

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL031620\  
 Data File : VL034887.D  
 Acq On : 16 Mar 2020 12:45  
 Operator : SY/AP  
 Sample : VL0316ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

Manual Integrations  
 APPROVED

MMDadoda  
 3/17/2020 12:15:40 PM

Quant Time: Mar 17 04:47:34 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030920AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Mar 0  
 QLast Update : Mon Mar 09 16:42:53 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.65  | 49   | 955153   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 2096990  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.10 | 117  | 2237409m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.44  | 95    | 1747529  | 10.02    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.20% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.01 | 85   | 1729726  | 13.225 | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 2.94 | 51   | 1089710  | 10.213 | ppbv   | 98     |
| 4) Chloromethane               | 3.10 | 50   | 629022   | 10.431 | ppbv   | 97     |
| 5) Vinyl Chloride              | 3.22 | 62   | 609609   | 10.515 | ppbv   | 94     |
| 6) Bromomethane                | 3.43 | 94   | 360902   | 10.694 | ppbv   | 96     |
| 7) Chloroethane                | 3.52 | 64   | 217082   | 10.369 | ppbv   | 99     |
| 8) Dichlorotetrafluoroethane   | 3.14 | 85   | 1376175  | 10.131 | ppbv   | 96     |
| 9) Propene                     | 2.97 | 41   | 496495   | 9.746  | ppbv   | 99     |
| 10) Heptane                    | 8.12 | 43   | 1331409  | 10.620 | ppbv   | 100    |
| 11) Trichlorofluoromethane     | 3.92 | 101  | 1414597  | 10.166 | ppbv   | 98     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.46 | 101  | 1005572  | 10.325 | ppbv   | 95     |
| 13) Ethanol                    | 3.57 | 45   | 114239   | 7.376  | ppbv   | 96     |
| 14) Bromoethene                | 3.70 | 108  | 430202   | 10.228 | ppbv   | 98     |
| 15) Acetone                    | 3.82 | 43   | 1128687  | 9.117  | ppbv   | 99     |
| 16) 1,3-Butadiene              | 3.29 | 39   | 564369   | 10.081 | ppbv   | 100    |
| 17) tert-Butyl alcohol         | 4.26 | 59   | 842882   | 7.067  | ppbv   | 99     |
| 18) 1,1-Dichloroethene         | 4.26 | 96   | 457306   | 10.603 | ppbv   | 97     |
| 19) Isopropyl Alcohol          | 3.94 | 45   | 602190   | 7.703  | ppbv # | 41     |
| 20) Methylene Chloride         | 4.31 | 84   | 405649   | 10.364 | ppbv   | 97     |
| 21) Allyl Chloride             | 4.38 | 41   | 798786   | 10.047 | ppbv   | 100    |
| 22) trans-1,2-Dichloroethene   | 4.86 | 96   | 465863   | 10.647 | ppbv   | 97     |
| 23) Vinyl Acetate              | 5.05 | 43   | 1805908  | 9.875  | ppbv   | 98     |
| 24) 1,1-Dichloroethane         | 4.99 | 63   | 1246116  | 10.165 | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.66 | 43   | 2187497  | 9.918  | ppbv   | 100    |
| 26) Hexane                     | 5.67 | 57   | 975124   | 10.267 | ppbv   | 98     |
| 27) Carbon Disulfide           | 4.52 | 76   | 1164112  | 10.802 | ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.01 | 73   | 1509359  | 9.552  | ppbv   | 100    |
| 29) Chloroform                 | 5.74 | 83   | 1508334  | 10.409 | ppbv   | 97     |
| 30) Cyclohexane                | 7.12 | 84   | 807200   | 10.186 | ppbv   | 98     |
| 31) cis-1,2-Dichloroethene     | 5.53 | 61   | 993093   | 10.225 | ppbv   | 98     |
| 32) 1,1,1-Trichloroethane      | 6.50 | 97   | 1470654  | 10.416 | ppbv   | 98     |
| 34) 2-Butanone                 | 5.22 | 43   | 1467891  | 10.533 | ppbv   | 99     |
| 35) Carbon Tetrachloride       | 7.01 | 117  | 1489576  | 11.421 | ppbv   | 96     |
| 36) Benzene                    | 6.89 | 78   | 1963515  | 10.505 | ppbv   | 97     |
| 37) 1,2-Dichloroethane         | 6.30 | 62   | 1174895  | 11.148 | ppbv   | 98     |
| 38) Trichloroethene            | 7.83 | 130  | 735599   | 10.362 | ppbv   | 98     |
| 39) 1,2-Dichloropropane        | 7.62 | 63   | 779218   | 10.522 | ppbv   | 95     |
| 40) 1,4-Dioxane                | 7.83 | 88   | 258199   | 9.232  | ppbv # | 93     |
| 41) Tetrahydrofuran            | 6.03 | 42   | 817203   | 10.838 | ppbv   | 99     |
| 42) Bromodichloromethane       | 7.80 | 83   | 1603556  | 11.164 | ppbv   | 100    |
| 43) Methyl Methacrylate        | 8.02 | 69   | 889421   | 11.295 | ppbv   | 98     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL031620\  
 Data File : VL034887.D  
 Acq On : 16 Mar 2020 12:45  
 Operator : SY/AP  
 Sample : VL0316ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

Manual Integrations  
 APPROVED

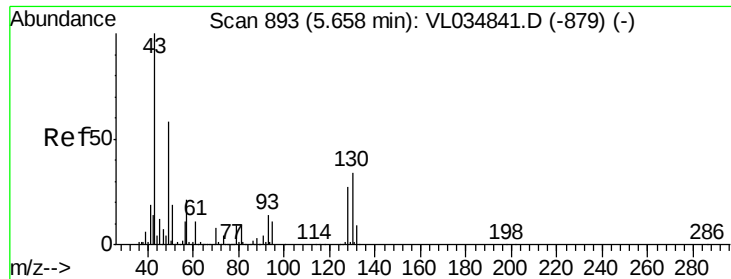
MMDadoda  
 3/17/2020 12:15:40 PM

Quant Time: Mar 17 04:47:34 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030920AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Mar 0  
 QLast Update : Mon Mar 09 16:42:53 2020  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.87  | 57   | 3400439  | 10.766 | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.28  | 75   | 1016052  | 10.982 | ppbv   | 99       |
| 46) cis-1,3-Dichloropropene   | 8.71  | 75   | 1206451  | 10.974 | ppbv   | 95       |
| 47) 1,1,2-Trichloroethane     | 9.48  | 97   | 826279   | 10.872 | ppbv   | 96       |
| 48) Dibromochloromethane      | 10.32 | 129  | 1339491  | 10.883 | ppbv   | 99       |
| 49) Bromoform                 | 13.07 | 173  | 1204745  | 10.978 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.74  | 43   | 2210769  | 11.021 | ppbv   | 100      |
| 51) 2-Hexanone                | 10.14 | 43   | 1815190  | 11.134 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.24 | 164  | 704217   | 9.523  | ppbv   | 98       |
| 53) Toluene                   | 9.82  | 91   | 2288631  | 10.603 | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.63 | 107  | 1224735  | 10.706 | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.14 | 131  | 1020076  | 10.149 | ppbv   | 96       |
| 57) Chlorobenzene             | 12.17 | 112  | 1740365  | 9.941  | ppbv # | 96       |
| 58) Ethyl Benzene             | 12.73 | 91   | 3117016  | 10.287 | ppbv   | 99       |
| 59) m/p-Xylene                | 13.01 | 91   | 5145764m | 20.271 | ppbv   |          |
| 60) o-Xylene                  | 13.71 | 91   | 2548584  | 10.283 | ppbv   | 99       |
| 61) Styrene                   | 13.55 | 104  | 1875467  | 10.782 | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.69 | 105  | 3755152  | 10.020 | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.70 | 83   | 1805631  | 10.731 | ppbv   | 99       |
| 64) n-propylbenzene           | 15.59 | 120  | 993344   | 10.184 | ppbv   | 93       |
| 65) tert-Butylbenzene         | 16.77 | 119  | 3263319  | 9.961  | ppbv   | 98       |
| 66) Benzyl Chloride           | 17.02 | 91   | 1298293  | 9.504  | ppbv   | 98       |
| 67) sec-Butylbenzene          | 17.32 | 105  | 4703573  | 10.354 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.68 | 119  | 3913954  | 10.275 | ppbv   | 98       |
| 70) n-Butylbenzene            | 18.58 | 91   | 4154473  | 10.690 | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.48 | 91   | 2923779  | 10.302 | ppbv   | 98       |
| 72) 4-Ethyltoluene            | 15.86 | 105  | 3085808  | 10.543 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.02 | 105  | 2859596  | 10.436 | ppbv   | 98       |
| 74) 1,2,4-Trimethylbenzene    | 16.79 | 105  | 2960233  | 10.486 | ppbv   | 97       |
| 75) 1,3-Dichlorobenzene       | 17.03 | 146  | 1694834  | 9.957  | ppbv   | 100      |
| 76) 1,4-Dichlorobenzene       | 17.17 | 146  | 1705180  | 10.039 | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 17.85 | 146  | 1639808  | 9.939  | ppbv   | 97       |
| 78) Hexachloro-1,3-Butadiene  | 23.41 | 225  | 1398602  | 10.149 | ppbv   | 98       |
| 79) Naphthalene               | 22.24 | 128  | 2723187  | 12.370 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.00 | 142  | 813304   | 14.137 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 21.97 | 180  | 1571792  | 11.238 | ppbv   | 100      |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

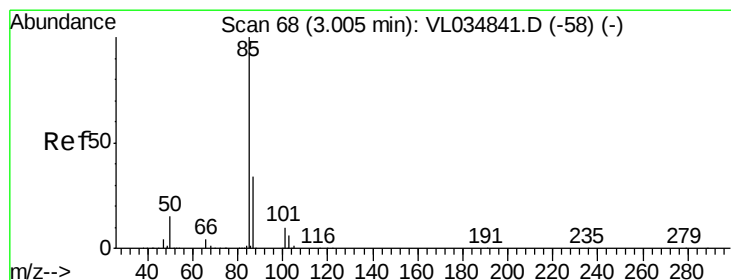
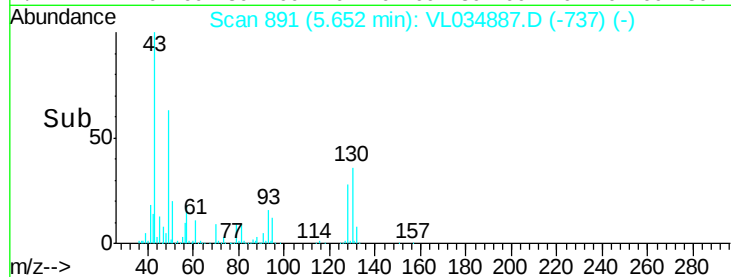
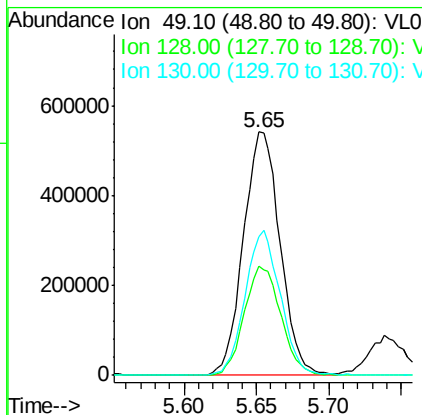
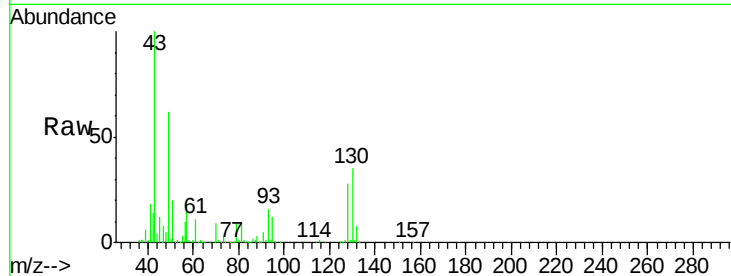
ClientSampleId :

VL0316ABS01

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 49    | Resp: | 955153 |
| Ion      | Ratio | Lower | Upper  |
| 49       | 100   |       |        |
| 128      | 44.9  | 23.4  | 70.3   |
| 130      | 57.3  | 30.0  | 90.0   |

Manual Integrations  
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#2

Dichlorodifluoromethane

Concen: 13.225 ppbv

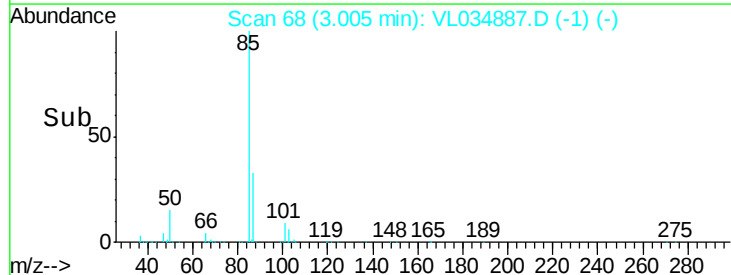
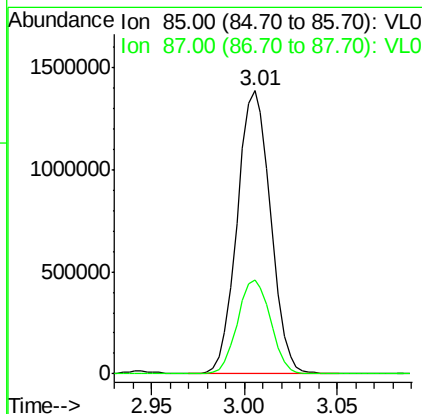
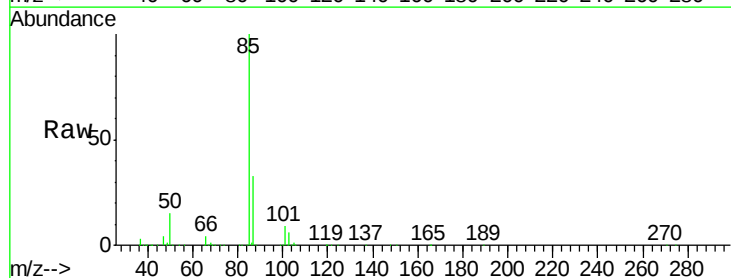
RT: 3.01 min Scan# 68

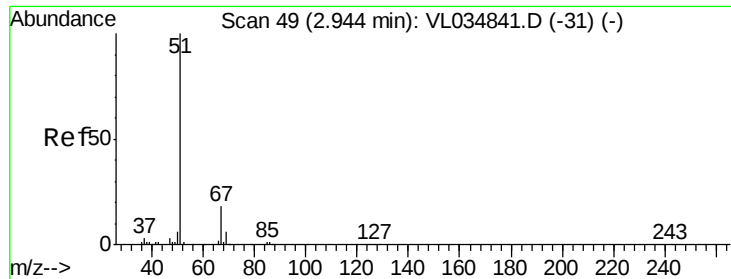
Delta R.T. 0.00 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 85    | Resp: | 1729726 |
| Ion      | Ratio | Lower | Upper   |
| 85       | 100   |       |         |
| 87       | 33.2  | 26.9  | 40.3    |





#3

Chlorodifluoromethane

Concen: 10.213 ppbv

RT: 2.94 min Scan# 49

Delta R.T. 0.00 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Tot Ion: 51 Resp: 1089710

Ion Ratio Lower Upper

51 100

67 18.8 14.3 21.5

Instrument :

MSVOA\_L

ClientSampleId :

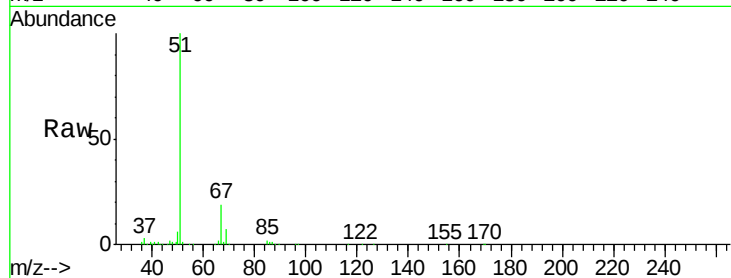
VL0316ABS01

Manual Integrations

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3/17/2020 12:15:40 PM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

2.94

800000

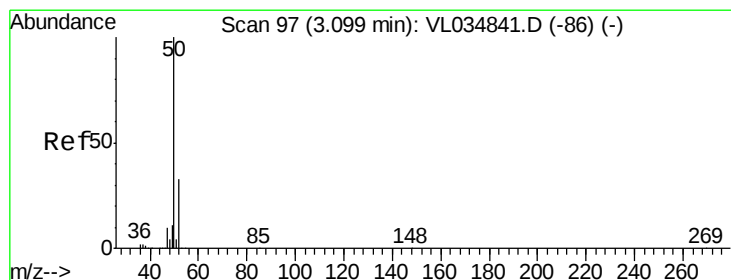
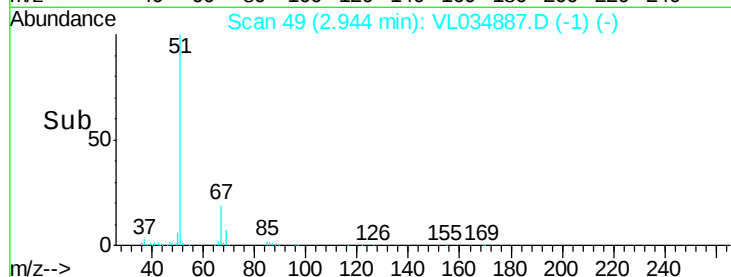
600000

400000

200000

0

Time--> 2.80 2.90 3.00 3.10



#4

Chloromethane

Concen: 10.431 ppbv

RT: 3.10 min Scan# 97

Delta R.T. 0.00 min

Lab File: VL034887.D

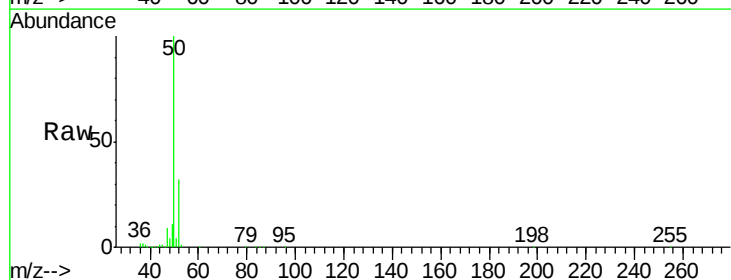
Acq: 16 Mar 2020 12:45

Tgt Ion: 50 Resp: 629022

Ion Ratio Lower Upper

50 100

52 31.6 26.8 40.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3.10

500000

400000

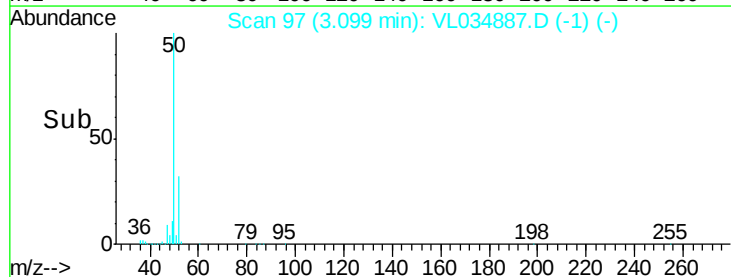
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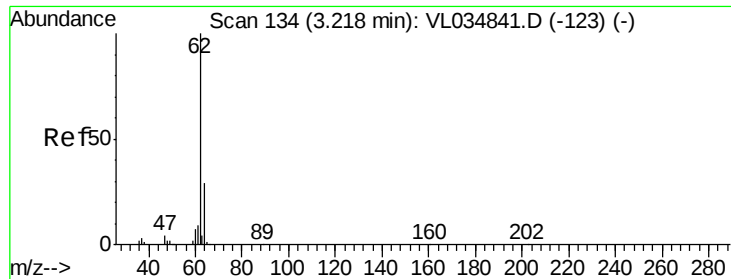
200000

100000

0

Time--> 3.05 3.10





#5

Vinyl Chloride

Concen: 10.515 ppbv

RT: 3.22 min Scan# 134

Delta R.T. 0.00 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion: 62 Resp: 609609

Ion Ratio Lower Upper

62 100

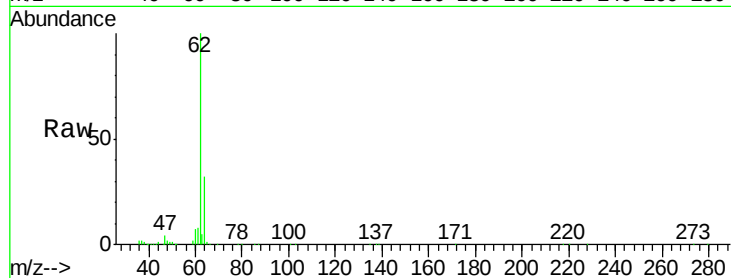
64 32.1 23.0 34.4

Manual Integrations

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Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0

3.22

500000

400000

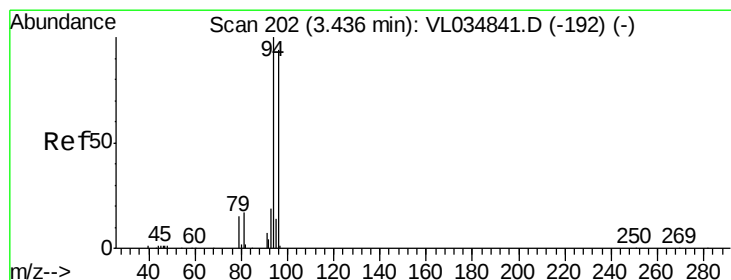
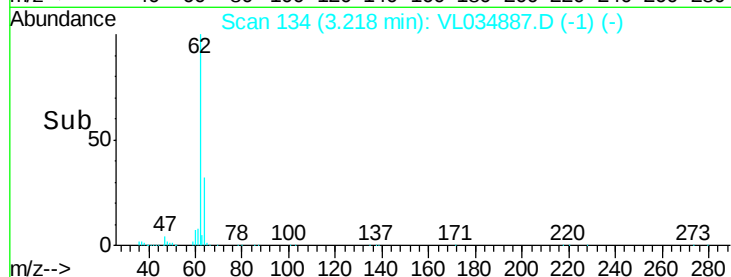
300000

200000

100000

0

Time-->



#6

Bromomethane

Concen: 10.694 ppbv

RT: 3.43 min Scan# 201

Delta R.T. -0.00 min

Lab File: VL034887.D

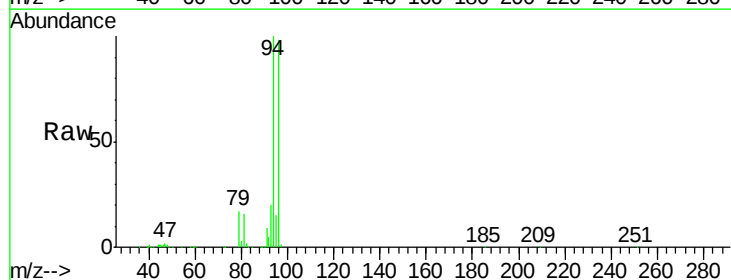
Acq: 16 Mar 2020 12:45

Tgt Ion: 94 Resp: 360902

Ion Ratio Lower Upper

94 100

96 97.9 75.5 113.3



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0

3.43

250000

200000

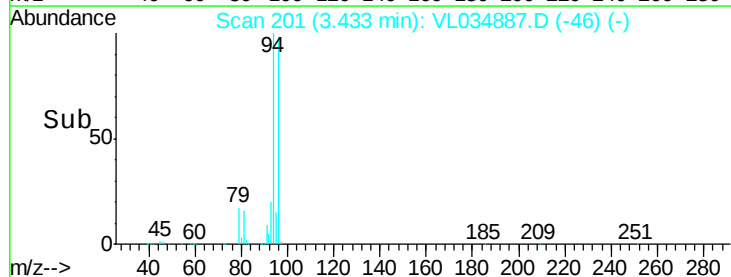
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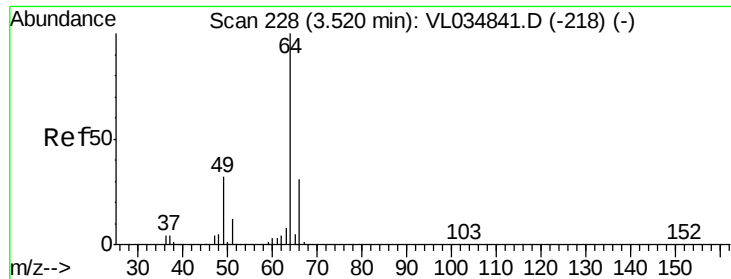
100000

50000

0

Time-->





#7

Chloroethane

Concen: 10.369 ppbv

RT: 3.52 min Scan# 228

Delta R.T. 0.00 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion: 64 Resp: 217082

Ion Ratio Lower Upper

64 100

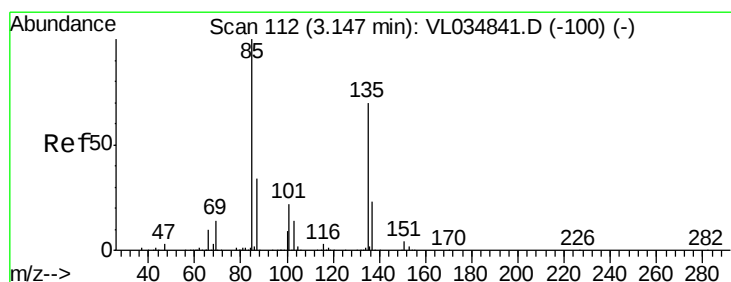
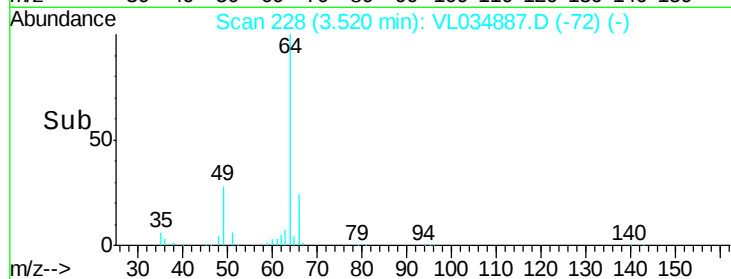
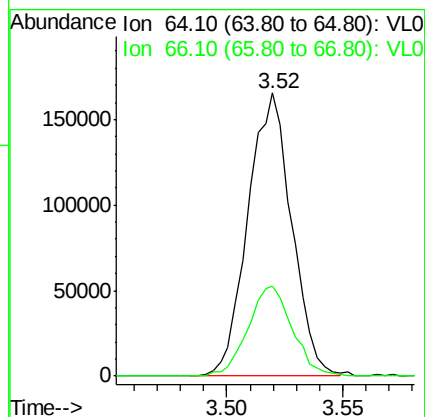
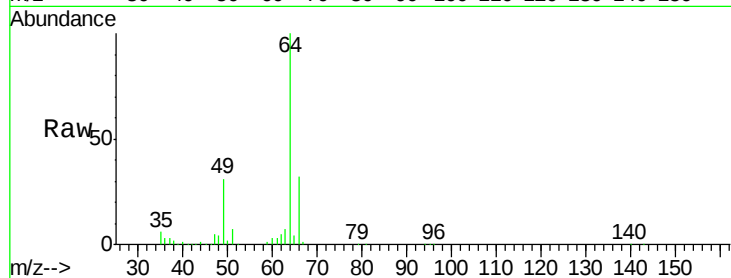
66 31.8 24.8 37.2

Manual Integrations

APPROVED

MMDadoda

3/17/2020 12:15:40 PM



#8

Dichlorotetrafluoroethane

Concen: 10.131 ppbv

RT: 3.14 min Scan# 111

Delta R.T. -0.00 min

Lab File: VL034887.D

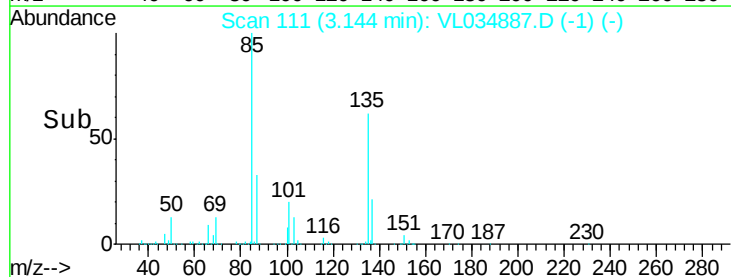
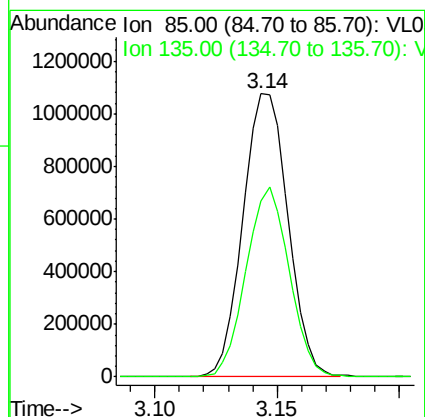
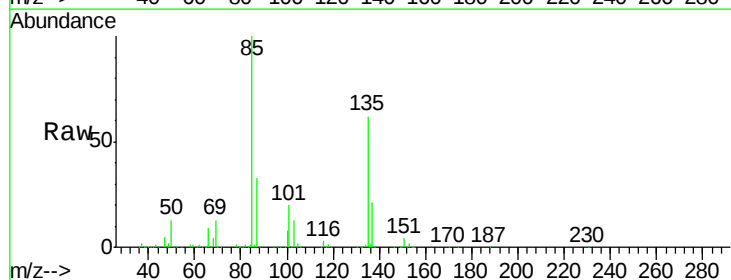
Acq: 16 Mar 2020 12:45

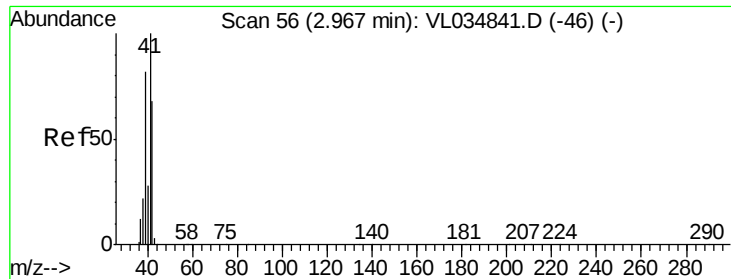
Tgt Ion: 85 Resp: 1376175

Ion Ratio Lower Upper

85 100

135 64.4 54.3 81.5





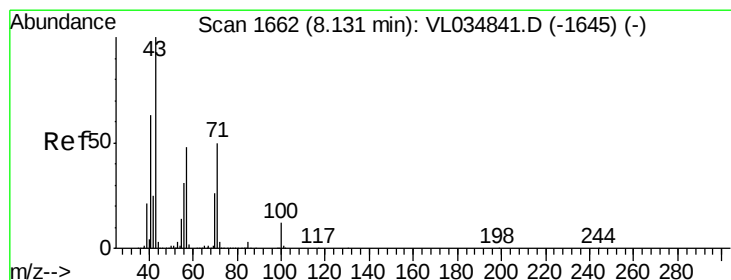
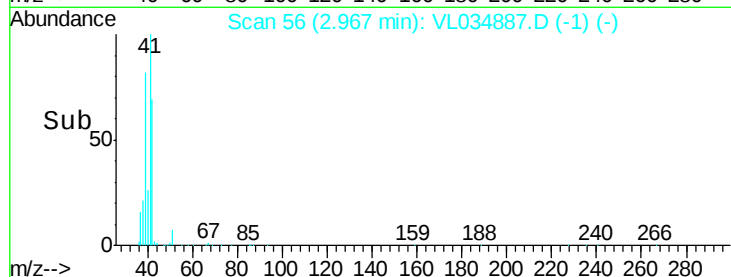
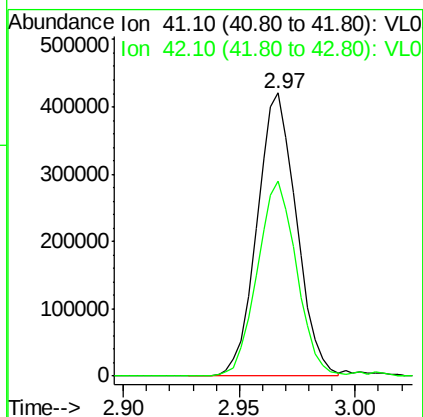
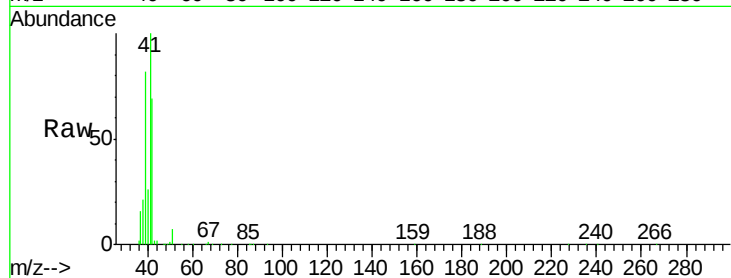
#9  
 Propene  
 Concen: 9.746 ppbv  
 RT: 2.97 min Scan# 56  
 Delta R.T. 0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

Tot Ion: 41 Resp: 496495  
 Ion Ratio Lower Upper  
 41 100  
 42 70.1 55.2 82.8

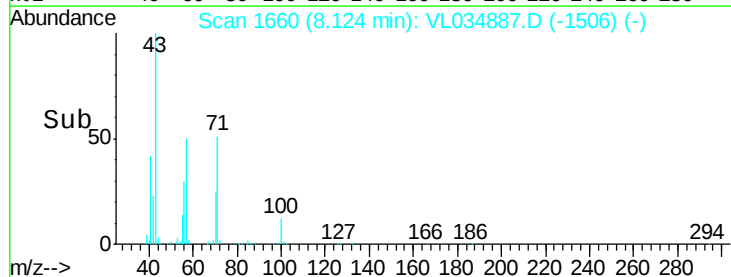
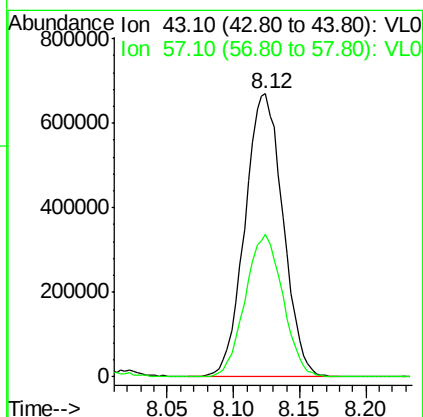
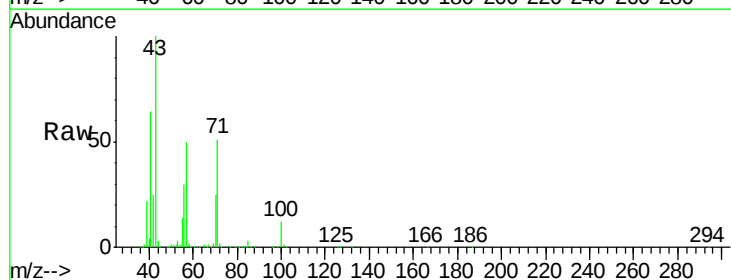
Manual Integrations  
 APPROVED

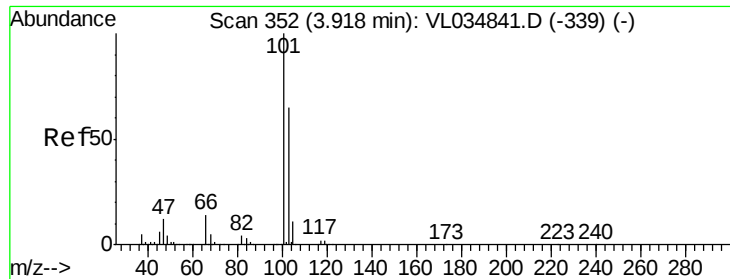
MMDadoda  
 3/17/2020 12:15:40 PM



#10  
 Heptane  
 Concen: 10.620 ppbv  
 RT: 8.12 min Scan# 1660  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Tgt Ion: 43 Resp: 1331409  
 Ion Ratio Lower Upper  
 43 100  
 57 49.9 39.7 59.5





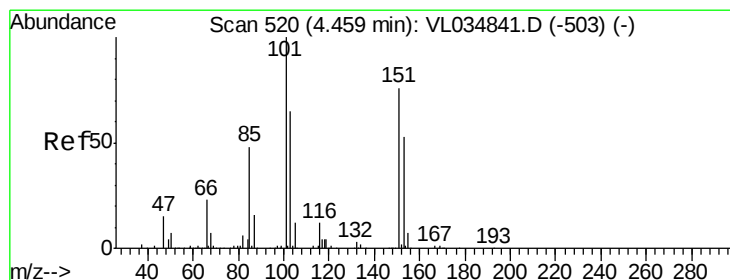
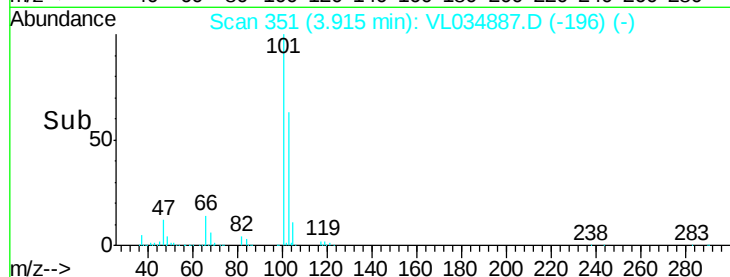
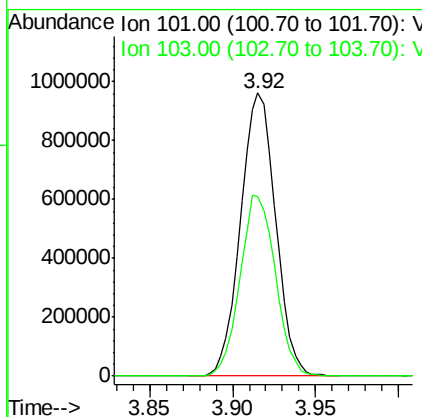
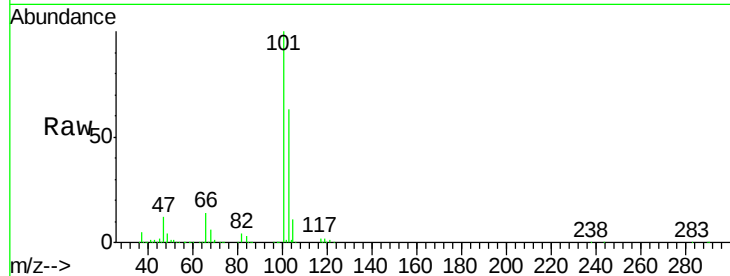
#11  
 Trichlorofluoromethane  
 Concen: 10.166 ppbv  
 RT: 3.92 min Scan# 351  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

Tot Ion:101 Resp: 1414597  
 Ion Ratio Lower Upper  
 101 100  
 103 63.4 51.8 77.8

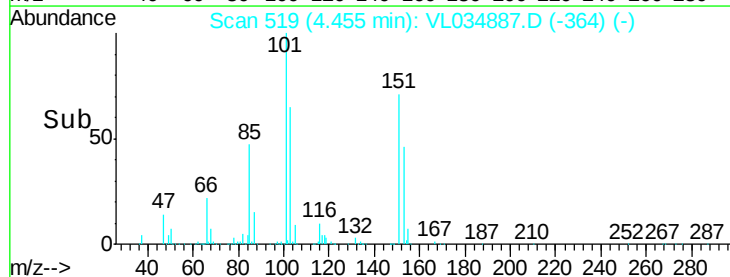
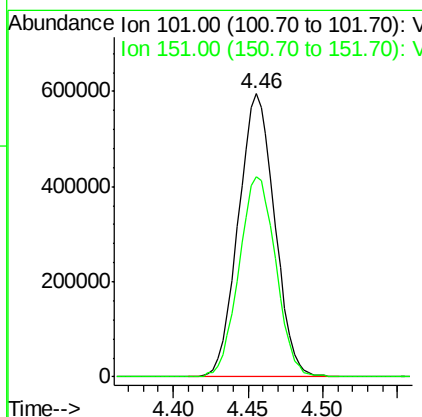
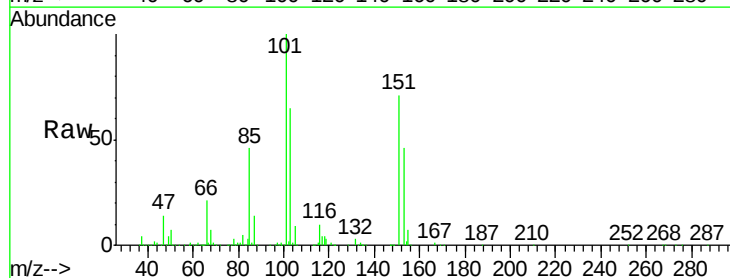
Manual Integrations  
 APPROVED

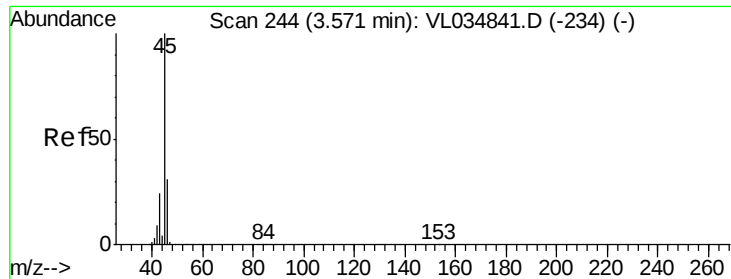
MMDadoda  
 3/17/2020 12:15:40 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 10.325 ppbv  
 RT: 4.46 min Scan# 519  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Tgt Ion:101 Resp: 1005572  
 Ion Ratio Lower Upper  
 101 100  
 151 71.7 60.8 91.2





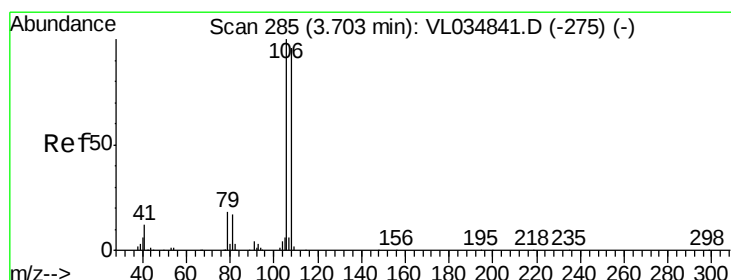
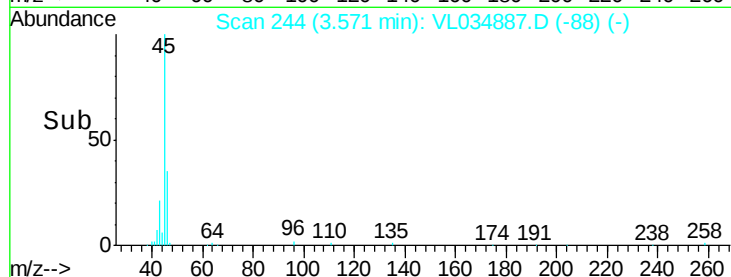
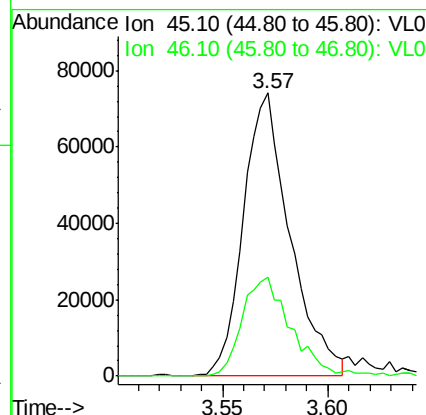
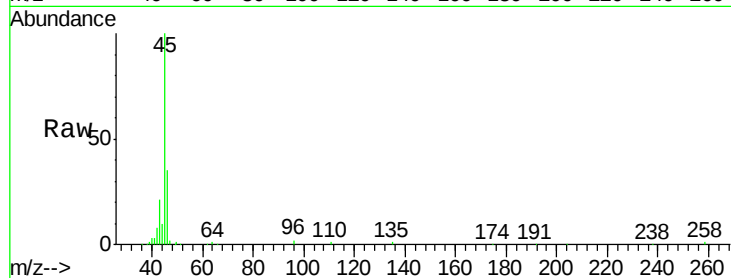
#13  
Ethanol  
Concen: 7.376 ppbv  
RT: 3.57 min Scan# 244  
Delta R.T. 0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

Tot Ion: 45 Resp: 114239  
Ion Ratio Lower Upper  
45 100  
46 37.4 16.0 64.0

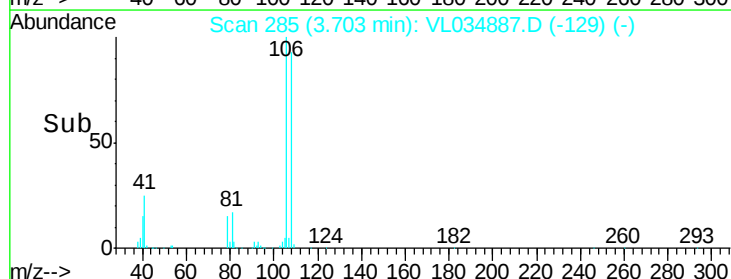
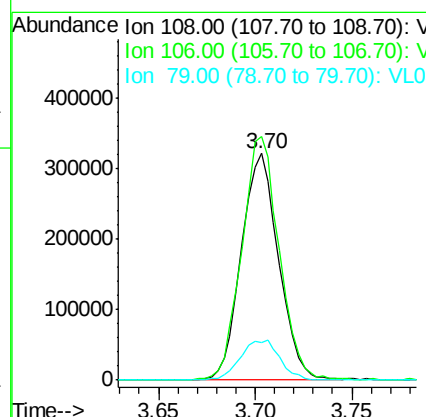
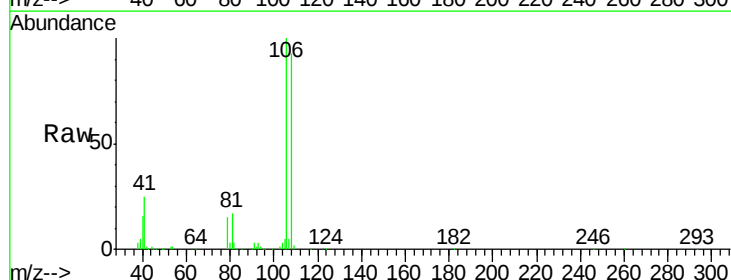
Manual Integrations  
APPROVED

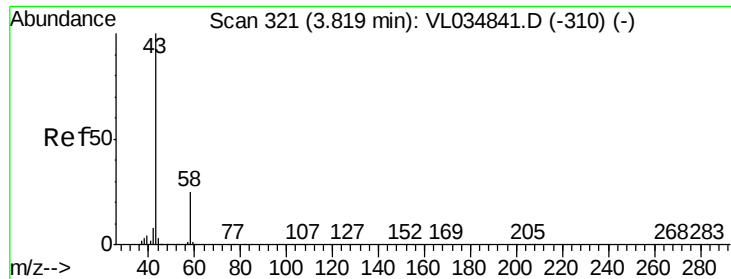
MMDadoda  
3/17/2020 12:15:40 PM



#14  
Bromoethene  
Concen: 10.228 ppbv  
RT: 3.70 min Scan# 285  
Delta R.T. 0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion: 108 Resp: 430202  
Ion Ratio Lower Upper  
108 100  
106 108.2 85.1 127.7  
79 18.7 14.7 22.1





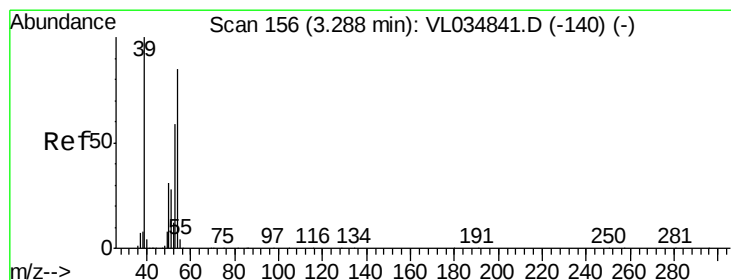
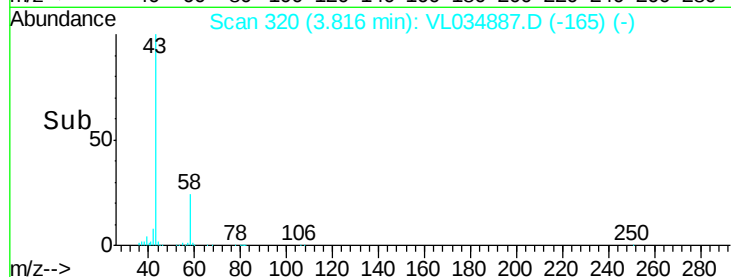
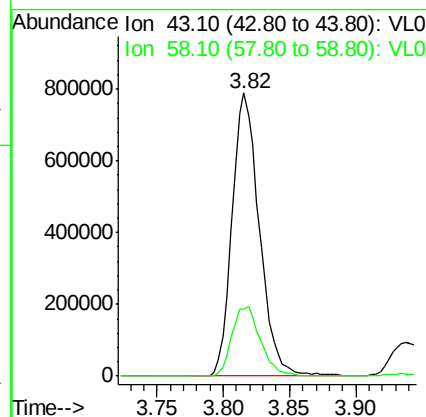
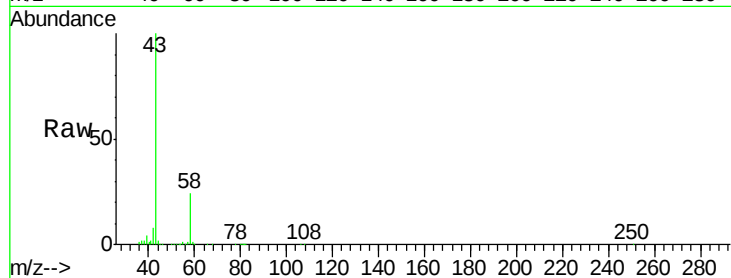
#15  
Acetone  
Concen: 9.117 ppbv  
RT: 3.82 min Scan# 320  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

Tot Ion: 43 Resp: 1128687  
Ion Ratio Lower Upper  
43 100  
58 26.0 21.0 31.6

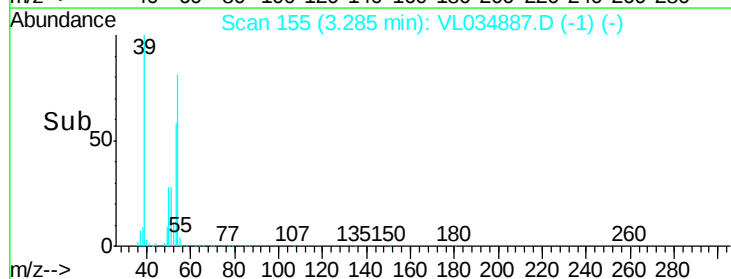
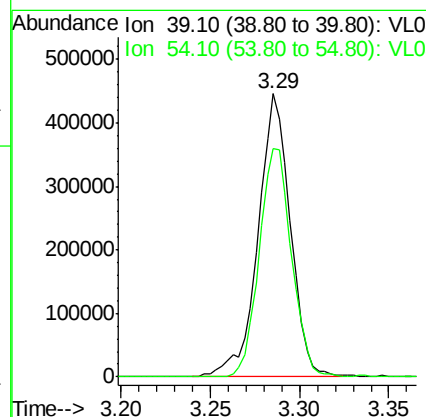
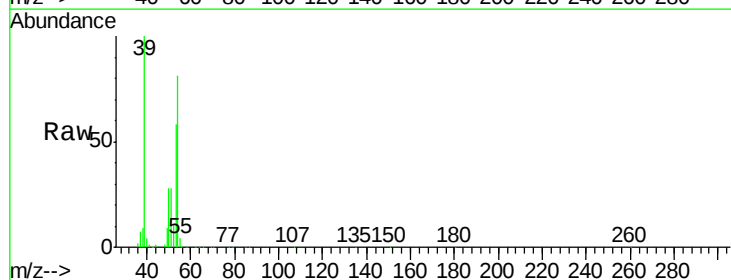
Manual Integrations  
APPROVED

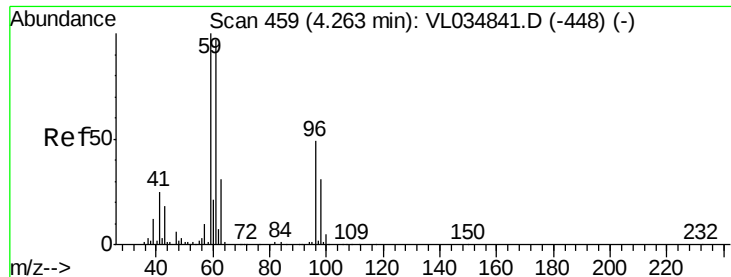
MMDadoda  
3/17/2020 12:15:40 PM



#16  
1,3-Butadiene  
Concen: 10.081 ppbv  
RT: 3.29 min Scan# 155  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion: 39 Resp: 564369  
Ion Ratio Lower Upper  
39 100  
54 81.6 65.0 97.6





#17

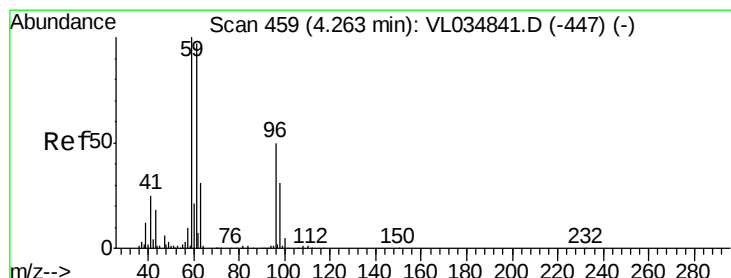
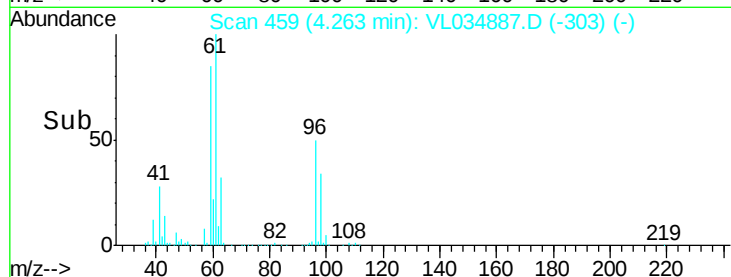
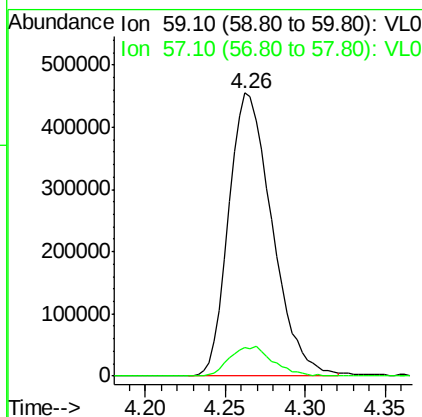
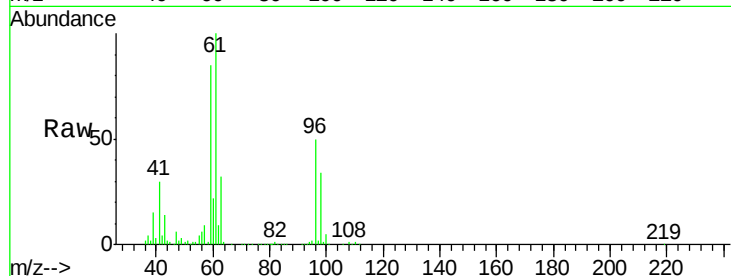
tert-Butyl alcohol  
Concen: 7.067 ppbv  
RT: 4.26 min Scan# 459  
Delta R.T. 0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

| Tot Ion   | 59.10 | Resp  | 842882 |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 57        | 10.7  | 8.3   | 12.5   |

Manual Integrations  
APPROVED

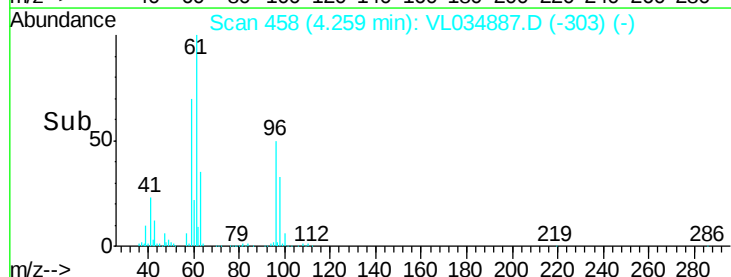
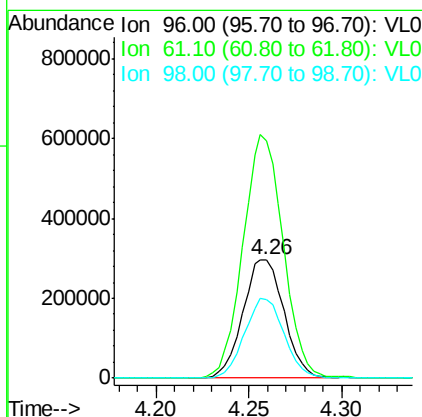
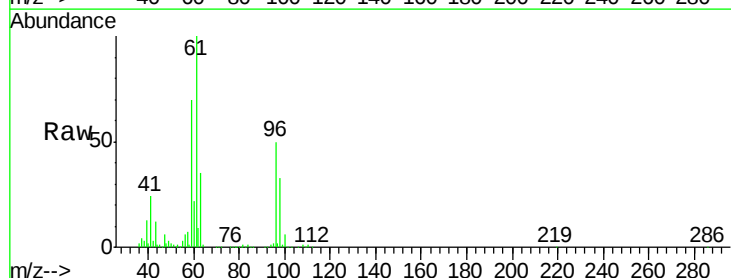
MMDadoda  
3/17/2020 12:15:40 PM

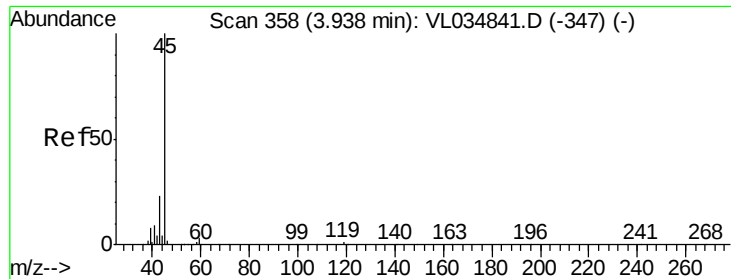


#18

1,1-Dichloroethene  
Concen: 10.603 ppbv  
RT: 4.26 min Scan# 458  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

| Tgt Ion   | 96    | Resp  | 457306 |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 61        | 200.8 | 157.3 | 235.9  |
| 98        | 66.6  | 50.2  | 75.4   |





#19

Isopropyl Alcohol

Concen: 7.703 ppbv

RT: 3.94 min Scan# 358

Delta R.T. 0.00 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion: 45 Resp: 602190

Ion Ratio Lower Upper

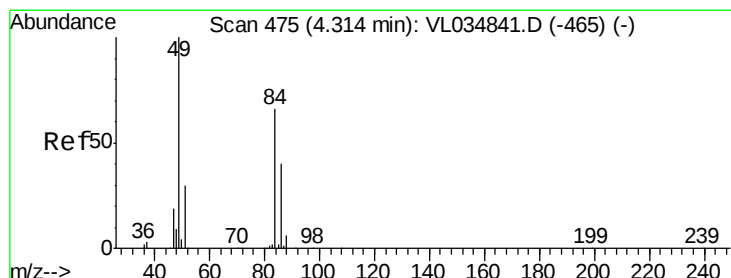
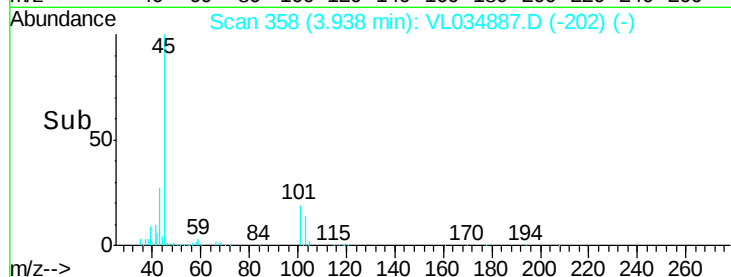
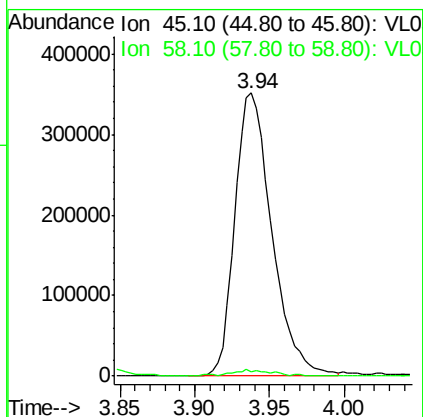
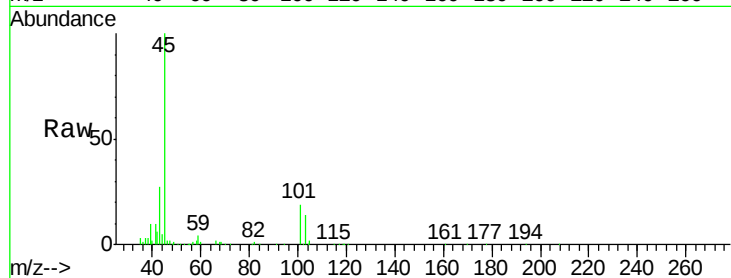
45 100

58 2.5 30.5 45.7#

Manual Integrations  
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MMDadoda

3/17/2020 12:15:40 PM



#20

Methylene Chloride

Concen: 10.364 ppbv

RT: 4.31 min Scan# 475

Delta R.T. 0.00 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Tgt Ion: 84 Resp: 405649

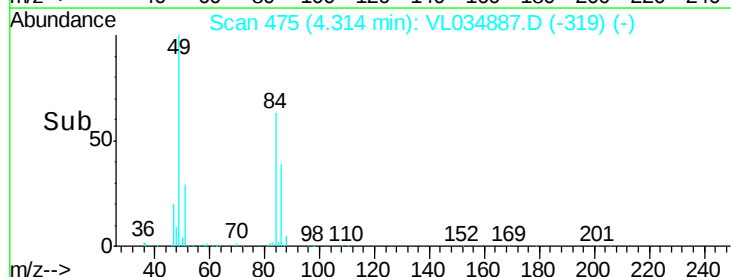
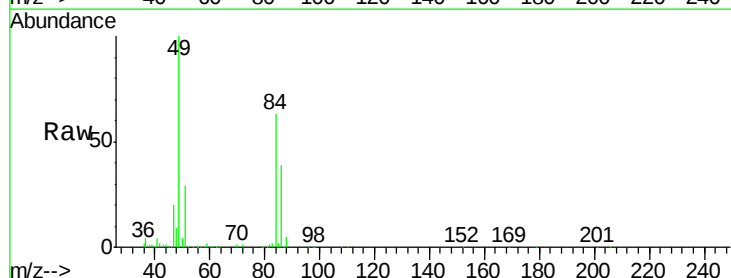
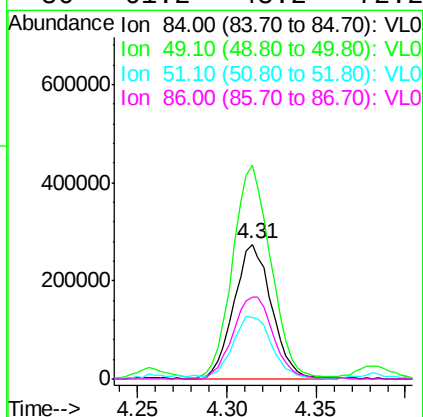
Ion Ratio Lower Upper

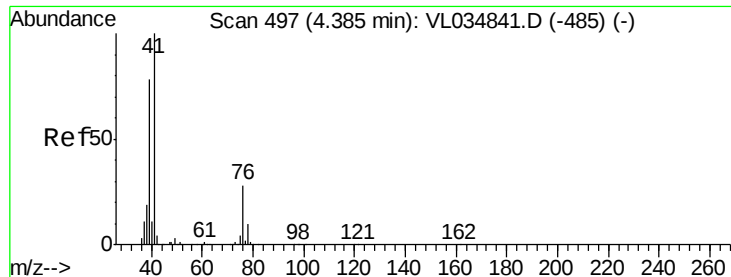
84 100

49 157.8 121.5 182.3

51 45.3 36.6 55.0

86 61.2 48.2 72.2





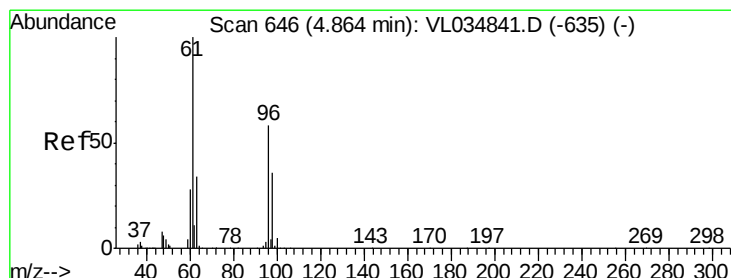
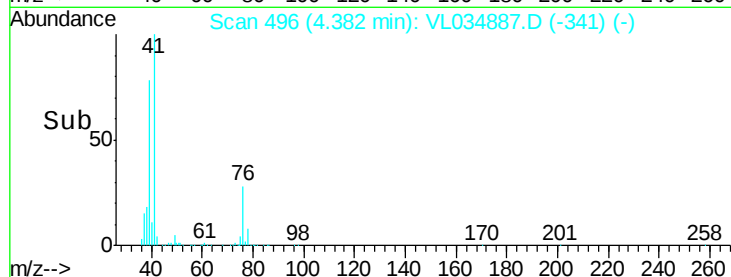
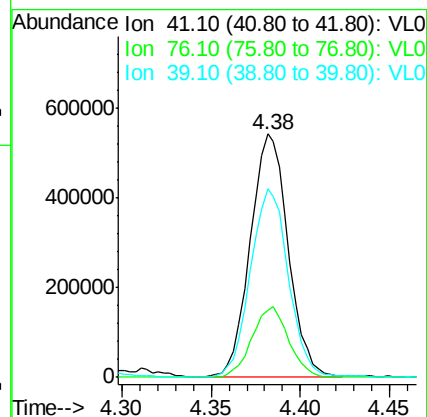
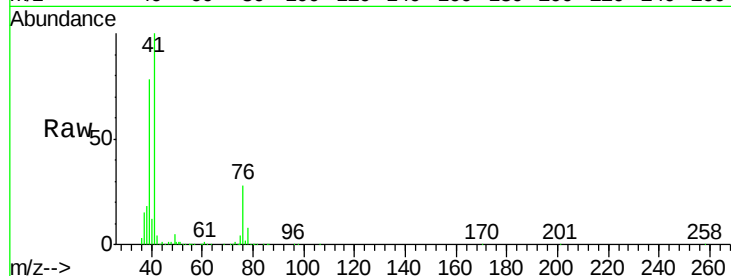
#21  
Allvl Chloride  
Concen: 10.047 ppbv  
RT: 4.38 min Scan# 496  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 76      | 28.3  | 22.2  | 33.2  |
| 39      | 78.3  | 62.6  | 93.8  |

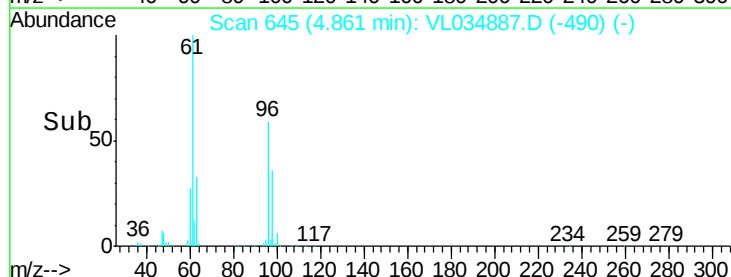
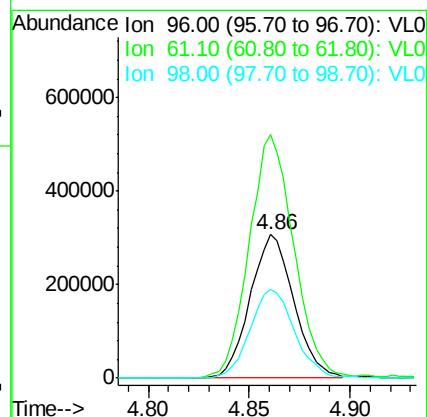
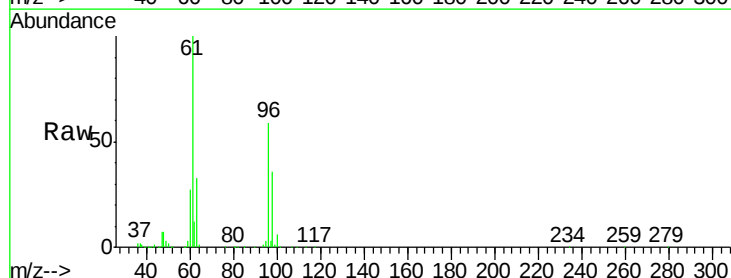
Manual Integrations  
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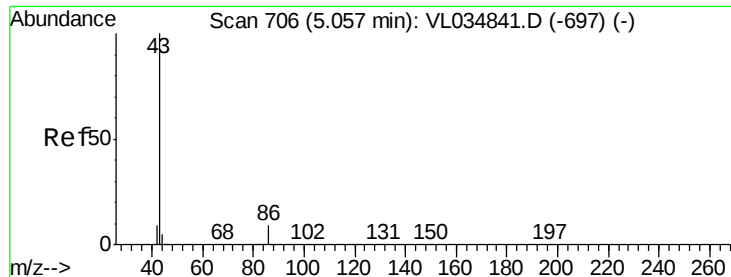
MMDadoda  
3/17/2020 12:15:40 PM



#22  
trans-1,2-Dichloroethene  
Concen: 10.647 ppbv  
RT: 4.86 min Scan# 645  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 169.6 | 139.0 | 208.6 |
| 98      | 61.6  | 50.3  | 75.5  |





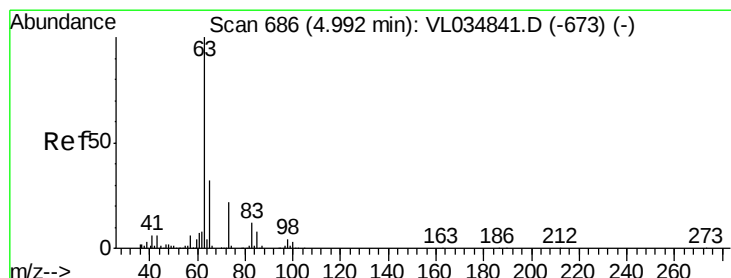
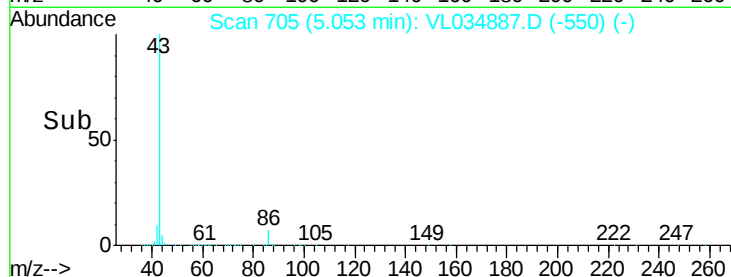
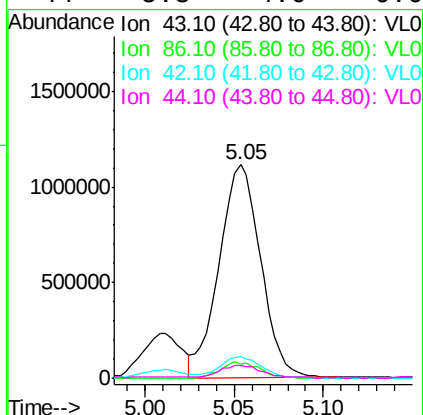
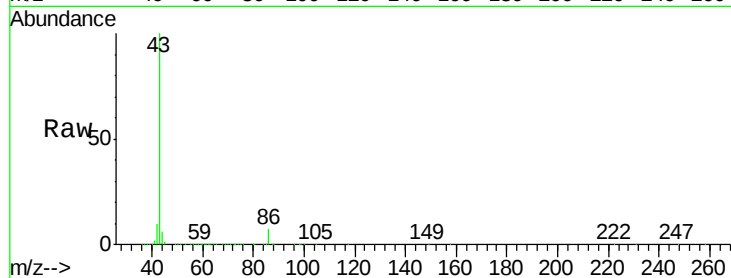
#23  
 Vinyl Acetate  
 Concen: 9.875 ppbv  
 RT: 5.05 min Scan# 705  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

| Tot Ion | 43    | Resp  | 1805908 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 43      | 100   |       |         |
| 86      | 6.6   | 6.3   | 9.5     |
| 42      | 10.0  | 7.8   | 11.8    |
| 44      | 5.8   | 4.0   | 6.0     |

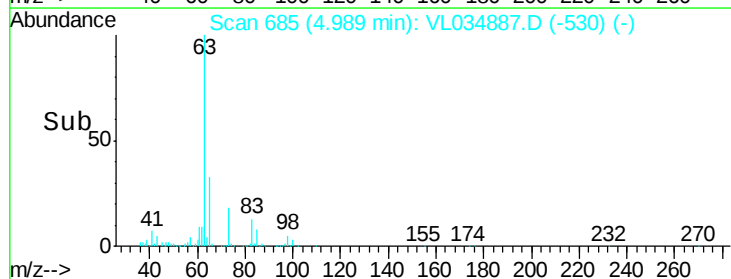
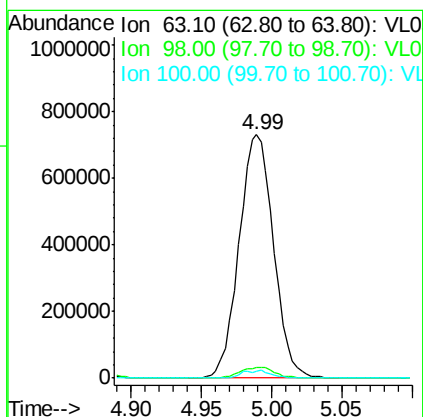
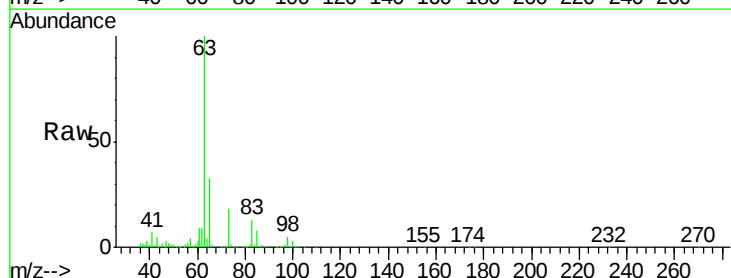
Manual Integrations  
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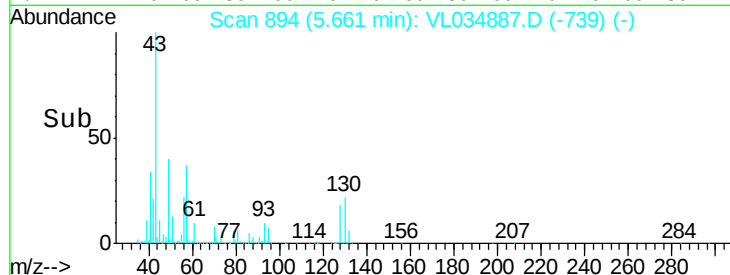
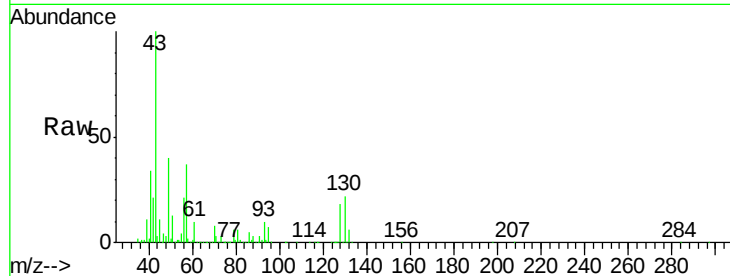
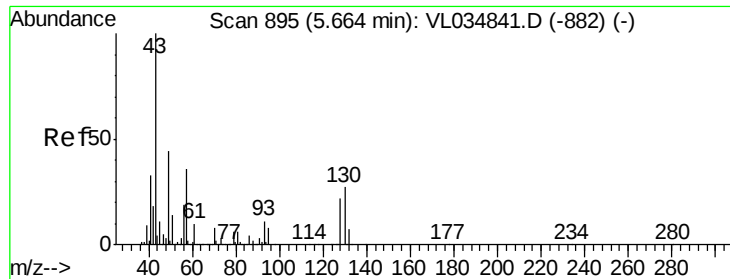
MMDadoda  
 3/17/2020 12:15:40 PM



#24  
 1,1-Dichloroethane  
 Concen: 10.165 ppbv  
 RT: 4.99 min Scan# 685  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

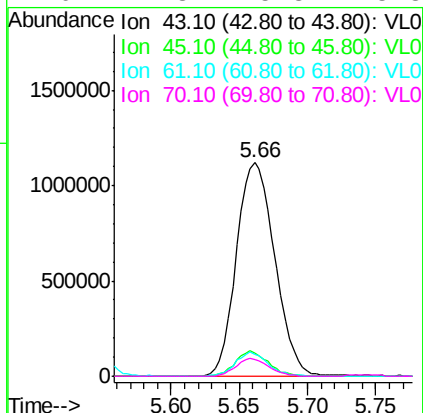
| Tgt Ion | 63    | Resp  | 1246116 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 63      | 100   |       |         |
| 98      | 4.5   | 2.0   | 5.8     |
| 100     | 2.8   | 1.4   | 4.0     |





#25  
Ethyl Acetate  
Concen: 9.918 ppbv  
RT: 5.66 min Scan# 894  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

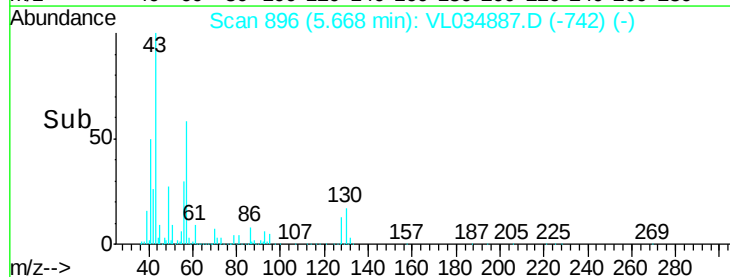
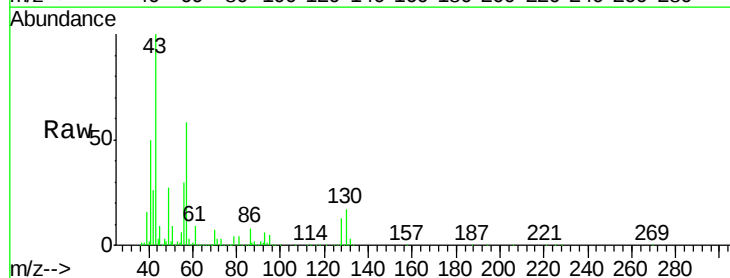
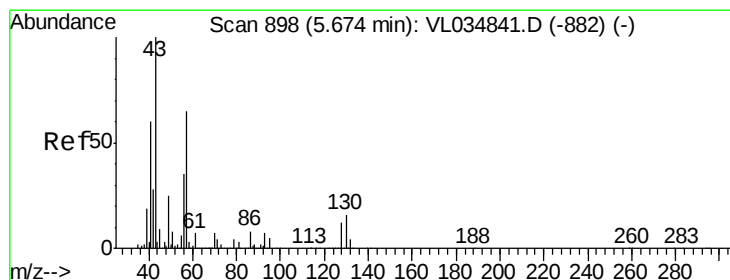
| Tot Ion | 43    | Resp  | 2187497 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 43      | 100   |       |         |
| 45      | 10.1  | 8.2   | 12.2    |
| 61      | 9.8   | 7.8   | 11.6    |
| 70      | 7.3   | 5.8   | 8.8     |



Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

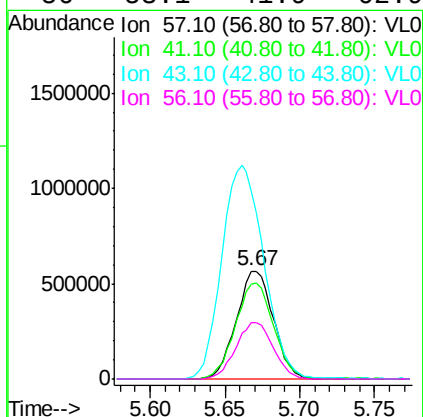
Manual Integrations  
APPROVED

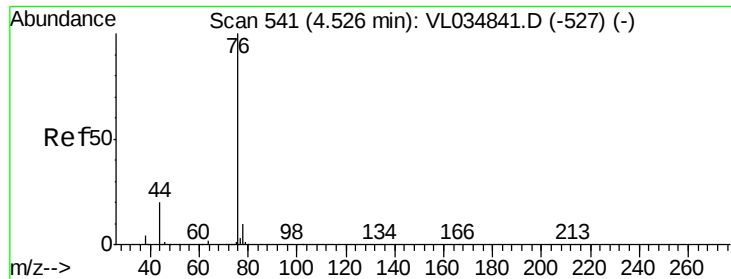
MMDadoda  
3/17/2020 12:15:40 PM



#26  
Hexane  
Concen: 10.267 ppbv  
RT: 5.67 min Scan# 896  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

| Tgt Ion | 57    | Resp  | 975124 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 57      | 100   |       |        |
| 41      | 91.6  | 72.6  | 109.0  |
| 43      | 225.5 | 183.8 | 275.6  |
| 56      | 53.1  | 41.9  | 62.9   |





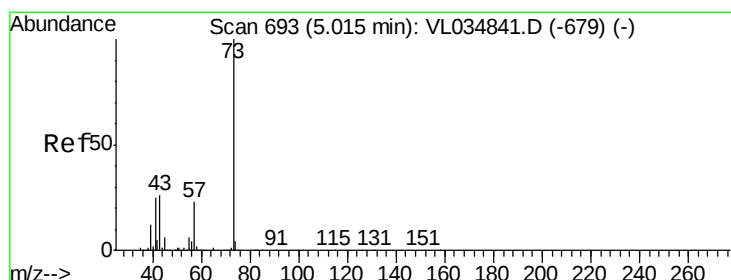
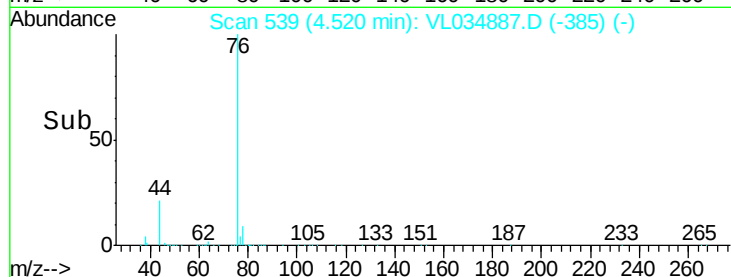
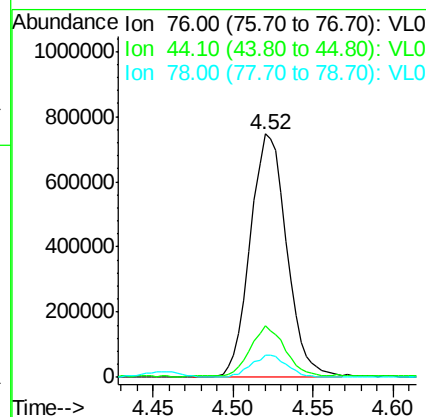
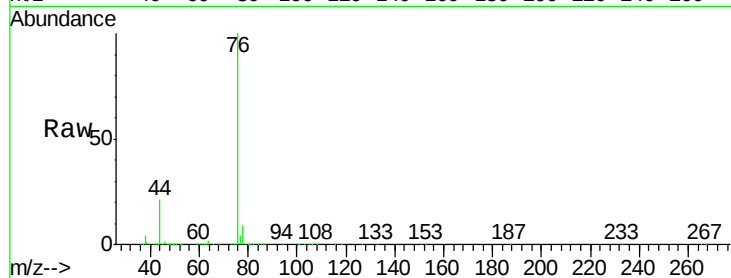
#27  
Carbon Disulfide  
Concen: 10.802 ppbv  
RT: 4.52 min Scan# 539  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

Tot Ion: 76 Resp: 1164112  
Ion Ratio Lower Upper  
76 100  
44 20.0 16.2 24.2  
78 9.4 7.8 11.6

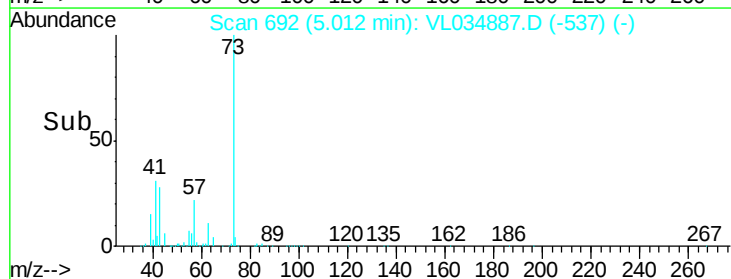
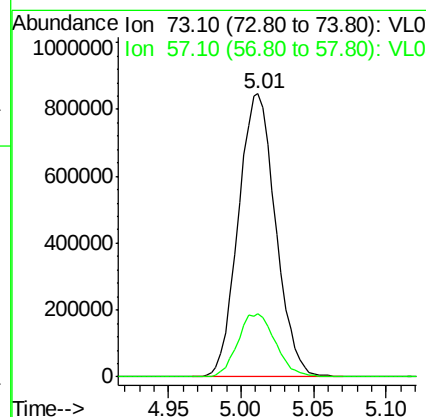
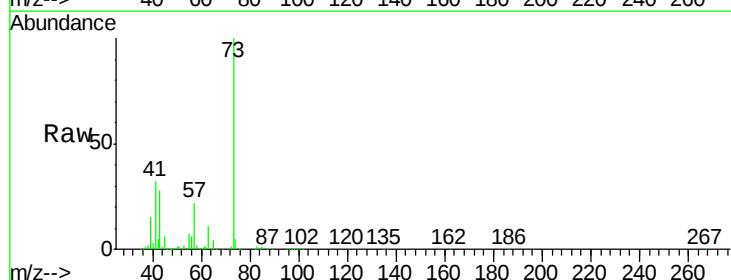
Manual Integrations  
APPROVED

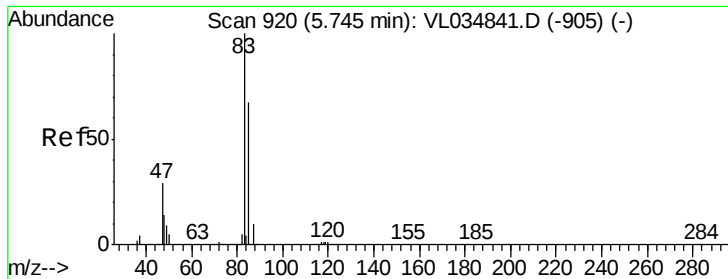
MMDadoda  
3/17/2020 12:15:40 PM



#28  
Methyl tert-Butyl Ether  
Concen: 9.552 ppbv  
RT: 5.01 min Scan# 692  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion: 73 Resp: 1509359  
Ion Ratio Lower Upper  
73 100  
57 22.8 18.3 27.5





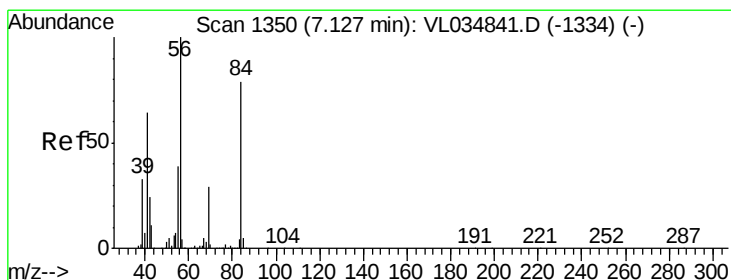
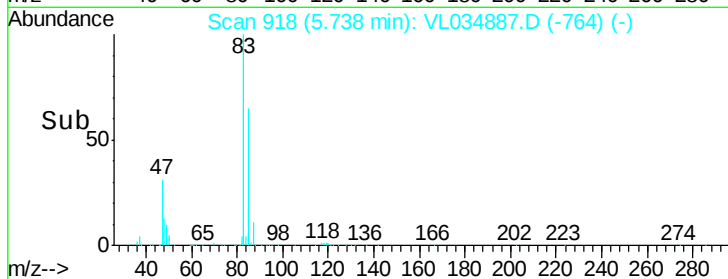
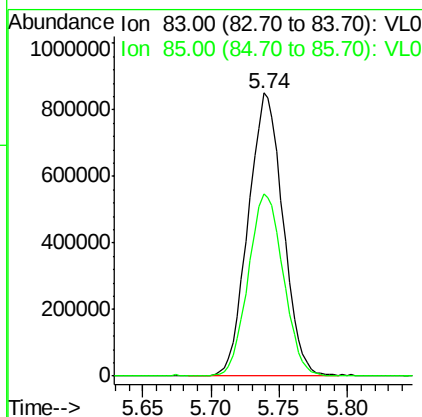
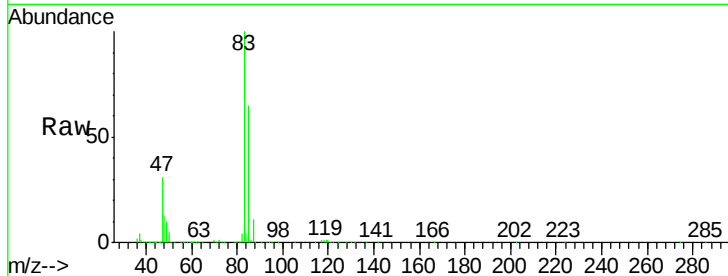
#29  
Chloroform  
Concen: 10.409 ppbv  
RT: 5.74 min Scan# 918  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

Tot Ion: 83 Resp: 1508334  
Ion Ratio Lower Upper  
83 100  
85 64.4 53.8 80.6

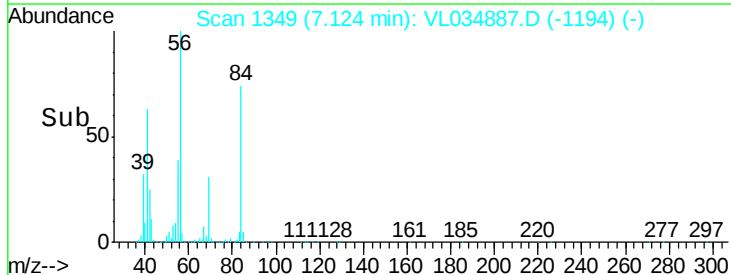
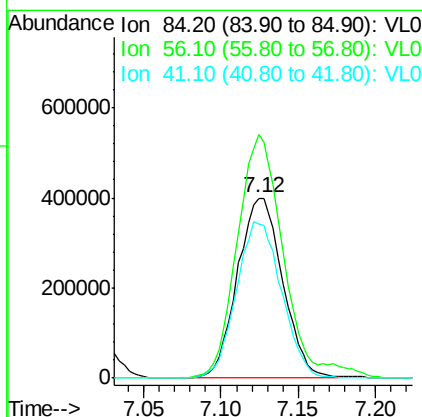
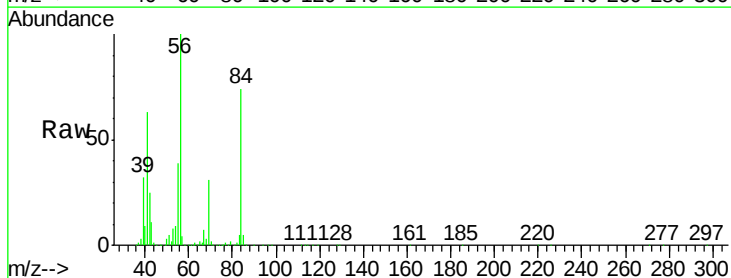
Manual Integrations  
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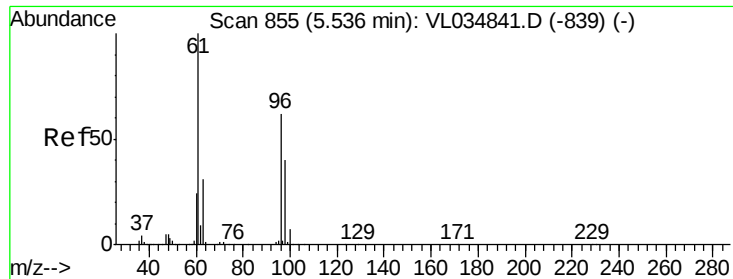
MMDadoda  
3/17/2020 12:15:40 PM



#30  
Cyclohexane  
Concen: 10.186 ppbv  
RT: 7.12 min Scan# 1349  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion: 84 Resp: 807200  
Ion Ratio Lower Upper  
84 100  
56 139.6 110.5 165.7  
41 87.5 68.2 102.4





#31

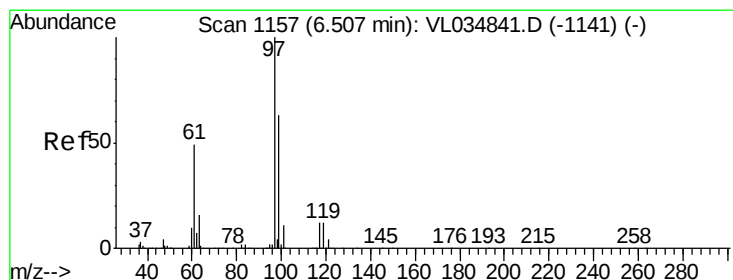
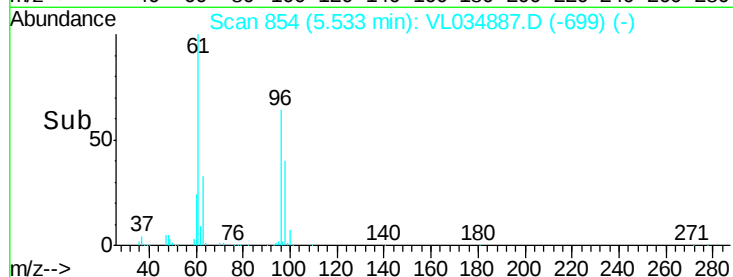
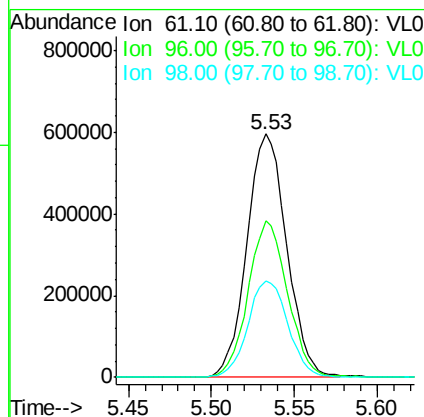
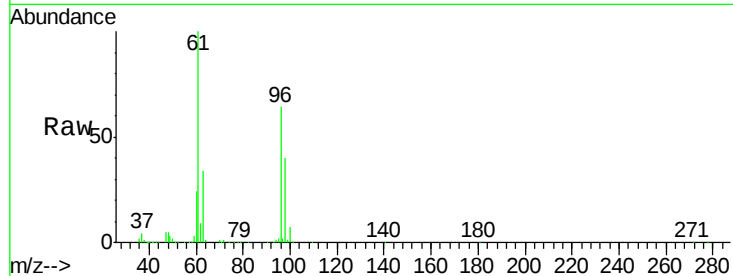
cis-1,2-Dichloroethene  
 Concen: 10.225 ppbv  
 RT: 5.53 min Scan# 854  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 64.1  | 49.8  | 74.8  |
| 98      | 39.8  | 32.2  | 48.4  |

Manual Integrations  
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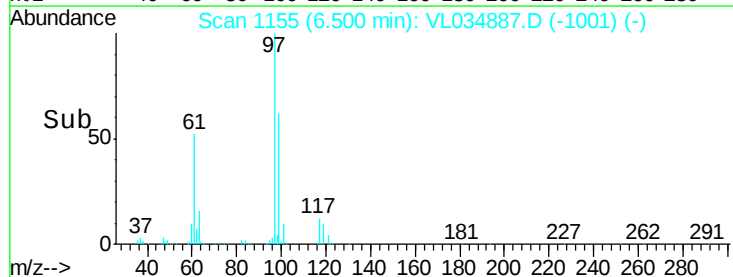
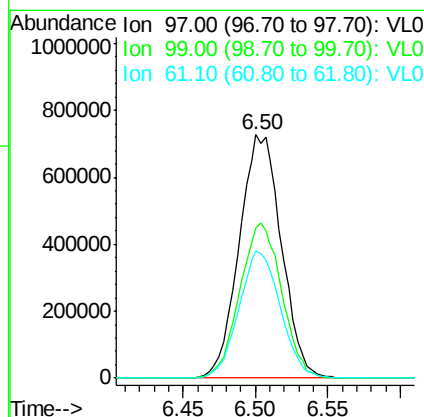
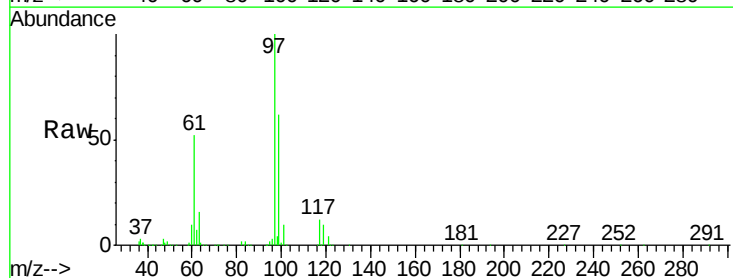
MMDadoda  
 3/17/2020 12:15:40 PM

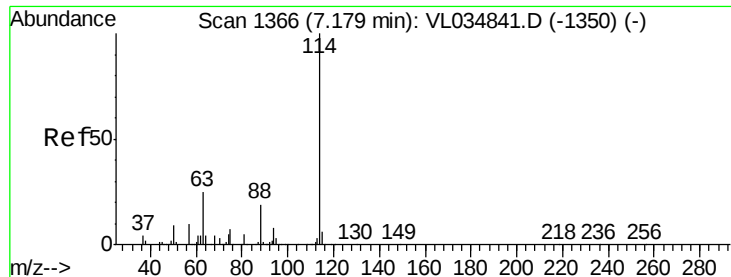


#32

1,1,1-Trichloroethane  
 Concen: 10.416 ppbv  
 RT: 6.50 min Scan# 1155  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 63.3  | 51.1  | 76.7  |
| 61      | 51.6  | 39.7  | 59.5  |





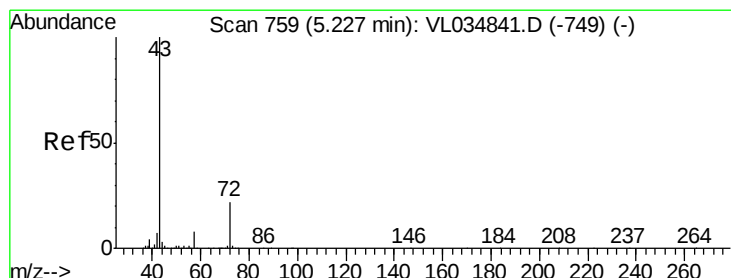
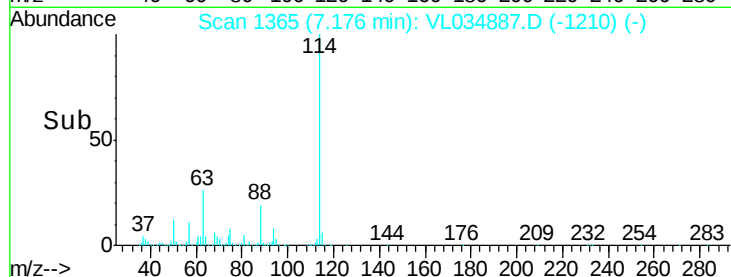
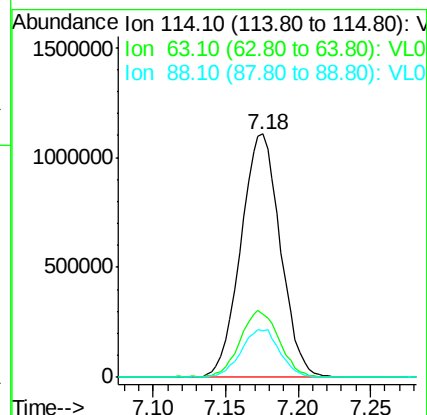
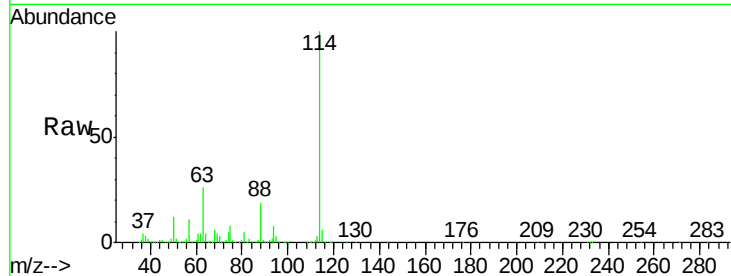
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.18 min Scan# 1365  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 27.7  | 20.6  | 31.0  |
| 88      | 19.5  | 15.0  | 22.6  |

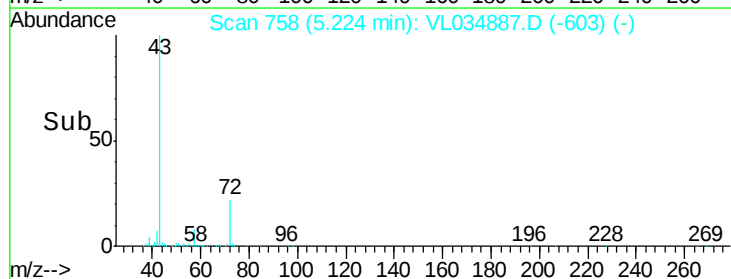
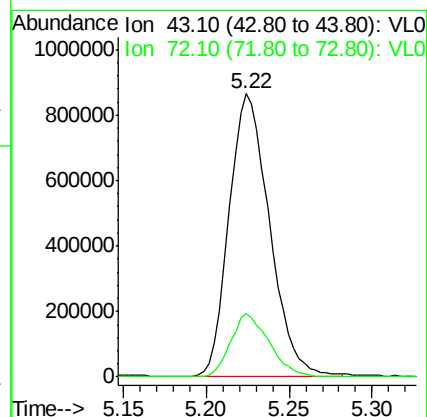
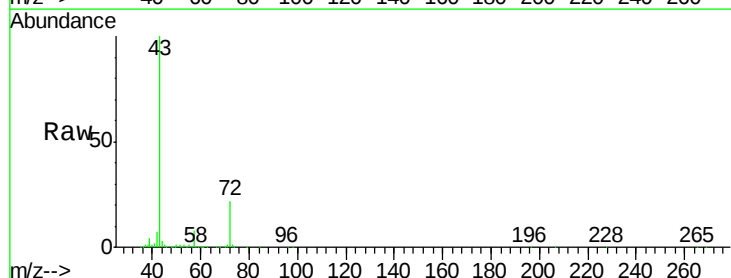
Manual Integrations  
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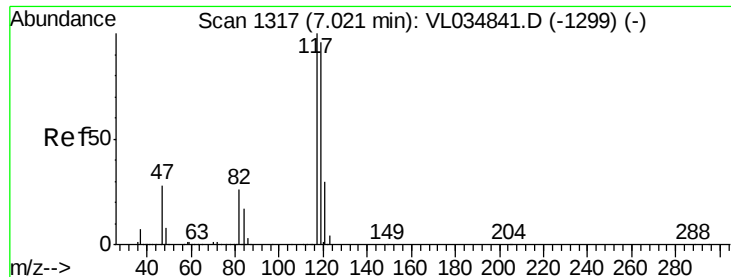
MMDadoda  
 3/17/2020 12:15:40 PM



#34  
 2-Butanone  
 Concen: 10.533 ppbv  
 RT: 5.22 min Scan# 758  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 21.6  | 17.6  | 26.4  |





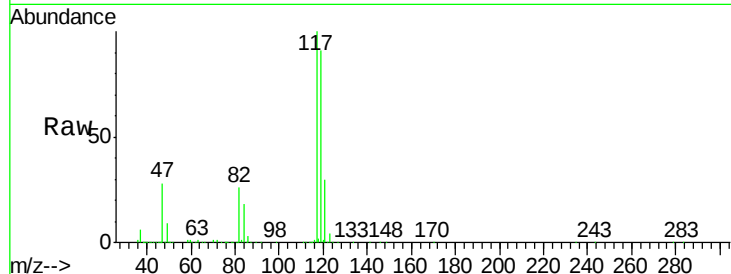
#35  
Carbon Tetrachloride  
Concen: 11.421 ppbv  
RT: 7.01 min Scan# 1315  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

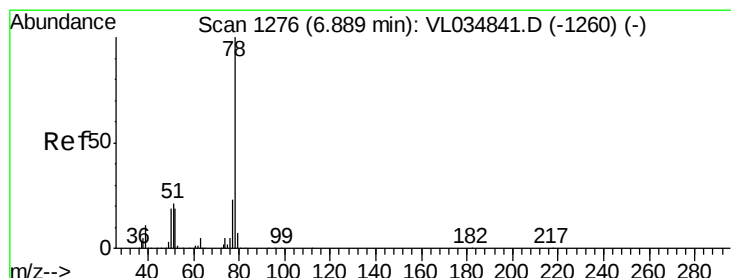
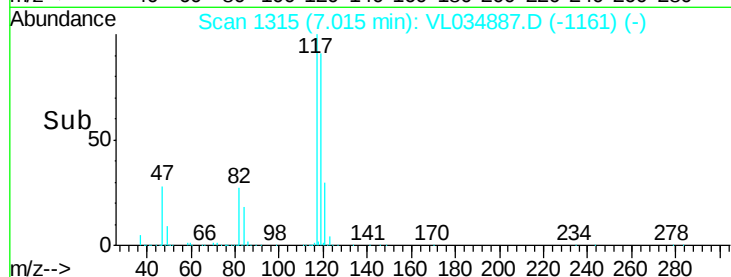
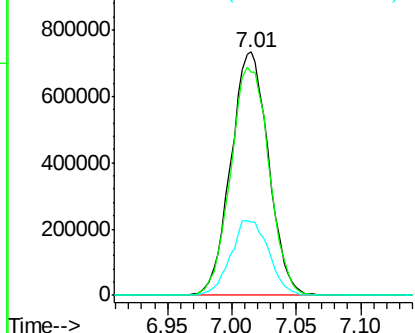
Tot Ion:117 Resp: 1489576  
Ion Ratio Lower Upper  
117 100  
119 91.5 77.0 115.4  
121 30.1 24.0 36.0

Manual Integrations  
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MMDadoda  
3/17/2020 12:15:40 PM

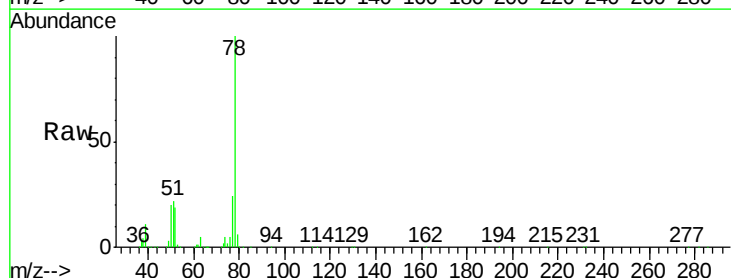


Abundance Ion 117.00 (116.70 to 117.70): V  
Ion 119.00 (118.70 to 119.70): V  
Ion 121.00 (120.70 to 121.70): V

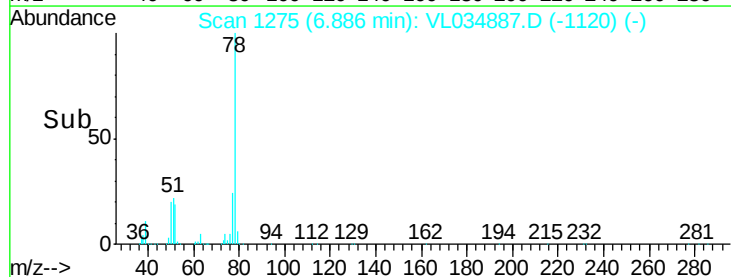
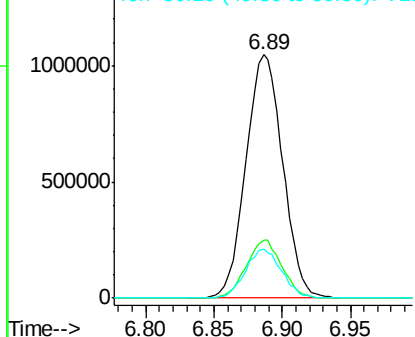


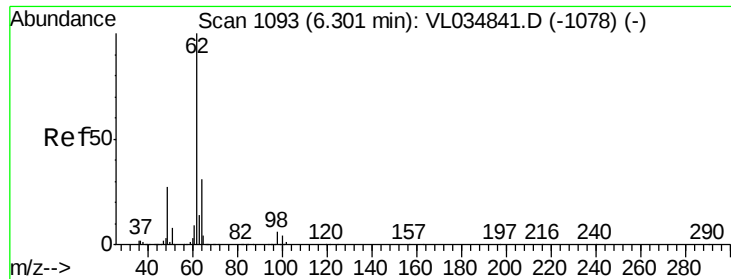
#36  
Benzene  
Concen: 10.505 ppbv  
RT: 6.89 min Scan# 1275  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion: 78 Resp: 1963515  
Ion Ratio Lower Upper  
78 100  
77 23.8 18.2 27.2  
50 20.3 15.2 22.8



Abundance Ion 78.10 (77.80 to 78.80): VL0  
Ion 77.10 (76.80 to 77.80): VL0  
Ion 50.10 (49.80 to 50.80): VL0





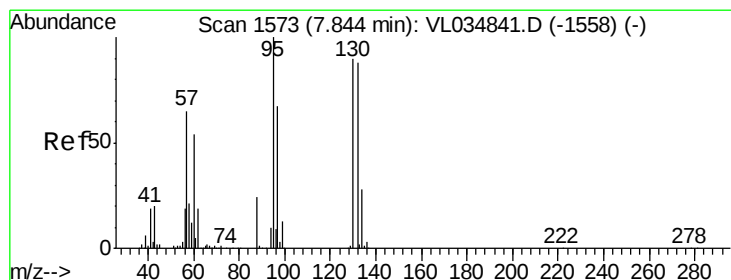
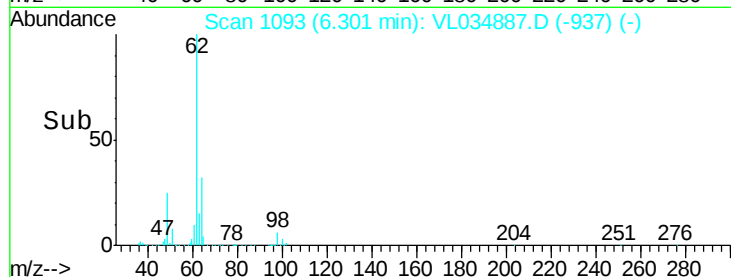
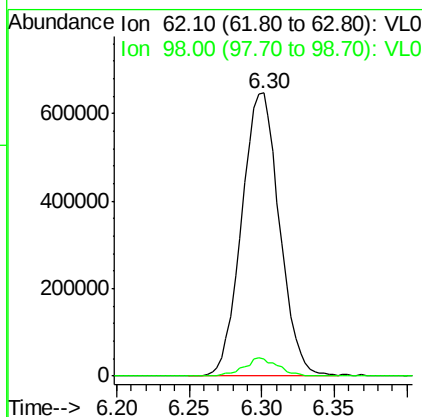
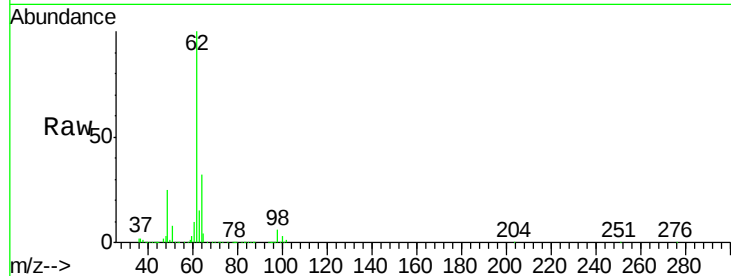
#37  
 1,2-Dichloroethane  
 Concen: 11.148 ppbv  
 RT: 6.30 min Scan# 1093  
 Delta R.T. 0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

Tot Ion: 62 Resp: 1174895  
 Ion Ratio Lower Upper  
 62 100  
 98 5.9 5.2 7.8

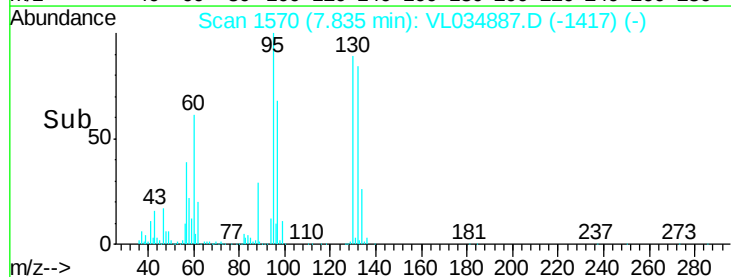
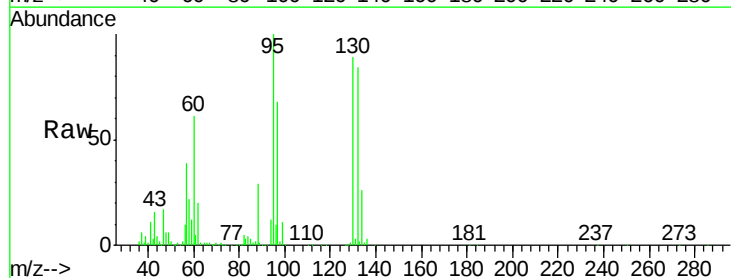
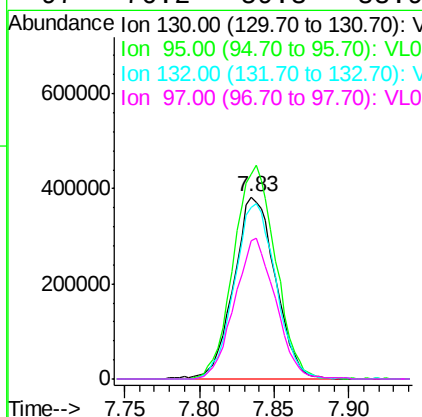
Manual Integrations  
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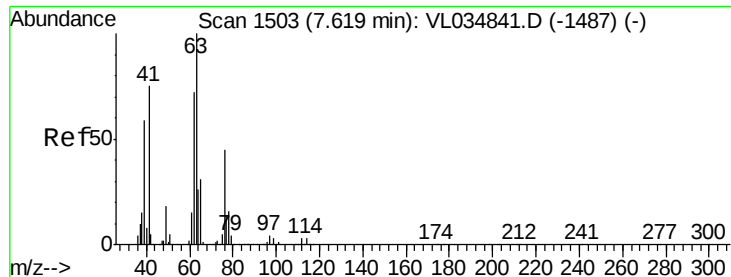
MMDadoda  
 3/17/2020 12:15:40 PM



#38  
 Trichloroethene  
 Concen: 10.362 ppbv  
 RT: 7.83 min Scan# 1570  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Tgt Ion:130 Resp: 735599  
 Ion Ratio Lower Upper  
 130 100  
 95 112.7 88.5 132.7  
 132 94.8 78.0 117.0  
 97 76.2 59.3 88.9





#39

1,2-Dichloropropane

Concen: 10.522 ppbv

RT: 7.62 min Scan# 1502

Delta R.T. -0.00 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion: 63 Resp: 779218

Ion Ratio Lower Upper

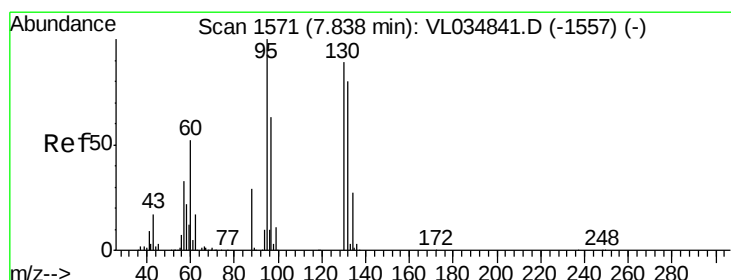
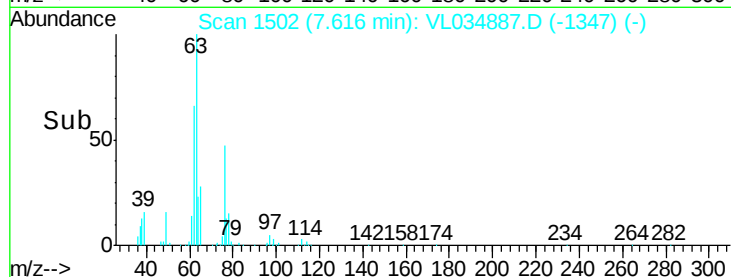
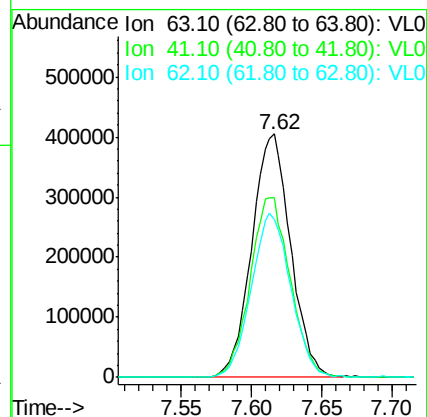
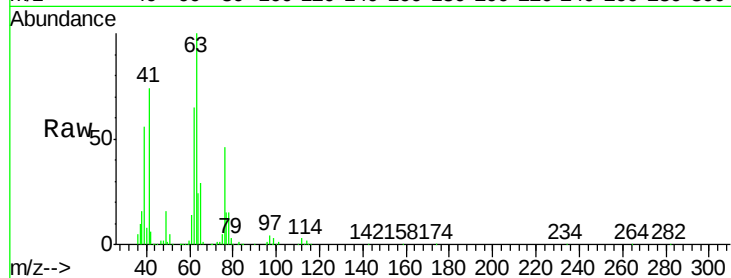
63 100

41 74.0 59.8 89.8

62 65.0 57.6 86.4

Manual Integrations  
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MMDadoda  
3/17/2020 12:15:40 PM



#40

1,4-Dioxane

Concen: 9.232 ppbv

RT: 7.83 min Scan# 1568

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Tgt Ion: 88 Resp: 258199

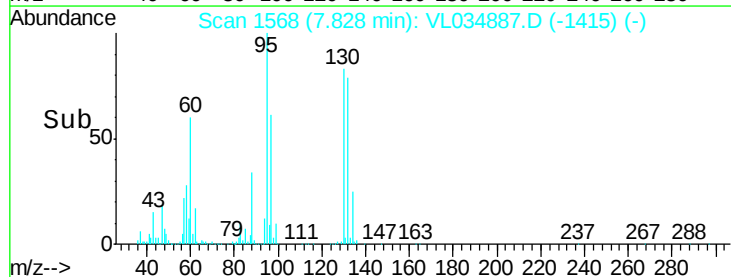
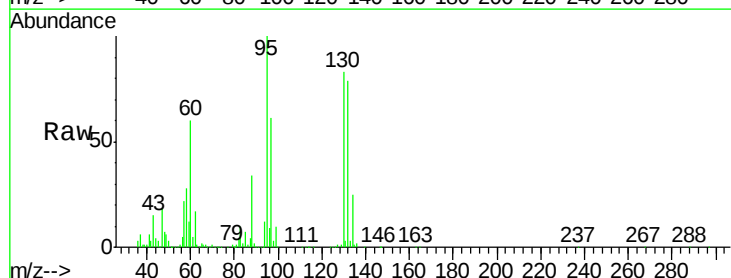
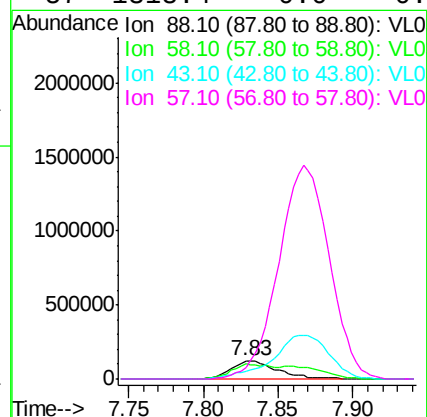
Ion Ratio Lower Upper

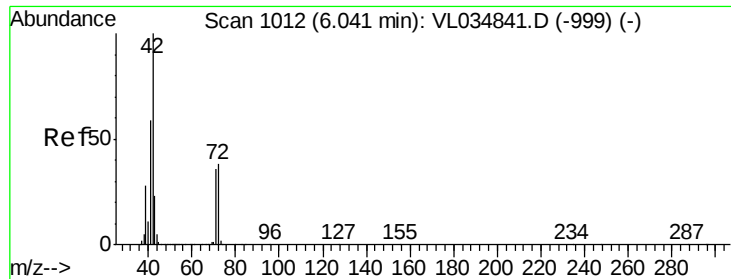
88 100

58 138.5 103.9 155.9

43 298.2 0.0 0.0#

57 1318.4 0.0 0.0#





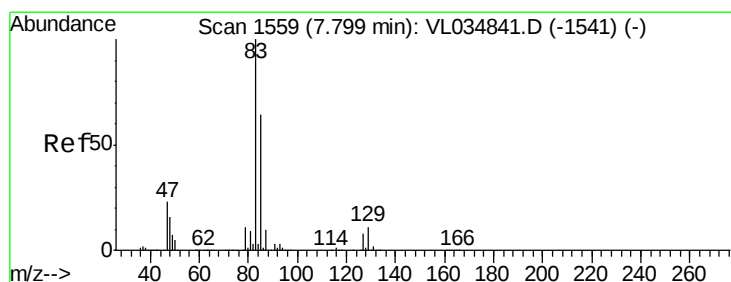
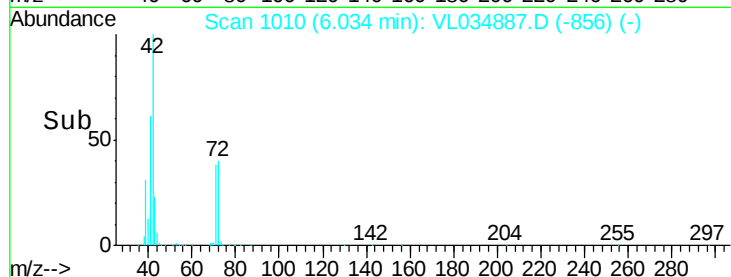
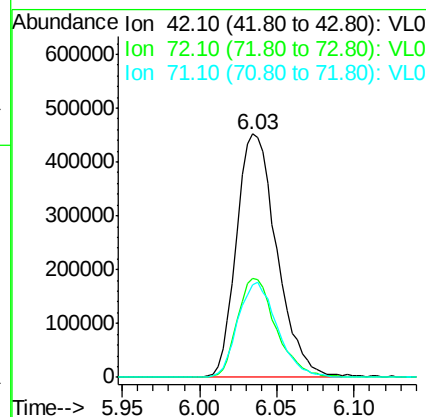
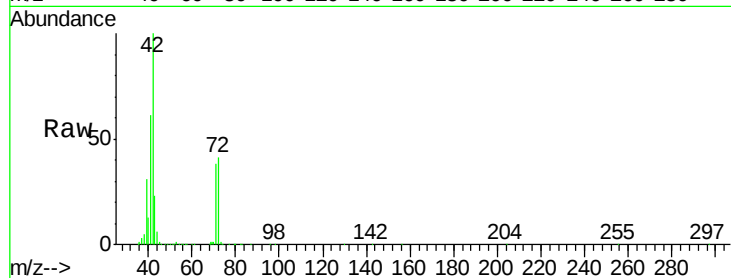
#41  
Tetrahydrofuran  
Concen: 10.838 ppbv  
RT: 6.03 min Scan# 1010  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 39.2  | 30.8  | 46.2  |
| 71      | 38.4  | 30.1  | 45.1  |

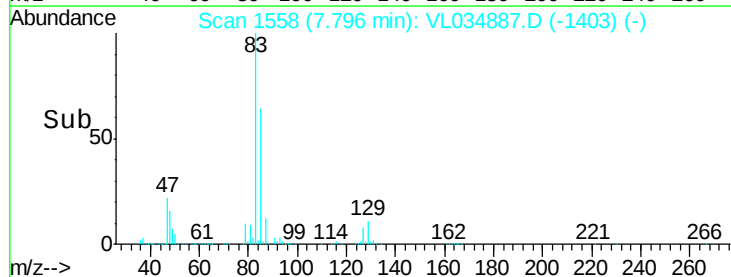
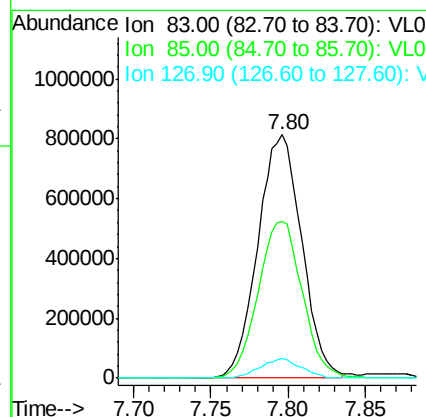
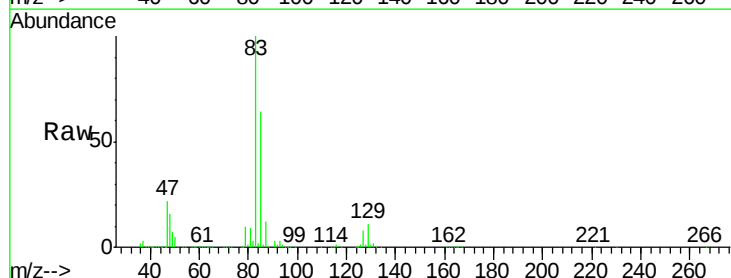
Manual Integrations  
APPROVED

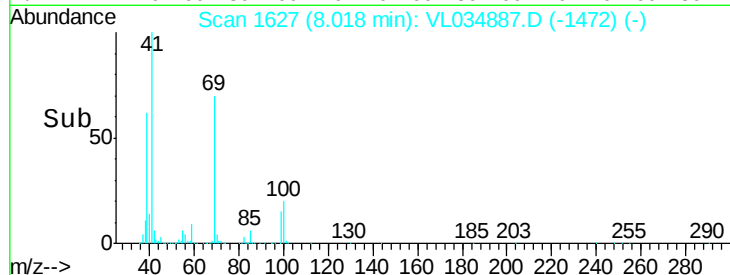
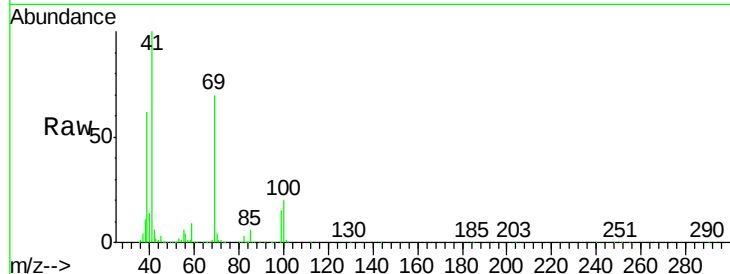
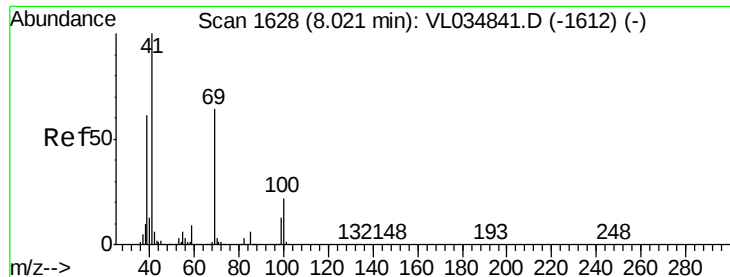
MMDadoda  
3/17/2020 12:15:40 PM



#42  
Bromodichloromethane  
Concen: 11.164 ppbv  
RT: 7.80 min Scan# 1558  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 64.1  | 51.4  | 77.2  |
| 127     | 8.1   | 6.2   | 9.4   |





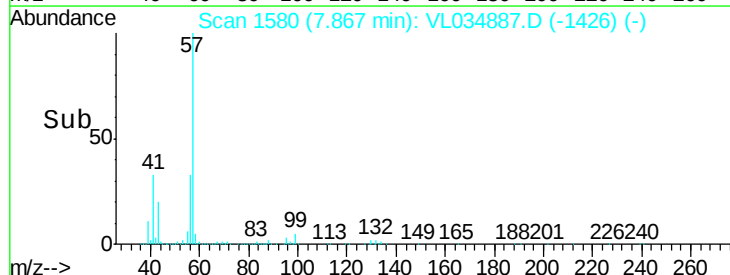
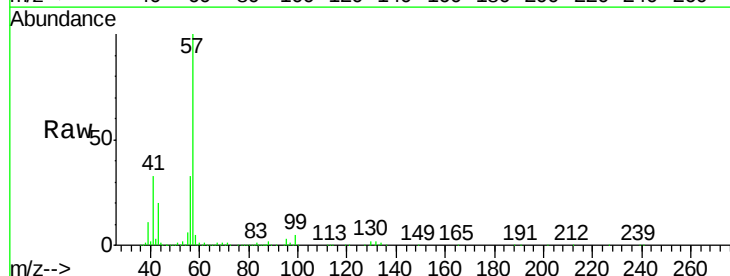
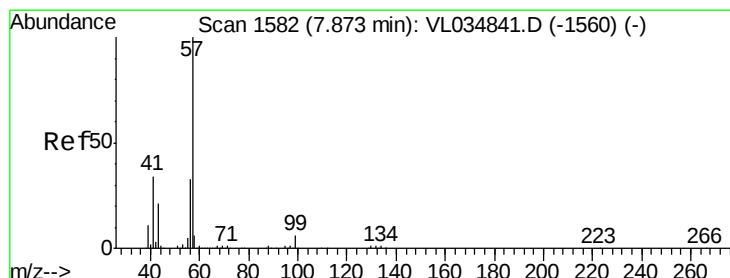
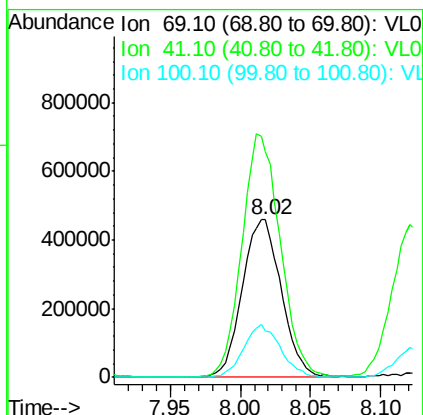
#43  
Methvl Methacrilate  
Concen: 11.295 ppbv  
RT: 8.02 min Scan# 1627  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 69      | 100   |       |       |
| 41      | 152.5 | 123.2 | 184.8 |
| 100     | 31.8  | 26.9  | 40.3  |

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

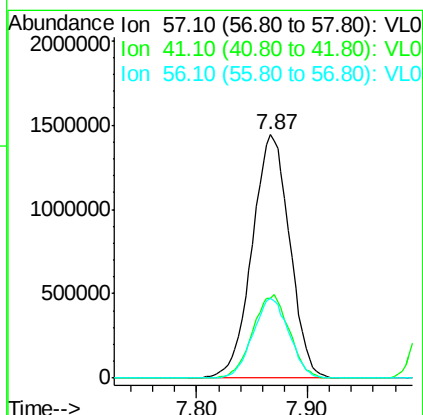
Manual Integrations  
APPROVED

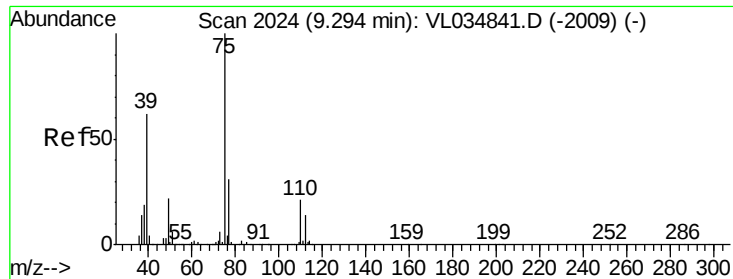
MMDadoda  
3/17/2020 12:15:40 PM



#44  
2,2,4-Trimethylpentane  
Concen: 10.766 ppbv  
RT: 7.87 min Scan# 1580  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 33.6  | 26.2  | 39.4  |
| 56      | 31.5  | 25.0  | 37.4  |





#45

t-1,3-Dichloropropene

Concen: 10.982 ppbv

RT: 9.28 min Scan# 2021

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion: 75 Resp: 1016052

Ion Ratio Lower Upper

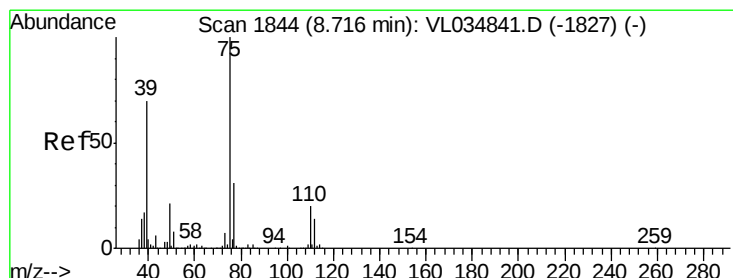
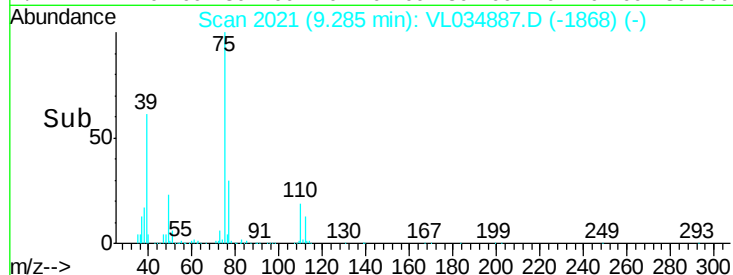
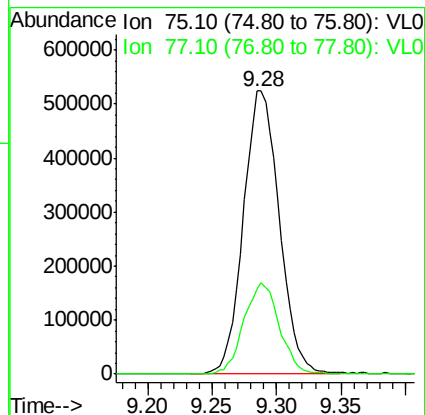
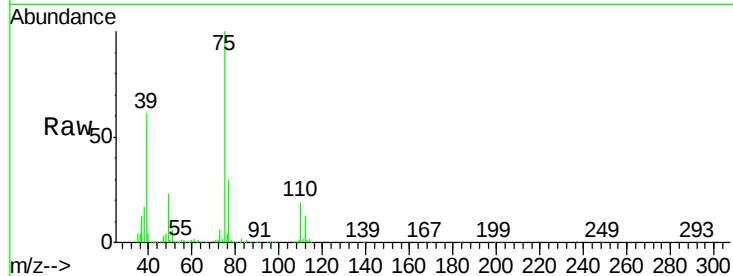
75 100

77 30.0 24.6 37.0

Manual Integrations  
APPROVED

MMDadoda

3/17/2020 12:15:40 PM



#46

cis-1,3-Dichloropropene

Concen: 10.974 ppbv

RT: 8.71 min Scan# 1842

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

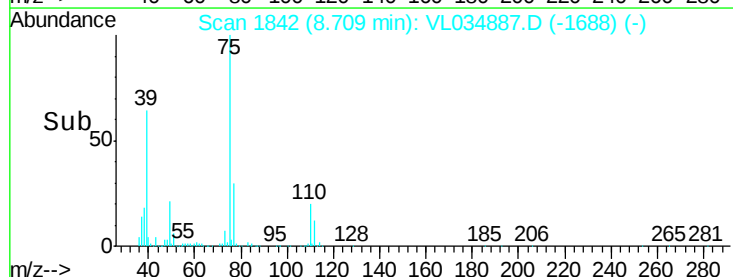
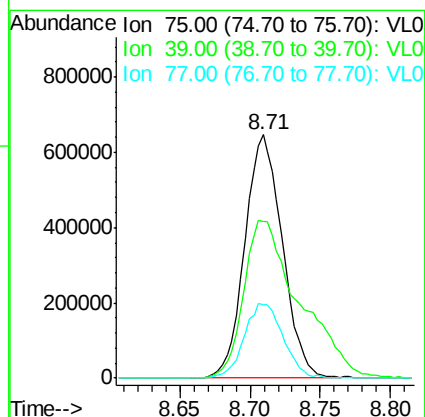
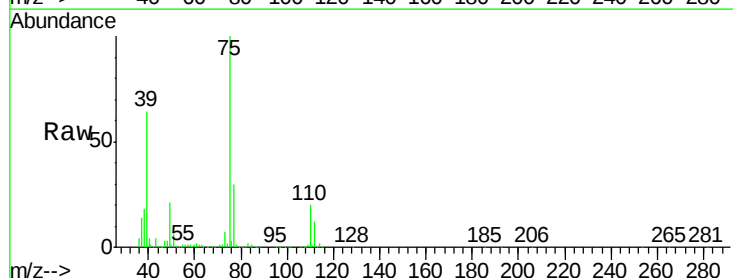
Tgt Ion: 75 Resp: 1206451

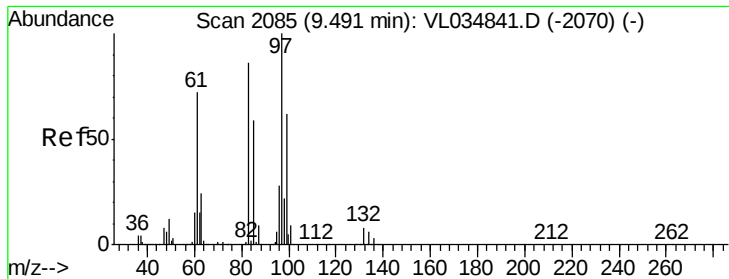
Ion Ratio Lower Upper

75 100

39 64.1 55.7 83.5

77 30.1 24.7 37.1





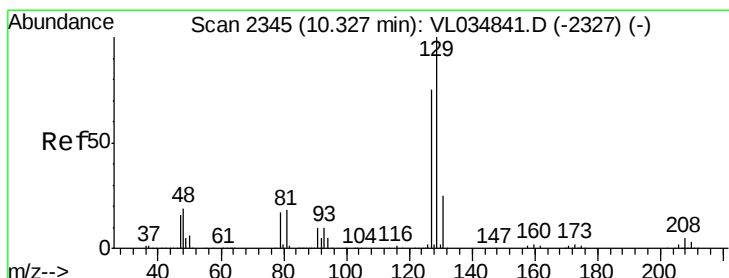
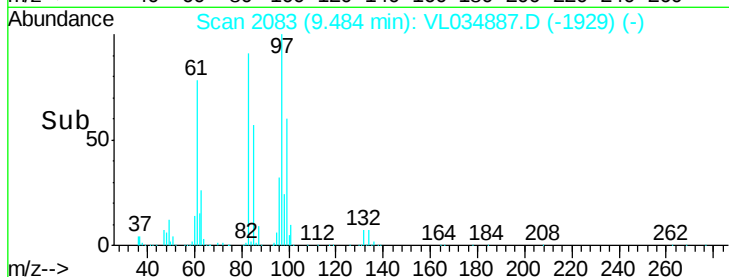
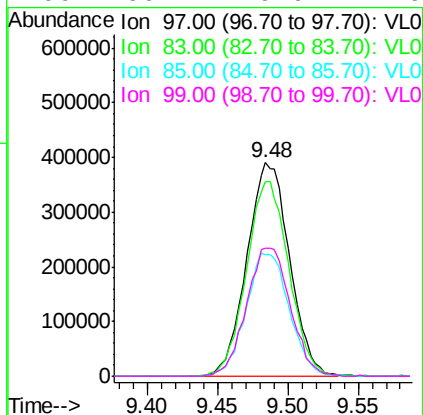
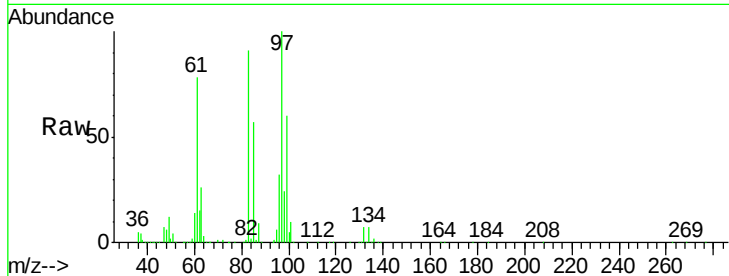
#47  
 1,1,2-Trichloroethane  
 Concen: 10.872 ppbv  
 RT: 9.48 min Scan# 2083  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 83      | 91.1  | 68.6  | 102.8 |
| 85      | 57.1  | 46.9  | 70.3  |
| 99      | 60.2  | 49.9  | 74.9  |

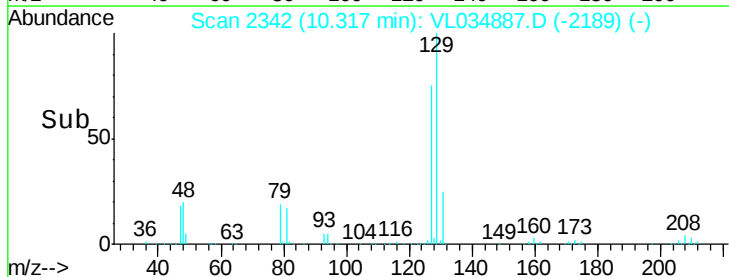
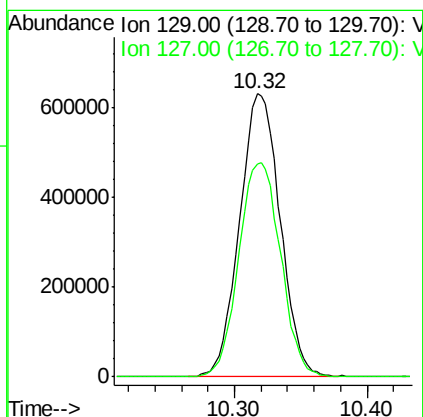
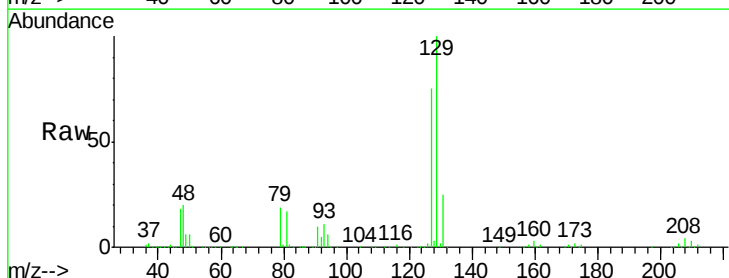
Manual Integrations  
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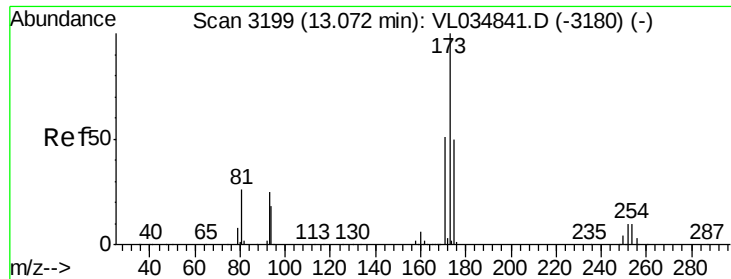
MMDadoda  
 3/17/2020 12:15:40 PM



#48  
 Dibromochloromethane  
 Concen: 10.883 ppbv  
 RT: 10.32 min Scan# 2342  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 129     | 100   |       |       |
| 127     | 78.3  | 39.6  | 118.7 |





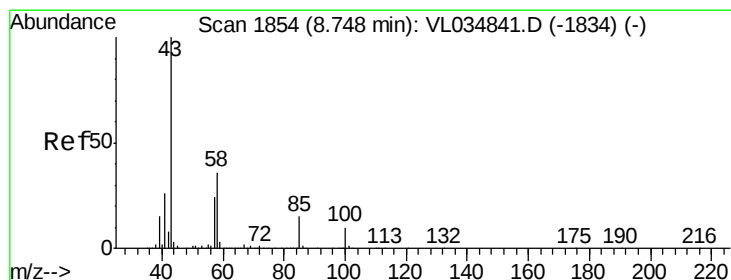
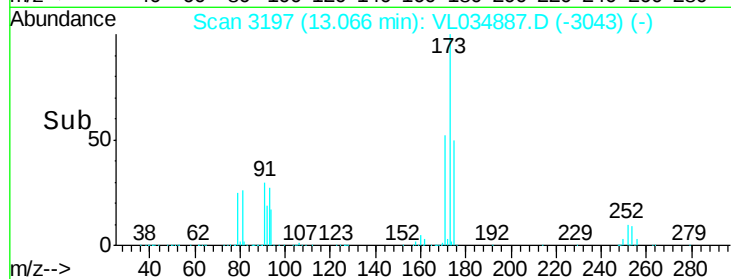
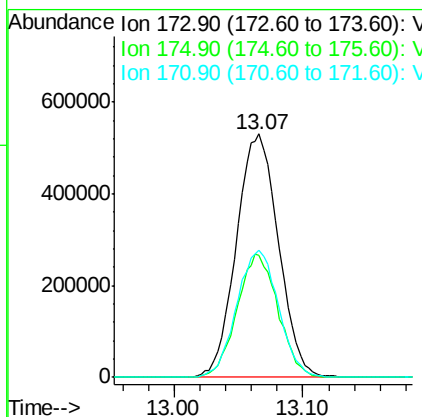
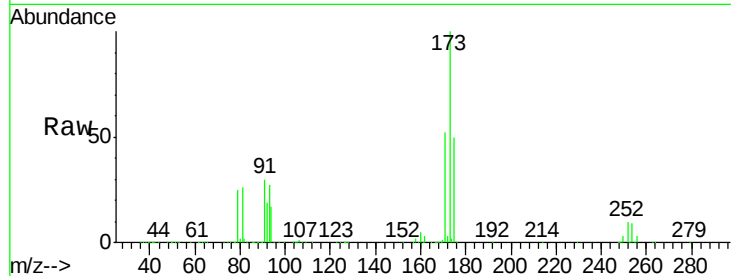
#49  
Bromoform  
Concen: 10.978 ppbv  
RT: 13.07 min Scan# 3197  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

Tot Ion:173 Resp: 1204745  
Ion Ratio Lower Upper  
173 100  
175 49.6 39.6 59.4  
171 52.1 41.0 61.6

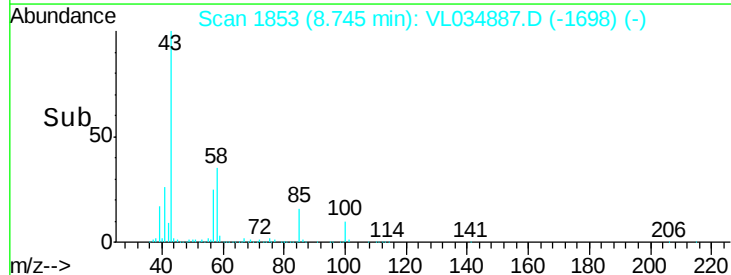
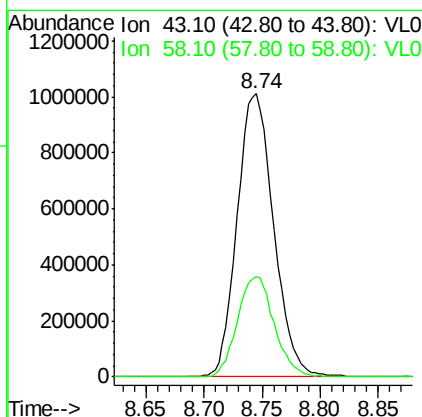
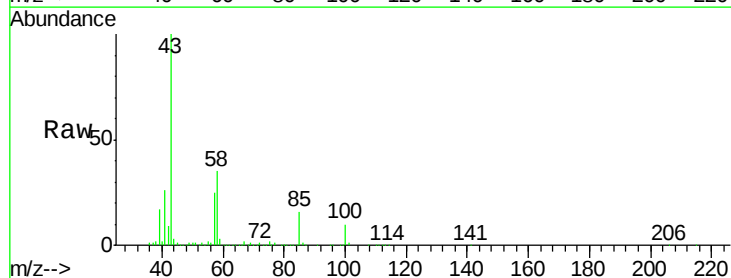
Manual Integrations  
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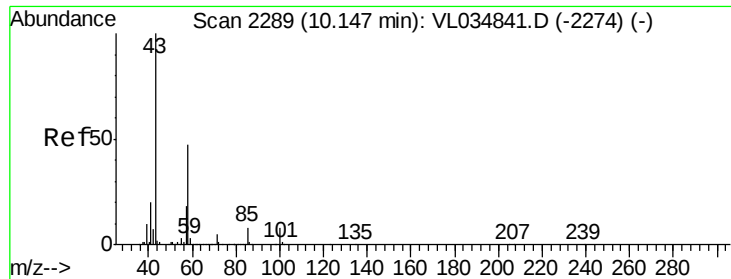
MMDadoda  
3/17/2020 12:15:40 PM



#50  
4-Methyl-2-Pentanone  
Concen: 11.021 ppbv  
RT: 8.74 min Scan# 1853  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion: 43 Resp: 2210769  
Ion Ratio Lower Upper  
43 100  
58 35.8 28.6 42.8





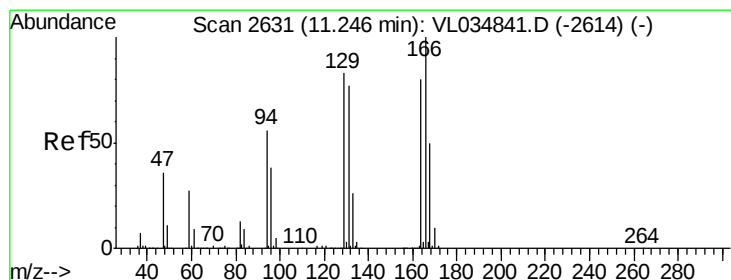
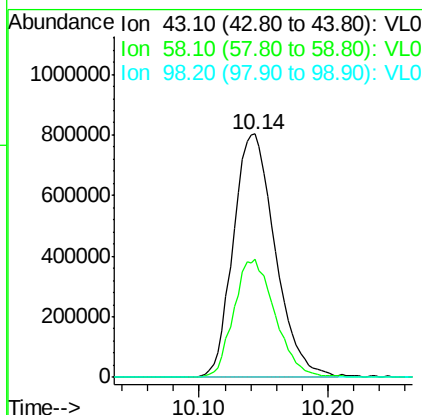
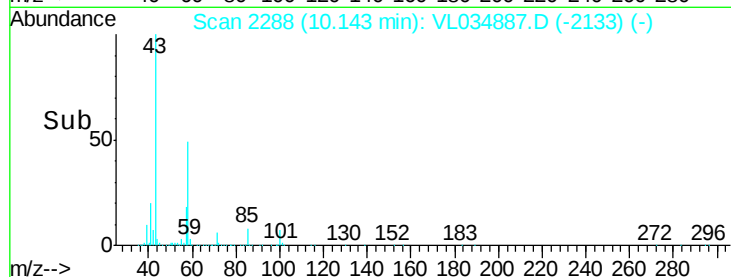
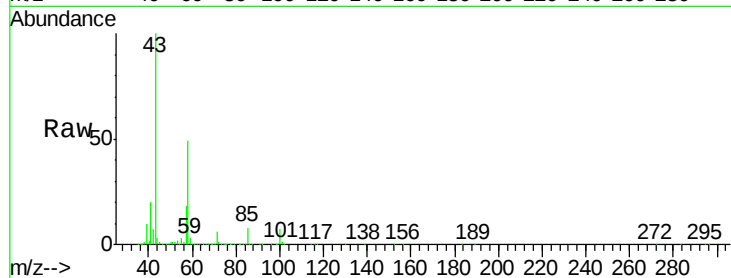
#51  
2-Hexanone  
Concen: 11.134 ppbv  
RT: 10.14 min Scan# 2288  
Delta R.T. -0.00 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

Tot Ion: 43 Resp: 1815190  
Ion Ratio Lower Upper  
43 100  
58 47.9 38.6 58.0  
98 0.3 0.1 0.1#

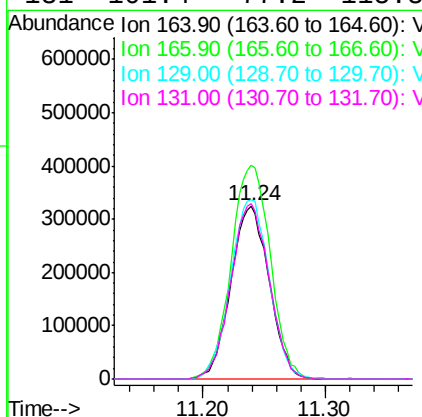
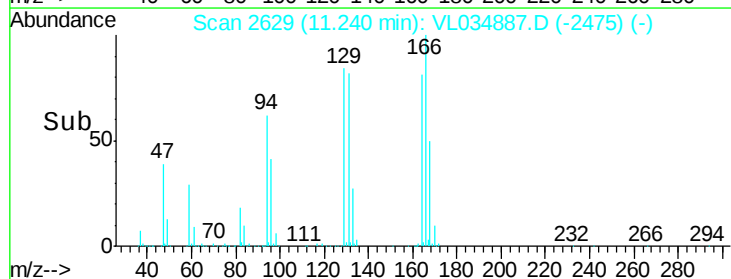
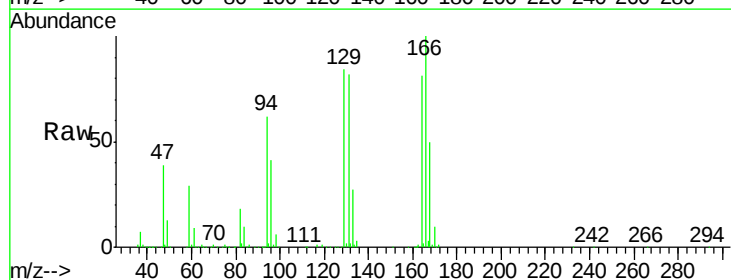
Manual Integrations  
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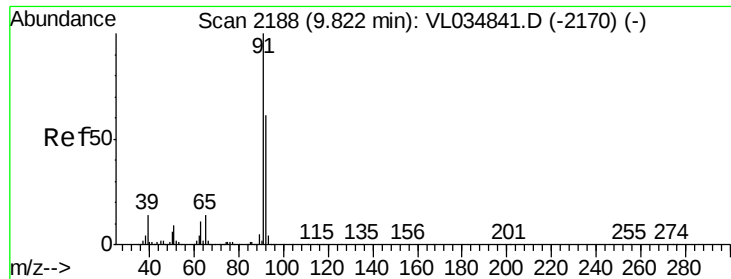
MMDadoda  
3/17/2020 12:15:40 PM



#52  
Tetrachloroethene  
Concen: 9.523 ppbv  
RT: 11.24 min Scan# 2629  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion:164 Resp: 704217  
Ion Ratio Lower Upper  
164 100  
166 123.2 100.0 150.0  
129 103.7 83.1 124.7  
131 101.4 77.2 115.8





#53

Toluene

Concen: 10.603 ppbv

RT: 9.82 min Scan# 2186

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion: 91 Resp: 2288631

Ion Ratio Lower Upper

91 100

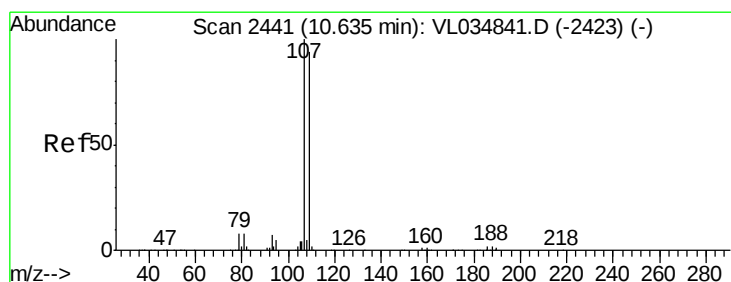
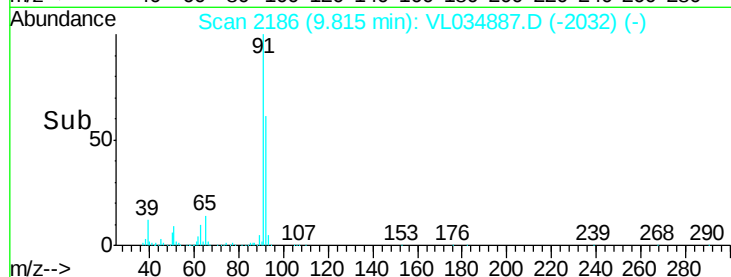
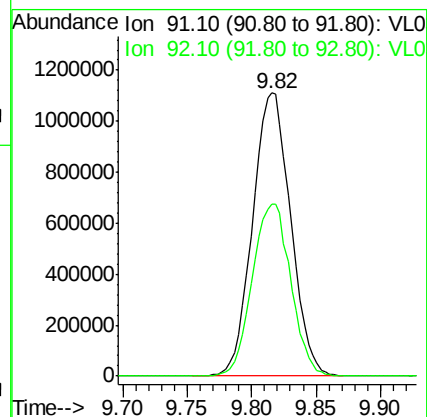
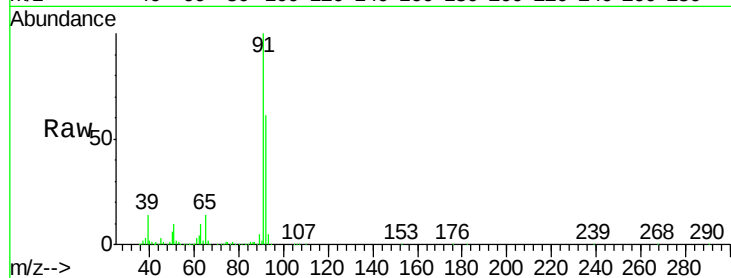
92 61.5 48.6 72.8

Manual Integrations

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MMDadoda

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#54

1,2-Dibromoethane

Concen: 10.706 ppbv

RT: 10.63 min Scan# 2438

Delta R.T. -0.01 min

Lab File: VL034887.D

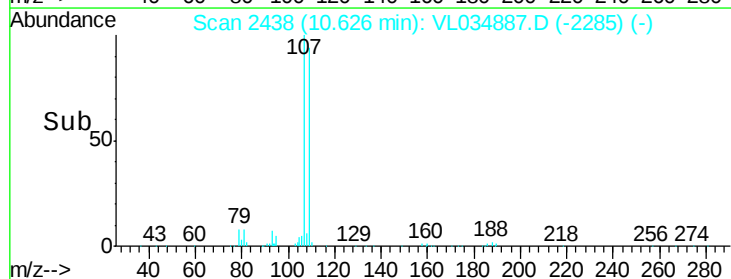
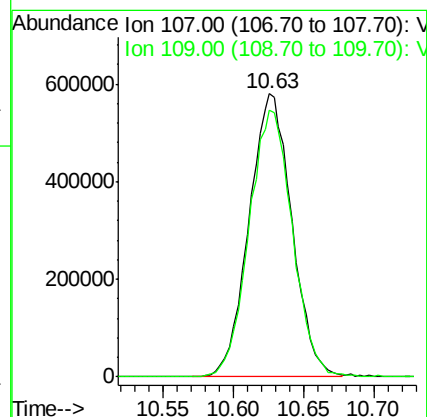
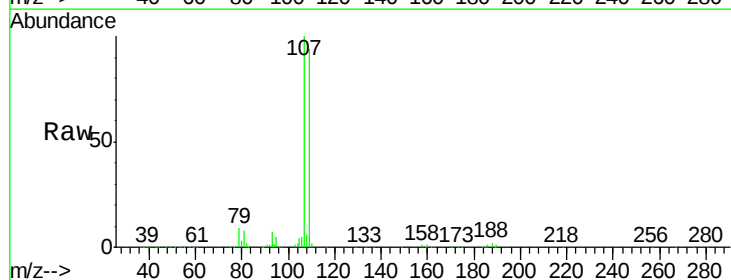
Acq: 16 Mar 2020 12:45

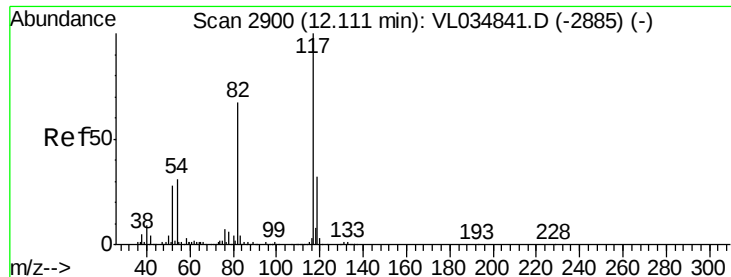
Tgt Ion: 107 Resp: 1224735

Ion Ratio Lower Upper

107 100

109 94.4 74.9 112.3





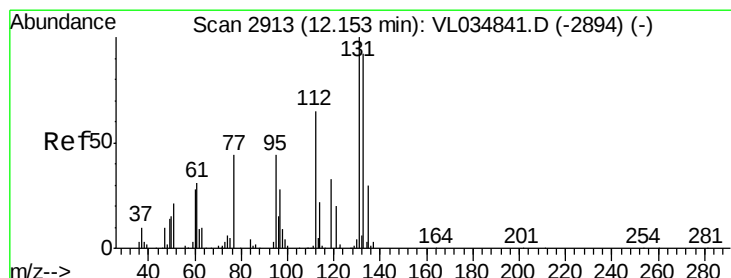
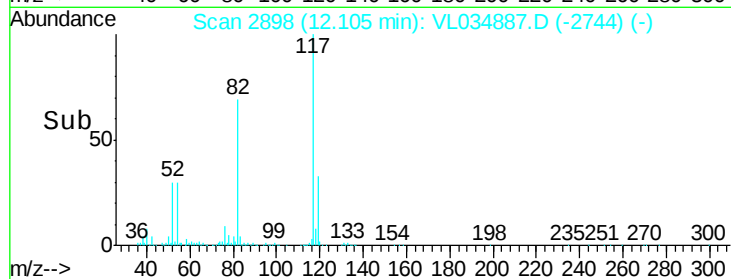
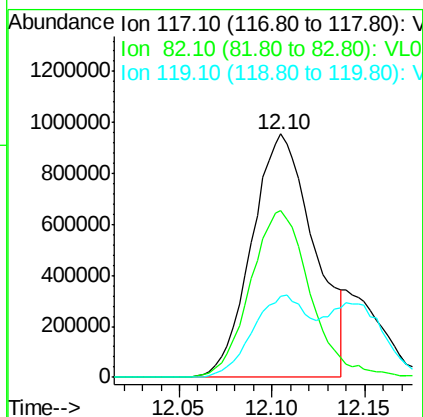
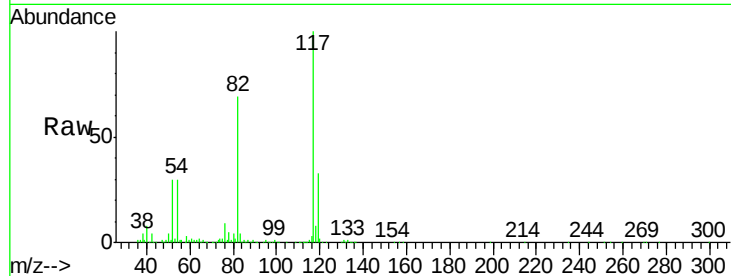
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv m  
RT: 12.10 min Scan# 2898  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

Tot Ion:117 Resp: 2237409  
Ion Ratio Lower Upper  
117 100  
82 66.3 51.1 76.7  
119 32.6 27.3 40.9

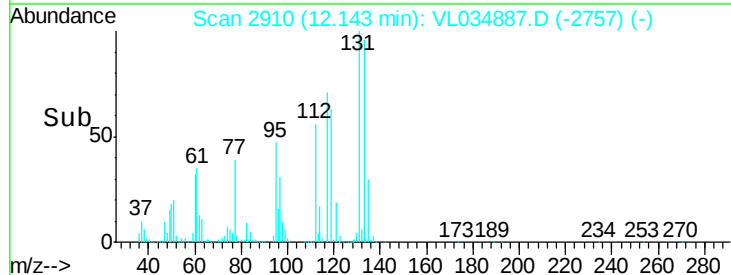
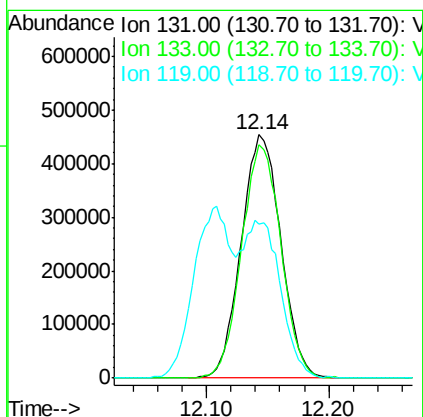
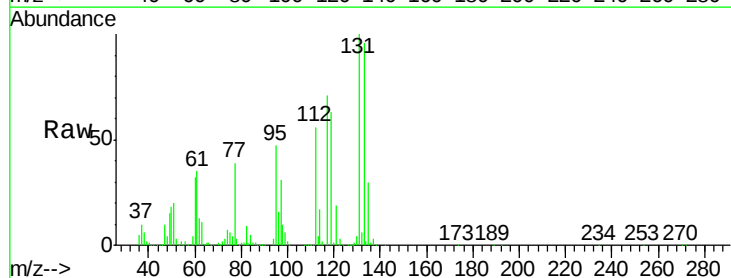
Manual Integrations  
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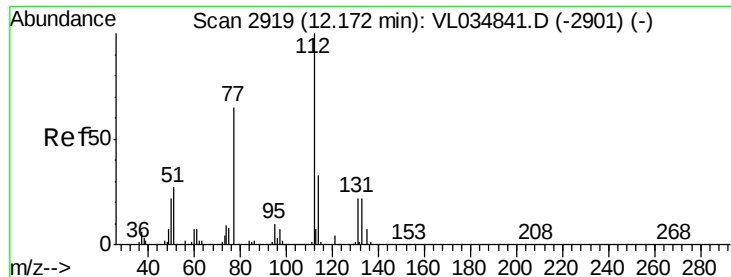
MMDadoda  
3/17/2020 12:15:40 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 10.149 ppbv  
RT: 12.14 min Scan# 2910  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion:131 Resp: 1020076  
Ion Ratio Lower Upper  
131 100  
133 95.2 76.0 114.0  
119 66.8 47.8 71.8





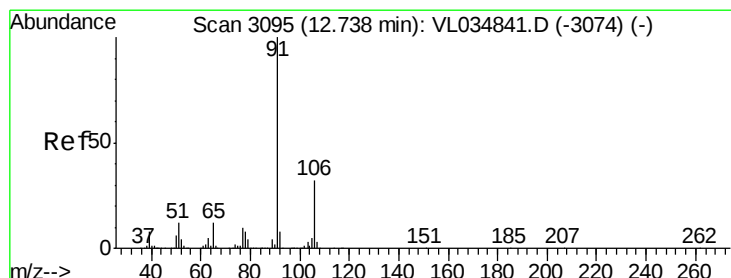
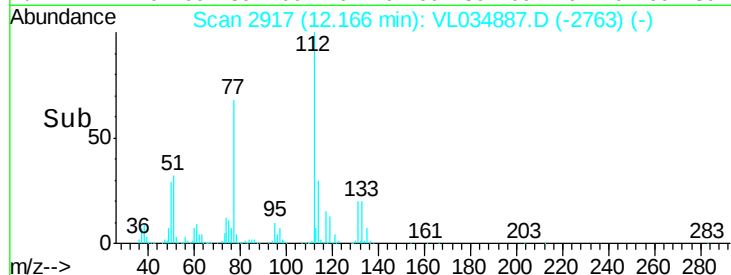
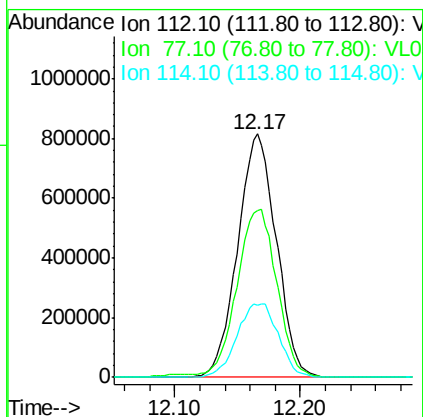
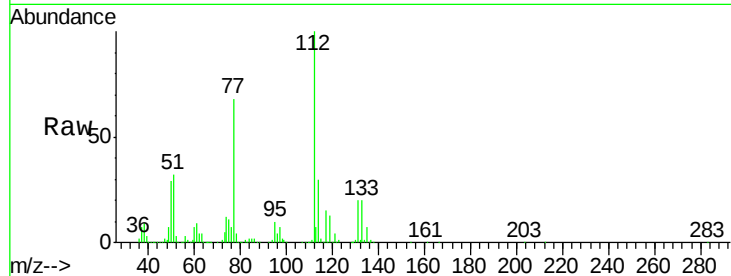
#57  
Chlorobenzene  
Concen: 9.941 ppbv  
RT: 12.17 min Scan# 2917  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

Tot Ion: 112 Resp: 1740365  
Ion Ratio Lower Upper  
112 100  
77 68.3 53.0 79.6  
114 29.4 29.5 36.1#

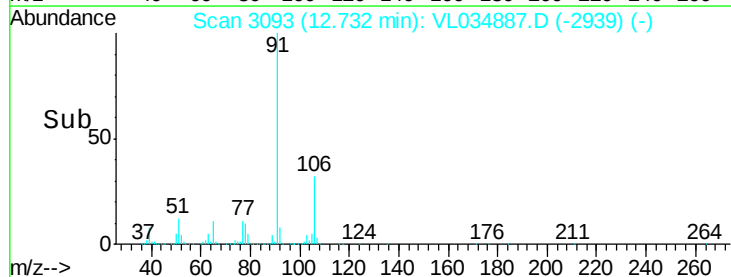
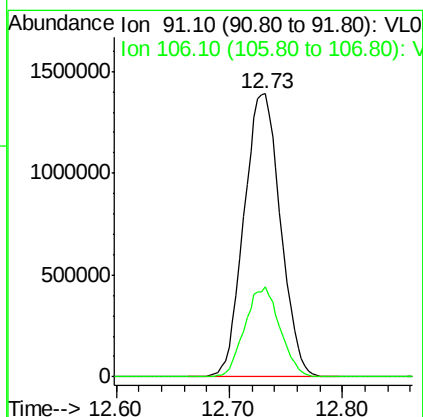
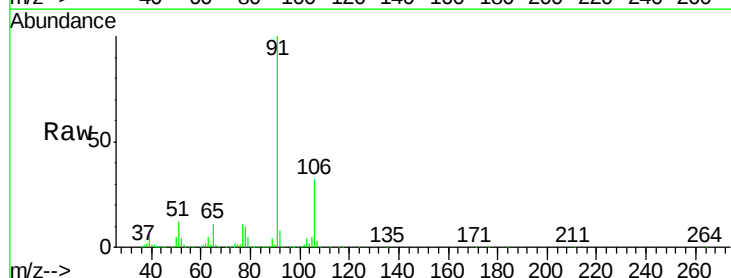
Manual Integrations  
APPROVED

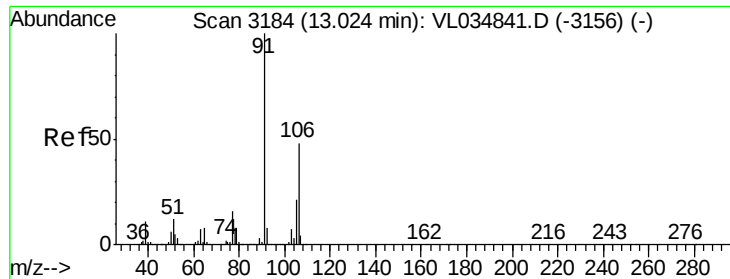
MMDadoda  
3/17/2020 12:15:40 PM



#58  
Ethyl Benzene  
Concen: 10.287 ppbv  
RT: 12.73 min Scan# 3093  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion: 91 Resp: 3117016  
Ion Ratio Lower Upper  
91 100  
106 31.9 25.8 38.6





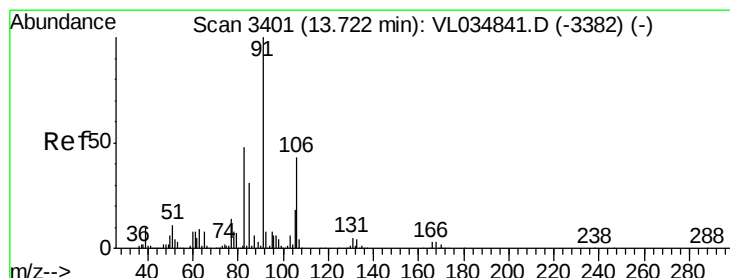
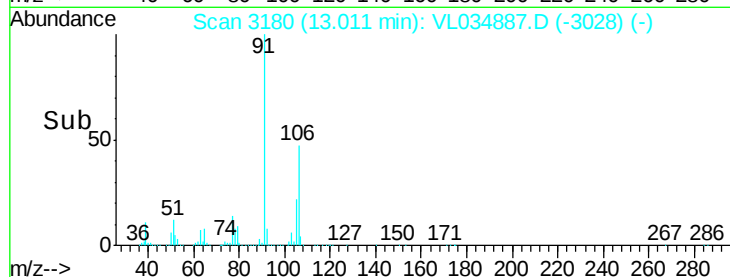
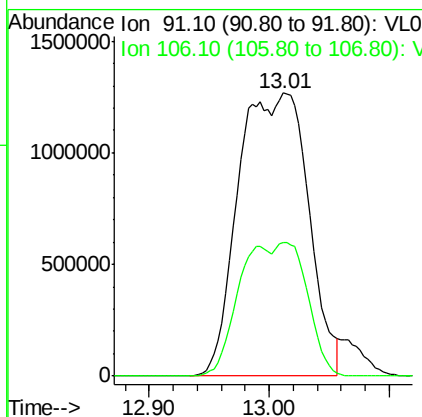
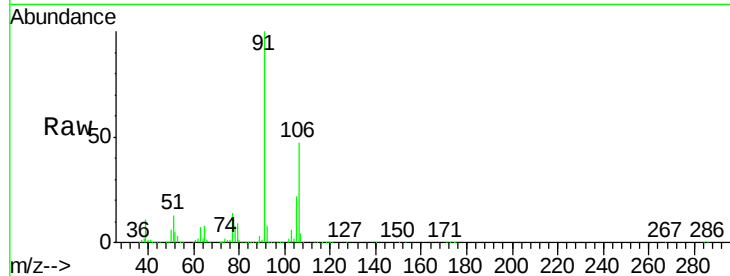
#59  
m/p-Xylene  
Concen: 20.271 ppbv m  
RT: 13.01 min Scan# 3180  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

Tot Ion: 91 Resp: 5145764  
Ion Ratio Lower Upper  
91 100  
106 45.5 37.1 55.7

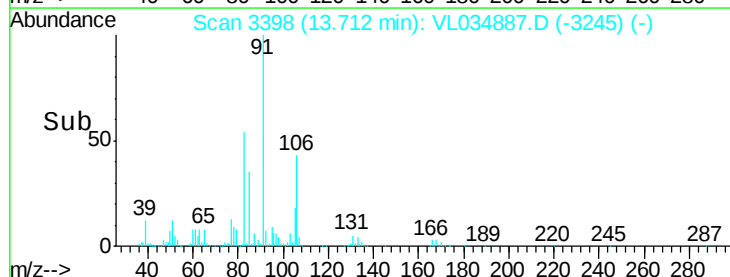
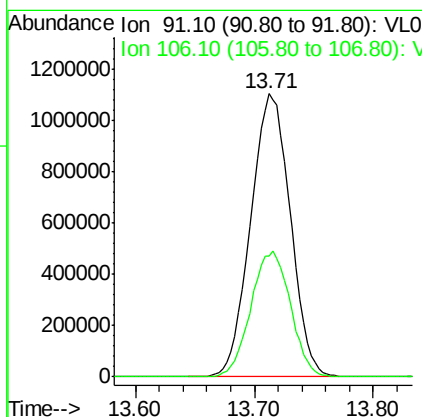
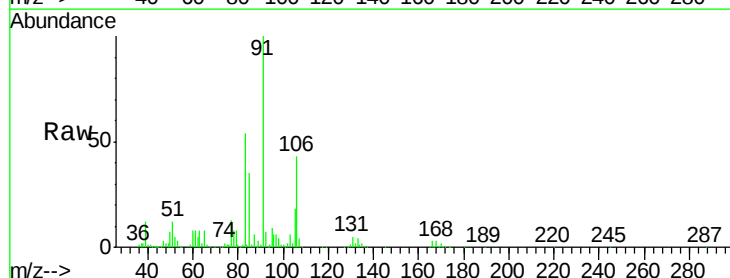
Manual Integrations  
APPROVED

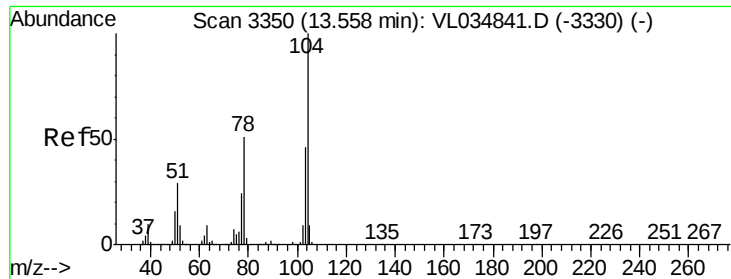
MMDadoda  
3/17/2020 12:15:40 PM



#60  
o-Xylene  
Concen: 10.283 ppbv  
RT: 13.71 min Scan# 3398  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Tgt Ion: 91 Resp: 2548584  
Ion Ratio Lower Upper  
91 100  
106 44.3 22.5 67.5





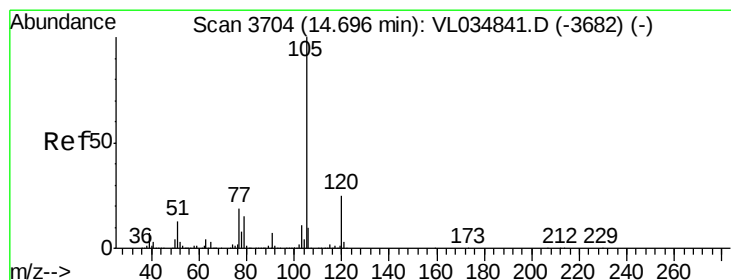
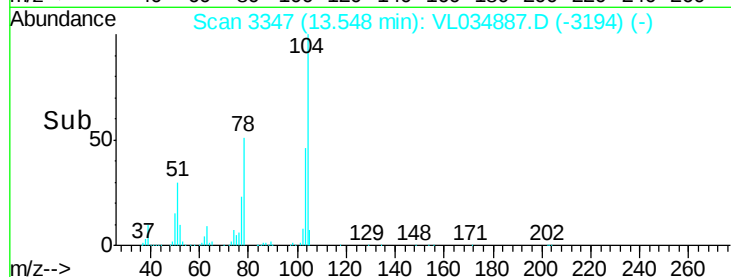
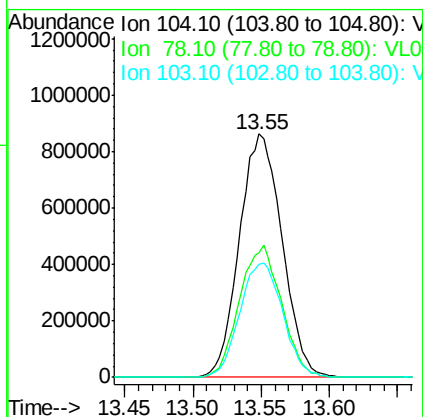
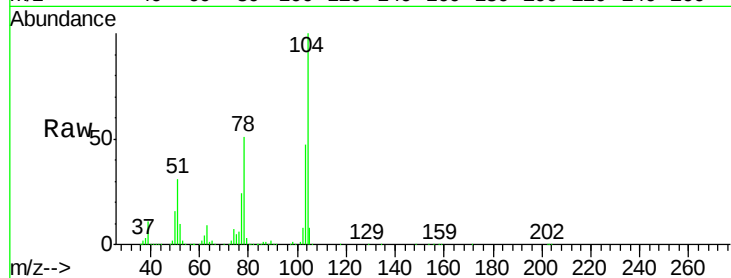
#61  
Stvrene  
Concen: 10.782 ppbv  
RT: 13.55 min Scan# 3347  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 53.5  | 41.8  | 62.6  |
| 103     | 47.3  | 37.8  | 56.6  |

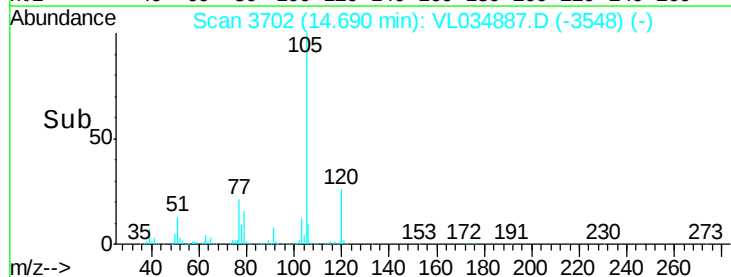
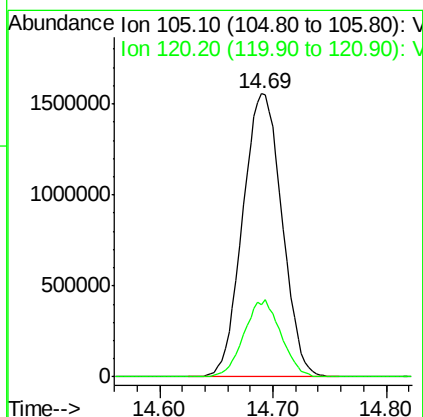
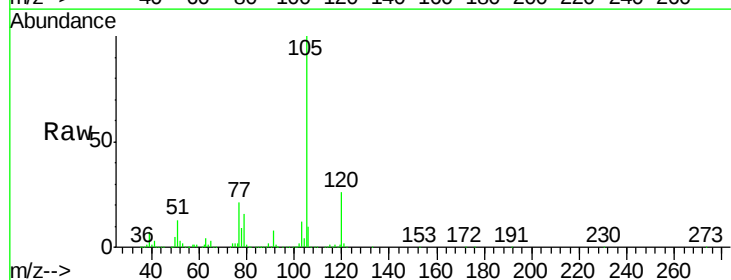
Manual Integrations  
APPROVED

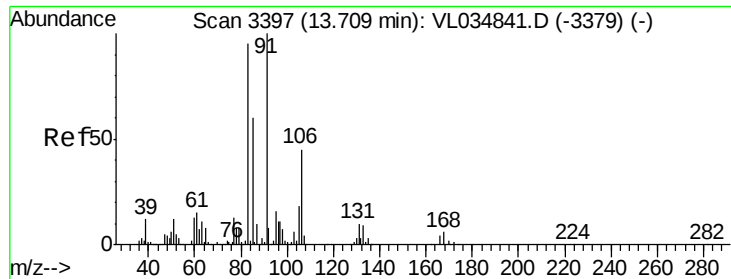
MMDadoda  
3/17/2020 12:15:40 PM



#62  
Isopropylbenzene  
Concen: 10.020 ppbv  
RT: 14.69 min Scan# 3702  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 25.6  | 21.0  | 31.4  |





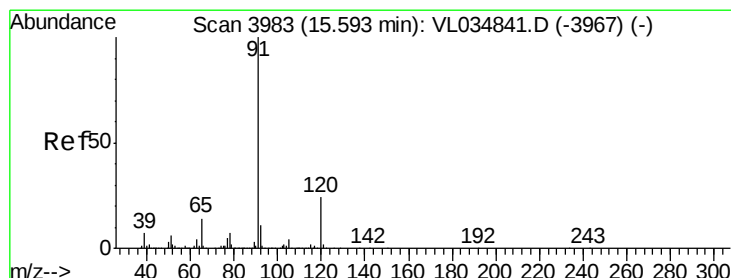
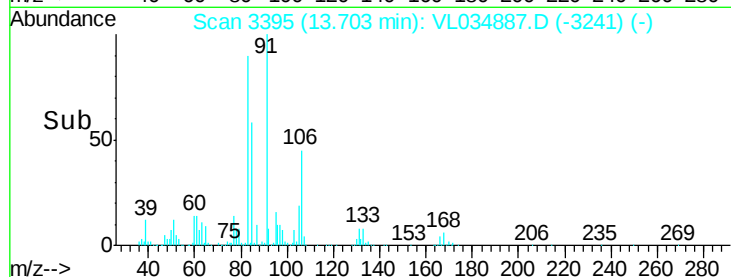
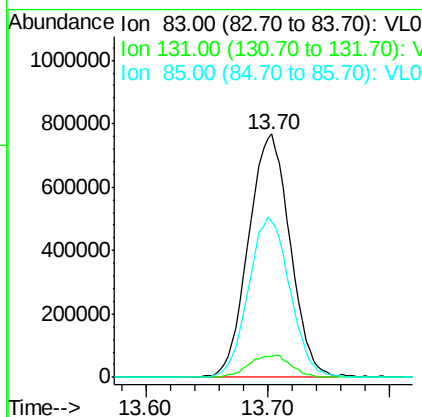
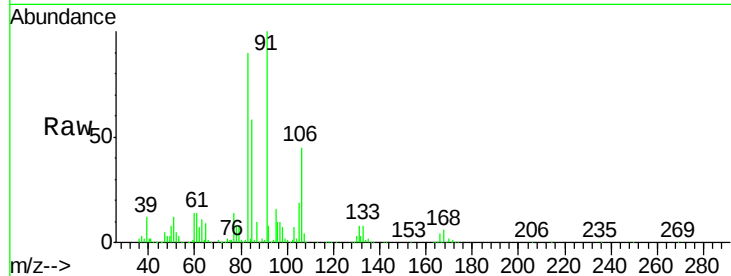
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 10.731 ppbv  
 RT: 13.70 min Scan# 3395  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

| Tot Ion   | 83    | Resp  | 1805631 |
|-----------|-------|-------|---------|
| Ion Ratio | Lower | Upper |         |
| 83        | 100   |       |         |
| 131       | 9.3   | 5.0   | 14.9    |
| 85        | 65.8  | 32.4  | 97.2    |

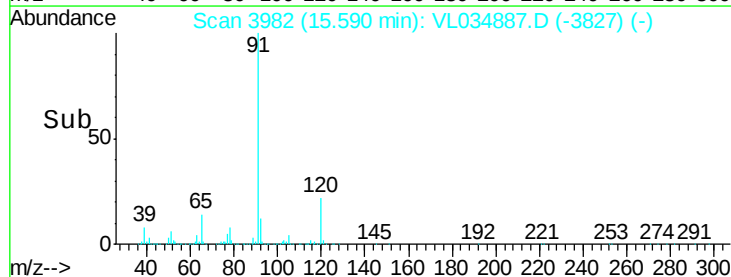
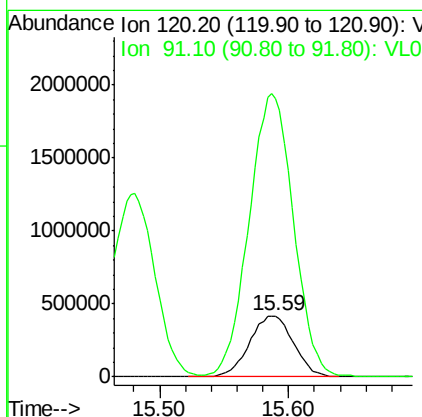
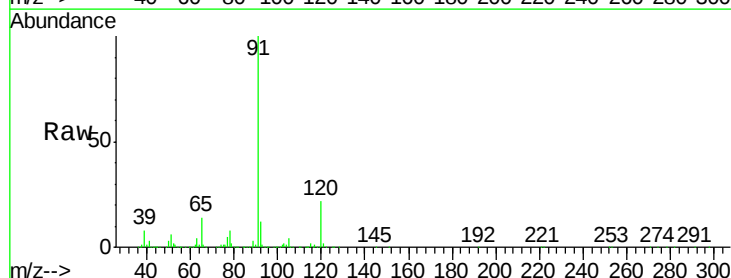
Manual Integrations  
 APPROVED

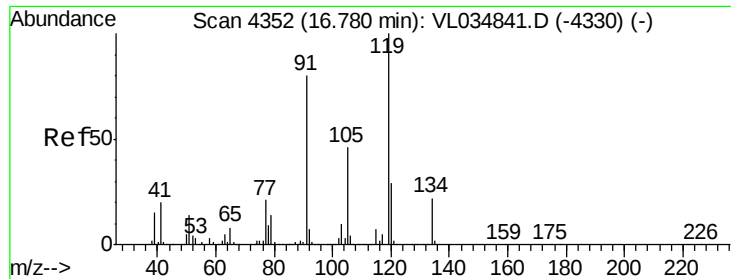
MMDadoda  
 3/17/2020 12:15:40 PM



#64  
 n-propylbenzene  
 Concen: 10.184 ppbv  
 RT: 15.59 min Scan# 3982  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

| Tgt Ion   | 120   | Resp  | 993344 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 120       | 100   |       |        |
| 91        | 468.3 | 360.9 | 541.3  |





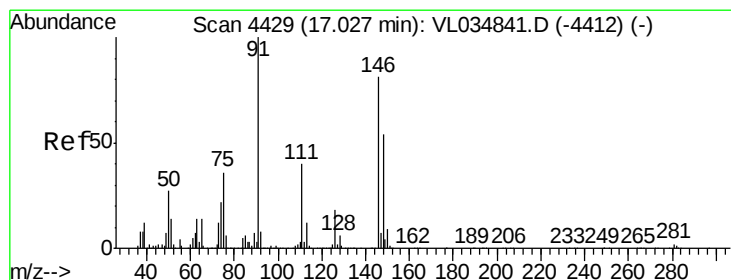
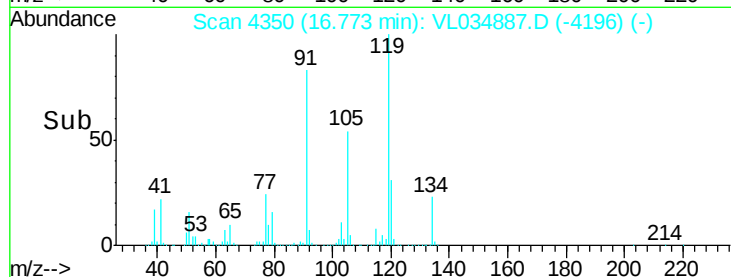
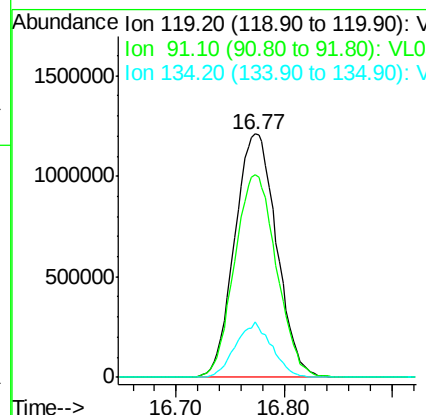
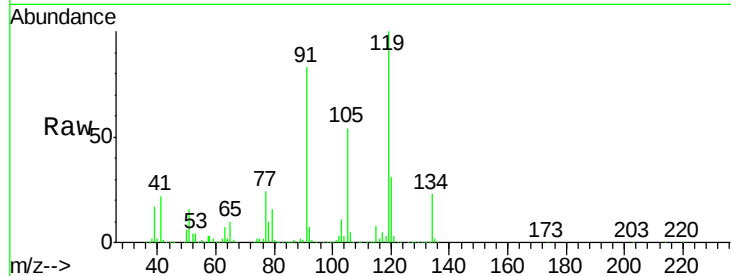
#65  
tert-Butylbenzene  
Concen: 9.961 ppbv  
RT: 16.77 min Scan# 4350  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 91      | 83.8  | 64.9  | 97.3  |
| 134     | 19.8  | 15.9  | 23.9  |

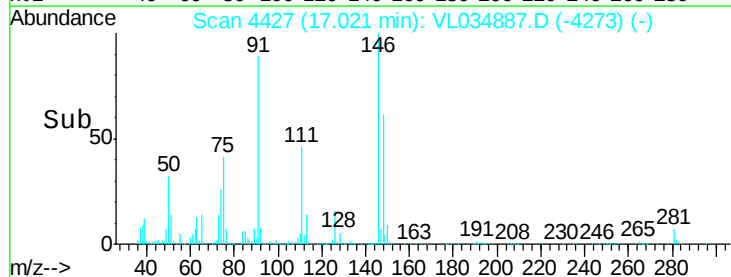
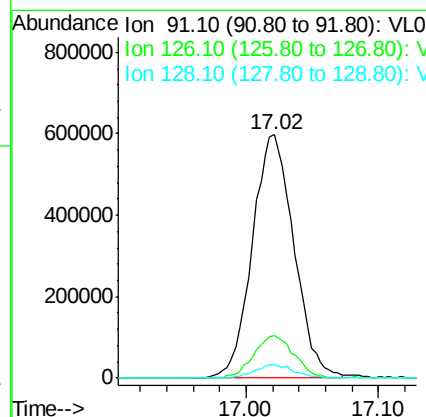
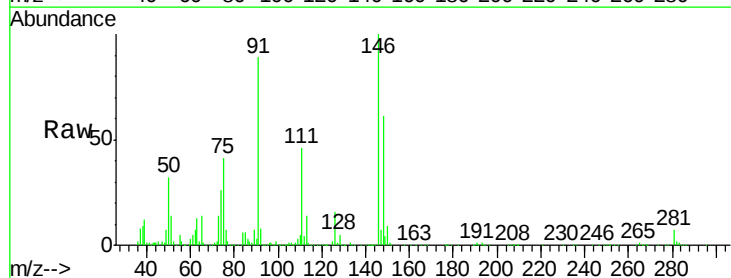
Manual Integrations  
APPROVED

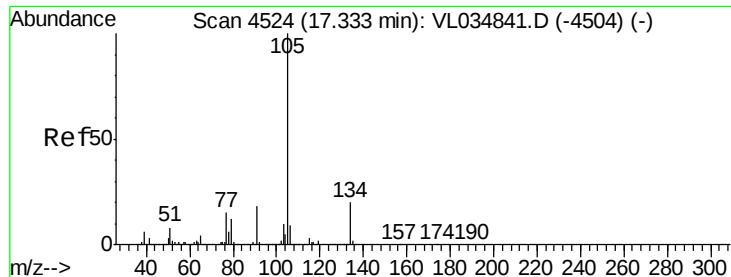
MMDadoda  
3/17/2020 12:15:40 PM



#66  
Benzyl Chloride  
Concen: 9.504 ppbv  
RT: 17.02 min Scan# 4427  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 17.3  | 14.7  | 22.1  |
| 128     | 5.2   | 4.7   | 7.1   |





#67

sec-Butylbenzene

Concen: 10.354 ppbv

RT: 17.32 min Scan# 4520

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion:105 Resp: 4703573

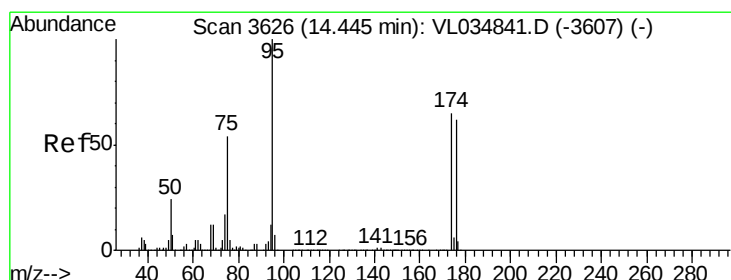
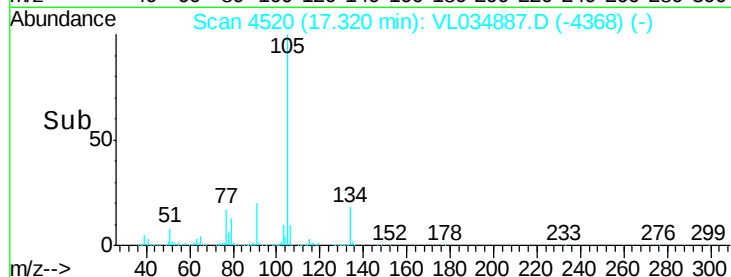
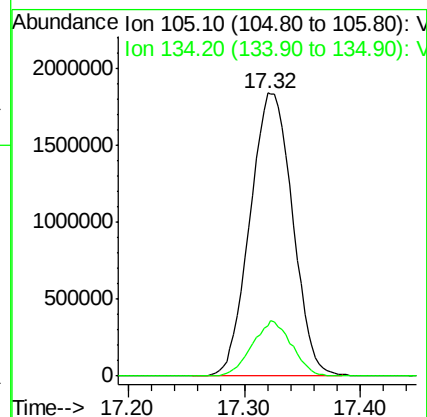
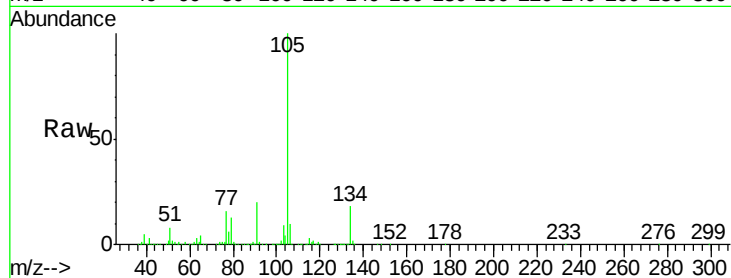
Ion Ratio Lower Upper

105 100

134 18.3 15.0 22.6

Manual Integrations  
APPROVED

MMDadoda  
3/17/2020 12:15:40 PM



#68

1-Bromo-4-Fluorobenzene

Concen: 10.015 ppbv

RT: 14.44 min Scan# 3624

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

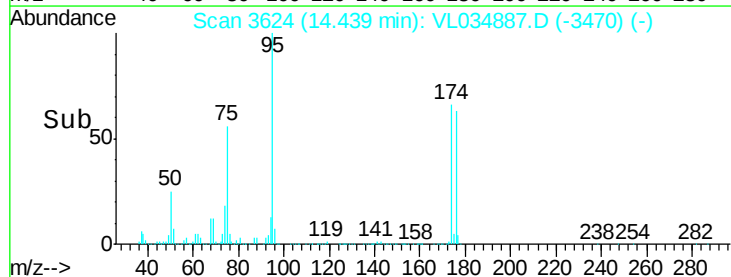
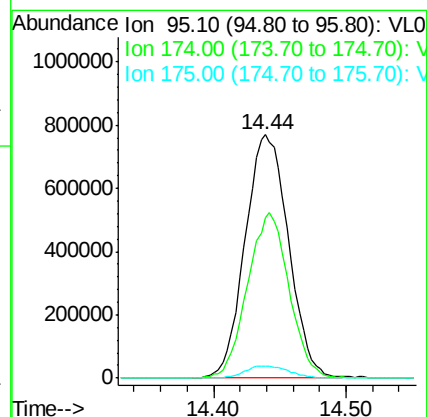
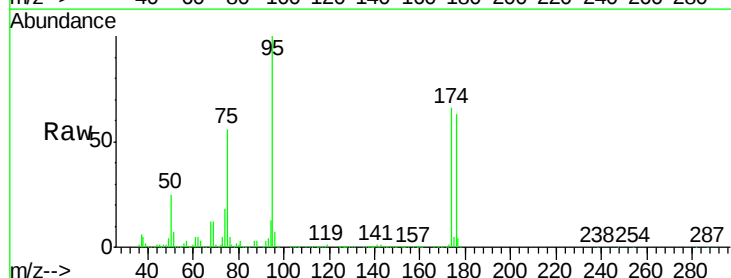
Tgt Ion: 95 Resp: 1747529

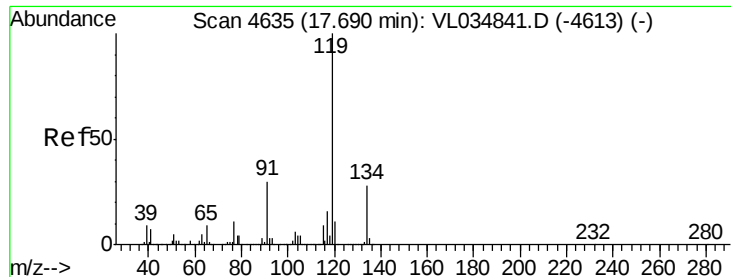
Ion Ratio Lower Upper

95 100

174 65.4 55.2 82.8

175 5.0 4.3 6.5





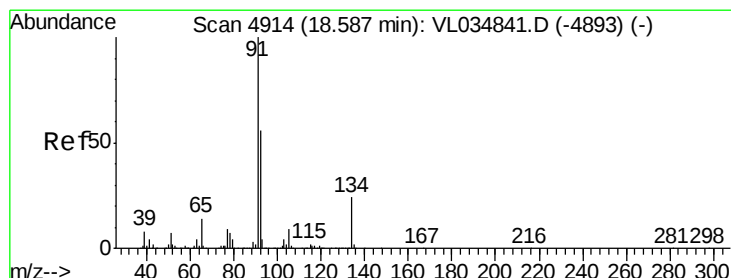
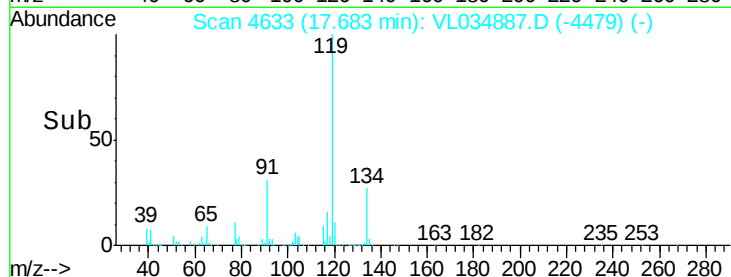
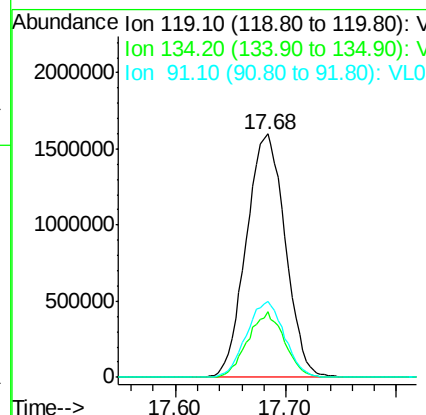
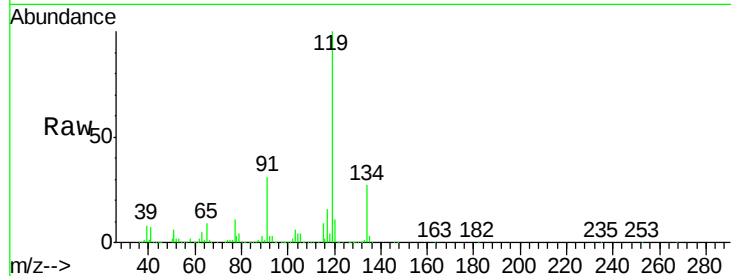
#69  
 p-Isopropyltoluene  
 Concen: 10.275 ppbv  
 RT: 17.68 min Scan# 4633  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.2  | 20.6  | 30.8  |
| 91      | 30.7  | 23.4  | 35.2  |

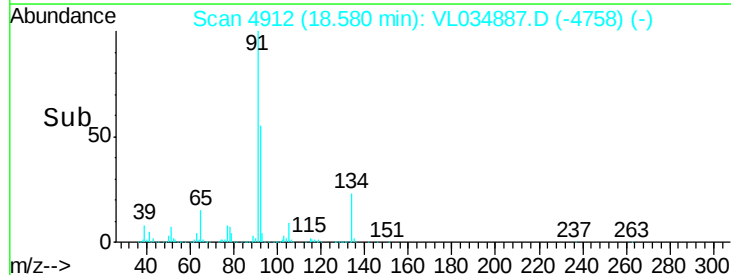
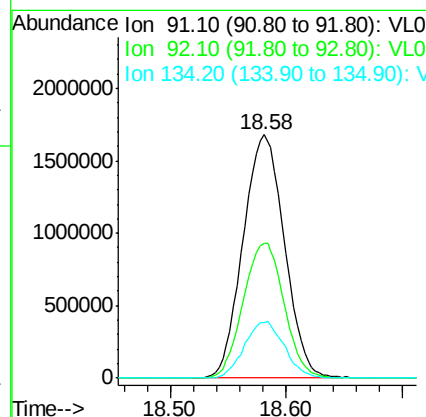
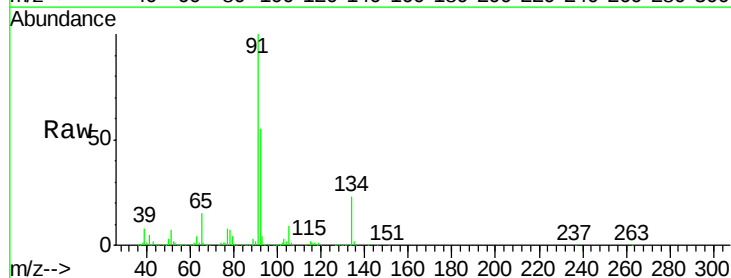
Manual Integrations  
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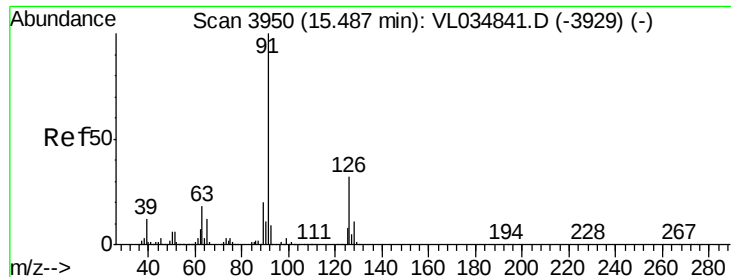
MMDadoda  
 3/17/2020 12:15:40 PM



#70  
 n-Butylbenzene  
 Concen: 10.690 ppbv  
 RT: 18.58 min Scan# 4912  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 55.1  | 43.8  | 65.6  |
| 134     | 22.5  | 19.0  | 28.4  |





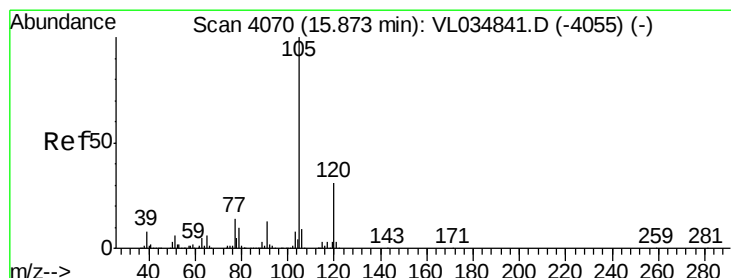
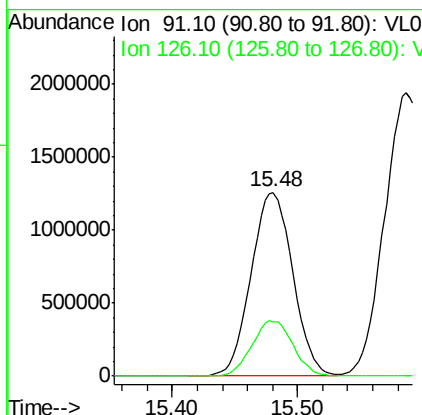
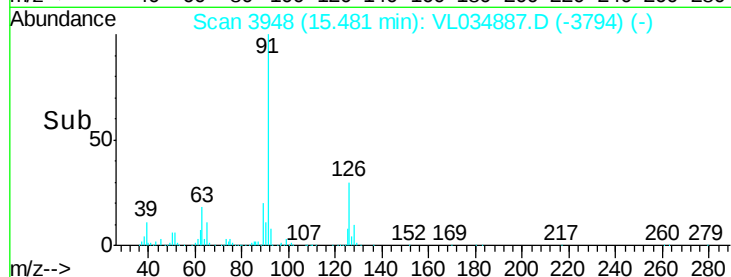
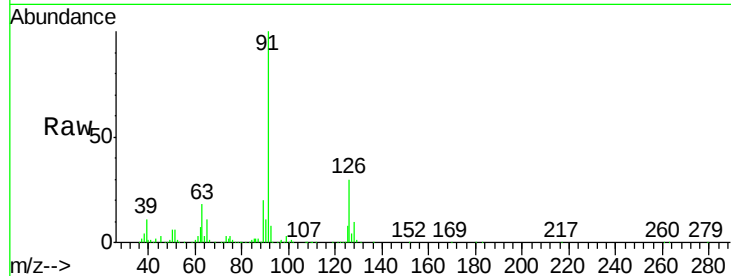
#71  
 2-Chlorotoluene  
 Concen: 10.302 ppbv  
 RT: 15.48 min Scan# 3948  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

Tot Ion: 91 Resp: 2923779  
 Ion Ratio Lower Upper  
 91 100  
 126 29.8 12.3 49.1

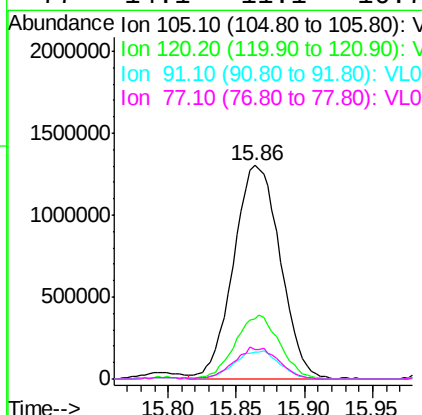
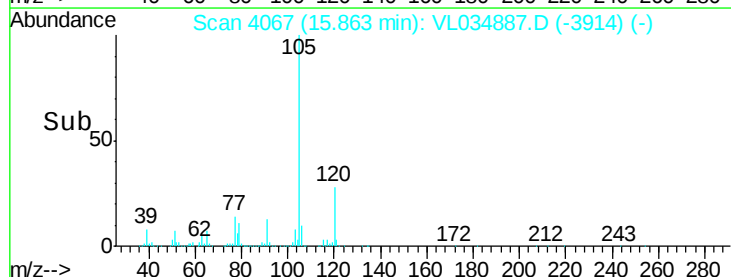
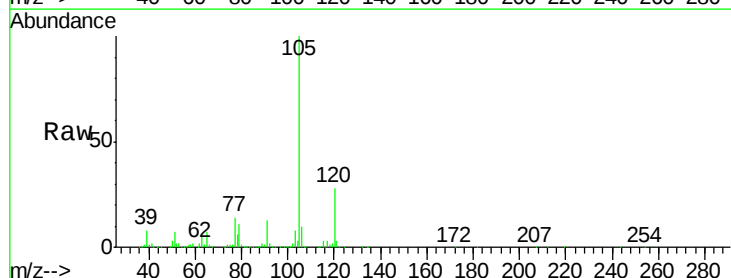
Manual Integrations  
 APPROVED

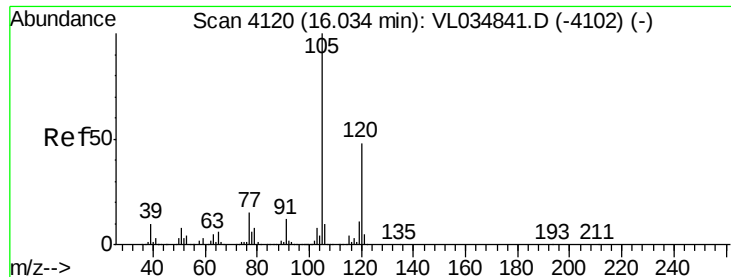
MMDadoda  
 3/17/2020 12:15:40 PM



#72  
 4-Ethyltoluene  
 Concen: 10.543 ppbv  
 RT: 15.86 min Scan# 4067  
 Delta R.T. -0.01 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Tgt Ion: 105 Resp: 3085808  
 Ion Ratio Lower Upper  
 105 100  
 120 28.5 23.7 35.5  
 91 12.9 10.5 15.7  
 77 14.1 11.1 16.7





#73

1,3,5-Trimethylbenzene

Concen: 10.436 ppbv

RT: 16.02 min Scan# 4117

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion:105 Resp: 2859596

Ion Ratio Lower Upper

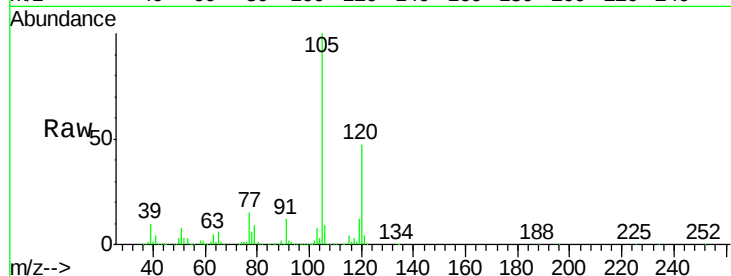
105 100

120 46.8 38.6 58.0

Manual Integrations  
APPROVED

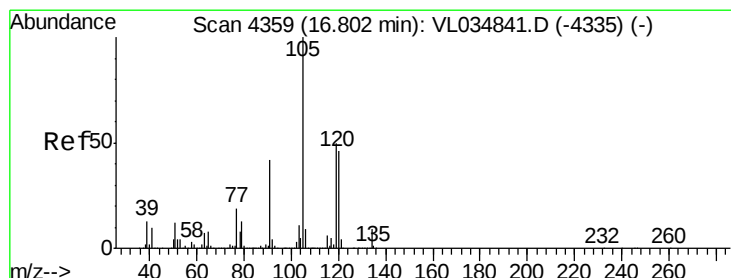
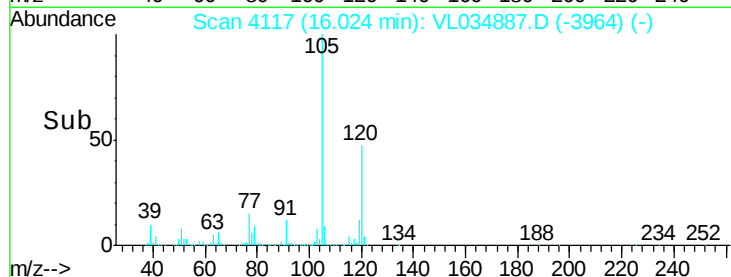
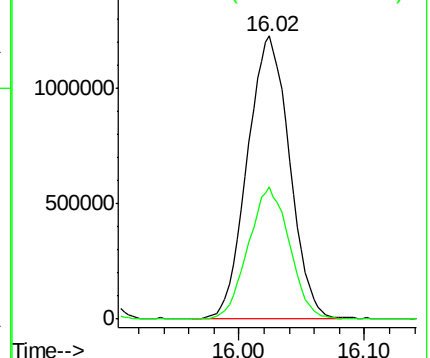
MMDadoda

3/17/2020 12:15:40 PM



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 10.486 ppbv

RT: 16.79 min Scan# 4356

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Tgt Ion:105 Resp: 2960233

Ion Ratio Lower Upper

105 100

120 45.9 37.0 55.4

91 44.2 33.8 50.6

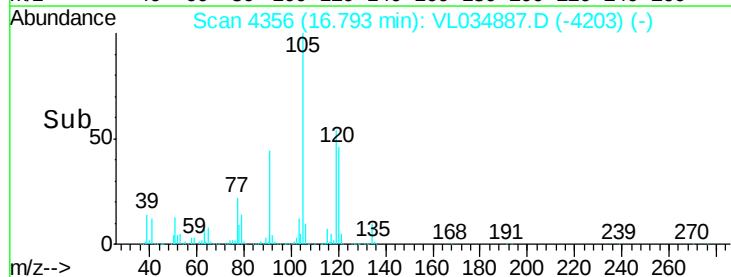
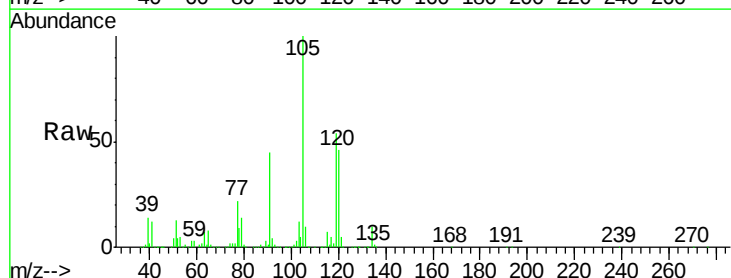
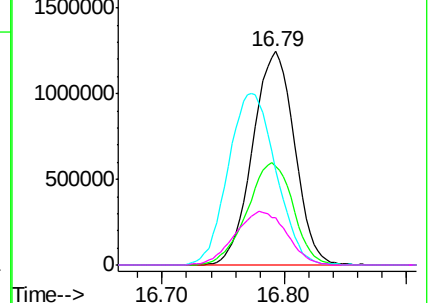
77 22.0 15.4 23.0

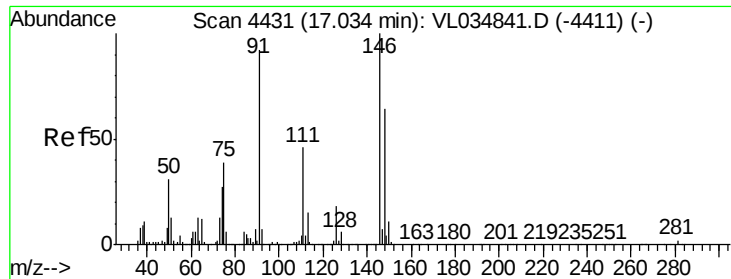
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





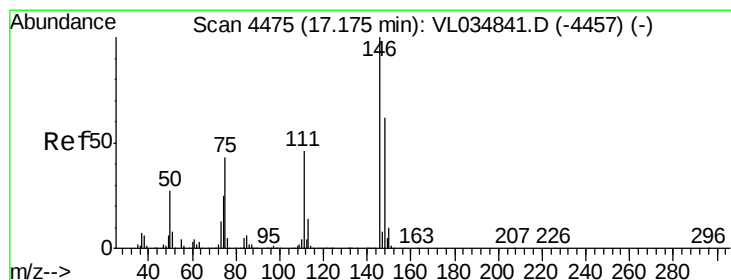
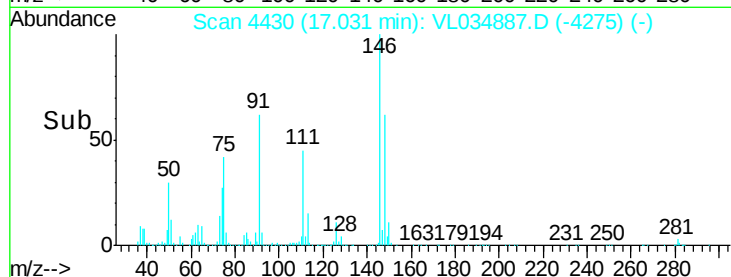
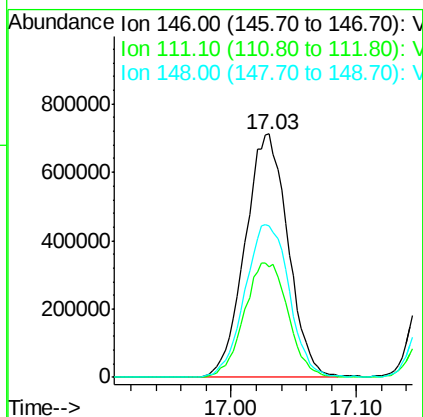
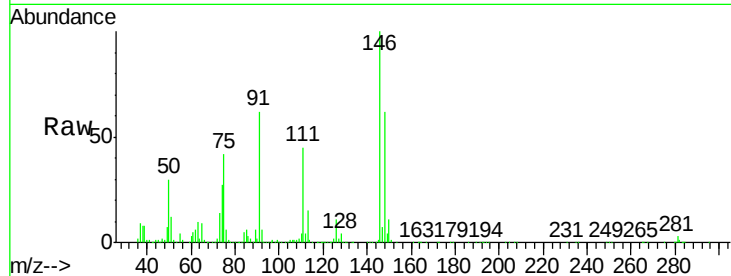
#75  
 1,3-Dichlorobenzene  
 Concen: 9.957 ppbv  
 RT: 17.03 min Scan# 4430  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 48.1  | 23.9  | 71.7  |
| 148     | 64.9  | 32.5  | 97.5  |

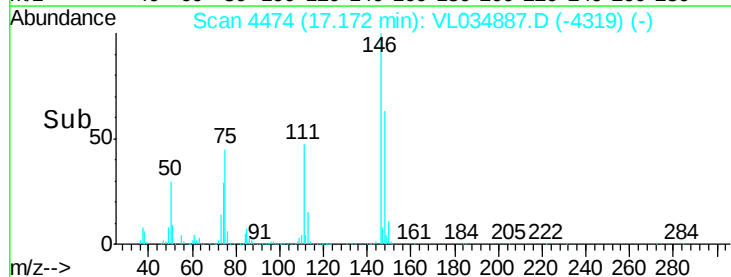
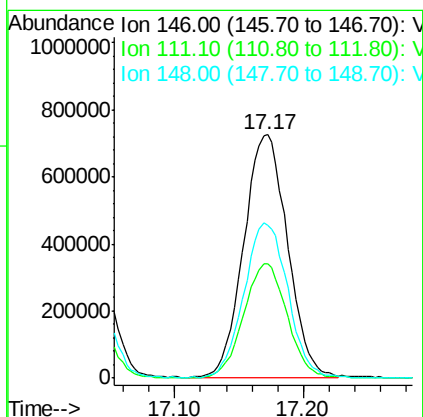
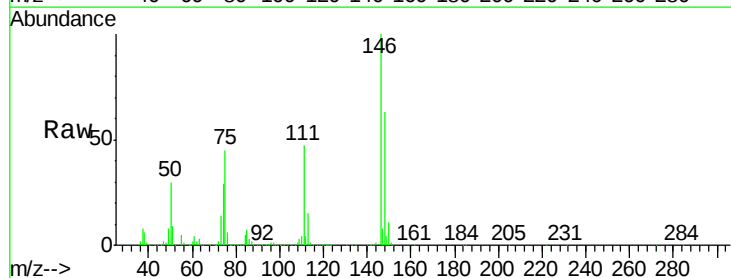
Manual Integrations  
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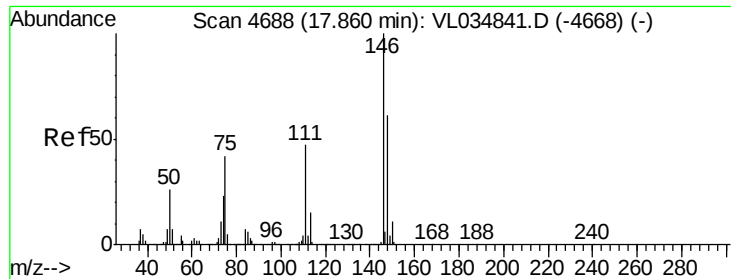
MMDadoda  
 3/17/2020 12:15:40 PM



#76  
 1,4-Dichlorobenzene  
 Concen: 10.039 ppbv  
 RT: 17.17 min Scan# 4474  
 Delta R.T. -0.00 min  
 Lab File: VL034887.D  
 Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 47.0  | 23.4  | 70.2  |
| 148     | 65.1  | 32.3  | 96.9  |





#77

1,2-Dichlorobenzene

Concen: 9.939 ppbv

RT: 17.85 min Scan# 4685

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion:146 Resp: 1639808

Ion Ratio Lower Upper

146 100

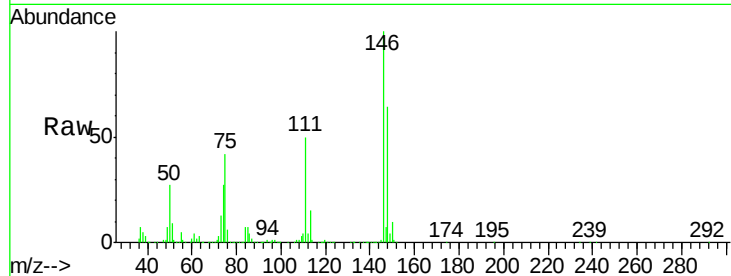
111 49.7 23.8 71.4

148 65.0 31.6 94.8

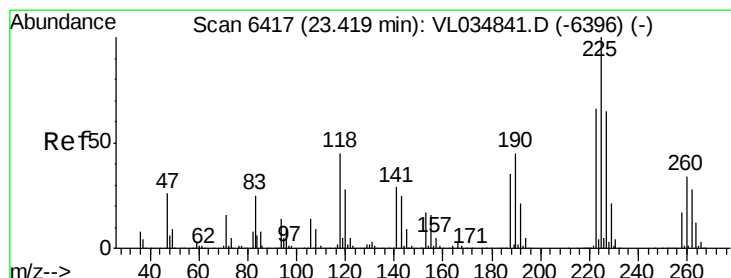
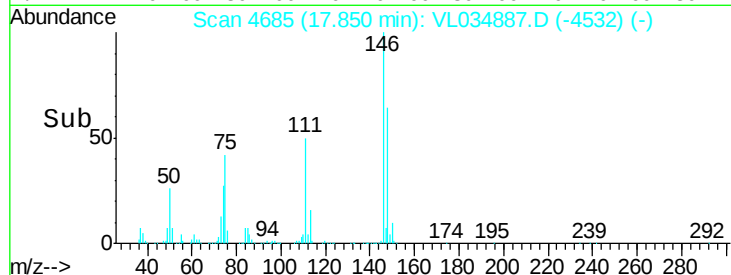
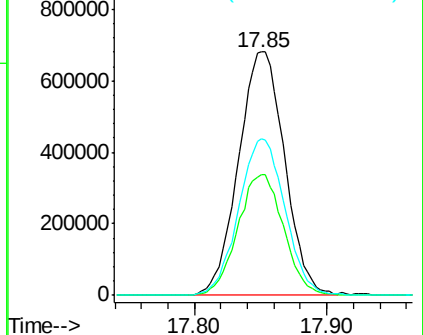
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Abundance Ion 146.00 (145.70 to 146.70): V  
Ion 111.10 (110.80 to 111.80): V  
Ion 148.00 (147.70 to 148.70): V



#78

Hexachloro-1,3-Butadiene

Concen: 10.149 ppbv

RT: 23.41 min Scan# 6415

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

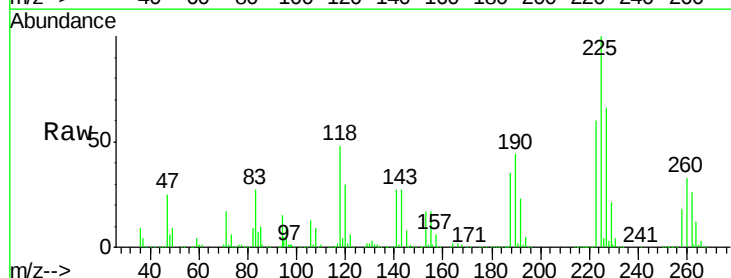
Tgt Ion:225 Resp: 1398602

Ion Ratio Lower Upper

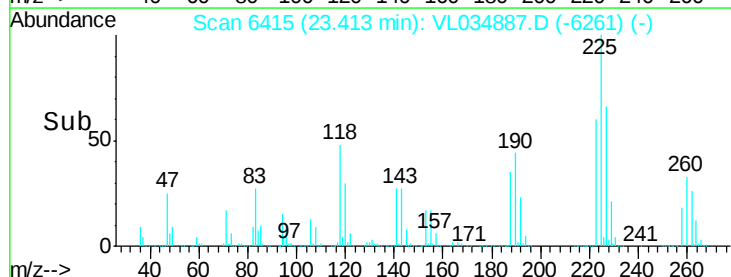
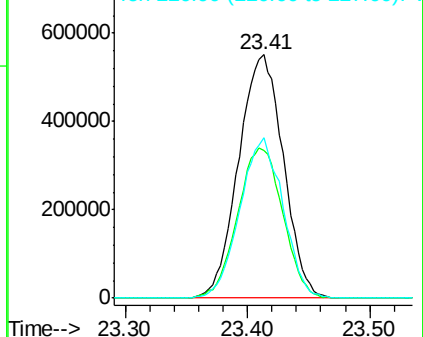
225 100

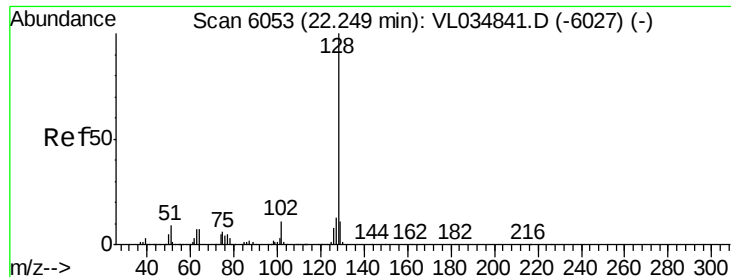
223 62.5 51.1 76.7

227 63.4 51.8 77.6



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





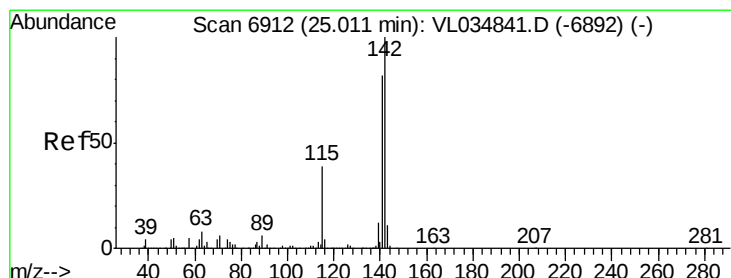
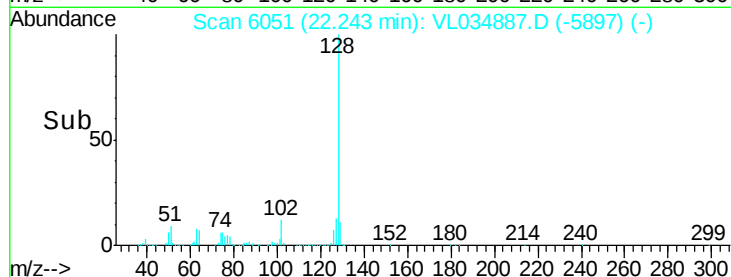
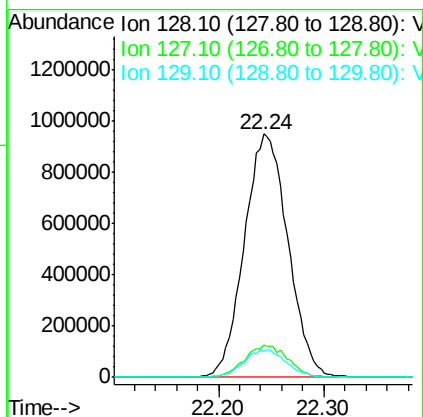
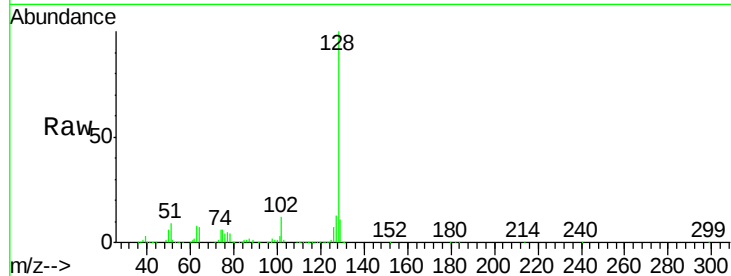
#79  
Naphthalene  
Concen: 12.370 ppbv  
RT: 22.24 min Scan# 6051  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0316ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 13.2  | 10.2  | 15.2  |
| 129     | 10.9  | 8.6   | 13.0  |

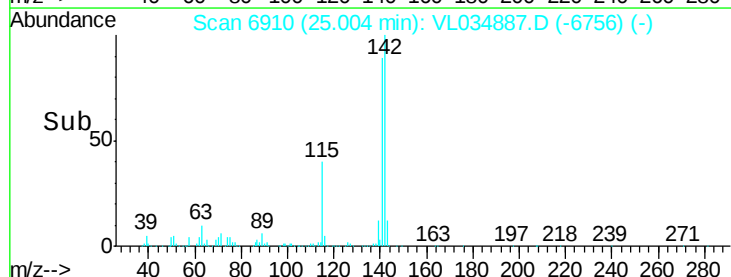
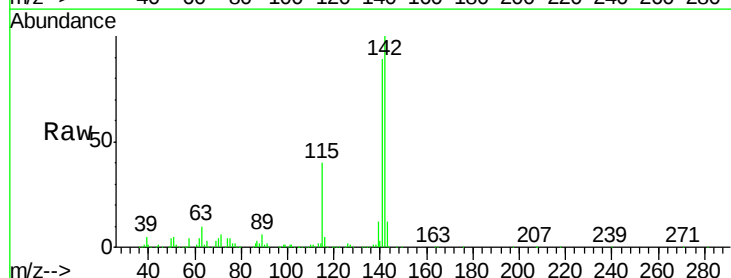
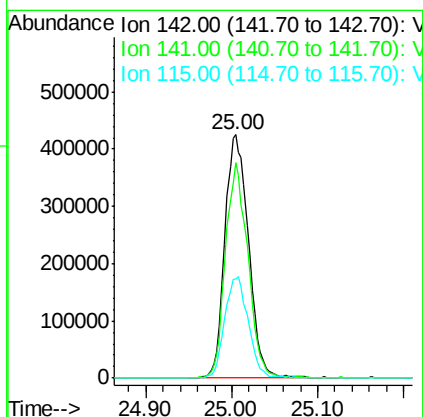
Manual Integrations  
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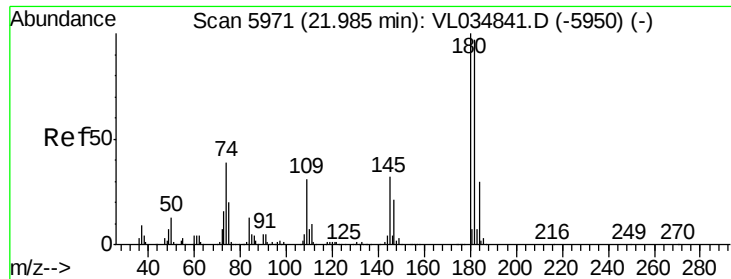
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3/17/2020 12:15:40 PM



#80  
Naphthalene, 2-methyl-  
Concen: 14.137 ppbv  
RT: 25.00 min Scan# 6910  
Delta R.T. -0.01 min  
Lab File: VL034887.D  
Acq: 16 Mar 2020 12:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 84.3  | 68.9  | 103.3 |
| 115     | 41.7  | 33.2  | 49.8  |





#81

1,2,4-Trichlorobenzene

Concen: 11.238 ppbv

RT: 21.97 min Scan# 5967

Delta R.T. -0.01 min

Lab File: VL034887.D

Acq: 16 Mar 2020 12:45

Instrument :

MSVOA\_L

ClientSampleId :

VL0316ABS01

Tot Ion:180 Resp: 1571792

Ion Ratio Lower Upper

180 100

182 95.4 76.6 115.0

184 31.0 25.0 37.4

Manual Integrations

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