

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101619\  
 Data File : VL034307.D  
 Acq On : 16 Oct 2019 20:46  
 Operator : SY/AP  
 Sample : VL1016ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

Manual Integrations  
 APPROVED

MMDadoda  
 10/18/2019 3:04:31 PM

Quant Time: Oct 17 05:56:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 17 05:56:50 2019  
 QLast Update : Thu Oct 17 05:12:37 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.71  | 49   | 1149839  | 10.00 | ppbv  | 0.02     |
| 33) 1,4-Difluorobenzene | 7.24  | 114  | 2247301  | 10.00 | ppbv  | 0.02     |
| 55) Chlorobenzene-d5    | 12.18 | 117  | 2551925  | 10.00 | ppbv  | 0.03     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.52  | 95    | 2010490  | 9.30     | ppbv | 0.03   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 93.00% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.04 | 85   | 1700934  | 8.581  | ppbv   | 100    |
| 3) Chlorodifluoromethane       | 2.98 | 51   | 1281888  | 9.512  | ppbv   | 99     |
| 4) Chloromethane               | 3.13 | 50   | 764477   | 9.590  | ppbv   | 91     |
| 5) Vinyl Chloride              | 3.25 | 62   | 705500   | 9.281  | ppbv   | 98     |
| 6) Bromomethane                | 3.47 | 94   | 360632   | 9.689  | ppbv   | 98     |
| 7) Chloroethane                | 3.56 | 64   | 259800   | 9.711  | ppbv   | 97     |
| 8) Dichlorotetrafluoroethane   | 3.18 | 85   | 1609870  | 9.372  | ppbv   | 99     |
| 9) Propene                     | 3.00 | 41   | 575504   | 9.633  | ppbv   | 96     |
| 10) Heptane                    | 8.19 | 43   | 1573323  | 10.260 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 3.96 | 101  | 1780576  | 9.461  | ppbv   | 100    |
| 12) 1,1,2-Trichlorotrifluoroet | 4.50 | 101  | 1202894  | 9.756  | ppbv   | 98     |
| 13) Ethanol                    | 3.61 | 45   | 125537   | 9.385  | ppbv   | 96     |
| 14) Bromoethene                | 3.75 | 108  | 490996   | 10.114 | ppbv   | 98     |
| 15) Acetone                    | 3.86 | 43   | 1344434  | 8.175  | ppbv   | 100    |
| 16) 1,3-Butadiene              | 3.32 | 39   | 679310   | 10.165 | ppbv   | 100    |
| 17) tert-Butyl alcohol         | 4.31 | 59   | 1204169  | 11.472 | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 4.30 | 96   | 529434   | 9.807  | ppbv   | 99     |
| 19) Isopropyl Alcohol          | 3.98 | 45   | 1014669  | 11.059 | ppbv   | 99     |
| 20) Methylene Chloride         | 4.36 | 84   | 478009   | 8.040  | ppbv   | 98     |
| 21) Allyl Chloride             | 4.43 | 41   | 936931   | 10.305 | ppbv   | 99     |
| 22) trans-1,2-Dichloroethene   | 4.91 | 96   | 534635   | 9.929  | ppbv   | 93     |
| 23) Vinyl Acetate              | 5.11 | 43   | 2097012  | 10.210 | ppbv # | 98     |
| 24) 1,1-Dichloroethane         | 5.04 | 63   | 1471250  | 9.652  | ppbv   | 100    |
| 25) Ethyl Acetate              | 5.72 | 43   | 2645760  | 9.529  | ppbv   | 100    |
| 26) Hexane                     | 5.73 | 57   | 1133396  | 9.577  | ppbv   | 99     |
| 27) Carbon Disulfide           | 4.57 | 76   | 1389075  | 11.306 | ppbv   | 97     |
| 28) Methyl tert-Butyl Ether    | 5.06 | 73   | 1837517  | 10.259 | ppbv   | 99     |
| 29) Chloroform                 | 5.80 | 83   | 1811984  | 9.679  | ppbv   | 97     |
| 30) Cyclohexane                | 7.19 | 84   | 900172   | 10.342 | ppbv   | 98     |
| 31) cis-1,2-Dichloroethene     | 5.59 | 61   | 1211695  | 10.088 | ppbv   | 96     |
| 32) 1,1,1-Trichloroethane      | 6.56 | 97   | 1788448  | 9.824  | ppbv   | 99     |
| 34) 2-Butanone                 | 5.28 | 43   | 1808541  | 9.846  | ppbv   | 100    |
| 35) Carbon Tetrachloride       | 7.08 | 117  | 1905880  | 9.737  | ppbv   | 97     |
| 36) Benzene                    | 6.95 | 78   | 2129978  | 9.878  | ppbv   | 99     |
| 37) 1,2-Dichloroethane         | 6.36 | 62   | 1581315  | 9.840  | ppbv   | 99     |
| 38) Trichloroethene            | 7.91 | 130  | 825364   | 9.539  | ppbv   | 95     |
| 39) 1,2-Dichloropropane        | 7.68 | 63   | 900445   | 9.698  | ppbv   | 98     |
| 40) 1,4-Dioxane                | 7.89 | 88   | 327521   | 10.038 | ppbv # | 1      |
| 41) Tetrahydrofuran            | 6.09 | 42   | 1029874  | 10.102 | ppbv   | 98     |
| 42) Bromodichloromethane       | 7.86 | 83   | 1990603  | 10.113 | ppbv   | 98     |
| 43) Methyl Methacrylate        | 8.08 | 69   | 932588   | 10.457 | ppbv   | 99     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101619\  
 Data File : VL034307.D  
 Acq On : 16 Oct 2019 20:46  
 Operator : SY/AP  
 Sample : VL1016ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

Manual Integrations  
 APPROVED

MMDadoda  
 10/18/2019 3:04:31 PM

Quant Time: Oct 17 05:56:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 17 05:56:50 2019  
 QLast Update : Thu Oct 17 05:12:37 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.93  | 57   | 3854984  | 9.659  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.36  | 75   | 1271336  | 11.701 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.78  | 75   | 1417880  | 11.359 | ppbv   | 98       |
| 47) 1,1,2-Trichloroethane     | 9.56  | 97   | 906011   | 9.634  | ppbv   | 97       |
| 48) Dibromochloromethane      | 10.39 | 129  | 1664967  | 10.792 | ppbv   | 99       |
| 49) Bromoform                 | 13.14 | 173  | 1503736  | 11.000 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.81  | 43   | 2686325  | 10.215 | ppbv   | 100      |
| 51) 2-Hexanone                | 10.21 | 43   | 2294508  | 10.644 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.31 | 164  | 795050   | 9.407  | ppbv   | 97       |
| 53) Toluene                   | 9.89  | 91   | 2444609  | 10.273 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.70 | 107  | 1417387  | 10.169 | ppbv   | 96       |
| 56) 1,1,1,2-Tetrachloroethane | 12.22 | 131  | 1088815  | 9.258  | ppbv   | 96       |
| 57) Chlorobenzene             | 12.24 | 112  | 1890223  | 8.879  | ppbv   | 97       |
| 58) Ethyl Benzene             | 12.80 | 91   | 3409006  | 9.556  | ppbv   | 96       |
| 59) m/p-Xylene                | 13.09 | 91   | 5662931m | 18.322 | ppbv   |          |
| 60) o-Xylene                  | 13.79 | 91   | 2850286  | 9.261  | ppbv   | 100      |
| 61) Styrene                   | 13.63 | 104  | 2168250  | 10.007 | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.77 | 105  | 3713279  | 9.140  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.78 | 83   | 2037723  | 8.239  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.66 | 120  | 995634   | 9.549  | ppbv   | 96       |
| 65) tert-Butylbenzene         | 16.85 | 119  | 3328648  | 9.244  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.09 | 91   | 1698353  | 11.942 | ppbv   | 99       |
| 67) sec-Butylbenzene          | 17.40 | 105  | 4618107  | 9.113  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.76 | 119  | 3885217  | 9.404  | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.65 | 91   | 4122290  | 9.171  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.56 | 91   | 2979894  | 9.459  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 15.94 | 105  | 3336099  | 9.643  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.10 | 105  | 3197549  | 9.328  | ppbv   | 97       |
| 74) 1,2,4-Trimethylbenzene    | 16.87 | 105  | 3314545  | 9.272  | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 17.10 | 146  | 1896986  | 8.839  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.25 | 146  | 1910267  | 9.112  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 17.92 | 146  | 1897616  | 9.018  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.48 | 225  | 1353293  | 7.775  | ppbv   | 100      |
| 79) Naphthalene               | 22.34 | 128  | 2826779  | 10.825 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.07 | 142  | 960506   | 12.725 | ppbv   | 98       |
| 81) 1,2,4-Trichlorobenzene    | 22.06 | 180  | 1729992  | 10.143 | ppbv   | 99       |

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

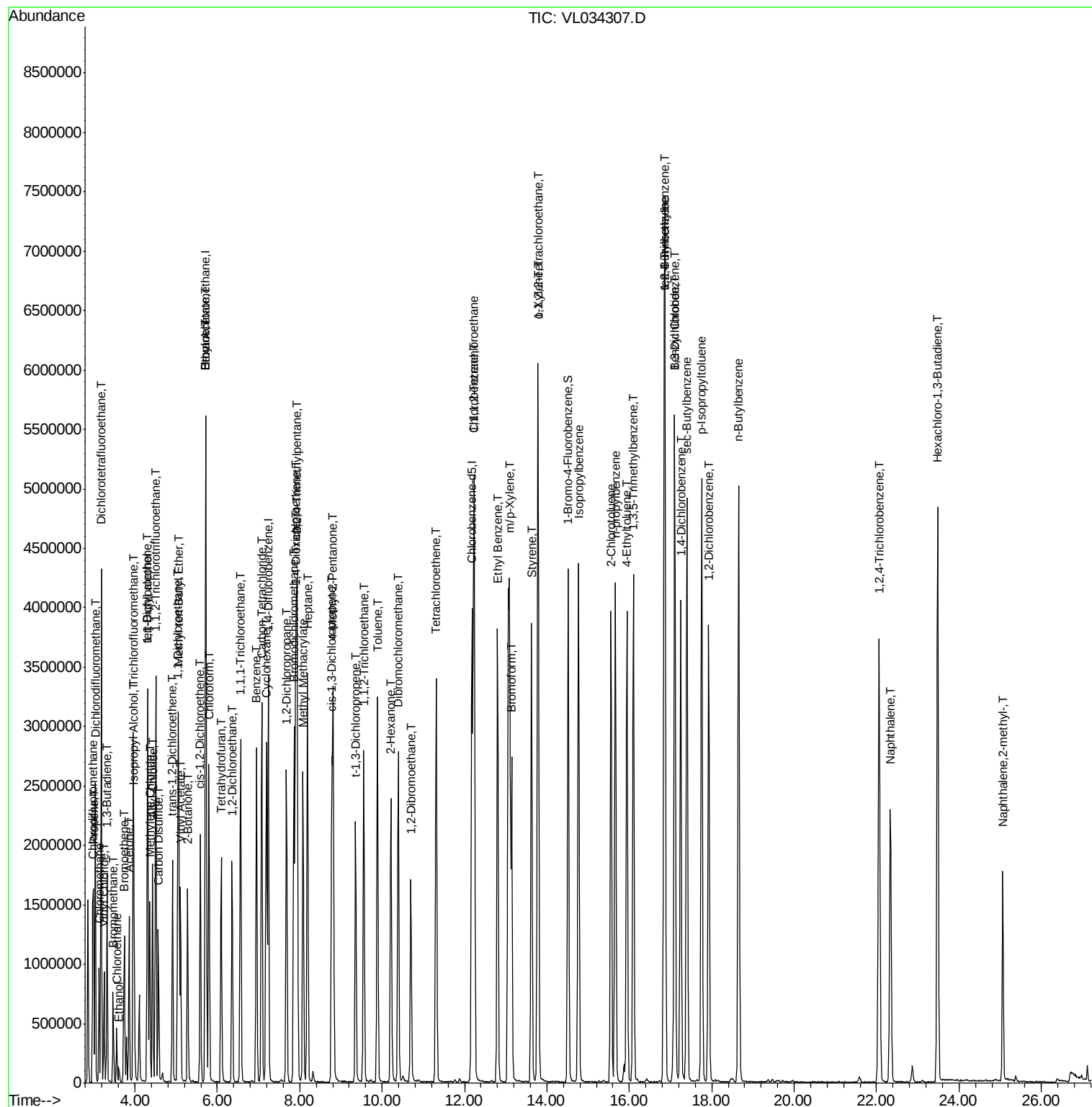
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL101619\  
Data File : VL034307.D  
Acq On : 16 Oct 2019 20:46  
Operator : SY/AP  
Sample : VL1016ABS01  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

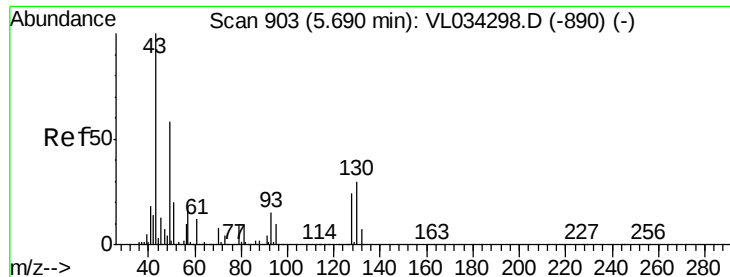
Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

Manual Integrations  
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10/18/2019 3:04:31 PM

Quant Time: Oct 17 05:56:50 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL101619AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct  
QLast Update : Thu Oct 17 05:12:37 2019  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.71 min Scan# 909

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 49 Resp: 1149839

Ion Ratio Lower Upper

49 100

128 41.1 20.6 61.8

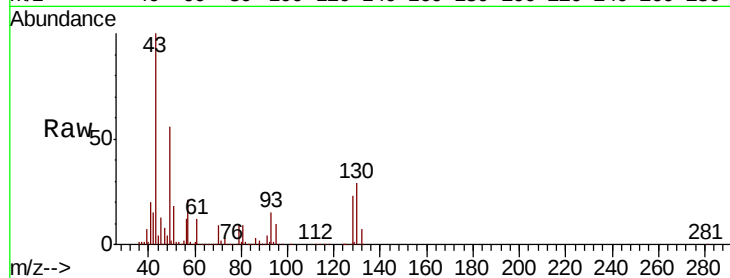
130 52.3 26.2 78.5

Manual Integrations

APPROVED

MMDadoda

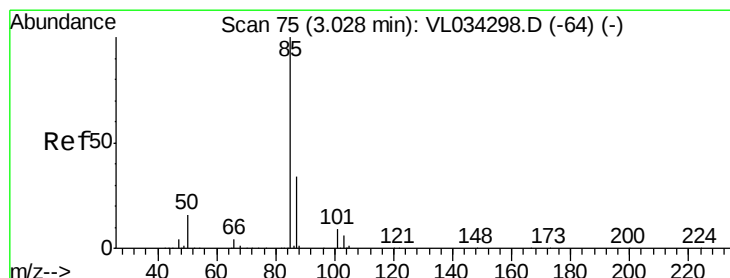
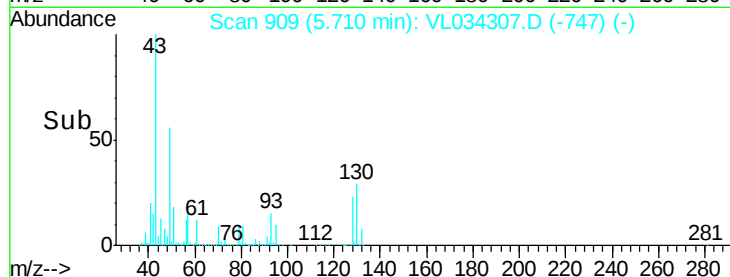
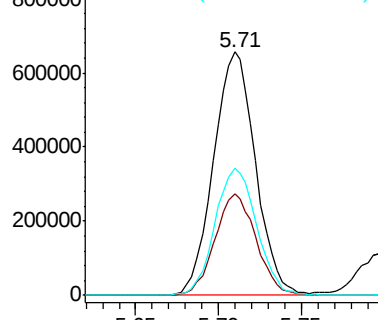
10/18/2019 3:04:31 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 8.581 ppbv

RT: 3.04 min Scan# 78

Delta R.T. 0.01 min

Lab File: VL034307.D

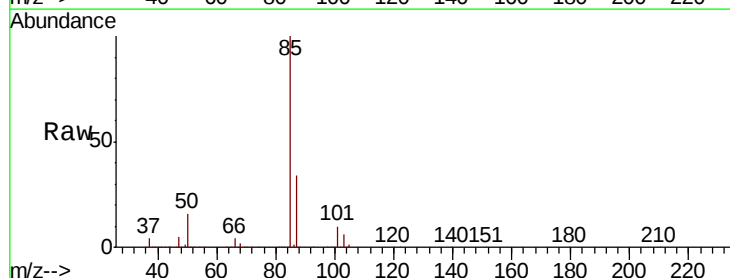
Acq: 16 Oct 2019 20:46

Tgt Ion: 85 Resp: 1700934

Ion Ratio Lower Upper

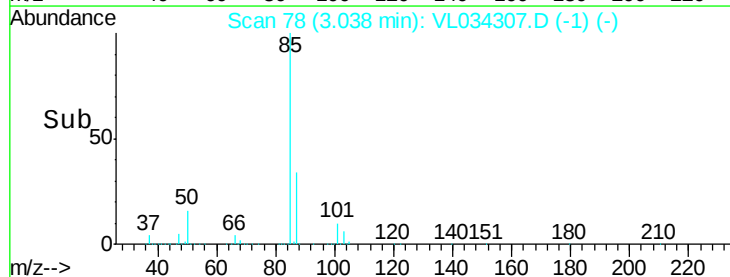
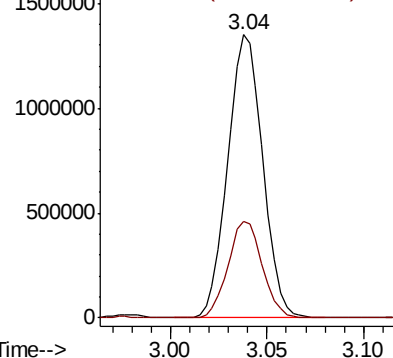
85 100

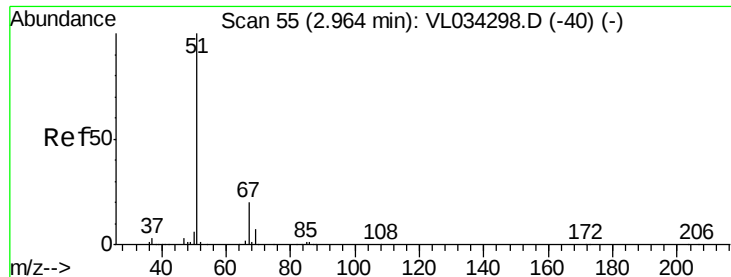
87 34.0 27.0 40.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 9.512 ppbv

RT: 2.98 min Scan# 59

Delta R.T. 0.01 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Tot Ion: 51 Resp: 1281888

Ion Ratio Lower Upper

51 100

67 20.1 15.8 23.8

Instrument :

MSVOA\_L

ClientSampleId :

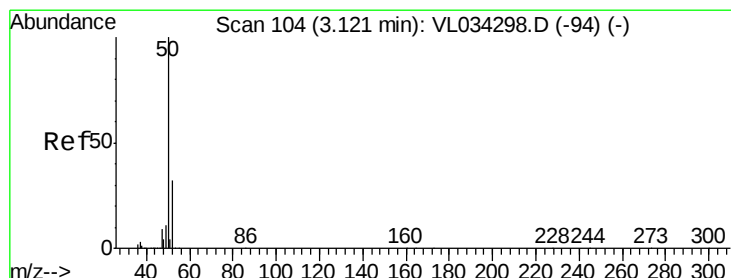
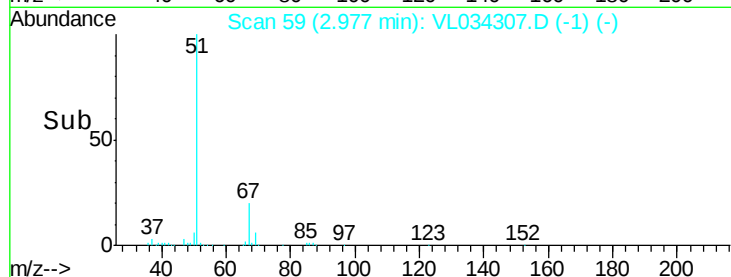
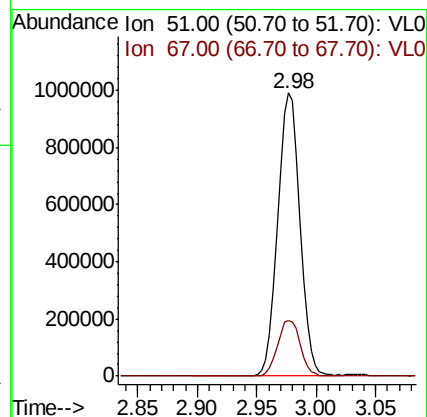
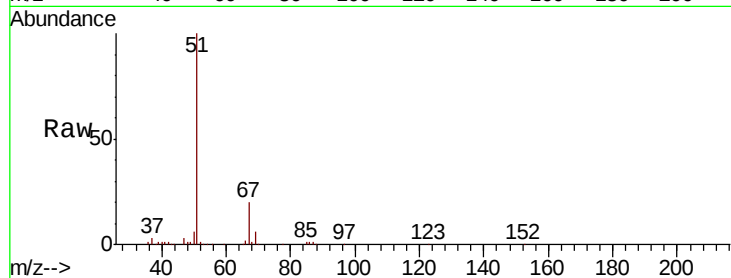
VL1016ABS01

Manual Integrations

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#4

Chloromethane

Concen: 9.590 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.01 min

Lab File: VL034307.D

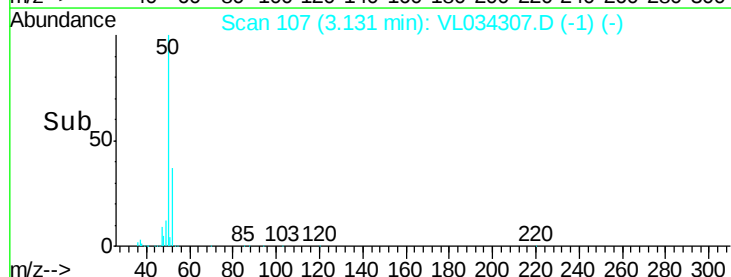
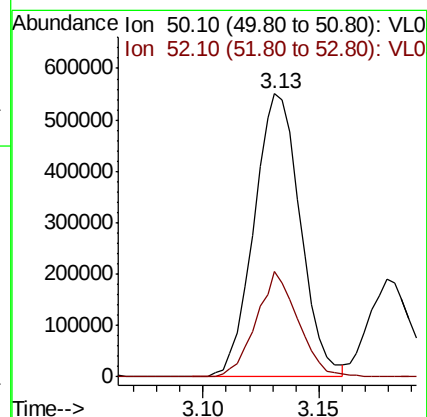
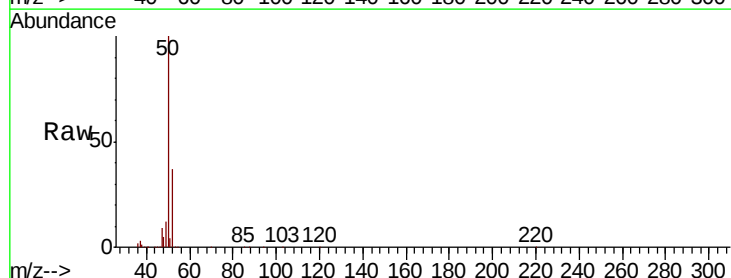
Acq: 16 Oct 2019 20:46

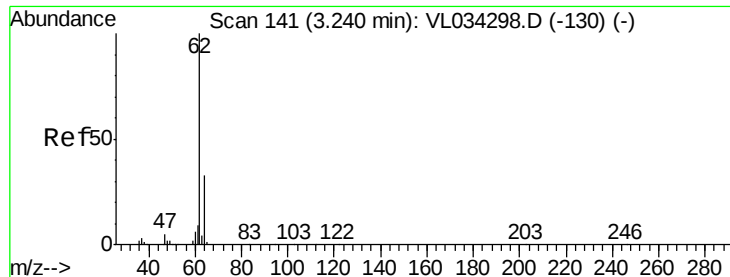
Tgt Ion: 50 Resp: 764477

Ion Ratio Lower Upper

50 100

52 37.0 25.4 38.2





#5

Vinyl Chloride

Concen: 9.281 ppbv

RT: 3.25 min Scan# 144

Delta R.T. 0.01 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 62 Resp: 705500

Ion Ratio Lower Upper

62 100

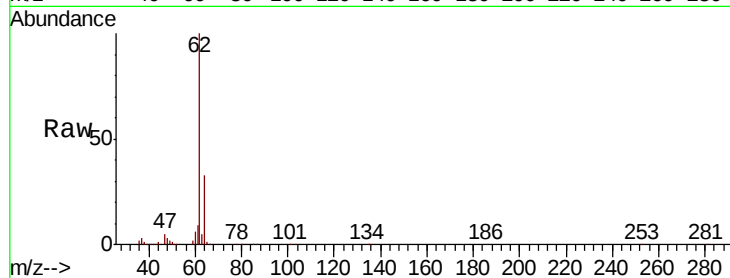
64 33.4 26.0 39.0

Manual Integrations

APPROVED

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Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0

3.25

500000

400000

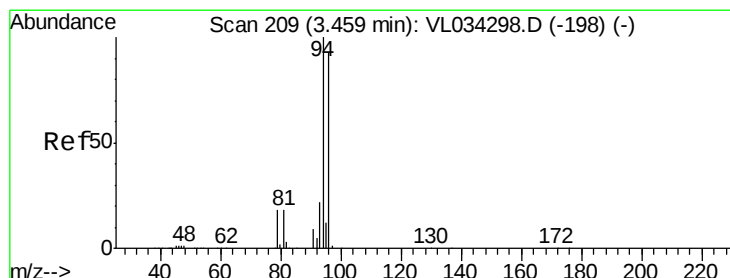
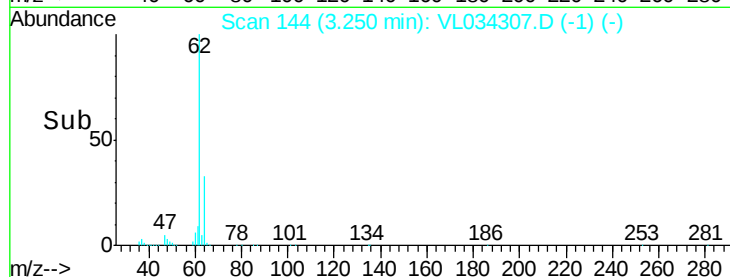
300000

200000

100000

0

Time-->



#6

Bromomethane

Concen: 9.689 ppbv

RT: 3.47 min Scan# 213

Delta R.T. 0.01 min

Lab File: VL034307.D

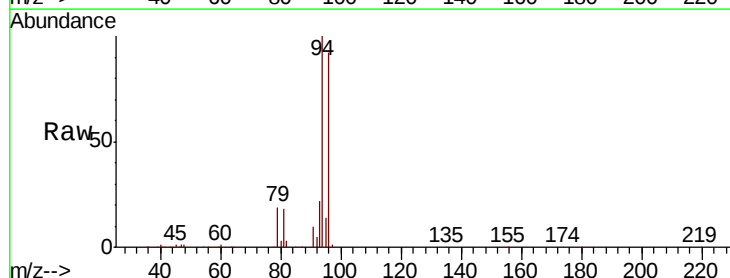
Acq: 16 Oct 2019 20:46

Tgt Ion: 94 Resp: 360632

Ion Ratio Lower Upper

94 100

96 91.7 74.6 112.0



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0

3.47

300000

250000

200000

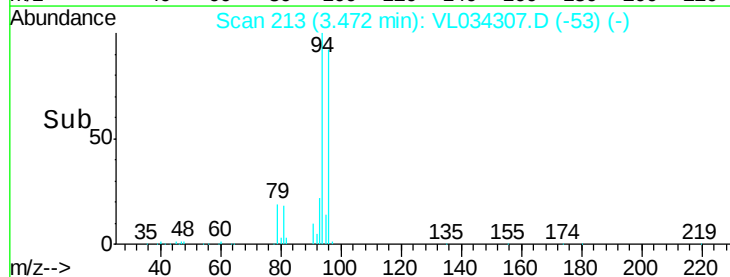
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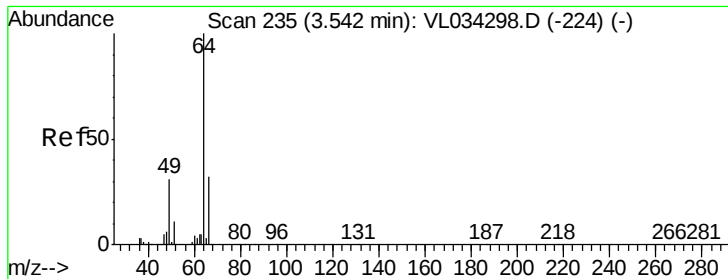
100000

50000

0

Time-->





#7

Chloroethane

Concen: 9.711 ppbv

RT: 3.56 min Scan# 240

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 64 Resp: 259800

Ion Ratio Lower Upper

64 100

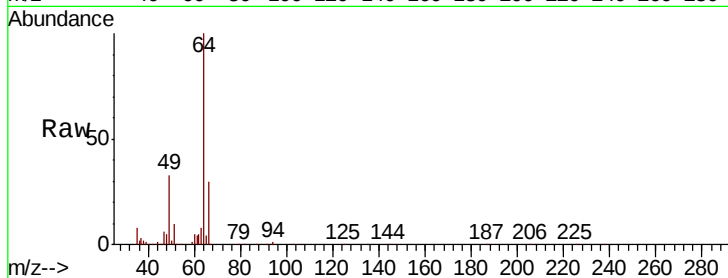
66 30.1 25.4 38.0

Manual Integrations

APPROVED

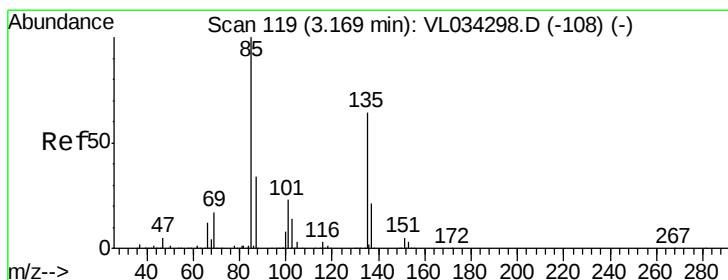
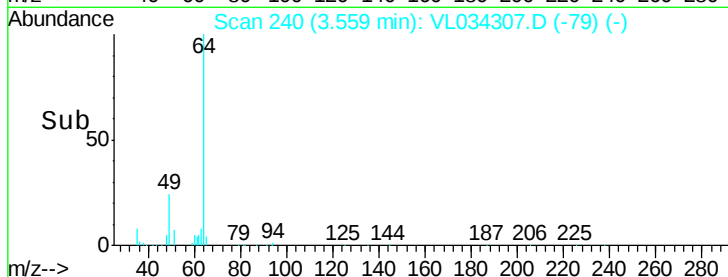
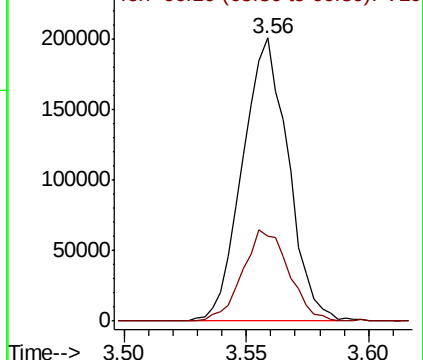
MMDadoda

10/18/2019 3:04:31 PM



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 9.372 ppbv

RT: 3.18 min Scan# 123

Delta R.T. 0.01 min

Lab File: VL034307.D

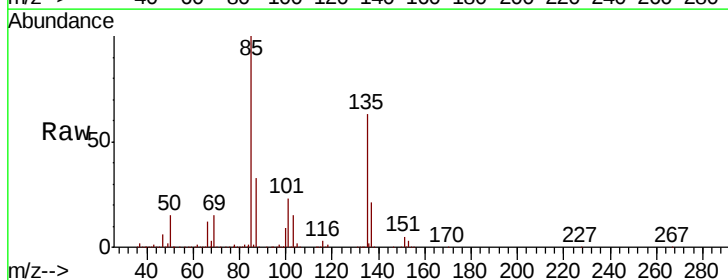
Acq: 16 Oct 2019 20:46

Tgt Ion: 85 Resp: 1609870

Ion Ratio Lower Upper

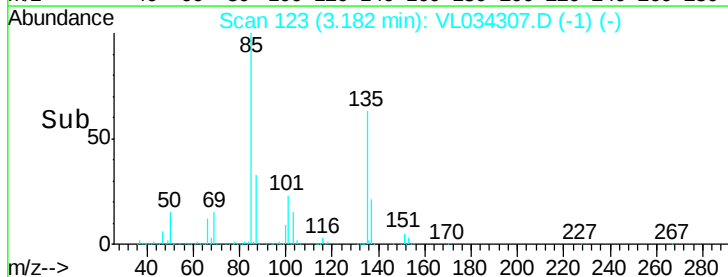
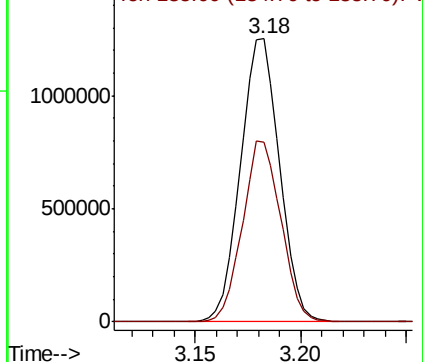
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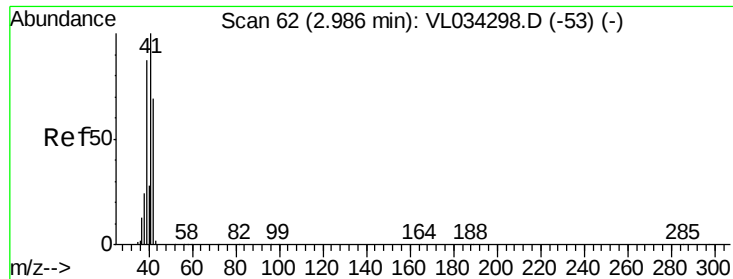
135 63.3 50.2 75.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 9.633 ppbv

RT: 3.00 min Scan# 66

Delta R.T. 0.01 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 41 Resp: 575504

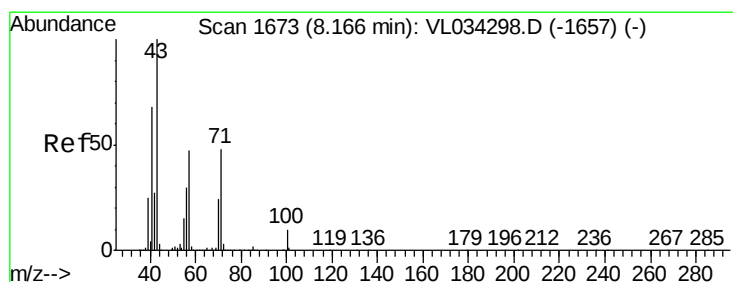
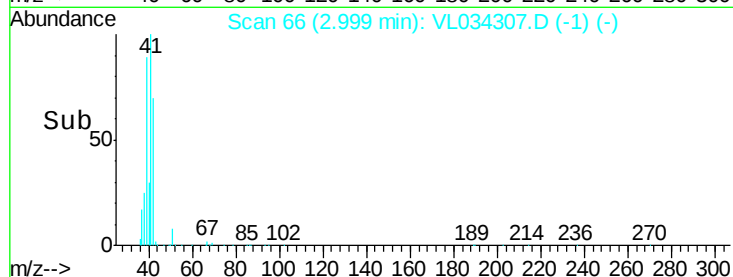
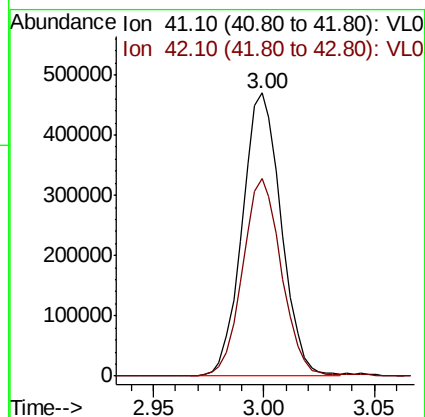
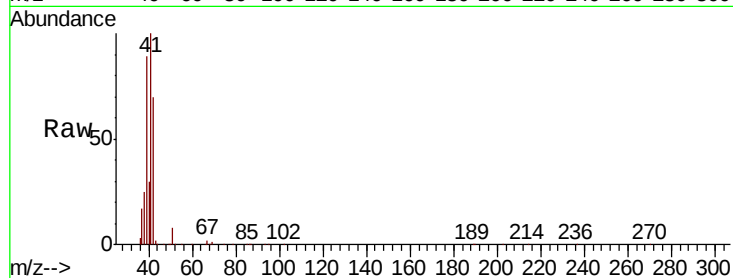
Ion Ratio Lower Upper

41 100

42 70.3 53.9 80.9

Manual Integrations  
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#10

Heptane

Concen: 10.260 ppbv

RT: 8.19 min Scan# 1680

Delta R.T. 0.02 min

Lab File: VL034307.D

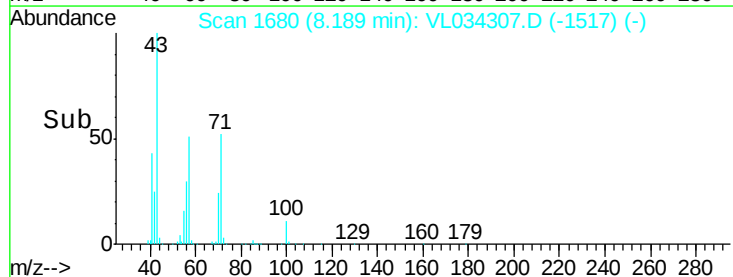
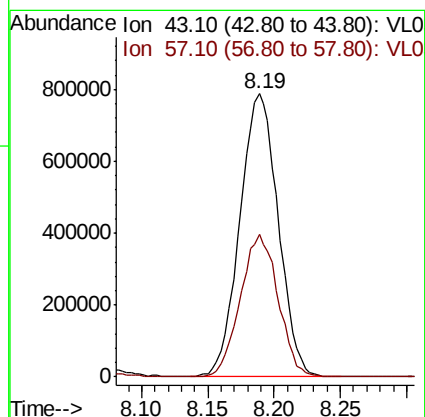
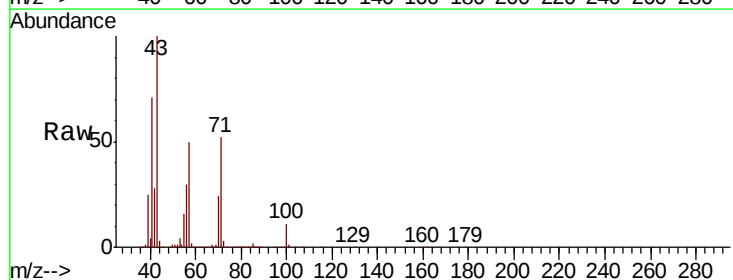
Acq: 16 Oct 2019 20:46

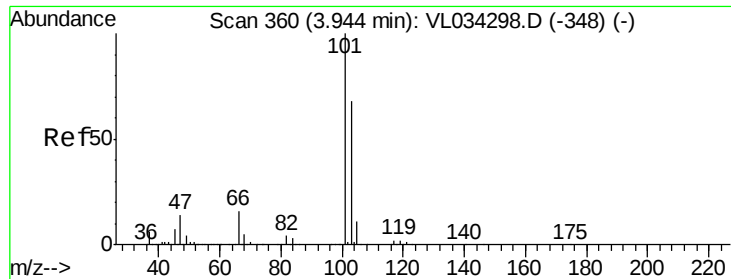
Tgt Ion: 43 Resp: 1573323

Ion Ratio Lower Upper

43 100

57 49.9 39.5 59.3





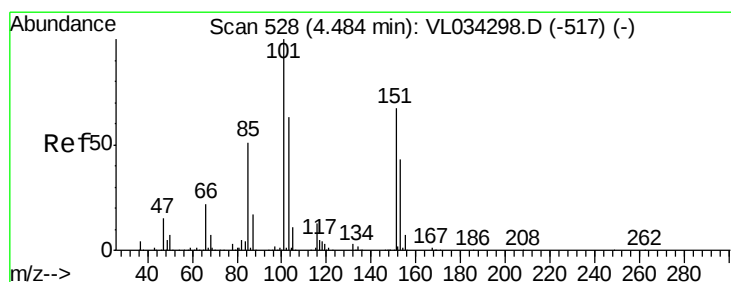
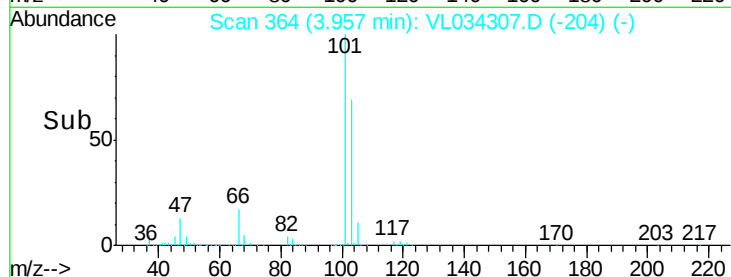
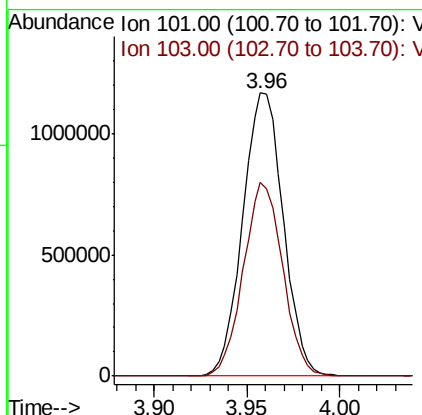
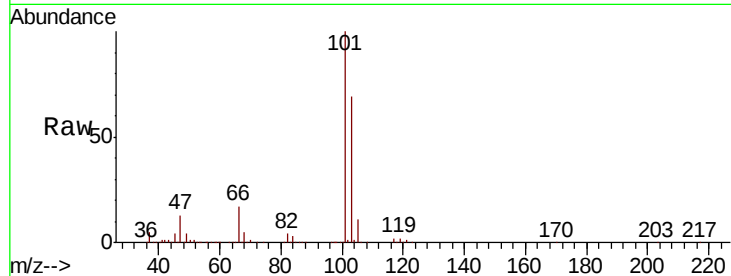
#11  
 Trichlorofluoromethane  
 Concen: 9.461 ppbv  
 RT: 3.96 min Scan# 364  
 Delta R.T. 0.01 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

Tot Ion:101 Resp: 1780576  
 Ion Ratio Lower Upper  
 101 100  
 103 68.5 54.5 81.7

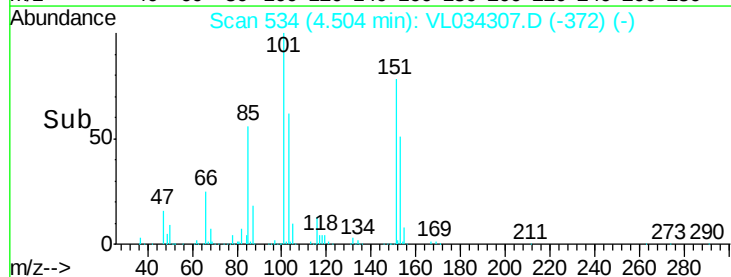
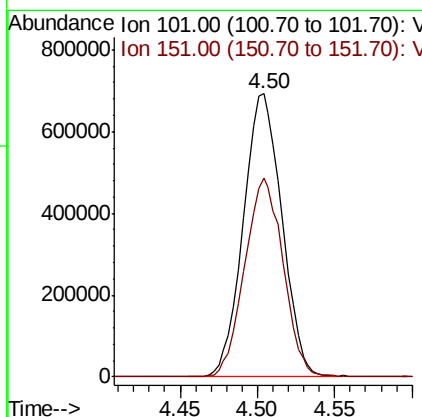
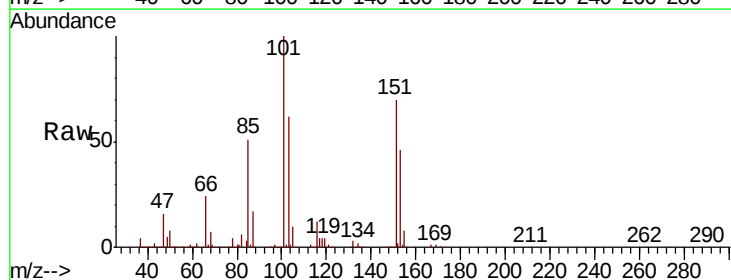
Manual Integrations  
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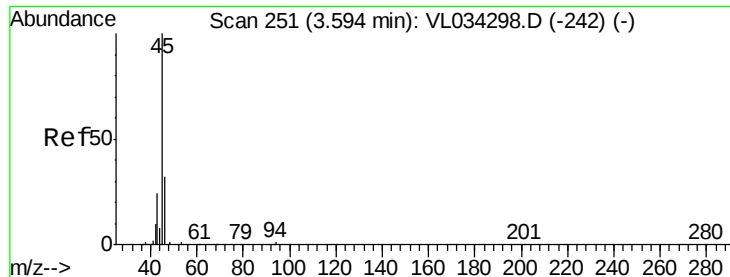
MMDadoda  
 10/18/2019 3:04:31 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 9.756 ppbv  
 RT: 4.50 min Scan# 534  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Tgt Ion:101 Resp: 1202894  
 Ion Ratio Lower Upper  
 101 100  
 151 70.0 57.4 86.2





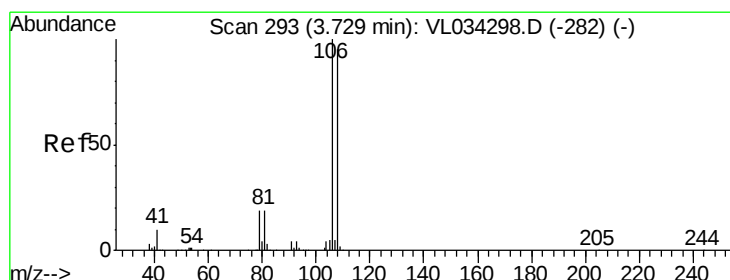
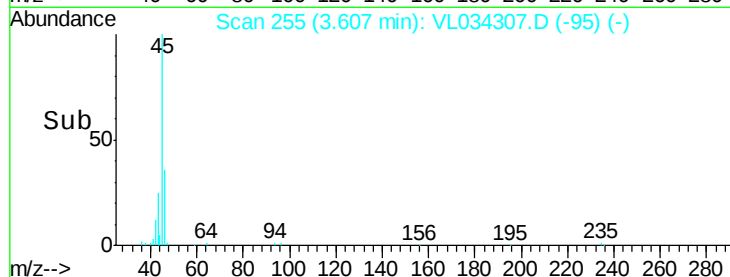
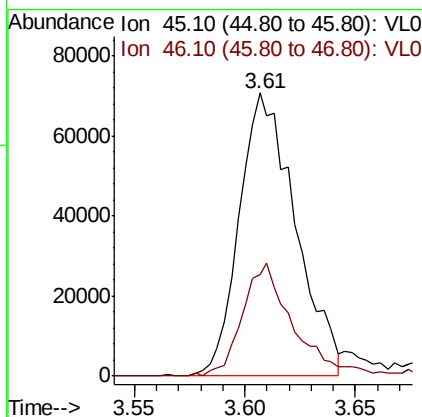
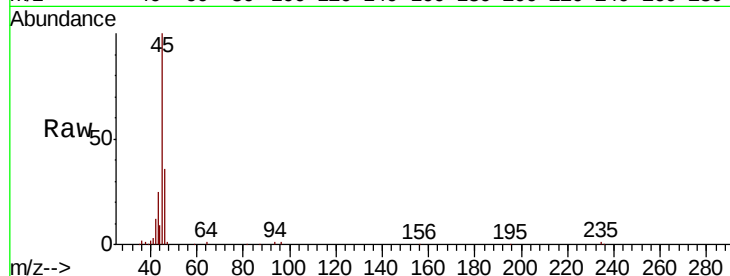
#13  
Ethanol  
Concen: 9.385 ppbv  
RT: 3.61 min Scan# 255  
Delta R.T. 0.01 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

| Tot Ion | 45     | 46   | Ratio | Lower | Upper |
|---------|--------|------|-------|-------|-------|
| Resp    | 125537 |      |       |       |       |
| Ion     | 100    | 37.2 |       |       |       |
|         |        |      | 15.8  | 63.2  |       |

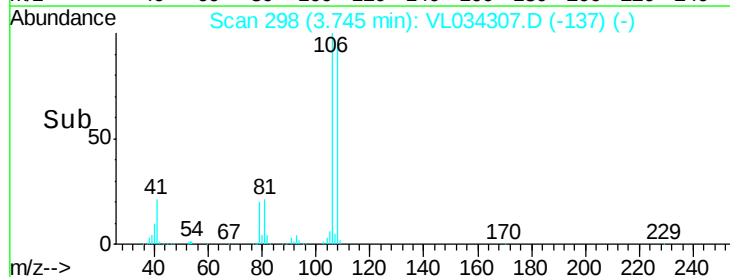
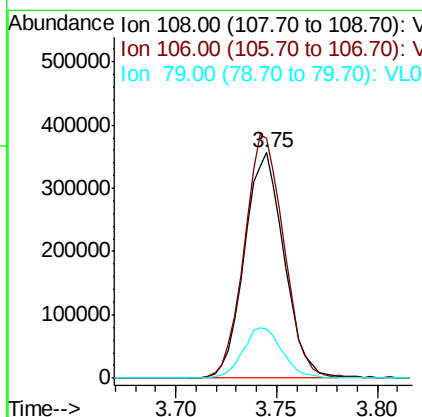
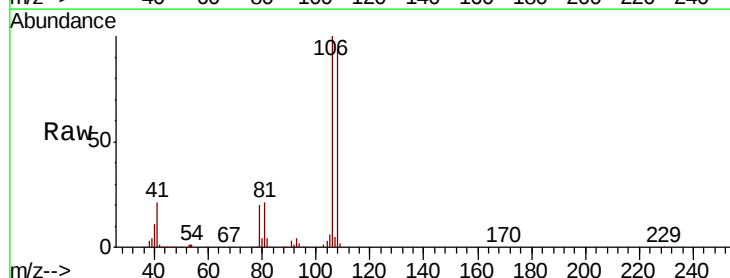
Manual Integrations  
APPROVED

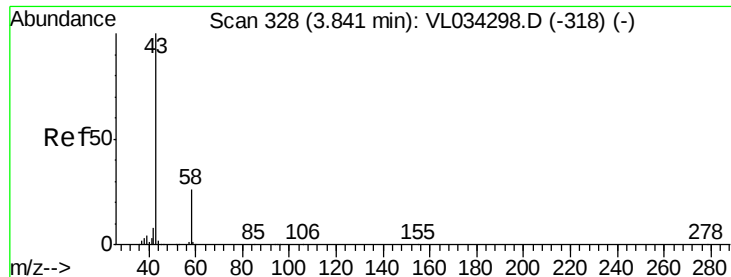
MMDadoda  
10/18/2019 3:04:31 PM



#14  
Bromoethene  
Concen: 10.114 ppbv  
RT: 3.75 min Scan# 298  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

| Tgt Ion | 108    | 106   | 79   | Ratio | Lower | Upper |
|---------|--------|-------|------|-------|-------|-------|
| Resp    | 490996 |       |      |       |       |       |
| Ion     | 100    | 108.4 | 22.4 |       |       |       |
|         |        |       |      | 84.8  | 127.2 | 25.4  |





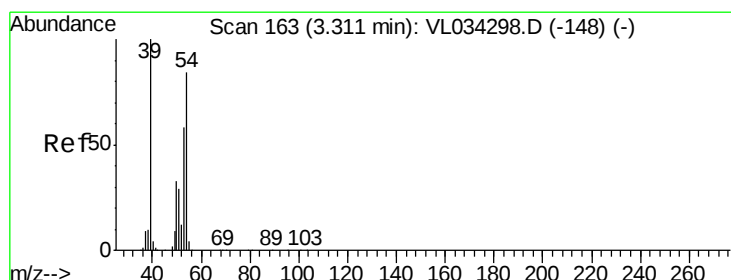
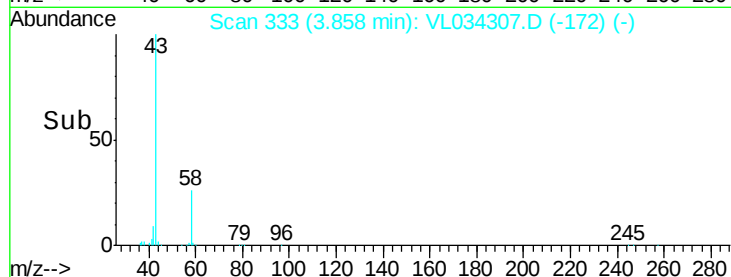
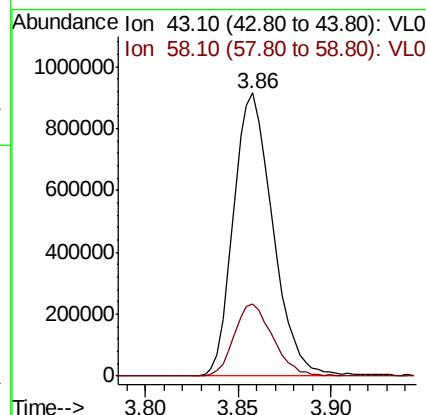
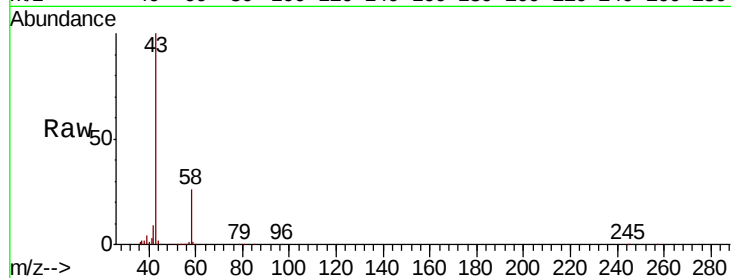
#15  
Acetone  
Concen: 8.175 ppbv  
RT: 3.86 min Scan# 333  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

Tot Ion: 43 Resp: 1344434  
Ion Ratio Lower Upper  
43 100  
58 25.5 20.4 30.6

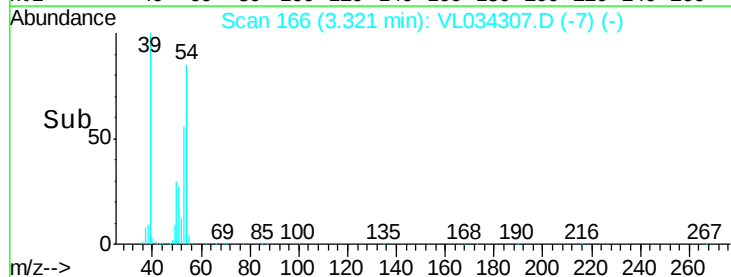
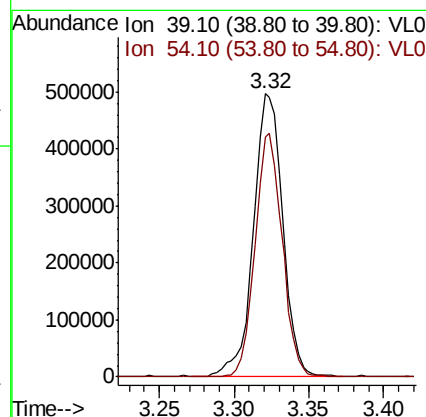
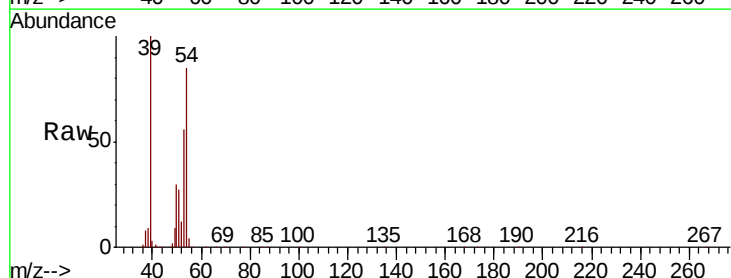
Manual Integrations  
APPROVED

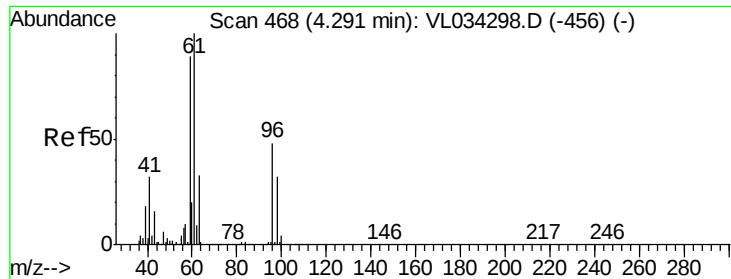
MMDadoda  
10/18/2019 3:04:31 PM



#16  
1,3-Butadiene  
Concen: 10.165 ppbv  
RT: 3.32 min Scan# 166  
Delta R.T. 0.01 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Tgt Ion: 39 Resp: 679310  
Ion Ratio Lower Upper  
39 100  
54 79.8 63.9 95.9





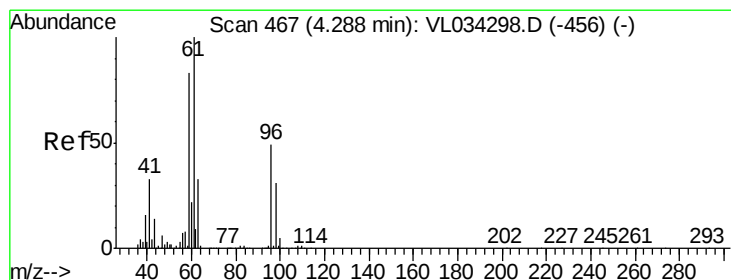
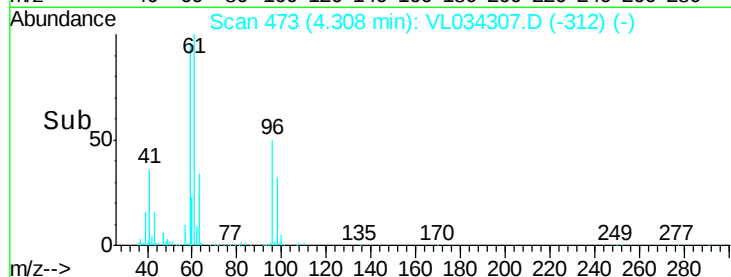
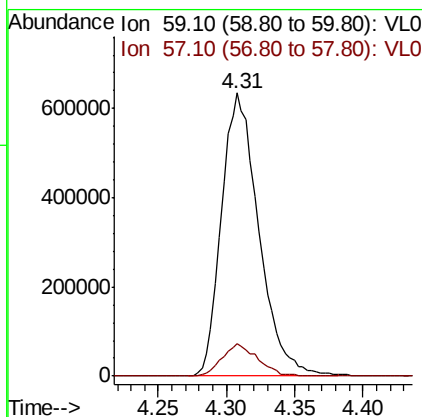
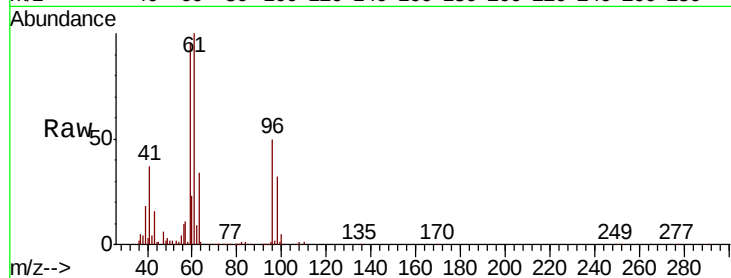
#17  
tert-Butyl alcohol  
Concen: 11.472 ppbv  
RT: 4.31 min Scan# 473  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

Tot Ion: 59 Resp: 1204169  
Ion Ratio Lower Upper  
59 100  
57 11.1 8.8 13.2

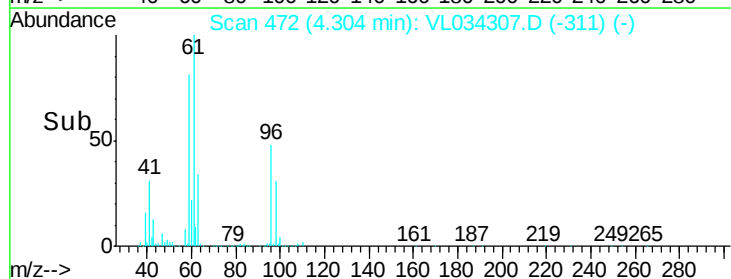
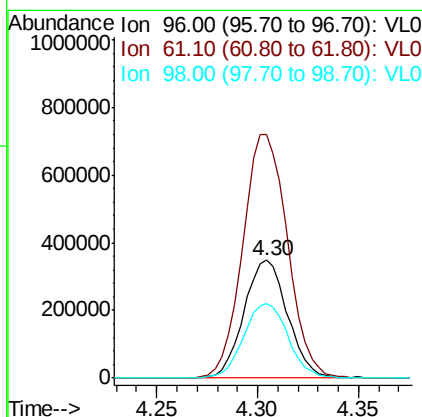
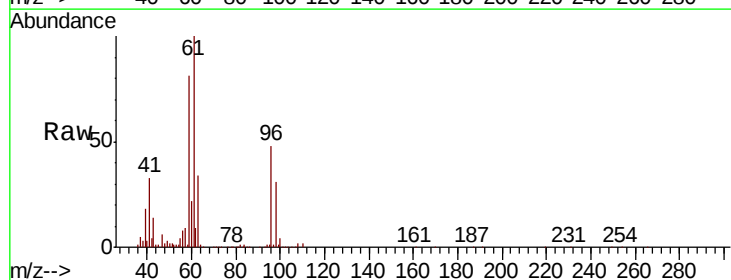
Manual Integrations  
APPROVED

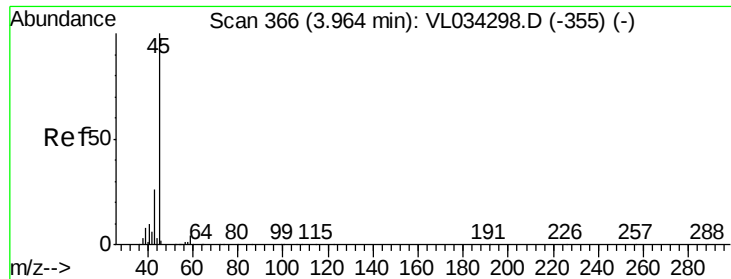
MMDadoda  
10/18/2019 3:04:31 PM



#18  
1,1-Dichloroethene  
Concen: 9.807 ppbv  
RT: 4.30 min Scan# 472  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Tgt Ion: 96 Resp: 529434  
Ion Ratio Lower Upper  
96 100  
61 206.6 164.5 246.7  
98 63.9 51.7 77.5





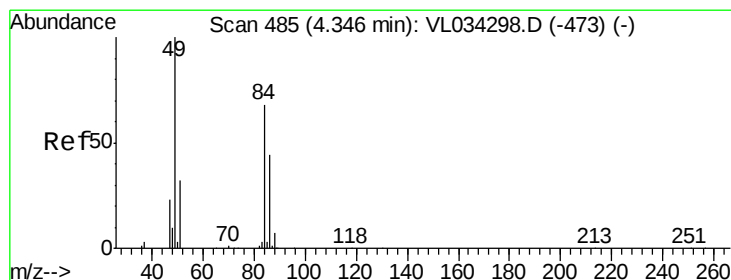
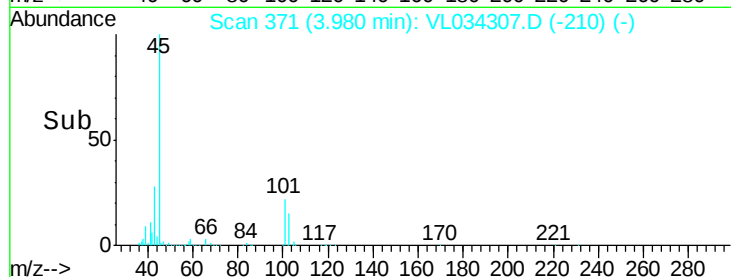
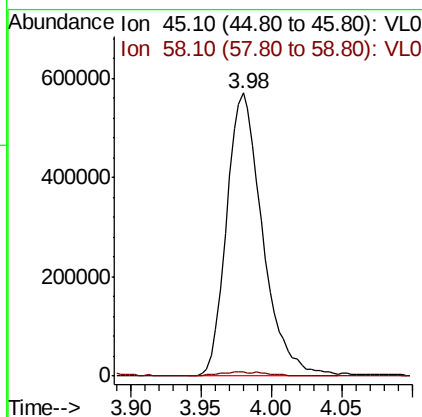
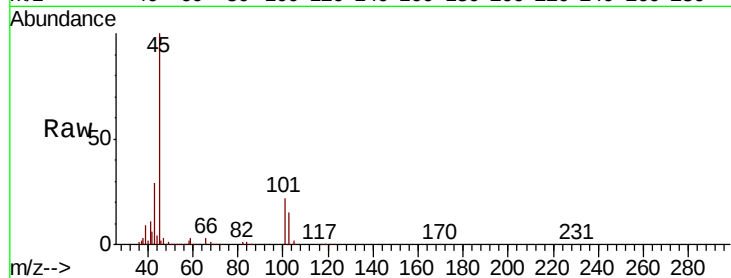
#19  
Isopropyl Alcohol  
Concen: 11.059 ppbv  
RT: 3.98 min Scan# 371  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

Tot Ion: 45 Resp: 1014669  
Ion Ratio Lower Upper  
45 100  
58 2.0 1.4 2.2

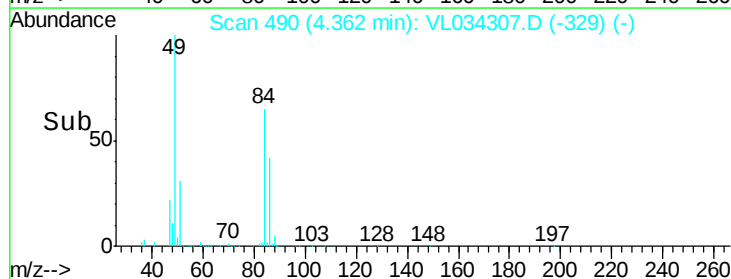
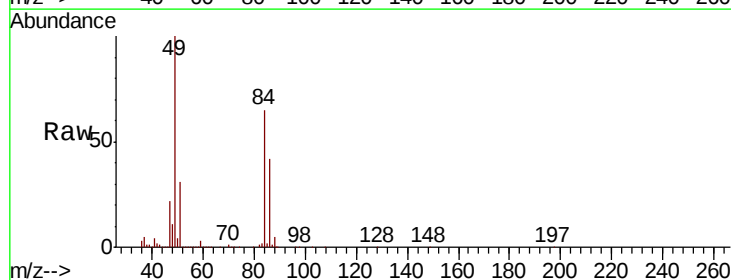
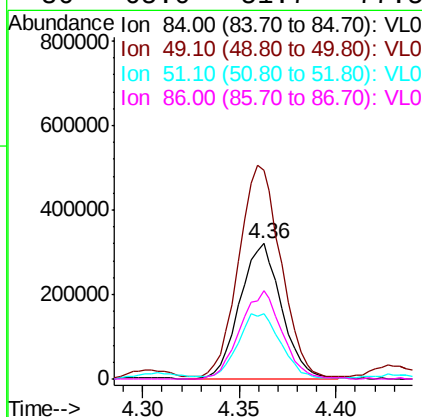
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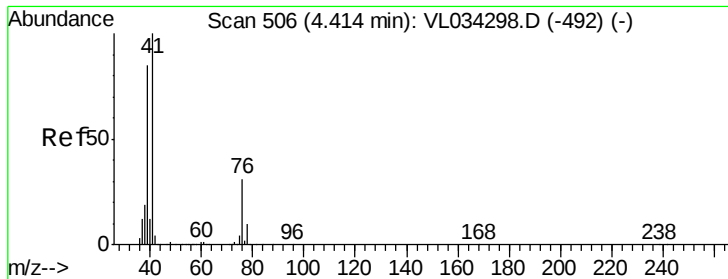
MMDadoda  
10/18/2019 3:04:31 PM



#20  
Methylene Chloride  
Concen: 8.040 ppbv  
RT: 4.36 min Scan# 490  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Tgt Ion: 84 Resp: 478009  
Ion Ratio Lower Upper  
84 100  
49 152.8 118.5 177.7  
51 47.6 38.8 58.2  
86 65.0 51.7 77.5





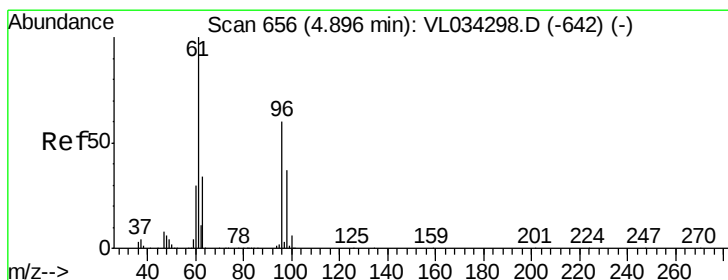
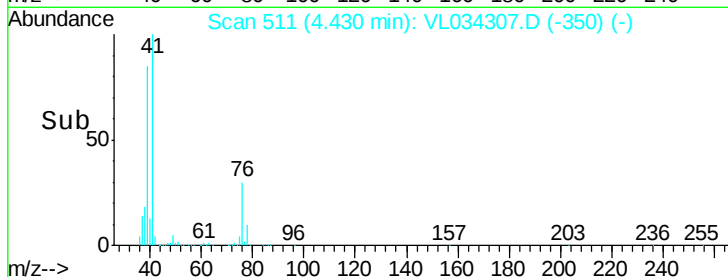
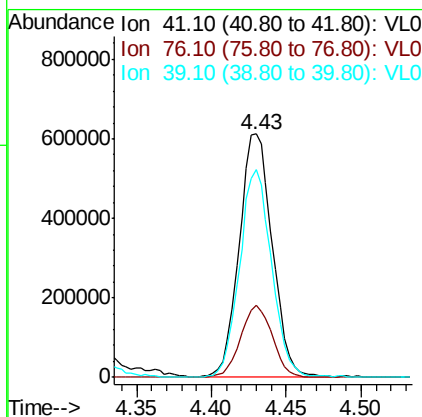
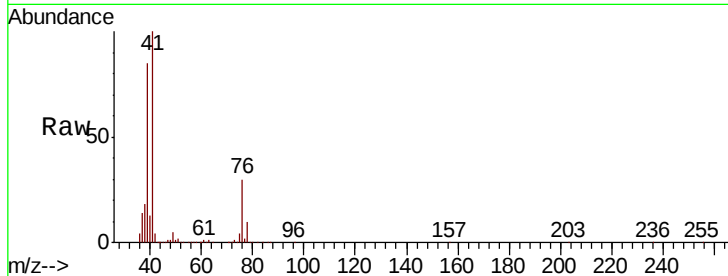
#21  
Allvl Chloride  
Concen: 10.305 ppbv  
RT: 4.43 min Scan# 511  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 41    | Resp: | 936931 |
| Ion Ratio | Lower | Upper |        |
| 41        | 100   |       |        |
| 76        | 28.8  | 22.8  | 34.2   |
| 39        | 83.4  | 66.0  | 99.0   |

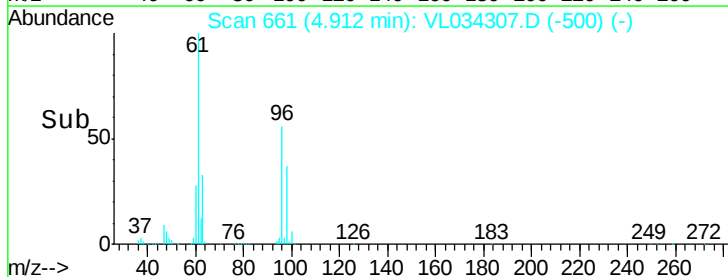
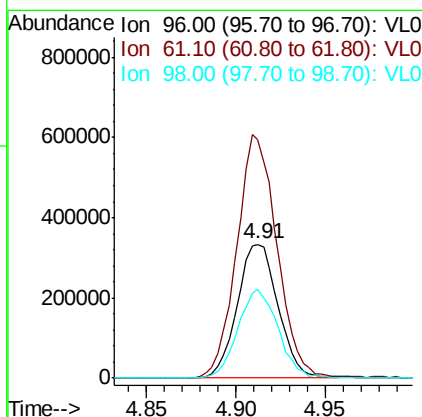
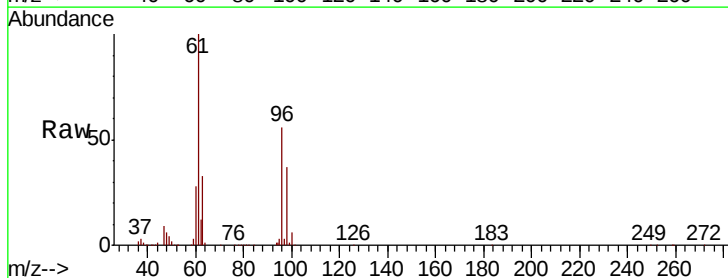
Manual Integrations  
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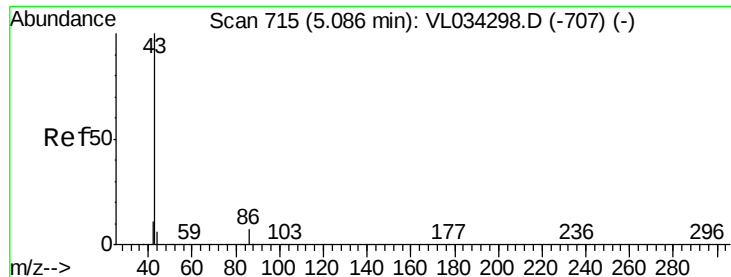
MMDadoda  
10/18/2019 3:04:31 PM



#22  
trans-1,2-Dichloroethene  
Concen: 9.929 ppbv  
RT: 4.91 min Scan# 661  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 96    | Resp: | 534635 |
| Ion Ratio | Lower | Upper |        |
| 96        | 100   |       |        |
| 61        | 177.8 | 133.8 | 200.6  |
| 98        | 65.8  | 49.4  | 74.0   |





#23

Vinyl Acetate

Concen: 10.210 ppbv

RT: 5.11 min Scan# 721

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 43 Resp: 2097012

Ion Ratio Lower Upper

43 100

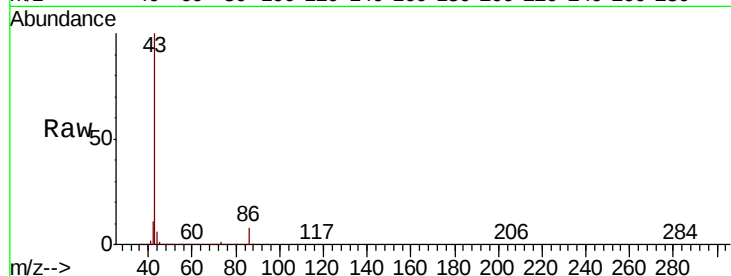
86 7.9 5.0 7.4#

42 10.6 8.6 13.0

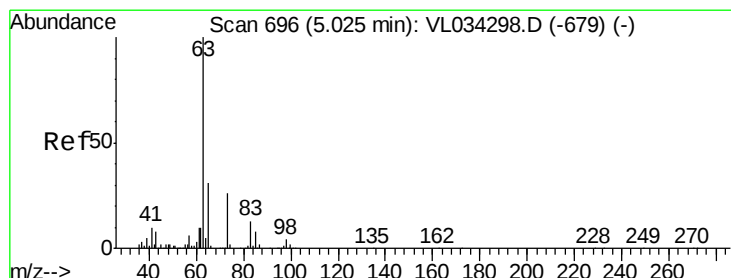
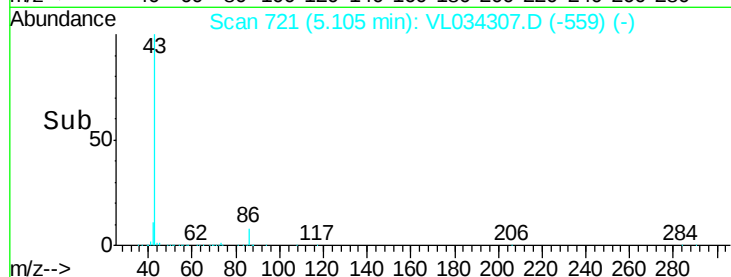
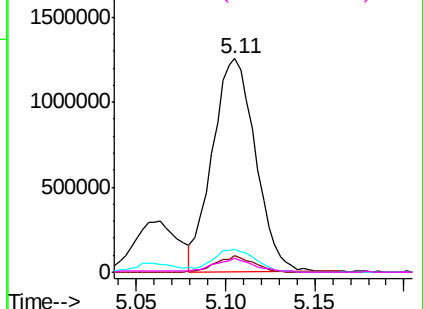
44 6.2 4.8 7.2

Manual Integrations  
APPROVED

MMDadoda  
10/18/2019 3:04:31 PM



Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 86.10 (85.80 to 86.80): VL0  
Ion 42.10 (41.80 to 42.80): VL0  
Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 9.652 ppbv

RT: 5.04 min Scan# 701

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

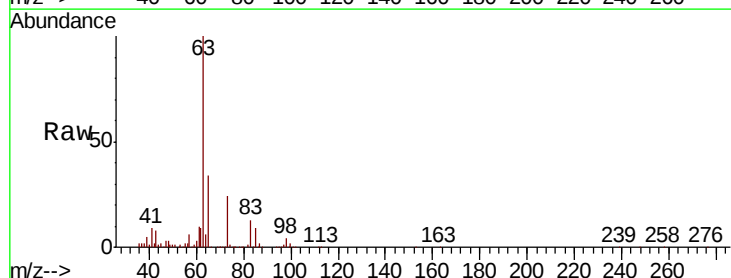
Tgt Ion: 63 Resp: 1471250

Ion Ratio Lower Upper

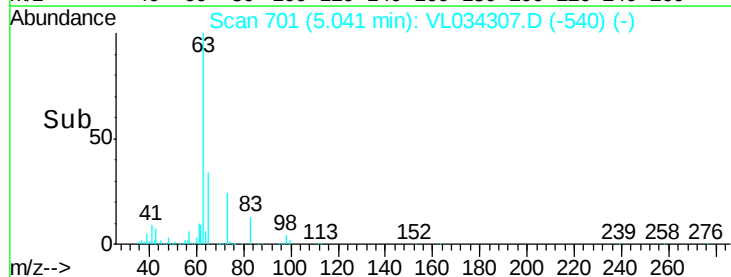
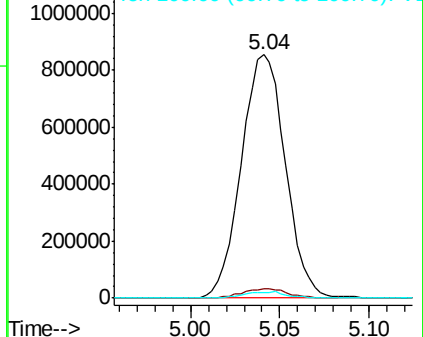
63 100

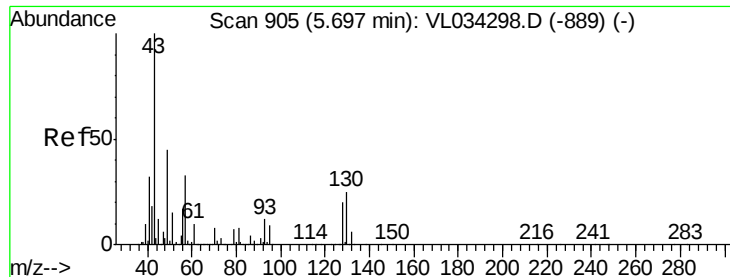
98 3.9 2.0 6.0

100 2.3 1.1 3.5



Abundance Ion 63.10 (62.80 to 63.80): VL0  
Ion 98.00 (97.70 to 98.70): VL0  
Ion 100.00 (99.70 to 100.70): VL0





#25

Ethyl Acetate

Concen: 9.529 ppbv

RT: 5.72 min Scan# 911

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Tot Ion: 43 Resp: 2645760

Ion Ratio Lower Upper

43 100

45 10.8 8.3 12.5

61 9.6 7.7 11.5

70 6.9 5.4 8.2

Instrument :

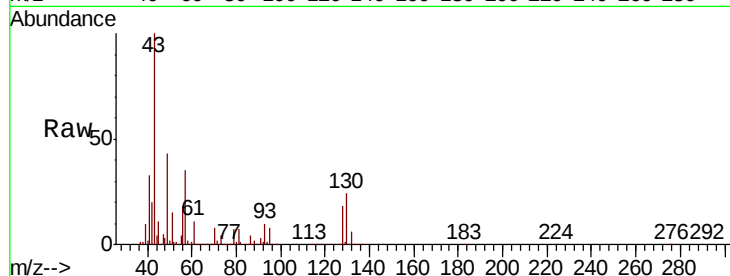
MSVOA\_L

ClientSampleId :

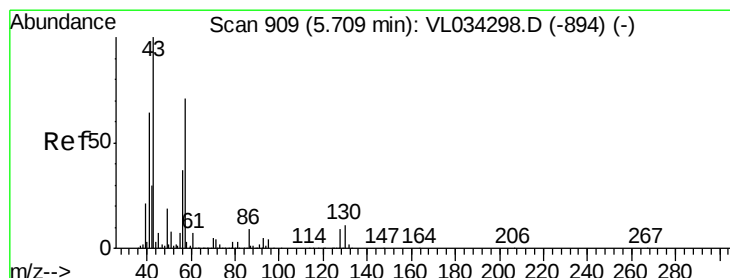
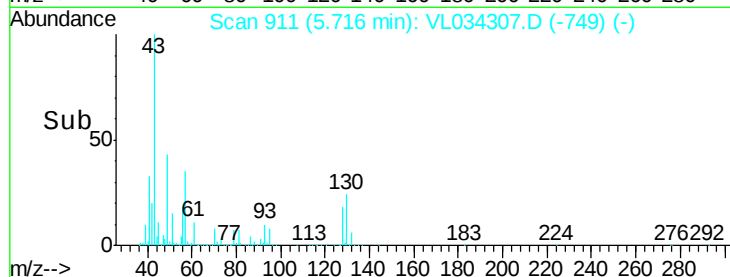
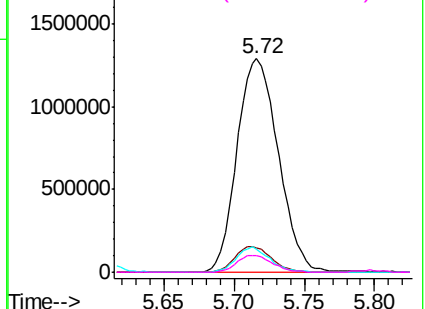
VL1016ABS01

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Abundance Ion 43.10 (42.80 to 43.80): VL0  
2000000 Ion 45.10 (44.80 to 45.80): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 9.577 ppbv

RT: 5.73 min Scan# 914

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Tgt Ion: 57 Resp: 1133396

Ion Ratio Lower Upper

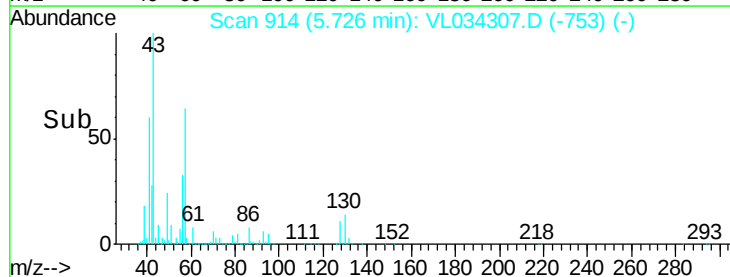
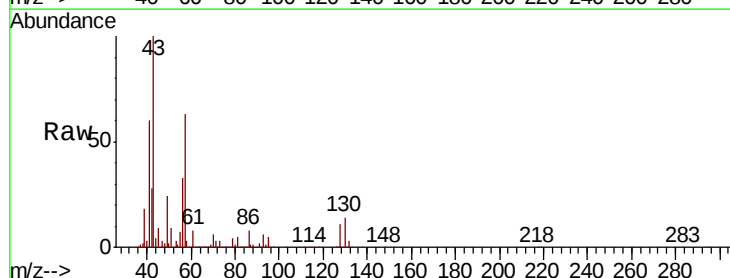
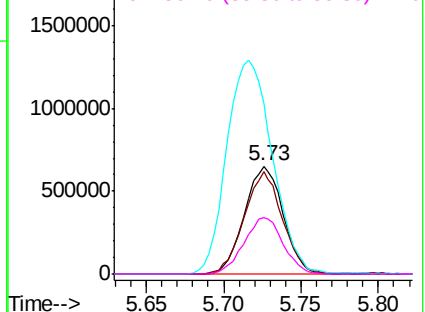
57 100

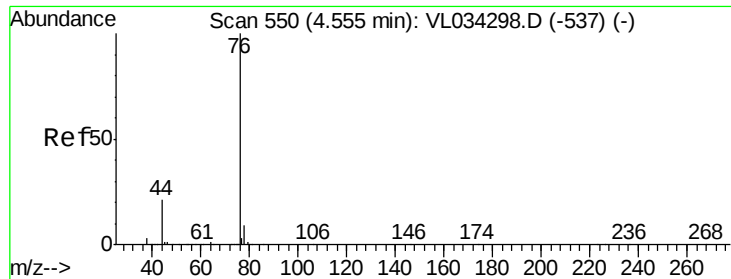
41 94.9 76.5 114.7

43 234.6 188.5 282.7

56 52.9 42.8 64.2

Abundance Ion 57.10 (56.80 to 57.80): VL0  
2000000 Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 11.306 ppbv

RT: 4.57 min Scan# 554

Delta R.T. 0.01 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 76 Resp: 1389075

Ion Ratio Lower Upper

76 100

44 20.1 17.3 25.9

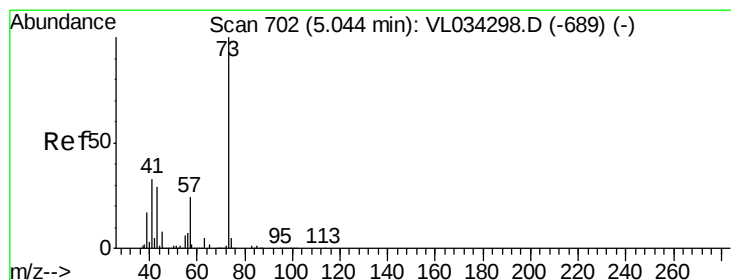
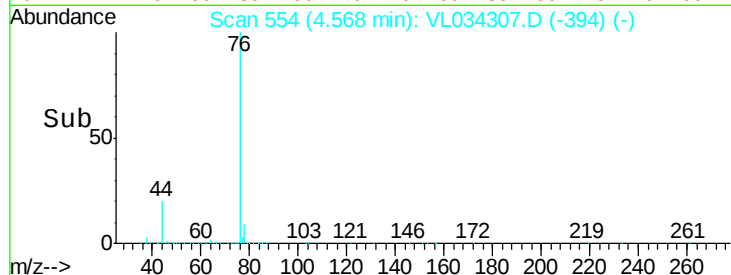
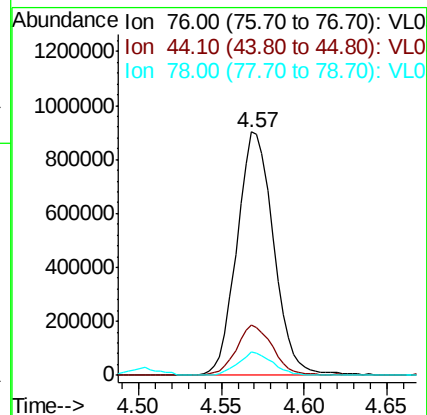
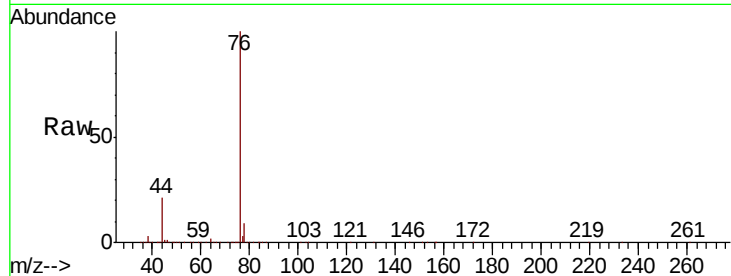
78 9.2 7.8 11.6

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#28

Methyl tert-Butyl Ether

Concen: 10.259 ppbv

RT: 5.06 min Scan# 707

Delta R.T. 0.02 min

Lab File: VL034307.D

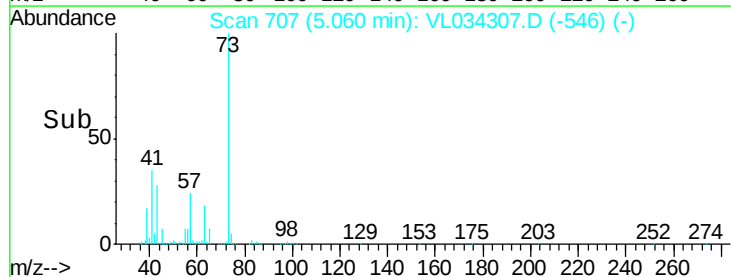
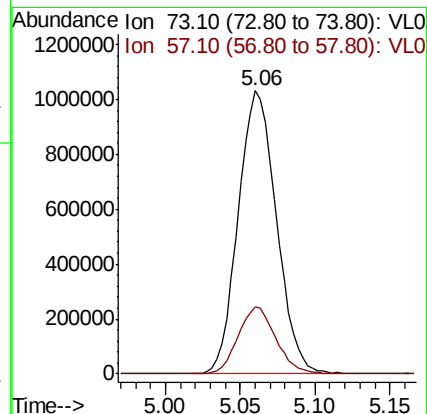
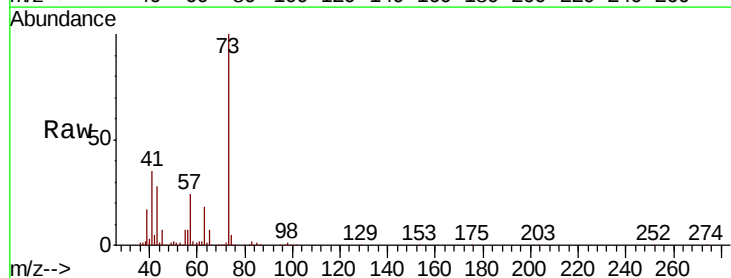
Acq: 16 Oct 2019 20:46

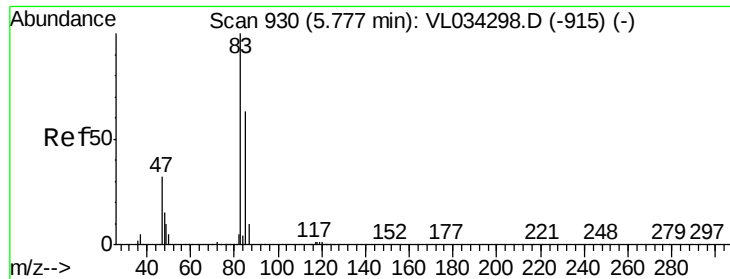
Tgt Ion: 73 Resp: 1837517

Ion Ratio Lower Upper

73 100

57 23.4 19.2 28.8





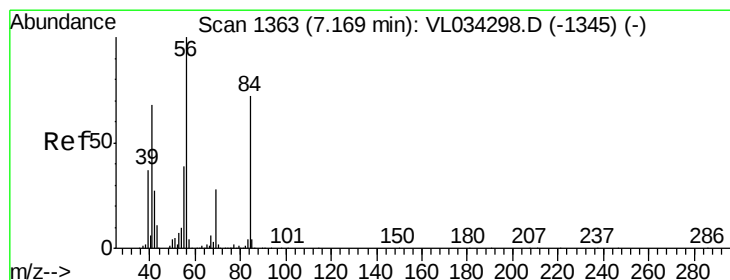
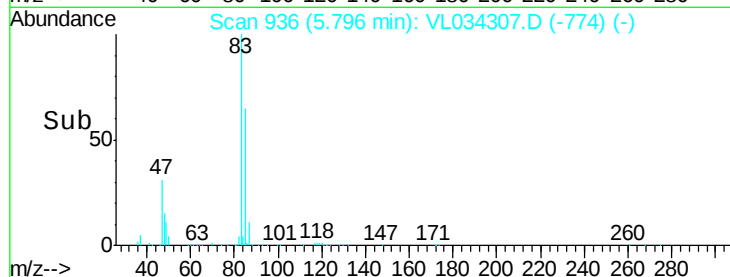
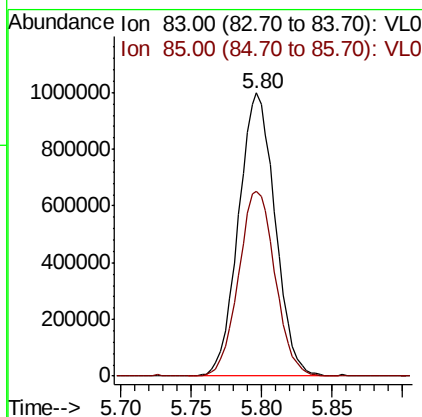
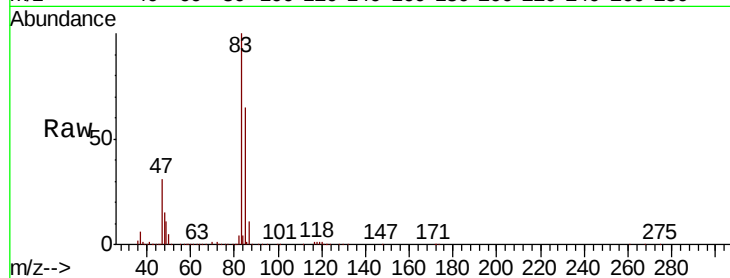
#29  
Chloroform  
Concen: 9.679 ppbv  
RT: 5.80 min Scan# 936  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

Tot Ion: 83 Resp: 1811984  
Ion Ratio Lower Upper  
83 100  
85 65.1 50.5 75.7

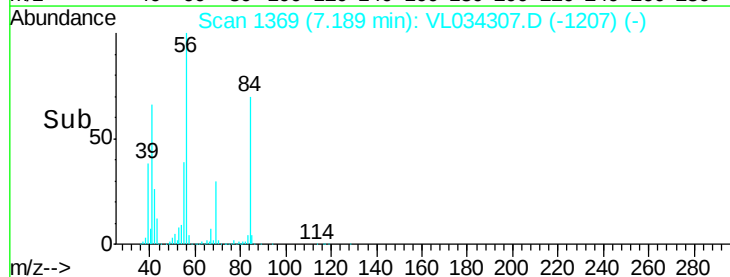
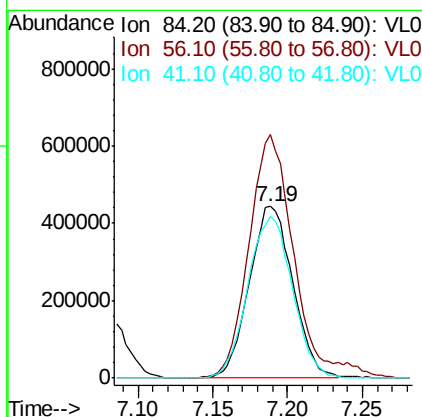
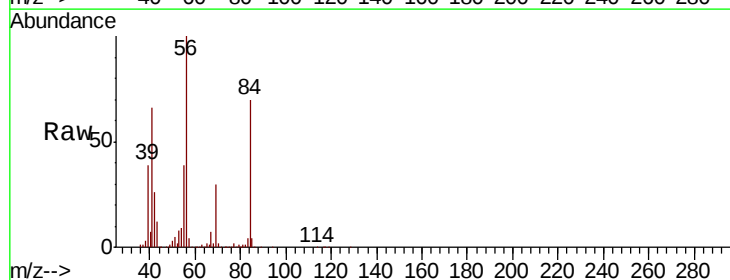
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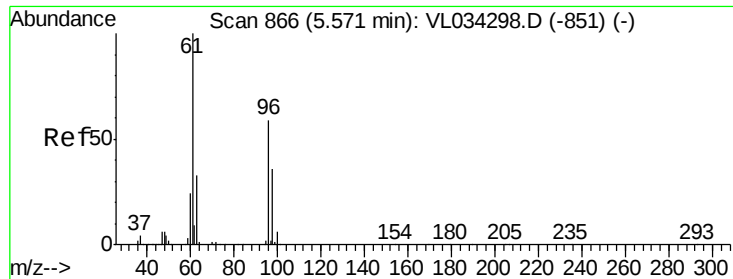
MMDadoda  
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#30  
Cyclohexane  
Concen: 10.342 ppbv  
RT: 7.19 min Scan# 1369  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Tgt Ion: 84 Resp: 900172  
Ion Ratio Lower Upper  
84 100  
56 146.8 119.4 179.0  
41 96.7 78.7 118.1





#31

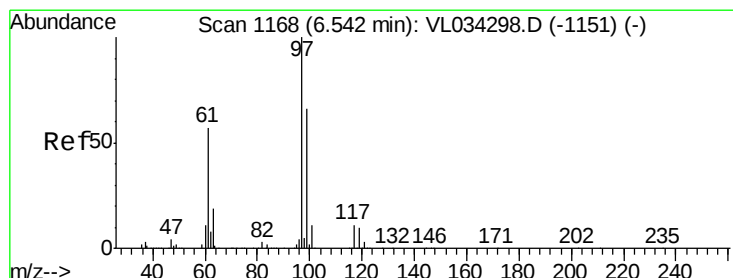
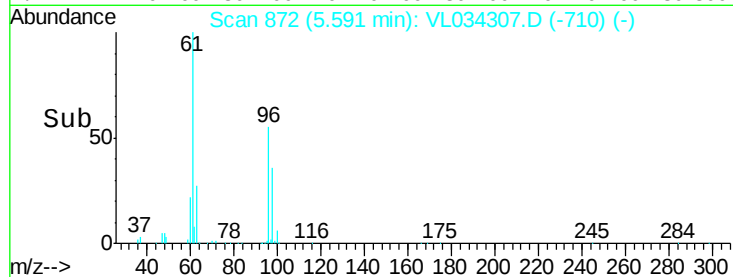
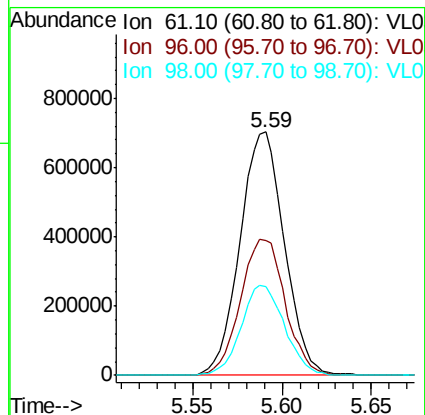
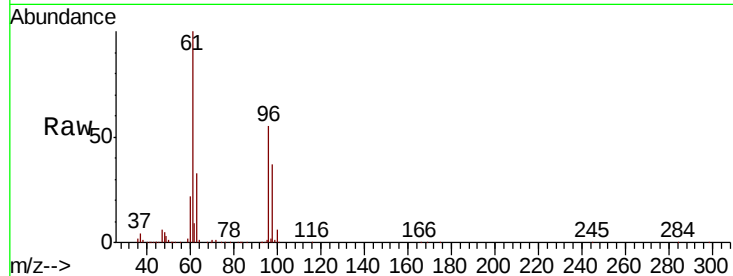
cis-1,2-Dichloroethene  
 Concen: 10.088 ppbv  
 RT: 5.59 min Scan# 872  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 55.3  | 47.5  | 71.3  |
| 98      | 36.6  | 28.8  | 43.2  |

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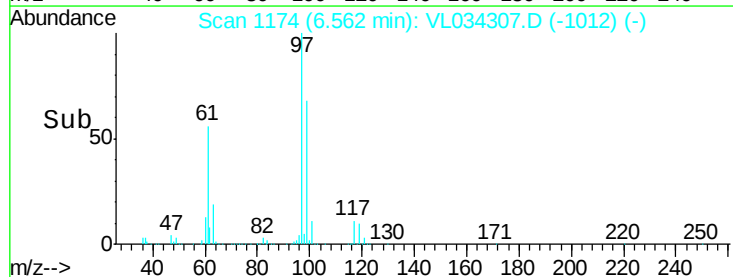
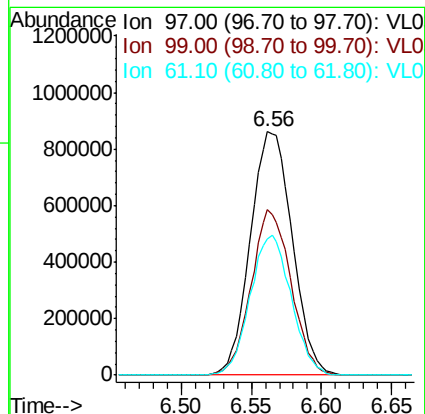
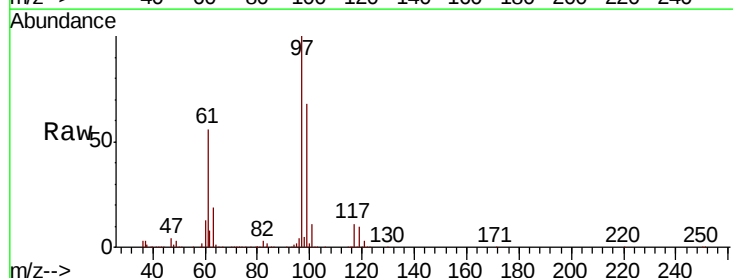
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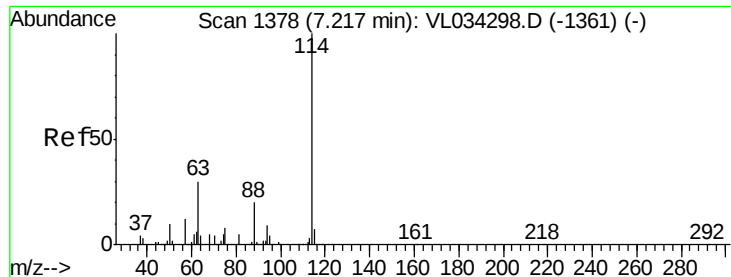


#32

1,1,1-Trichloroethane  
 Concen: 9.824 ppbv  
 RT: 6.56 min Scan# 1174  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.9  | 52.6  | 78.8  |
| 61      | 56.4  | 44.5  | 66.7  |





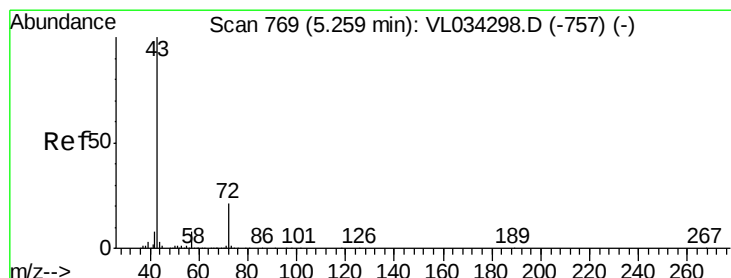
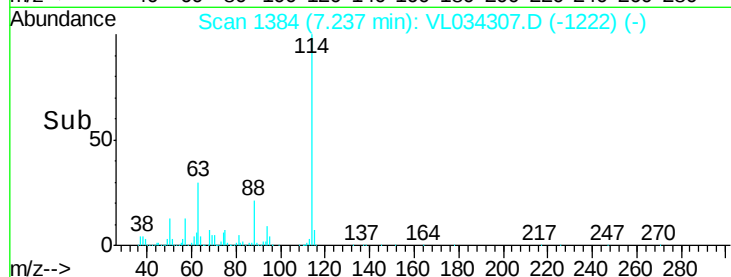
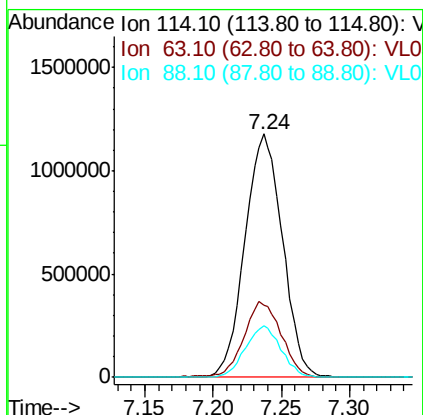
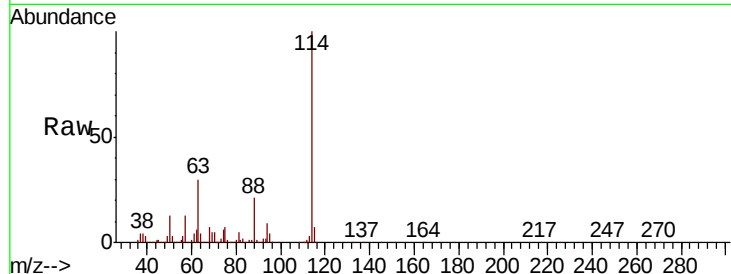
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.24 min Scan# 1384  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 31.3  | 25.2  | 37.8  |
| 88      | 20.2  | 16.0  | 24.0  |

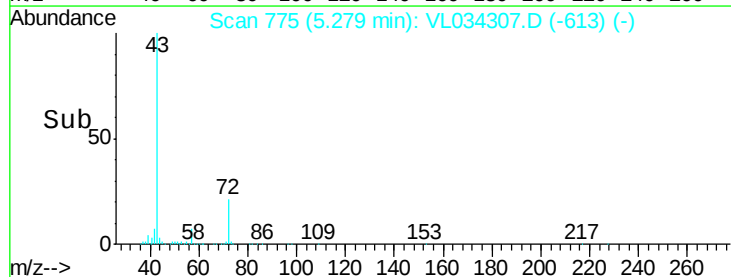
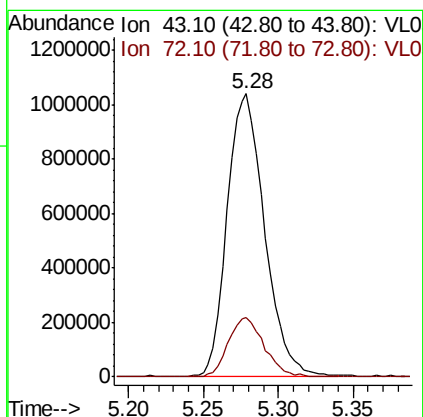
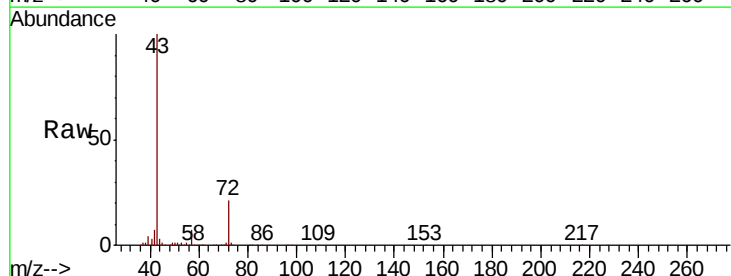
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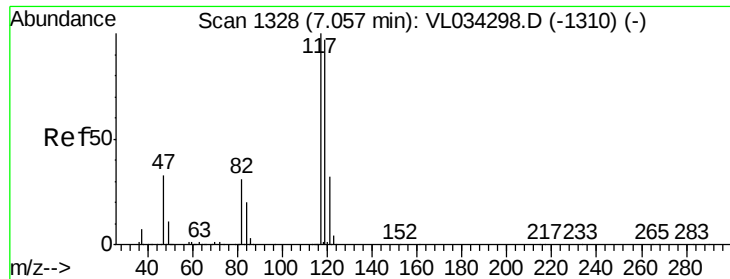
MMDadoda  
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#34  
 2-Butanone  
 Concen: 9.846 ppbv  
 RT: 5.28 min Scan# 775  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 20.3  | 16.3  | 24.5  |





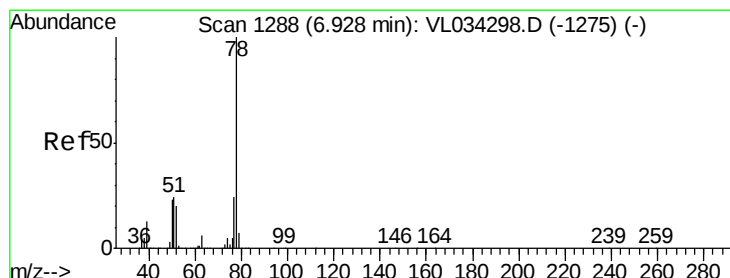
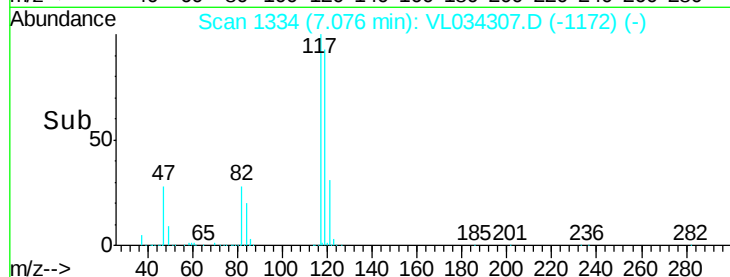
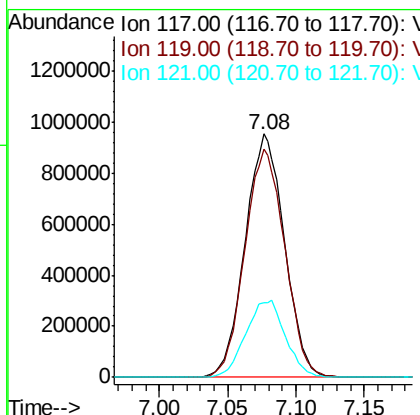
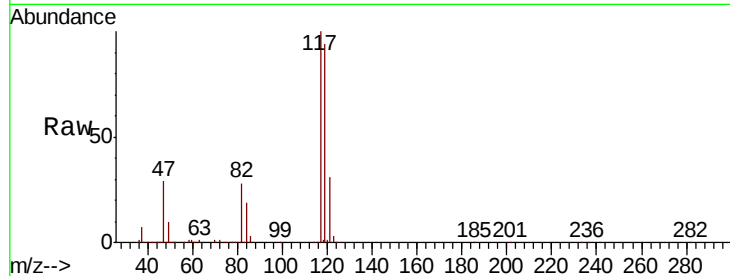
#35  
Carbon Tetrachloride  
Concen: 9.737 ppbv  
RT: 7.08 min Scan# 1334  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 117     | 100  |       |       |       |
| 119     | 93.5 | 77.3  | 115.9 |       |
| 121     | 30.6 | 25.5  | 38.3  |       |

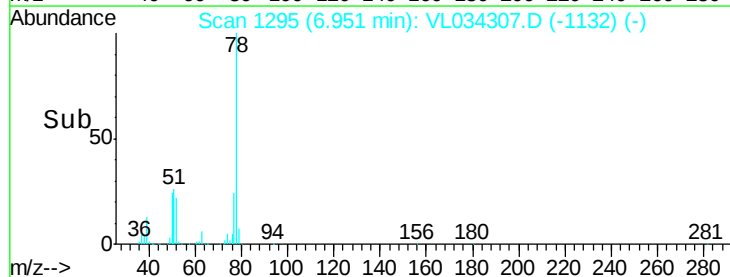
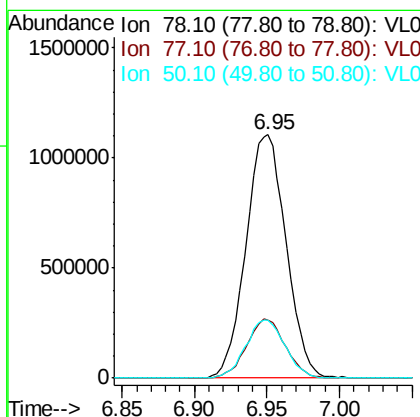
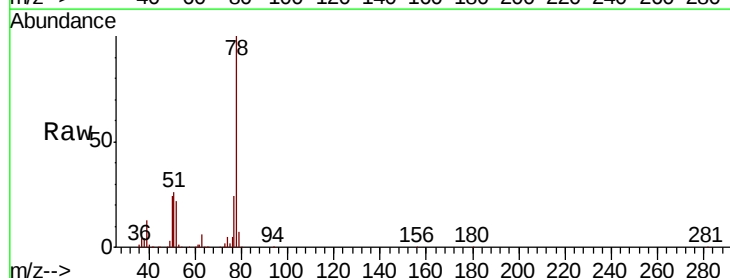
Manual Integrations  
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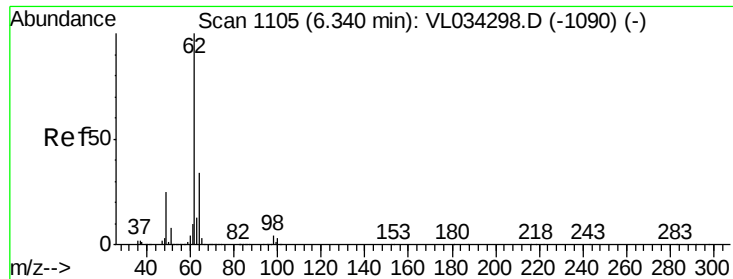
MMDadoda  
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#36  
Benzene  
Concen: 9.878 ppbv  
RT: 6.95 min Scan# 1295  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 78      | 100  |       |       |       |
| 77      | 23.7 | 19.0  | 28.4  |       |
| 50      | 24.1 | 18.6  | 27.8  |       |





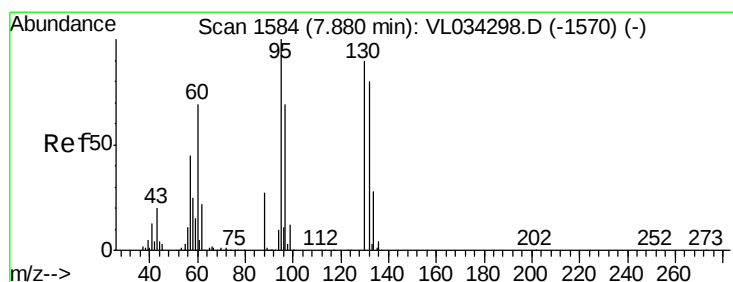
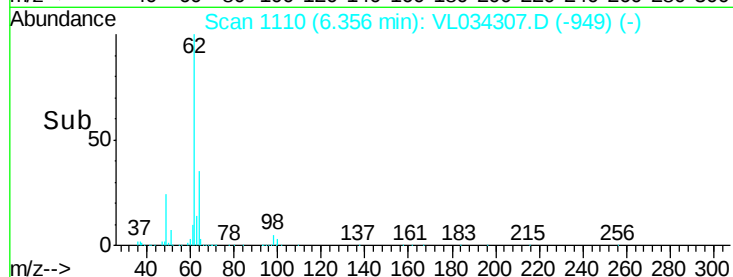
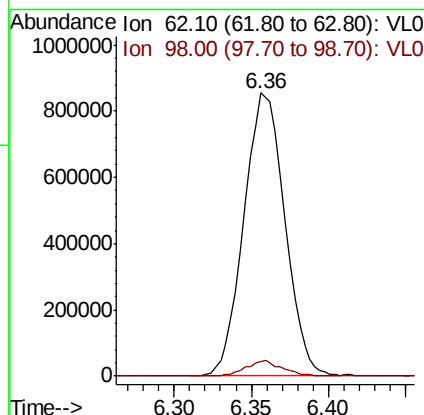
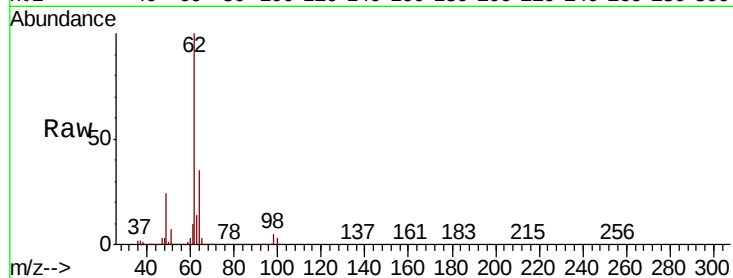
#37  
 1,2-Dichloroethane  
 Concen: 9.840 ppbv  
 RT: 6.36 min Scan# 1110  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 4.9   | 3.8   | 5.6   |

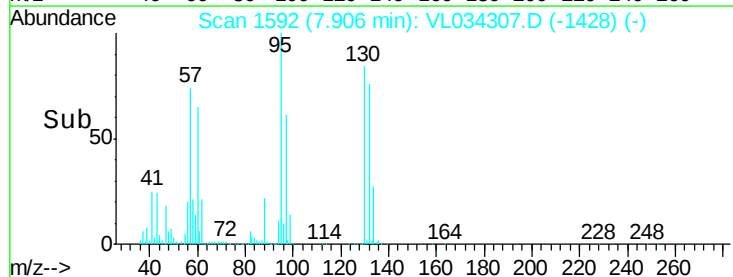
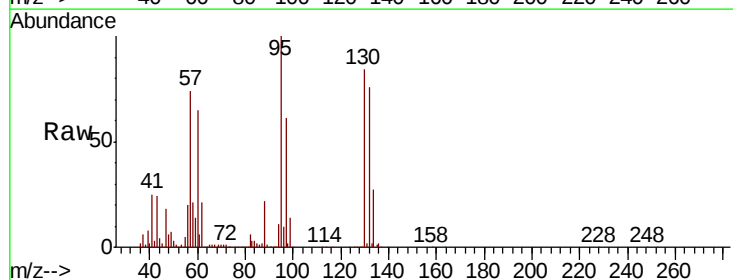
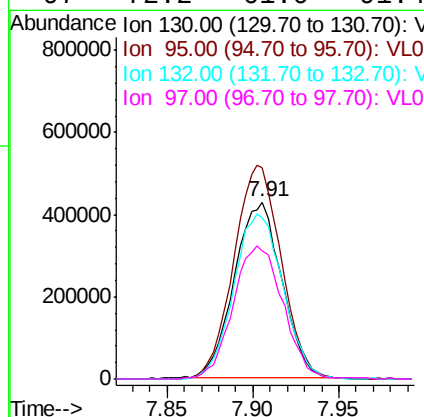
Manual Integrations  
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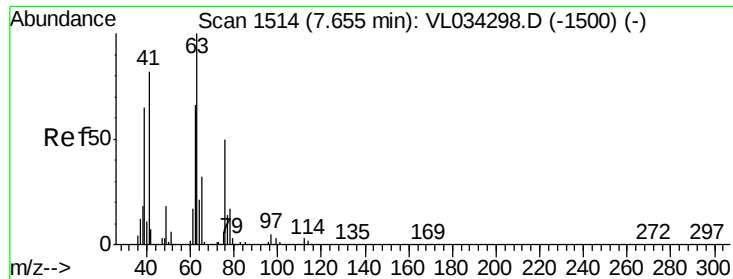
MMDadoda  
 10/18/2019 3:04:31 PM



#38  
 Trichloroethene  
 Concen: 9.539 ppbv  
 RT: 7.91 min Scan# 1592  
 Delta R.T. 0.03 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 119.0 | 88.6  | 132.8 |
| 132     | 91.0  | 71.2  | 106.8 |
| 97      | 72.2  | 61.0  | 91.4  |





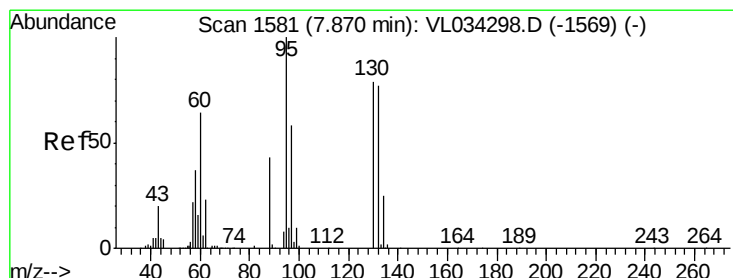
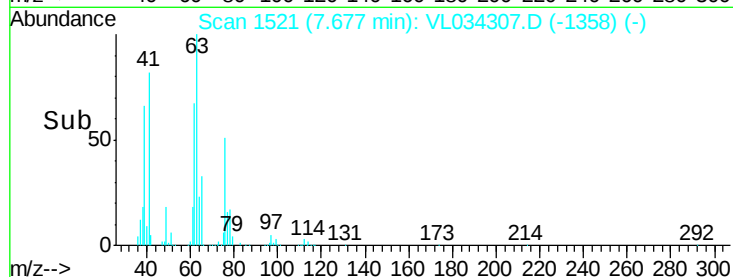
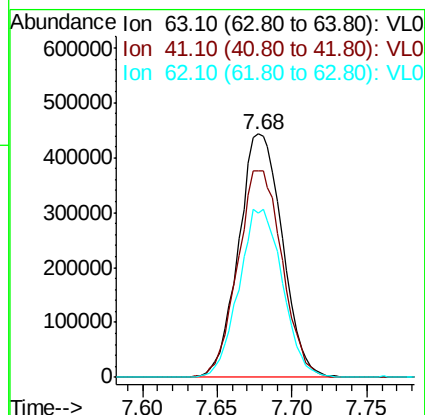
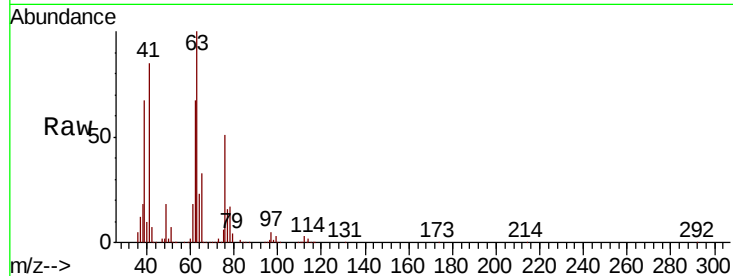
#39  
 1,2-Dichloropropane  
 Concen: 9.698 ppbv  
 RT: 7.68 min Scan# 1521  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 84.9  | 65.6  | 98.4  |
| 62      | 67.2  | 53.0  | 79.6  |

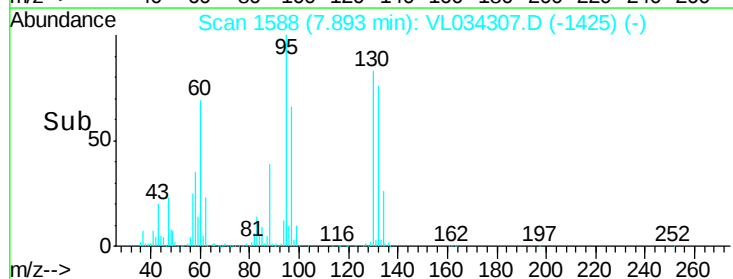
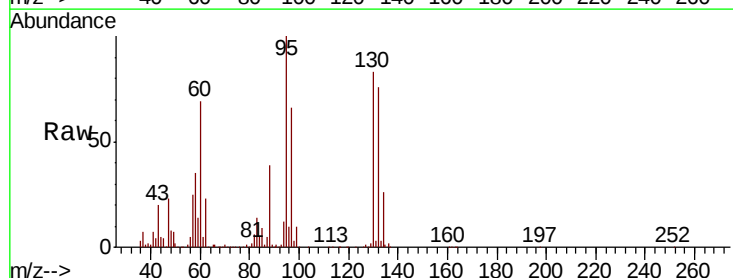
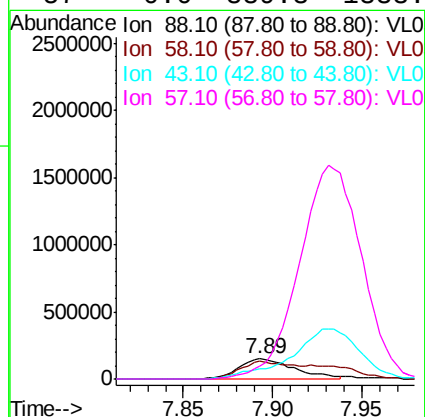
Manual Integrations  
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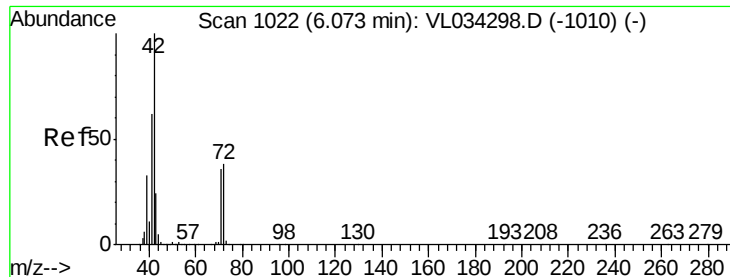
MMDadoda  
 10/18/2019 3:04:31 PM



#40  
 1,4-Dioxane  
 Concen: 10.038 ppbv  
 RT: 7.89 min Scan# 1588  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper   |
|---------|-------|-------|---------|
| 88      | 100   |       |         |
| 58      | 146.5 | 110.3 | 165.5   |
| 43      | 0.0   | 228.1 | 342.1#  |
| 57      | 0.0   | 889.3 | 1333.9# |





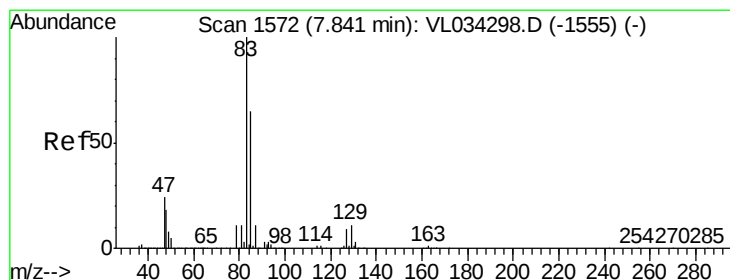
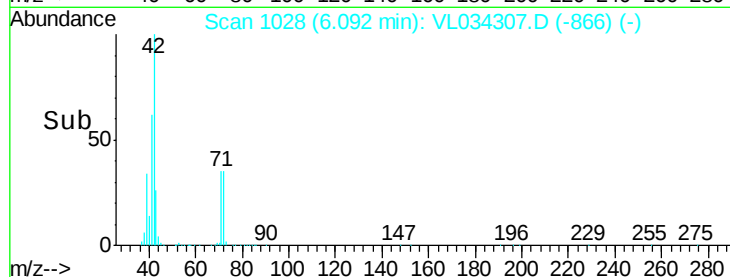
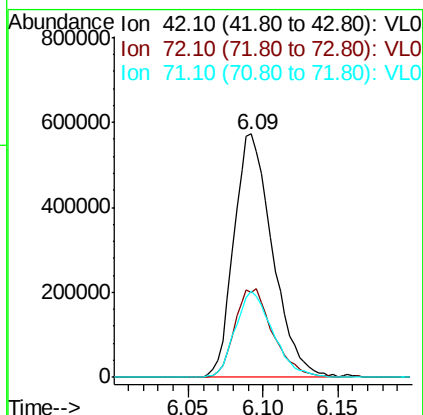
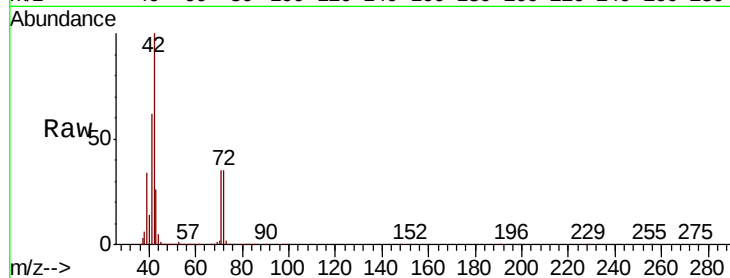
#41  
Tetrahydrofuran  
Concen: 10.102 ppbv  
RT: 6.09 min Scan# 1028  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 36.2  | 28.0  | 42.0  |
| 71      | 34.6  | 27.3  | 40.9  |

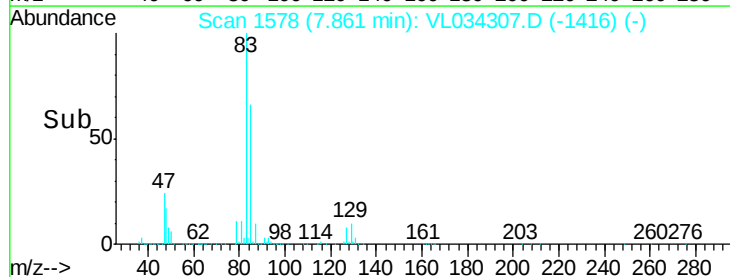
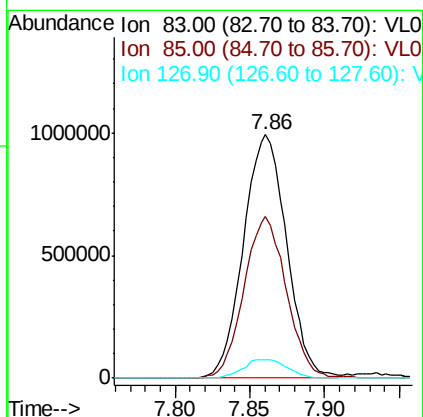
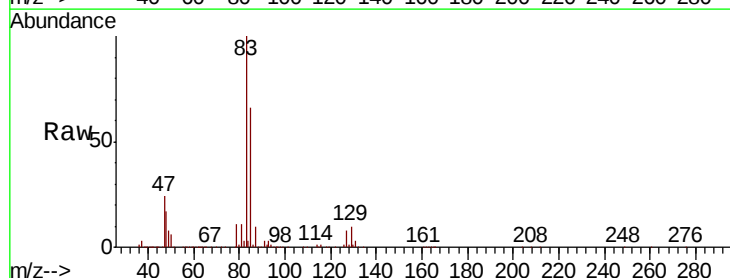
Manual Integrations  
APPROVED

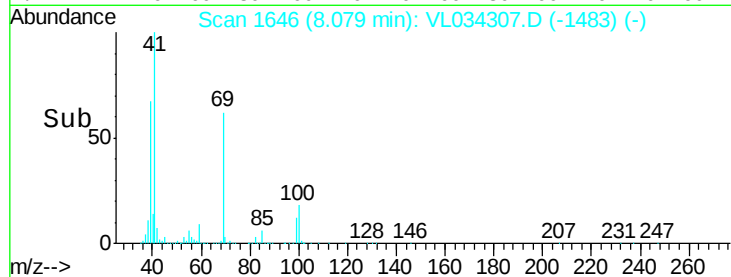
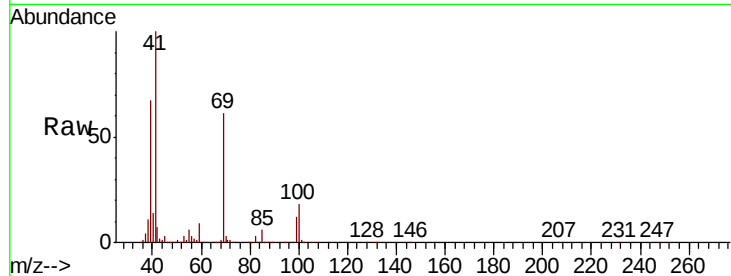
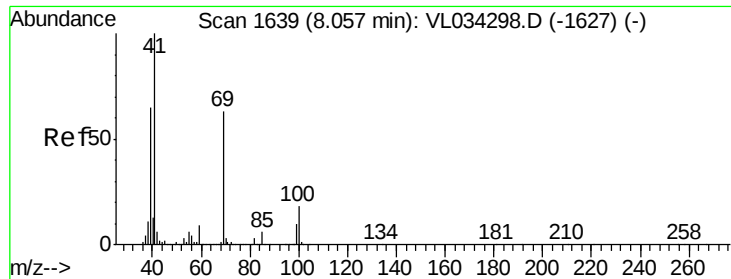
MMDadoda  
10/18/2019 3:04:31 PM



#42  
Bromodichloromethane  
Concen: 10.113 ppbv  
RT: 7.86 min Scan# 1578  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 66.5  | 51.8  | 77.6  |
| 127     | 7.5   | 7.0   | 10.6  |





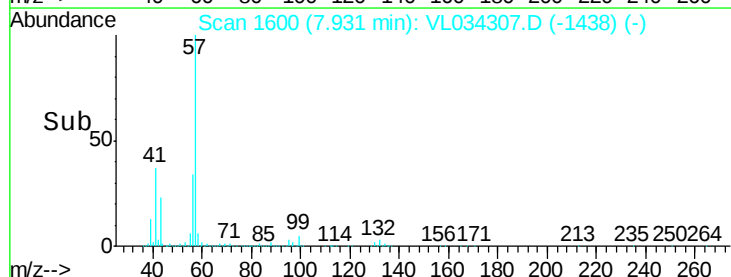
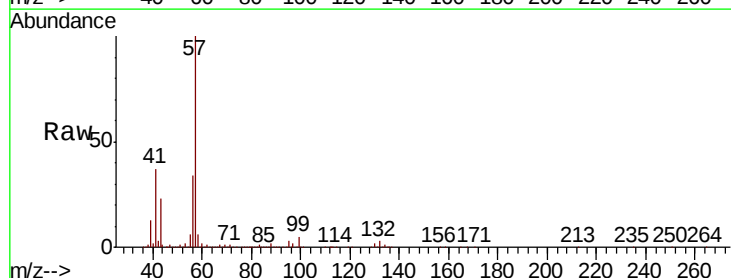
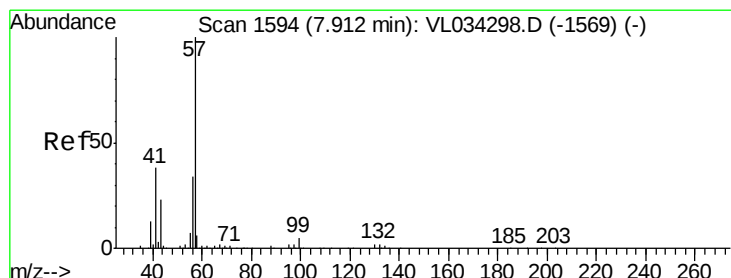
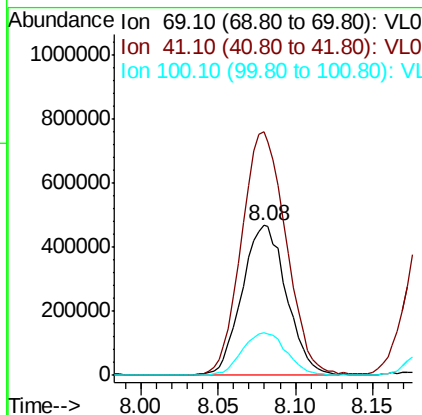
#43  
Methvl Methacrylate  
Concen: 10.457 ppbv  
RT: 8.08 min Scan# 1646  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 69      | 100   |       |       |
| 41      | 163.0 | 132.1 | 198.1 |
| 100     | 28.6  | 23.2  | 34.8  |

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

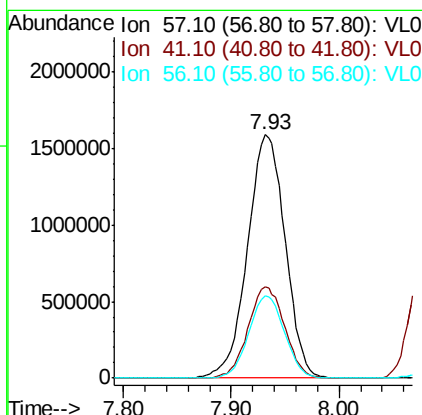
Manual Integrations  
APPROVED

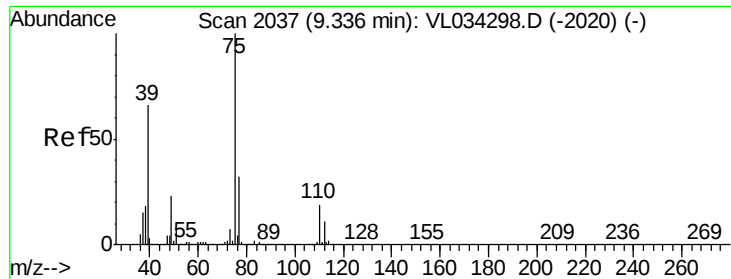
MMDadoda  
10/18/2019 3:04:31 PM



#44  
2,2,4-Trimethylpentane  
Concen: 9.659 ppbv  
RT: 7.93 min Scan# 1600  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 36.4  | 29.3  | 43.9  |
| 56      | 32.1  | 25.3  | 37.9  |





#45

t-1,3-Dichloropropene

Concen: 11.701 ppbv

RT: 9.36 min Scan# 2043

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 75 Resp: 1271336

Ion Ratio Lower Upper

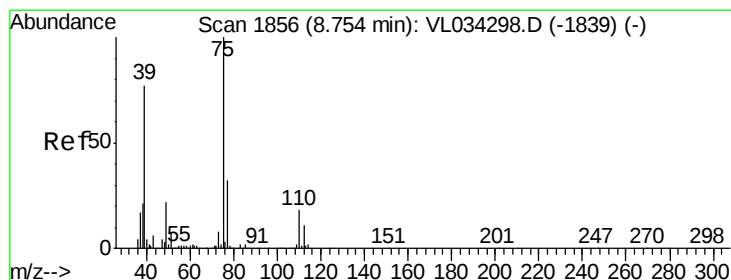
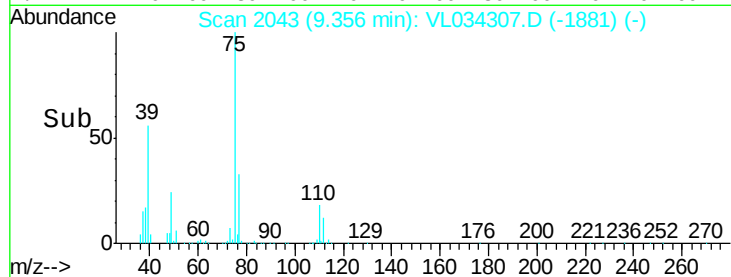
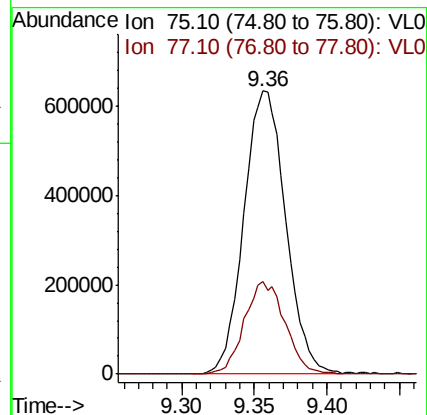
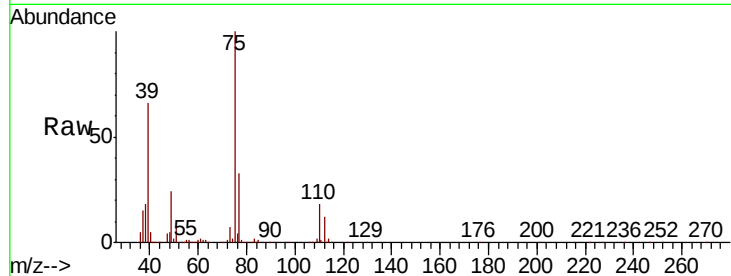
75 100

77 32.9 25.6 38.4

Manual Integrations  
APPROVED

MMDadoda

10/18/2019 3:04:31 PM



#46

cis-1,3-Dichloropropene

Concen: 11.359 ppbv

RT: 8.78 min Scan# 1863

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

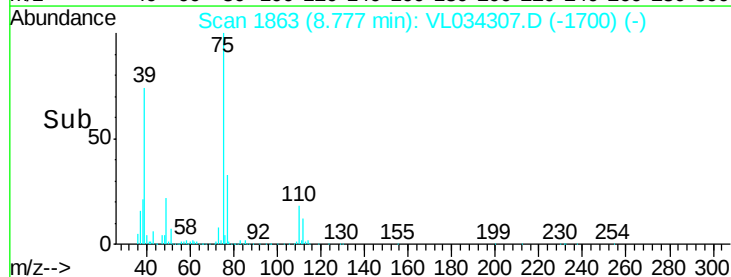
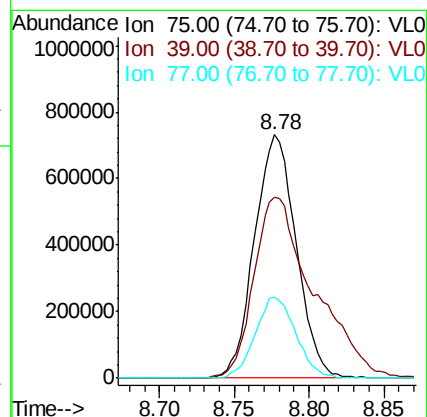
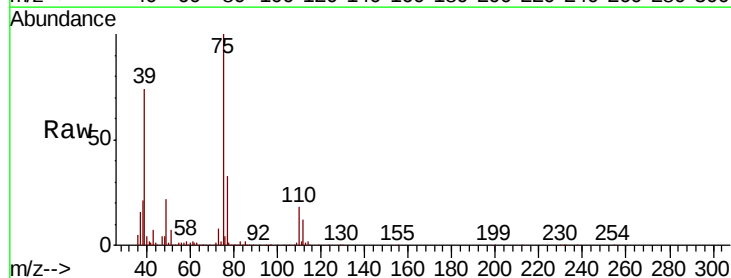
Tgt Ion: 75 Resp: 1417880

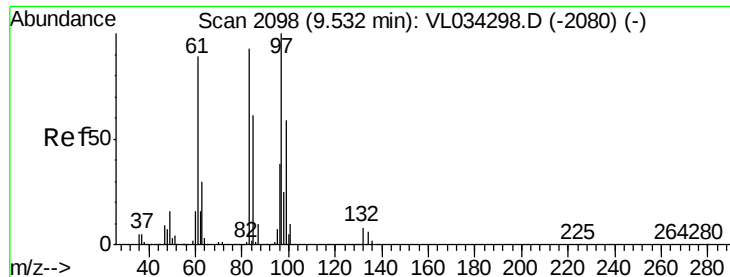
Ion Ratio Lower Upper

75 100

39 74.1 61.2 91.8

77 33.2 25.9 38.9





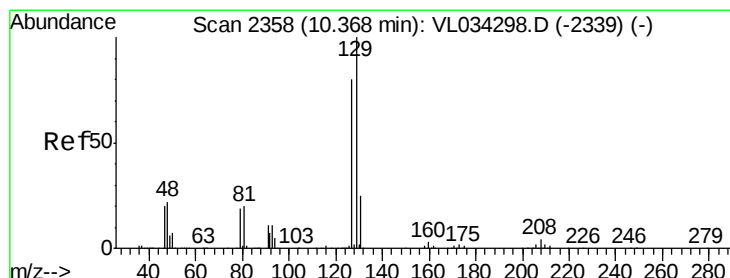
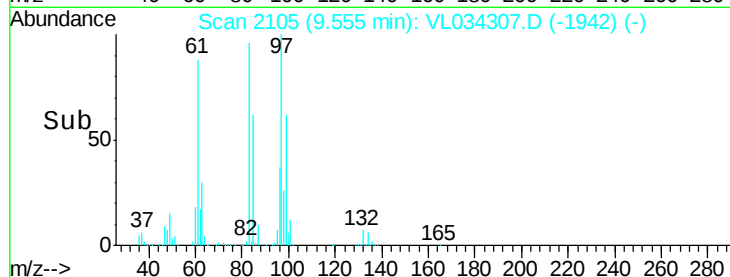
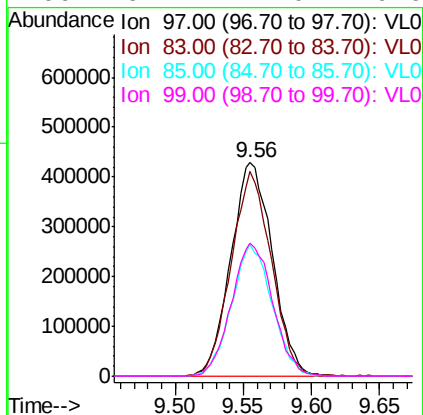
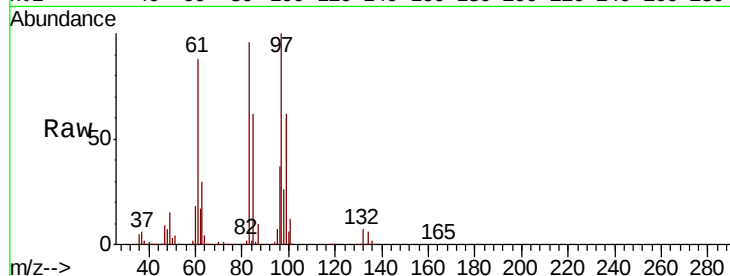
#47  
 1,1,2-Trichloroethane  
 Concen: 9.634 ppbv  
 RT: 9.56 min Scan# 2105  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

| Tot Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 97      | 100  |       | 906011 |       |       |
| 83      | 95.9 | 74.2  | 111.2  |       |       |
| 85      | 61.8 | 48.6  | 73.0   |       |       |
| 99      | 62.4 | 47.0  | 70.6   |       |       |

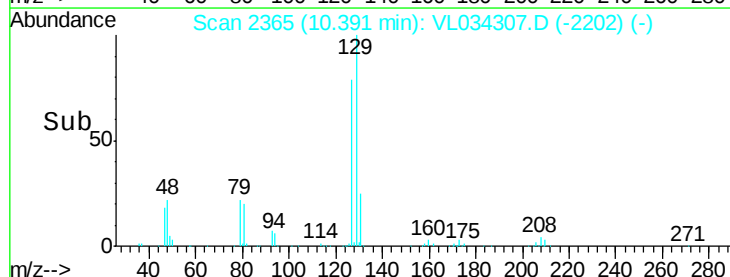
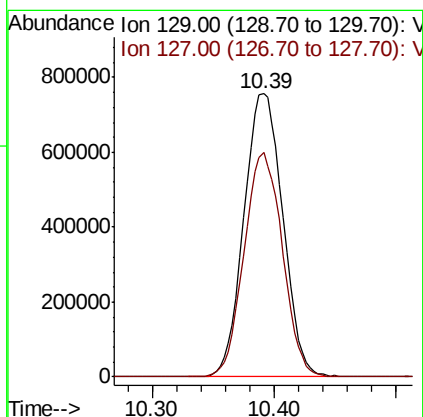
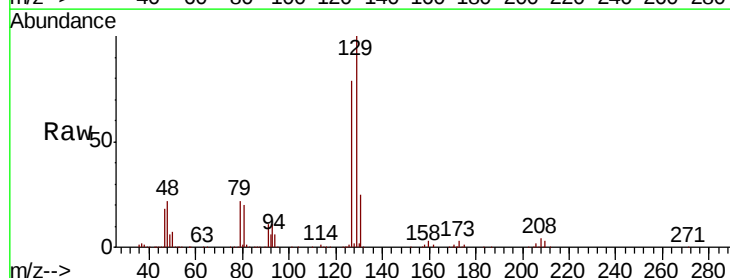
Manual Integrations  
 APPROVED

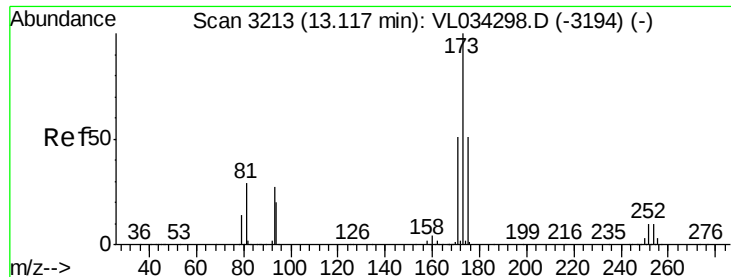
MMDadoda  
 10/18/2019 3:04:31 PM



#48  
 Dibromochloromethane  
 Concen: 10.792 ppbv  
 RT: 10.39 min Scan# 2365  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

| Tgt Ion | Ion  | Ratio | Resp    | Lower | Upper |
|---------|------|-------|---------|-------|-------|
| 129     | 100  |       | 1664967 |       |       |
| 127     | 78.1 | 39.7  | 119.1   |       |       |





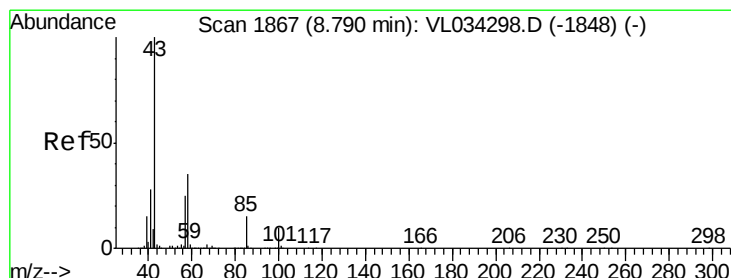
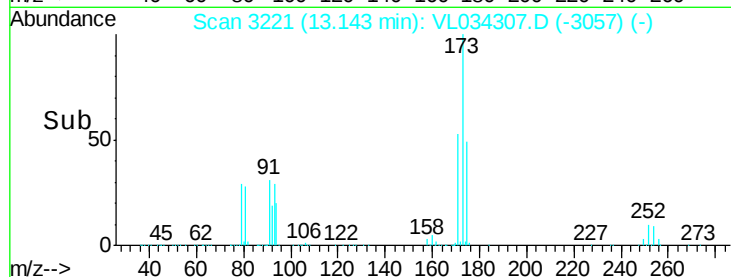
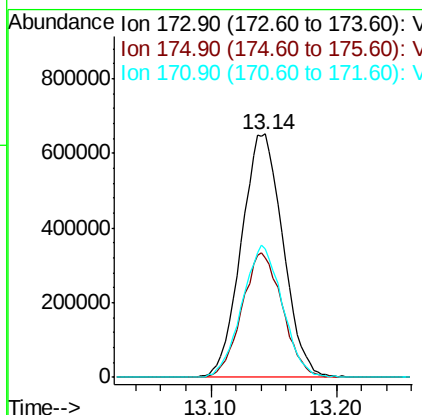
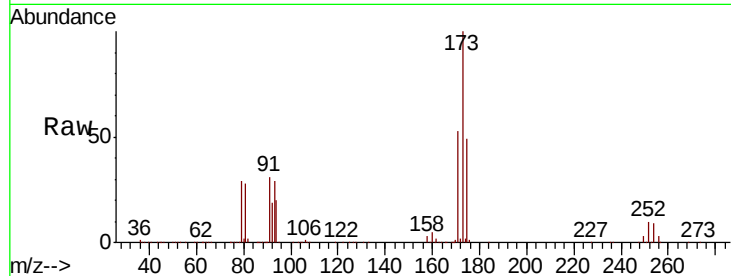
#49  
Bromoform  
Concen: 11.000 ppbv  
RT: 13.14 min Scan# 3221  
Delta R.T. 0.03 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

Tot Ion:173 Resp: 1503736  
Ion Ratio Lower Upper  
173 100  
175 50.0 39.8 59.6  
171 52.8 41.8 62.6

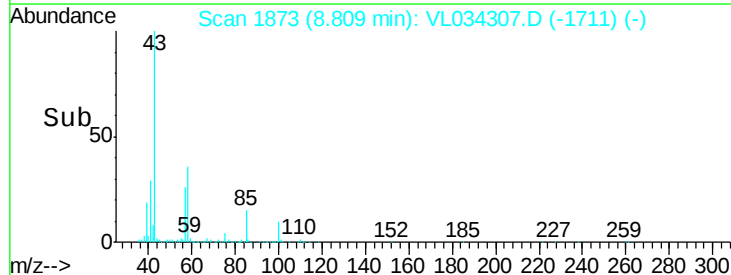
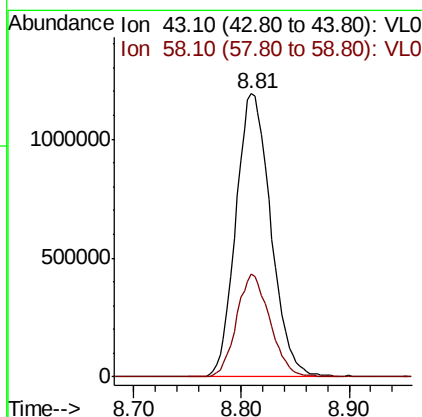
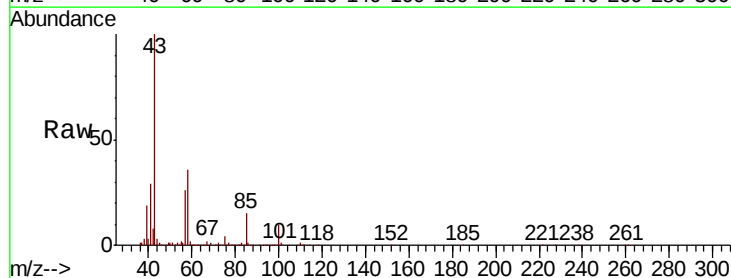
Manual Integrations  
APPROVED

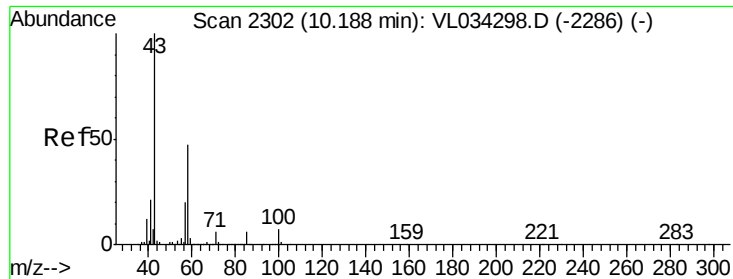
MMDadoda  
10/18/2019 3:04:31 PM



#50  
4-Methyl-2-Pentanone  
Concen: 10.215 ppbv  
RT: 8.81 min Scan# 1873  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Tgt Ion: 43 Resp: 2686325  
Ion Ratio Lower Upper  
43 100  
58 34.7 27.6 41.4





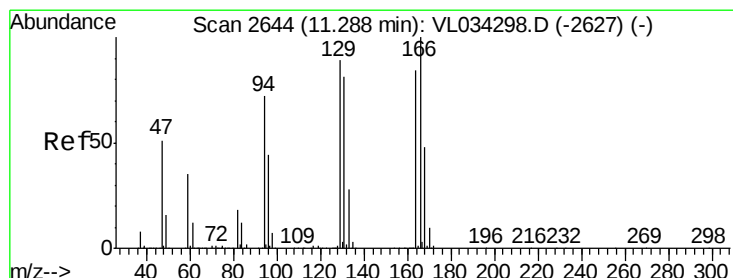
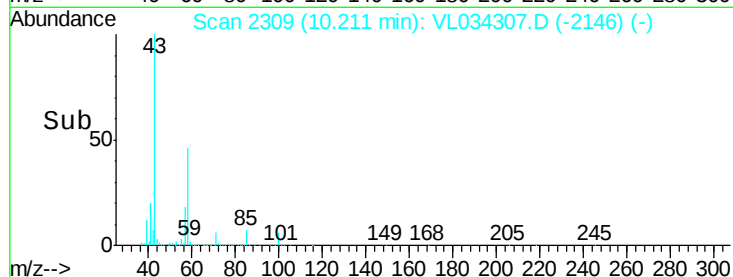
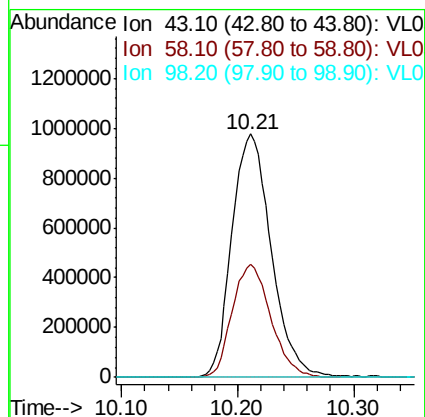
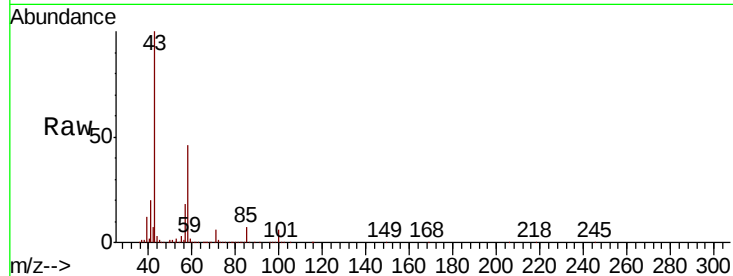
#51  
2-Hexanone  
Concen: 10.644 ppbv  
RT: 10.21 min Scan# 2309  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 45.8  | 37.0  | 55.6  |
| 98      | 0.3   | 0.2   | 0.2#  |

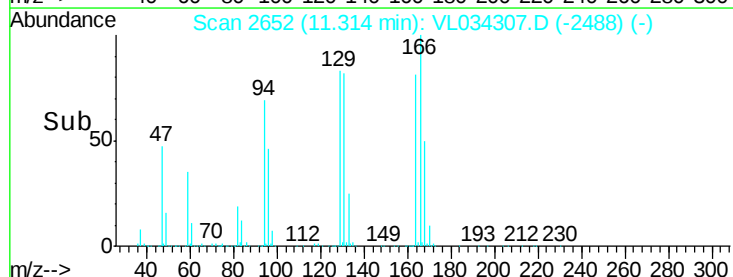
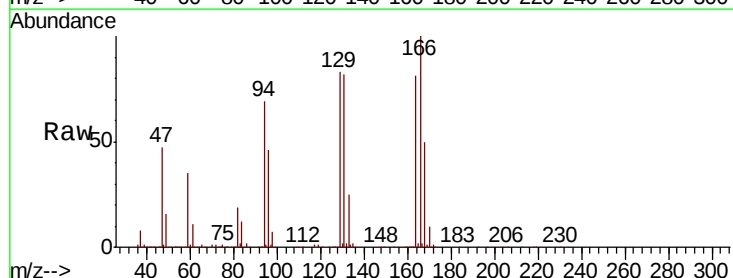
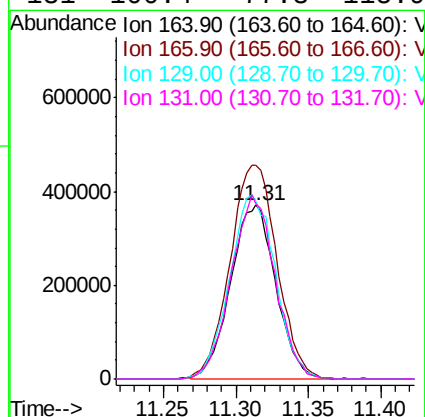
Manual Integrations  
APPROVED

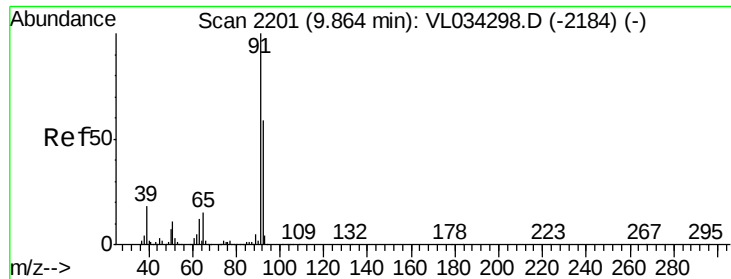
MMDadoda  
10/18/2019 3:04:31 PM



#52  
Tetrachloroethene  
Concen: 9.407 ppbv  
RT: 11.31 min Scan# 2652  
Delta R.T. 0.03 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 122.6 | 95.3  | 142.9 |
| 129     | 102.3 | 84.5  | 126.7 |
| 131     | 100.4 | 77.3  | 115.9 |





#53

Toluene

Concen: 10.273 ppbv

RT: 9.89 min Scan# 2208

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 91 Resp: 2444609

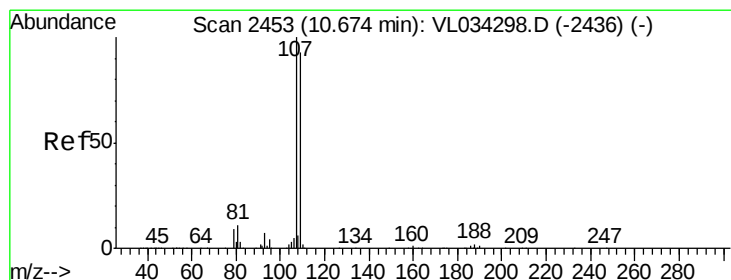
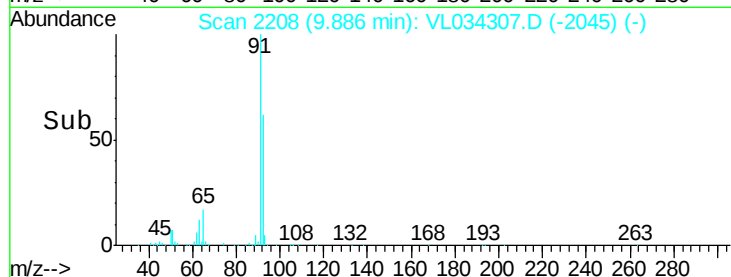
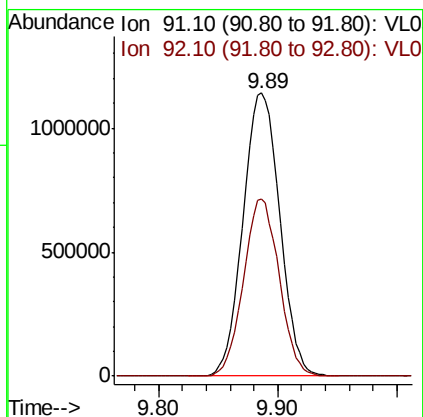
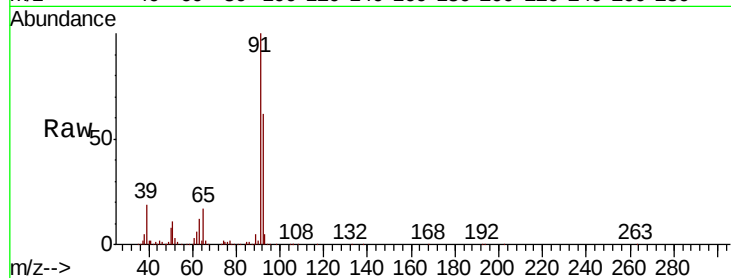
Ion Ratio Lower Upper

91 100

92 60.7 48.4 72.6

Manual Integrations  
APPROVED

MMDadoda  
10/18/2019 3:04:31 PM



#54

1,2-Dibromoethane

Concen: 10.169 ppbv

RT: 10.70 min Scan# 2460

Delta R.T. 0.02 min

Lab File: VL034307.D

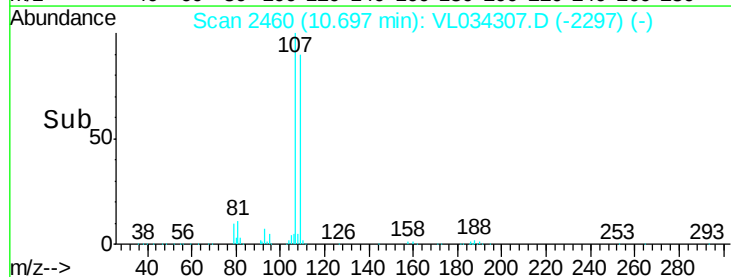
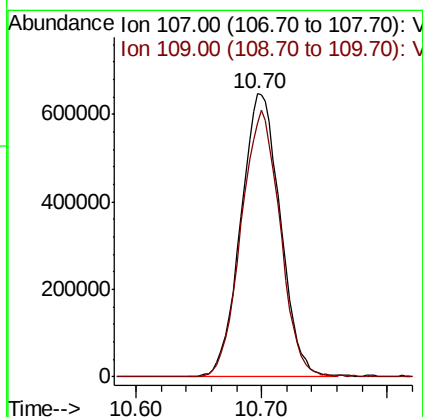
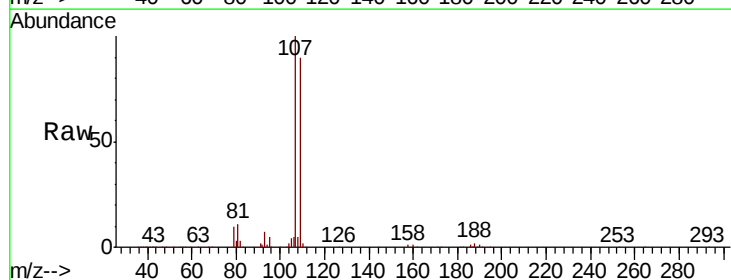
Acq: 16 Oct 2019 20:46

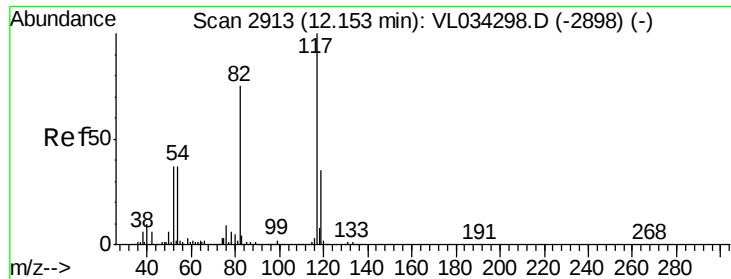
Tgt Ion: 107 Resp: 1417387

Ion Ratio Lower Upper

107 100

109 89.6 74.6 112.0





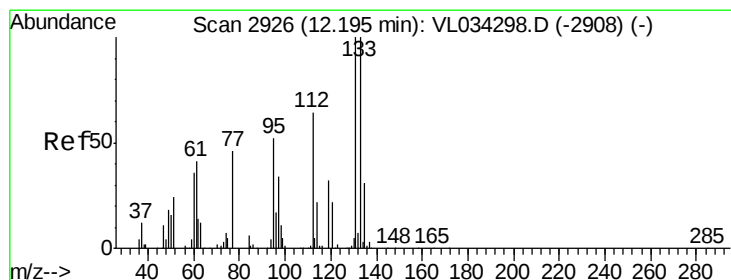
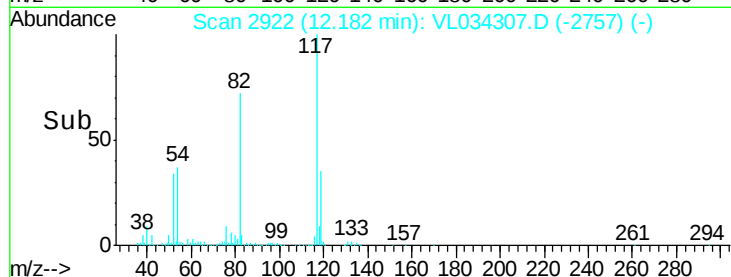
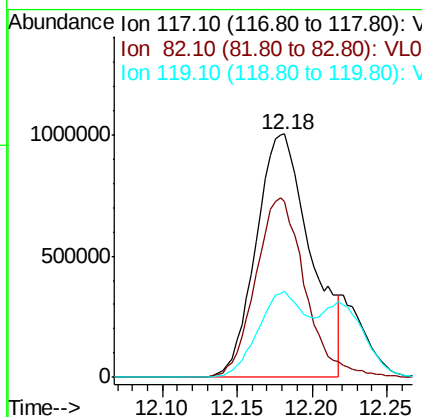
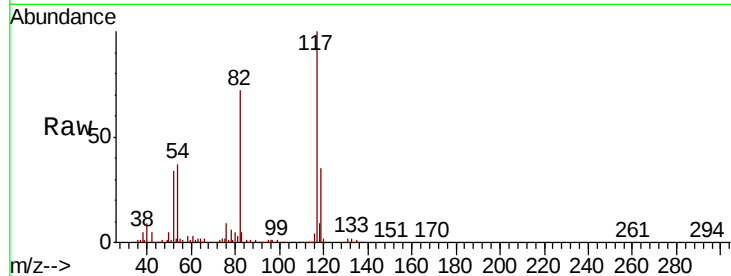
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.18 min Scan# 2922  
Delta R.T. 0.03 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 67.0  | 55.5  | 83.3  |
| 119     | 32.9  | 26.5  | 39.7  |

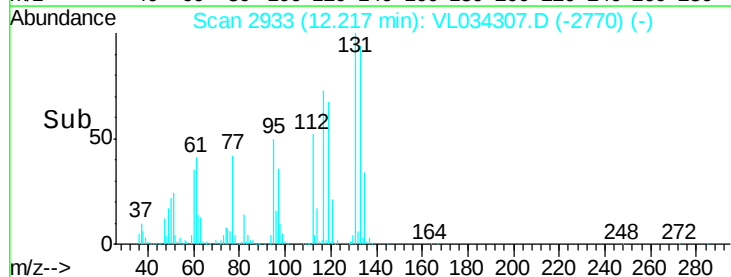
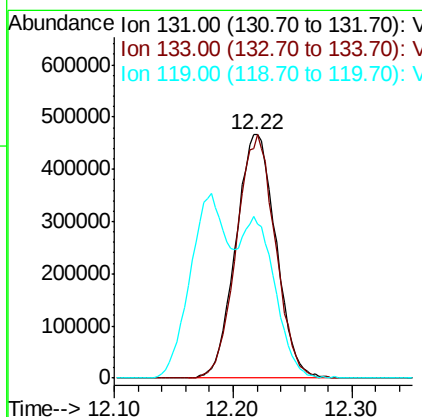
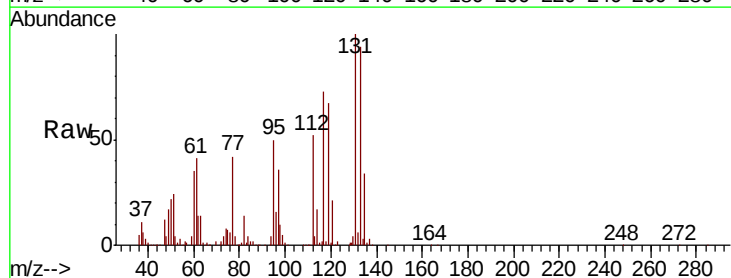
Manual Integrations  
APPROVED

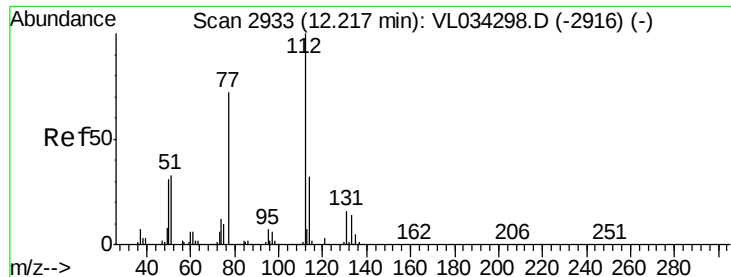
MMDadoda  
10/18/2019 3:04:31 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 9.258 ppbv  
RT: 12.22 min Scan# 2933  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 131     | 100   |       |       |
| 133     | 96.4  | 77.1  | 115.7 |
| 119     | 52.9  | 49.0  | 73.4  |





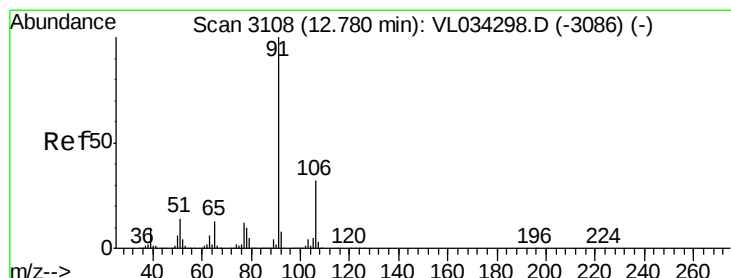
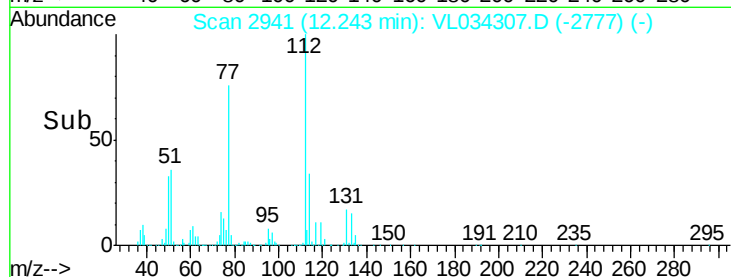
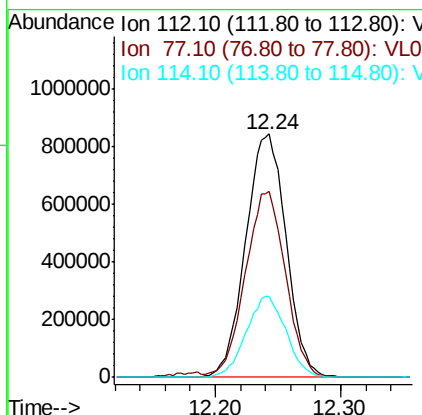
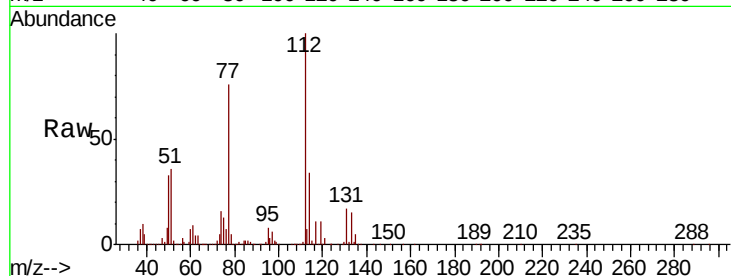
#57  
Chlorobenzene  
Concen: 8.879 ppbv  
RT: 12.24 min Scan# 2941  
Delta R.T. 0.03 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 76.0  | 58.6  | 88.0  |
| 114     | 33.5  | 28.6  | 35.0  |

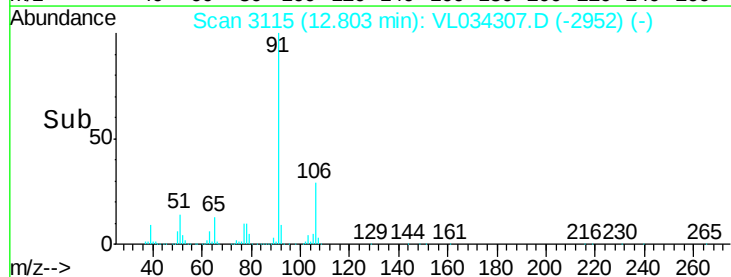
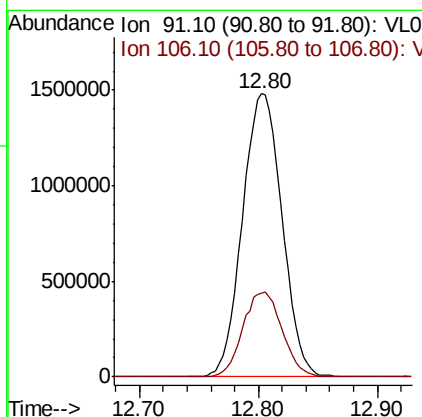
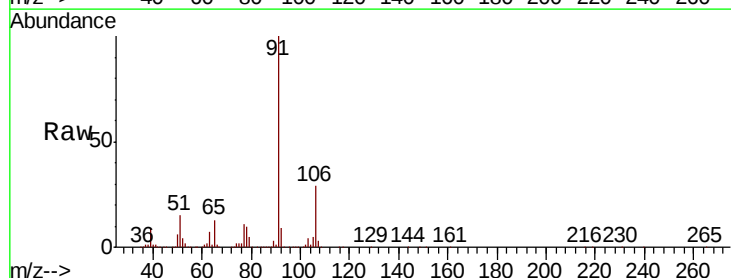
Manual Integrations  
APPROVED

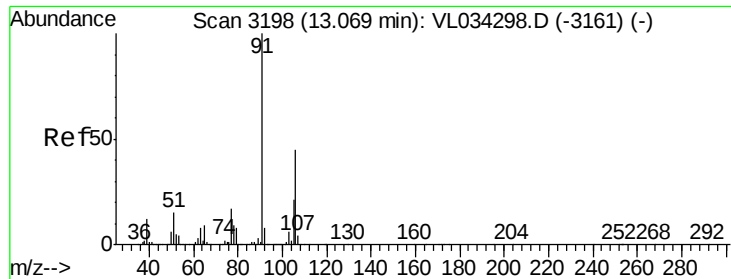
MMDadoda  
10/18/2019 3:04:31 PM



#58  
Ethyl Benzene  
Concen: 9.556 ppbv  
RT: 12.80 min Scan# 3115  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 29.5  | 25.3  | 37.9  |





#59

m/p-Xylene

Concen: 18.322 ppbv m

RT: 13.09 min Scan# 3204

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 91 Resp: 5662931

Ion Ratio Lower Upper

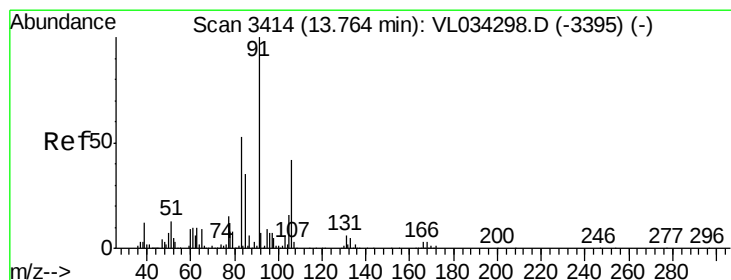
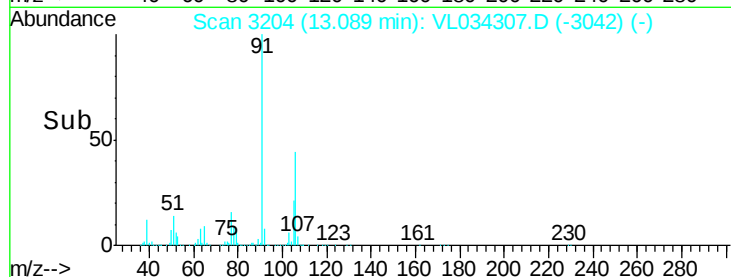
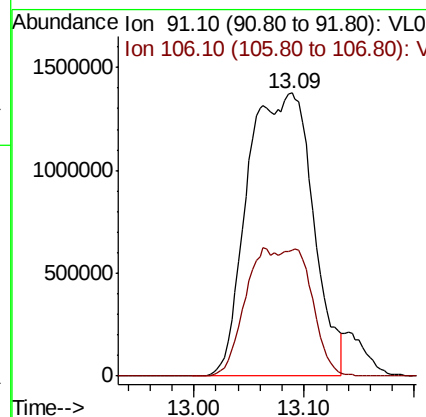
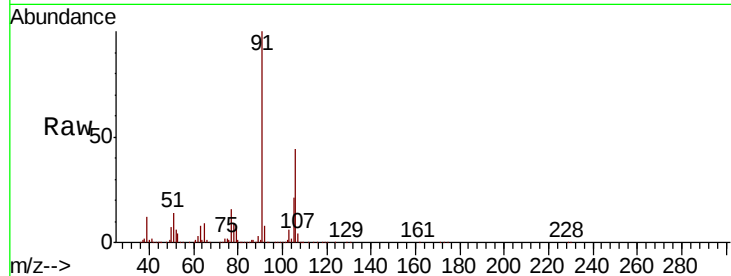
91 100

106 0.0 35.4 53.2#

Manual Integrations  
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#60

o-Xylene

Concen: 9.261 ppbv

RT: 13.79 min Scan# 3422

Delta R.T. 0.03 min

Lab File: VL034307.D

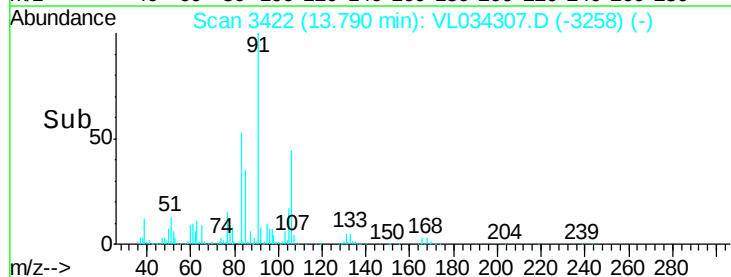
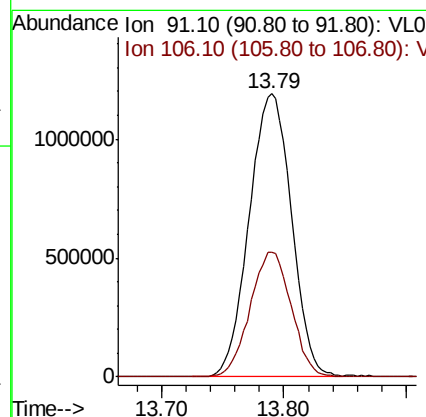
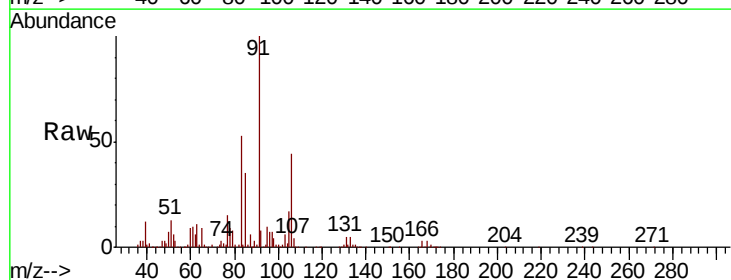
Acq: 16 Oct 2019 20:46

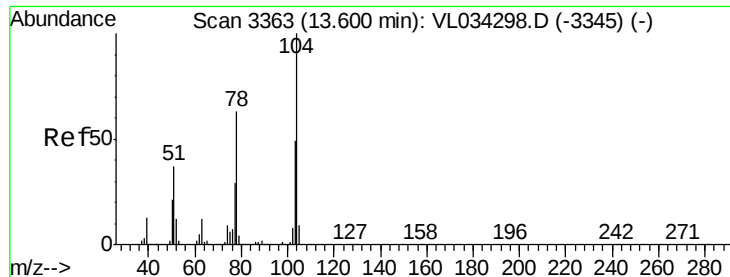
Tgt Ion: 91 Resp: 2850286

Ion Ratio Lower Upper

91 100

106 43.1 21.6 64.6





#61

Stvrene

Concen: 10.007 ppbv

RT: 13.63 min Scan# 3371

Delta R.T. 0.03 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion:104 Resp: 2168250

Ion Ratio Lower Upper

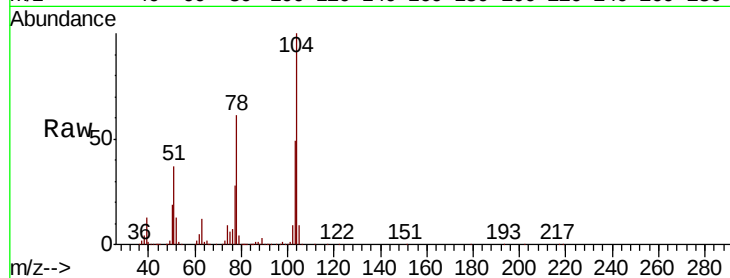
104 100

78 60.1 47.8 71.8

103 48.2 39.0 58.6

Manual Integrations  
APPROVED

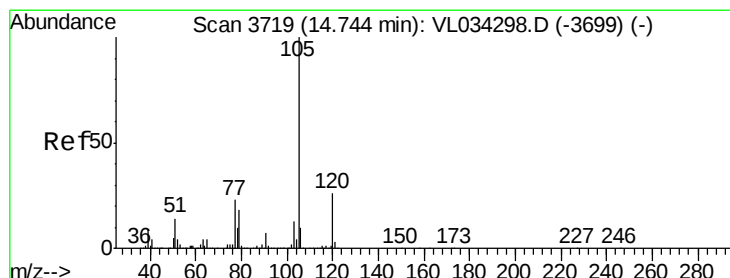
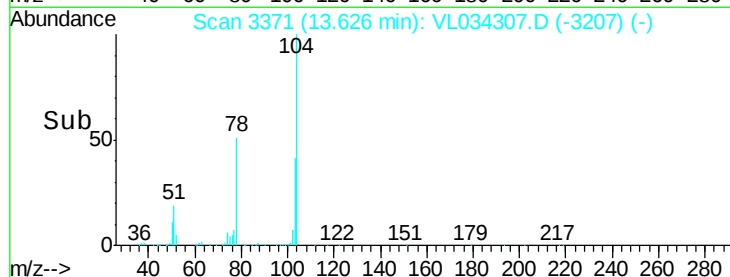
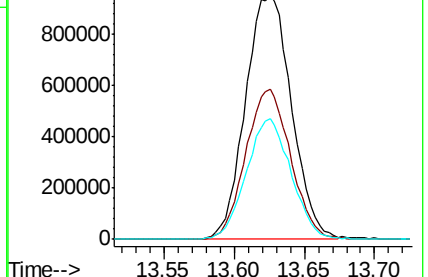
MMDadoda  
10/18/2019 3:04:31 PM



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 9.140 ppbv

RT: 14.77 min Scan# 3726

Delta R.T. 0.02 min

Lab File: VL034307.D

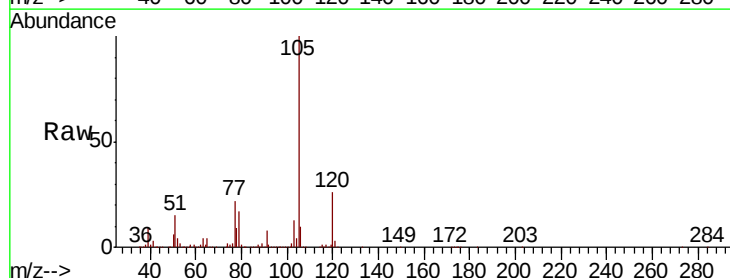
Acq: 16 Oct 2019 20:46

Tgt Ion:105 Resp: 3713279

Ion Ratio Lower Upper

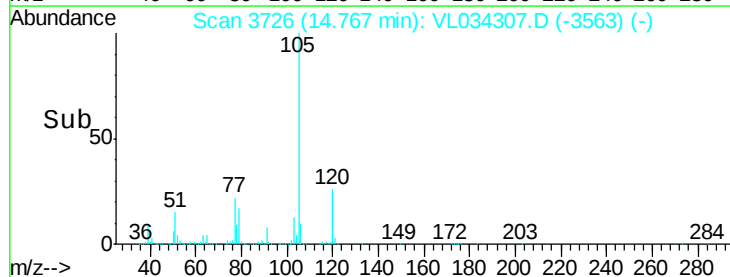
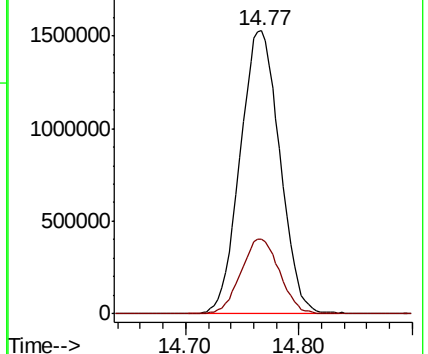
105 100

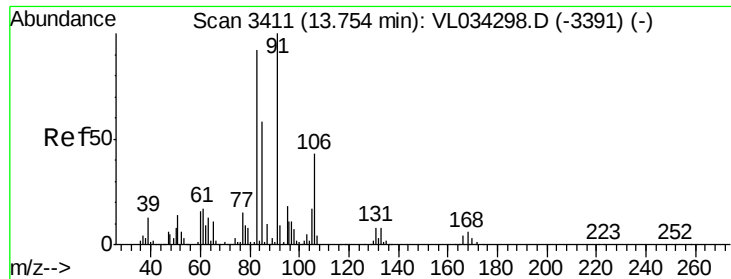
120 26.0 20.8 31.2



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





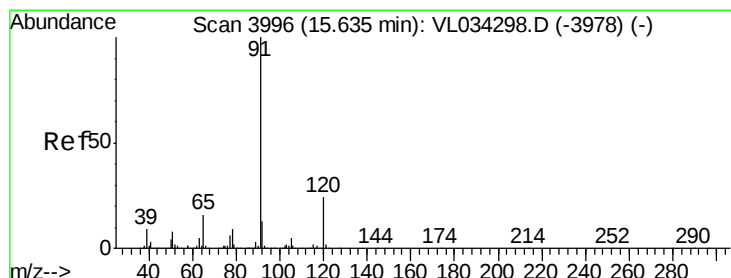
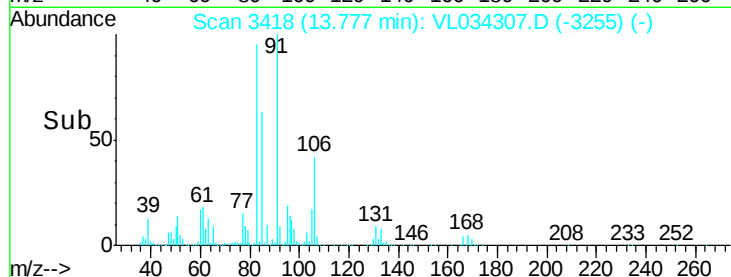
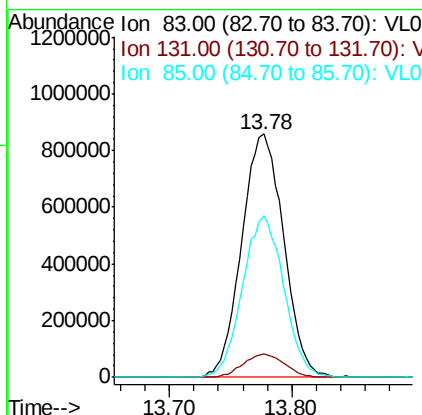
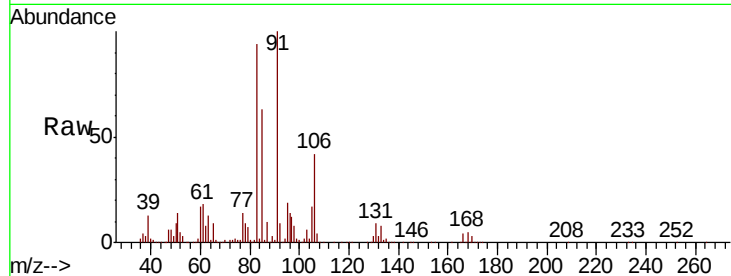
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 8.239 ppbv  
 RT: 13.78 min Scan# 3418  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

| Tot Ion   | 83    | Resp  | 2037723 |
|-----------|-------|-------|---------|
| Ion Ratio | Lower | Upper |         |
| 83        | 100   |       |         |
| 131       | 9.6   | 4.8   | 14.4    |
| 85        | 65.4  | 32.5  | 97.4    |

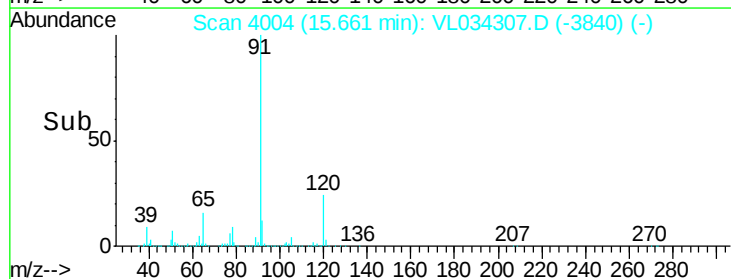
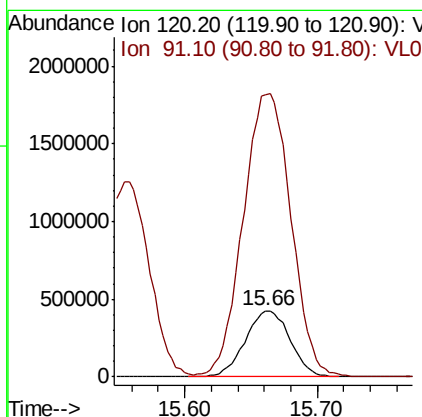
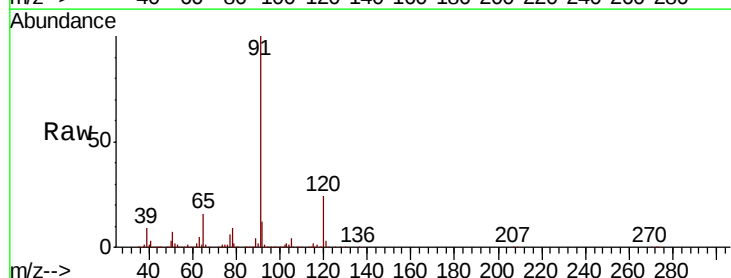
Manual Integrations  
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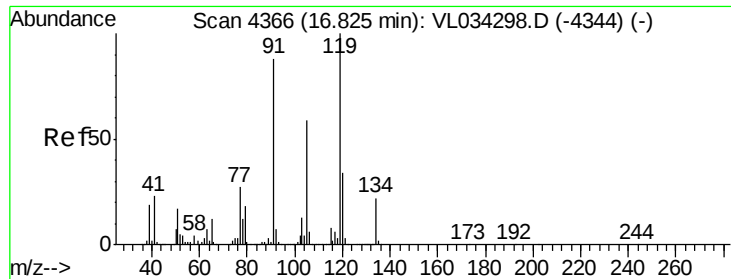
MMDadoda  
 10/18/2019 3:04:31 PM



#64  
 n-propylbenzene  
 Concen: 9.549 ppbv  
 RT: 15.66 min Scan# 4004  
 Delta R.T. 0.03 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

| Tgt Ion   | 120   | Resp  | 995634 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 120       | 100   |       |        |
| 91        | 458.9 | 374.9 | 562.3  |





#65

tert-Butylbenzene

Concen: 9.244 ppbv

RT: 16.85 min Scan# 4373

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion:119 Resp: 3328648

Ion Ratio Lower Upper

119 100

91 89.5 71.4 107.0

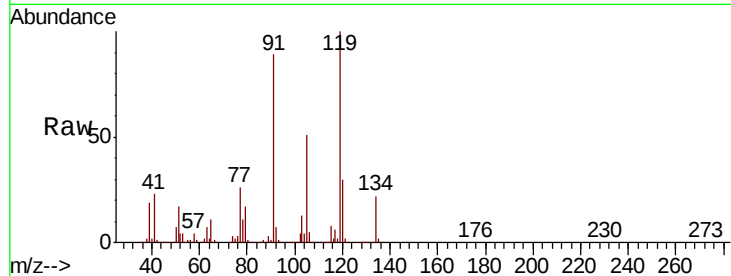
134 20.0 15.9 23.9

Manual Integrations

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MMDadoda

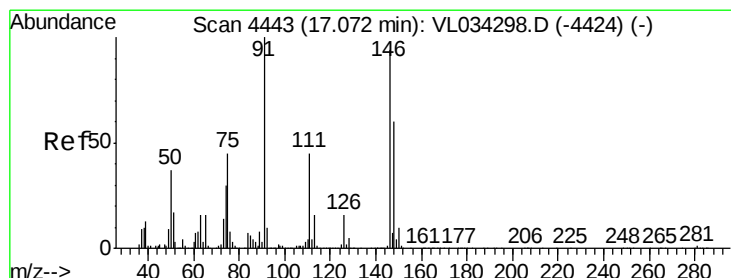
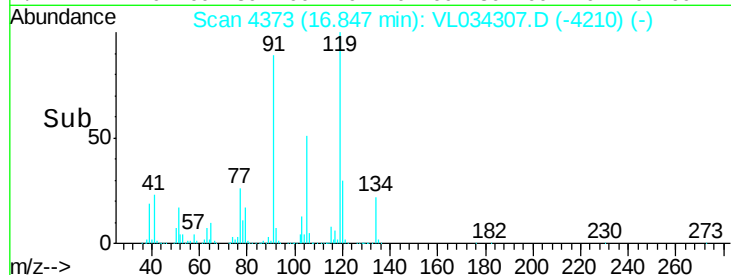
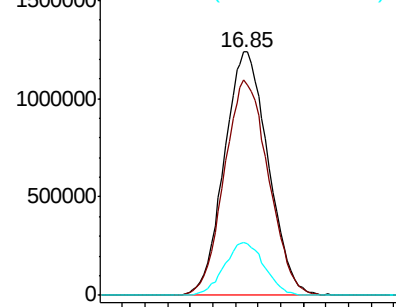
10/18/2019 3:04:31 PM



Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V



#66

Benzyl Chloride

Concen: 11.942 ppbv

RT: 17.09 min Scan# 4450

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

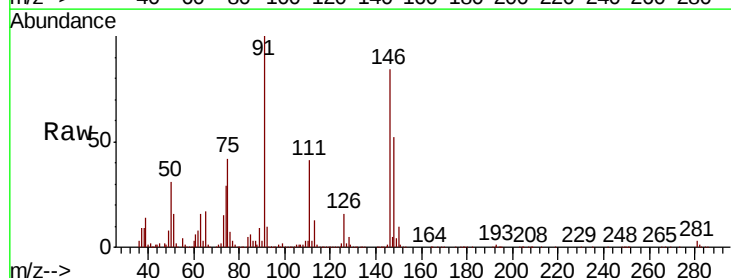
Tgt Ion: 91 Resp: 1698353

Ion Ratio Lower Upper

91 100

126 15.9 12.9 19.3

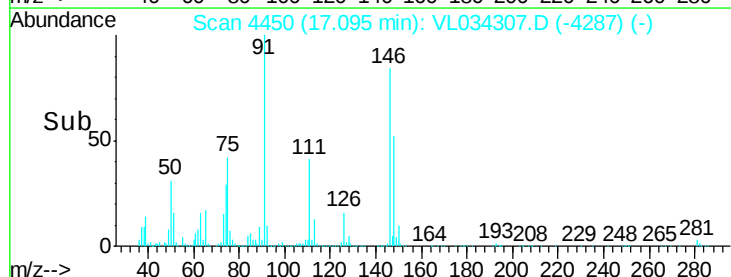
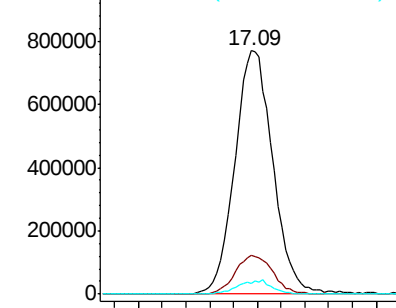
128 5.2 4.3 6.5

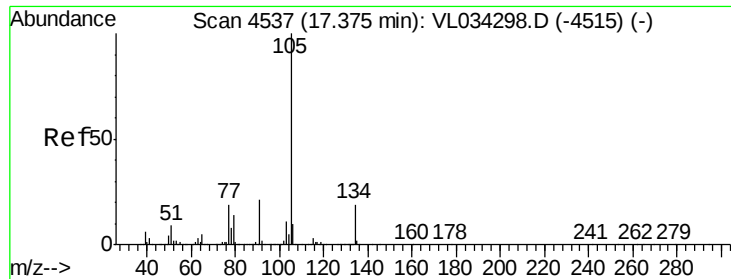


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#67

sec-Butylbenzene

Concen: 9.113 ppbv

RT: 17.40 min Scan# 4544

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion: 105 Resp: 4618107

Ion Ratio Lower Upper

105 100

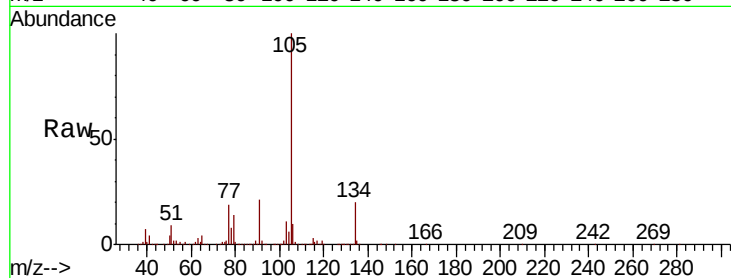
134 19.3 15.4 23.0

Manual Integrations

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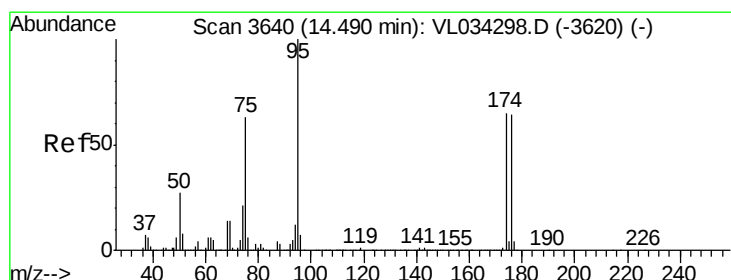
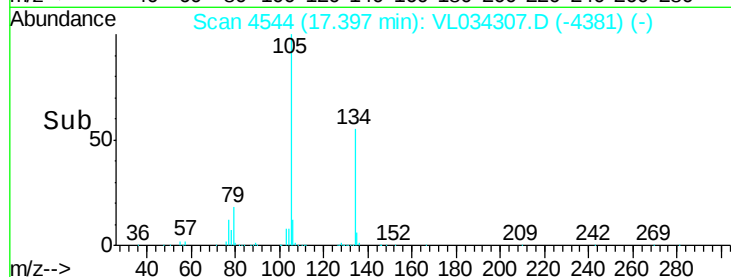
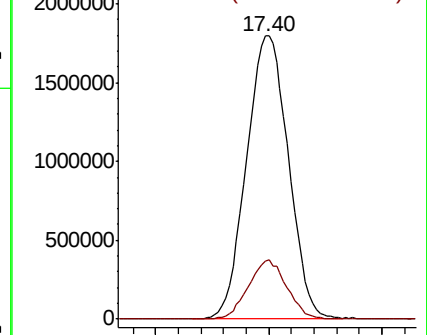
MMDadoda

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.302 ppbv

RT: 14.52 min Scan# 3648

Delta R.T. 0.03 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

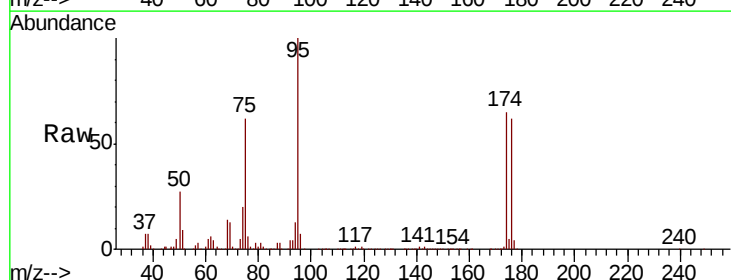
Tgt Ion: 95 Resp: 2010490

Ion Ratio Lower Upper

95 100

174 66.7 52.6 78.8

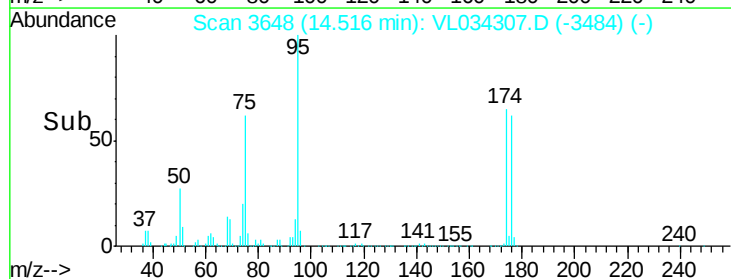
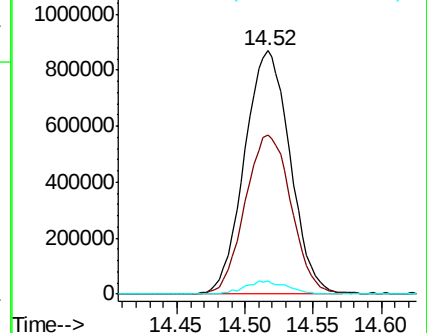
175 5.0 3.8 5.6

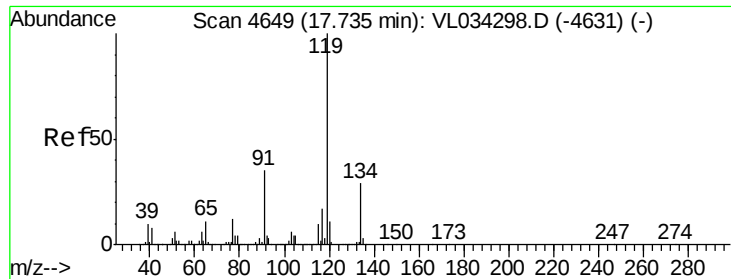


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





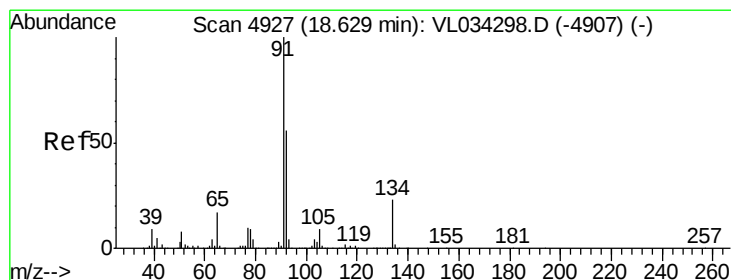
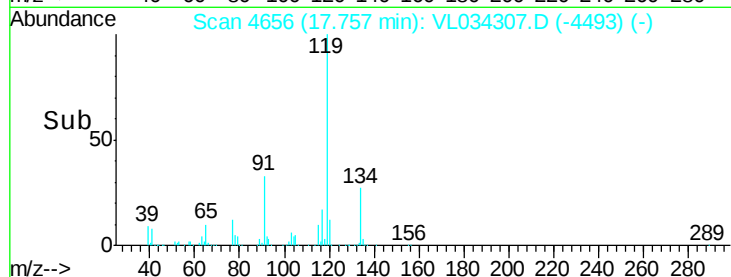
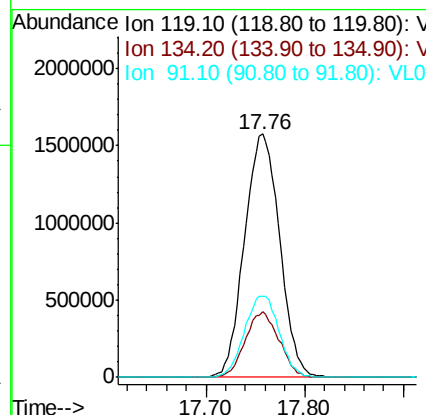
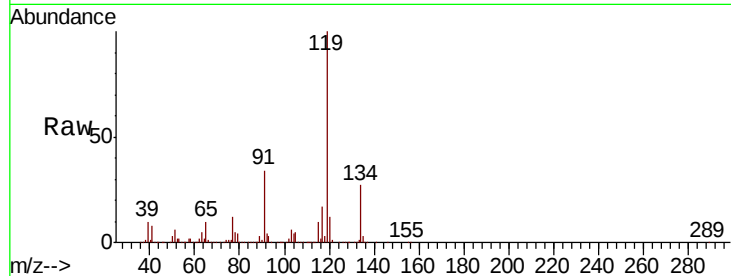
#69  
 p-Isopropyltoluene  
 Concen: 9.404 ppbv  
 RT: 17.76 min Scan# 4656  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 26.0  | 21.3  | 31.9  |
| 91      | 33.4  | 26.6  | 39.8  |

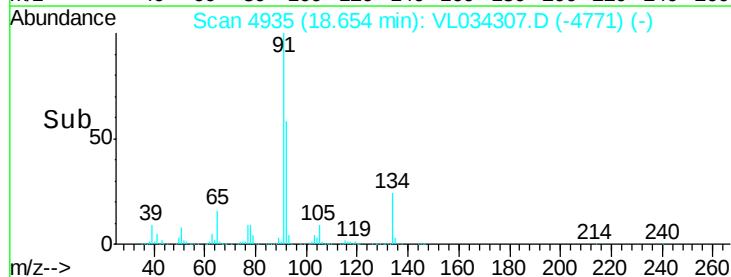
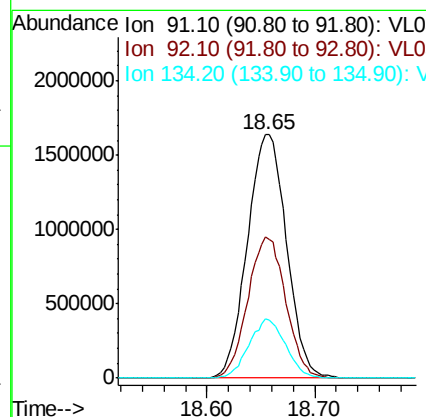
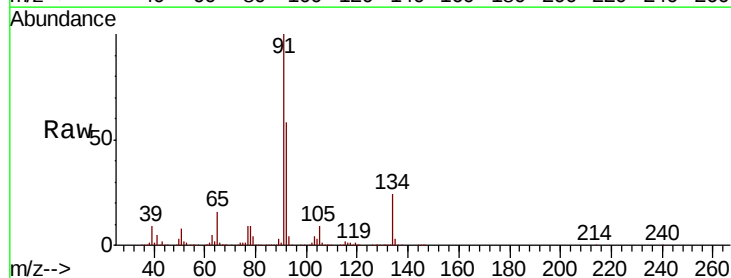
Manual Integrations  
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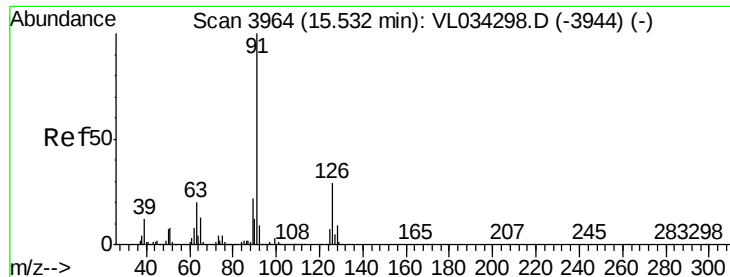
MMDadoda  
 10/18/2019 3:04:31 PM



#70  
 n-Butylbenzene  
 Concen: 9.171 ppbv  
 RT: 18.65 min Scan# 4935  
 Delta R.T. 0.03 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 56.3  | 44.5  | 66.7  |
| 134     | 22.8  | 18.2  | 27.2  |





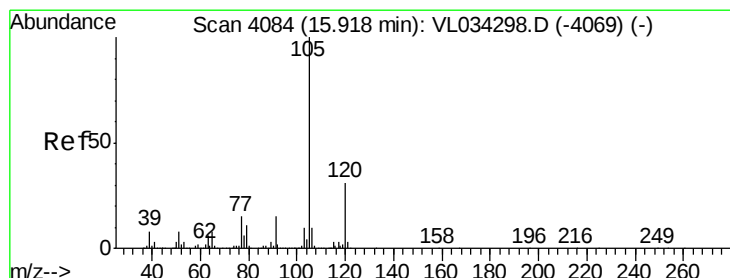
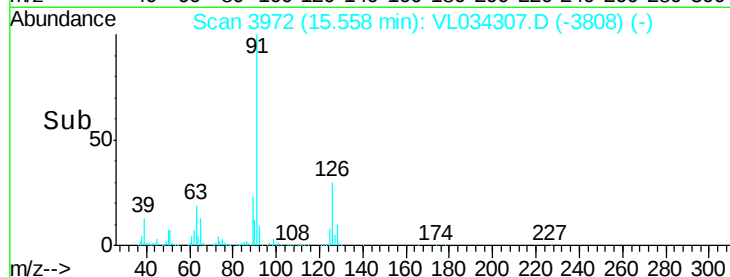
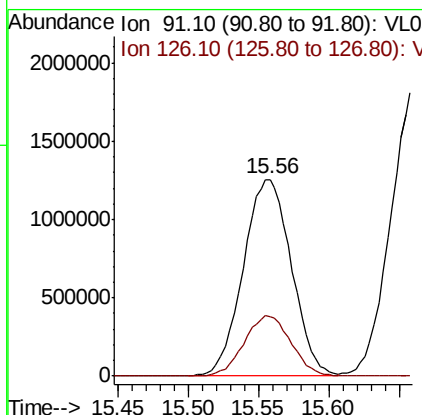
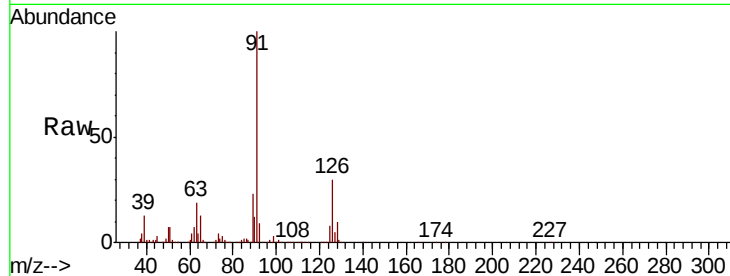
#71  
2-Chlorotoluene  
Concen: 9.459 ppbv  
RT: 15.56 min Scan# 3972  
Delta R.T. 0.03 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL1016ABS01

Tot Ion: 91 Resp: 2979894  
Ion Ratio Lower Upper  
91 100  
126 30.1 11.9 47.5

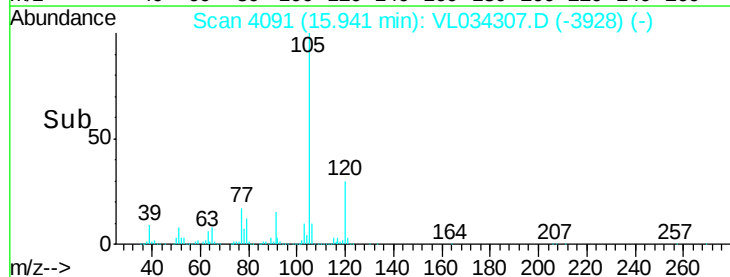
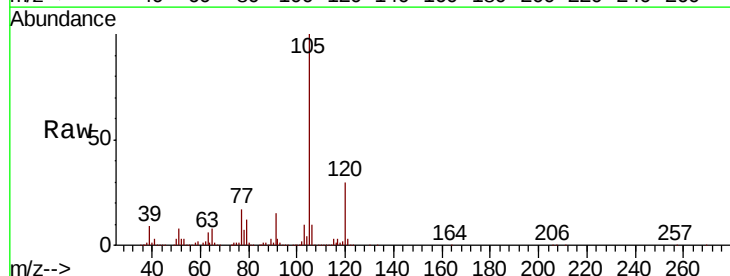
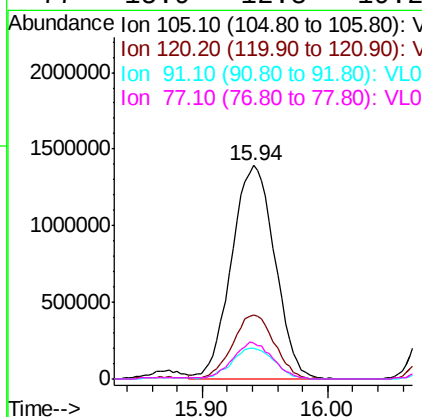
Manual Integrations  
APPROVED

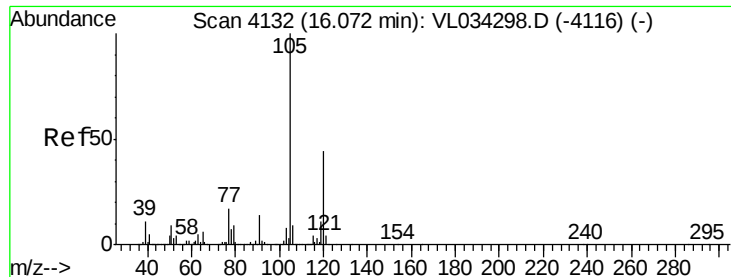
MMDadoda  
10/18/2019 3:04:31 PM



#72  
4-Ethyltoluene  
Concen: 9.643 ppbv  
RT: 15.94 min Scan# 4091  
Delta R.T. 0.02 min  
Lab File: VL034307.D  
Acq: 16 Oct 2019 20:46

Tgt Ion:105 Resp: 3336099  
Ion Ratio Lower Upper  
105 100  
120 29.2 23.8 35.8  
91 14.2 11.2 16.8  
77 15.9 12.8 19.2





#73

1,3,5-Trimethylbenzene

Concen: 9.328 ppbv

RT: 16.10 min Scan# 4140

Delta R.T. 0.03 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion:105 Resp: 3197549

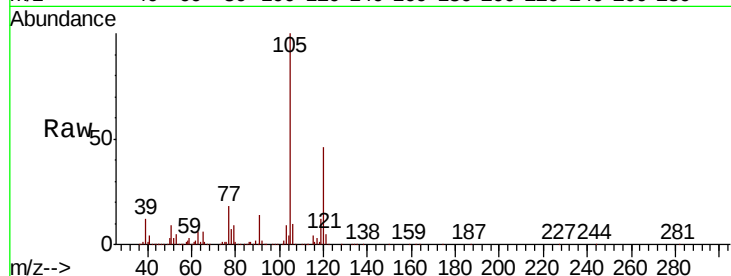
Ion Ratio Lower Upper

105 100

120 46.0 35.2 52.8

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.10

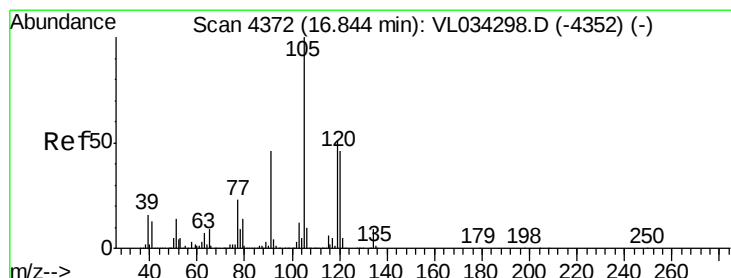
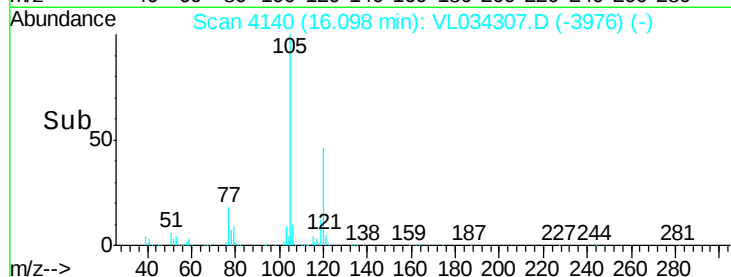
1500000

1000000

500000

0

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 9.272 ppbv

RT: 16.87 min Scan# 4380

Delta R.T. 0.03 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Tgt Ion:105 Resp: 3314545

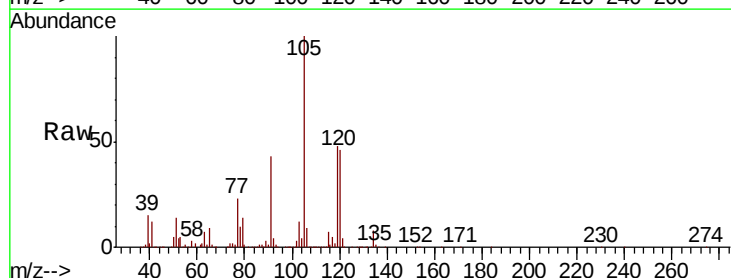
Ion Ratio Lower Upper

105 100

120 45.5 37.0 55.6

91 42.7 38.2 57.2

77 22.5 19.0 28.4



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

2000000

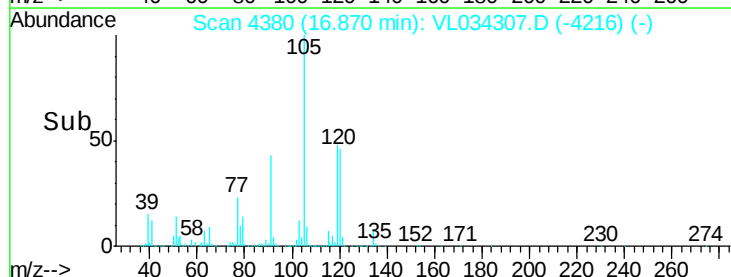
1500000

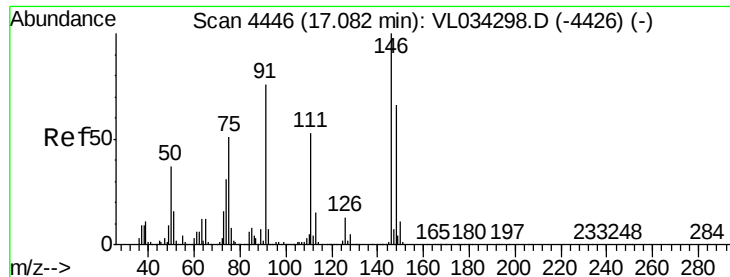
1000000

500000

0

Time-->





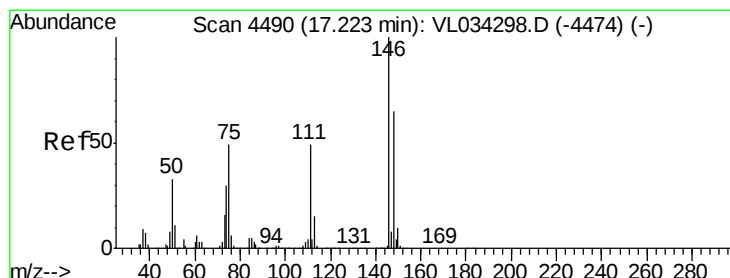
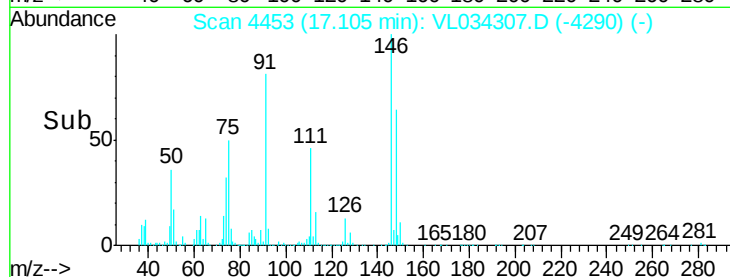
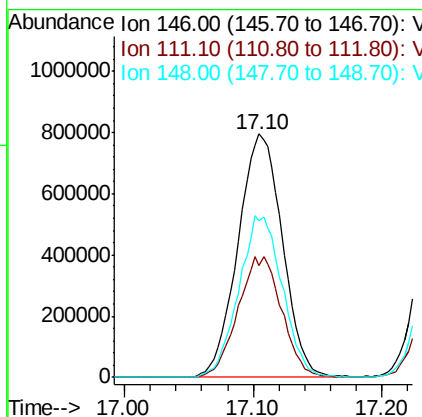
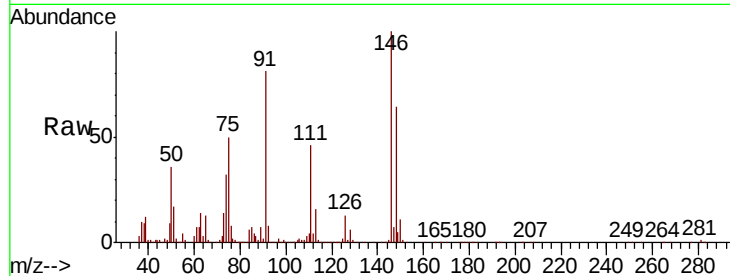
#75  
 1,3-Dichlorobenzene  
 Concen: 8.839 ppbv  
 RT: 17.10 min Scan# 4453  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 49.3  | 24.5  | 73.5  |
| 148     | 65.6  | 32.3  | 96.8  |

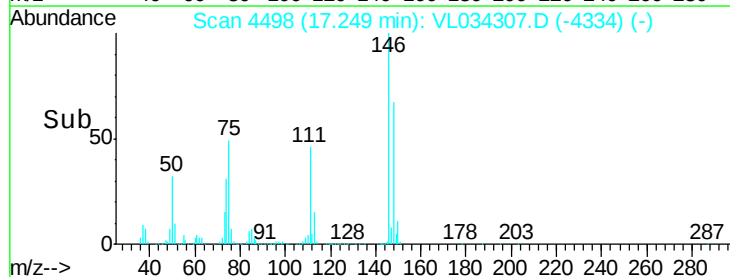
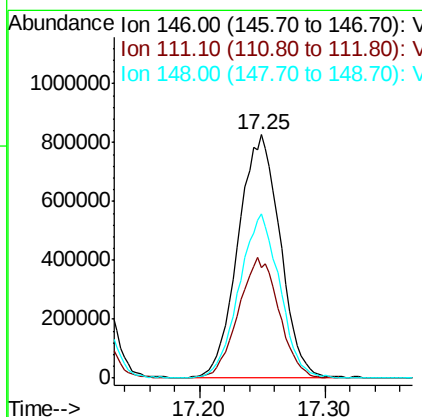
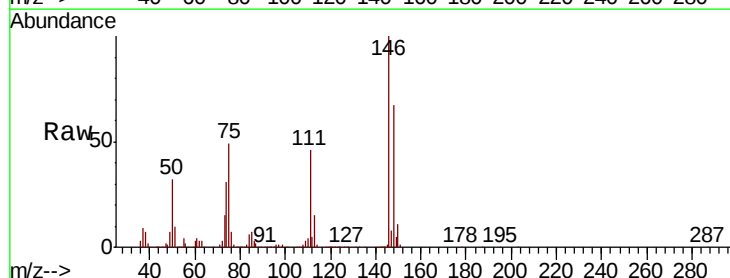
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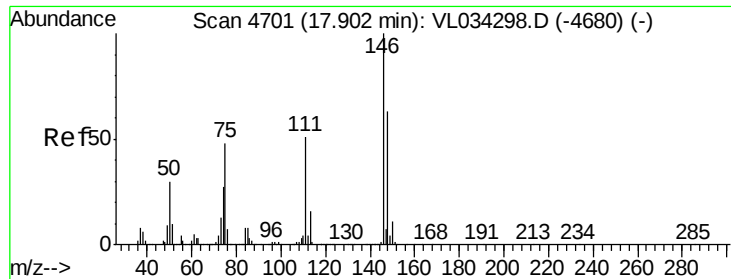
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#76  
 1,4-Dichlorobenzene  
 Concen: 9.112 ppbv  
 RT: 17.25 min Scan# 4498  
 Delta R.T. 0.03 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 48.7  | 23.9  | 71.7  |
| 148     | 65.6  | 33.1  | 99.2  |





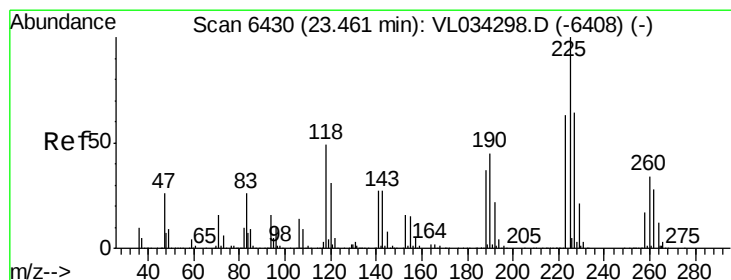
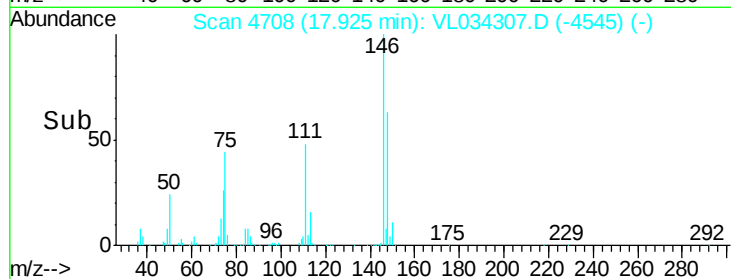
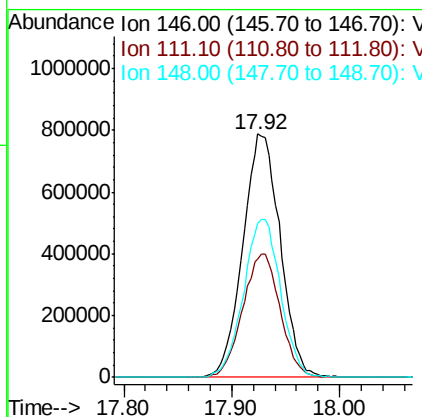
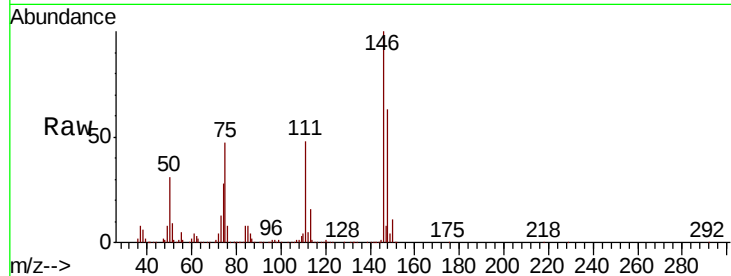
#77  
 1,2-Dichlorobenzene  
 Concen: 9.018 ppbv  
 RT: 17.92 min Scan# 4708  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

Tot Ion:146 Resp: 1897616  
 Ion Ratio Lower Upper  
 146 100  
 111 50.9 25.1 75.3  
 148 64.6 32.3 96.8

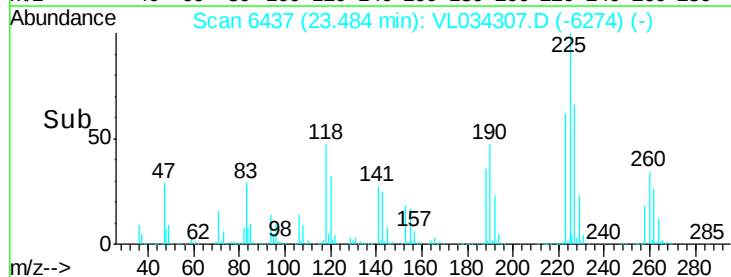
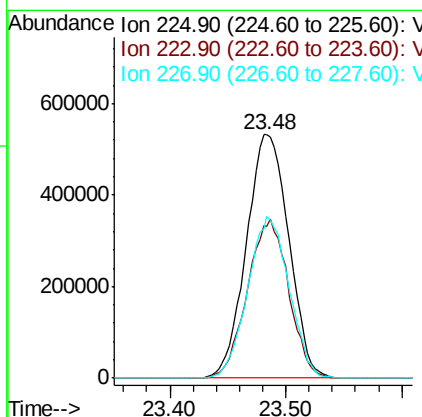
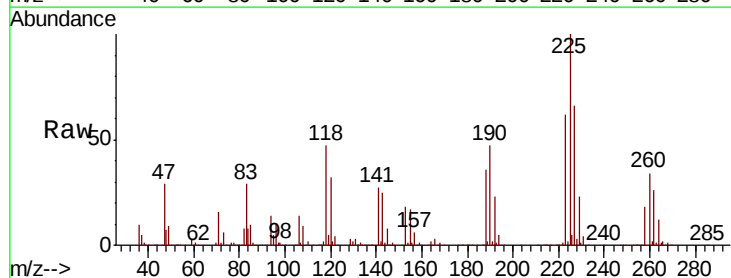
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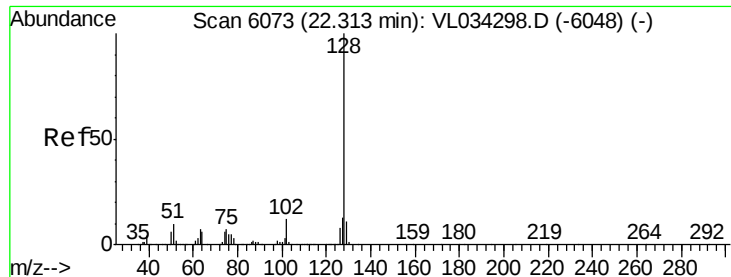
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 7.775 ppbv  
 RT: 23.48 min Scan# 6437  
 Delta R.T. 0.02 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Tgt Ion:225 Resp: 1353293  
 Ion Ratio Lower Upper  
 225 100  
 223 63.4 50.8 76.2  
 227 64.4 51.5 77.3





#79

Naphthalene

Concen: 10.825 ppbv

RT: 22.34 min Scan# 6080

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

Instrument :

MSVOA\_L

ClientSampleId :

VL1016ABS01

Tot Ion:128 Resp: 2826779

Ion Ratio Lower Upper

128 100

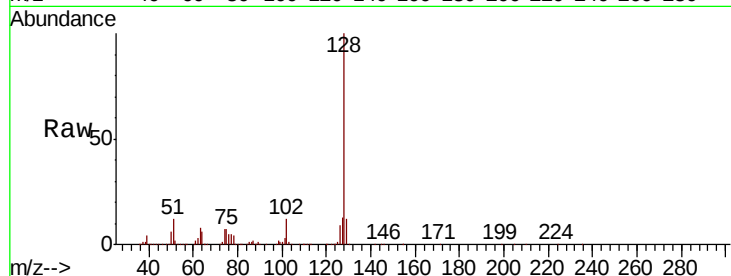
127 12.8 10.2 15.4

129 11.9 8.9 13.3

Manual Integrations  
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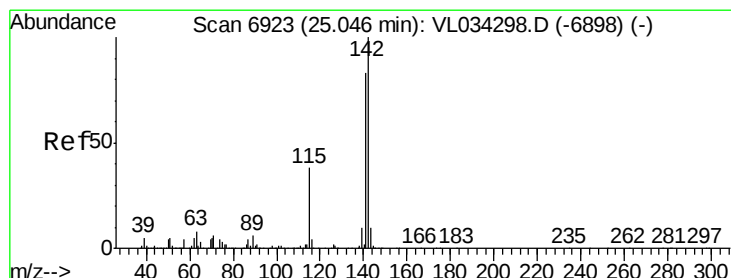
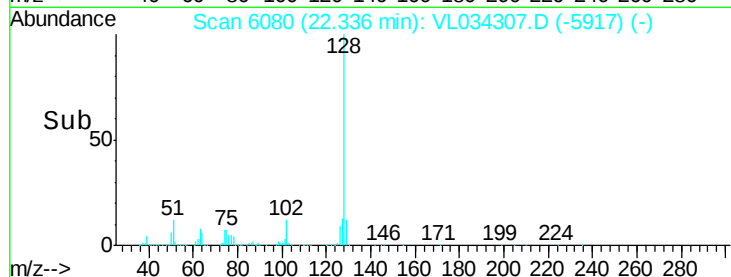
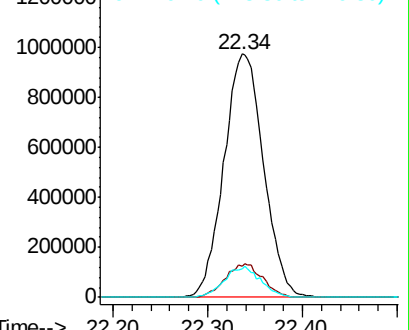
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Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 12.725 ppbv

RT: 25.07 min Scan# 6929

Delta R.T. 0.02 min

Lab File: VL034307.D

Acq: 16 Oct 2019 20:46

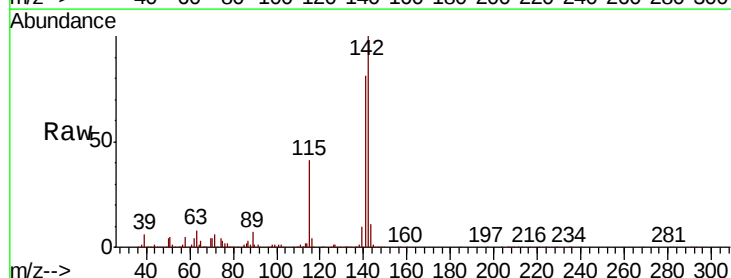
Tgt Ion:142 Resp: 960506

Ion Ratio Lower Upper

142 100

141 84.3 65.7 98.5

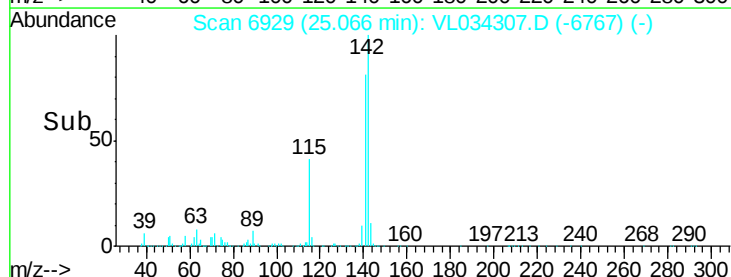
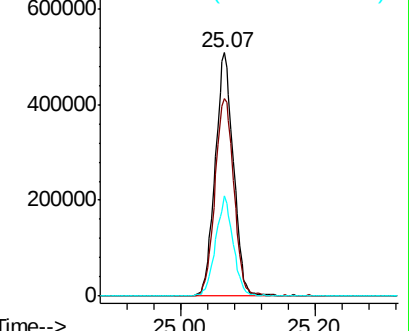
115 39.2 30.9 46.3

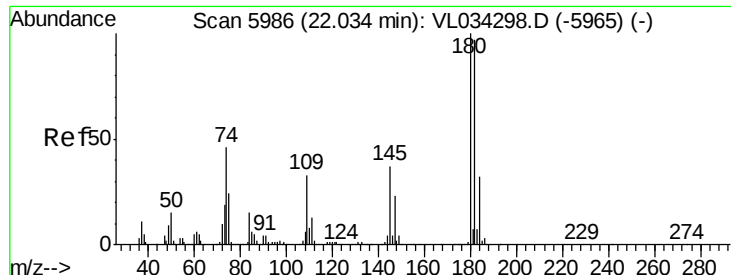


Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V





#81  
 1,2,4-Trichlorobenzene  
 Concen: 10.143 ppbv  
 RT: 22.06 min Scan# 5994  
 Delta R.T. 0.03 min  
 Lab File: VL034307.D  
 Acq: 16 Oct 2019 20:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL1016ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.4  | 77.8  | 116.8 |
| 184     | 30.5  | 25.4  | 38.2  |

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