

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051419\  
 Data File : VL033688.D  
 Acq On : 14 May 2019 12:57  
 Operator : SY/AP  
 Sample : VL0514ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VL0514ABS01

Manual Integrations  
 APPROVED

MMDadoda  
 5/16/2019 5:41:02 AM

Quant Time: May 15 02:46:04 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon May 0  
 QLast Update : Mon May 06 15:19:01 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 923445   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2269961  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 2437252  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 1856420  | 9.29     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 92.90% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units | Ovalue |
|--------------------------------|------|------|----------|--------|-------|--------|
| 2) Dichlorodifluoromethane     | 3.07 | 85   | 1479802  | 6.832  | ppbv  | 98     |
| 3) Chlorodifluoromethane       | 3.01 | 51   | 1128373  | 8.461  | ppbv  | 100    |
| 4) Chloromethane               | 3.17 | 50   | 599546   | 8.647  | ppbv  | 99     |
| 5) Vinyl Chloride              | 3.29 | 62   | 595531   | 8.835  | ppbv  | 97     |
| 6) Bromomethane                | 3.51 | 94   | 395565   | 9.237  | ppbv  | 96     |
| 7) Chloroethane                | 3.60 | 64   | 226461   | 9.254  | ppbv  | 100    |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85   | 1504959  | 8.442  | ppbv  | 99     |
| 9) Propene                     | 3.03 | 41   | 471532   | 9.275  | ppbv  | 100    |
| 10) Heptane                    | 8.25 | 43   | 1264506  | 10.078 | ppbv  | 99     |
| 11) Trichlorofluoromethane     | 4.00 | 101  | 1699585  | 8.404  | ppbv  | 98     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101  | 1243387  | 9.145  | ppbv  | 99     |
| 13) Ethanol                    | 3.64 | 45   | 136395   | 8.938  | ppbv  | 100    |
| 14) Bromoethene                | 3.79 | 108  | 482302   | 8.999  | ppbv  | 100    |
| 15) Acetone                    | 3.90 | 43   | 1088990  | 7.927  | ppbv  | 98     |
| 16) 1,3-Butadiene              | 3.36 | 39   | 520568   | 8.835  | ppbv  | 95     |
| 17) tert-Butyl alcohol         | 4.35 | 59   | 1056835  | 10.128 | ppbv  | 100    |
| 18) 1,1-Dichloroethene         | 4.35 | 96   | 531708   | 9.058  | ppbv  | 97     |
| 19) Isopropyl Alcohol          | 4.02 | 45   | 844423   | 10.005 | ppbv  | 99     |
| 20) Methylene Chloride         | 4.41 | 84   | 450647   | 8.639  | ppbv  | 99     |
| 21) Allyl Chloride             | 4.48 | 41   | 801537   | 9.639  | ppbv  | 100    |
| 22) trans-1,2-Dichloroethene   | 4.96 | 96   | 569068   | 9.657  | ppbv  | 97     |
| 23) Vinyl Acetate              | 5.15 | 43   | 1835104  | 10.280 | ppbv  | 100    |
| 24) 1,1-Dichloroethane         | 5.09 | 63   | 1248220  | 9.244  | ppbv  | 99     |
| 25) Ethyl Acetate              | 5.77 | 43   | 2196143  | 9.826  | ppbv  | 100    |
| 26) Hexane                     | 5.78 | 57   | 963956   | 10.033 | ppbv  | 99     |
| 27) Carbon Disulfide           | 4.62 | 76   | 1383082  | 10.525 | ppbv  | 99     |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73   | 1648335  | 10.187 | ppbv  | 100    |
| 29) Chloroform                 | 5.85 | 83   | 1681068  | 9.732  | ppbv  | 99     |
| 30) Cyclohexane                | 7.25 | 84   | 856932   | 10.621 | ppbv  | 100    |
| 31) cis-1,2-Dichloroethene     | 5.64 | 61   | 1004751  | 10.512 | ppbv  | 99     |
| 32) 1,1,1-Trichloroethane      | 6.62 | 97   | 1711069  | 9.592  | ppbv  | 99     |
| 34) 2-Butanone                 | 5.33 | 43   | 1454724  | 10.008 | ppbv  | 99     |
| 35) Carbon Tetrachloride       | 7.13 | 117  | 1850107  | 9.917  | ppbv  | 99     |
| 36) Benzene                    | 7.00 | 78   | 2096692  | 10.301 | ppbv  | 98     |
| 37) 1,2-Dichloroethane         | 6.41 | 62   | 1269579  | 8.939  | ppbv  | 100    |
| 38) Trichloroethene            | 7.96 | 130  | 823128   | 11.024 | ppbv  | 97     |
| 39) 1,2-Dichloropropane        | 7.73 | 63   | 764917   | 10.083 | ppbv  | 97     |
| 40) 1,4-Dioxane                | 7.95 | 88   | 306552   | 10.111 | ppbv  | 94     |
| 41) Tetrahydrofuran            | 6.14 | 42   | 813570   | 10.831 | ppbv  | 99     |
| 42) Bromodichloromethane       | 7.92 | 83   | 1792664  | 9.776  | ppbv  | 99     |
| 43) Methyl Methacrylate        | 8.13 | 69   | 830288   | 10.844 | ppbv  | 99     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051419\  
 Data File : VL033688.D  
 Acq On : 14 May 2019 12:57  
 Operator : SY/AP  
 Sample : VL0514ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

Manual Integrations  
 APPROVED

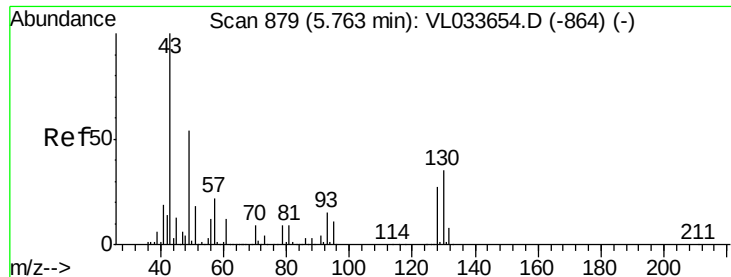
MMDadoda  
 5/16/2019 5:41:02 AM

Quant Time: May 15 02:46:04 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon May 0  
 QLast Update : Mon May 06 15:19:01 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.99  | 57   | 3392889  | 9.749  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.42  | 75   | 1155760  | 12.299 | ppbv   | 97       |
| 46) cis-1,3-Dichloropropene   | 8.83  | 75   | 1273758  | 10.861 | ppbv   | 95       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 846482   | 9.716  | ppbv   | 99       |
| 48) Dibromochloromethane      | 10.45 | 129  | 1586793  | 10.745 | ppbv   | 99       |
| 49) Bromoform                 | 13.20 | 173  | 1417721  | 11.052 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.87  | 43   | 2203914  | 10.013 | ppbv   | 100      |
| 51) 2-Hexanone                | 10.27 | 43   | 1806224  | 10.592 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.37 | 164  | 794638   | 11.019 | ppbv   | 98       |
| 53) Toluene                   | 9.95  | 91   | 2394790  | 10.889 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.76 | 107  | 1390594  | 10.597 | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.28 | 131  | 1065396  | 9.477  | ppbv   | 100      |
| 57) Chlorobenzene             | 12.30 | 112  | 1886309  | 9.426  | ppbv   | 99       |
| 58) Ethyl Benzene             | 12.86 | 91   | 3356794  | 10.561 | ppbv   | 99       |
| 59) m/p-Xylene                | 13.15 | 91   | 5620523m | 20.077 | ppbv   |          |
| 60) o-Xylene                  | 13.85 | 91   | 2789907  | 9.847  | ppbv   | 99       |
| 61) Styrene                   | 13.68 | 104  | 2107166  | 11.169 | ppbv   | 100      |
| 62) Isopropylbenzene          | 14.82 | 105  | 3807190  | 9.842  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.83 | 83   | 1931367  | 9.367  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.72 | 120  | 984878   | 9.852  | ppbv   | 99       |
| 65) tert-Butylbenzene         | 16.91 | 119  | 3497817  | 9.857  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.15 | 91   | 2033538  | 12.597 | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.46 | 105  | 4889802  | 9.877  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.82 | 119  | 4102442  | 10.057 | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.71 | 91   | 4268272  | 9.867  | ppbv   | 100      |
| 71) 2-Chlorotoluene           | 15.62 | 91   | 2910445  | 10.183 | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 16.00 | 105  | 3344257  | 10.042 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.15 | 105  | 3171554  | 9.850  | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 16.93 | 105  | 3333852  | 9.315  | ppbv   | 99       |
| 75) 1,3-Dichlorobenzene       | 17.16 | 146  | 1965703  | 9.093  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.31 | 146  | 1948555  | 9.498  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 17.99 | 146  | 1866550  | 9.320  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.54 | 225  | 1135314  | 7.153  | ppbv   | 99       |
| 79) Naphthalene               | 22.41 | 128  | 2908708  | 8.901  | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.11 | 142  | 1013576  | 8.205  | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.13 | 180  | 1601671  | 8.437  | ppbv   | 99       |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

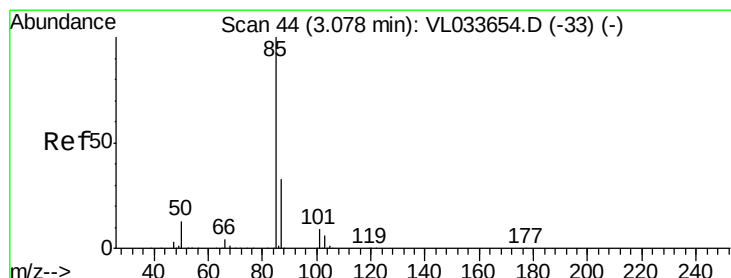
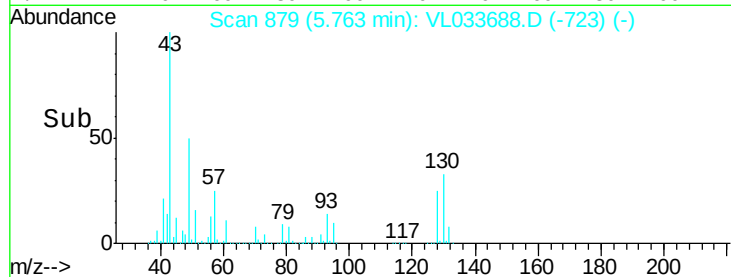
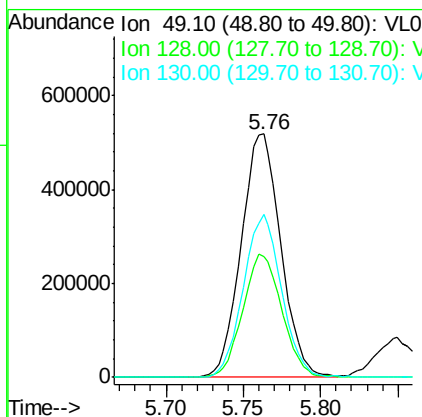
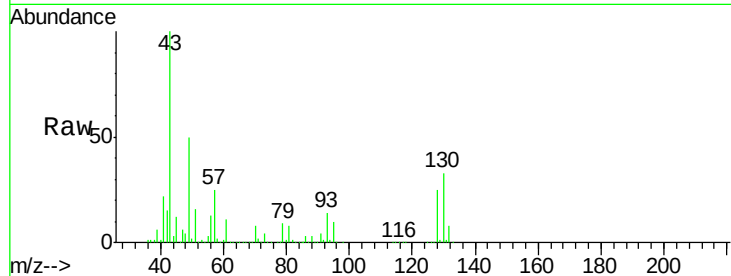
ClientSampleId :

VL0514ABS01

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 49    | Resp: | 923445 |
| Ion      | Ratio | Lower | Upper  |
| 49       | 100   |       |        |
| 128      | 50.2  | 24.8  | 74.3   |
| 130      | 64.8  | 32.1  | 96.5   |

Manual Integrations  
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#2

Dichlorodifluoromethane

Concen: 6.832 ppbv

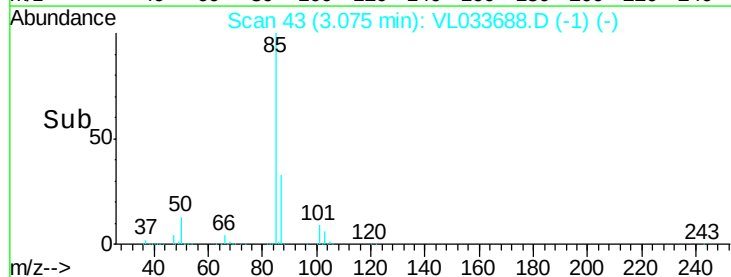
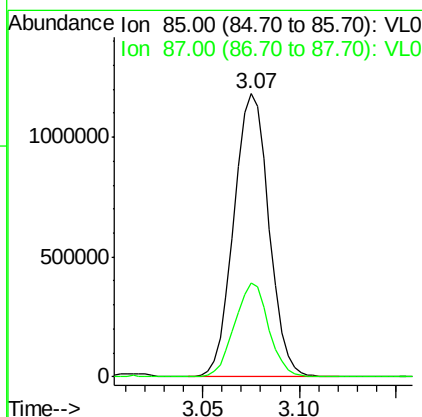
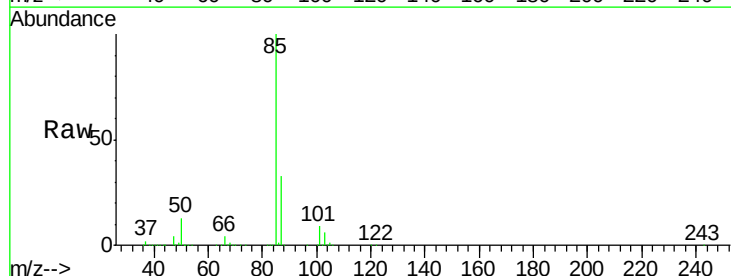
RT: 3.07 min Scan# 43

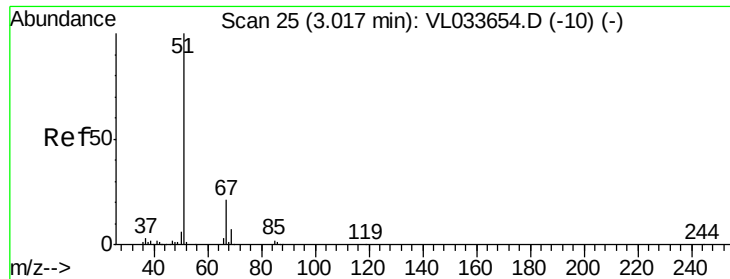
Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 85    | Resp: | 1479802 |
| Ion      | Ratio | Lower | Upper   |
| 85       | 100   |       |         |
| 87       | 33.4  | 26.0  | 39.0    |





#3

Chlorodifluoromethane

Concen: 8.461 ppbv

RT: 3.01 min Scan# 23

Delta R.T. -0.01 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Tot Ion: 51 Resp: 1128373

Ion Ratio Lower Upper

51 100

67 19.6 15.7 23.5

Instrument :

MSVOA\_L

ClientSampleId :

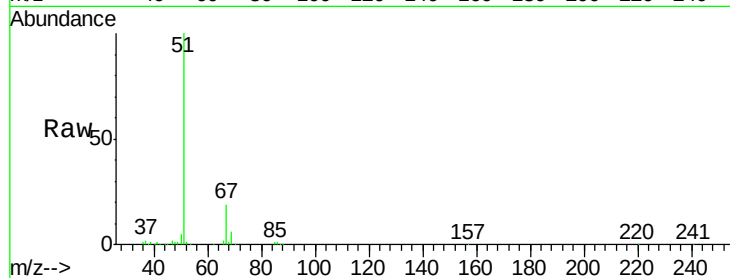
VL0514ABS01

Manual Integrations

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5/16/2019 5:41:02 AM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

3.01

800000

600000

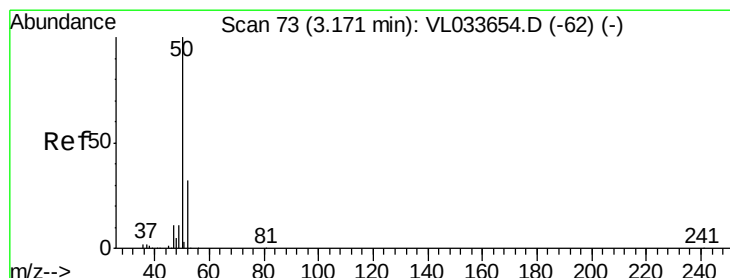
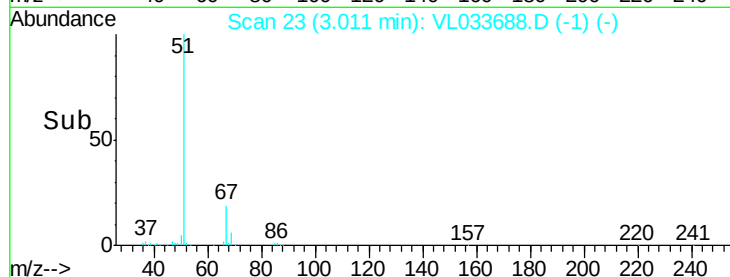
400000

200000

0

2.95 3.00 3.05

Time-->



#4

Chloromethane

Concen: 8.647 ppbv

RT: 3.17 min Scan# 73

Delta R.T. 0.00 min

Lab File: VL033688.D

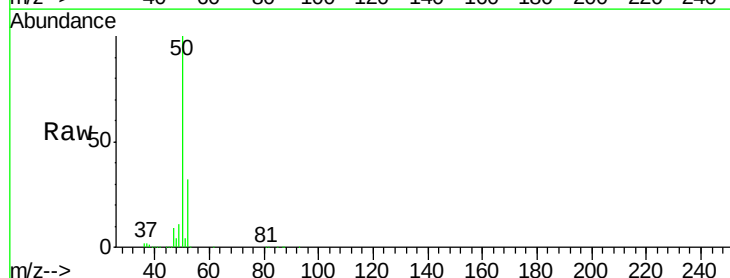
Acq: 14 May 2019 12:57

Tgt Ion: 50 Resp: 599546

Ion Ratio Lower Upper

50 100

52 31.5 25.8 38.8



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3.17

500000

400000

300000

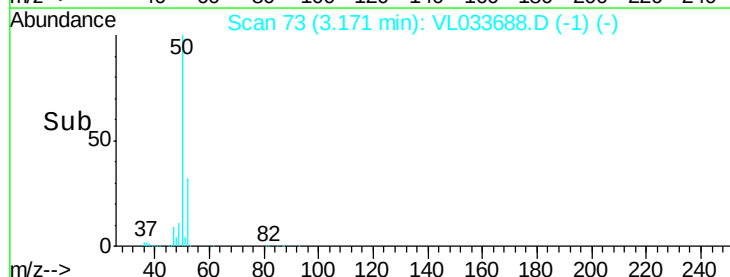
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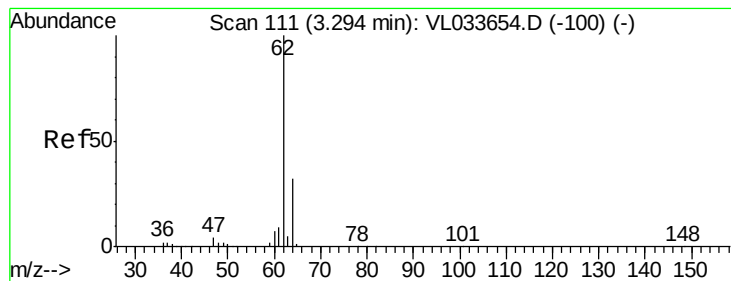
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0

3.10 3.15 3.20

Time-->





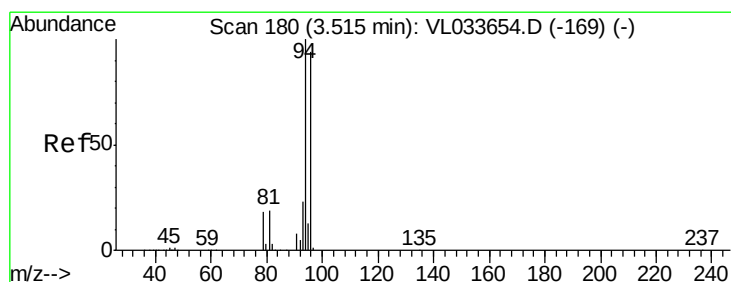
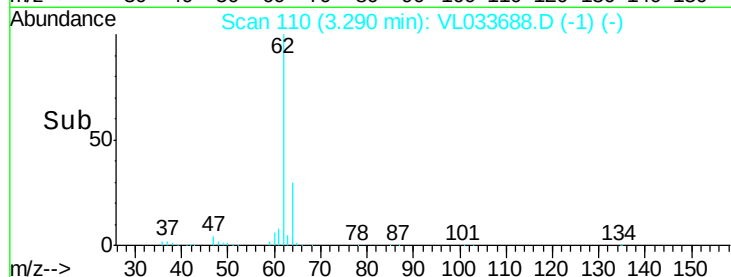
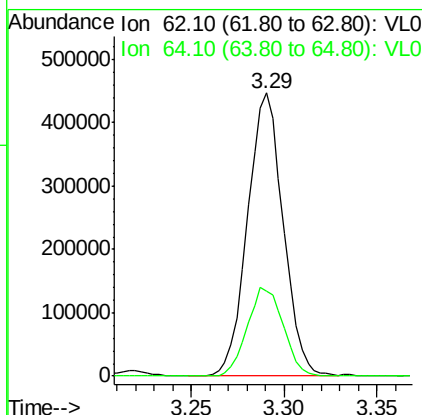
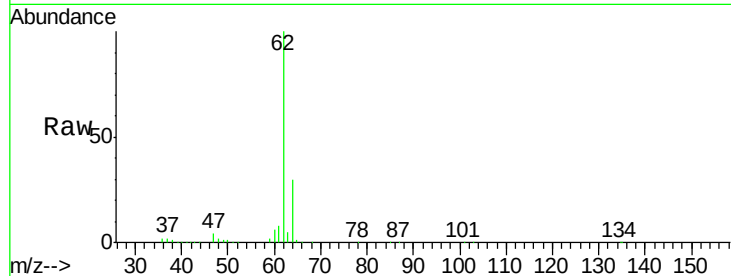
#5  
 Vinyl Chloride  
 Concen: 8.835 ppbv  
 RT: 3.29 min Scan# 110  
 Delta R.T. -0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 64      | 30.2  | 25.6  | 38.4  |

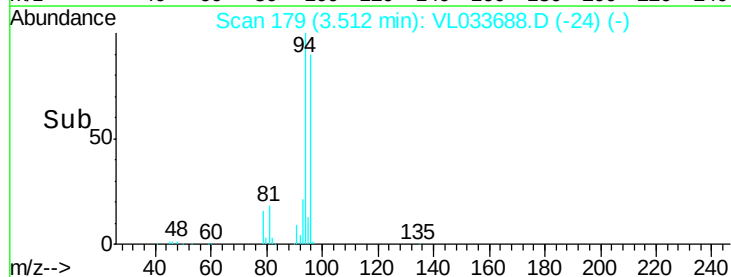
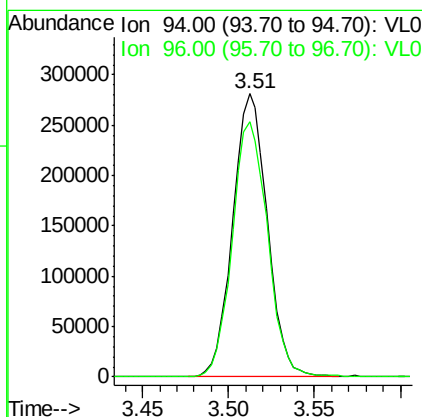
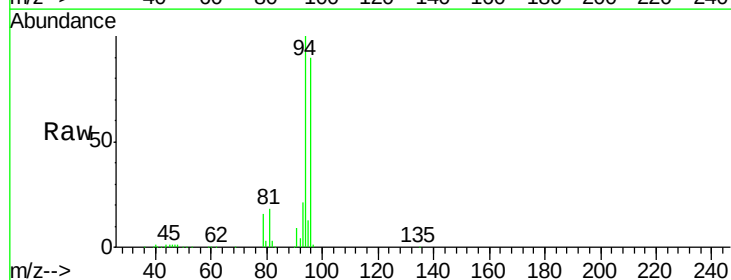
Manual Integrations  
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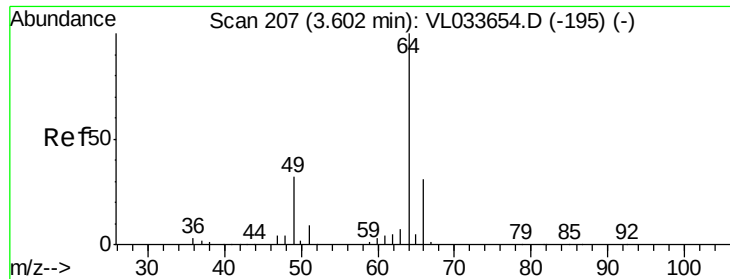
MMDadoda  
 5/16/2019 5:41:02 AM



#6  
 Bromomethane  
 Concen: 9.237 ppbv  
 RT: 3.51 min Scan# 179  
 Delta R.T. -0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 94      | 100   |       |       |
| 96      | 90.2  | 75.2  | 112.8 |





#7

Chloroethane

Concen: 9.254 ppbv

RT: 3.60 min Scan# 206

Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion: 64 Resp: 226461

Ion Ratio Lower Upper

64 100

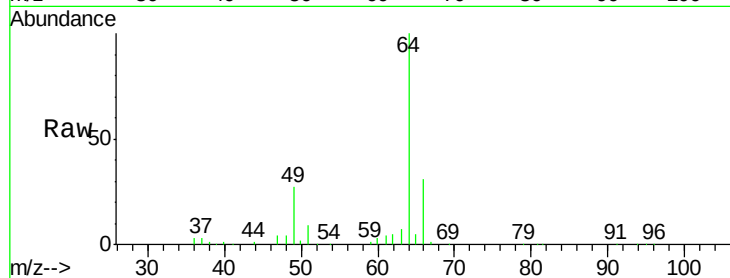
66 31.2 25.1 37.7

Manual Integrations

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5/16/2019 5:41:02 AM



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0

3.60

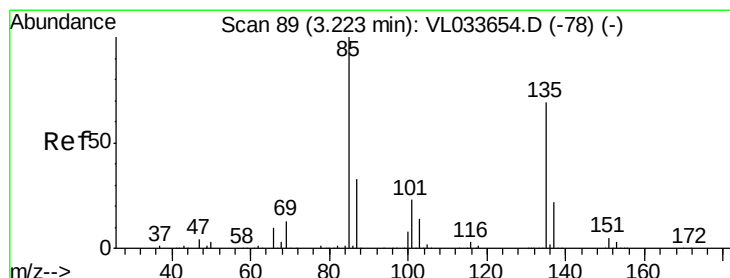
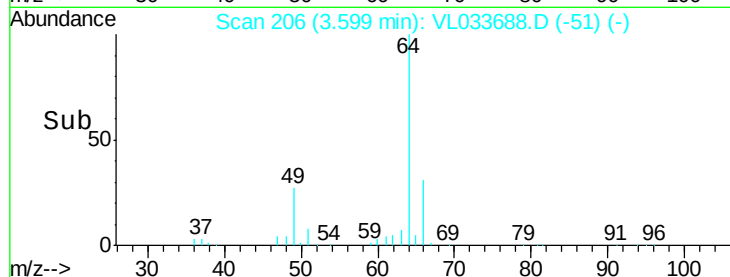
150000

100000

50000

0

Time-->



#8

Dichlorotetrafluoroethane

Concen: 8.442 ppbv

RT: 3.22 min Scan# 88

Delta R.T. -0.00 min

Lab File: VL033688.D

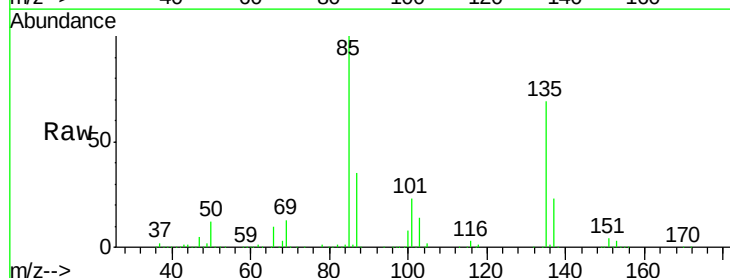
Acq: 14 May 2019 12:57

Tgt Ion: 85 Resp: 1504959

Ion Ratio Lower Upper

85 100

135 68.4 54.3 81.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V

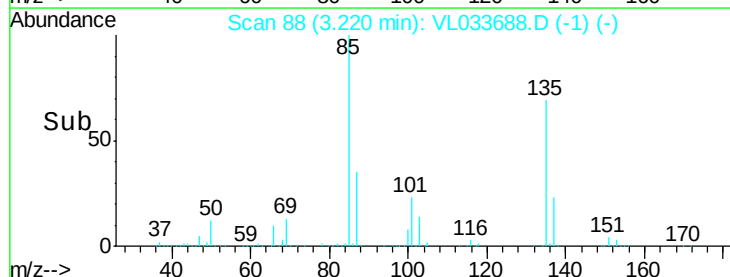
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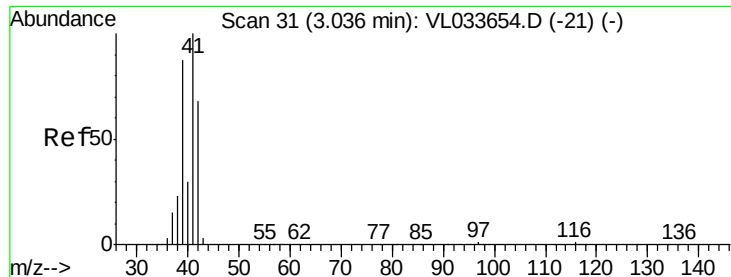
500000

0

Time-->







#9

Propene

Concen: 9.275 ppbv

RT: 3.03 min Scan# 30

Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion: 41 Resp: 471532

Ion Ratio Lower Upper

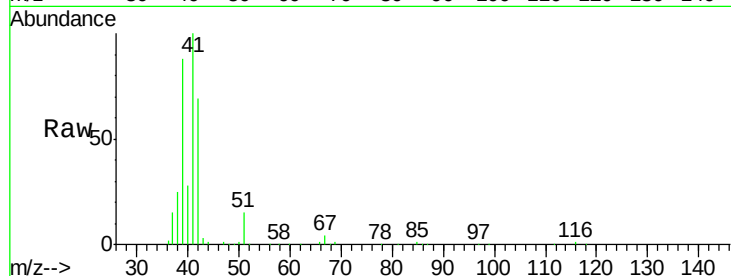
41 100

42 69.3 55.6 83.4

Manual Integrations  
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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

3.03

400000

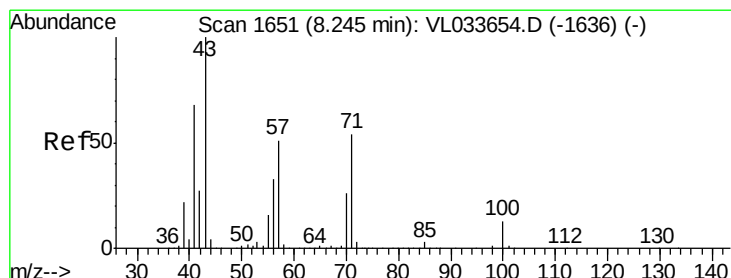
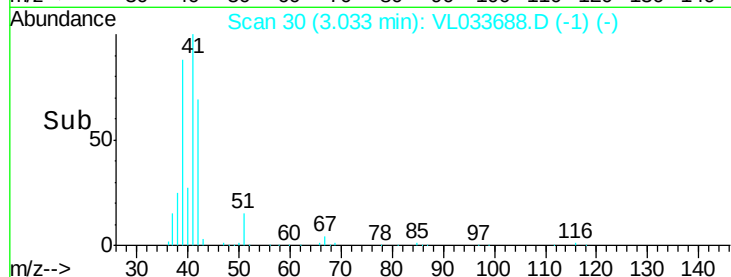
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200000

100000

0

Time-->



#10

Heptane

Concen: 10.078 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. 0.00 min

Lab File: VL033688.D

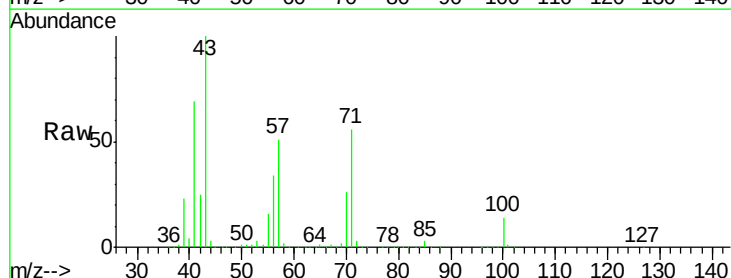
Acq: 14 May 2019 12:57

Tgt Ion: 43 Resp: 1264506

Ion Ratio Lower Upper

43 100

57 51.8 41.8 62.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

8.25

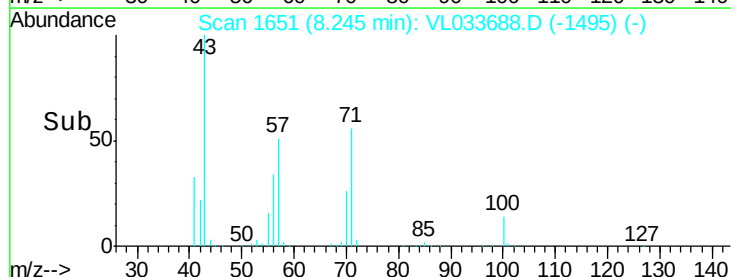
600000

400000

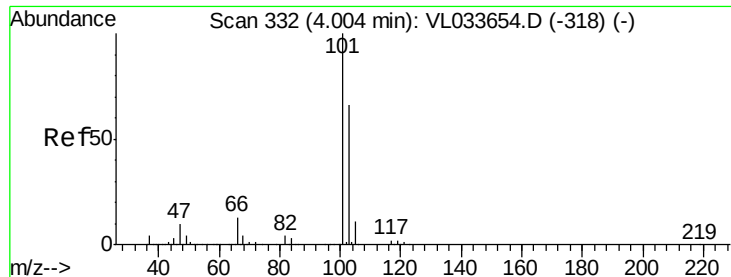
200000

0

Time-->







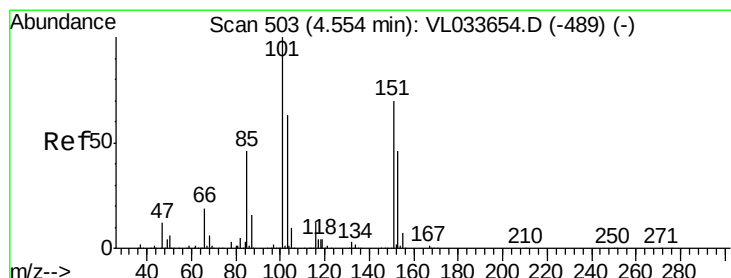
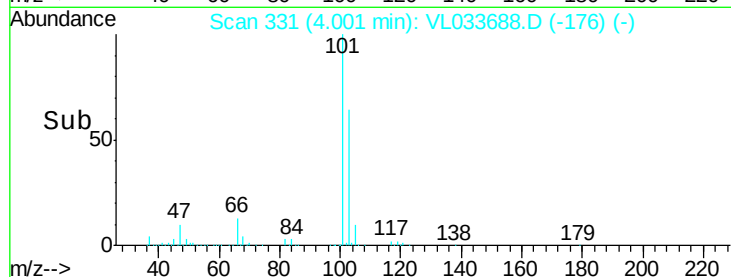
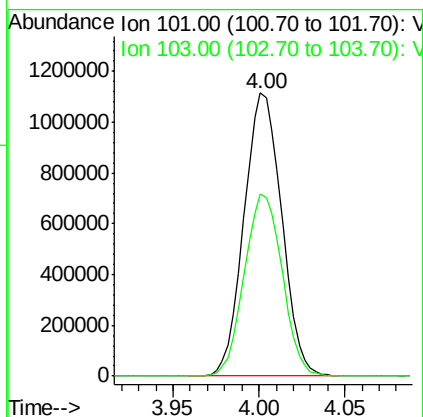
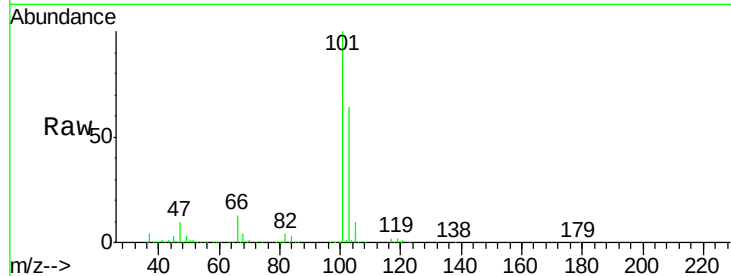
#11  
 Trichlorofluoromethane  
 Concen: 8.404 ppbv  
 RT: 4.00 min Scan# 331  
 Delta R.T. -0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

Tot Ion:101 Resp: 1699585  
 Ion Ratio Lower Upper  
 101 100  
 103 64.3 52.7 79.1

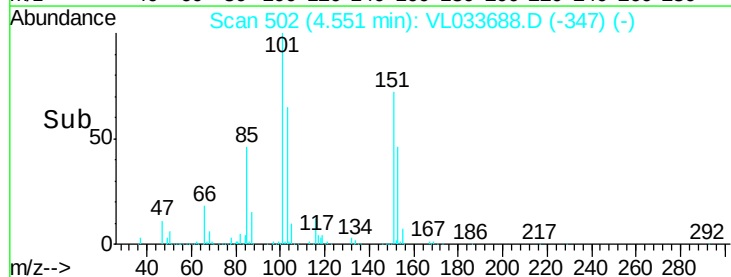
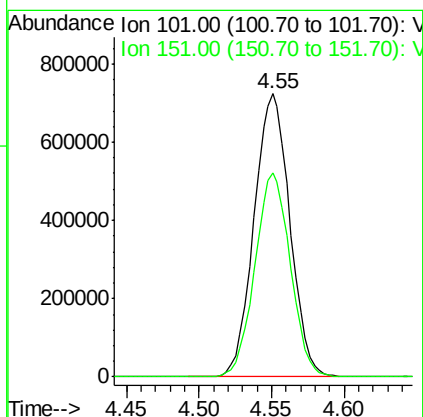
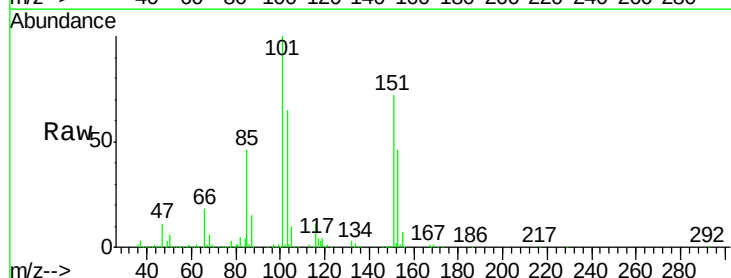
Manual Integrations  
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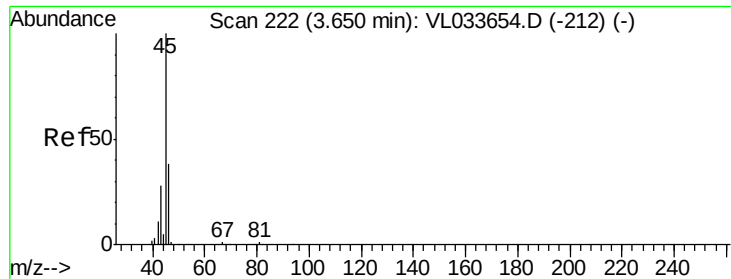
MMDadoda  
 5/16/2019 5:41:02 AM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 9.145 ppbv  
 RT: 4.55 min Scan# 502  
 Delta R.T. -0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Tgt Ion:101 Resp: 1243387  
 Ion Ratio Lower Upper  
 101 100  
 151 71.3 58.0 87.0





#13

Ethanol

Concen: 8.938 ppbv

RT: 3.64 min Scan# 220

Delta R.T. -0.01 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion: 45 Resp: 136395

Ion Ratio Lower Upper

45 100

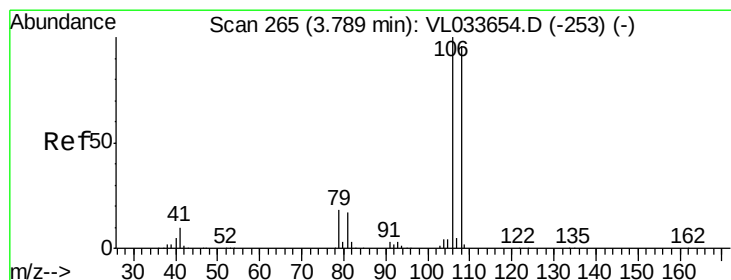
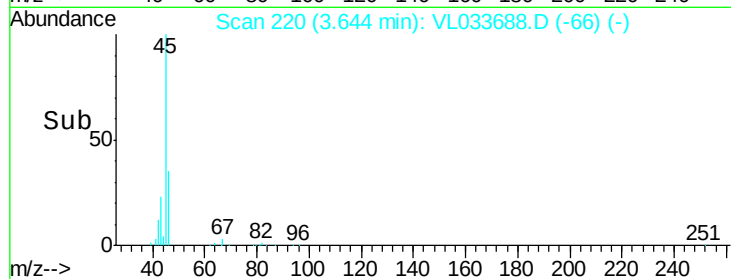
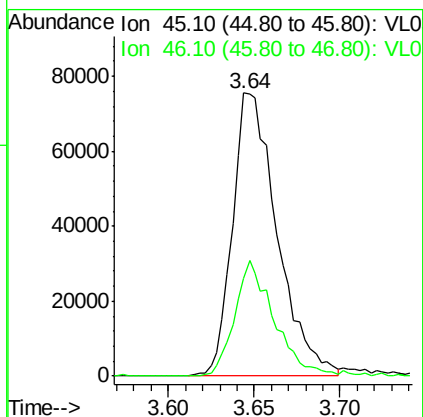
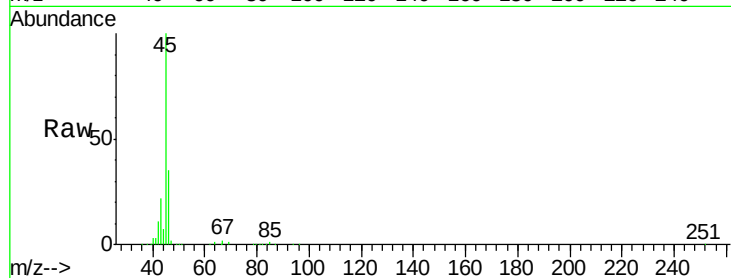
46 37.1 14.9 59.7

Manual Integrations

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MMDadoda

5/16/2019 5:41:02 AM



#14

Bromoethene

Concen: 8.999 ppbv

RT: 3.79 min Scan# 264

Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

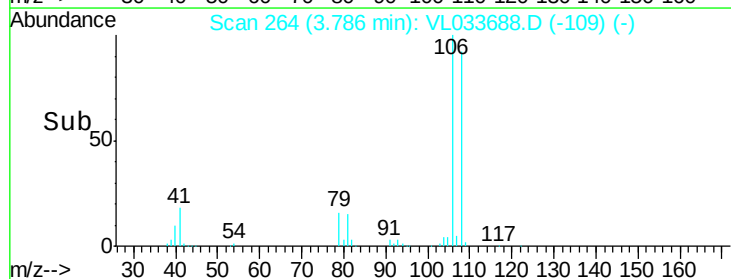
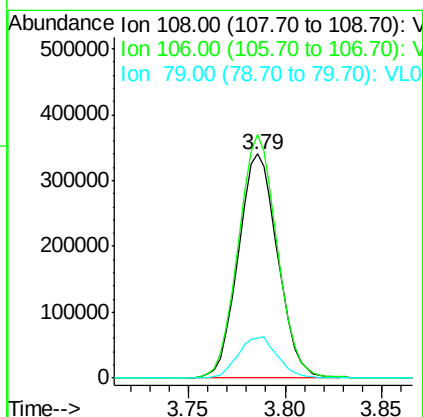
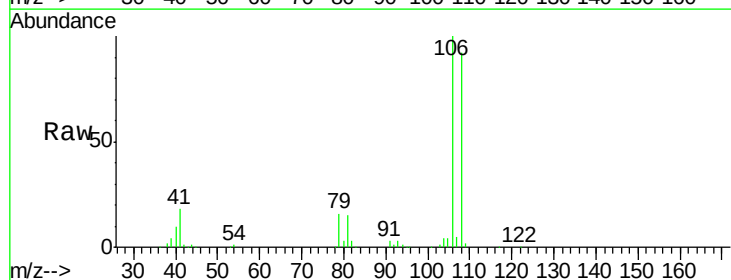
Tgt Ion: 108 Resp: 482302

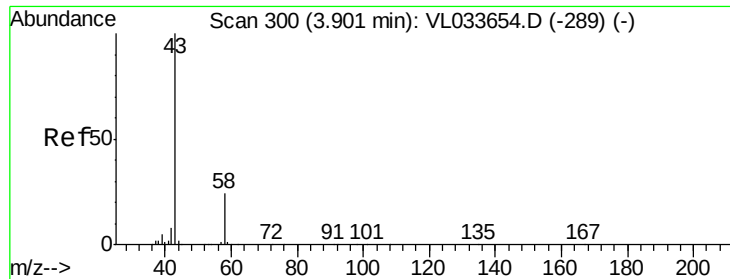
Ion Ratio Lower Upper

108 100

106 107.3 85.7 128.5

79 18.7 15.2 22.8





#15

Acetone

Concen: 7.927 ppbv

RT: 3.90 min Scan# 300

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion: 43 Resp: 1088990

Ion Ratio Lower Upper

43 100

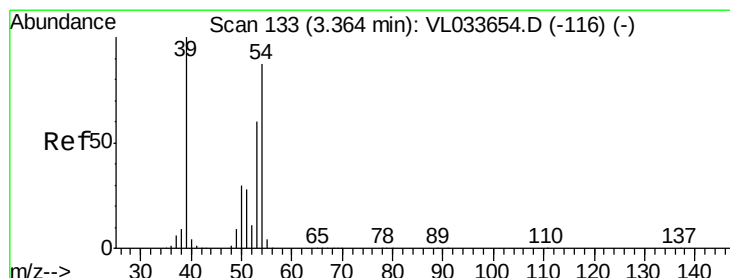
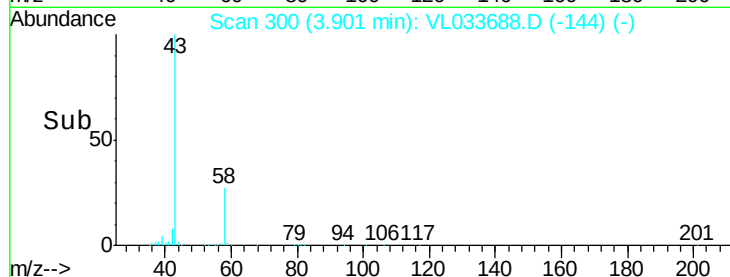
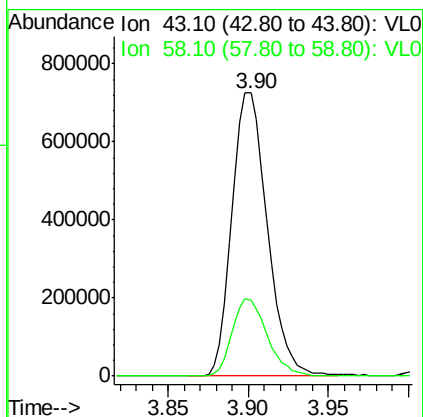
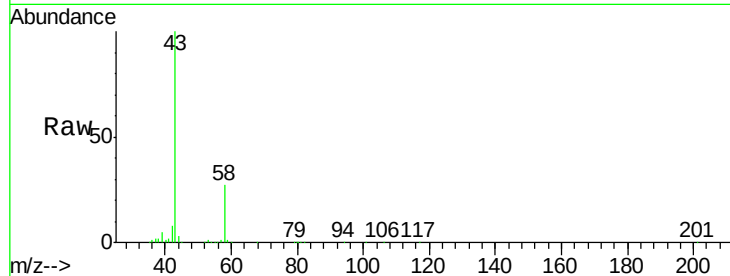
58 27.1 20.9 31.3

Manual Integrations

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#16

1,3-Butadiene

Concen: 8.835 ppbv

RT: 3.36 min Scan# 132

Delta R.T. -0.00 min

Lab File: VL033688.D

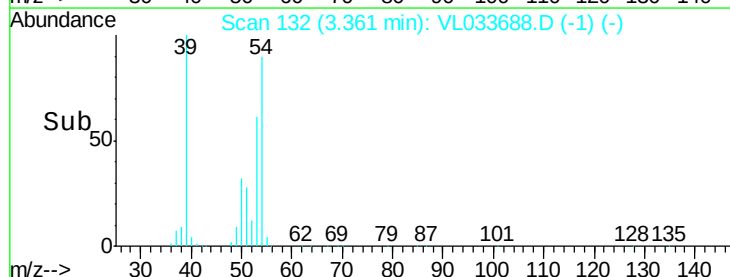
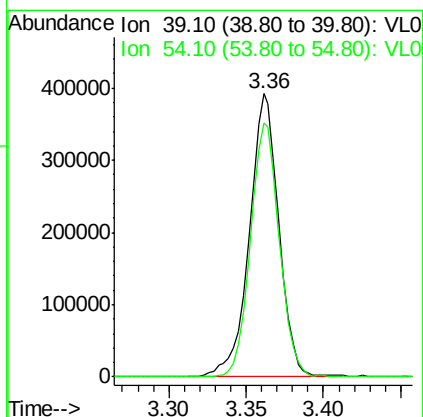
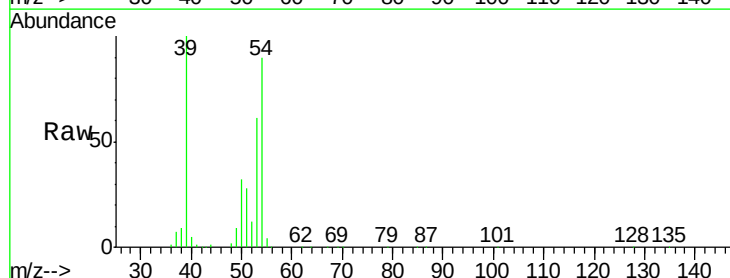
Acq: 14 May 2019 12:57

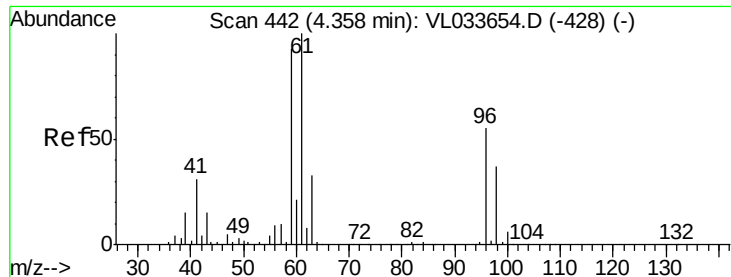
Tgt Ion: 39 Resp: 520568

Ion Ratio Lower Upper

39 100

54 88.0 67.0 100.4





#17

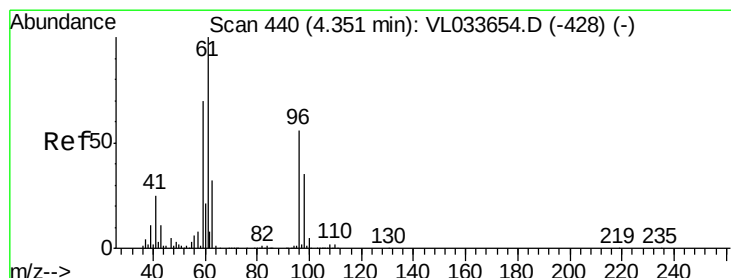
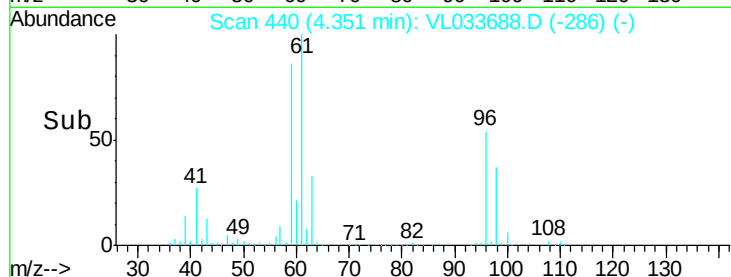
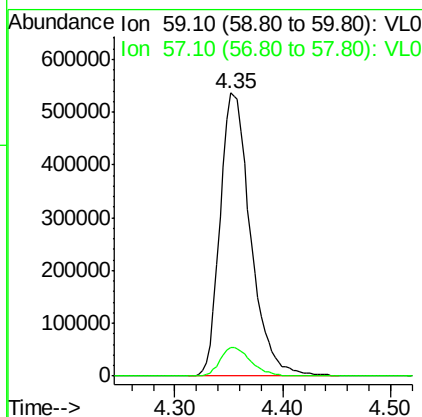
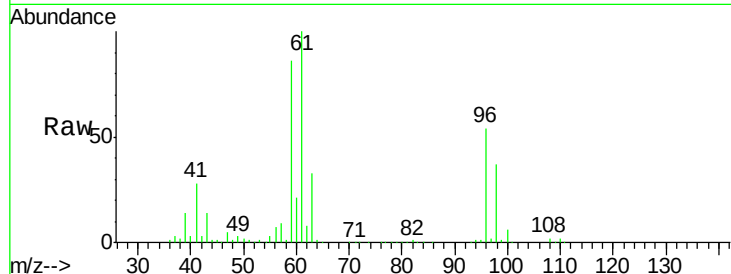
tert-Butyl alcohol  
 Concen: 10.128 ppbv  
 RT: 4.35 min Scan# 440  
 Delta R.T. -0.01 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

Tot Ion: 59 Resp: 1056835  
 Ion Ratio Lower Upper  
 59 100  
 57 10.3 8.4 12.6

Manual Integrations  
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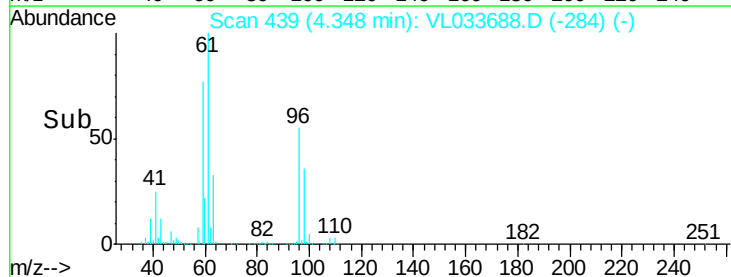
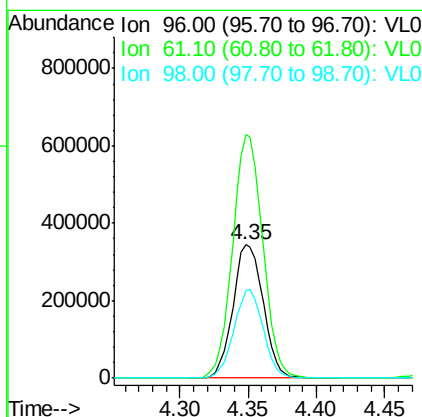
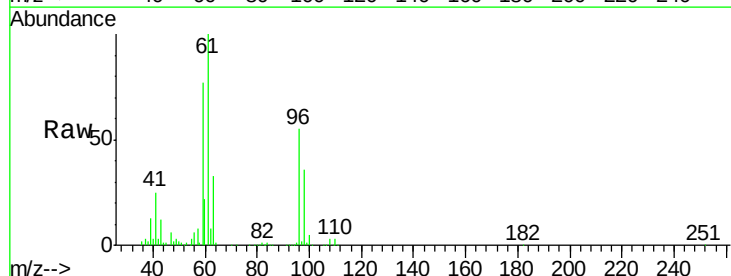
MMDadoda  
 5/16/2019 5:41:02 AM

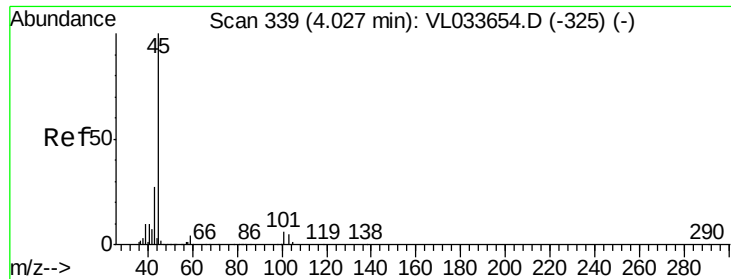


#18

1,1-Dichloroethene  
 Concen: 9.058 ppbv  
 RT: 4.35 min Scan# 439  
 Delta R.T. -0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Tgt Ion: 96 Resp: 531708  
 Ion Ratio Lower Upper  
 96 100  
 61 183.0 143.4 215.0  
 98 65.9 50.4 75.6





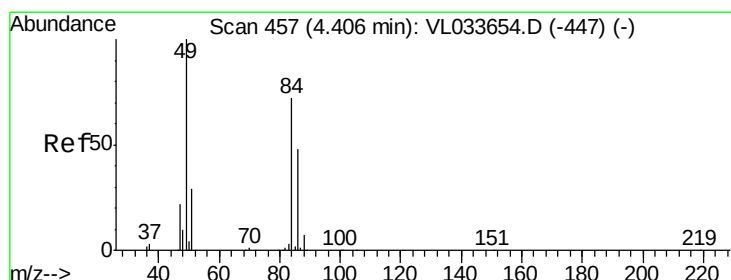
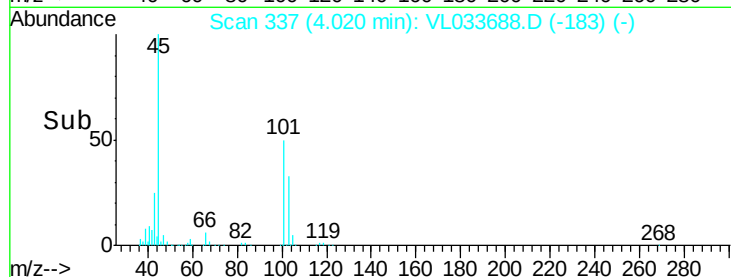
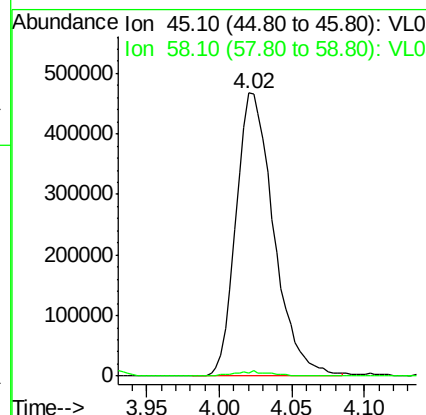
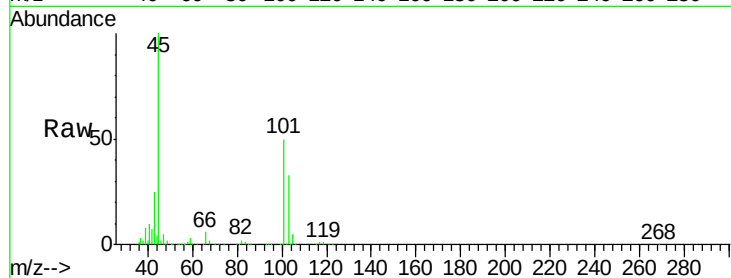
#19  
Isopropyl Alcohol  
Concen: 10.005 ppbv  
RT: 4.02 min Scan# 337  
Delta R.T. -0.01 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0514ABS01

| Tot Ion   | 45  | Resp  | 844423 |
|-----------|-----|-------|--------|
| Ion Ratio | 100 | Lower | Upper  |
| 58        | 2.1 | 2.0   | 3.0    |

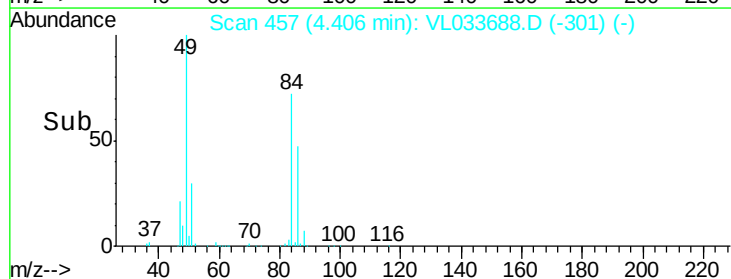
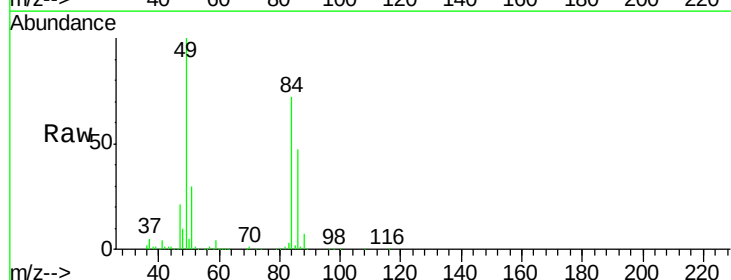
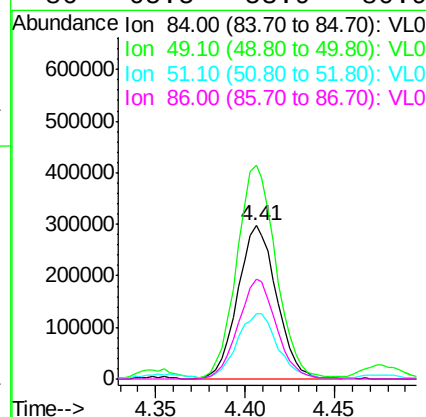
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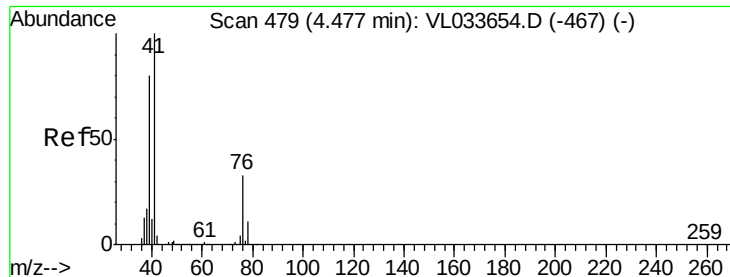
MMDadoda  
5/16/2019 5:41:02 AM



#20  
Methylene Chloride  
Concen: 8.639 ppbv  
RT: 4.41 min Scan# 457  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

| Tgt Ion   | 84    | Resp  | 450647 |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 49        | 138.5 | 111.8 | 167.6  |
| 51        | 41.4  | 32.3  | 48.5   |
| 86        | 65.5  | 53.9  | 80.9   |





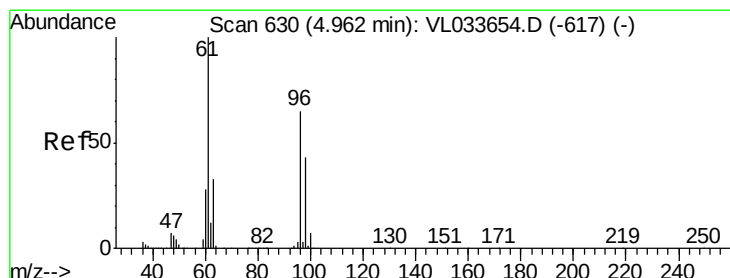
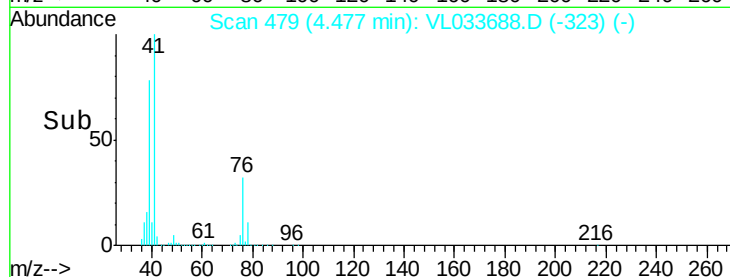
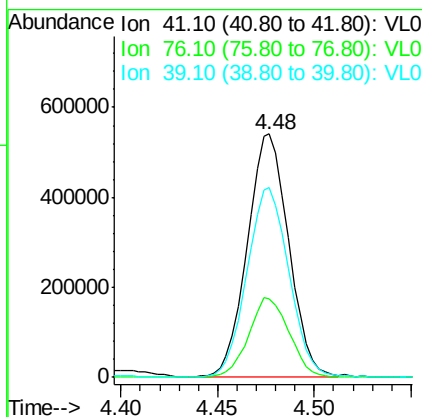
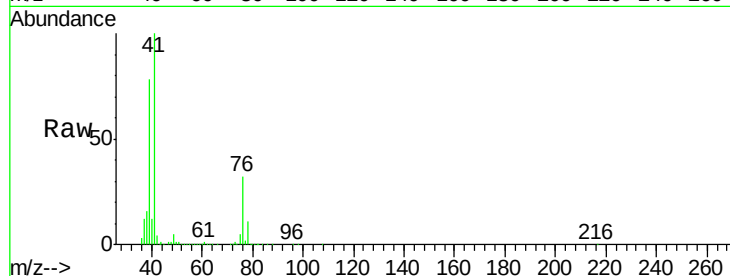
#21  
 Allvl Chloride  
 Concen: 9.639 ppbv  
 RT: 4.48 min Scan# 479  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 41    | Resp: | 801537 |
| Ion Ratio | Lower | Upper |        |
| 41        | 100   |       |        |
| 76        | 32.5  | 26.0  | 39.0   |
| 39        | 80.1  | 64.4  | 96.6   |

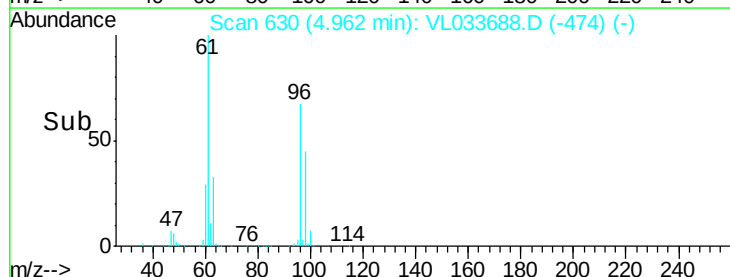
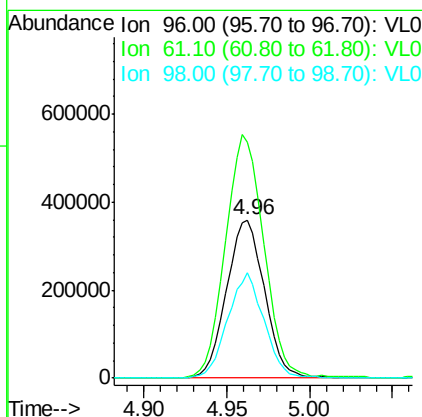
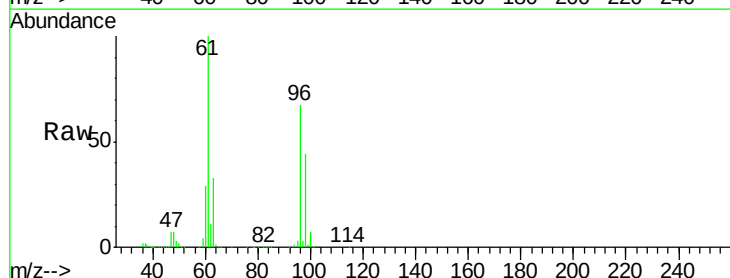
Manual Integrations  
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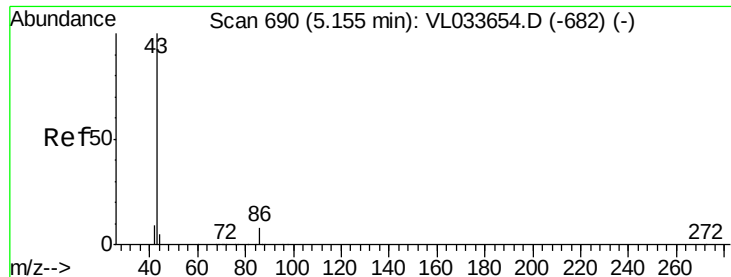
MMDadoda  
 5/16/2019 5:41:02 AM



#22  
 trans-1,2-Dichloroethene  
 Concen: 9.657 ppbv  
 RT: 4.96 min Scan# 630  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 96    | Resp: | 569068 |
| Ion Ratio | Lower | Upper |        |
| 96        | 100   |       |        |
| 61        | 148.7 | 123.1 | 184.7  |
| 98        | 66.1  | 52.6  | 79.0   |





#23

Vinyl Acetate

Concen: 10.280 ppbv

RT: 5.15 min Scan# 689

Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion: 43 Resp: 1835104

Ion Ratio Lower Upper

43 100

86 7.4 6.0 9.0

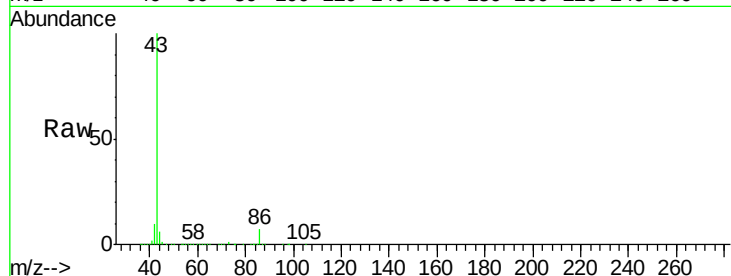
42 10.0 8.0 12.0

44 5.3 3.9 5.9

Manual Integrations  
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5/16/2019 5:41:02 AM

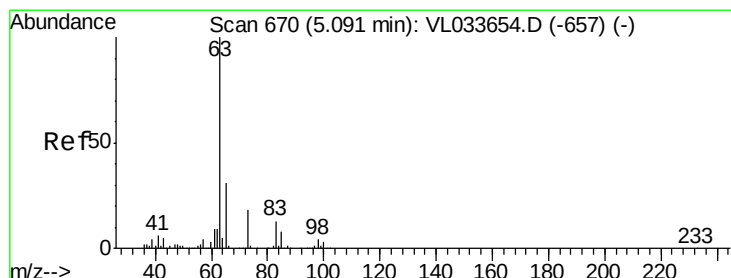
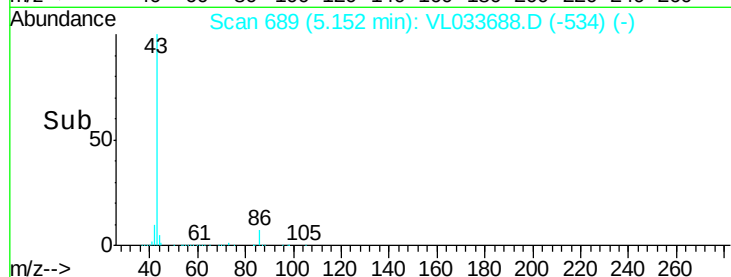
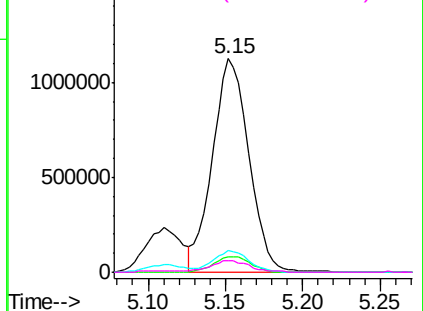


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 9.244 ppbv

RT: 5.09 min Scan# 670

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

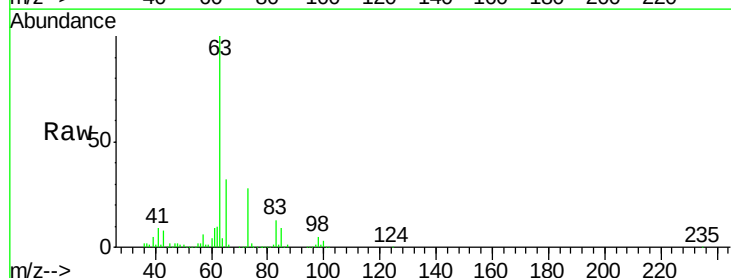
Tgt Ion: 63 Resp: 1248220

Ion Ratio Lower Upper

63 100

98 4.6 2.1 6.2

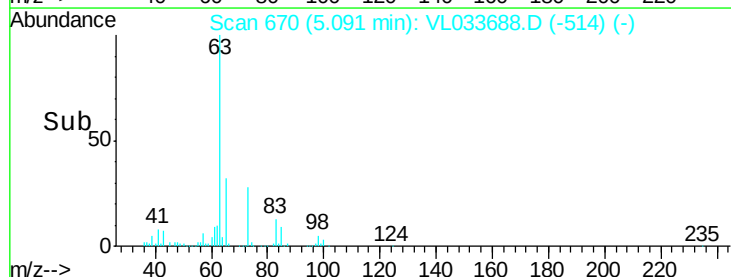
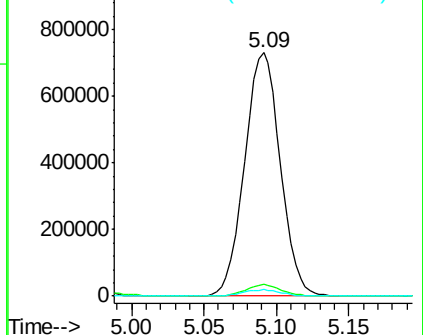
100 2.6 1.5 4.4



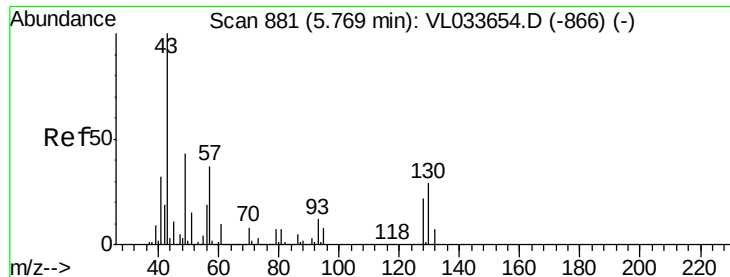
Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0







#25

Ethyl Acetate

Concen: 9.826 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion: 43 Resp: 2196143

Ion Ratio Lower Upper

43 100

45 10.1 8.0 12.0

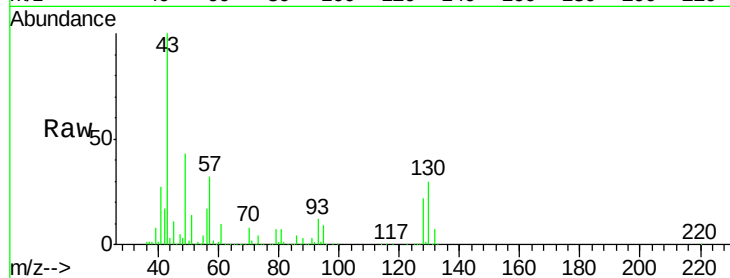
61 9.4 7.5 11.3

70 7.2 5.8 8.8

Manual Integrations  
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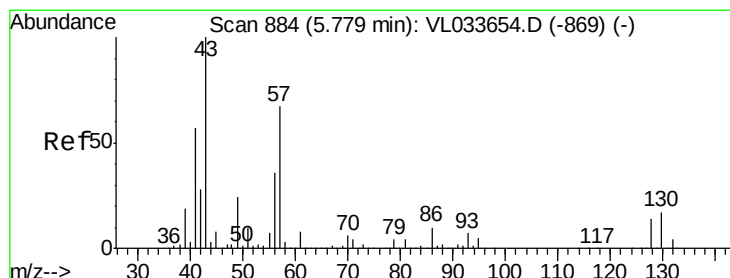
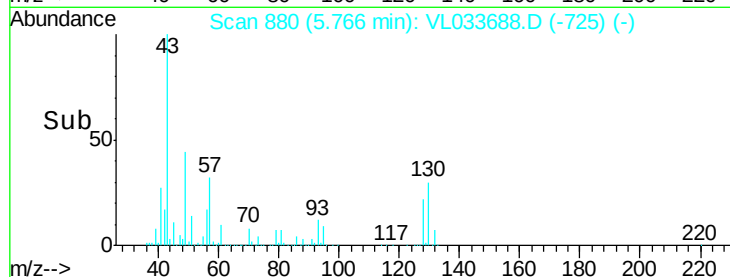
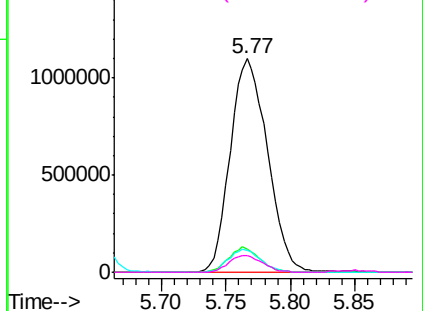


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 10.033 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Tgt Ion: 57 Resp: 963956

Ion Ratio Lower Upper

57 100

41 86.6 69.7 104.5

43 228.3 181.9 272.9

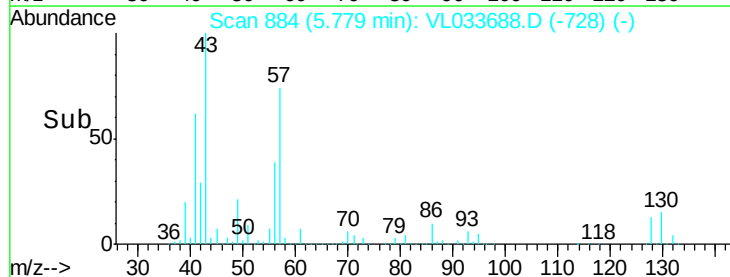
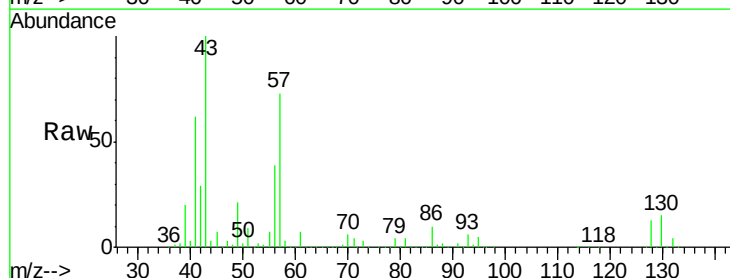
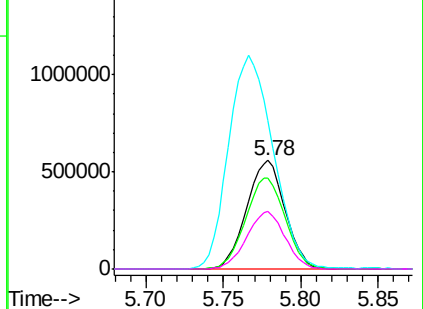
56 52.9 42.5 63.7

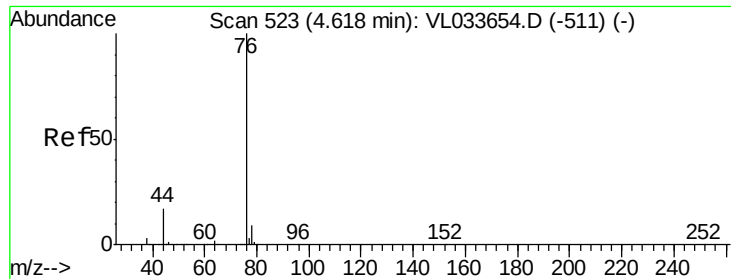
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 10.525 ppbv

RT: 4.62 min Scan# 523

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion: 76 Resp: 1383082

Ion Ratio Lower Upper

76 100

44 17.2 14.4 21.6

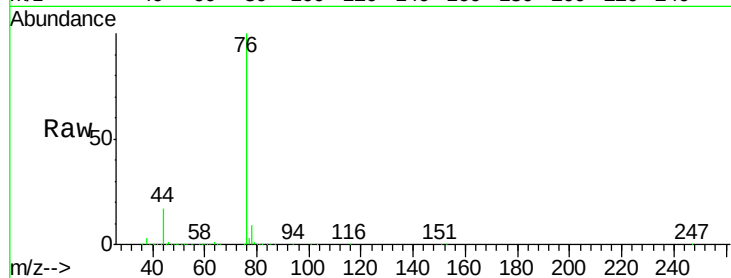
78 9.1 7.4 11.2

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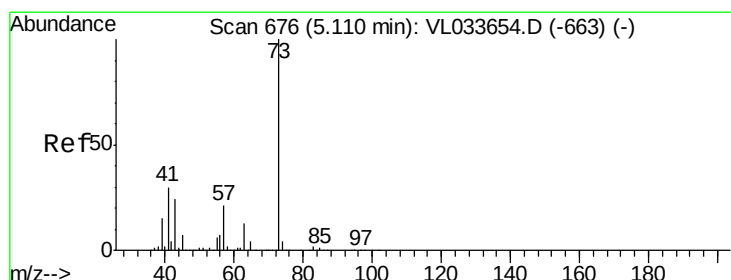
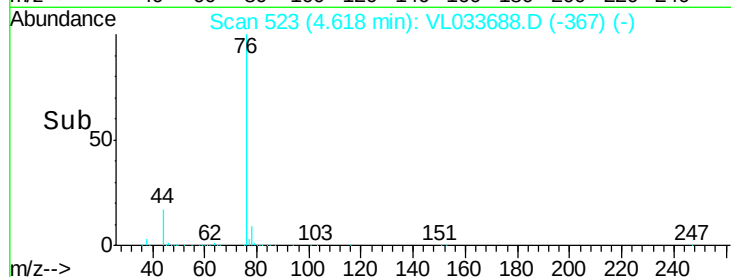
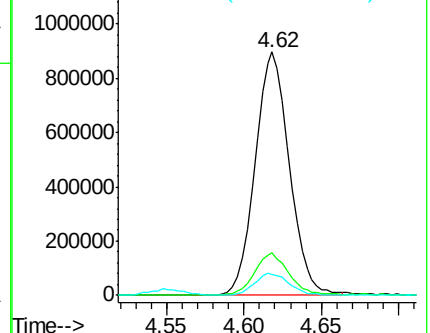
5/16/2019 5:41:02 AM



Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0



#28

Methyl tert-Butyl Ether

Concen: 10.187 ppbv

RT: 5.11 min Scan# 676

Delta R.T. 0.00 min

Lab File: VL033688.D

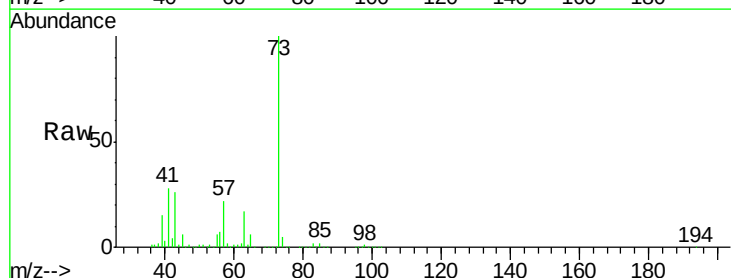
Acq: 14 May 2019 12:57

Tgt Ion: 73 Resp: 1648335

Ion Ratio Lower Upper

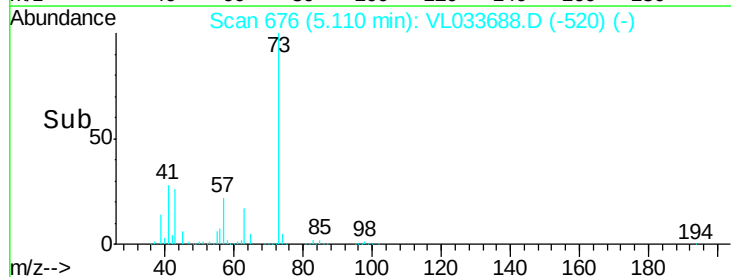
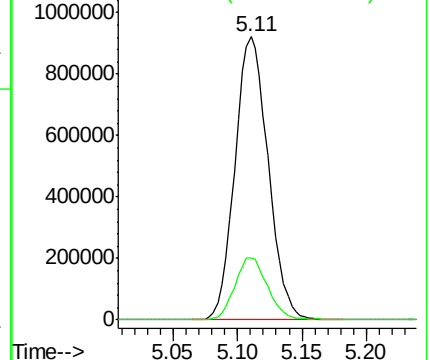
73 100

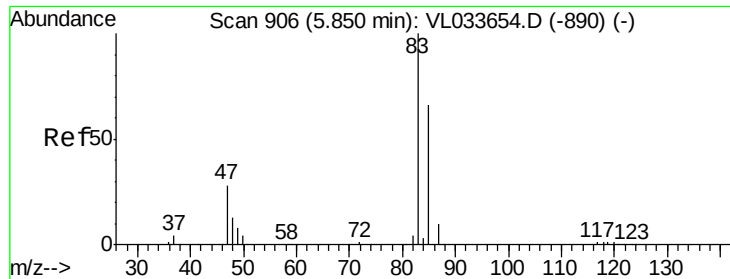
57 21.8 17.4 26.0



Abundance Ion 73.10 (72.80 to 73.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





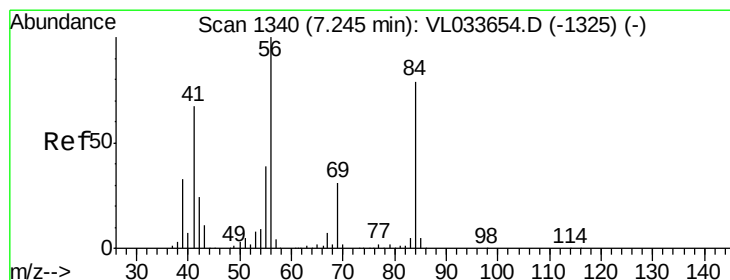
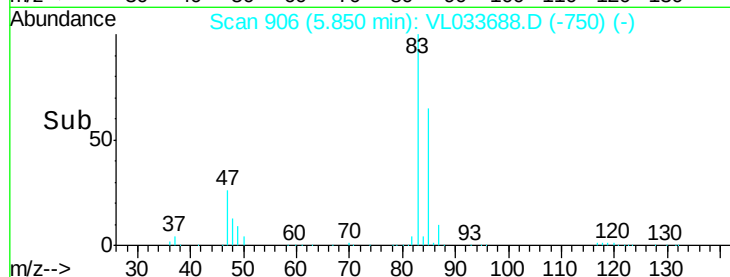
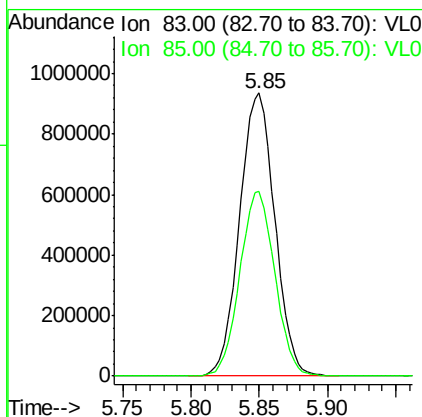
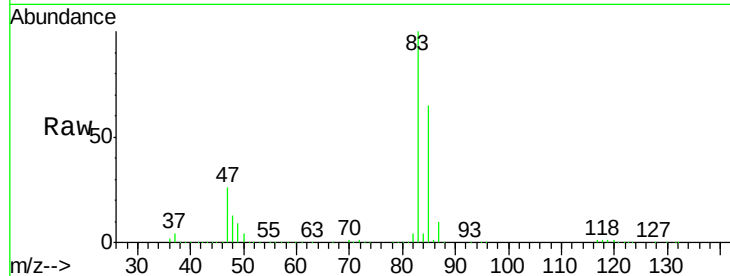
#29  
Chloroform  
Concen: 9.732 ppbv  
RT: 5.85 min Scan# 906  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0514ABS01

Tot Ion: 83 Resp: 1681068  
Ion Ratio Lower Upper  
83 100  
85 65.1 52.6 78.8

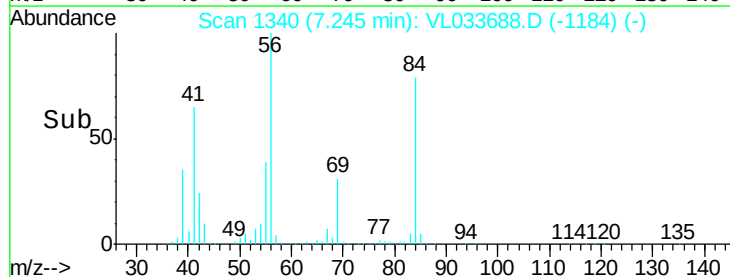
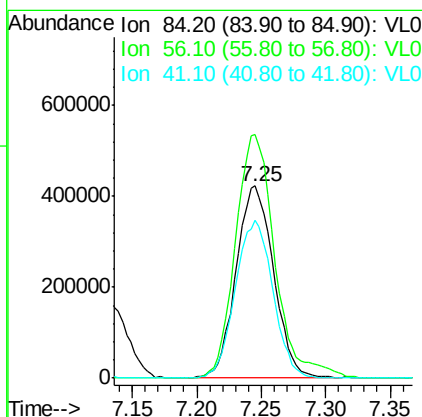
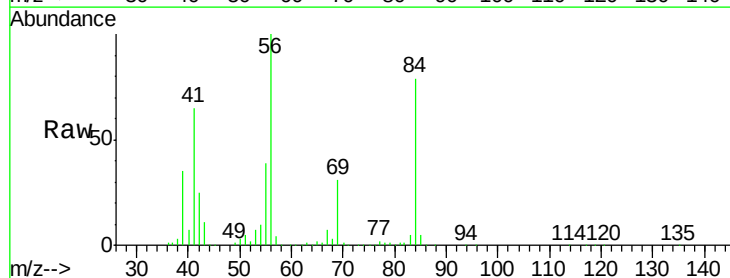
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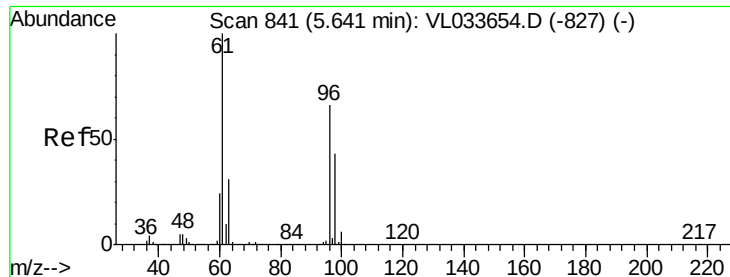
MMDadoda  
5/16/2019 5:41:02 AM



#30  
Cyclohexane  
Concen: 10.621 ppbv  
RT: 7.25 min Scan# 1340  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Tgt Ion: 84 Resp: 856932  
Ion Ratio Lower Upper  
84 100  
56 133.7 107.0 160.4  
41 82.4 66.6 99.8





#31

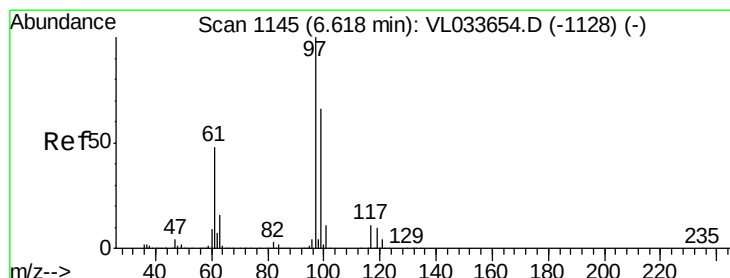
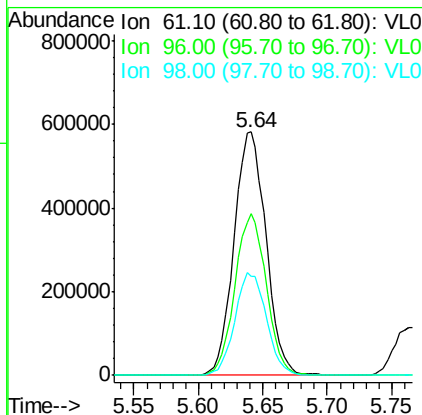
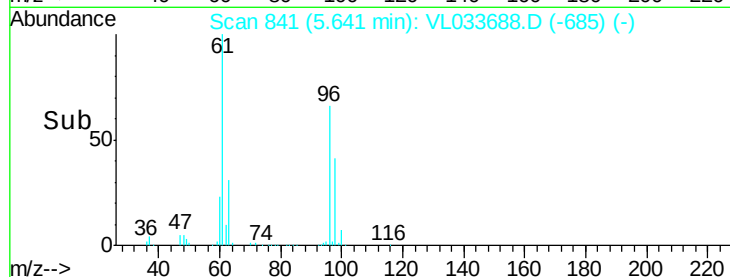
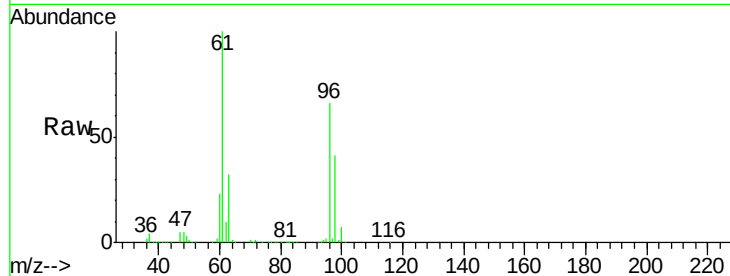
cis-1,2-Dichloroethene  
 Concen: 10.512 ppbv  
 RT: 5.64 min Scan# 841  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 61      | 100  |       |       |       |
| 96      | 66.4 | 53.2  | 79.8  |       |
| 98      | 40.6 | 34.2  | 51.4  |       |

Manual Integrations  
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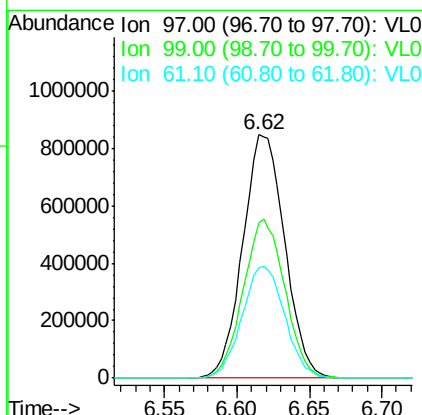
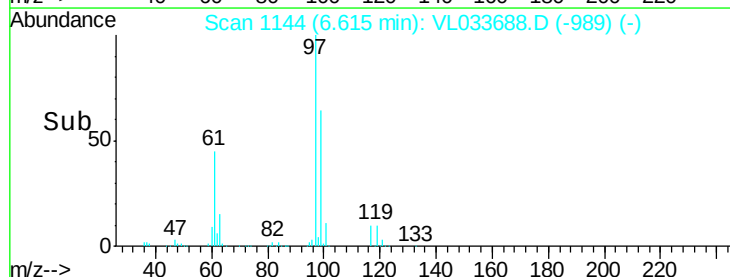
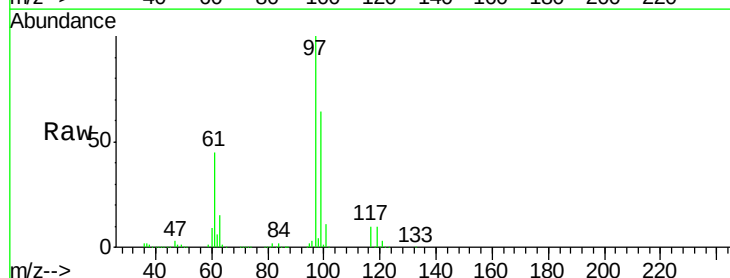
MMDadoda  
 5/16/2019 5:41:02 AM

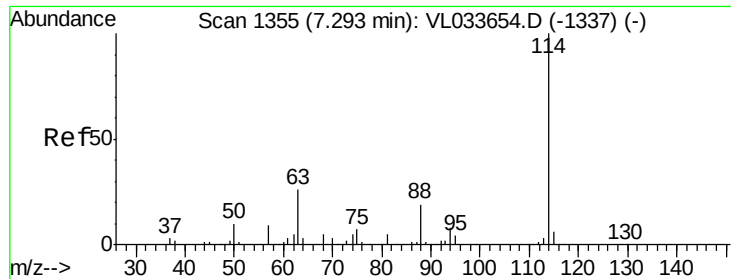


#32

1,1,1-Trichloroethane  
 Concen: 9.592 ppbv  
 RT: 6.62 min Scan# 1144  
 Delta R.T. -0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 97      | 100  |       |       |       |
| 99      | 64.8 | 51.4  | 77.2  |       |
| 61      | 46.8 | 38.5  | 57.7  |       |





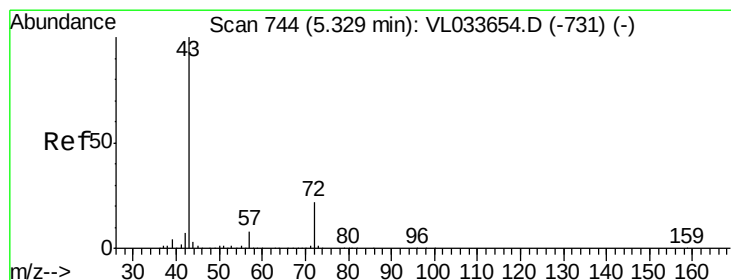
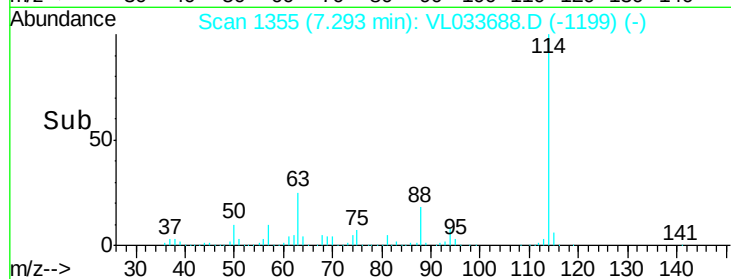
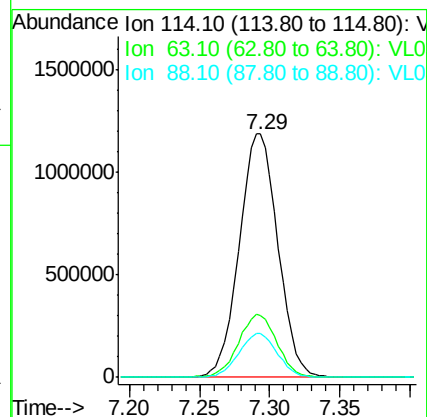
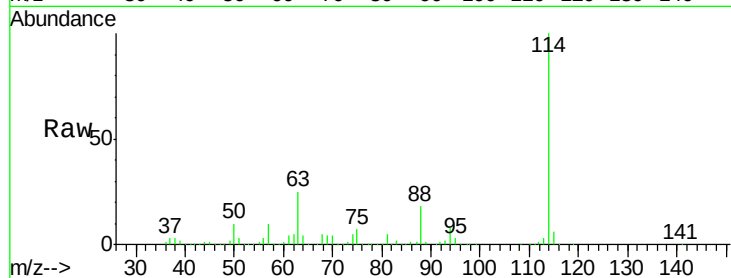
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.29 min Scan# 1355  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 26.2  | 21.3  | 31.9  |
| 88      | 17.9  | 14.4  | 21.6  |

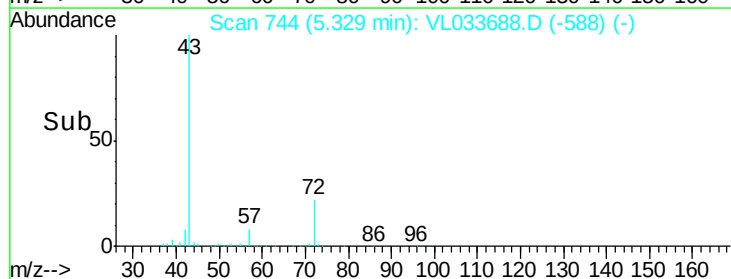
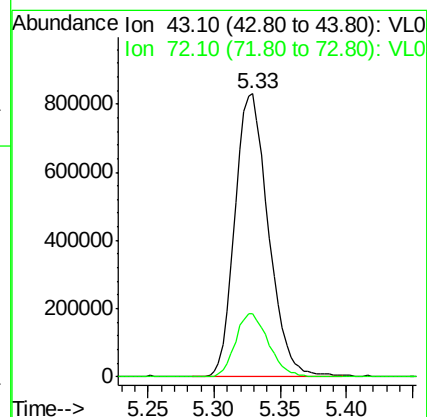
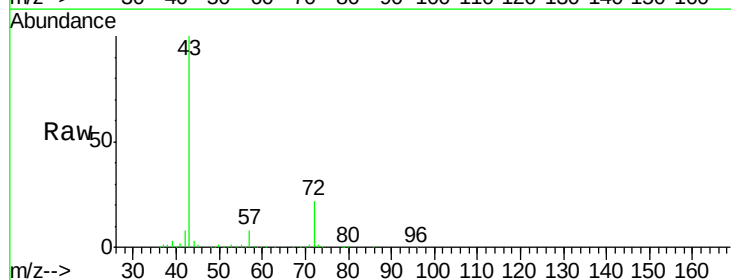
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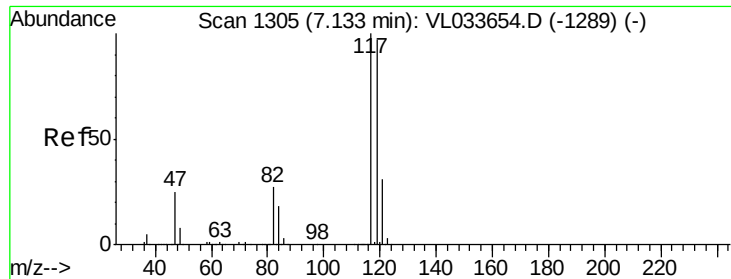
MMDadoda  
 5/16/2019 5:41:02 AM



#34  
 2-Butanone  
 Concen: 10.008 ppbv  
 RT: 5.33 min Scan# 744  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 22.4  | 17.5  | 26.3  |





#35

Carbon Tetrachloride

Concen: 9.917 ppbv

RT: 7.13 min Scan# 1305

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

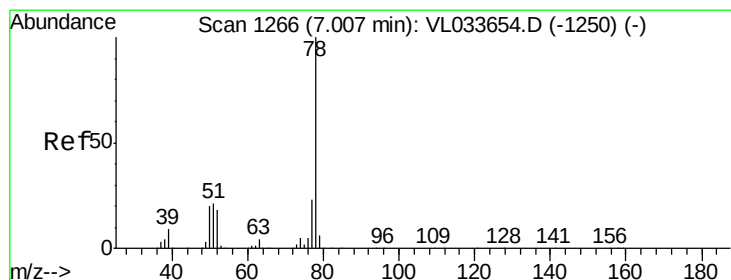
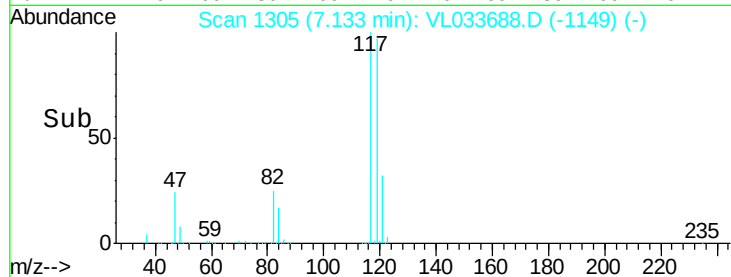
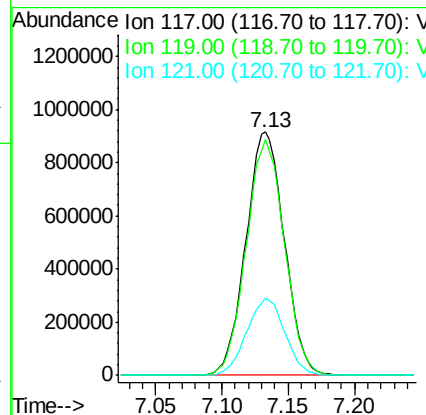
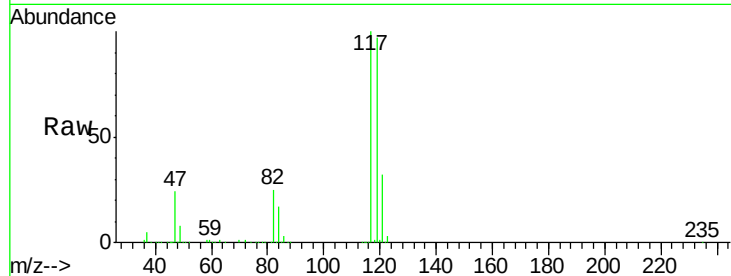
ClientSampleId :

VL0514ABS01

Tot Ion:117 Resp: 1850107  
 Ion Ratio Lower Upper  
 117 100  
 119 96.9 77.9 116.9  
 121 31.9 25.0 37.6

Manual Integrations  
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MMDadoda  
 5/16/2019 5:41:02 AM



#36

Benzene

Concen: 10.301 ppbv

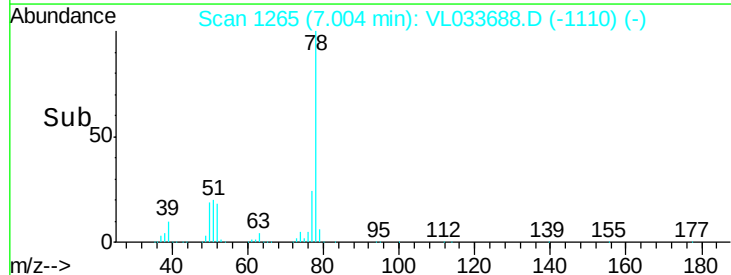
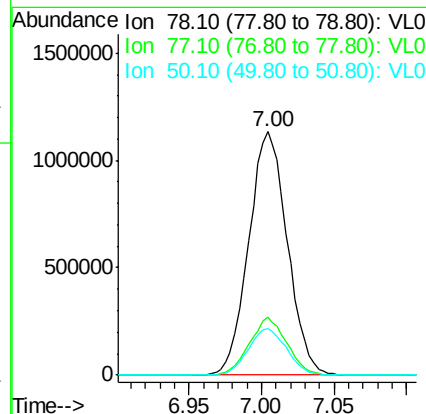
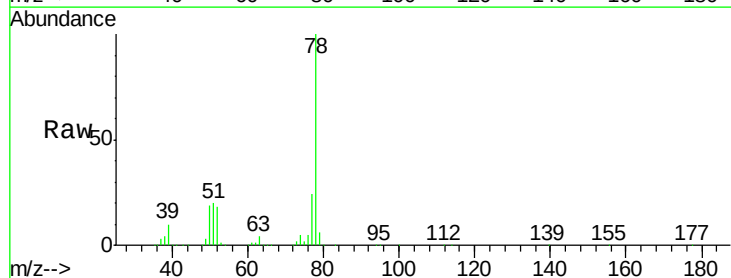
RT: 7.00 min Scan# 1265

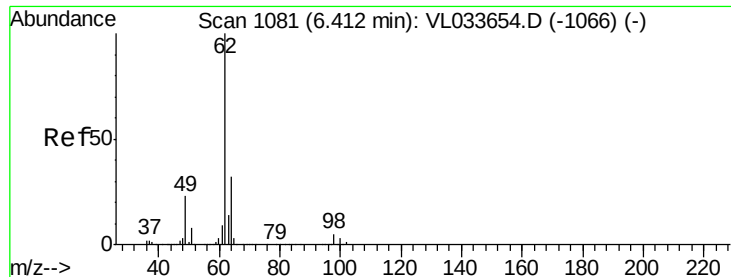
Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Tgt Ion: 78 Resp: 2096692  
 Ion Ratio Lower Upper  
 78 100  
 77 23.8 18.2 27.2  
 50 19.2 15.8 23.6





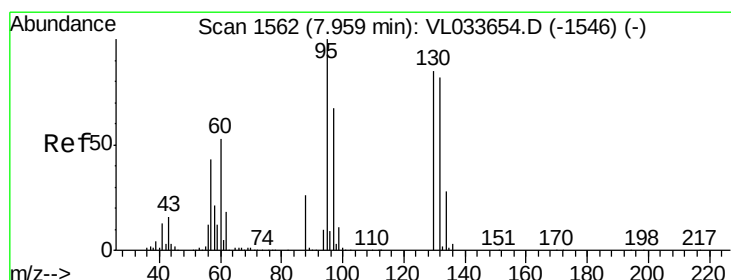
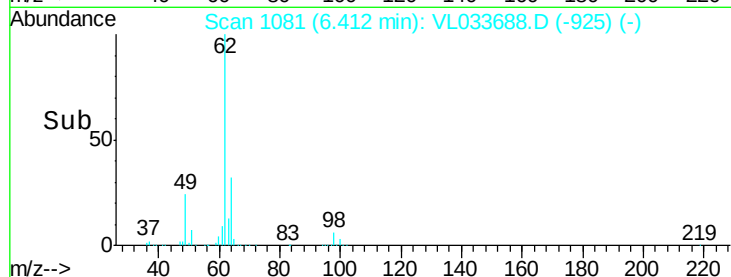
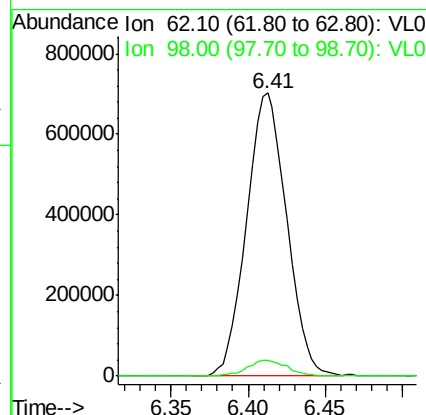
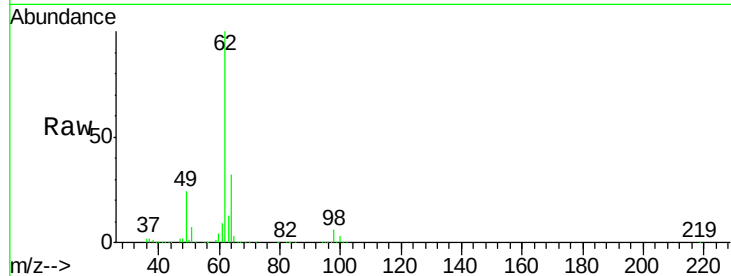
#37  
1,2-Dichloroethane  
Concen: 8.939 ppbv  
RT: 6.41 min Scan# 1081  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0514ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 5.6   | 4.5   | 6.7   |

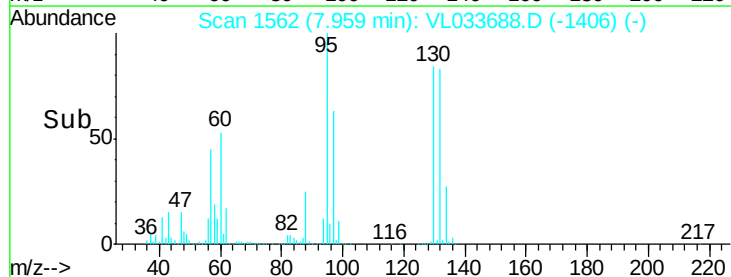
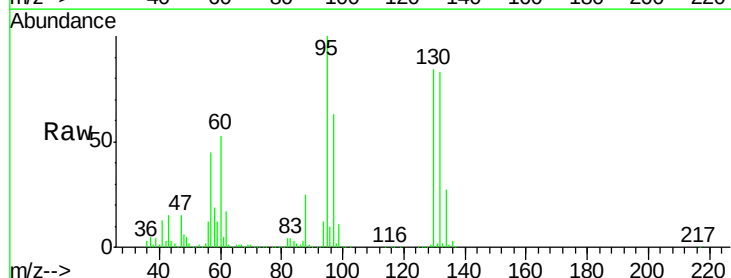
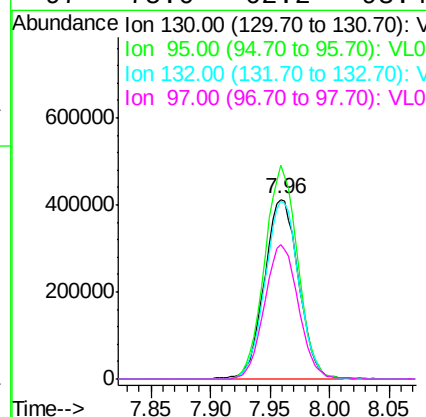
Manual Integrations  
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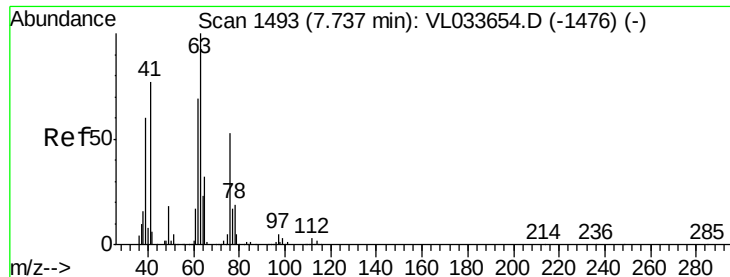
MMDadoda  
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#38  
Trichloroethene  
Concen: 11.024 ppbv  
RT: 7.96 min Scan# 1562  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 118.8 | 93.4  | 140.0 |
| 132     | 98.7  | 76.2  | 114.4 |
| 97      | 75.0  | 62.2  | 93.4  |





#39

1,2-Dichloropropane

Concen: 10.083 ppbv

RT: 7.73 min Scan# 1492

Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

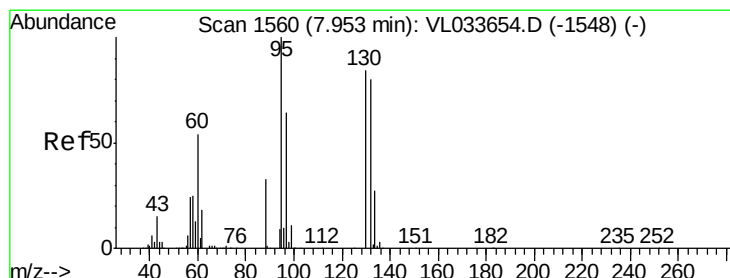
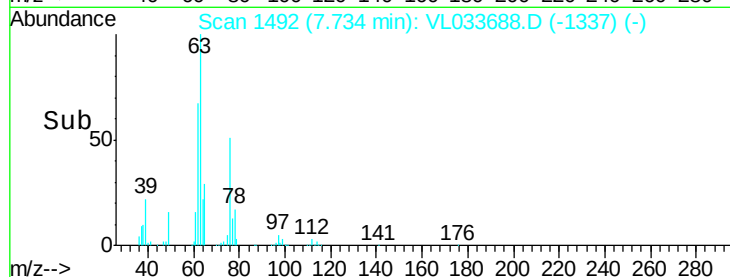
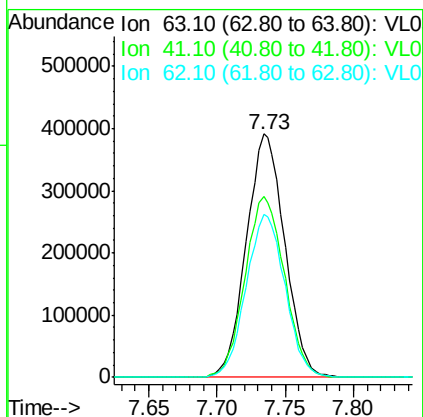
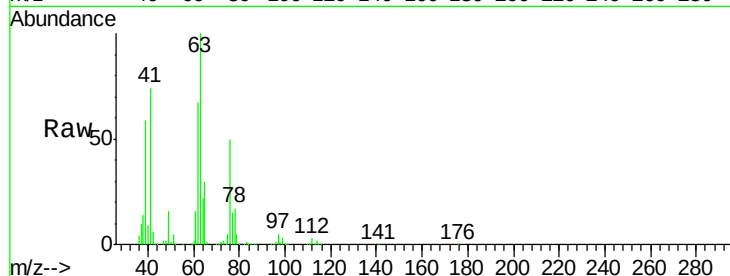
ClientSampleId :

VL0514ABS01

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 63    | Resp: | 764917 |
| Ion Ratio | Lower | Upper |        |
| 63        | 100   |       |        |
| 41        | 74.2  | 61.6  | 92.4   |
| 62        | 66.9  | 55.0  | 82.6   |

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#40

1,4-Dioxane

Concen: 10.111 ppbv

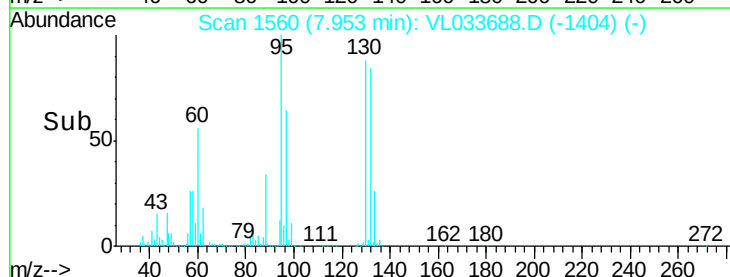
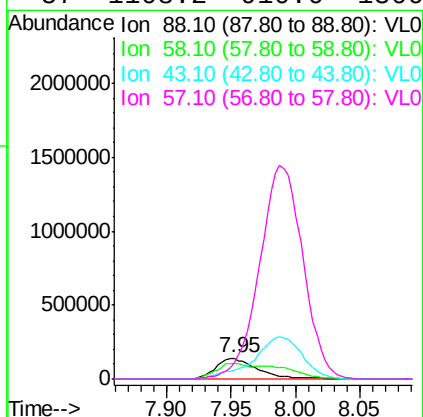
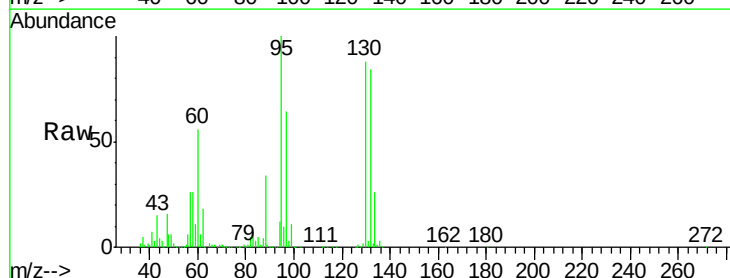
RT: 7.95 min Scan# 1560

Delta R.T. 0.00 min

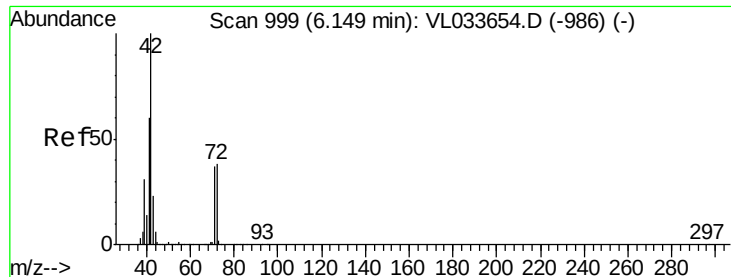
Lab File: VL033688.D

Acq: 14 May 2019 12:57

|           |        |       |        |
|-----------|--------|-------|--------|
| Tgt Ion:  | 88     | Resp: | 306552 |
| Ion Ratio | Lower  | Upper |        |
| 88        | 100    |       |        |
| 58        | 127.3  | 102.3 | 153.5  |
| 43        | 244.3  | 206.1 | 309.1  |
| 57        | 1108.2 | 910.6 | 1366.0 |







#41

Tetrahydrofuran

Concen: 10.831 ppbv

RT: 6.14 min Scan# 997

Delta R.T. -0.01 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

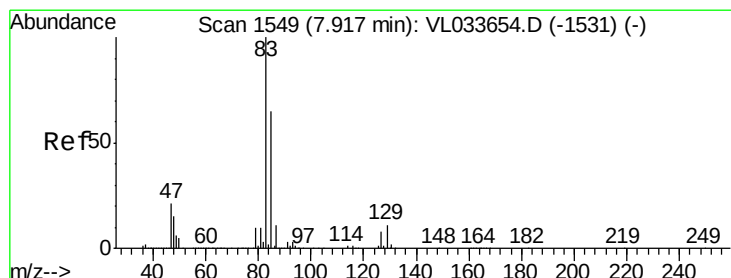
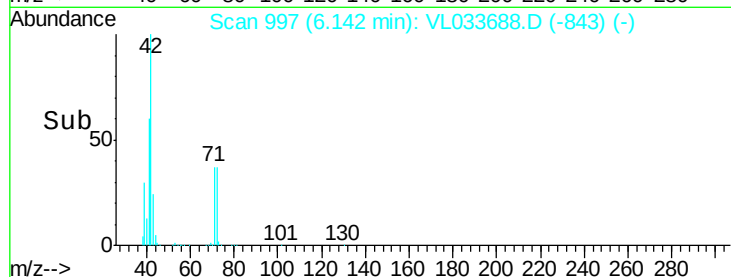
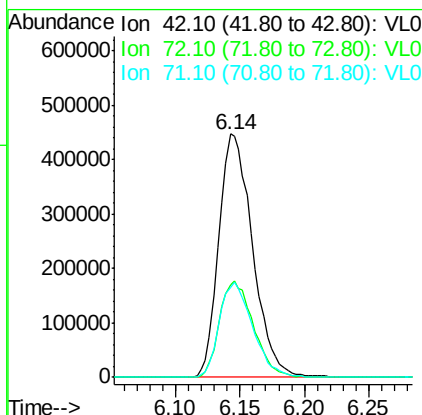
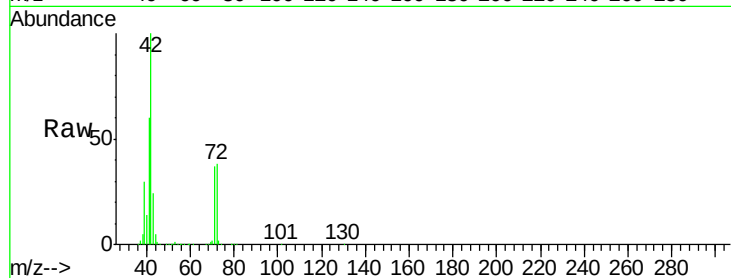
ClientSampleId :

VL0514ABS01

|           |      |       |        |
|-----------|------|-------|--------|
| Tot Ion:  | 42   | Resp: | 813570 |
| Ion Ratio |      | Lower | Upper  |
| 42        | 100  |       |        |
| 72        | 39.8 | 31.6  | 47.4   |
| 71        | 38.9 | 30.6  | 46.0   |

Manual Integrations  
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#42

Bromodichloromethane

Concen: 9.776 ppbv

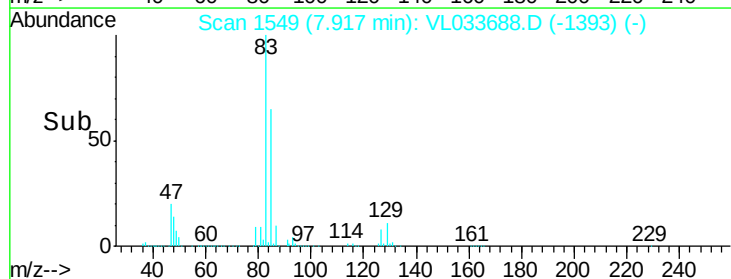
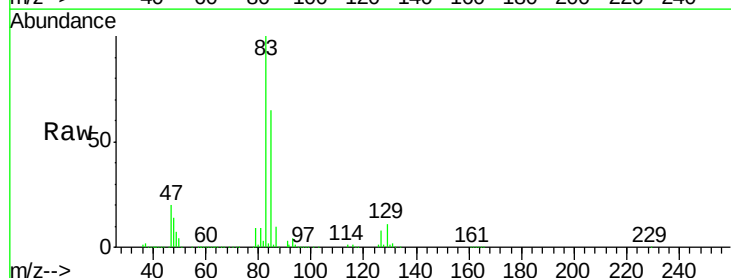
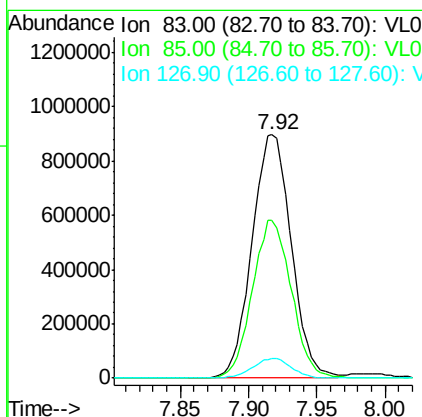
RT: 7.92 min Scan# 1549

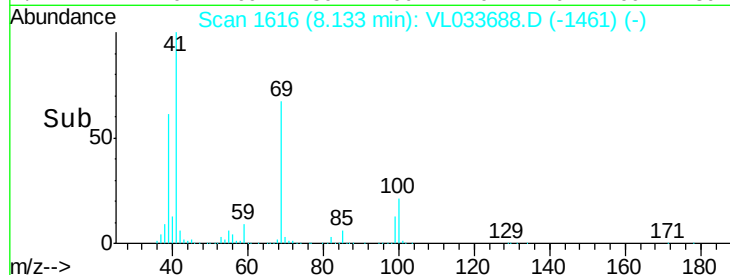
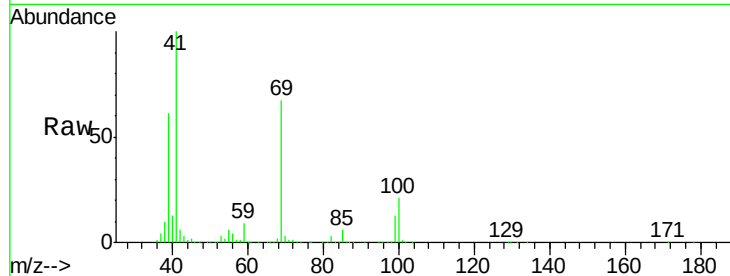
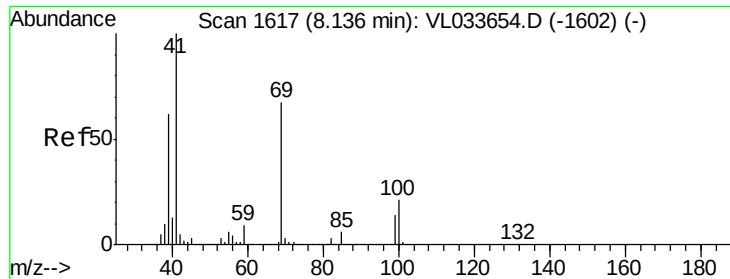
Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

|           |      |       |         |
|-----------|------|-------|---------|
| Tgt Ion:  | 83   | Resp: | 1792664 |
| Ion Ratio |      | Lower | Upper   |
| 83        | 100  |       |         |
| 85        | 64.9 | 52.4  | 78.6    |
| 127       | 7.9  | 6.6   | 9.8     |





#43

Methyl Methacrylate

Concen: 10.844 ppbv

RT: 8.13 min Scan# 1616

Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 69.10 | Resp: | 830288 |
| Ion Ratio | Lower | Upper |        |
| 69        | 100   |       |        |
| 41        | 144.2 | 116.6 | 175.0  |
| 100       | 31.7  | 24.6  | 37.0   |

Instrument :

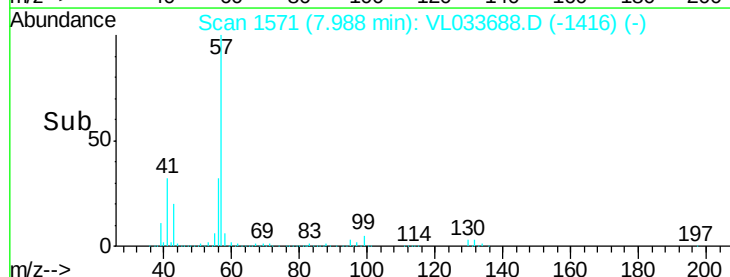
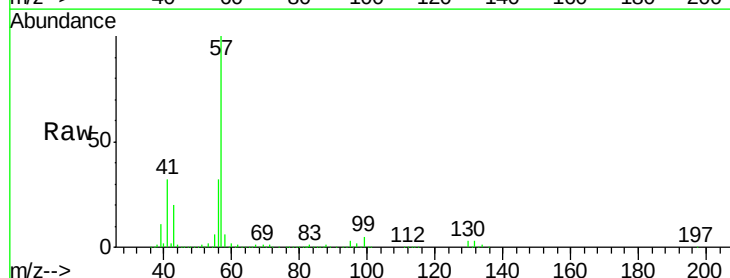
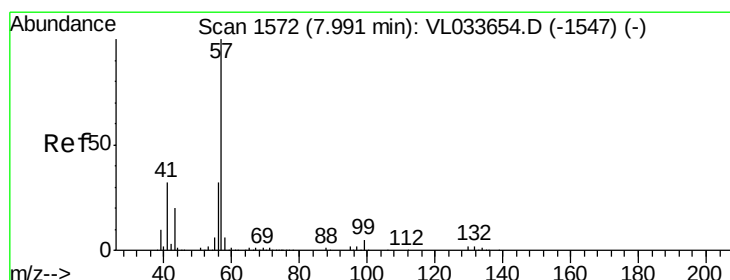
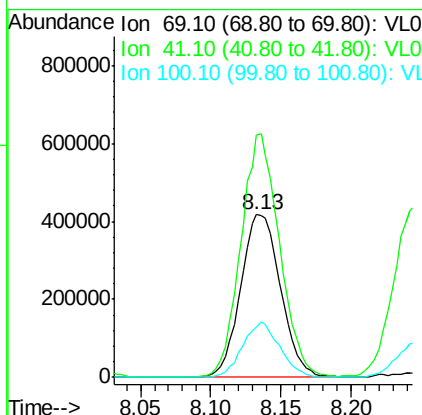
MSVOA\_L

ClientSampleId :

VL0514ABS01

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#44

2,2,4-Trimethylpentane

Concen: 9.749 ppbv

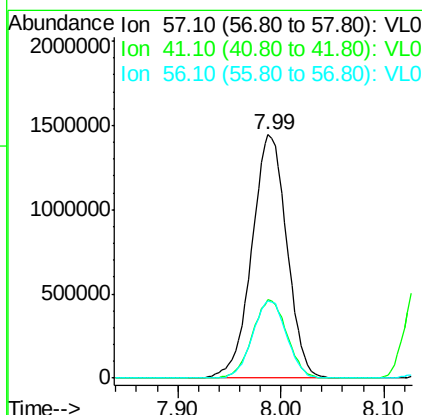
RT: 7.99 min Scan# 1571

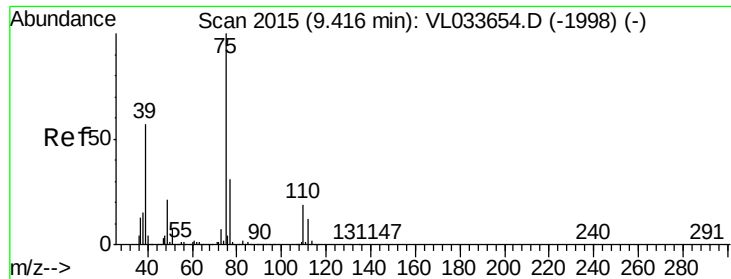
Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 57    | Resp: | 3392889 |
| Ion Ratio | Lower | Upper |         |
| 57        | 100   |       |         |
| 41        | 31.7  | 25.7  | 38.5    |
| 56        | 31.0  | 25.0  | 37.6    |





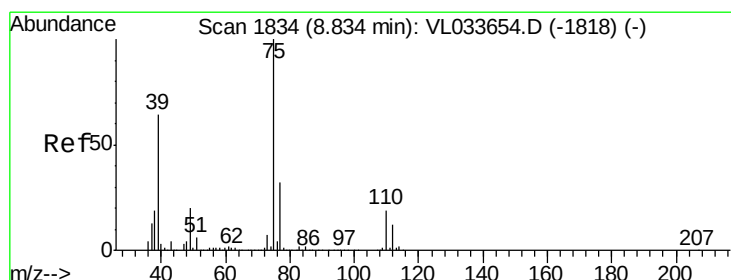
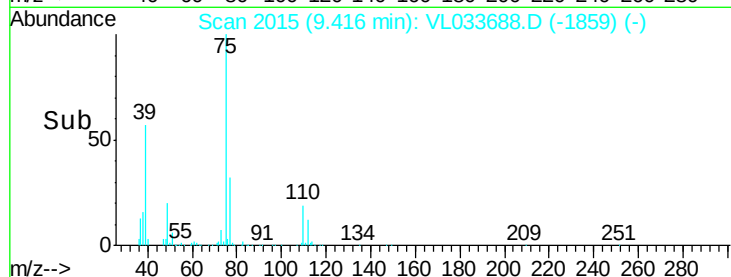
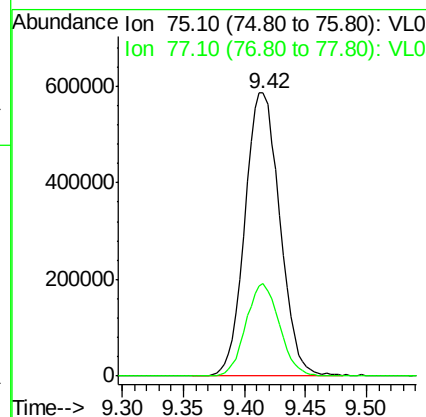
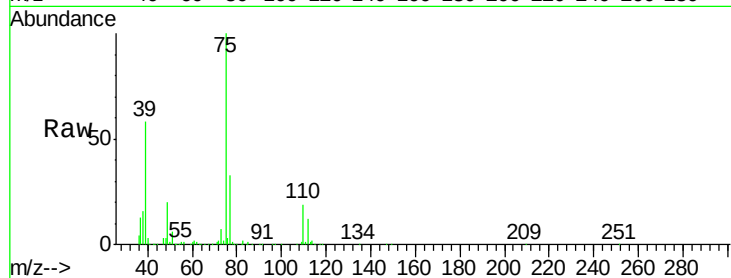
#45  
t-1,3-Dichloropropene  
Concen: 12.299 ppbv  
RT: 9.42 min Scan# 2015  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0514ABS01

Tot Ion: 75 Resp: 1155760  
Ion Ratio Lower Upper  
75 100  
77 32.5 24.7 37.1

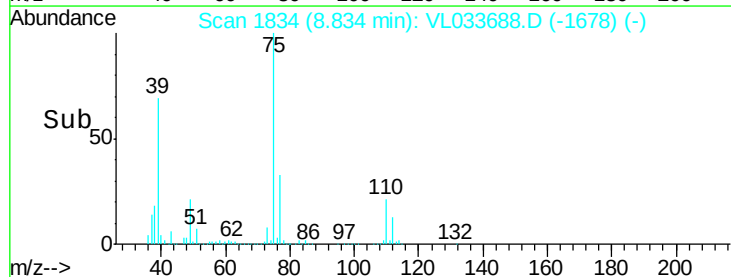
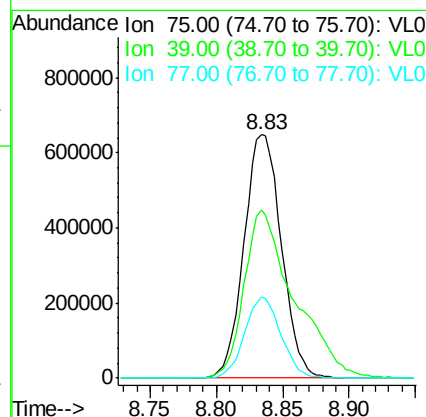
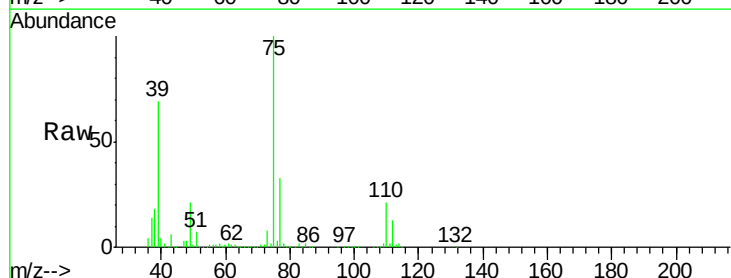
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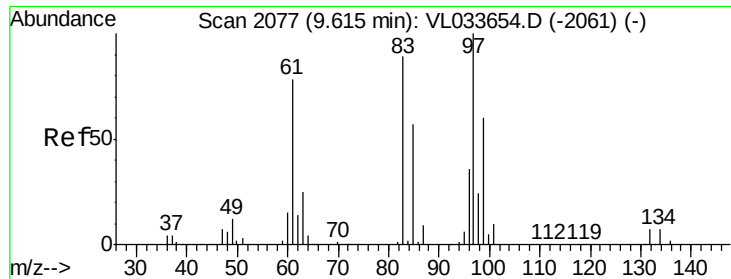
MMDadoda  
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#46  
cis-1,3-Dichloropropene  
Concen: 10.861 ppbv  
RT: 8.83 min Scan# 1834  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Tgt Ion: 75 Resp: 1273758  
Ion Ratio Lower Upper  
75 100  
39 69.1 51.5 77.3  
77 33.1 25.4 38.0





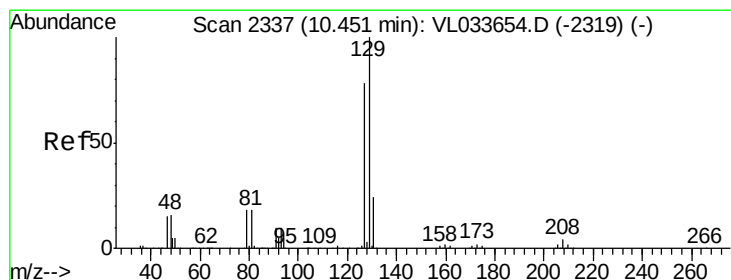
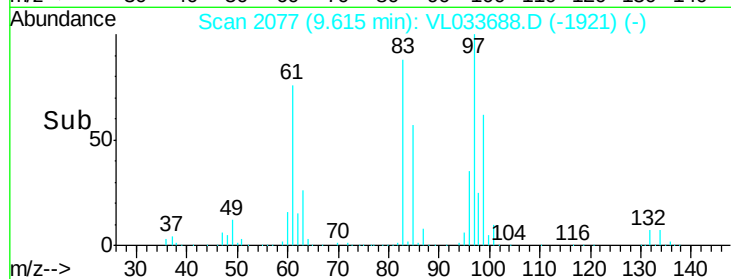
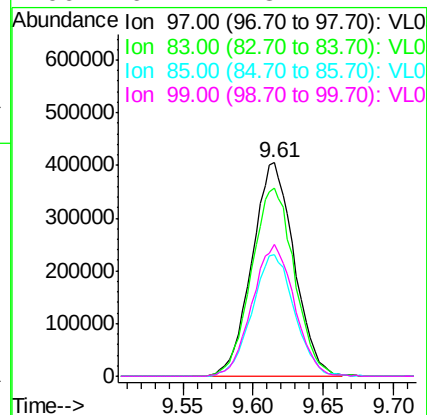
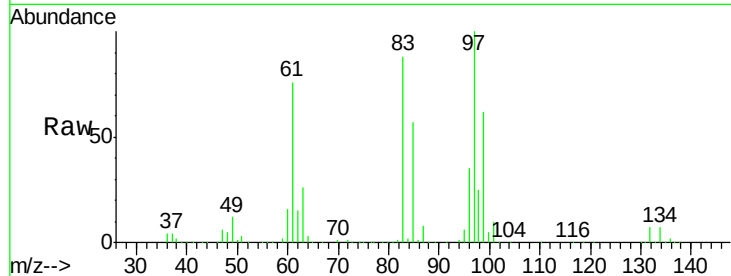
#47  
 1,1,2-Trichloroethane  
 Concen: 9.716 ppbv  
 RT: 9.61 min Scan# 2077  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

| Tot Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 97      | 100  |       | 846482 |       |       |
| 83      | 87.9 | 70.9  | 106.3  |       |       |
| 85      | 57.0 | 45.8  | 68.6   |       |       |
| 99      | 61.4 | 48.2  | 72.4   |       |       |

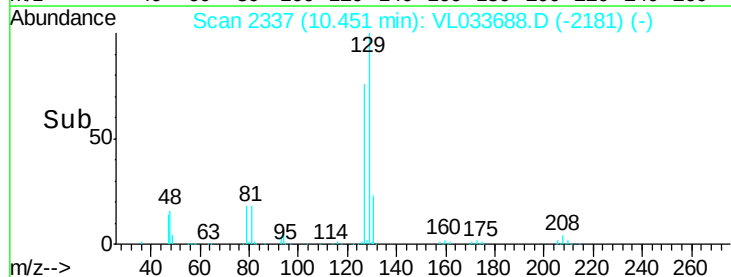
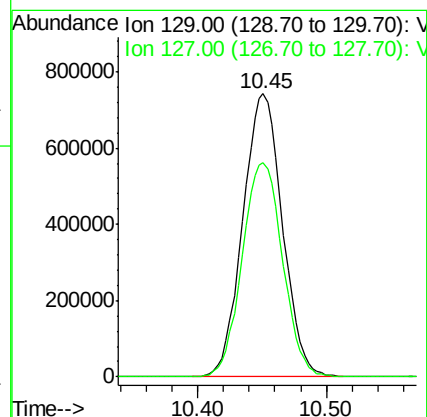
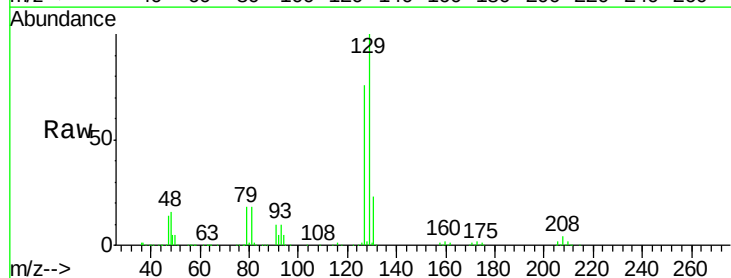
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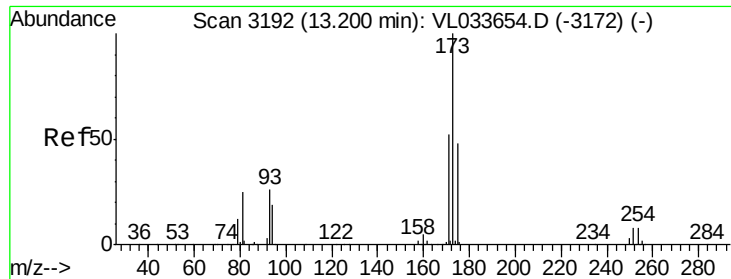
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#48  
 Dibromochloromethane  
 Concen: 10.745 ppbv  
 RT: 10.45 min Scan# 2337  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

| Tgt Ion | Ion  | Ratio | Resp    | Lower | Upper |
|---------|------|-------|---------|-------|-------|
| 129     | 100  |       | 1586793 |       |       |
| 127     | 77.5 | 39.1  | 117.2   |       |       |





#49

Bromoform

Concen: 11.052 ppbv

RT: 13.20 min Scan# 3192

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion:173 Resp: 1417721

Ion Ratio Lower Upper

173 100

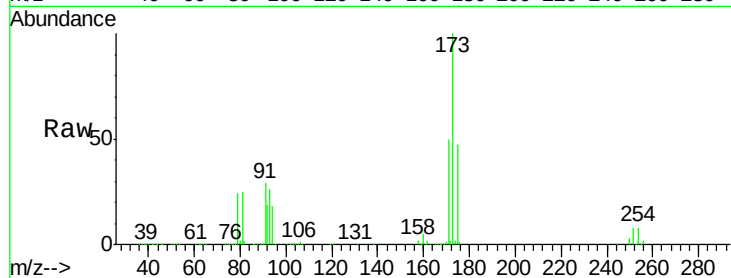
175 48.7 39.3 58.9

171 51.4 41.5 62.3

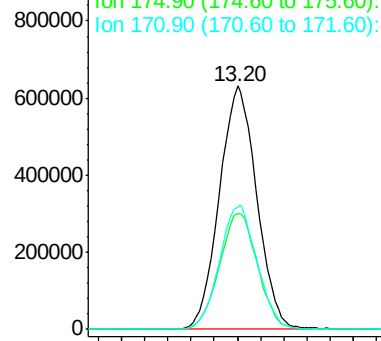
Manual Integrations  
APPROVED

MMDadoda

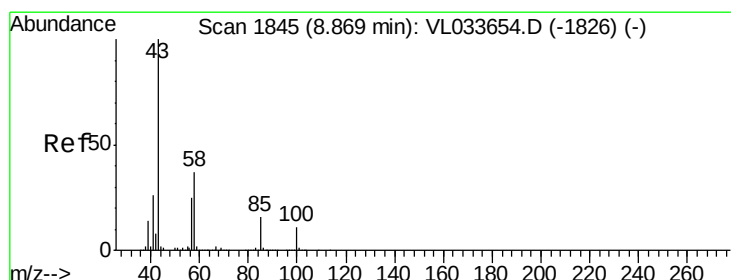
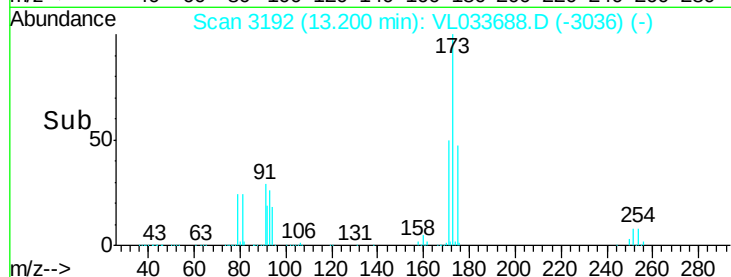
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Abundance Ion 172.90 (172.60 to 173.60): V  
Ion 174.90 (174.60 to 175.60): V  
Ion 170.90 (170.60 to 171.60): V



Time-->



#50

4-Methyl-2-Pentanone

Concen: 10.013 ppbv

RT: 8.87 min Scan# 1844

Delta R.T. -0.00 min

Lab File: VL033688.D

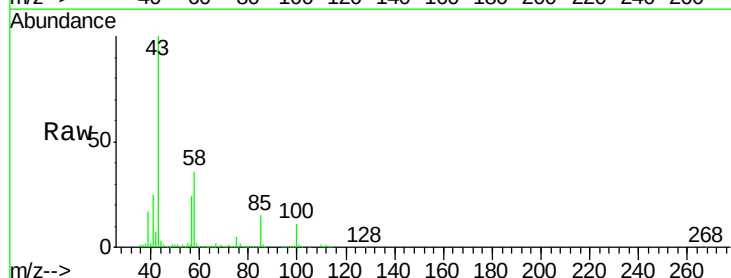
Acq: 14 May 2019 12:57

Tgt Ion: 43 Resp: 2203914

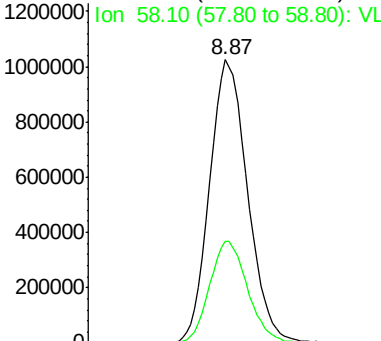
Ion Ratio Lower Upper

43 100

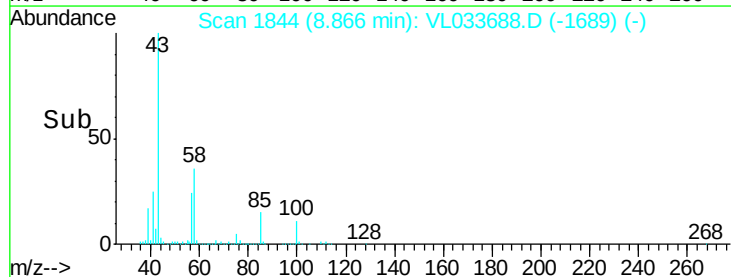
58 35.9 28.8 43.2

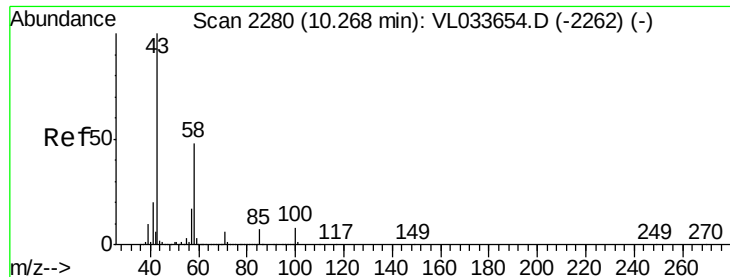


Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 58.10 (57.80 to 58.80): VL0



Time-->





#51

2-Hexanone

Concen: 10.592 ppbv

RT: 10.27 min Scan# 2280

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion: 43 Resp: 1806224

Ion Ratio Lower Upper

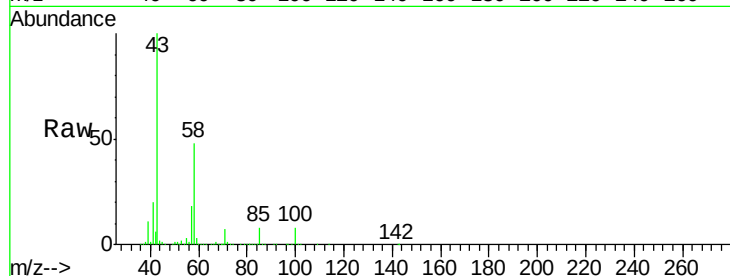
43 100

58 48.3 38.2 57.4

98 0.4 0.2 0.4#

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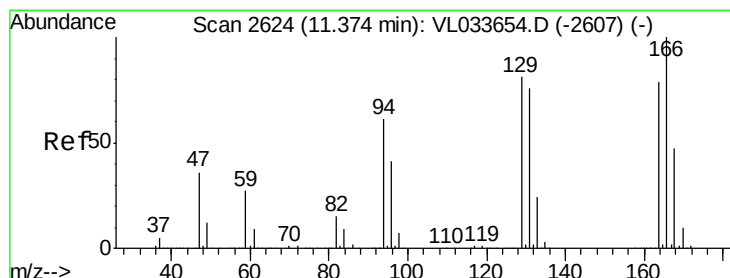
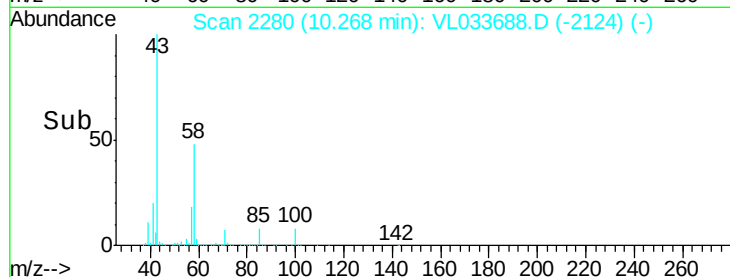
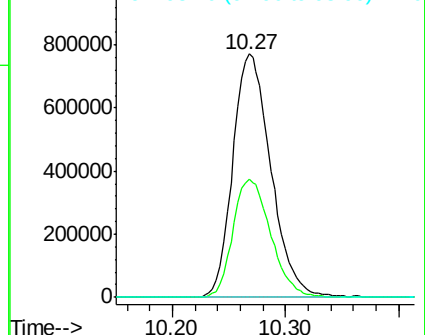


Abundance

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: 11.019 ppbv

RT: 11.37 min Scan# 2623

Delta R.T. -0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Tgt Ion: 164 Resp: 794638

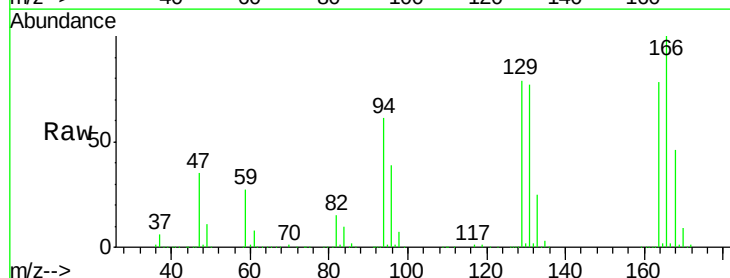
Ion Ratio Lower Upper

164 100

166 127.8 100.6 151.0

129 101.4 81.0 121.6

131 98.2 76.4 114.6



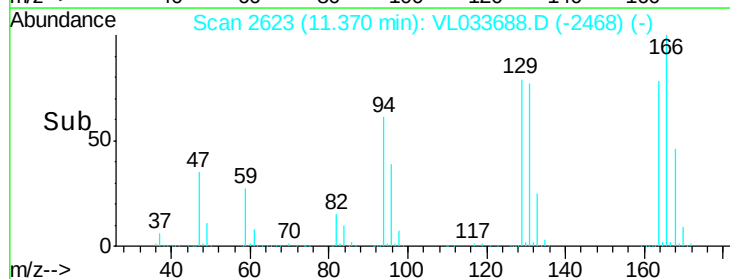
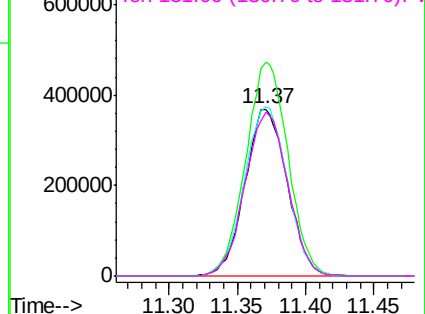
Abundance

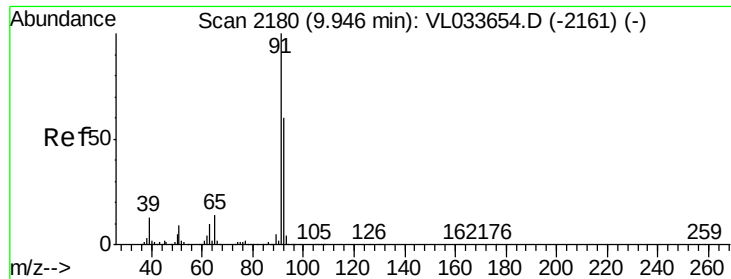
Ion 163.90 (163.60 to 164.60): V

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





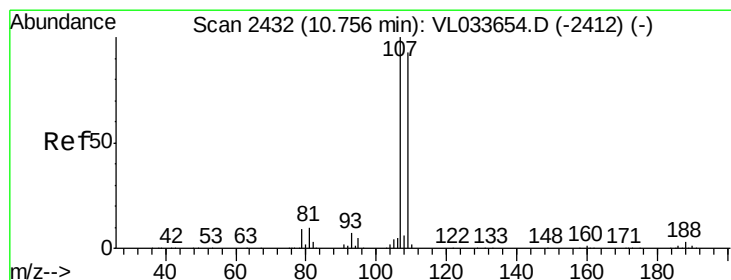
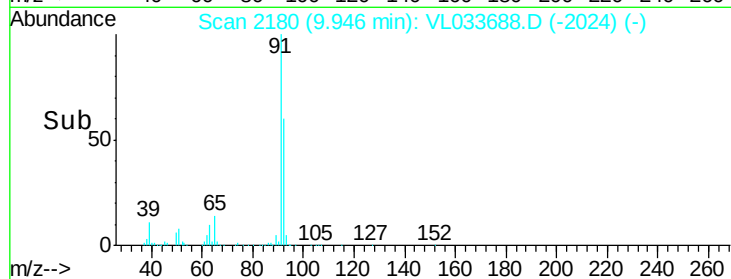
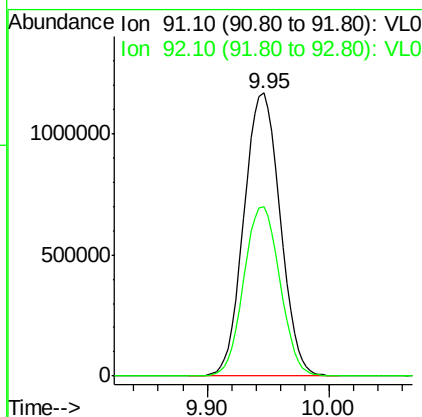
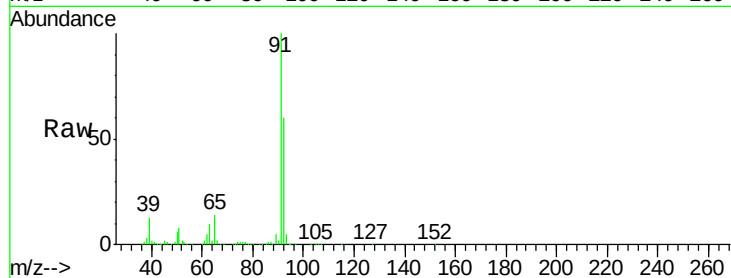
#53  
Toluene  
Concen: 10.889 ppbv  
RT: 9.95 min Scan# 2180  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0514ABS01

Tot Ion: 91 Resp: 2394790  
Ion Ratio Lower Upper  
91 100  
92 59.8 47.7 71.5

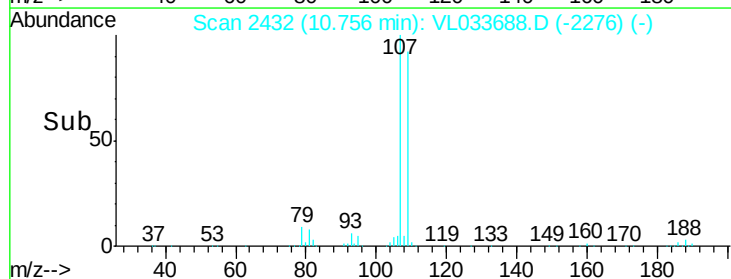
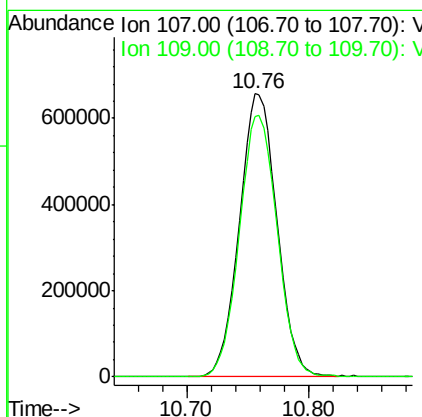
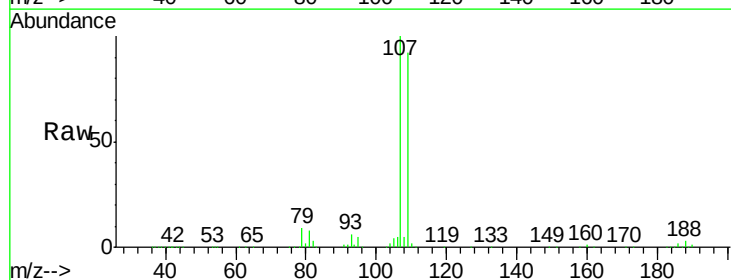
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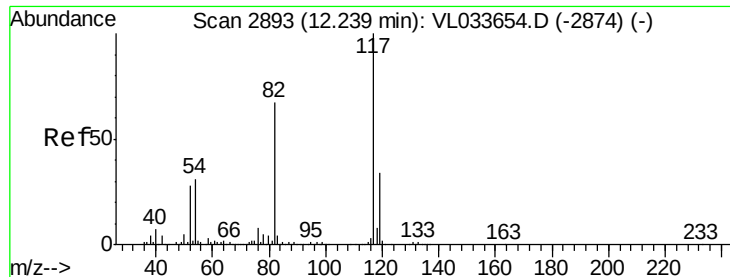
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#54  
1,2-Dibromoethane  
Concen: 10.597 ppbv  
RT: 10.76 min Scan# 2432  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Tgt Ion: 107 Resp: 1390594  
Ion Ratio Lower Upper  
107 100  
109 92.1 74.6 111.8





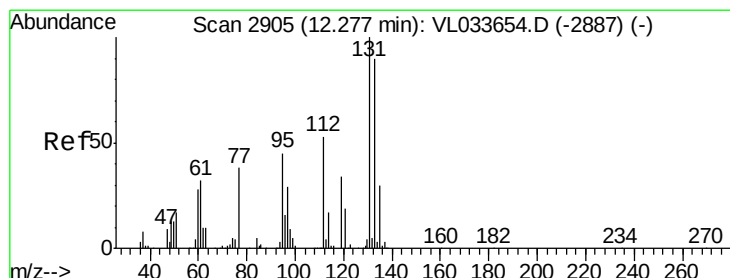
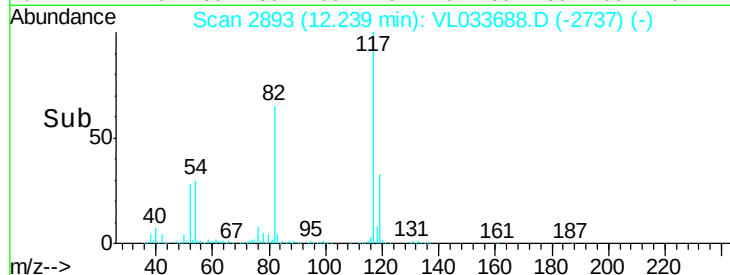
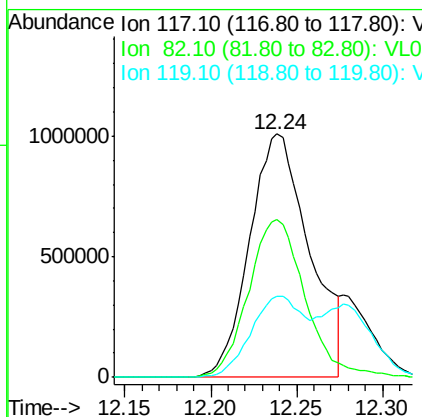
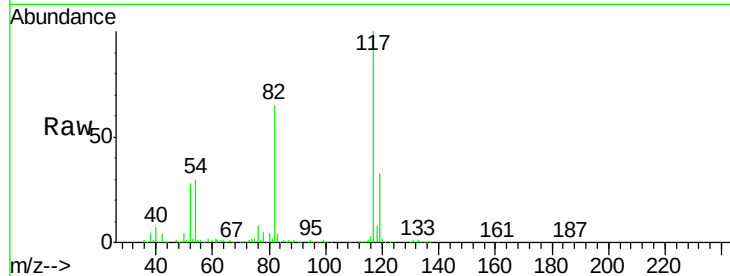
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.24 min Scan# 2893  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0514ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 61.8  | 49.7  | 74.5  |
| 119     | 31.4  | 24.8  | 37.2  |

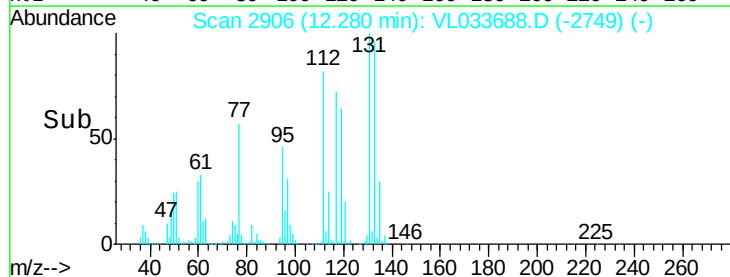
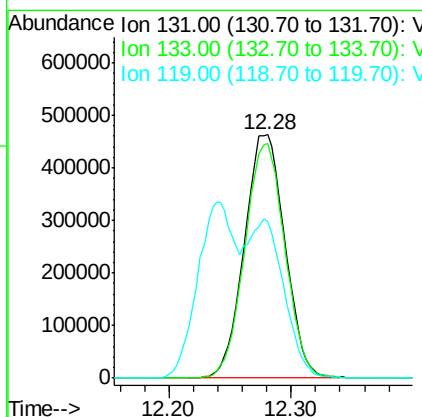
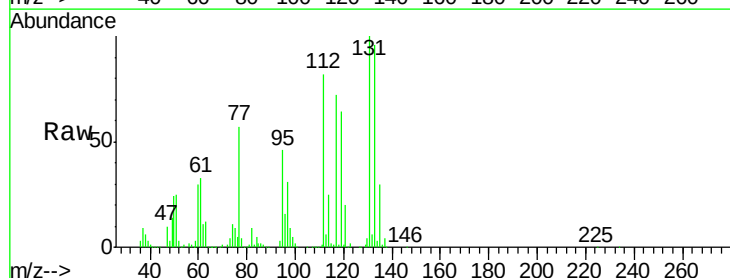
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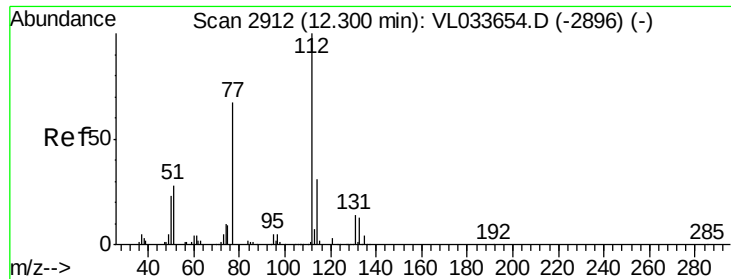


#56  
1,1,1,2-Tetrachloroethane  
Concen: 9.477 ppbv  
RT: 12.28 min Scan# 2906  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 131     | 100   |       |       |
| 133     | 95.2  | 76.0  | 114.0 |
| 119     | 56.6  | 45.4  | 68.2  |







#57

Chlorobenzene

Concen: 9.426 ppbv

RT: 12.30 min Scan# 2912

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion:112 Resp: 1886309

Ion Ratio Lower Upper

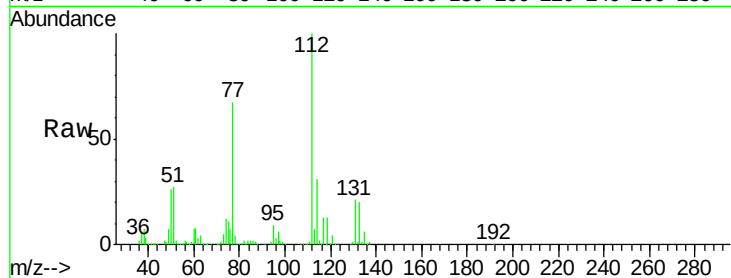
112 100

77 67.0 54.4 81.6

114 30.8 28.2 34.4

Manual Integrations  
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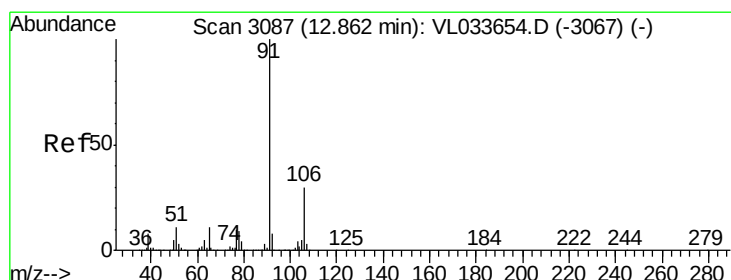
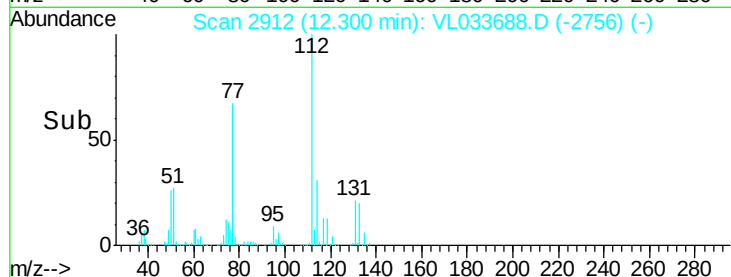
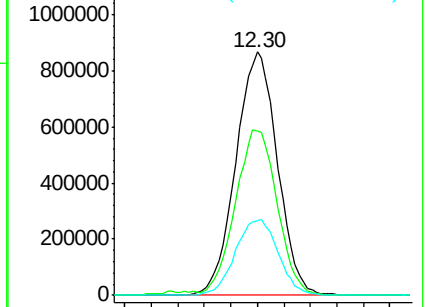
MMDadoda  
5/16/2019 5:41:02 AM



Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V



#58

Ethyl Benzene

Concen: 10.561 ppbv

RT: 12.86 min Scan# 3087

Delta R.T. 0.00 min

Lab File: VL033688.D

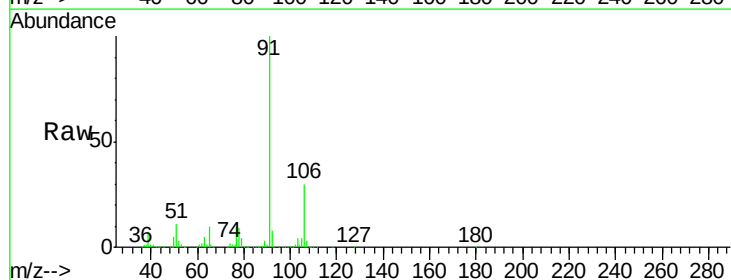
Acq: 14 May 2019 12:57

Tgt Ion: 91 Resp: 3356794

Ion Ratio Lower Upper

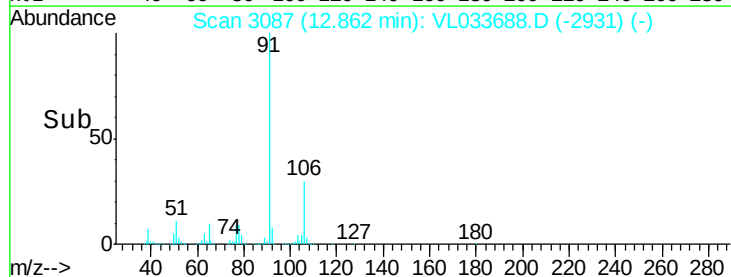
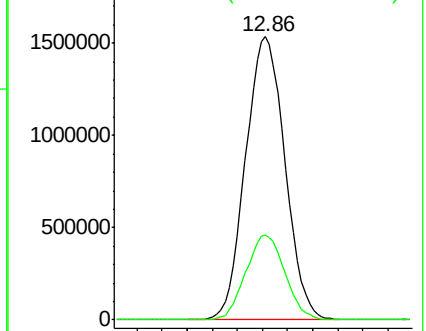
91 100

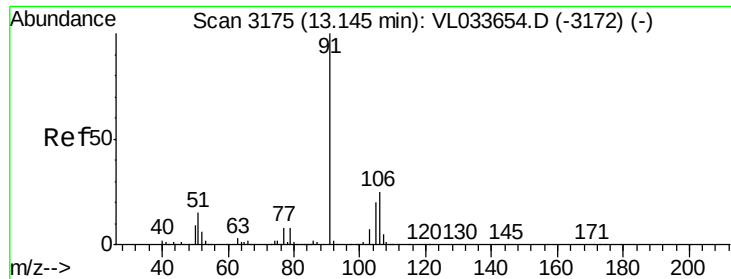
106 30.2 23.7 35.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





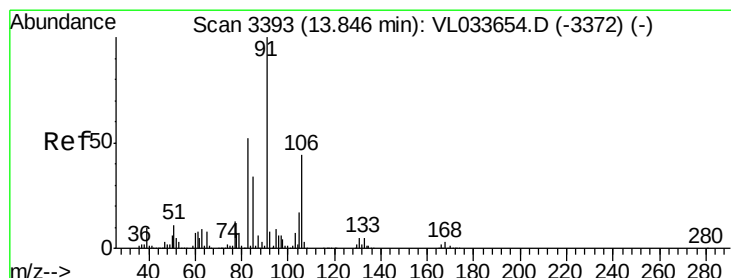
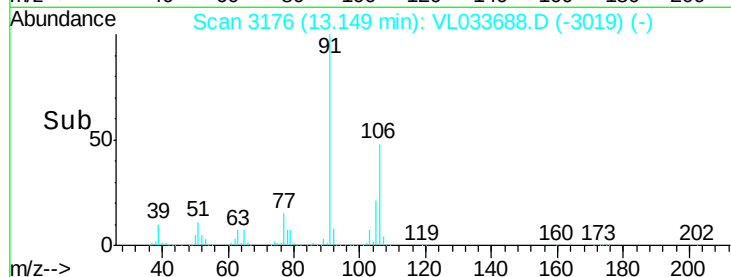
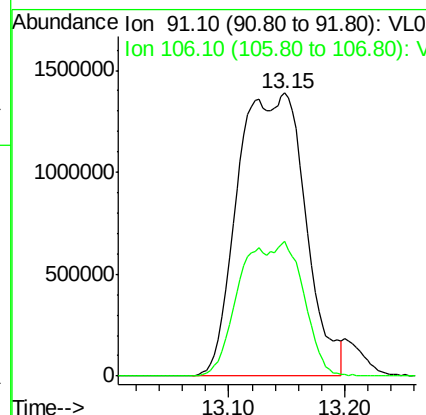
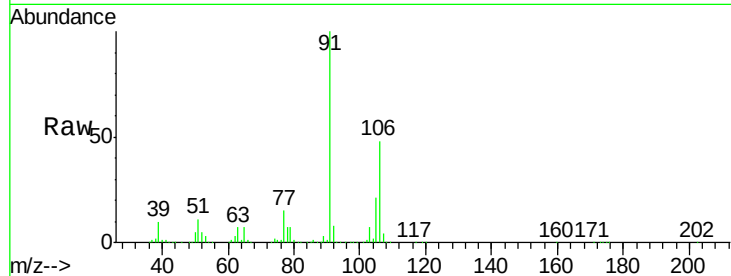
#59  
m/p-Xylene  
Concen: 20.077 ppbv m  
RT: 13.15 min Scan# 3176  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0514ABS01

Tot Ion: 91 Resp: 5620523  
Ion Ratio Lower Upper  
91 100  
106 44.8 36.2 54.2

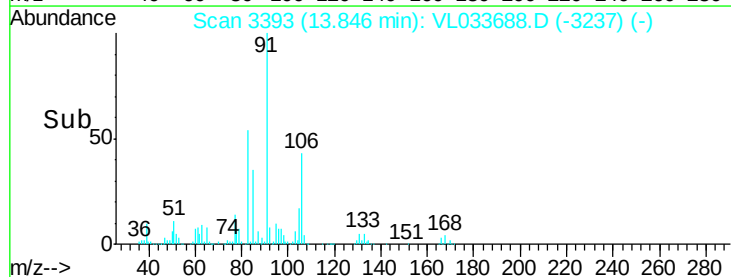
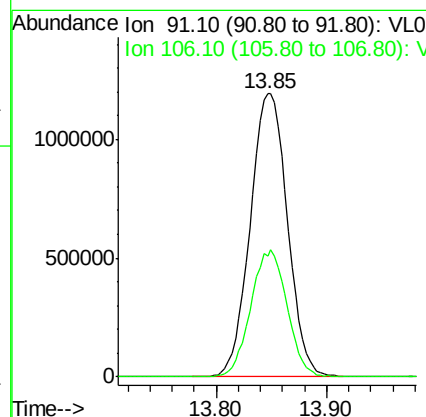
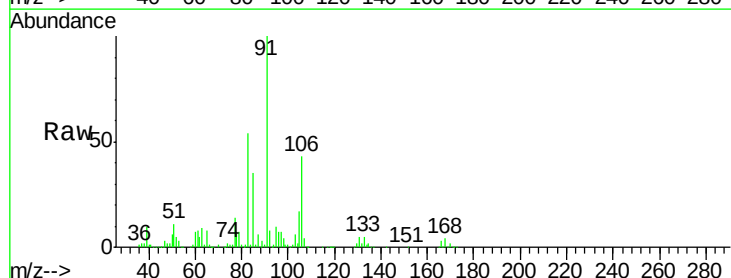
Manual Integrations  
APPROVED

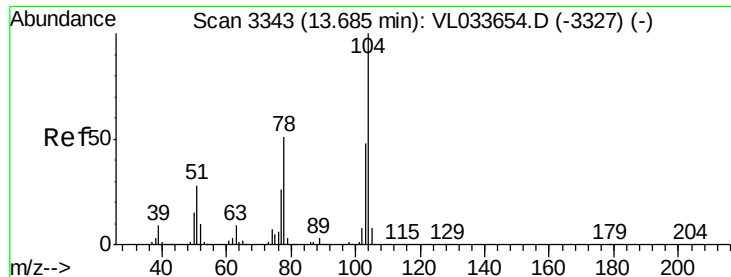
MMDadoda  
5/16/2019 5:41:02 AM



#60  
o-Xylene  
Concen: 9.847 ppbv  
RT: 13.85 min Scan# 3393  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Tgt Ion: 91 Resp: 2789907  
Ion Ratio Lower Upper  
91 100  
106 43.8 21.7 65.1





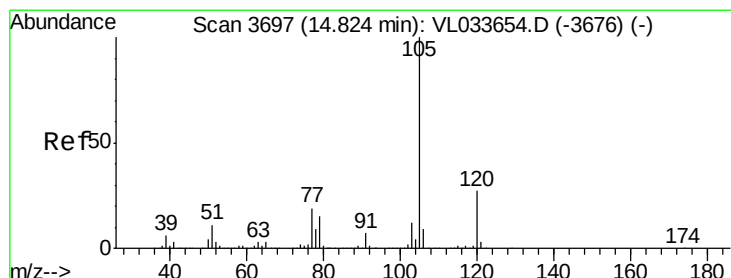
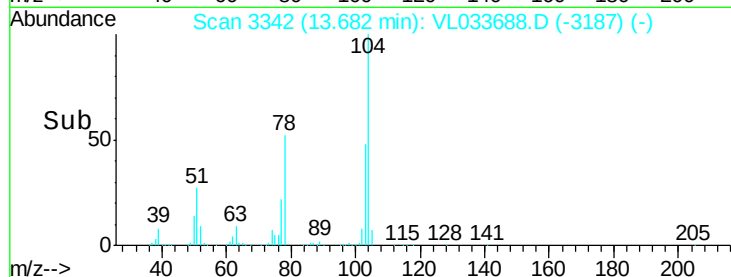
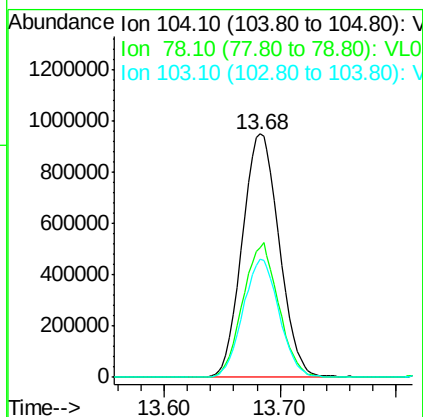
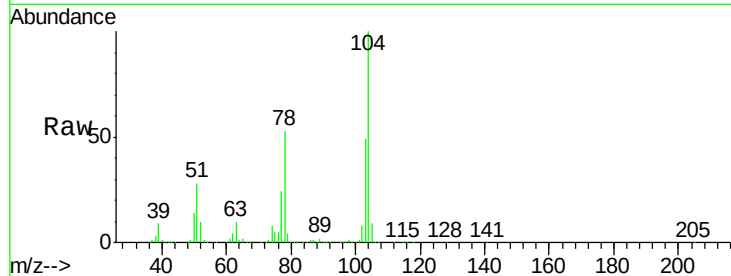
#61  
Stvrene  
Concen: 11.169 ppbv  
RT: 13.68 min Scan# 3342  
Delta R.T. -0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0514ABS01

Tot Ion:104 Resp: 2107166  
Ion Ratio Lower Upper  
104 100  
78 53.4 43.0 64.6  
103 47.5 38.1 57.1

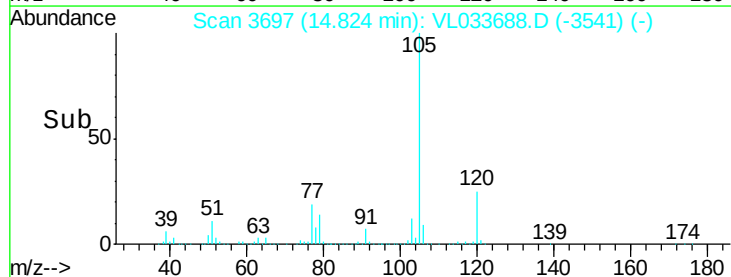
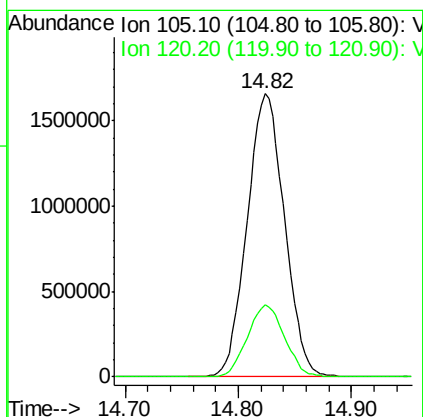
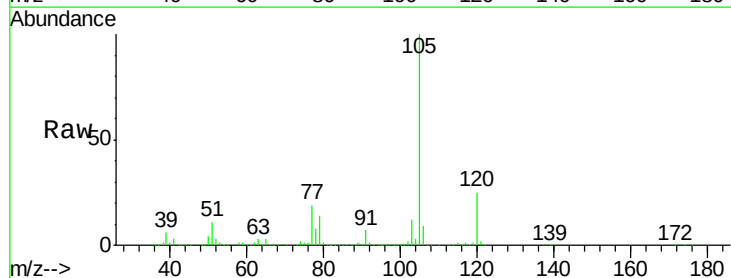
Manual Integrations  
APPROVED

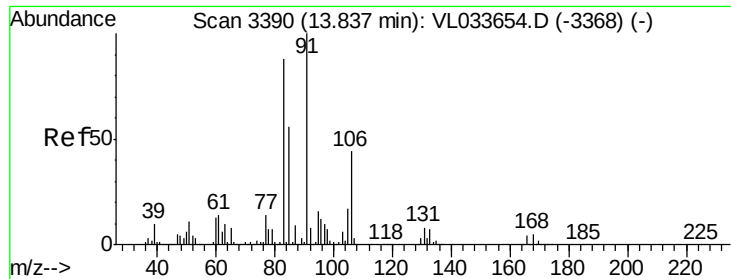
MMDadoda  
5/16/2019 5:41:02 AM



#62  
Isopropylbenzene  
Concen: 9.842 ppbv  
RT: 14.82 min Scan# 3697  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Tgt Ion:105 Resp: 3807190  
Ion Ratio Lower Upper  
105 100  
120 25.5 20.5 30.7





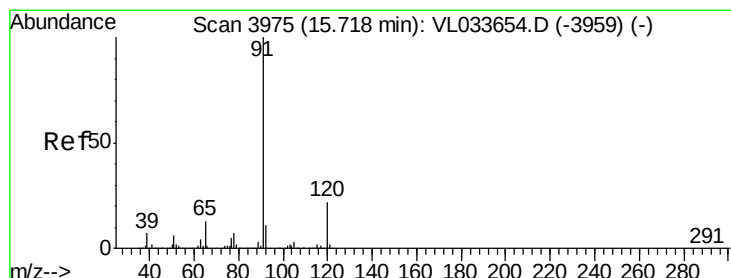
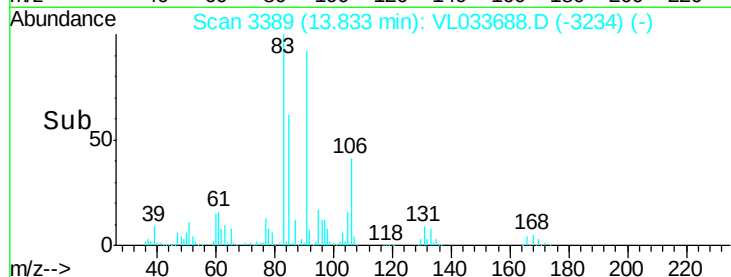
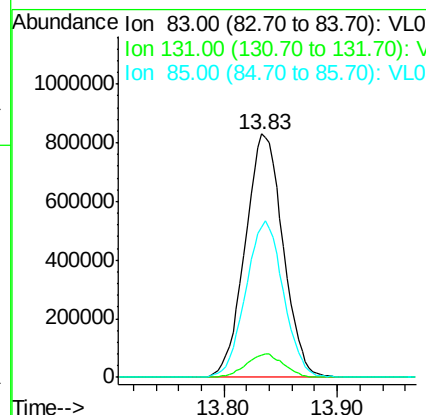
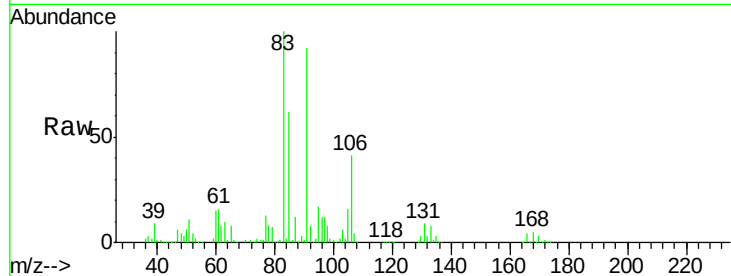
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 9.367 ppbv  
 RT: 13.83 min Scan# 3389  
 Delta R.T. -0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

| Tot Ion   | 83    | Resp  | 1931367 |
|-----------|-------|-------|---------|
| Ion Ratio | Lower | Upper |         |
| 83        | 100   |       |         |
| 131       | 9.7   | 4.8   | 14.3    |
| 85        | 63.9  | 32.5  | 97.4    |

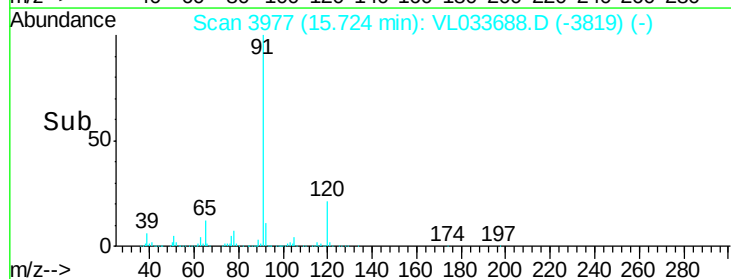
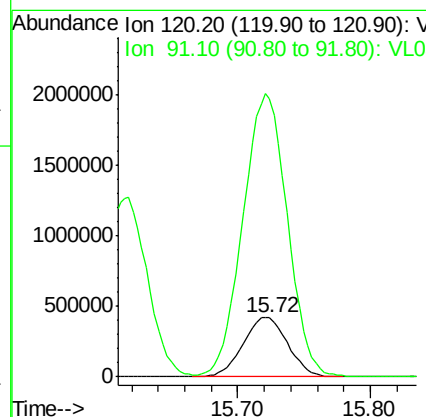
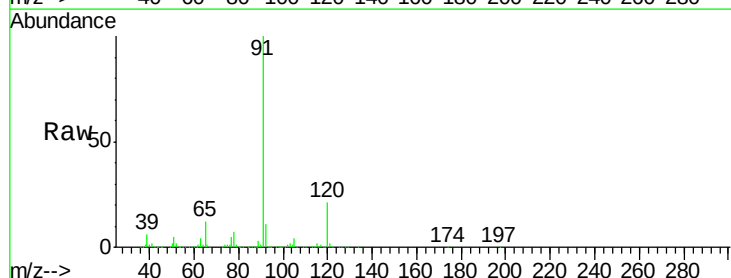
Manual Integrations  
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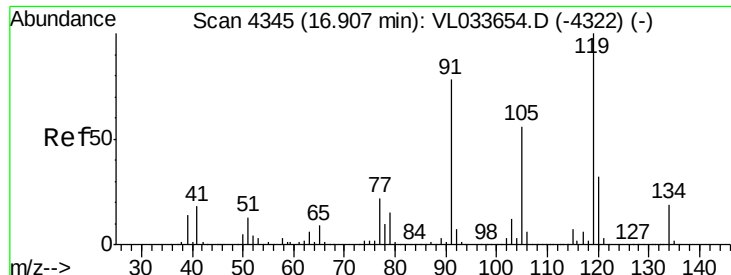
MMDadoda  
 5/16/2019 5:41:02 AM



#64  
 n-propylbenzene  
 Concen: 9.852 ppbv  
 RT: 15.72 min Scan# 3977  
 Delta R.T. 0.01 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

| Tgt Ion   | 120   | Resp  | 984878 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 120       | 100   |       |        |
| 91        | 476.1 | 379.0 | 568.6  |





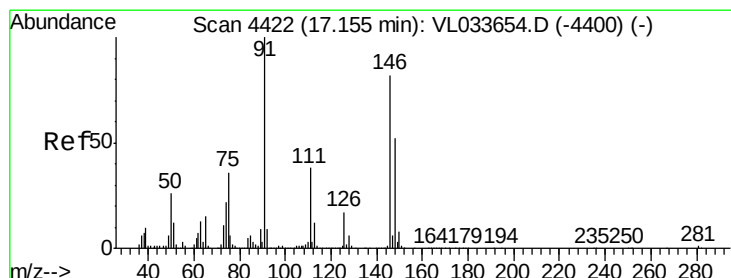
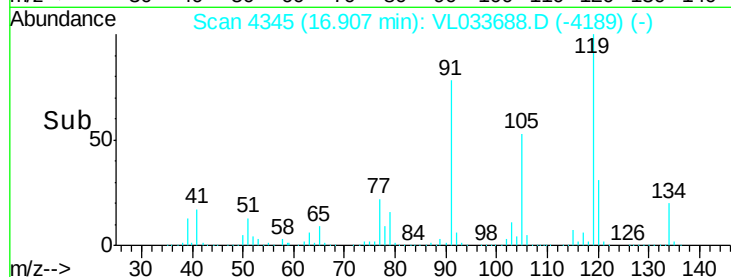
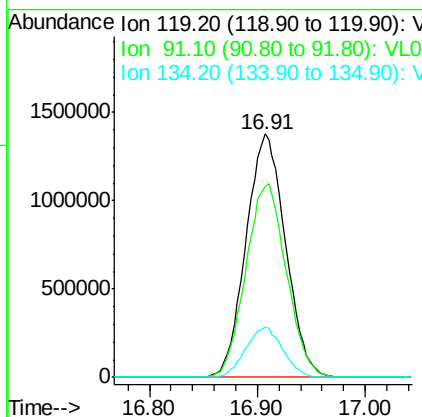
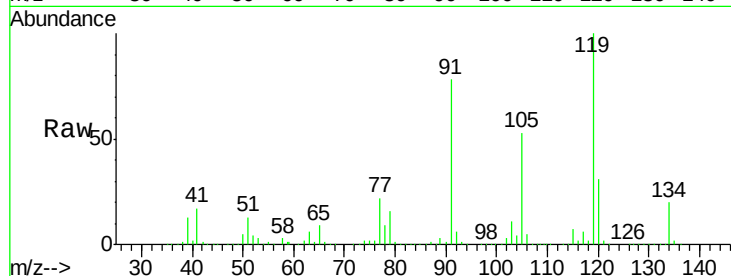
#65  
 tert-Butylbenzene  
 Concen: 9.857 ppbv  
 RT: 16.91 min Scan# 4345  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

Tot Ion:119 Resp: 3497817  
 Ion Ratio Lower Upper  
 119 100  
 91 81.9 65.9 98.9  
 134 19.5 15.5 23.3

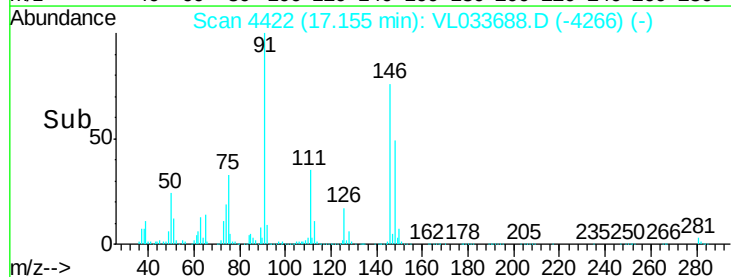
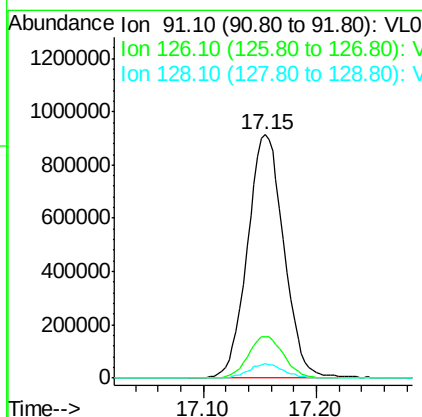
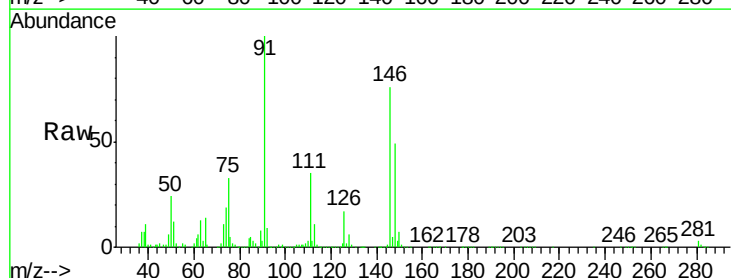
Manual Integrations  
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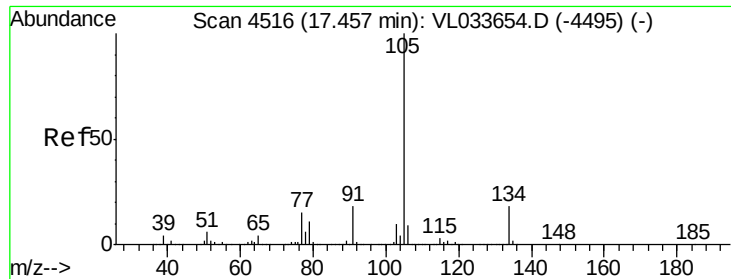
MMDadoda  
 5/16/2019 5:41:02 AM



#66  
 Benzyl Chloride  
 Concen: 12.597 ppbv  
 RT: 17.15 min Scan# 4422  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Tgt Ion: 91 Resp: 2033538  
 Ion Ratio Lower Upper  
 91 100  
 126 16.8 13.4 20.2  
 128 5.5 4.4 6.6





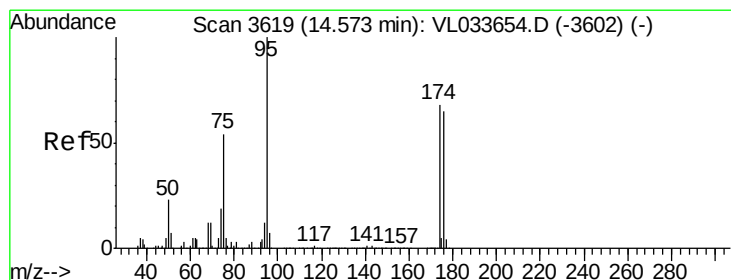
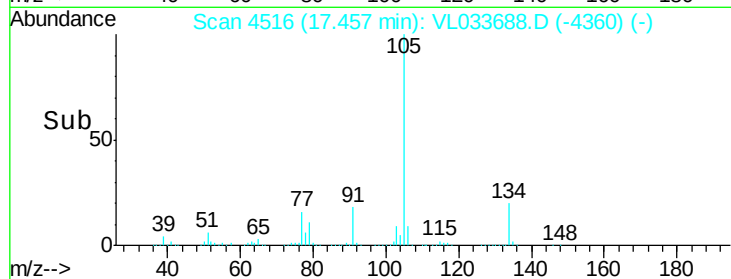
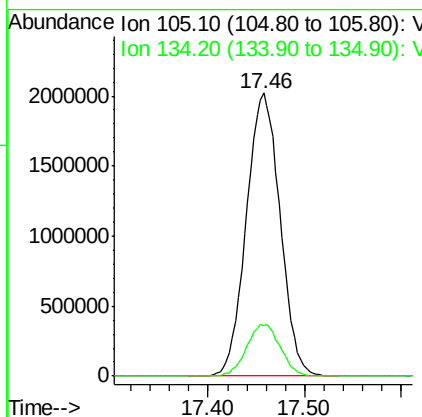
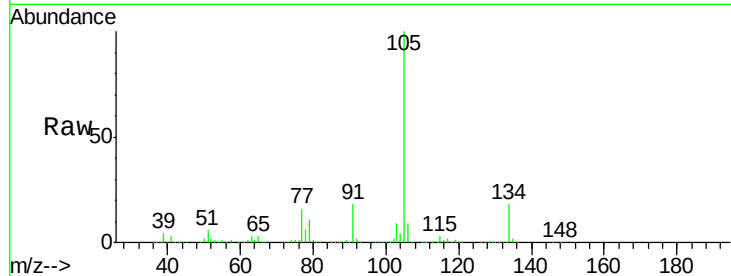
#67  
 sec-Butylbenzene  
 Concen: 9.877 ppbv  
 RT: 17.46 min Scan# 4516  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

Tot Ion:105 Resp: 4889802  
 Ion Ratio Lower Upper  
 105 100  
 134 18.2 14.6 22.0

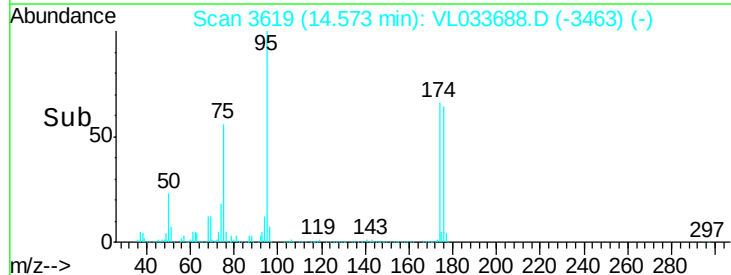
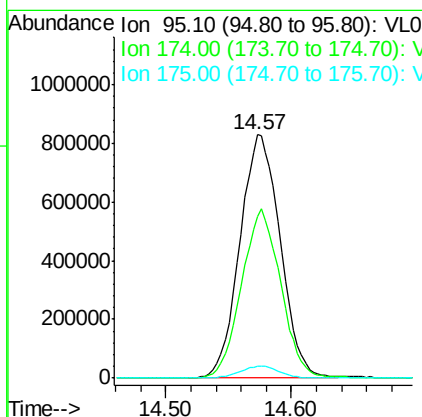
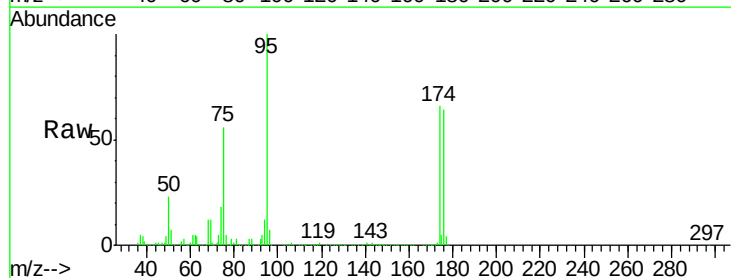
Manual Integrations  
 APPROVED

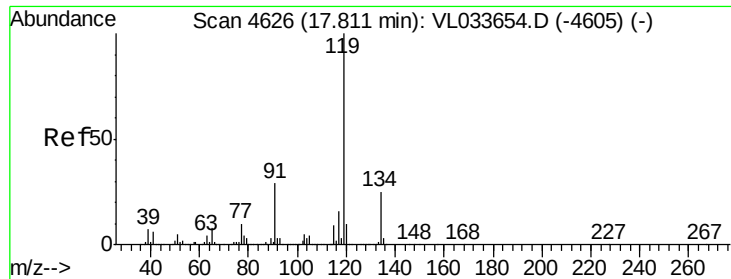
MMDadoda  
 5/16/2019 5:41:02 AM



#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 9.292 ppbv  
 RT: 14.57 min Scan# 3619  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Tgt Ion: 95 Resp: 1856420  
 Ion Ratio Lower Upper  
 95 100  
 174 67.7 54.0 81.0  
 175 4.8 3.8 5.8





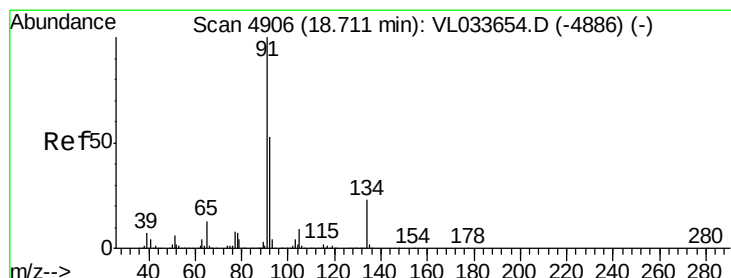
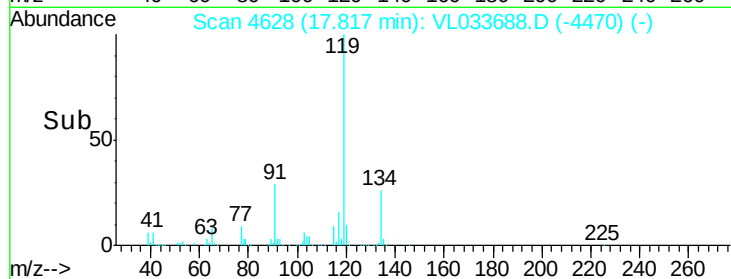
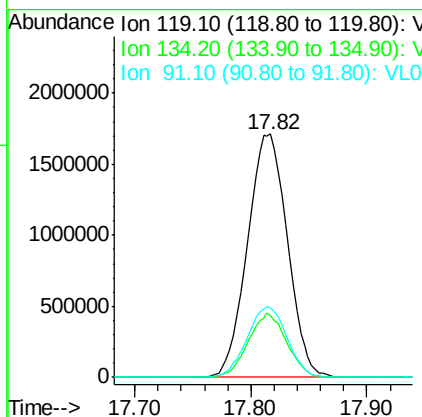
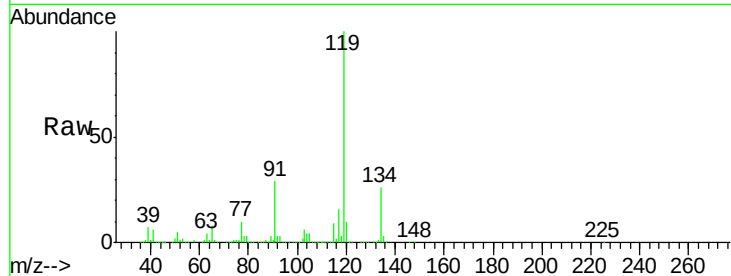
#69  
 p-Isopropyltoluene  
 Concen: 10.057 ppbv  
 RT: 17.82 min Scan# 4628  
 Delta R.T. 0.01 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.4  | 20.2  | 30.2  |
| 91      | 29.2  | 23.4  | 35.2  |

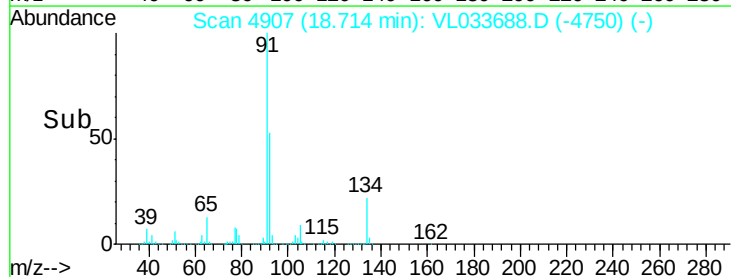
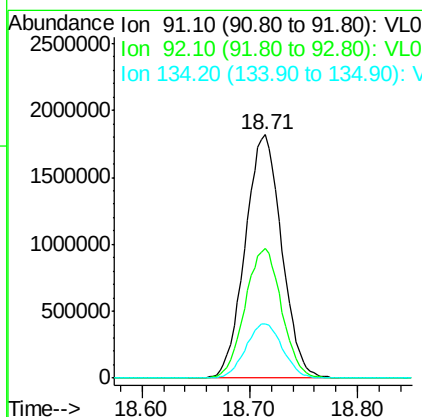
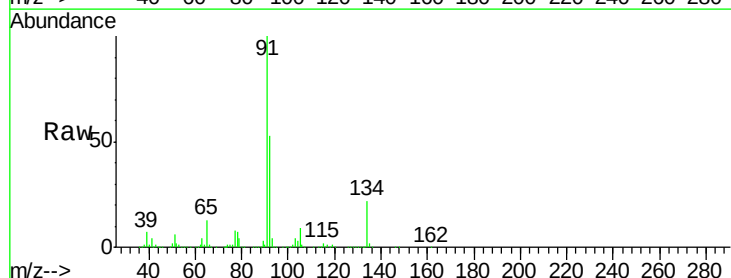
Manual Integrations  
 APPROVED

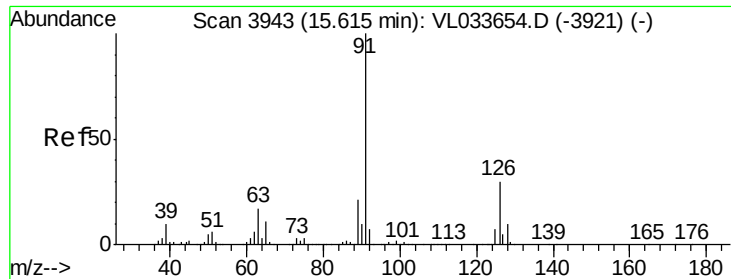
MMDadoda  
 5/16/2019 5:41:02 AM



#70  
 n-Butylbenzene  
 Concen: 9.867 ppbv  
 RT: 18.71 min Scan# 4907  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 53.2  | 42.5  | 63.7  |
| 134     | 22.5  | 18.0  | 27.0  |





#71

2-Chlorotoluene

Concen: 10.183 ppbv

RT: 15.62 min Scan# 3944

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Instrument :

MSVOA\_L

ClientSampleId :

VL0514ABS01

Tot Ion: 91 Resp: 2910445

Ion Ratio Lower Upper

91 100

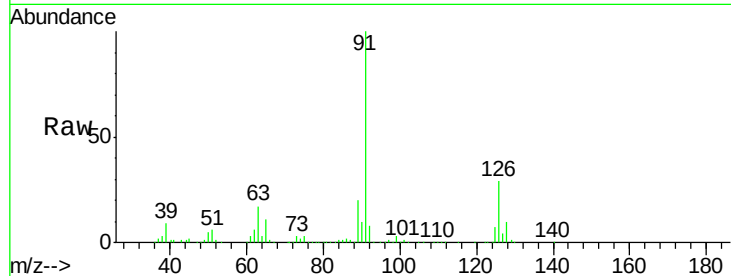
126 30.0 12.0 47.8

Manual Integrations

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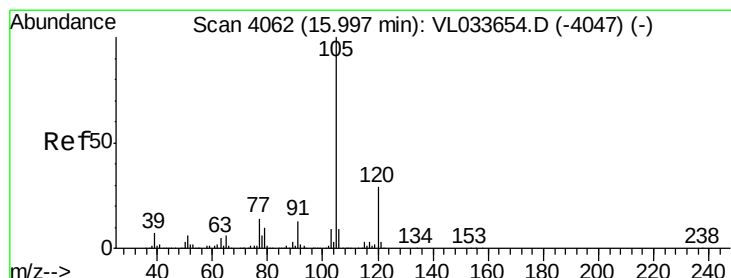
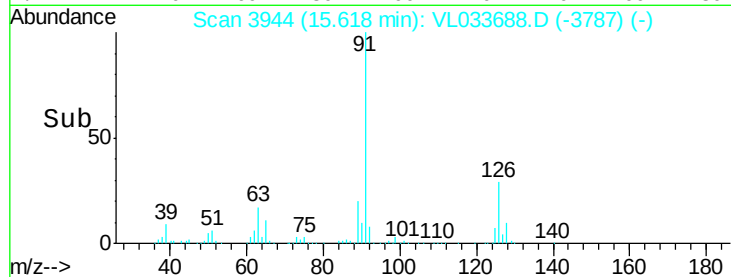
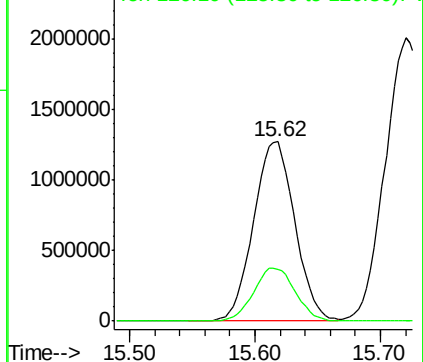
MMDadoda

5/16/2019 5:41:02 AM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V



#72

4-Ethyltoluene

Concen: 10.042 ppbv

RT: 16.00 min Scan# 4063

Delta R.T. 0.00 min

Lab File: VL033688.D

Acq: 14 May 2019 12:57

Tgt Ion:105 Resp: 3344257

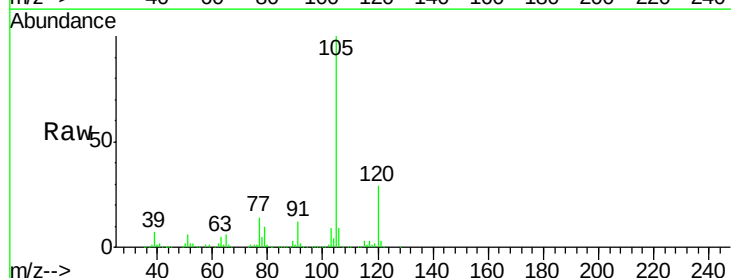
Ion Ratio Lower Upper

105 100

120 29.6 23.0 34.6

91 12.8 10.5 15.7

77 13.8 11.4 17.2

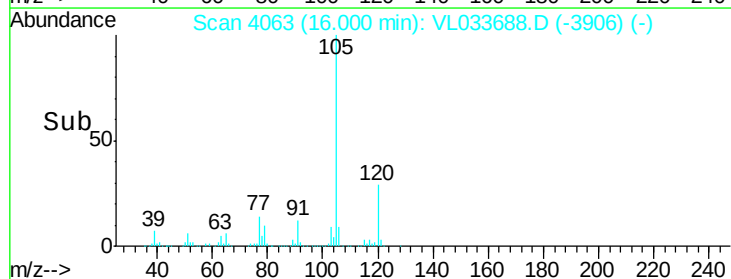
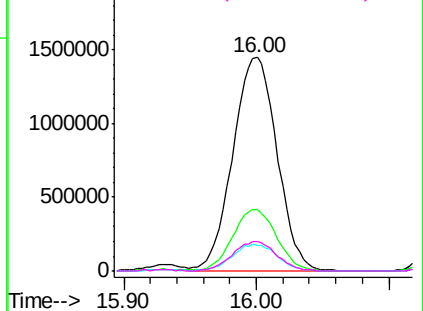


Abundance Ion 105.10 (104.80 to 105.80): V

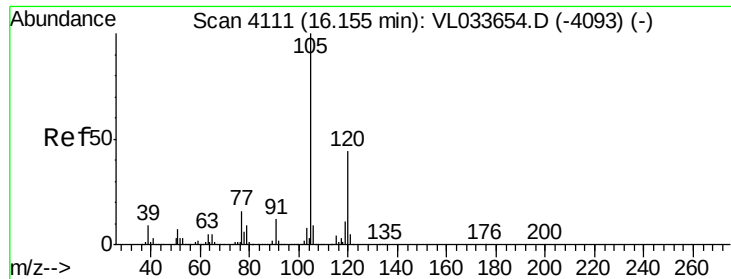
Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0







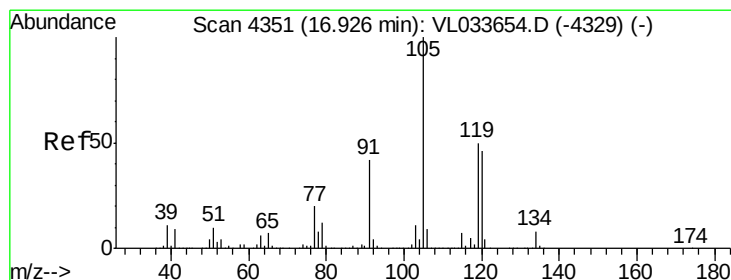
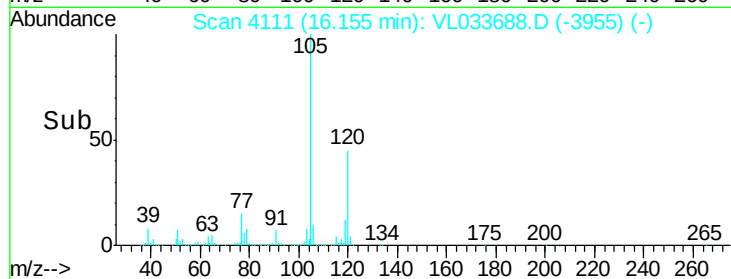
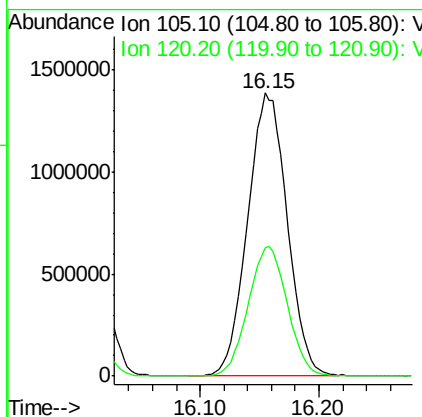
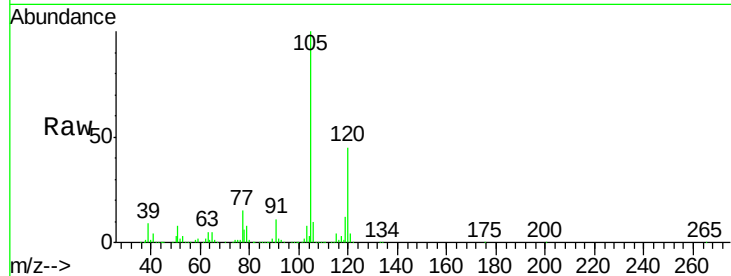
#73  
 1,3,5-Trimethylbenzene  
 Concen: 9.850 ppbv  
 RT: 16.15 min Scan# 4111  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

Tot Ion:105 Resp: 3171554  
 Ion Ratio Lower Upper  
 105 100  
 120 45.2 35.5 53.3

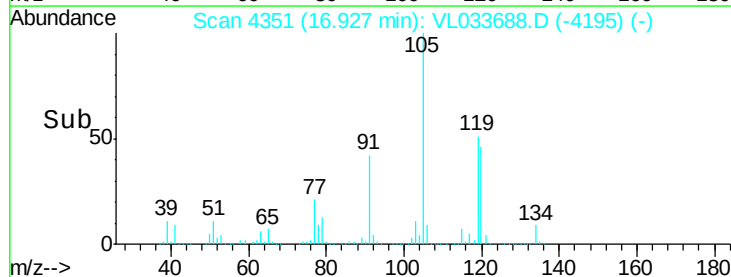
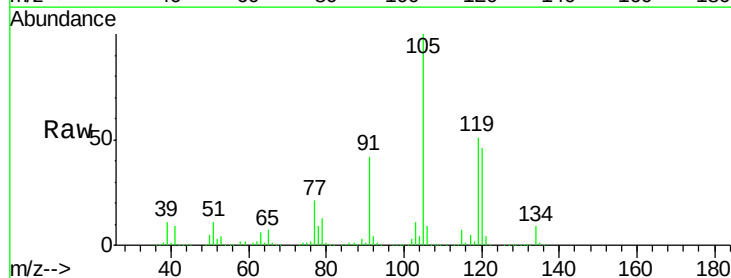
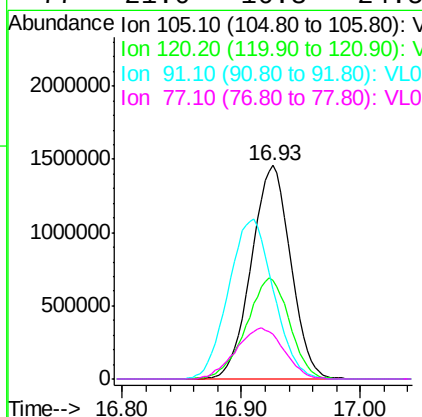
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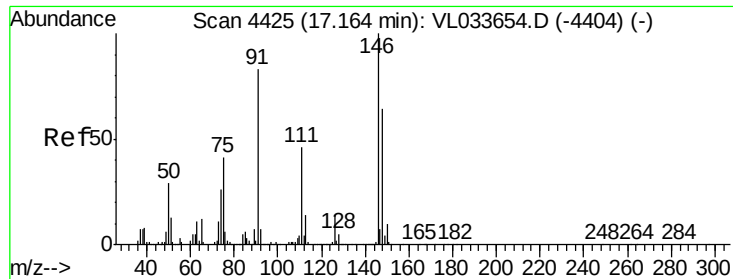
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#74  
 1,2,4-Trimethylbenzene  
 Concen: 9.315 ppbv  
 RT: 16.93 min Scan# 4351  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Tgt Ion:105 Resp: 3333852  
 Ion Ratio Lower Upper  
 105 100  
 120 45.9 36.5 54.7  
 91 41.8 33.7 50.5  
 77 21.0 16.3 24.5





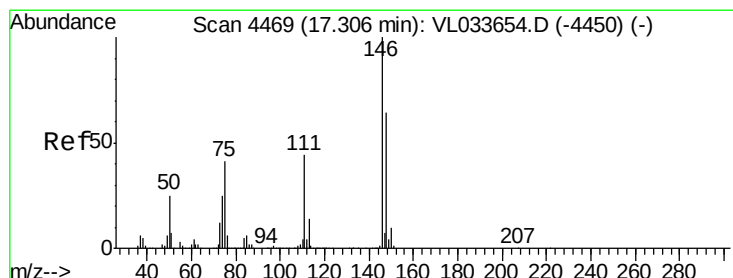
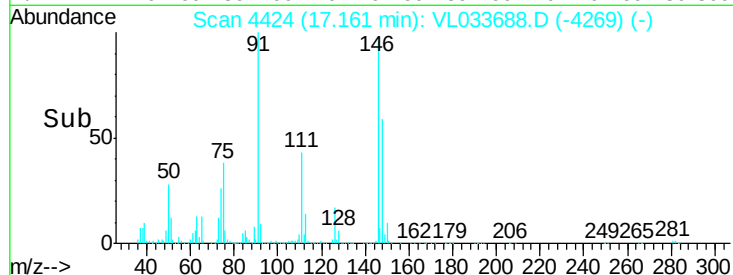
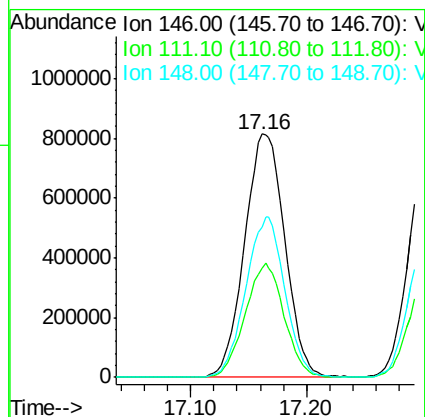
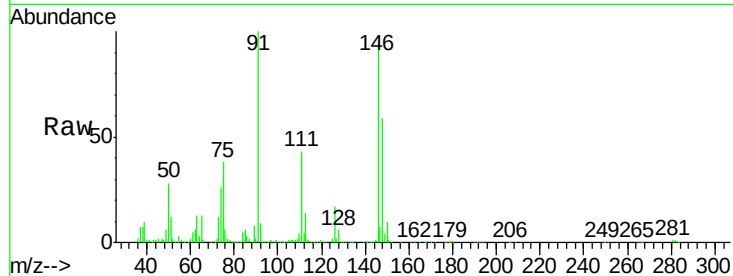
#75  
 1,3-Dichlorobenzene  
 Concen: 9.093 ppbv  
 RT: 17.16 min Scan# 4424  
 Delta R.T. -0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 VL0514ABS01

Tot Ion:146 Resp: 1965703  
 Ion Ratio Lower Upper  
 146 100  
 111 45.4 22.6 67.7  
 148 64.1 31.8 95.4

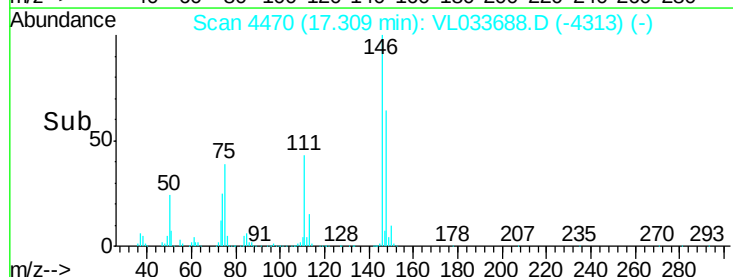
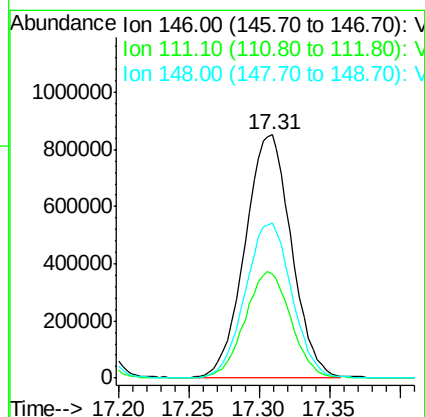
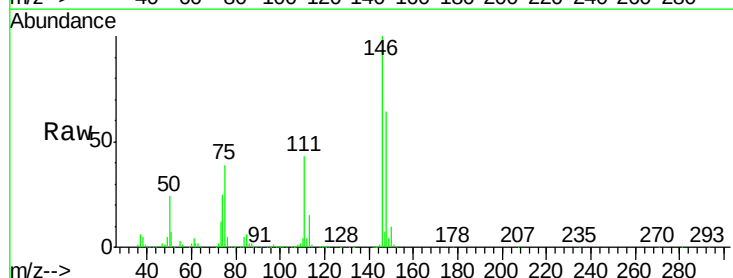
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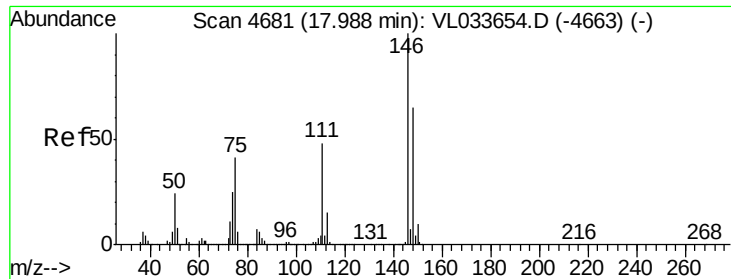
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#76  
 1,4-Dichlorobenzene  
 Concen: 9.498 ppbv  
 RT: 17.31 min Scan# 4470  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Tgt Ion:146 Resp: 1948555  
 Ion Ratio Lower Upper  
 146 100  
 111 43.8 22.0 66.0  
 148 64.9 32.1 96.5





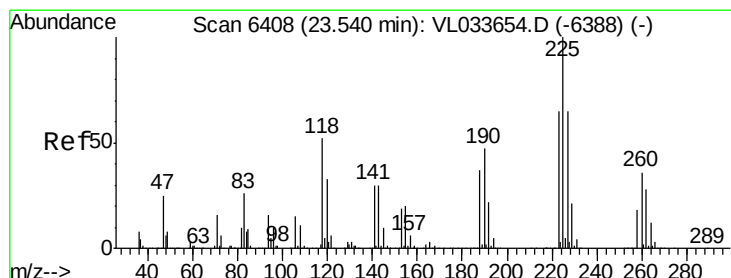
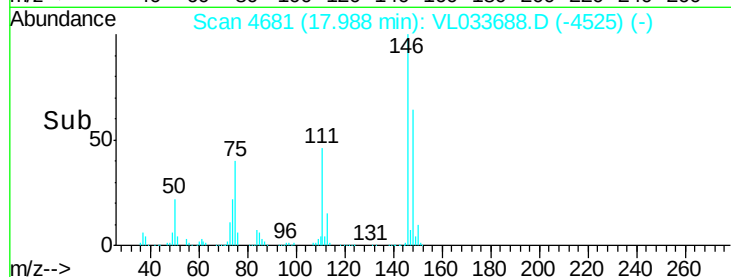
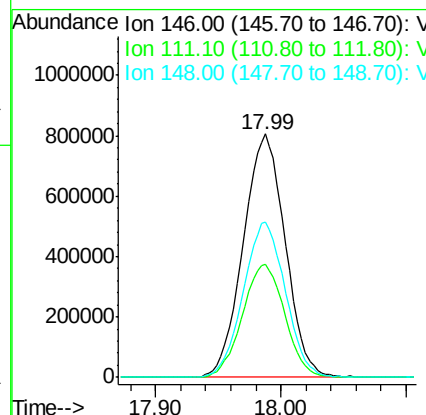
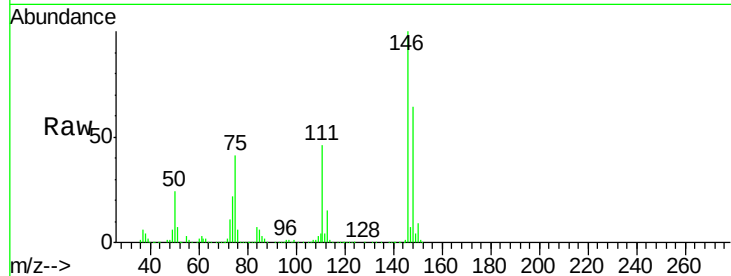
#77  
 1,2-Dichlorobenzene  
 Concen: 9.320 ppbv  
 RT: 17.99 min Scan# 4681  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 47.1  | 23.4  | 70.0  |
| 148     | 64.3  | 31.9  | 95.9  |

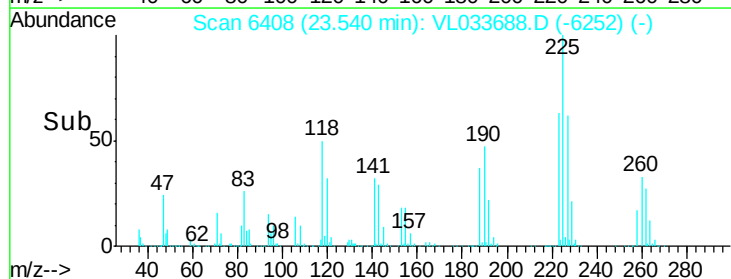
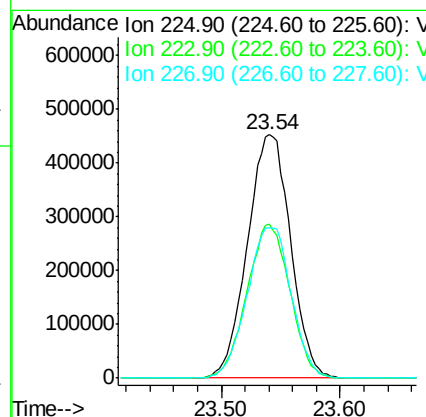
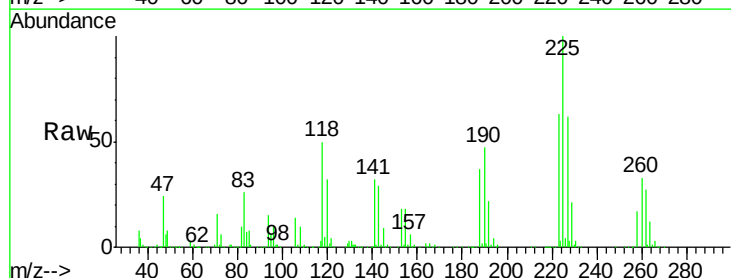
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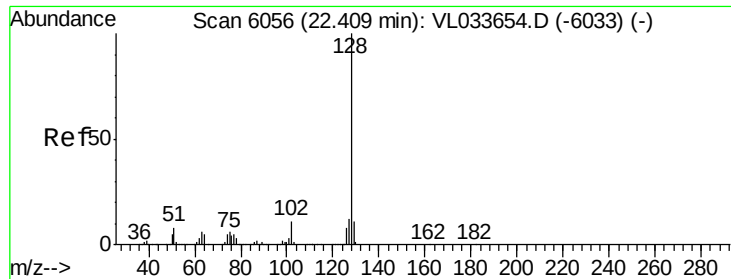
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 7.153 ppbv  
 RT: 23.54 min Scan# 6408  
 Delta R.T. 0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 63.0  | 50.7  | 76.1  |
| 227     | 63.4  | 51.4  | 77.2  |





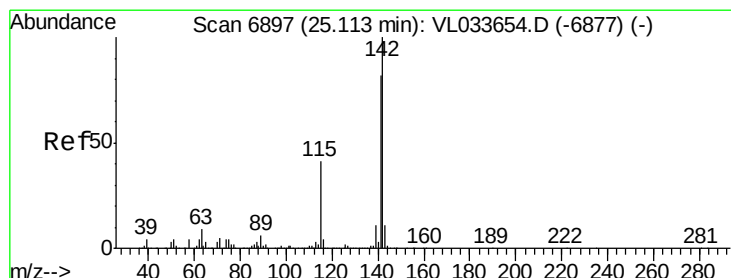
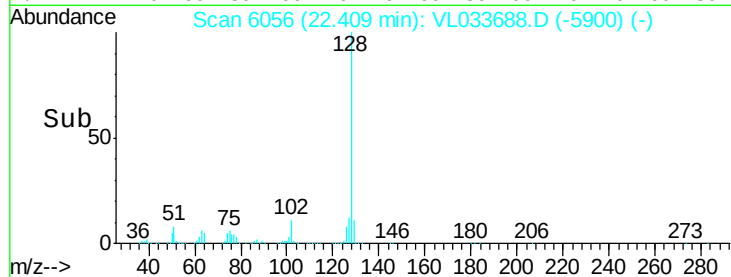
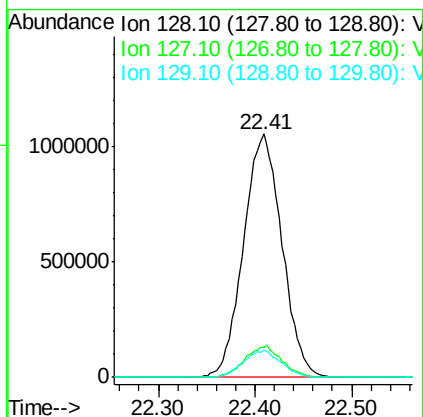
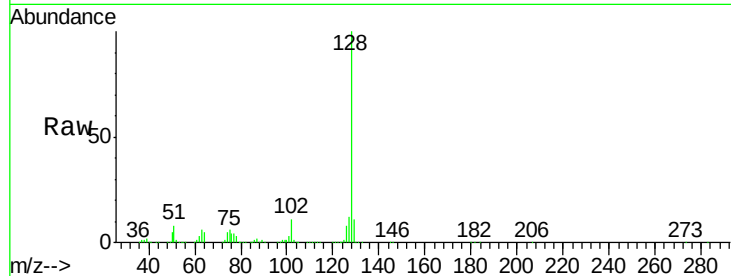
#79  
Naphthalene  
Concen: 8.901 ppbv  
RT: 22.41 min Scan# 6056  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0514ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.2  | 9.8   | 14.8  |
| 129     | 11.4  | 8.8   | 13.2  |

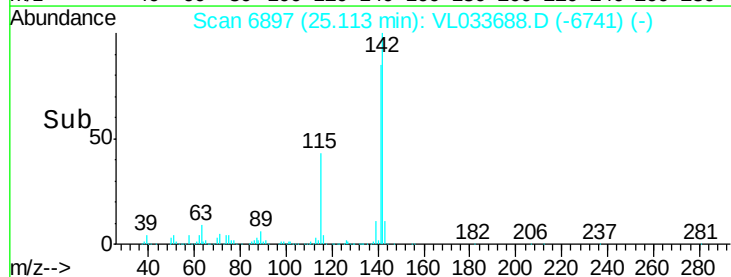
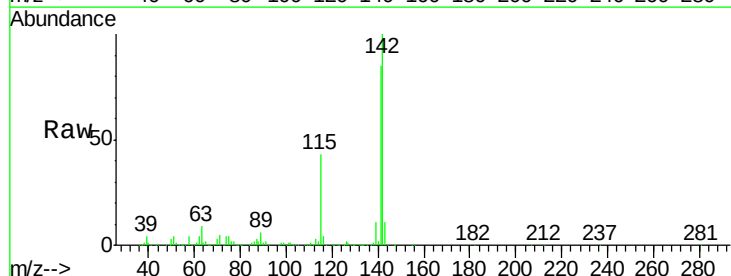
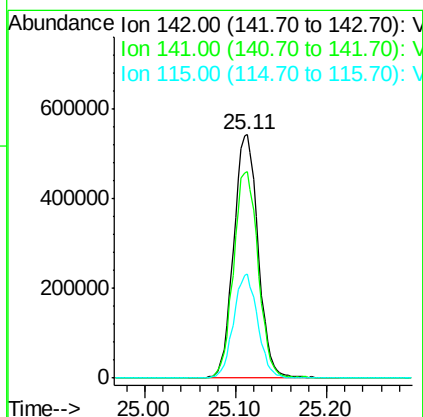
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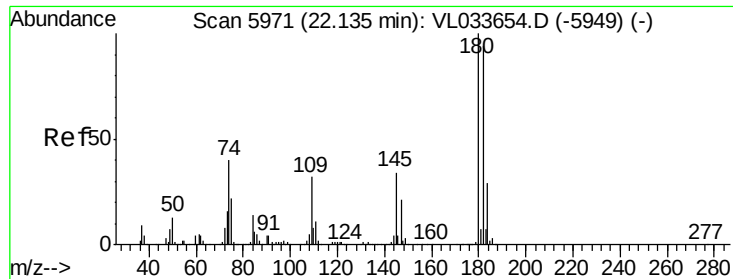
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#80  
Naphthalene, 2-methyl-  
Concen: 8.205 ppbv  
RT: 25.11 min Scan# 6897  
Delta R.T. 0.00 min  
Lab File: VL033688.D  
Acq: 14 May 2019 12:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 85.6  | 67.9  | 101.9 |
| 115     | 42.4  | 34.2  | 51.4  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 8.437 ppbv  
 RT: 22.13 min Scan# 5970  
 Delta R.T. -0.00 min  
 Lab File: VL033688.D  
 Acq: 14 May 2019 12:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0514ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.7  | 77.4  | 116.0 |
| 184     | 30.7  | 24.6  | 36.8  |

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