |     |      |      |        |       |       |
| 58      |     | 58.9 |       |     | 40.3 |      | 60.5   |       |       |

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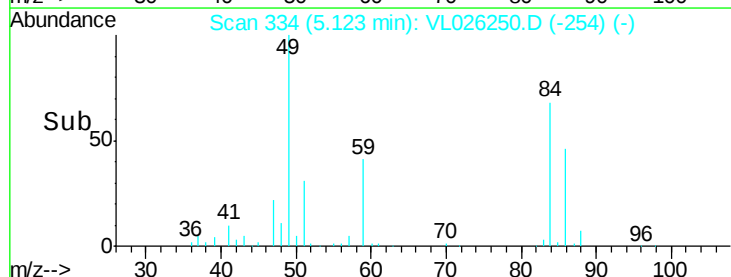
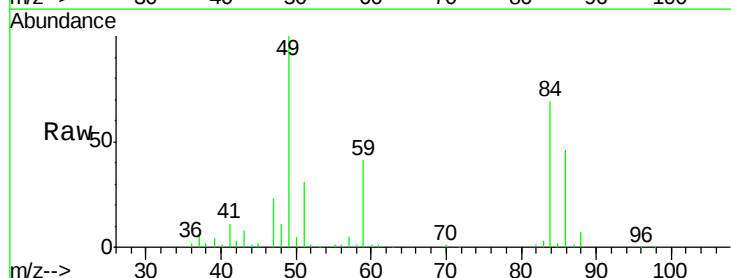
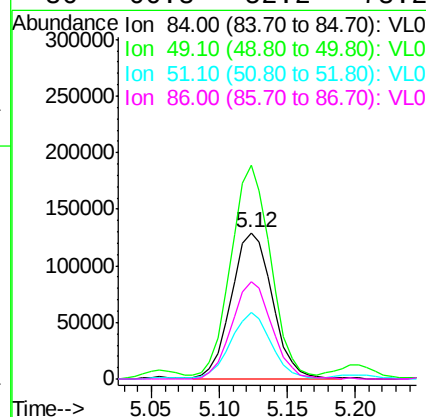
MMDadoda  
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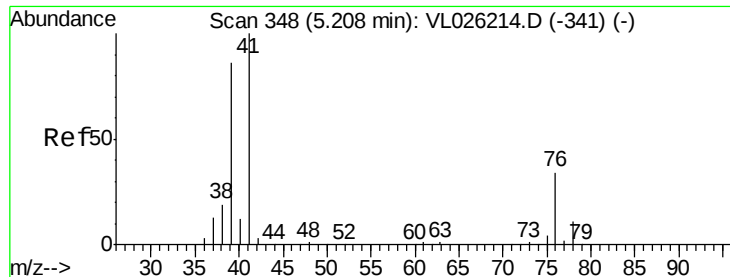


#20

Methylene Chloride  
 Concen: 10.72 ppbv  
 RT: 5.12 min Scan# 334  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

| Tgt Ion | 84  | 49    | 51   | 86   | Ratio | 100   | 144.4 | 44.6 | 66.8 | Resp | 273759 | Lower | Upper |
|---------|-----|-------|------|------|-------|-------|-------|------|------|------|--------|-------|-------|
| 84      | 100 |       |      |      |       |       |       |      |      |      |        |       |       |
| 49      |     | 144.4 |      |      |       | 108.7 | 163.1 |      |      |      |        |       |       |
| 51      |     |       | 44.6 |      |       | 33.7  | 50.5  |      |      |      |        |       |       |
| 86      |     |       |      | 66.8 |       | 52.2  | 78.2  |      |      |      |        |       |       |





#21

Allvl Chloride

Concen: 10.78 ppbv

RT: 5.20 min Scan# 347

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

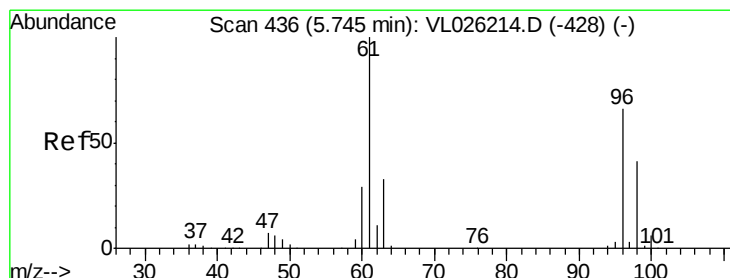
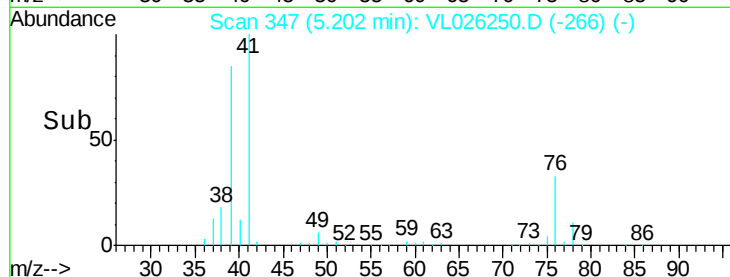
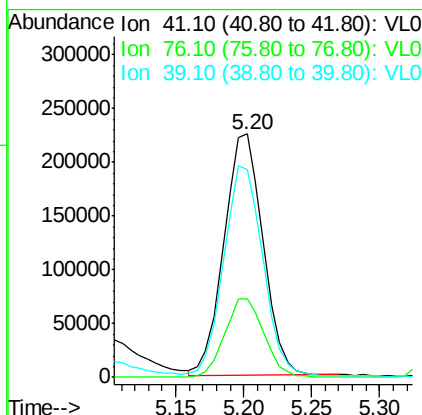
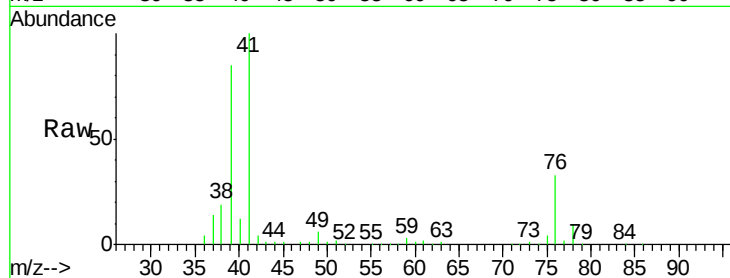
ClientSampleId :

VL1021ABS02

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 41    | Resp: | 450693 |
| Ion      | Ratio | Lower | Upper  |
| 41       | 100   |       |        |
| 76       | 32.8  | 26.6  | 39.8   |
| 39       | 88.0  | 67.4  | 101.2  |

Manual Integrations  
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#22

trans-1,2-Dichloroethene

Concen: 11.13 ppbv

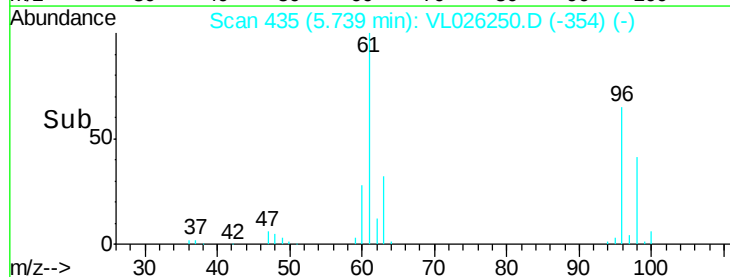
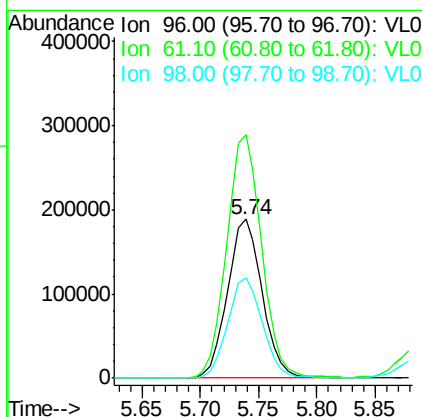
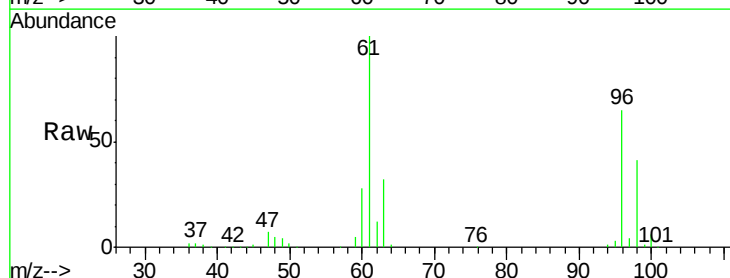
RT: 5.74 min Scan# 435

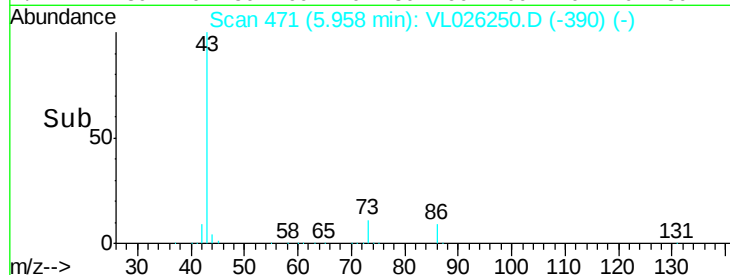
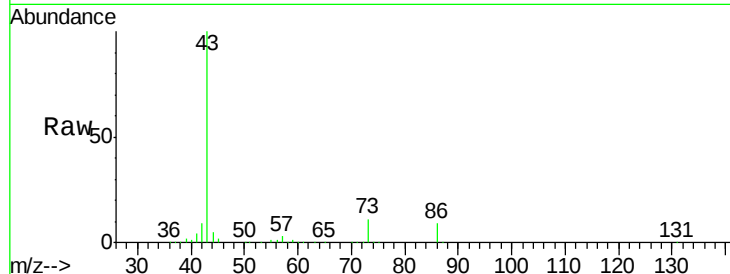
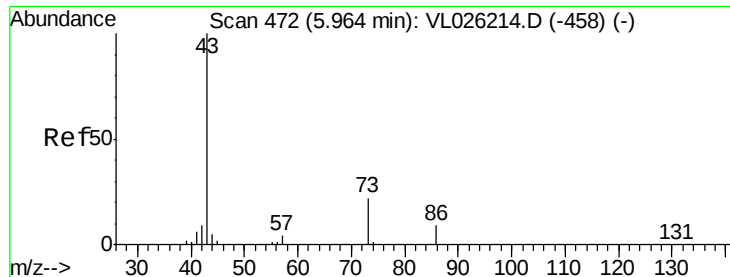
Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 96    | Resp: | 391072 |
| Ion      | Ratio | Lower | Upper  |
| 96       | 100   |       |        |
| 61       | 153.2 | 121.5 | 182.3  |
| 98       | 63.1  | 49.7  | 74.5   |





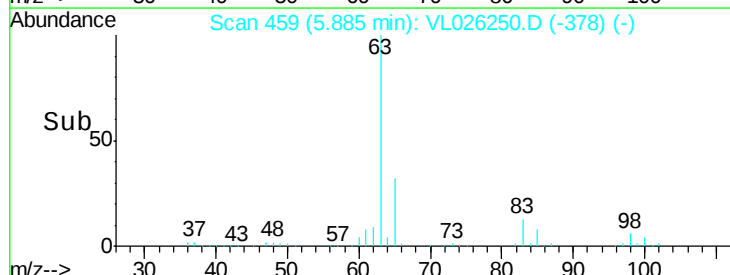
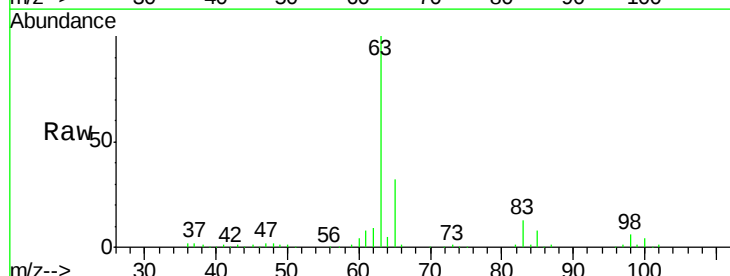
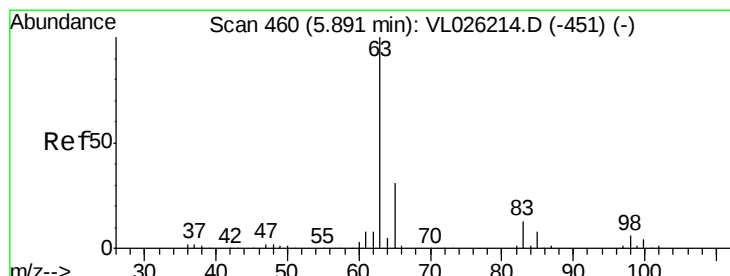
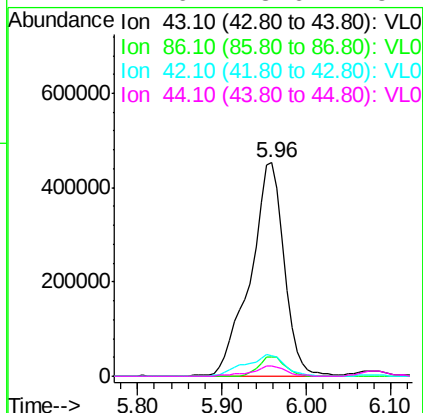
#23  
 Vinyl Acetate  
 Concen: 10.51 ppbv  
 RT: 5.96 min Scan# 471  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

| Tot Ion | 43    | Resp  | 1239995 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 43      | 100   |       |         |
| 86      | 9.3   | 7.0   | 10.6    |
| 42      | 9.5   | 7.5   | 11.3    |
| 44      | 4.6   | 3.6   | 5.4     |

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

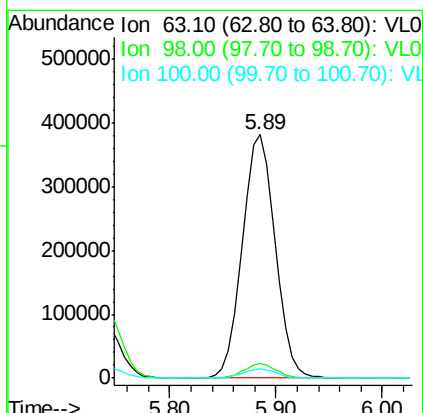
Manual Integrations  
 APPROVED

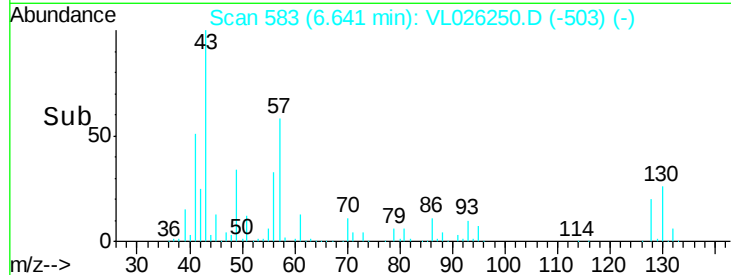
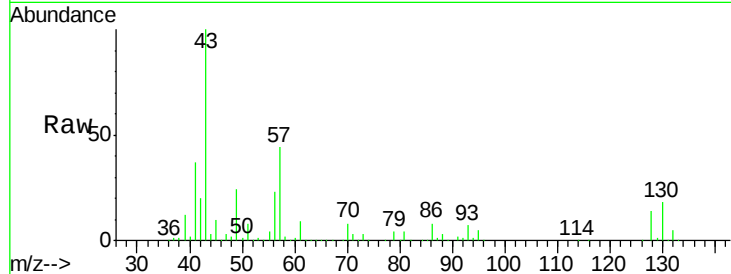
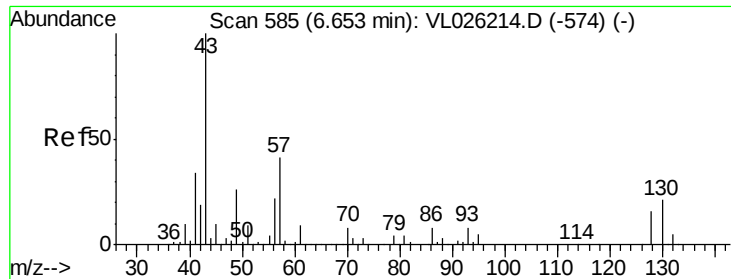
MMDadoda  
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#24  
 1,1-Dichloroethane  
 Concen: 11.10 ppbv  
 RT: 5.89 min Scan# 459  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

| Tgt Ion | 63    | Resp  | 825655 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 63      | 100   |       |        |
| 98      | 5.9   | 2.9   | 8.8    |
| 100     | 3.7   | 1.8   | 5.5    |





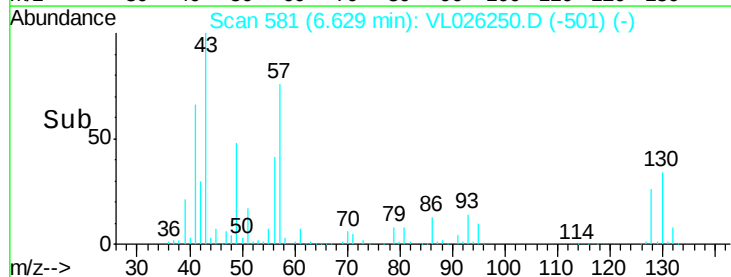
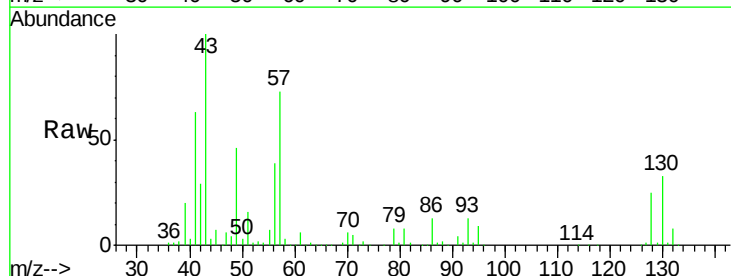
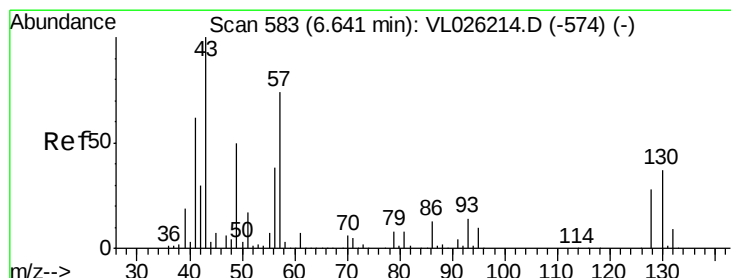
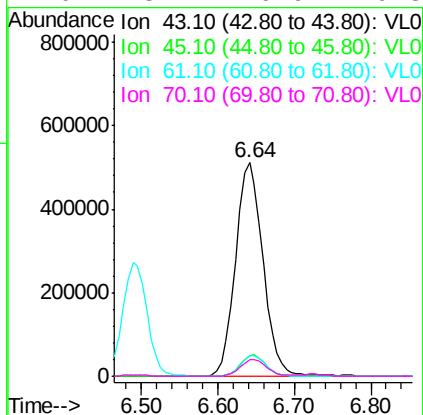
#25  
Ethyl Acetate  
Concen: 10.54 ppbv  
RT: 6.64 min Scan# 583  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

| Tot Ion   | 43    | Resp  | 1264611 |
|-----------|-------|-------|---------|
| Ion Ratio | Lower | Upper |         |
| 43        | 100   |       |         |
| 45        | 9.4   | 7.7   | 11.5    |
| 61        | 9.2   | 7.5   | 11.3    |
| 70        | 8.4   | 6.9   | 10.3    |

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

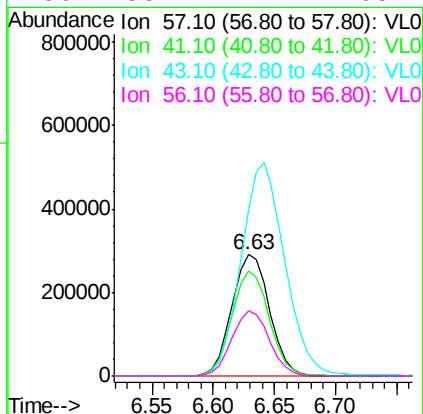
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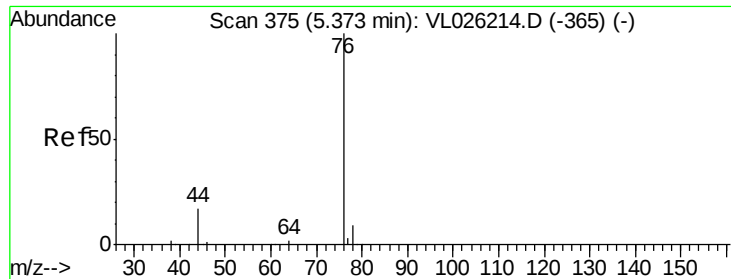
MMDadoda  
10/22/2015 4:36:12 PM



#26  
Hexane  
Concen: 10.37 ppbv  
RT: 6.63 min Scan# 581  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

| Tgt Ion   | 57    | Resp  | 621478 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 57        | 100   |       |        |
| 41        | 87.2  | 68.1  | 102.1  |
| 43        | 205.0 | 163.4 | 245.2  |
| 56        | 53.4  | 42.2  | 63.4   |





#27

Carbon Disulfide

Concen: 11.04 ppbv

RT: 5.36 min Scan# 373

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

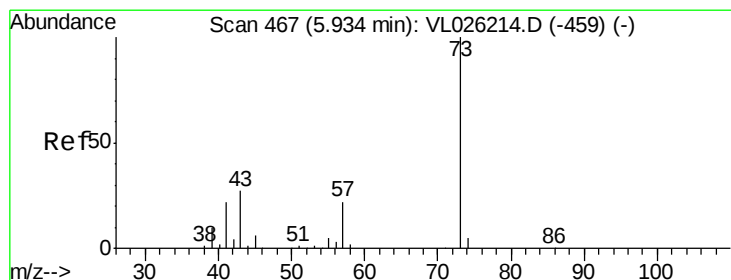
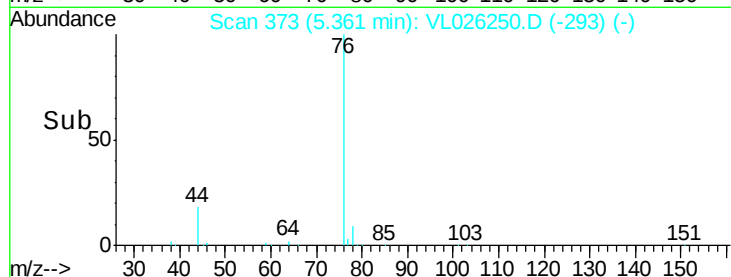
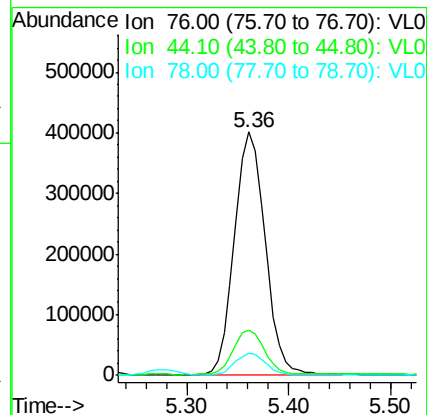
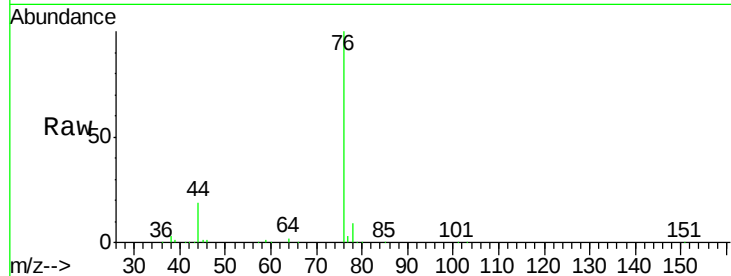
ClientSampleId :

VL1021ABS02

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 76    | Resp: | 846514 |
| Ion Ratio | Lower | Upper |        |
| 76        | 100   |       |        |
| 44        | 19.3  | 14.0  | 21.0   |
| 78        | 9.2   | 7.4   | 11.2   |

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#28

Methyl tert-Butyl Ether

Concen: 10.81 ppbv

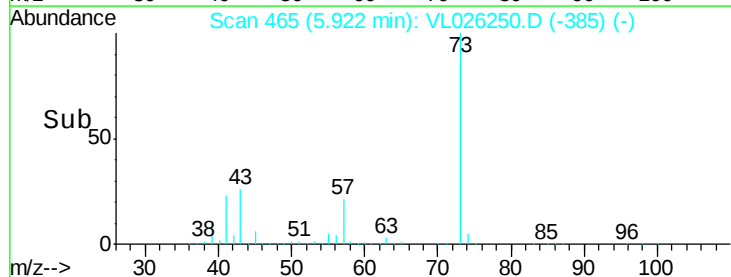
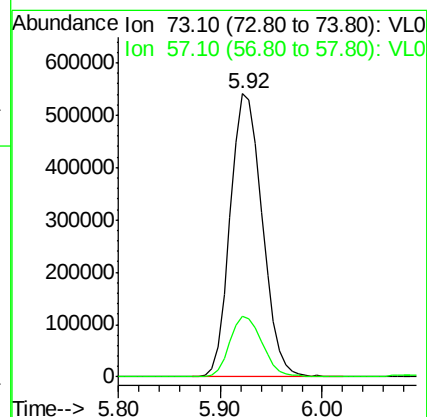
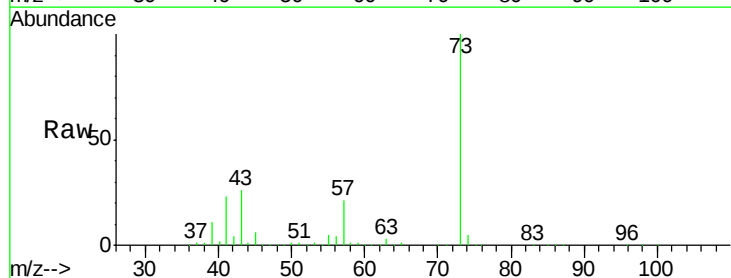
RT: 5.92 min Scan# 465

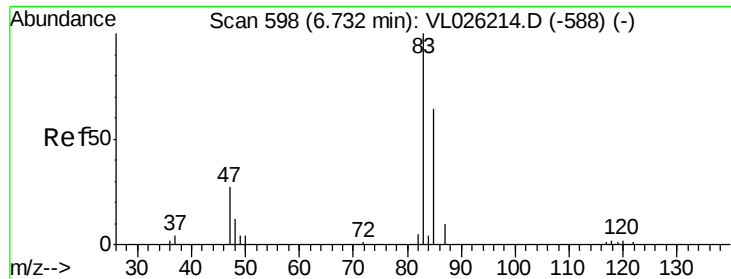
Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 73    | Resp: | 1178138 |
| Ion Ratio | Lower | Upper |         |
| 73        | 100   |       |         |
| 57        | 21.9  | 17.4  | 26.0    |





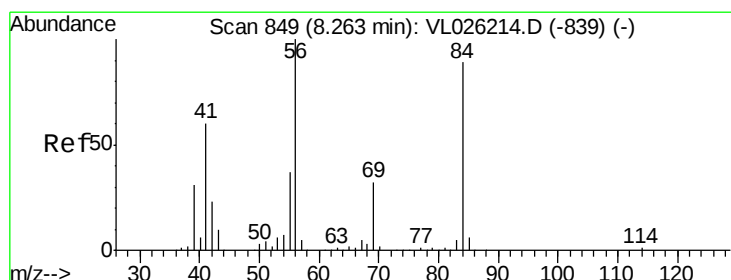
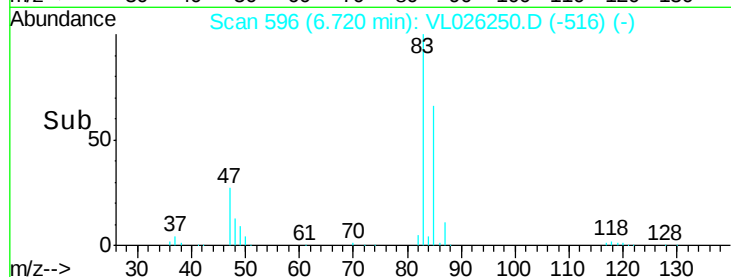
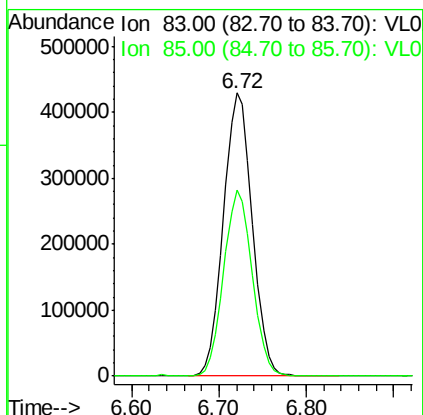
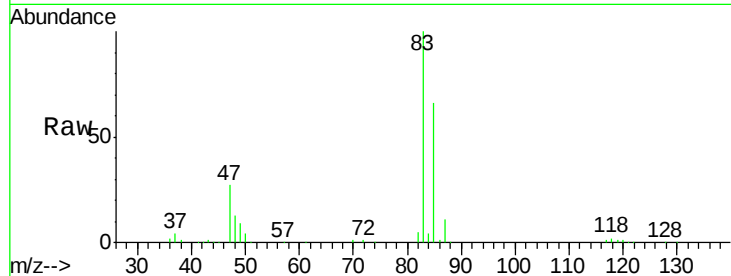
#29  
Chloroform  
Concen: 11.32 ppbv  
RT: 6.72 min Scan# 596  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

Tot Ion: 83 Resp: 985277  
Ion Ratio Lower Upper  
83 100  
85 65.8 51.5 77.3

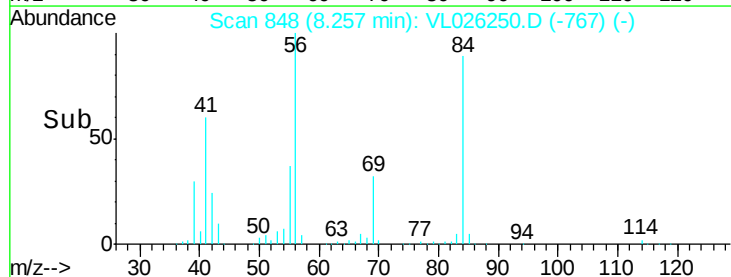
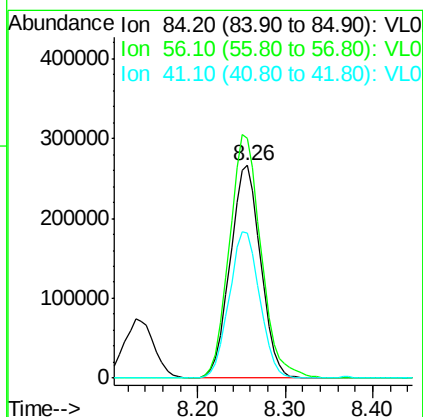
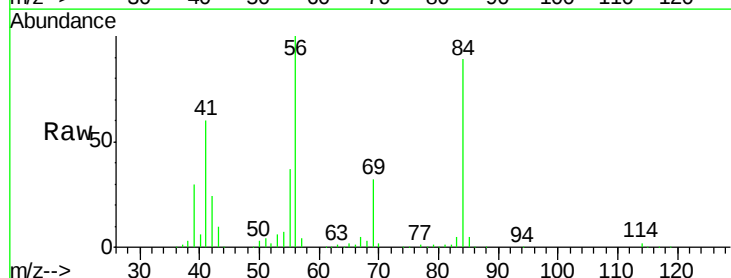
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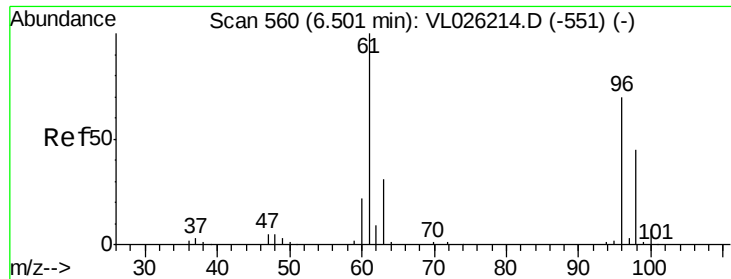
MMDadoda  
10/22/2015 4:36:12 PM



#30  
Cyclohexane  
Concen: 10.78 ppbv  
RT: 8.26 min Scan# 848  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Tgt Ion: 84 Resp: 646209  
Ion Ratio Lower Upper  
84 100  
56 119.2 95.9 143.9  
41 69.0 54.8 82.2





#31

cis-1,2-Dichloroethene

Concen: 11.14 ppbv

RT: 6.49 min Scan# 558

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

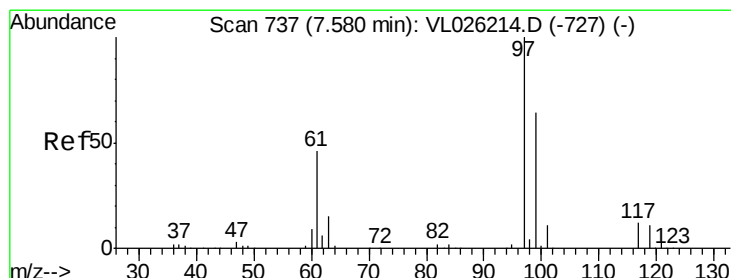
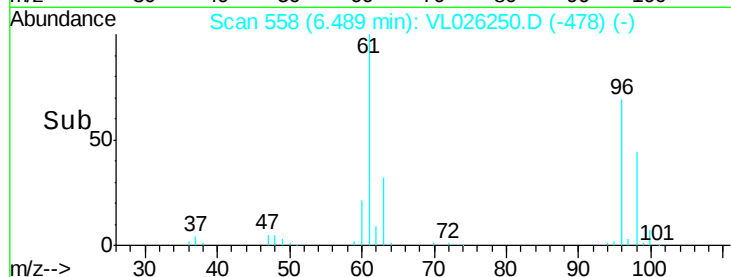
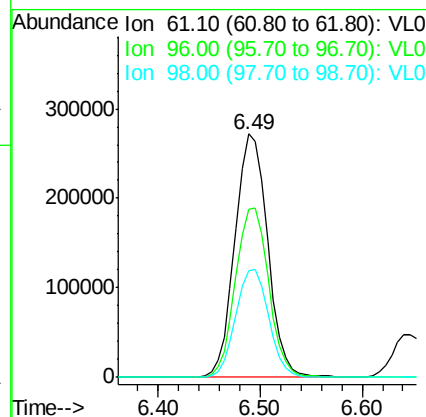
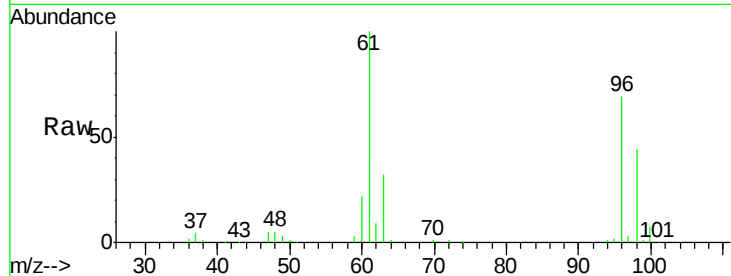
ClientSampleId :

VL1021ABS02

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 61    | Resp: | 606326 |
| Ion Ratio | Lower | Upper |        |
| 61        | 100   |       |        |
| 96        | 69.2  | 56.0  | 84.0   |
| 98        | 44.0  | 36.1  | 54.1   |

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#32

1,1,1-Trichloroethane

Concen: 10.68 ppbv

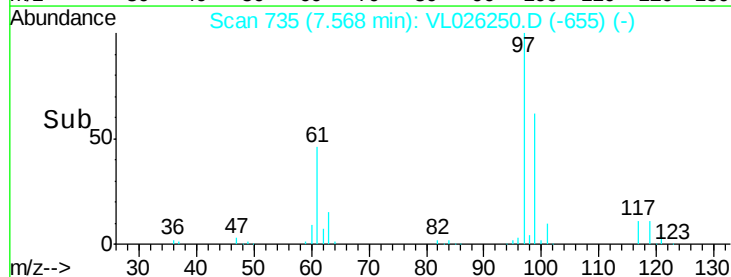
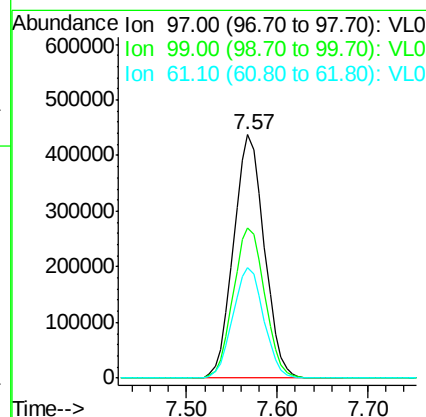
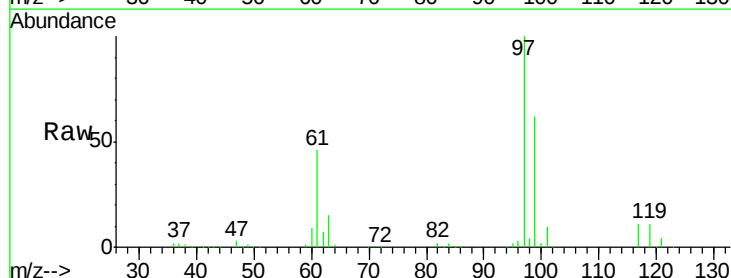
RT: 7.57 min Scan# 735

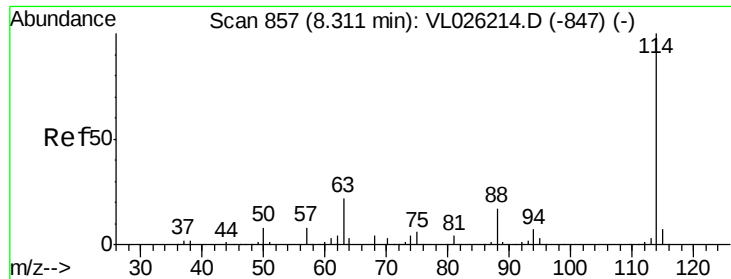
Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 97    | Resp: | 1030312 |
| Ion Ratio | Lower | Upper |         |
| 97        | 100   |       |         |
| 99        | 63.5  | 51.4  | 77.0    |
| 61        | 45.9  | 36.2  | 54.4    |





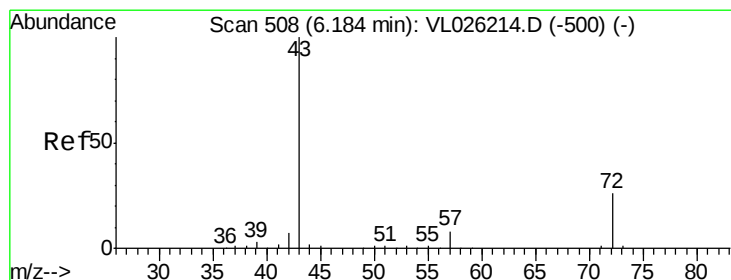
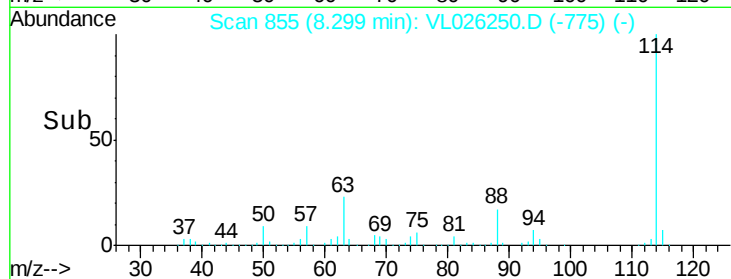
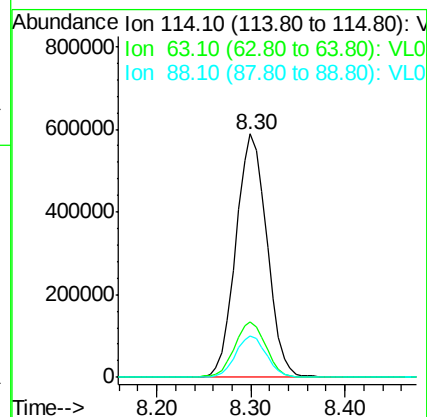
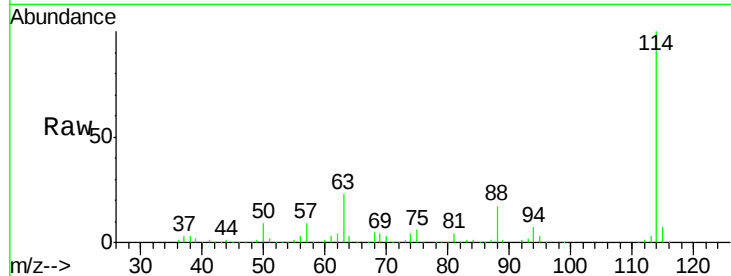
#33  
 1,4-Difluorobenzene  
 Concen: 10.00 ppbv  
 RT: 8.30 min Scan# 855  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 23.2  | 18.2  | 27.4  |
| 88      | 16.9  | 13.5  | 20.3  |

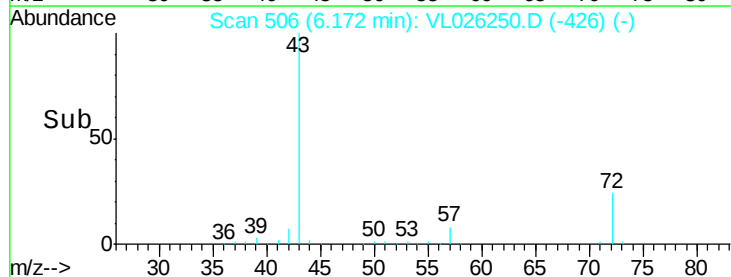
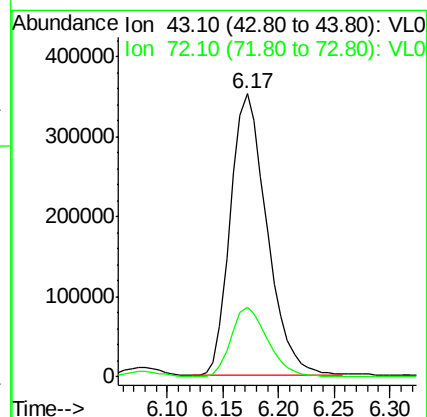
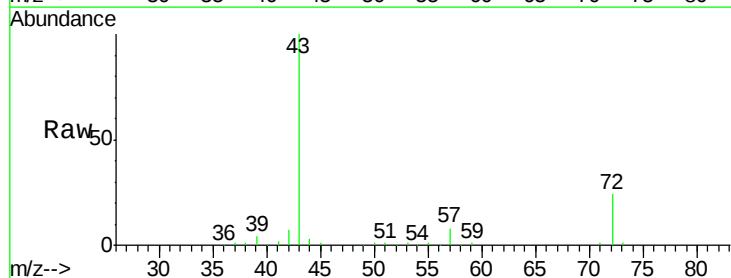
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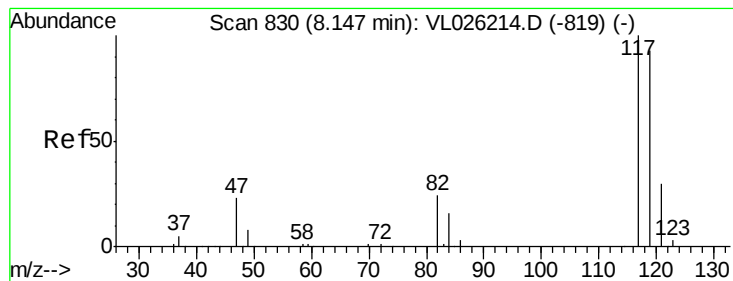
MMDadoda  
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#34  
 2-Butanone  
 Concen: 10.49 ppbv  
 RT: 6.17 min Scan# 506  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 25.1  | 20.1  | 30.1  |





#35

Carbon Tetrachloride

Concen: 10.48 ppbv

RT: 8.13 min Scan# 828

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion:117 Resp: 1080983

Ion Ratio Lower Upper

117 100

119 95.7 74.6 111.8

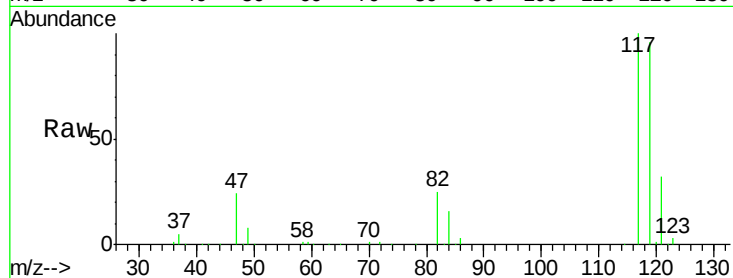
121 31.6 24.2 36.2

Manual Integrations

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MMDadoda

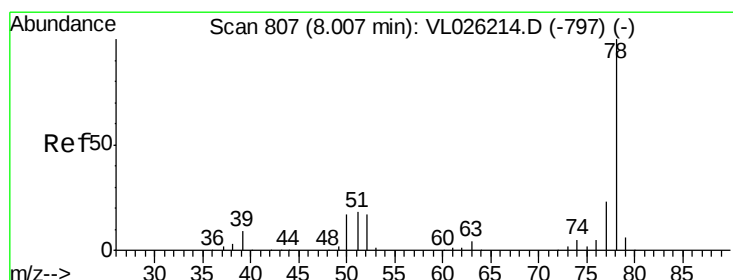
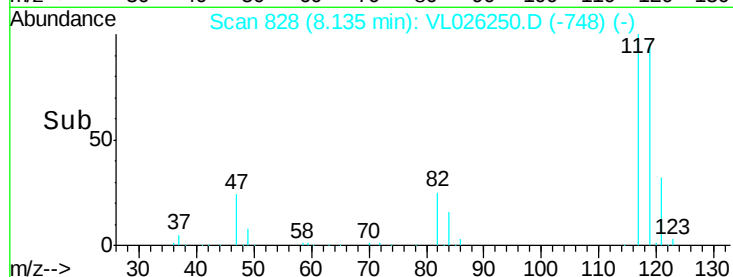
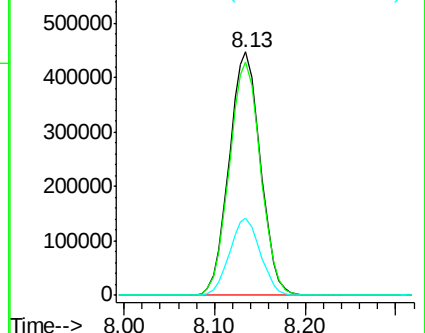
10/22/2015 4:36:12 PM



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 10.42 ppbv

RT: 7.99 min Scan# 805

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

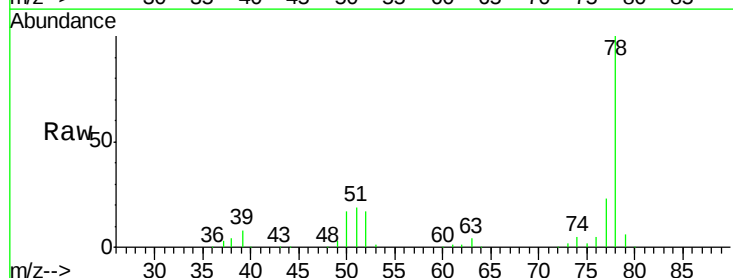
Tgt Ion: 78 Resp: 1436620

Ion Ratio Lower Upper

78 100

77 22.7 18.1 27.1

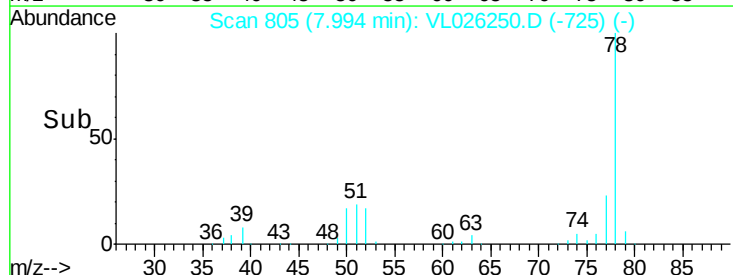
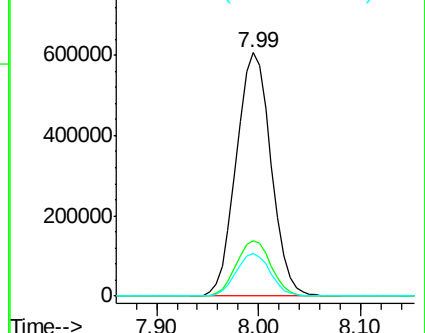
50 17.4 13.8 20.8

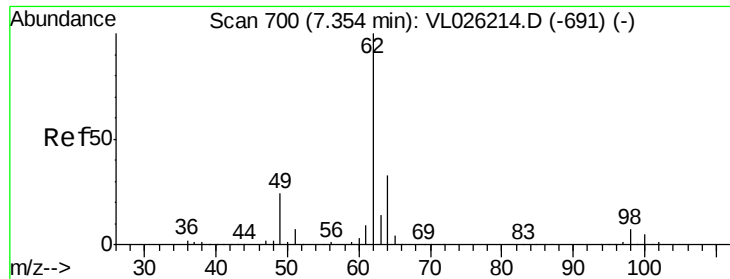


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





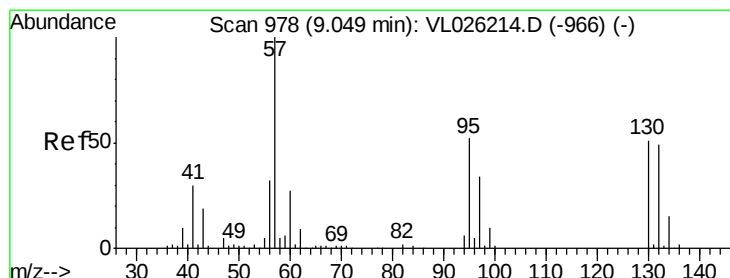
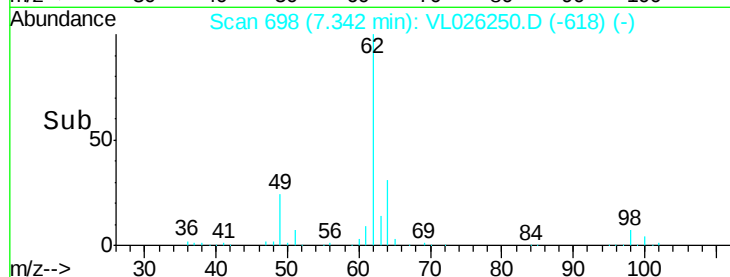
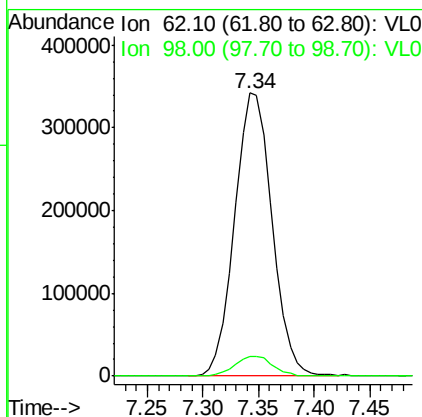
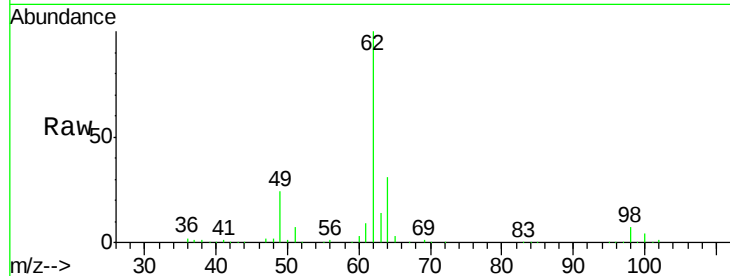
#37  
 1,2-Dichloroethane  
 Concen: 11.27 ppbv  
 RT: 7.34 min Scan# 698  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 62      | 100   | 798842 |       |       |
| 98      | 7.2   |        | 6.1   | 9.1   |

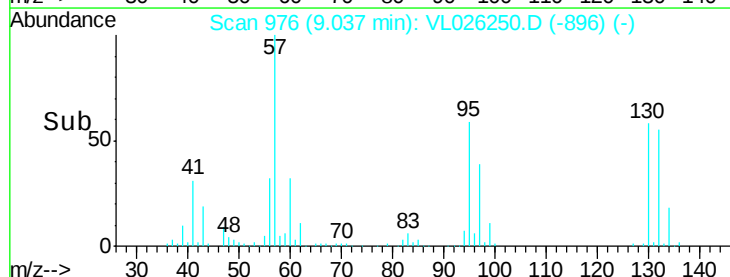
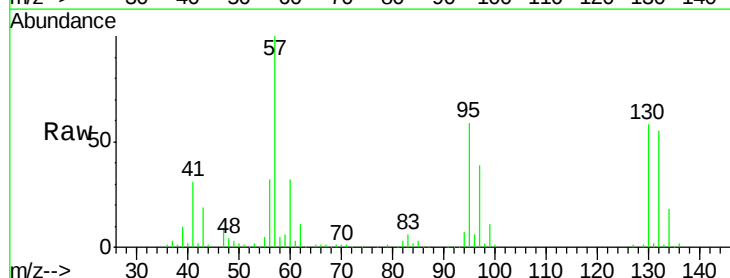
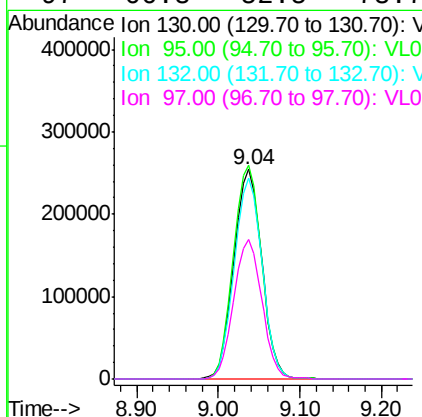
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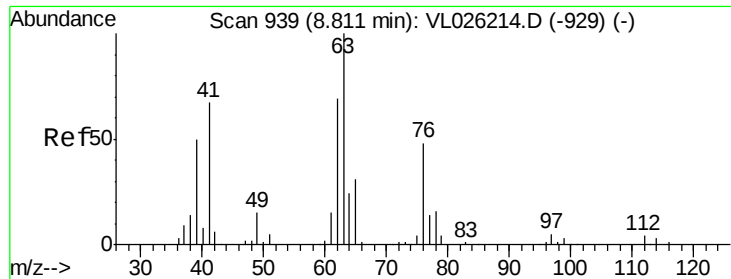
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#38  
 Trichloroethene  
 Concen: 9.04 ppbv  
 RT: 9.04 min Scan# 976  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 130     | 100   | 604576 |       |       |
| 95      | 101.8 |        | 81.0  | 121.4 |
| 132     | 96.0  |        | 76.5  | 114.7 |
| 97      | 66.8  |        | 52.5  | 78.7  |





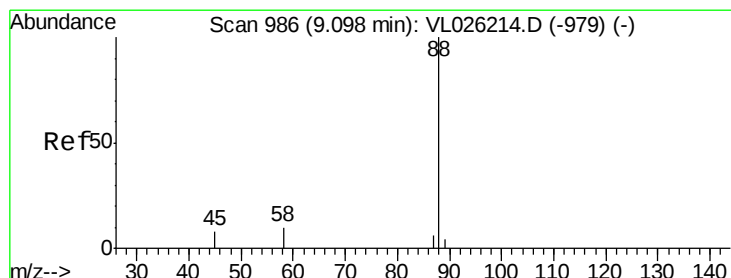
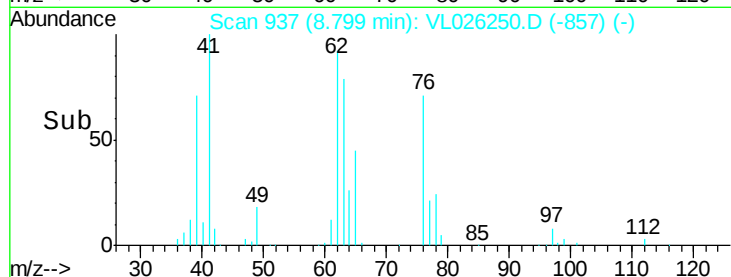
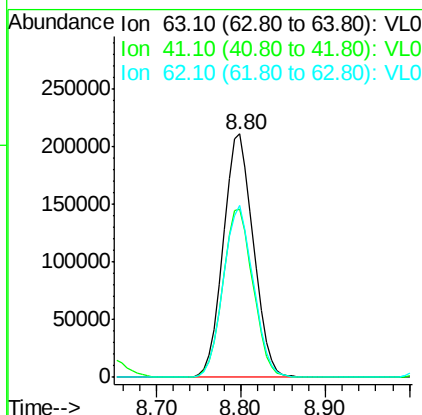
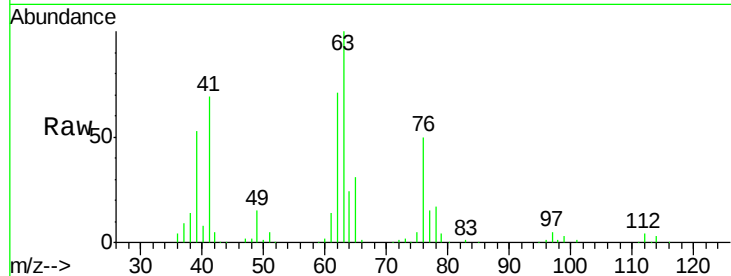
#39  
 1,2-Dichloropropane  
 Concen: 10.63 ppbv  
 RT: 8.80 min Scan# 937  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 69.0  | 53.2  | 79.8  |
| 62      | 70.7  | 55.4  | 83.2  |

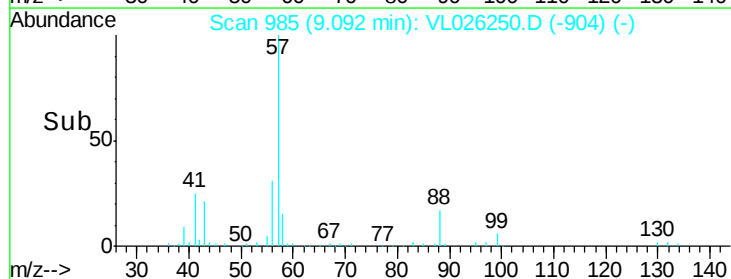
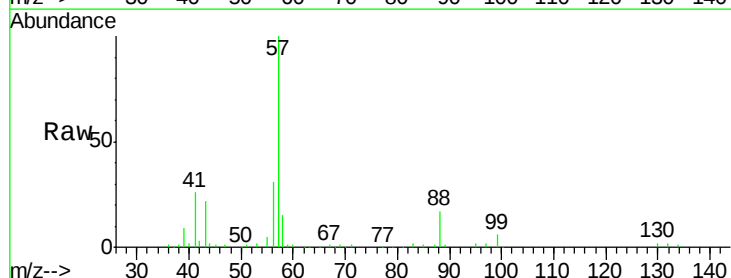
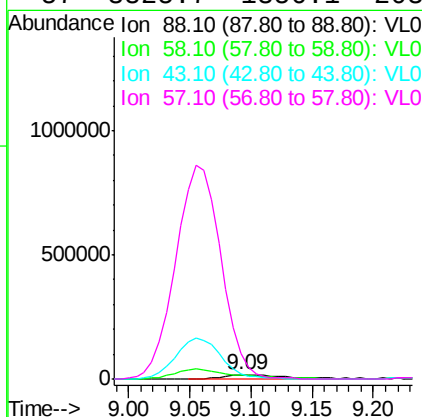
Manual Integrations  
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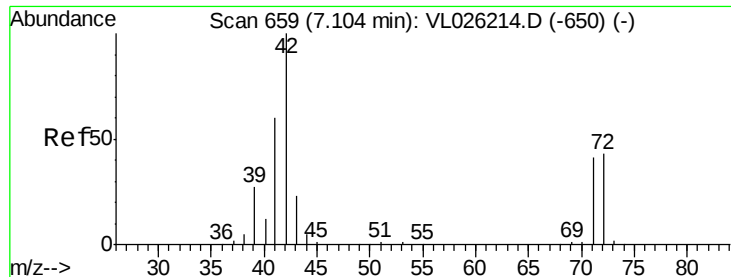
MMDadoda  
 10/22/2015 4:36:12 PM



#40  
 1,4-Dioxane  
 Concen: 6.41 ppbv  
 RT: 9.09 min Scan# 985  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

| Tgt Ion | Ratio  | Lower  | Upper   |
|---------|--------|--------|---------|
| 88      | 100    |        |         |
| 58      | 242.6  | 115.4  | 173.2#  |
| 43      | 744.1  | 272.6  | 409.0#  |
| 57      | 3825.7 | 1356.1 | 2034.1# |





#41

Tetrahydrofuran

Concen: 10.32 ppbv

RT: 7.09 min Scan# 657

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

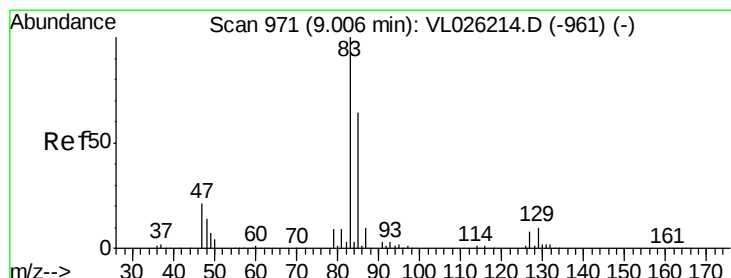
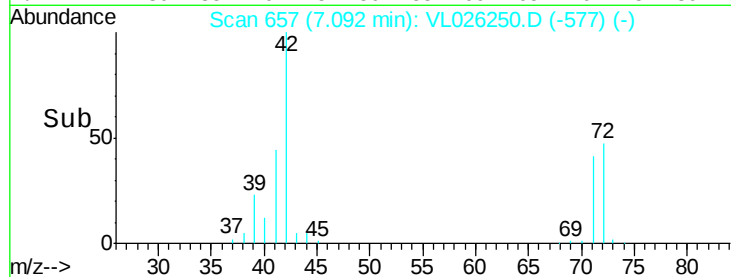
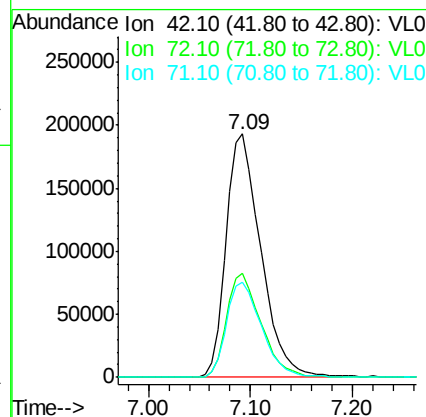
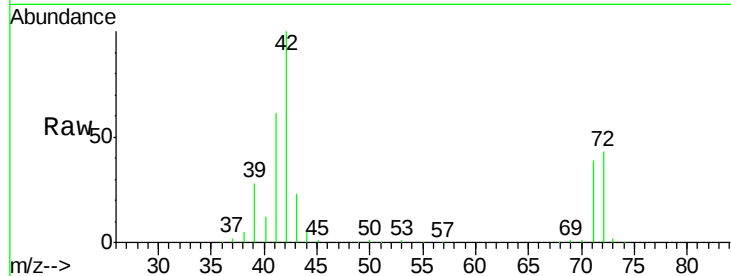
ClientSampleId :

VL1021ABS02

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 42    | Resp: | 457177 |
| Ion      | Ratio | Lower | Upper  |
| 42       | 100   |       |        |
| 72       | 42.5  | 34.3  | 51.5   |
| 71       | 39.7  | 32.1  | 48.1   |

Manual Integrations  
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10/22/2015 4:36:12 PM



#42

Bromodichloromethane

Concen: 10.89 ppbv

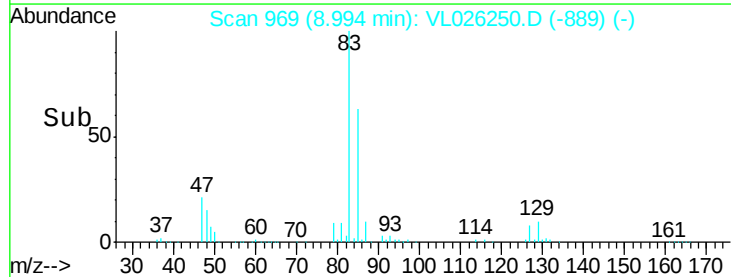
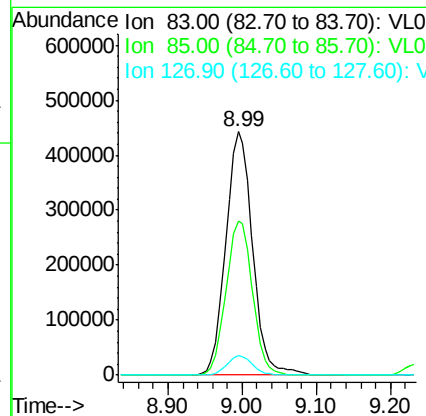
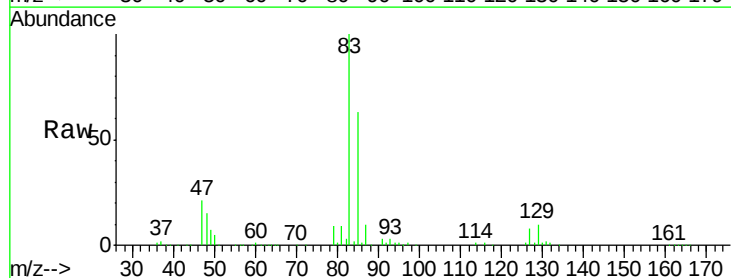
RT: 8.99 min Scan# 969

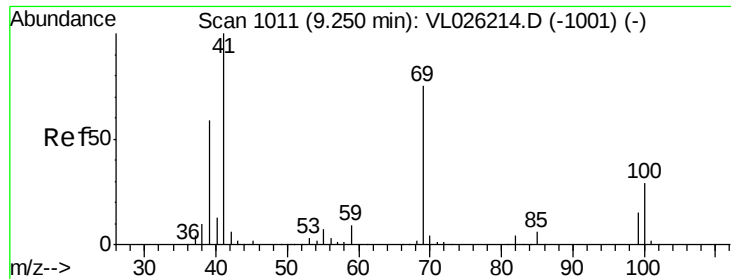
Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 83    | Resp: | 1109899 |
| Ion      | Ratio | Lower | Upper   |
| 83       | 100   |       |         |
| 85       | 63.4  | 50.9  | 76.3    |
| 127      | 8.1   | 6.2   | 9.4     |





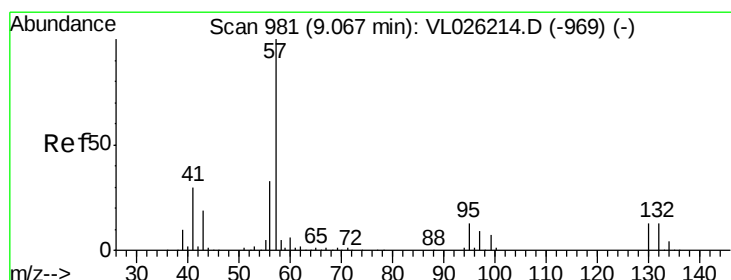
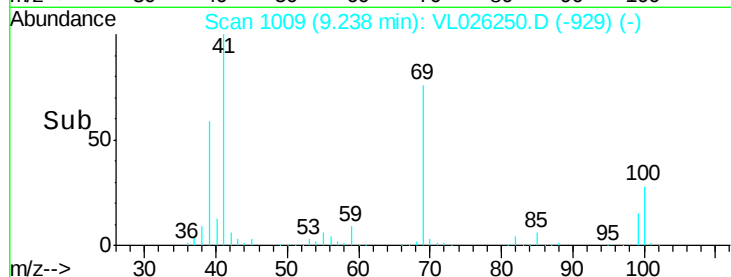
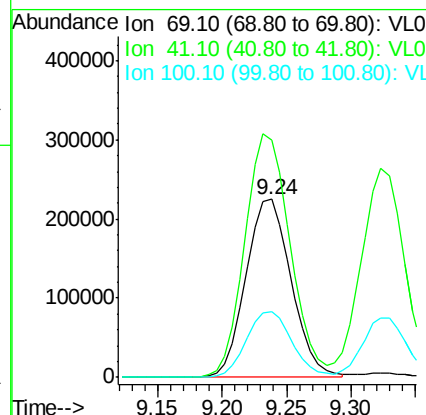
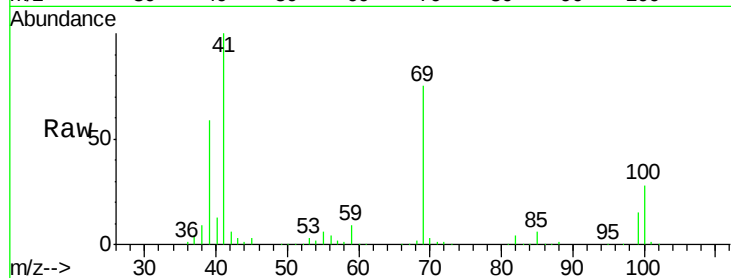
#43  
Methvl Methacrvlate  
Concen: 10.97 ppbv  
RT: 9.24 min Scan# 1009  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 69      | 100   |       |       |
| 41      | 136.6 | 108.4 | 162.6 |
| 100     | 37.4  | 30.6  | 45.8  |

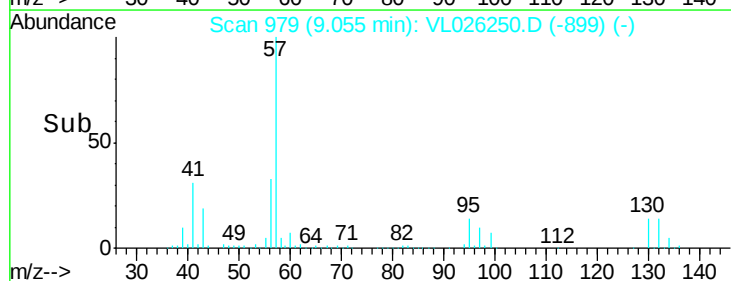
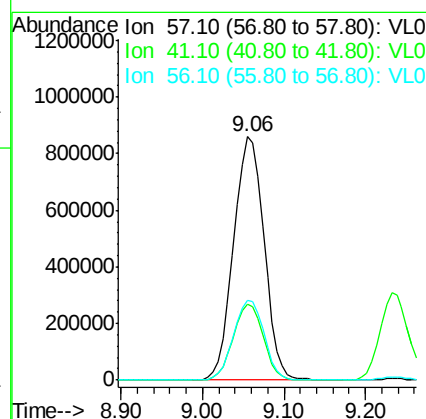
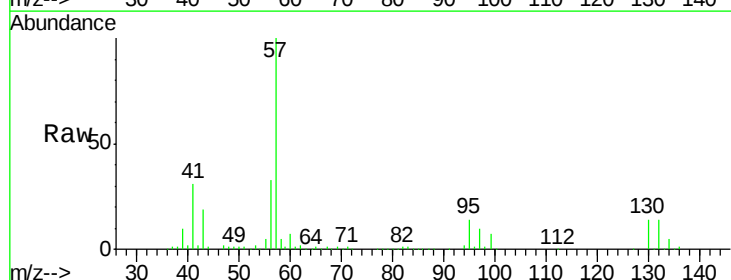
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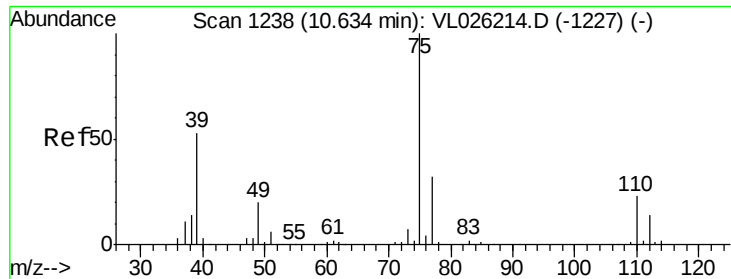
MMDadoda  
10/22/2015 4:36:12 PM



#44  
2,2,4-Trimethylpentane  
Concen: 10.00 ppbv  
RT: 9.06 min Scan# 979  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 30.5  | 23.7  | 35.5  |
| 56      | 32.7  | 25.9  | 38.9  |





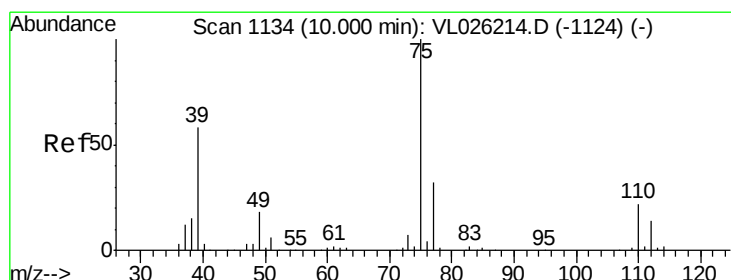
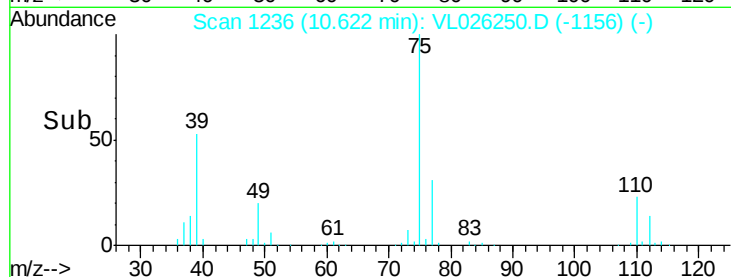
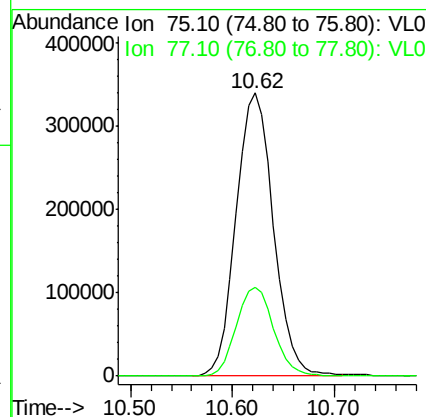
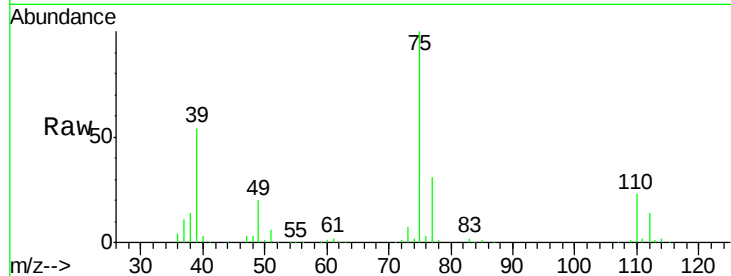
#45  
t-1,3-Dichloropropene  
Concen: 11.01 ppbv  
RT: 10.62 min Scan# 1236  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

Tot Ion: 75 Resp: 862300  
Ion Ratio Lower Upper  
75 100  
77 31.4 25.2 37.8

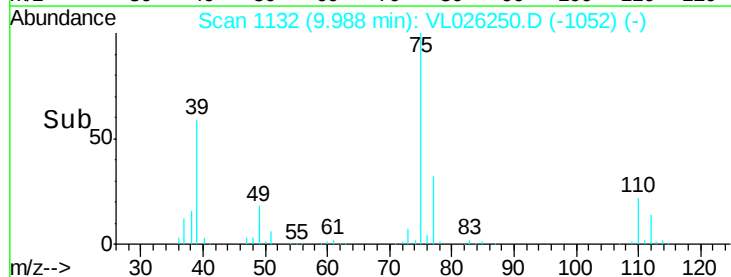
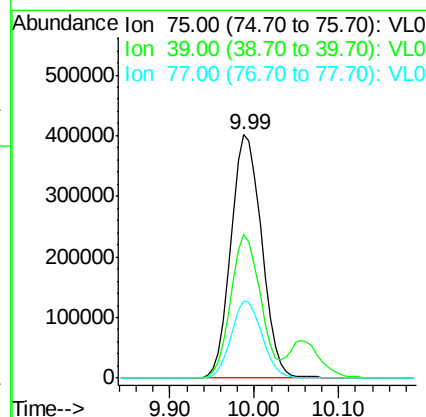
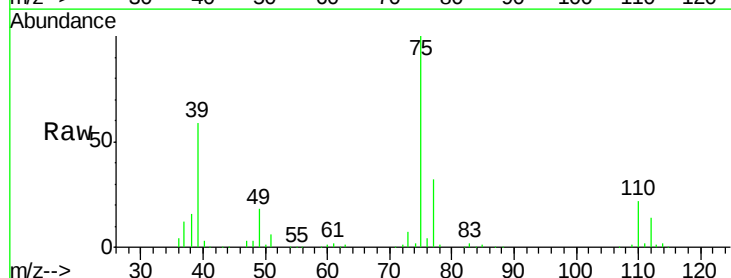
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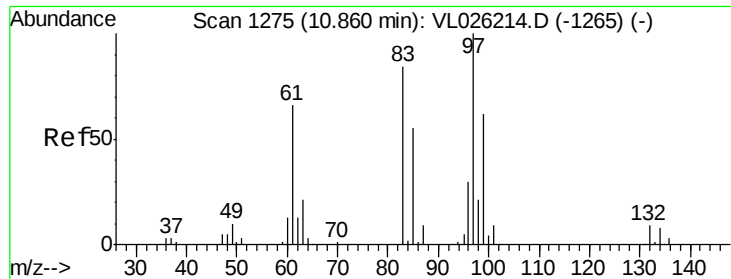
MMDadoda  
10/22/2015 4:36:12 PM



#46  
cis-1,3-Dichloropropene  
Concen: 10.89 ppbv  
RT: 9.99 min Scan# 1132  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Tgt Ion: 75 Resp: 998093  
Ion Ratio Lower Upper  
75 100  
39 58.9 46.2 69.4  
77 31.8 25.4 38.0





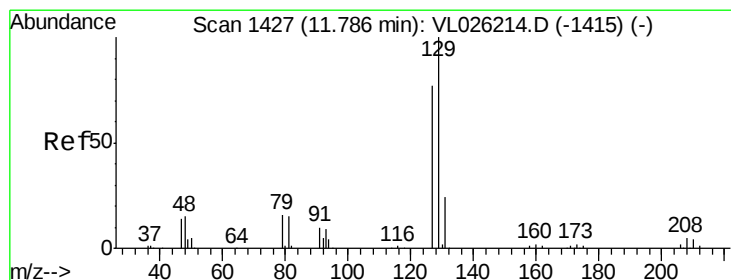
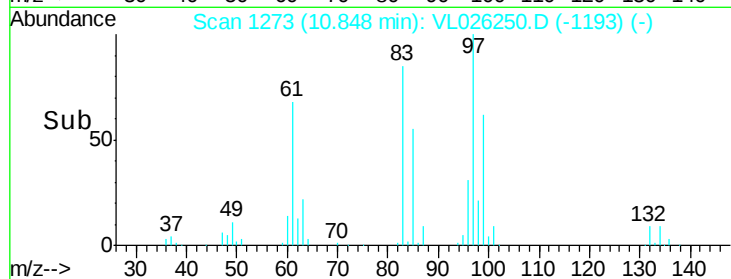
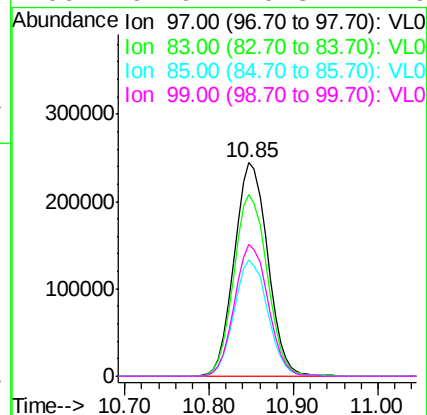
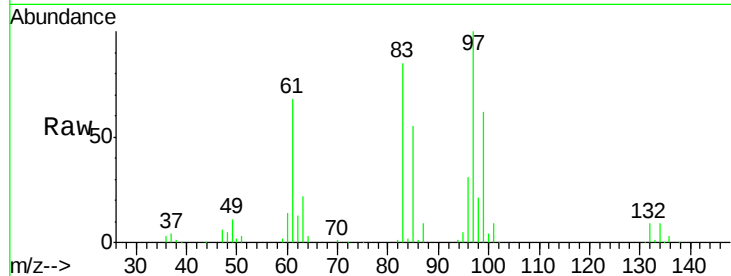
#47  
 1,1,2-Trichloroethane  
 Concen: 10.82 ppbv  
 RT: 10.85 min Scan# 1273  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 83      | 85.1  | 67.4  | 101.2 |
| 85      | 54.7  | 43.8  | 65.6  |
| 99      | 61.9  | 49.8  | 74.6  |

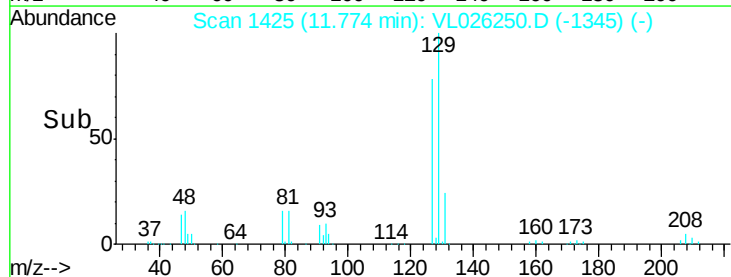
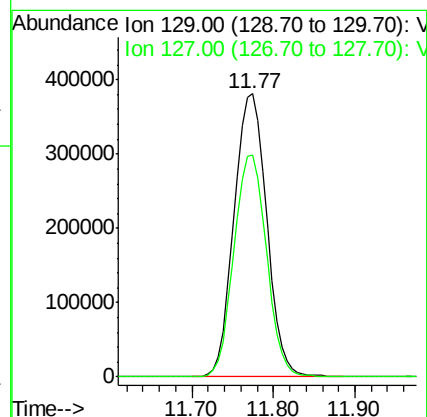
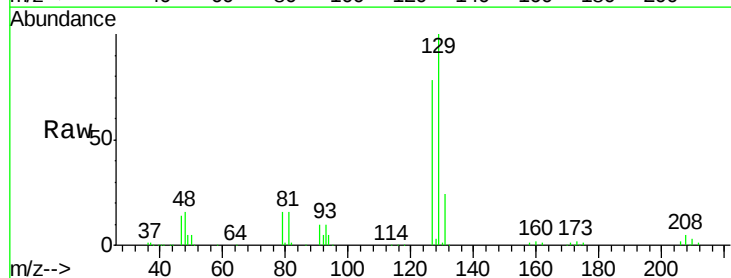
Manual Integrations  
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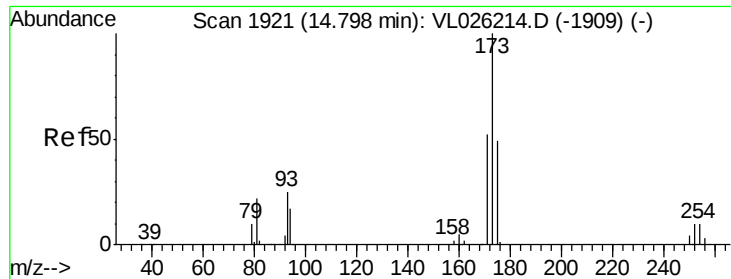
MMDadoda  
 10/22/2015 4:36:12 PM



#48  
 Dibromochloromethane  
 Concen: 10.67 ppbv  
 RT: 11.77 min Scan# 1425  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 129     | 100   |       |       |
| 127     | 78.6  | 39.1  | 117.5 |





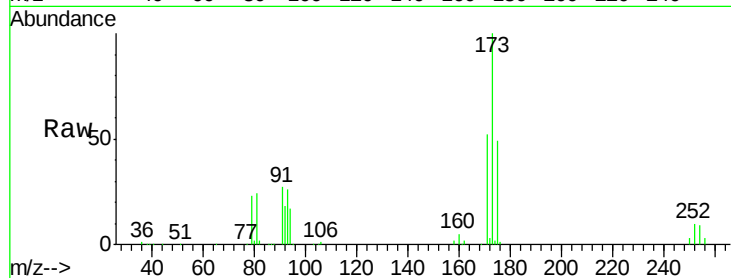
#49  
Bromoform  
Concen: 10.22 ppbv  
RT: 14.79 min Scan# 1919  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

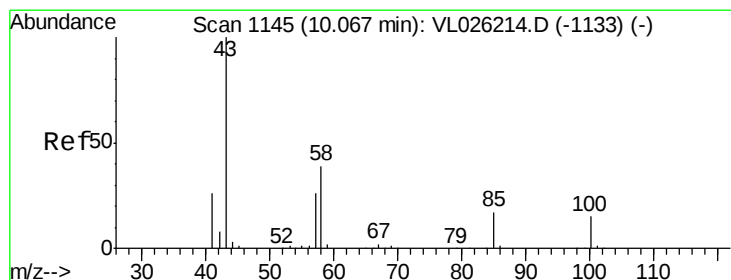
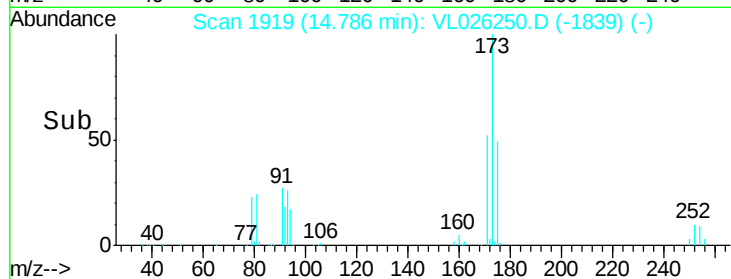
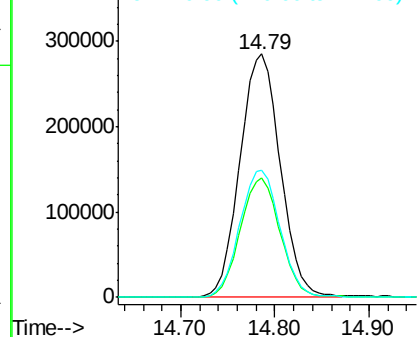
| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 173     | 100  |       |       |       |
| 175     | 48.8 | 38.7  | 58.1  |       |
| 171     | 52.7 | 41.6  | 62.4  |       |

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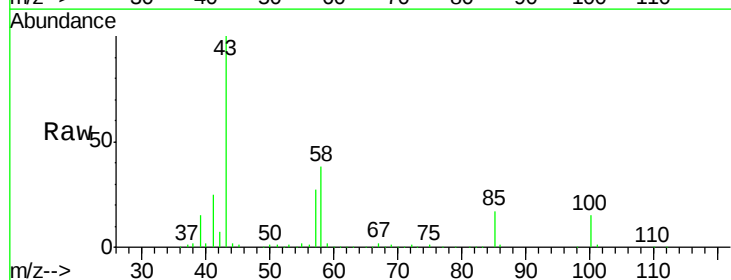


Abundance Ion 172.90 (172.60 to 173.60): V  
Ion 174.90 (174.60 to 175.60): V  
Ion 170.90 (170.60 to 171.60): V

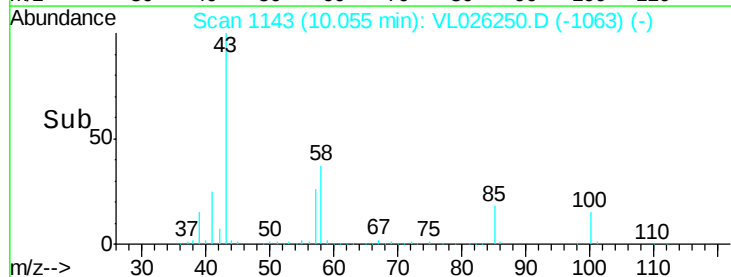
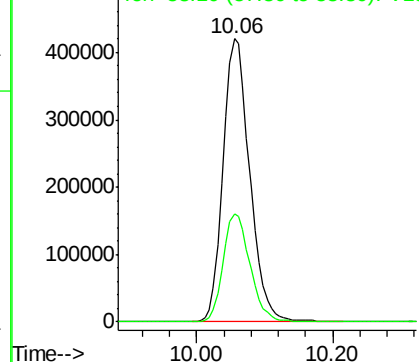


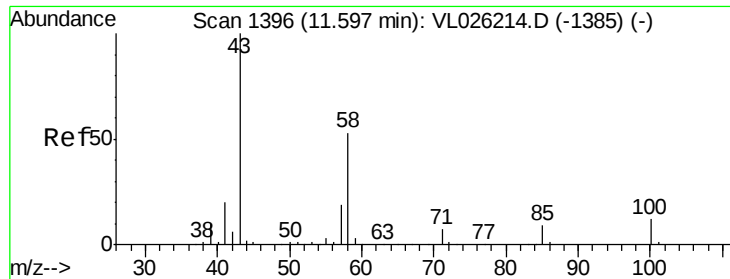
#50  
4-Methyl-2-Pentanone  
Concen: 11.01 ppbv  
RT: 10.06 min Scan# 1143  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 43      | 100  |       |       |       |
| 58      | 38.6 | 31.1  | 46.7  |       |



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





#51

2-Hexanone

Concen: 11.23 ppbv

RT: 11.58 min Scan# 1393

Delta R.T. -0.02 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 43 Resp: 1083474

Ion Ratio Lower Upper

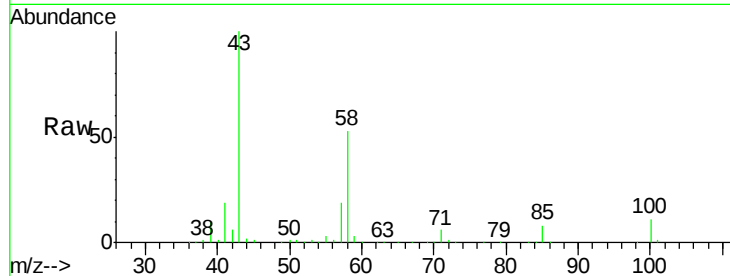
43 100

58 54.2 43.2 64.8

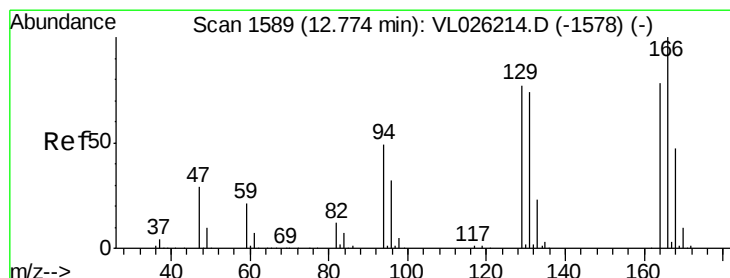
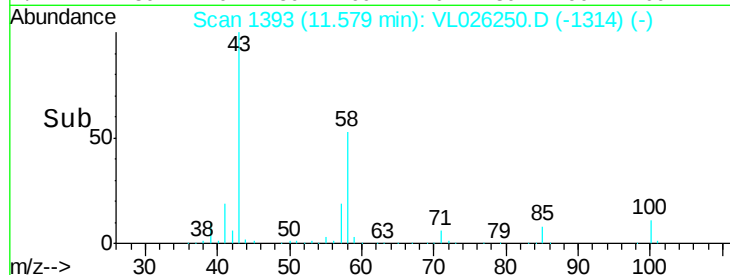
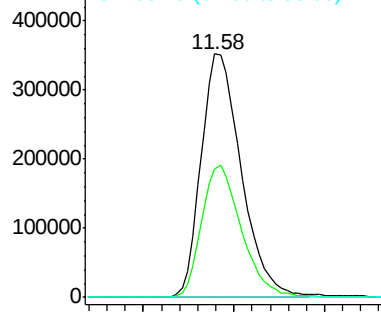
98 0.1 0.0 0.0#

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10/22/2015 4:36:12 PM



Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 58.10 (57.80 to 58.80): VL0  
Ion 98.20 (97.90 to 98.90): VL0



#52

Tetrachloroethene

Concen: 8.59 ppbv

RT: 12.76 min Scan# 1587

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Tgt Ion:164 Resp: 678852

Ion Ratio Lower Upper

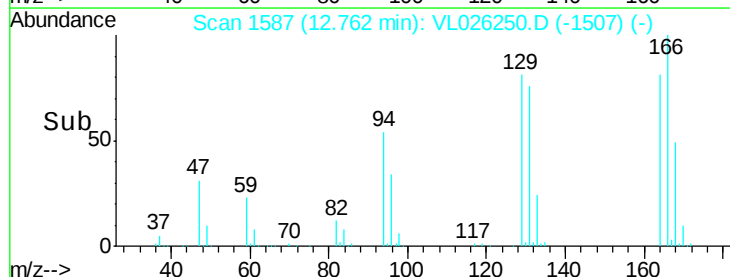
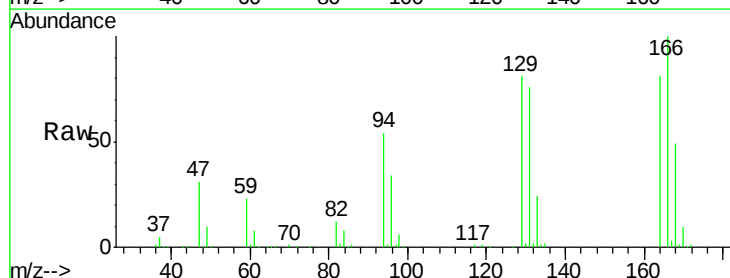
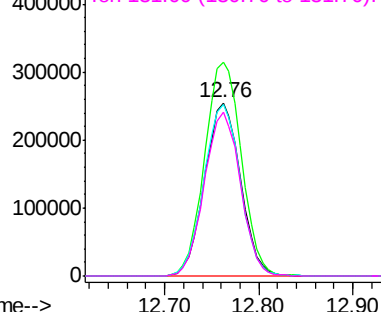
164 100

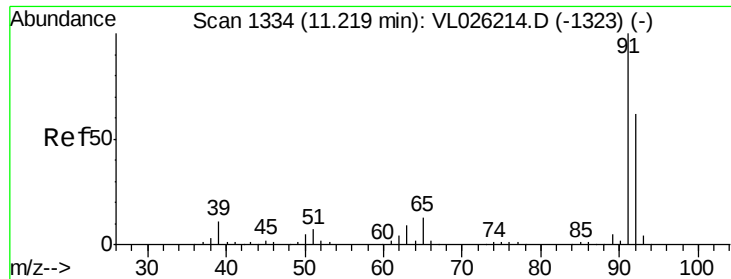
166 123.3 102.3 153.5

129 99.4 78.2 117.4

131 94.3 75.7 113.5

Abundance Ion 163.90 (163.60 to 164.60): V  
Ion 165.90 (165.60 to 166.60): V  
Ion 129.00 (128.70 to 129.70): V  
Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 10.42 ppbv

RT: 11.21 min Scan# 1332

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 91 Resp: 1953083

Ion Ratio Lower Upper

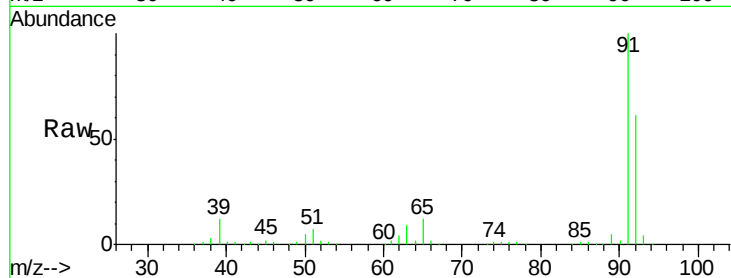
91 100

92 60.9 49.2 73.8

Manual Integrations  
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10/22/2015 4:36:12 PM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

11.21

800000

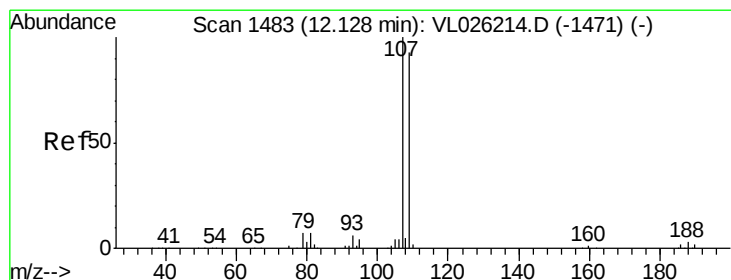
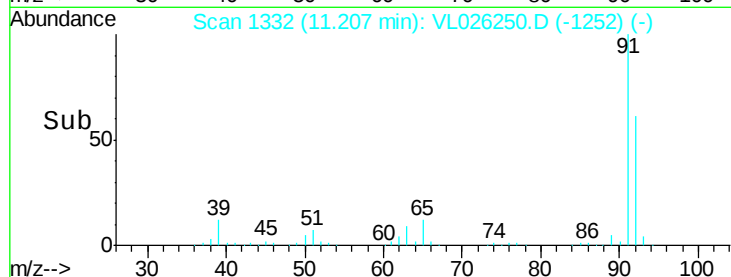
600000

400000

200000

0

Time-->



#54

1,2-Dibromoethane

Concen: 10.87 ppbv

RT: 12.11 min Scan# 1480

Delta R.T. -0.02 min

Lab File: VL026250.D

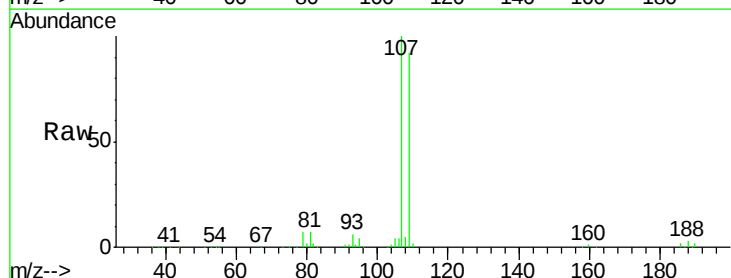
Acq: 21 Oct 2015 23:01

Tgt Ion:107 Resp: 1024942

Ion Ratio Lower Upper

107 100

109 91.5 74.7 112.1



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V

12.11

400000

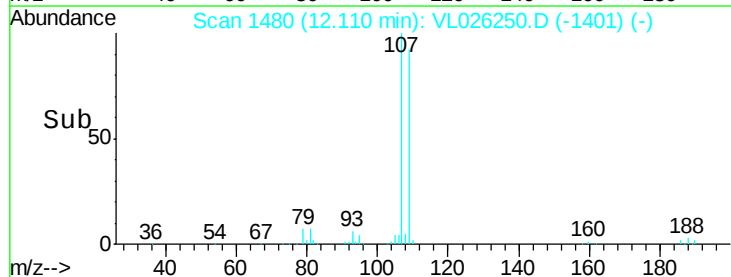
300000

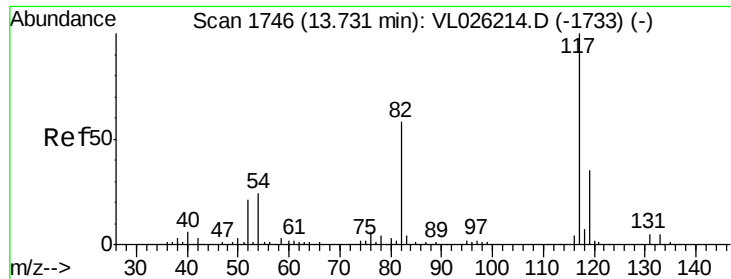
200000

100000

0

Time-->





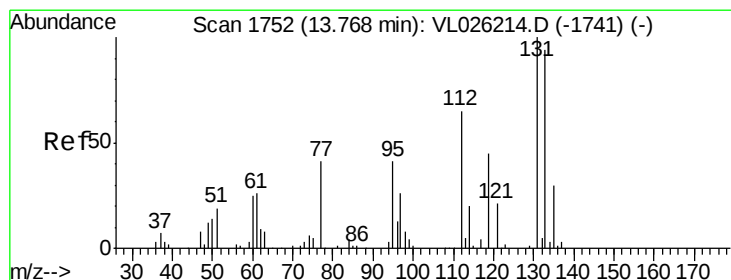
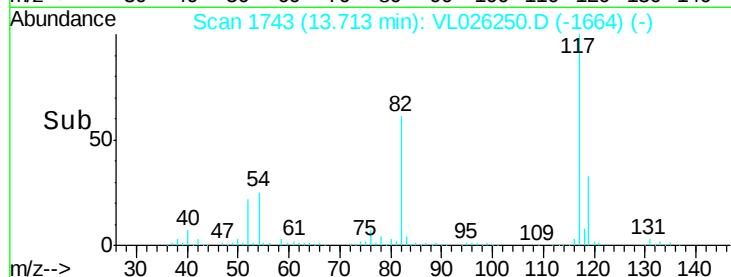
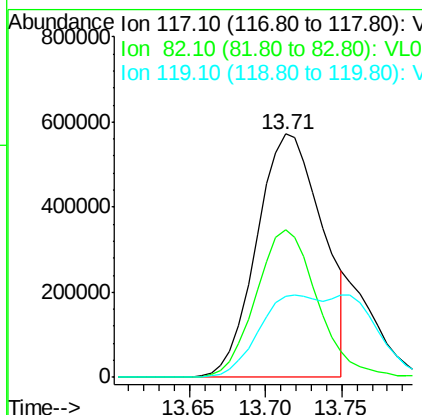
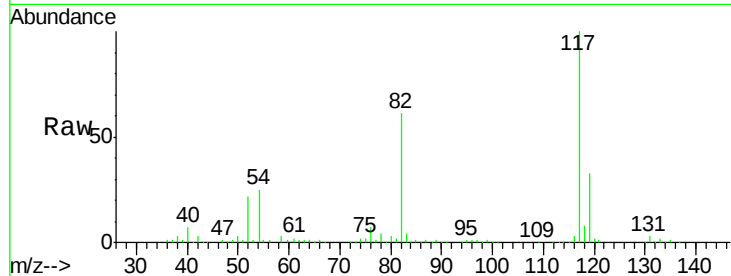
#55  
Chlorobenzene-d5  
Concen: 10.00 ppbv m  
RT: 13.71 min Scan# 1743  
Delta R.T. -0.02 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 57.3  | 45.8  | 68.8  |
| 119     | 57.4  | 45.0  | 67.4  |

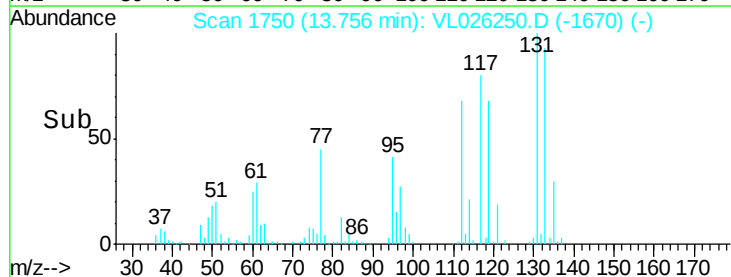
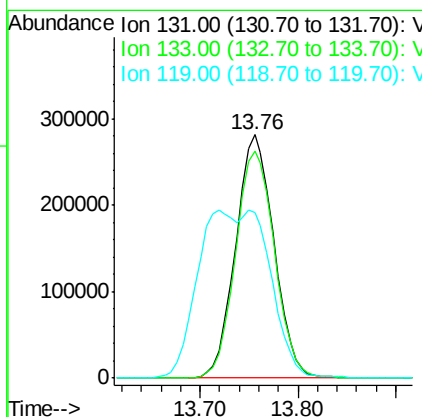
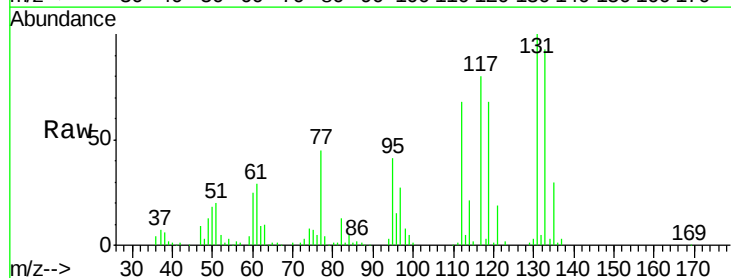
Manual Integrations  
APPROVED

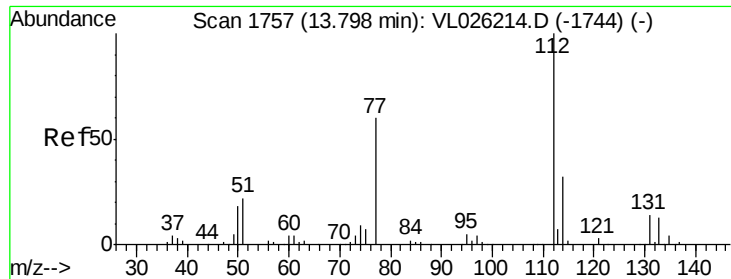
MMDadoda  
10/22/2015 4:36:12 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 9.23 ppbv  
RT: 13.76 min Scan# 1750  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 131     | 100   |       |       |
| 133     | 95.5  | 75.9  | 113.9 |
| 119     | 129.7 | 108.0 | 162.0 |





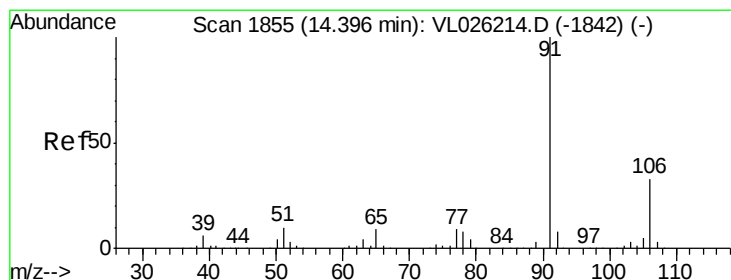
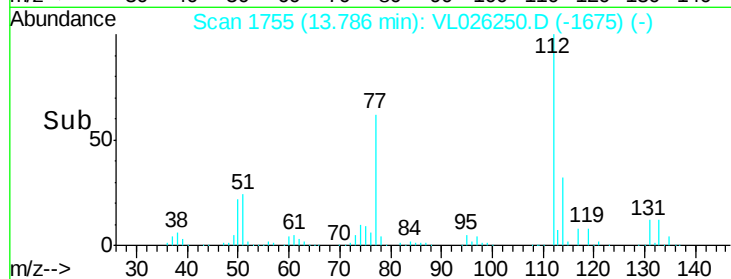
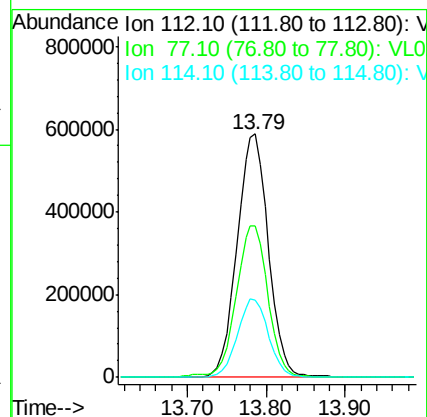
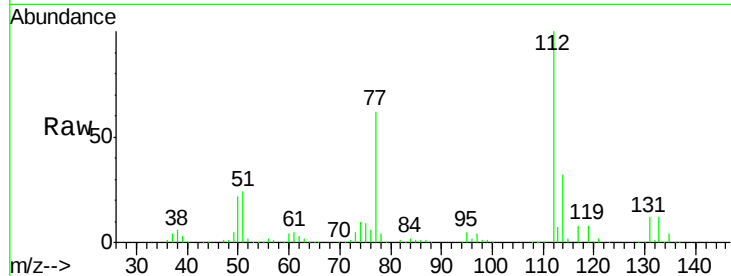
#57  
Chlorobenzene  
Concen: 9.82 ppbv  
RT: 13.79 min Scan# 1755  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 62.2  | 48.4  | 72.6  |
| 114     | 31.9  | 29.0  | 35.4  |

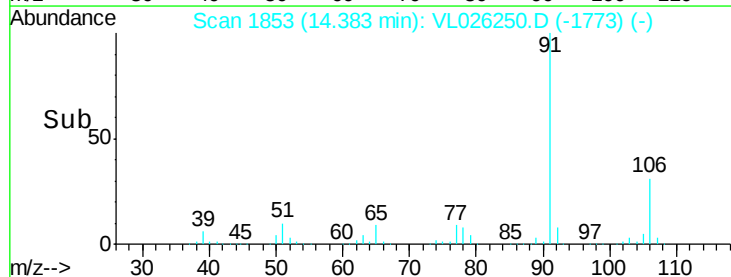
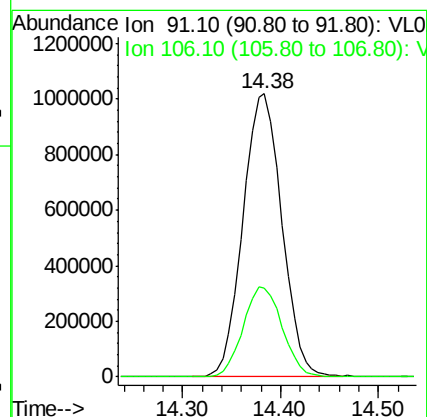
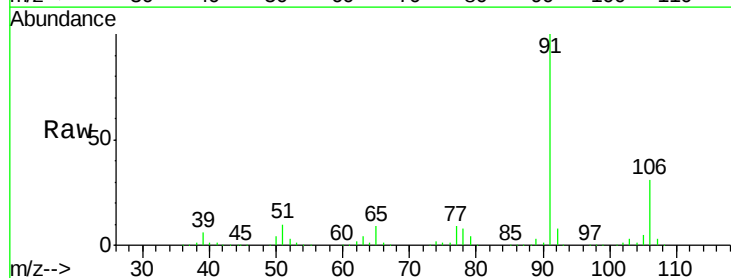
Manual Integrations  
APPROVED

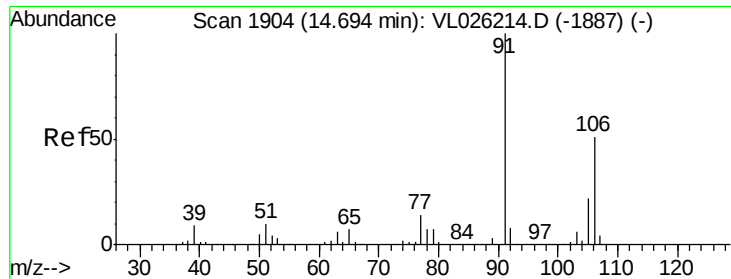
MMDadoda  
10/22/2015 4:36:12 PM



#58  
Ethyl Benzene  
Concen: 10.04 ppbv  
RT: 14.38 min Scan# 1853  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 31.3  | 26.1  | 39.1  |





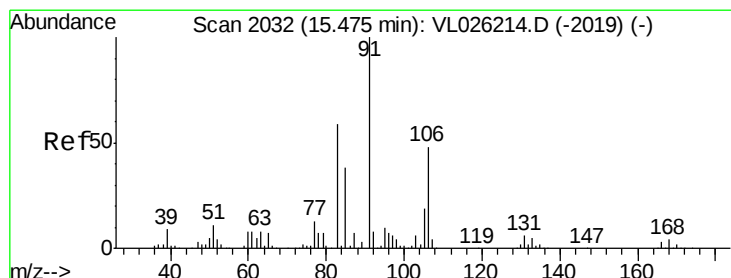
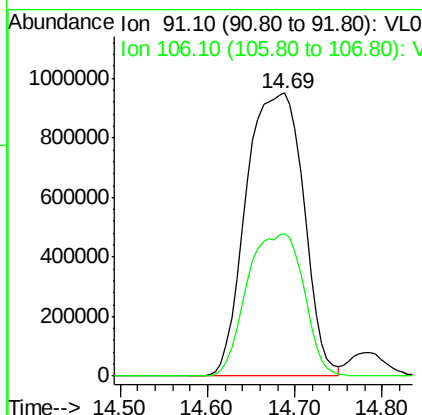
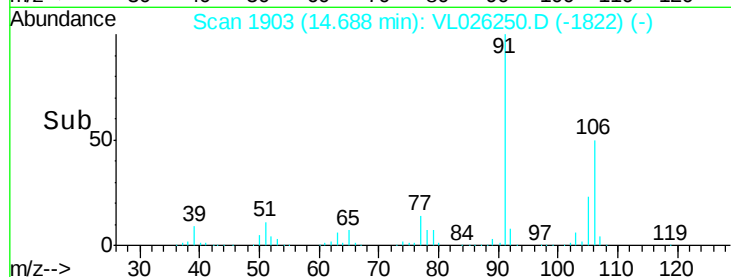
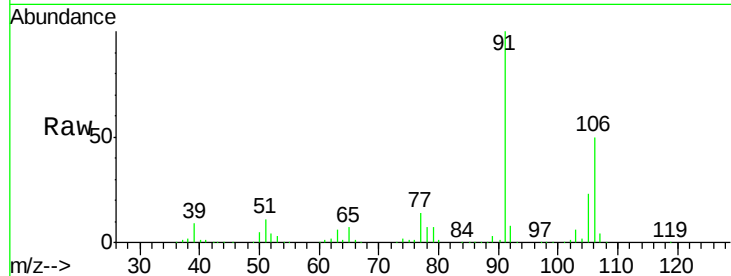
#59  
m/p-Xylene  
Concen: 19.78 ppbv  
RT: 14.69 min Scan# 1903  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

Tot Ion: 91 Resp: 4331646  
Ion Ratio Lower Upper  
91 100  
106 50.1 40.6 61.0

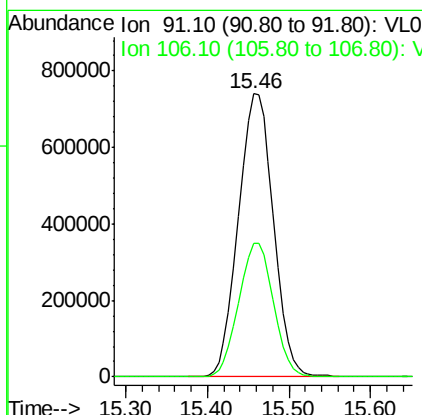
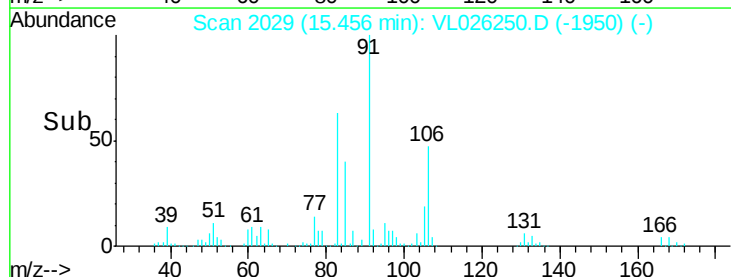
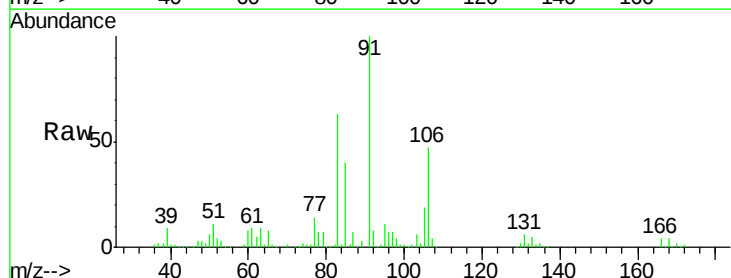
Manual Integrations  
APPROVED

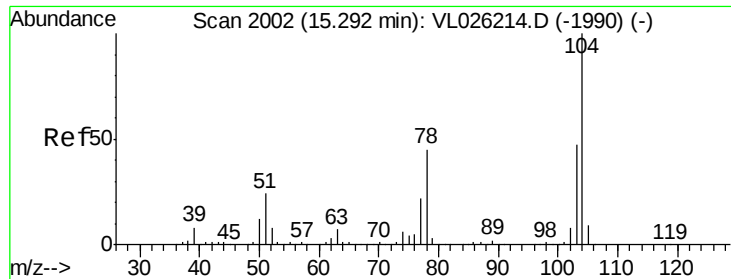
MMDadoda  
10/22/2015 4:36:12 PM



#60  
o-Xylene  
Concen: 9.67 ppbv  
RT: 15.46 min Scan# 2029  
Delta R.T. -0.02 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Tgt Ion: 91 Resp: 2214200  
Ion Ratio Lower Upper  
91 100  
106 47.1 23.8 71.5





#61

Stvrene

Concen: 10.46 ppbv

RT: 15.28 min Scan# 2000

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion:104 Resp: 1084018

Ion Ratio Lower Upper

104 100

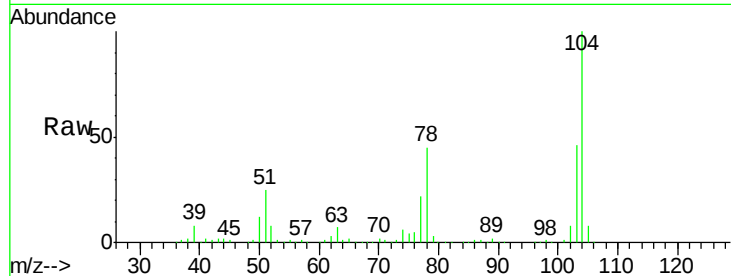
78 45.1 35.3 52.9

103 47.1 37.0 55.4

Manual Integrations  
APPROVED

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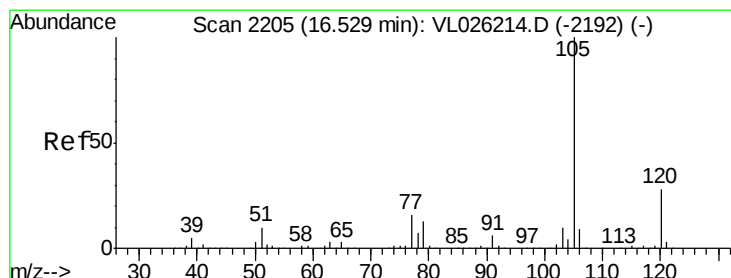
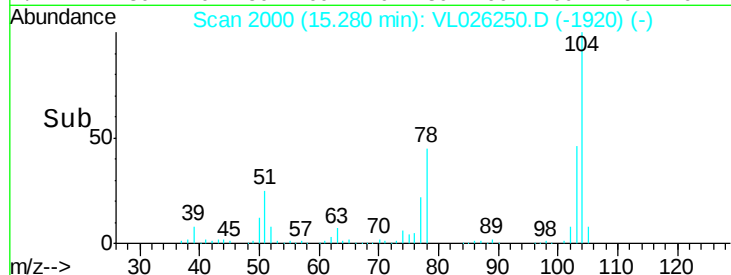
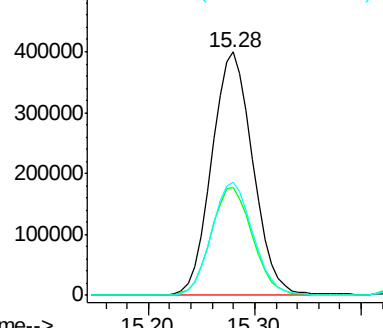
10/22/2015 4:36:12 PM



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 9.85 ppbv

RT: 16.51 min Scan# 2202

Delta R.T. -0.02 min

Lab File: VL026250.D

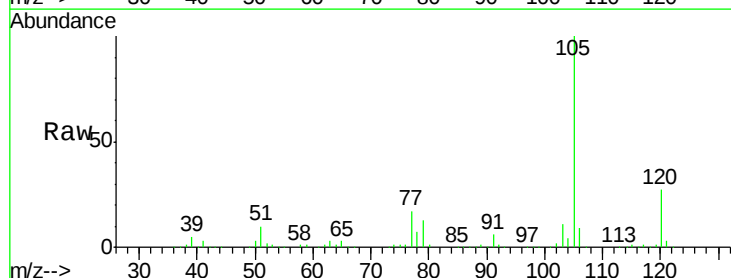
Acq: 21 Oct 2015 23:01

Tgt Ion:105 Resp: 3138901

Ion Ratio Lower Upper

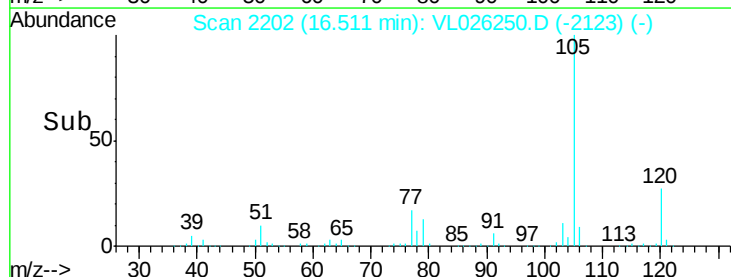
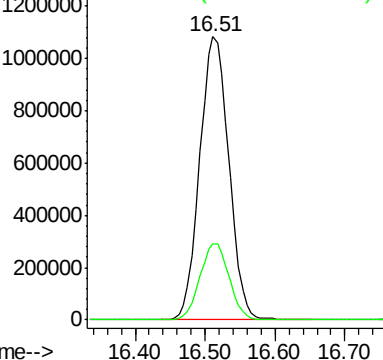
105 100

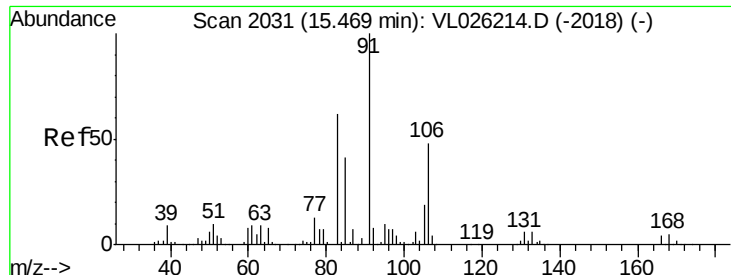
120 27.0 21.8 32.8



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#63

1,1,2,2-Tetrachloroethane

Concen: 9.50 ppbv

RT: 15.46 min Scan# 2029

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 83 Resp: 1438509

Ion Ratio Lower Upper

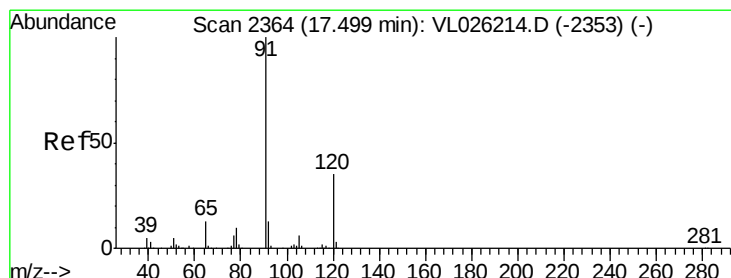
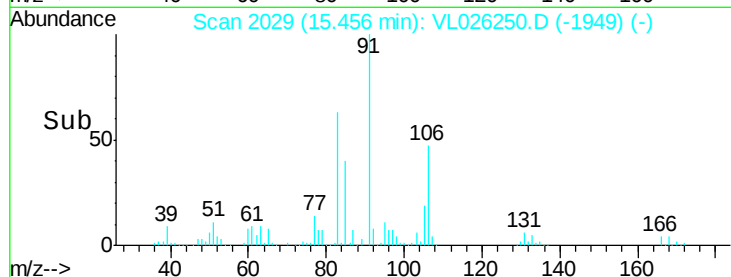
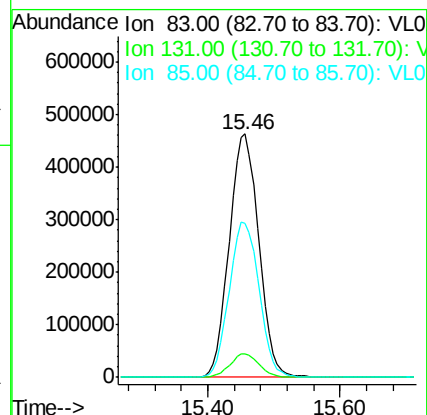
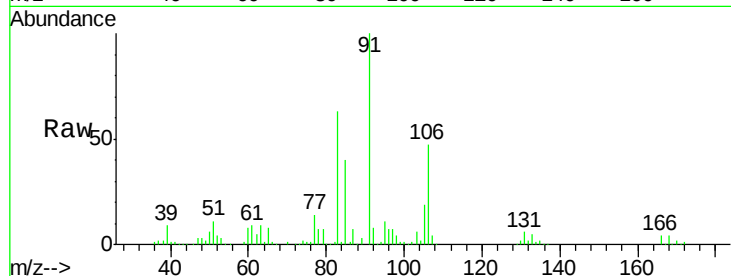
83 100

131 9.4 5.0 14.9

85 64.7 32.3 96.9

Manual Integrations  
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#64

n-propylbenzene

Concen: 9.88 ppbv

RT: 17.49 min Scan# 2363

Delta R.T. -0.01 min

Lab File: VL026250.D

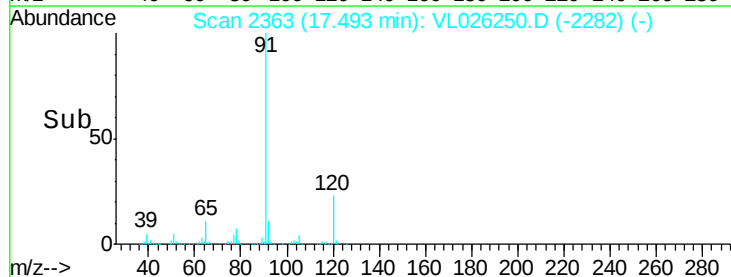
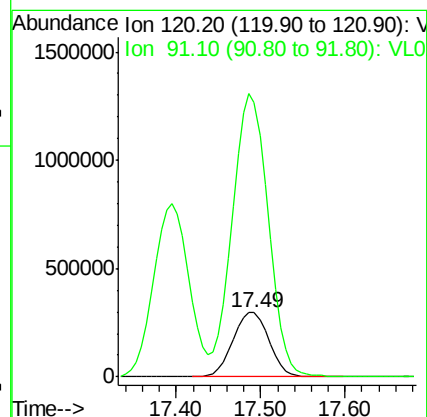
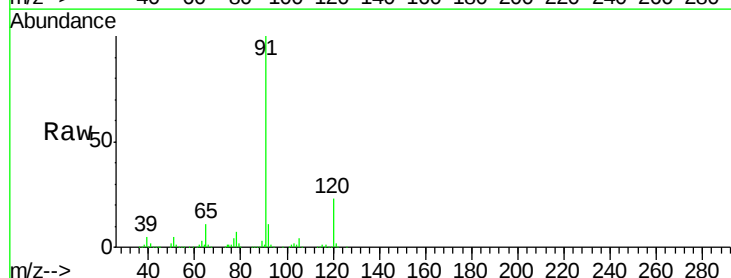
Acq: 21 Oct 2015 23:01

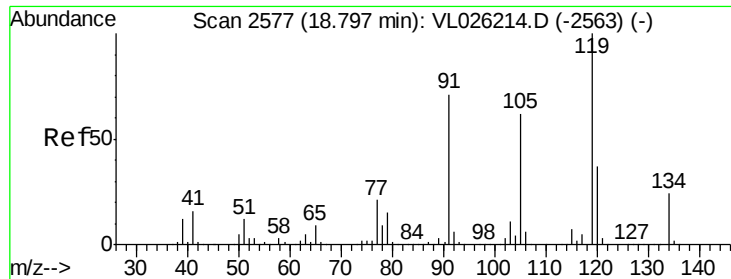
Tgt Ion: 120 Resp: 865465

Ion Ratio Lower Upper

120 100

91 441.8 331.7 497.5





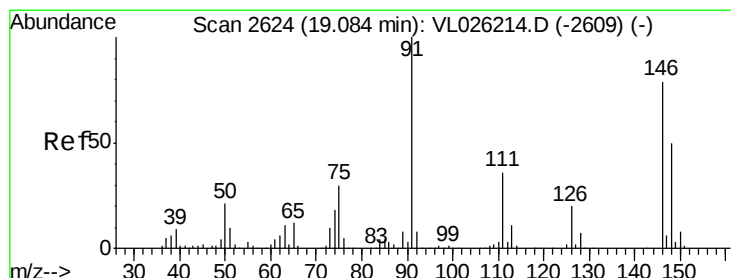
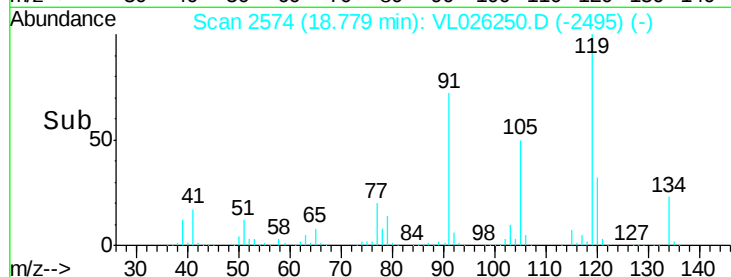
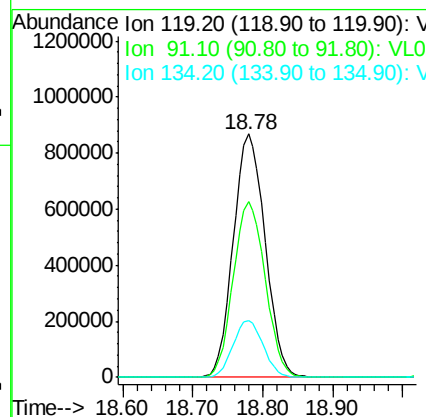
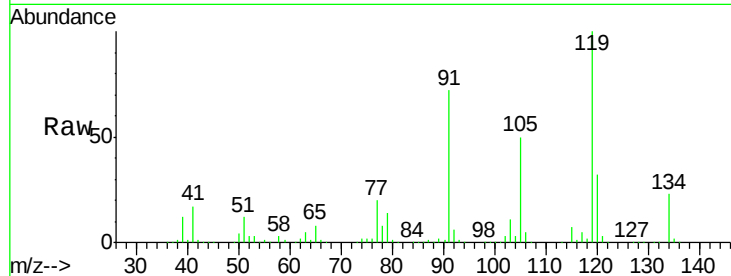
#65  
 tert-Butylbenzene  
 Concen: 9.45 ppbv  
 RT: 18.78 min Scan# 2574  
 Delta R.T. -0.02 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

Tot Ion:119 Resp: 2747964  
 Ion Ratio Lower Upper  
 119 100  
 91 72.6 57.5 86.3  
 134 22.3 18.1 27.1

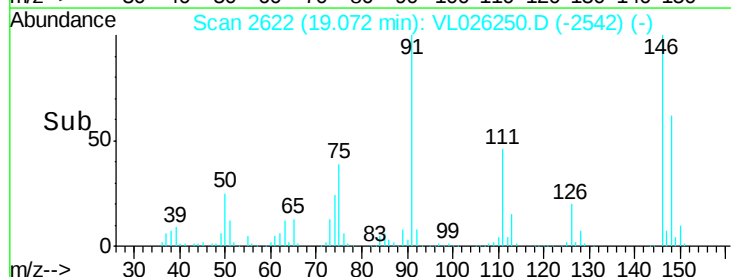
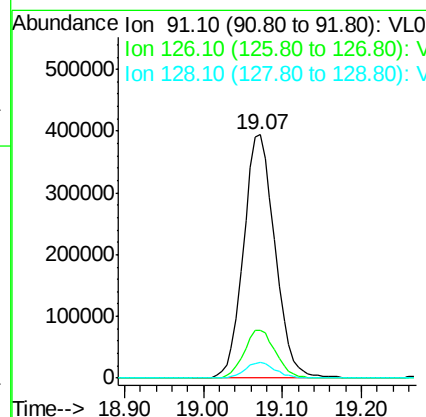
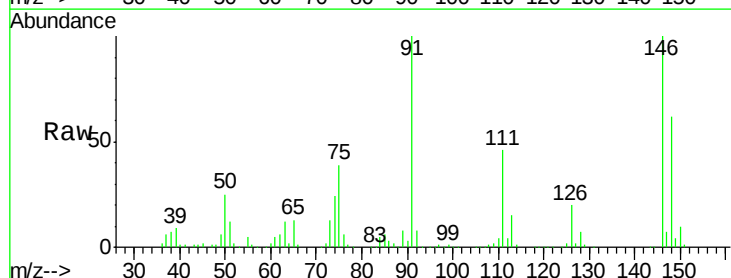
Manual Integrations  
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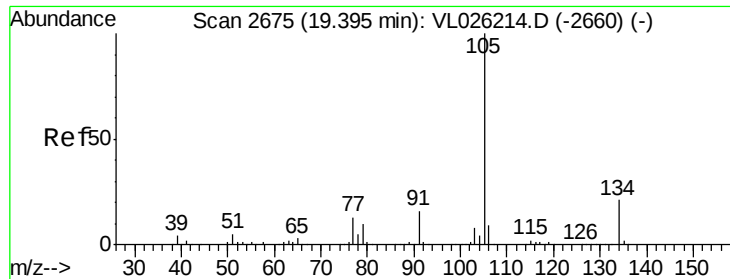
MMDadoda  
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#66  
 Benzyl Chloride  
 Concen: 9.06 ppbv  
 RT: 19.07 min Scan# 2622  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Tgt Ion: 91 Resp: 1088088  
 Ion Ratio Lower Upper  
 91 100  
 126 19.8 16.2 24.2  
 128 6.2 5.1 7.7





#67

sec-Butylbenzene

Concen: 9.82 ppbv

RT: 19.38 min Scan# 2672

Delta R.T. -0.02 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 105 Resp: 3979260

Ion Ratio Lower Upper

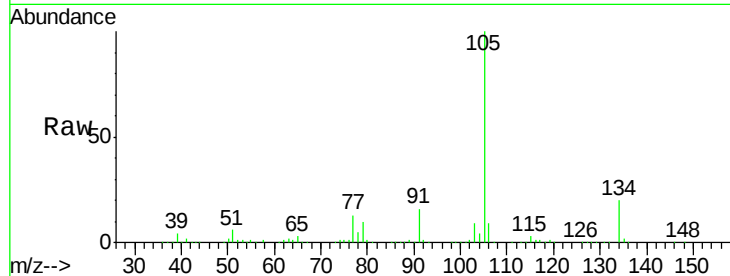
105 100

134 20.0 16.2 24.4

Manual Integrations  
APPROVED

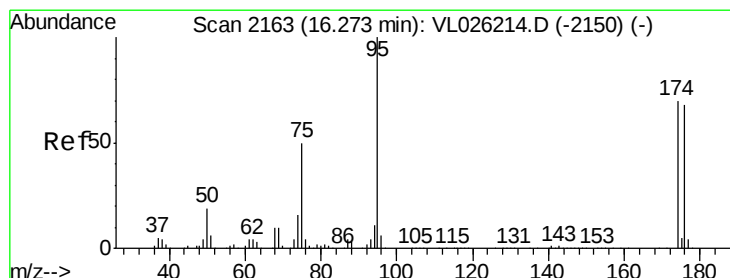
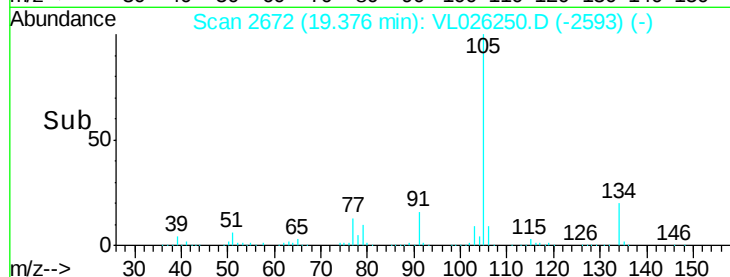
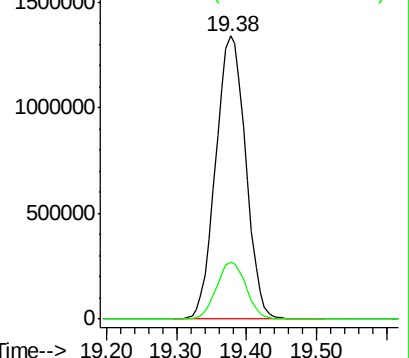
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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.68 ppbv

RT: 16.26 min Scan# 2160

Delta R.T. -0.02 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

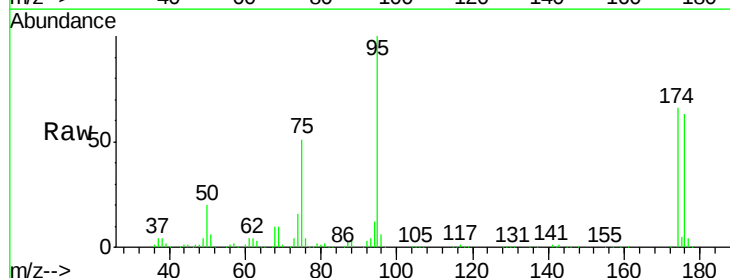
Tgt Ion: 95 Resp: 1288441

Ion Ratio Lower Upper

95 100

174 67.3 55.8 83.8

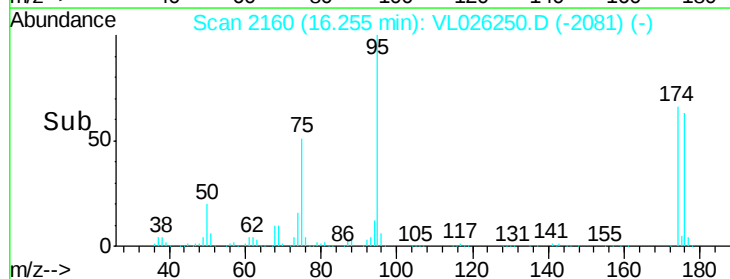
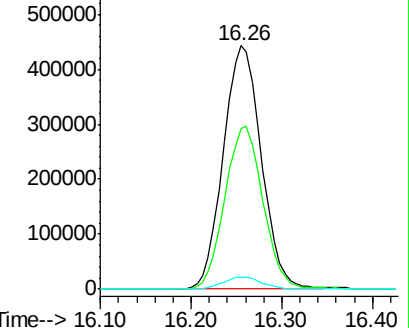
175 5.0 4.3 6.5

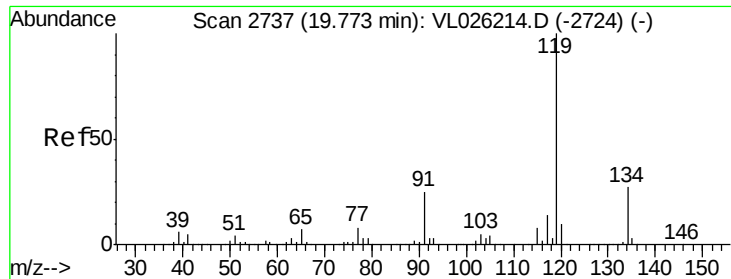


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





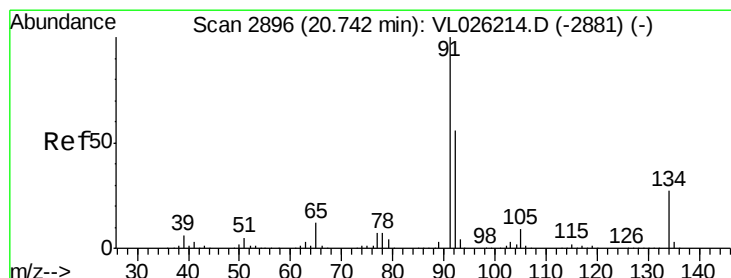
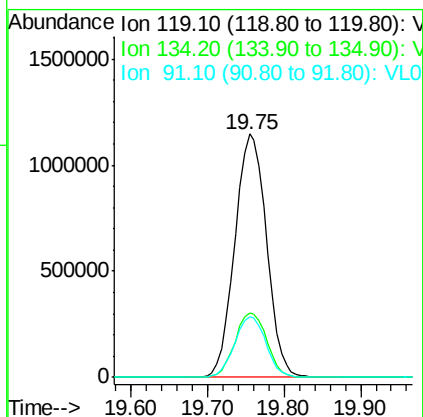
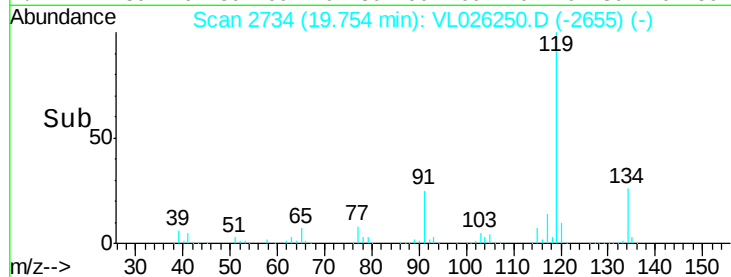
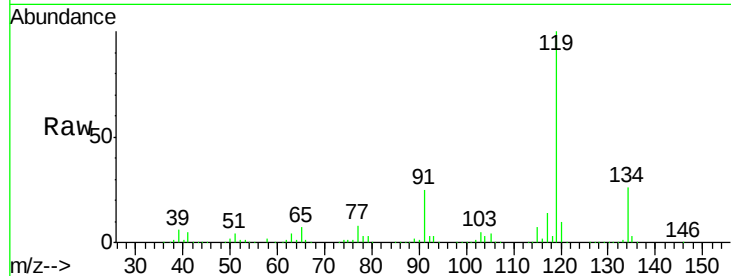
#69  
 p-Isopropyltoluene  
 Concen: 9.73 ppbv  
 RT: 19.75 min Scan# 2734  
 Delta R.T. -0.02 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VL1021ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 26.6  | 21.4  | 32.0  |
| 91      | 24.7  | 19.5  | 29.3  |

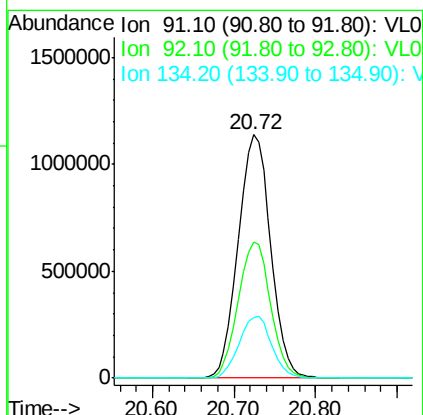
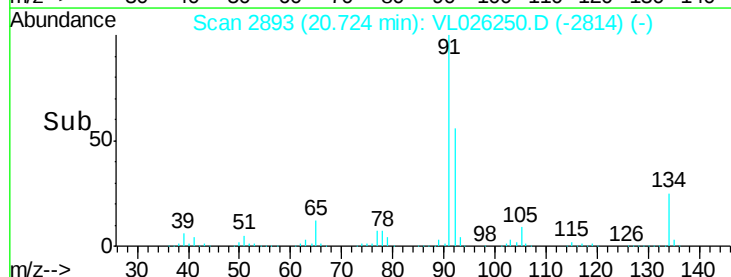
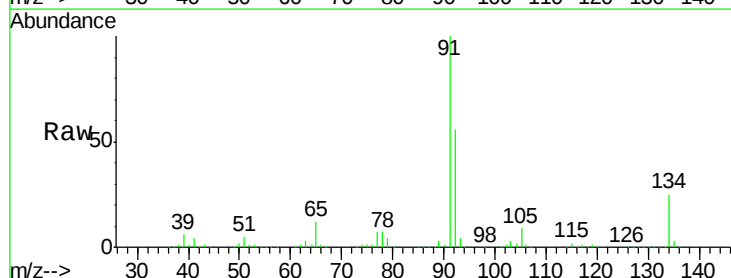
Manual Integrations  
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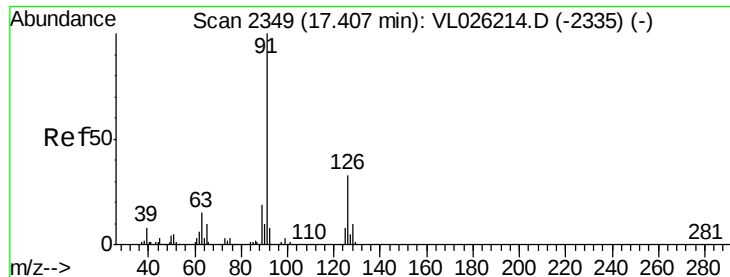
MMDadoda  
 10/22/2015 4:36:12 PM



#70  
 n-Butylbenzene  
 Concen: 10.16 ppbv  
 RT: 20.72 min Scan# 2893  
 Delta R.T. -0.02 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 56.0  | 45.0  | 67.6  |
| 134     | 25.5  | 21.4  | 32.0  |





#71

2-Chlorotoluene

Concen: 9.98 ppbv

RT: 17.40 min Scan# 2347

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion: 91 Resp: 2340279

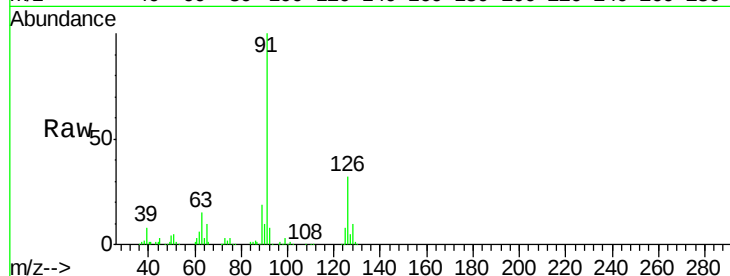
Ion Ratio Lower Upper

91 100

126 32.6 12.9 51.7

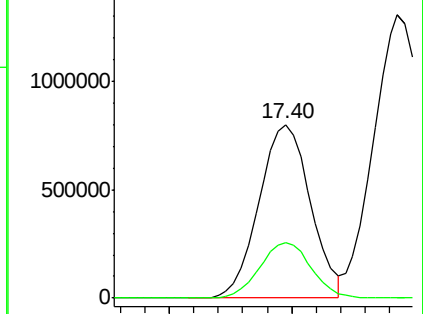
Manual Integrations  
APPROVED

MMDadoda  
10/22/2015 4:36:12 PM

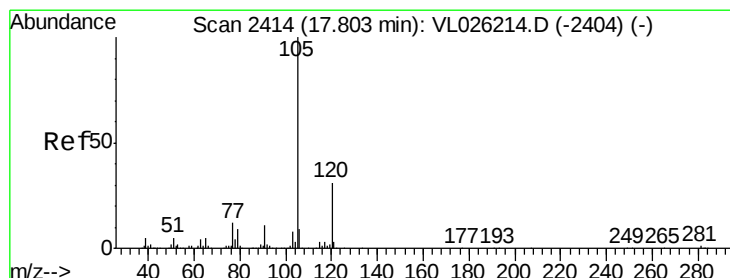
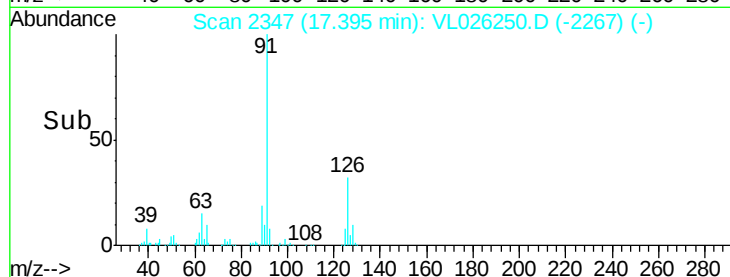


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V



Time-->



#72

4-Ethyltoluene

Concen: 10.12 ppbv

RT: 17.79 min Scan# 2411

Delta R.T. -0.02 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Tgt Ion:105 Resp: 2696546

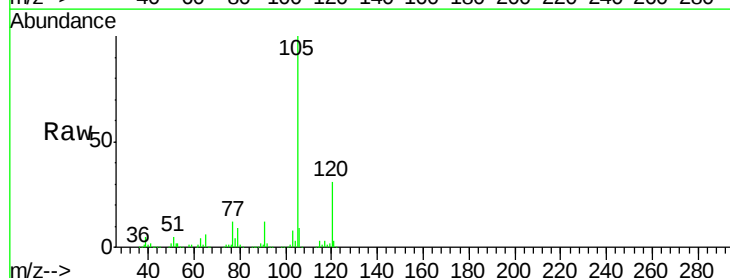
Ion Ratio Lower Upper

105 100

120 31.4 25.2 37.8

91 11.9 9.0 13.6

77 12.1 9.7 14.5

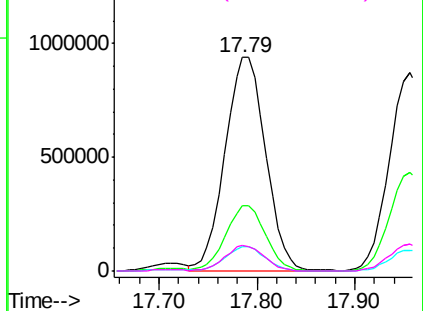


Abundance Ion 105.10 (104.80 to 105.80): V

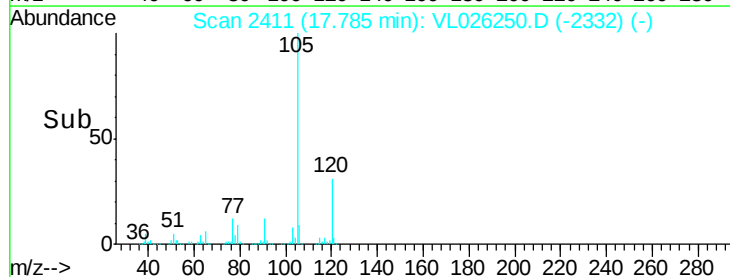
Ion 120.20 (119.90 to 120.90): V

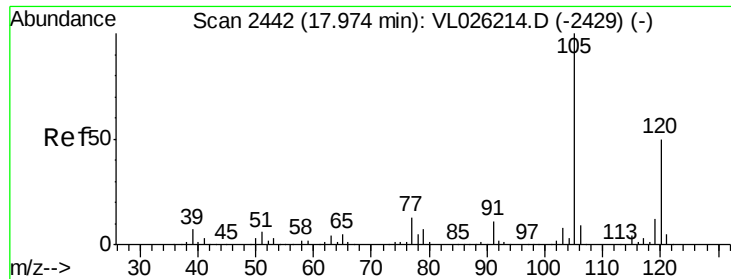
Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



Time-->





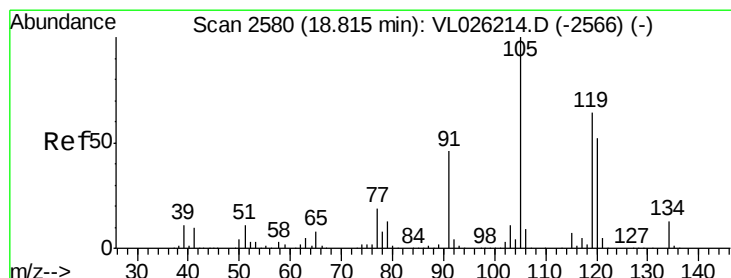
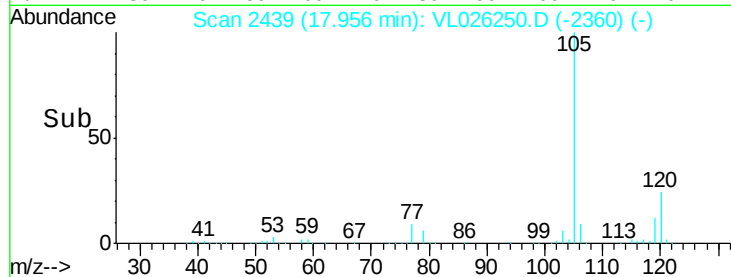
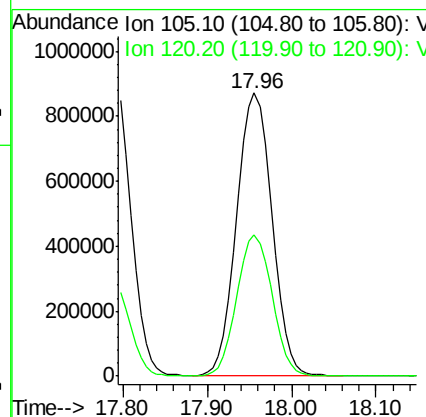
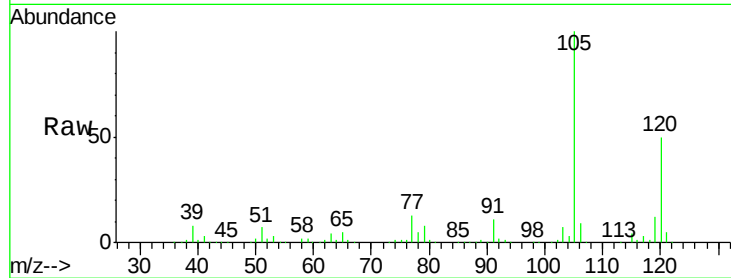
#73  
 1,3,5-Trimethylbenzene  
 Concen: 9.98 ppbv  
 RT: 17.96 min Scan# 2439  
 Delta R.T. -0.02 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

Tot Ion:105 Resp: 2478056  
 Ion Ratio Lower Upper  
 105 100  
 120 49.7 39.8 59.6

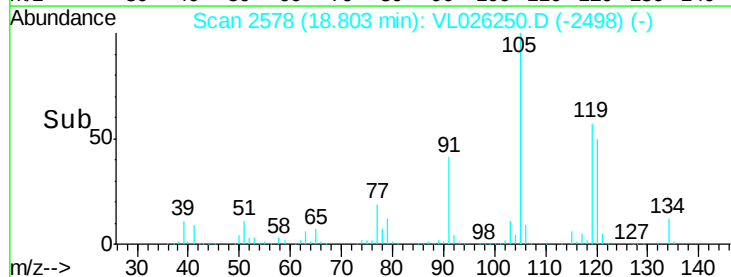
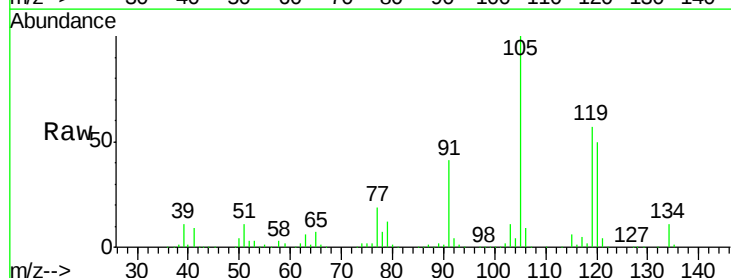
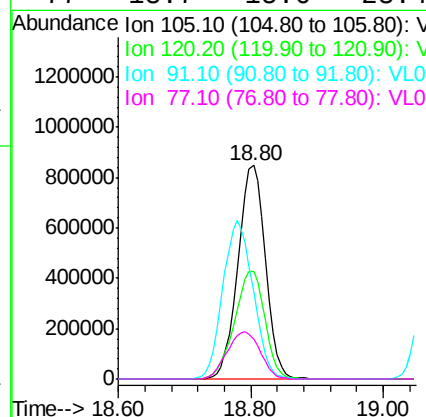
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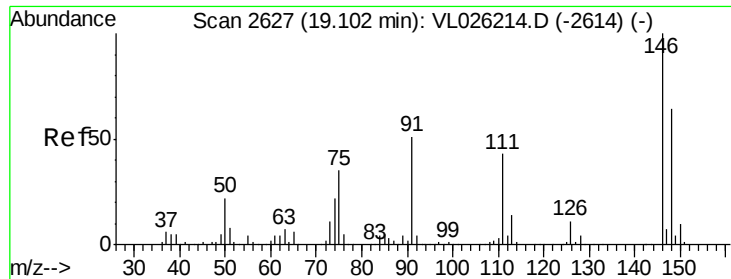
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#74  
 1,2,4-Trimethylbenzene  
 Concen: 9.50 ppbv  
 RT: 18.80 min Scan# 2578  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Tgt Ion:105 Resp: 2447435  
 Ion Ratio Lower Upper  
 105 100  
 120 50.1 41.2 61.8  
 91 41.0 37.2 55.8  
 77 18.7 15.6 23.4





#75

1,3-Dichlorobenzene

Concen: 9.64 ppbv

RT: 19.08 min Scan# 2624

Delta R.T. -0.02 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion:146 Resp: 1621855

Ion Ratio Lower Upper

146 100

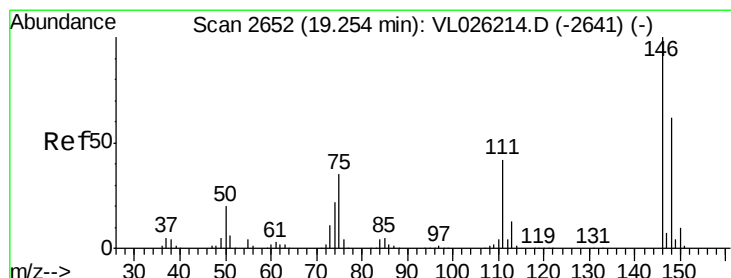
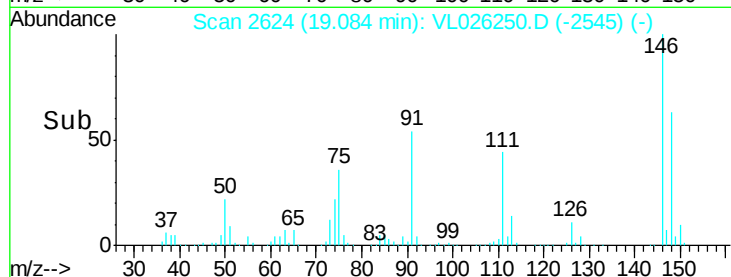
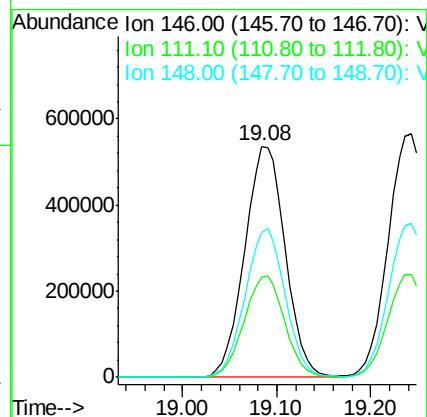
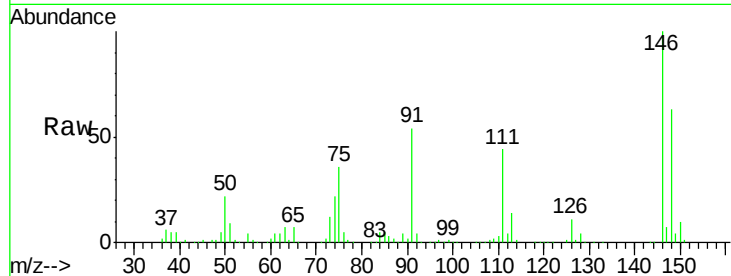
111 43.8 21.6 64.8

148 63.3 31.8 95.4

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#76

1,4-Dichlorobenzene

Concen: 9.69 ppbv

RT: 19.24 min Scan# 2650

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

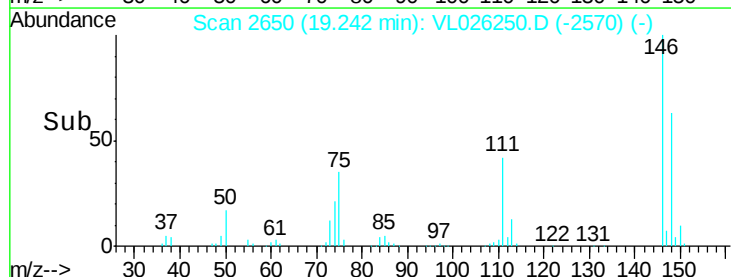
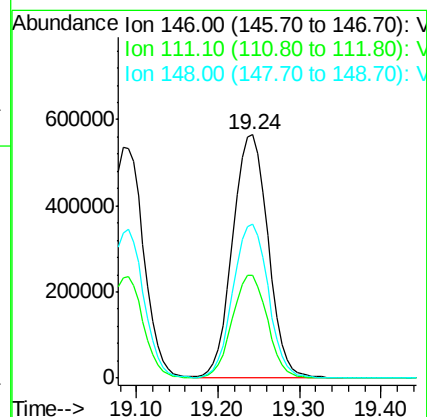
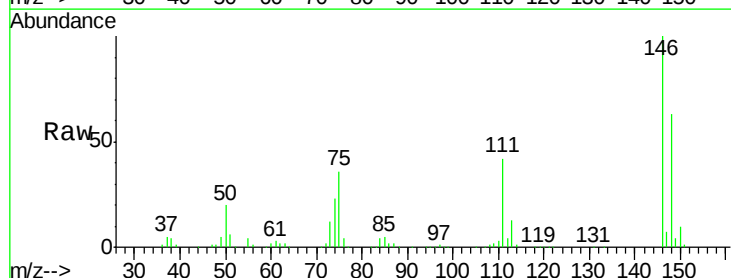
Tgt Ion:146 Resp: 1703154

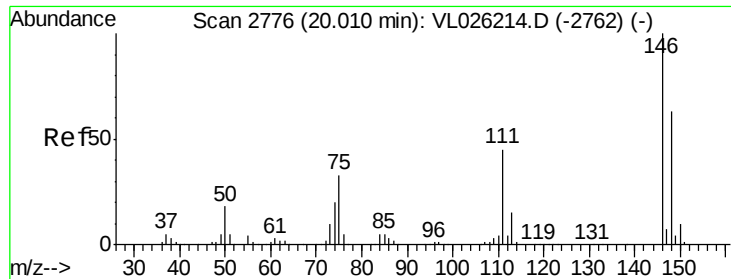
Ion Ratio Lower Upper

146 100

111 42.1 20.8 62.2

148 63.4 31.9 95.9





#77

1,2-Dichlorobenzene

Concen: 9.71 ppbv

RT: 19.99 min Scan# 2773

Delta R.T. -0.02 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

Instrument :

MSVOA\_L

ClientSampleId :

VL1021ABS02

Tot Ion:146 Resp: 1646846

Ion Ratio Lower Upper

146 100

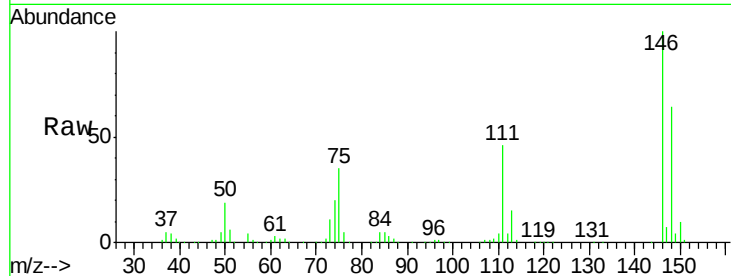
111 45.8 22.6 67.7

148 63.7 31.6 95.0

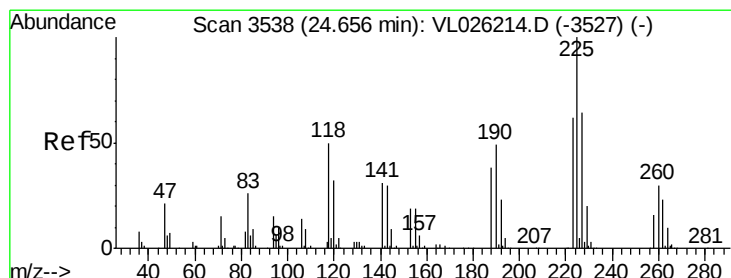
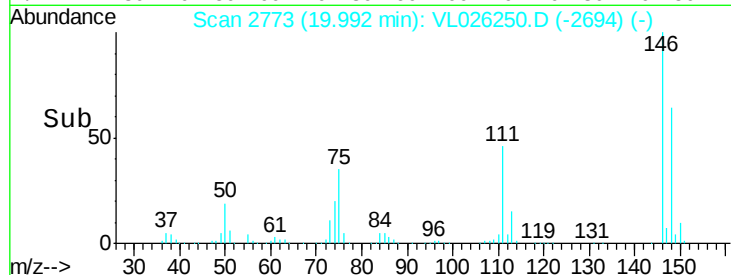
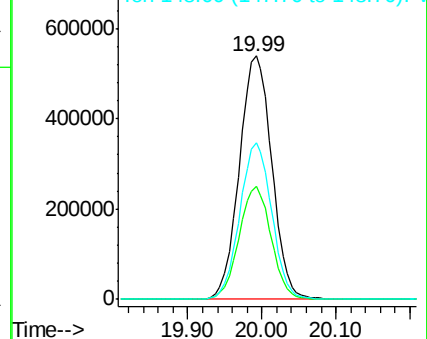
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Abundance Ion 146.00 (145.70 to 146.70): V  
Ion 111.10 (110.80 to 111.80): V  
Ion 148.00 (147.70 to 148.70): V



#78

Hexachloro-1,3-Butadiene

Concen: 7.58 ppbv

RT: 24.64 min Scan# 3536

Delta R.T. -0.01 min

Lab File: VL026250.D

Acq: 21 Oct 2015 23:01

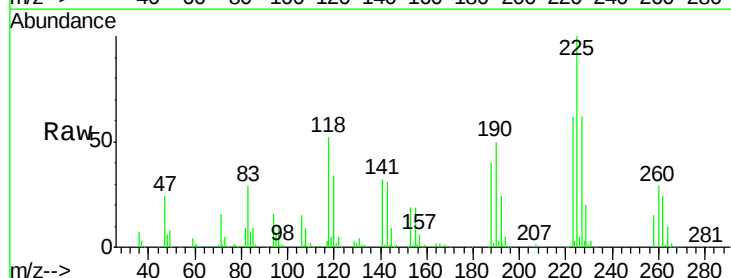
Tgt Ion:225 Resp: 659984

Ion Ratio Lower Upper

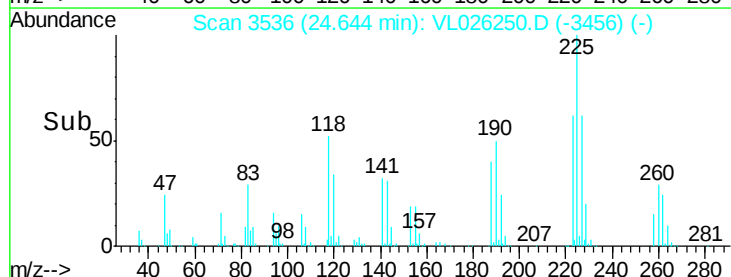
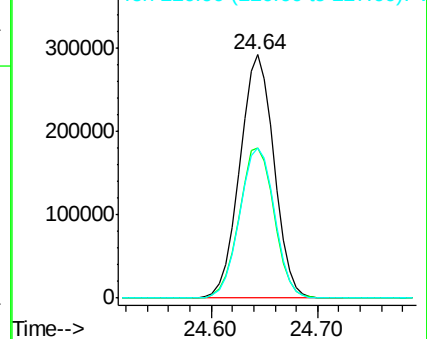
225 100

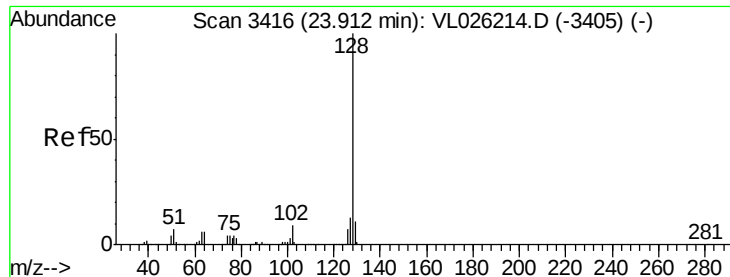
223 63.2 50.2 75.2

227 63.2 50.8 76.2



Abundance Ion 224.90 (224.60 to 225.60): V  
Ion 222.90 (222.60 to 223.60): V  
Ion 226.90 (226.60 to 227.60): V





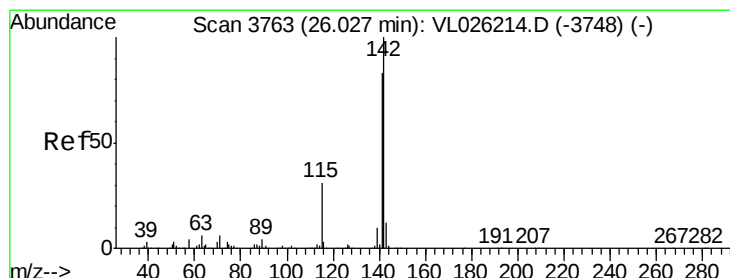
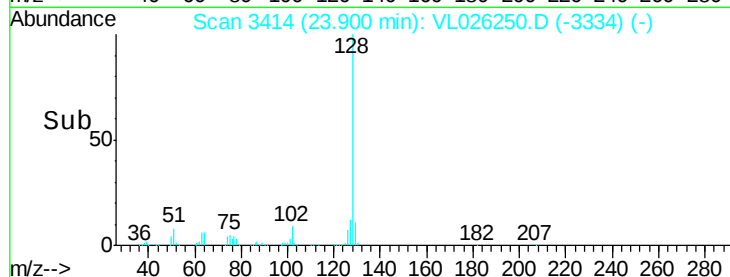
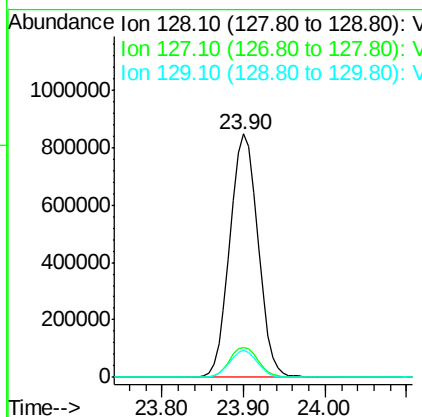
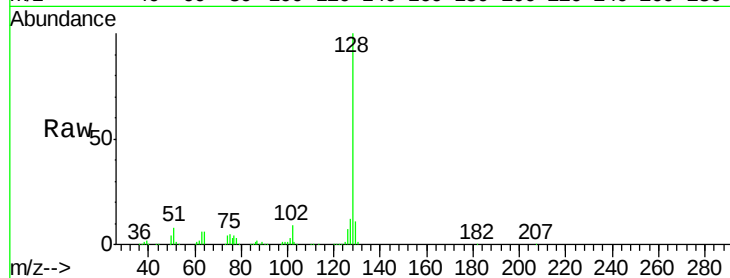
#79  
Naphthalene  
Concen: 8.91 ppbv  
RT: 23.90 min Scan# 3414  
Delta R.T. -0.01 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1021ABS02

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.5  | 10.4  | 15.6  |
| 129     | 11.0  | 8.8   | 13.2  |

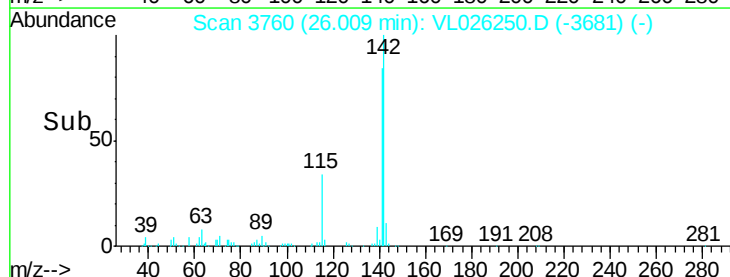
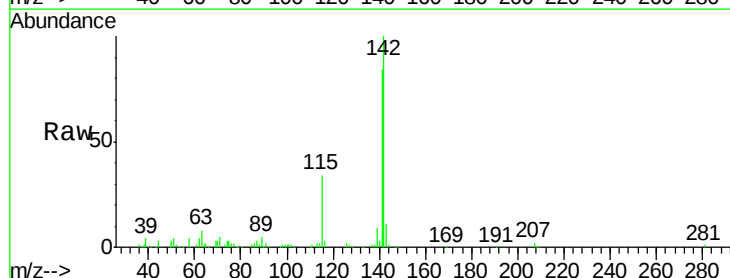
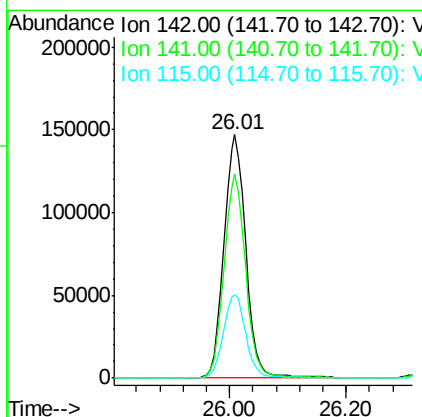
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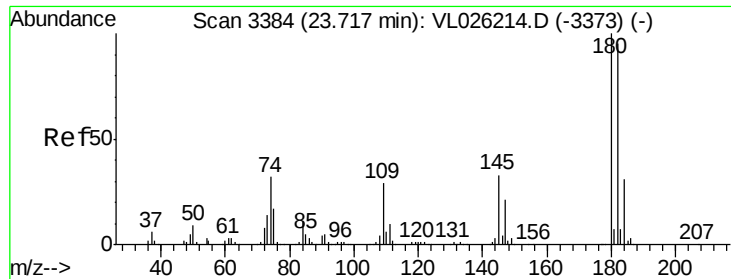
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#80  
Naphthalene, 2-methyl-  
Concen: 9.44 ppbv  
RT: 26.01 min Scan# 3760  
Delta R.T. -0.02 min  
Lab File: VL026250.D  
Acq: 21 Oct 2015 23:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 83.6  | 66.5  | 99.7  |
| 115     | 35.5  | 24.2  | 36.4  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 8.58 ppbv  
 RT: 23.70 min Scan# 3382  
 Delta R.T. -0.01 min  
 Lab File: VL026250.D  
 Acq: 21 Oct 2015 23:01

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1021ABS02

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 180     | 100   | 937480 |       |       |
| 182     | 95.7  | 76.7   | 115.1 |       |
| 184     | 30.1  | 24.2   | 36.2  |       |

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