

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL030819\  
 Data File : VL033256.D  
 Acq On : 8 Mar 2019 12:46  
 Operator : SY/AP  
 Sample : VSTDICCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

Manual Integrations  
 APPROVED

Quant Time: Mar 08 17:13:42 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030819AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Mar 0  
 QLast Update : Wed Mar 06 08:43:44 2019  
 Response via : Initial Calibration

MMDadoda  
 3/11/2019 10:10:06 AM

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 903893   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2374339  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 2498637m | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.58  | 95    | 1911722  | 10.08    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.80% |

## Target Compounds

|                                |      |     |         |        |      | Ovalue |
|--------------------------------|------|-----|---------|--------|------|--------|
| 2) Dichlorodifluoromethane     | 3.07 | 85  | 1706359 | 13.364 | ppbv | 99     |
| 3) Chlorodifluoromethane       | 3.01 | 51  | 1016359 | 9.825  | ppbv | 100    |
| 4) Chloromethane               | 3.17 | 50  | 534616  | 10.039 | ppbv | 100    |
| 5) Vinyl Chloride              | 3.29 | 62  | 526726  | 8.821  | ppbv | 99     |
| 6) Bromomethane                | 3.51 | 94  | 325767  | 9.540  | ppbv | 98     |
| 7) Chloroethane                | 3.60 | 64  | 193540  | 9.700  | ppbv | 99     |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85  | 1284204 | 10.174 | ppbv | 99     |
| 9) Propene                     | 3.04 | 41  | 452967  | 9.826  | ppbv | 100    |
| 10) Heptane                    | 8.25 | 43  | 1358572 | 10.832 | ppbv | 100    |
| 11) Trichlorofluoromethane     | 4.00 | 101 | 1439794 | 9.603  | ppbv | 100    |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101 | 952443  | 9.799  | ppbv | 100    |
| 13) Ethanol                    | 3.64 | 45  | 88491   | 6.420  | ppbv | 98     |
| 14) Bromoethene                | 3.79 | 108 | 402696  | 9.834  | ppbv | 98     |
| 15) Acetone                    | 3.90 | 43  | 933108  | 8.022  | ppbv | 100    |
| 16) 1,3-Butadiene              | 3.36 | 39  | 477982  | 10.290 | ppbv | 99     |
| 17) tert-Butyl alcohol         | 4.35 | 59  | 169534  | 8.943  | ppbv | 99     |
| 18) 1,1-Dichloroethene         | 4.35 | 96  | 425542  | 9.833  | ppbv | 99     |
| 19) Isopropyl Alcohol          | 4.02 | 45  | 595045  | 8.605  | ppbv | 99     |
| 20) Methylene Chloride         | 4.41 | 84  | 368627  | 8.362  | ppbv | 98     |
| 21) Allyl Chloride             | 4.48 | 41  | 660452  | 10.174 | ppbv | 100    |
| 22) trans-1,2-Dichloroethene   | 4.96 | 96  | 425697  | 9.636  | ppbv | 98     |
| 23) Vinyl Acetate              | 5.15 | 43  | 1578288 | 9.198  | ppbv | 99     |
| 24) 1,1-Dichloroethane         | 5.09 | 63  | 1096923 | 8.967  | ppbv | 100    |
| 25) Ethyl Acetate              | 5.77 | 43  | 1915645 | 8.983  | ppbv | 99     |
| 26) Hexane                     | 5.78 | 57  | 861718  | 8.644  | ppbv | 98     |
| 27) Carbon Disulfide           | 4.62 | 76  | 1088010 | 11.322 | ppbv | 99     |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73  | 1261148 | 9.173  | ppbv | 100    |
| 29) Chloroform                 | 5.85 | 83  | 1419574 | 9.156  | ppbv | 100    |
| 30) Cyclohexane                | 7.25 | 84  | 827536  | 11.087 | ppbv | 99     |
| 31) cis-1,2-Dichloroethene     | 5.64 | 61  | 906441  | 9.414  | ppbv | 98     |
| 32) 1,1,1-Trichloroethane      | 6.62 | 97  | 1439648 | 9.572  | ppbv | 99     |
| 34) 2-Butanone                 | 5.33 | 43  | 1294872 | 7.871  | ppbv | 99     |
| 35) Carbon Tetrachloride       | 7.14 | 117 | 1565535 | 8.717  | ppbv | 96     |
| 36) Benzene                    | 7.00 | 78  | 1789006 | 8.028  | ppbv | 100    |
| 37) 1,2-Dichloroethane         | 6.41 | 62  | 1121999 | 8.089  | ppbv | 100    |
| 38) Trichloroethene            | 7.96 | 130 | 771043  | 9.162  | ppbv | 97     |
| 39) 1,2-Dichloropropane        | 7.73 | 63  | 792370  | 9.107  | ppbv | 98     |
| 40) 1,4-Dioxane                | 7.95 | 88  | 277575  | 8.599  | ppbv | # 96   |
| 41) Tetrahydrofuran            | 6.15 | 42  | 738087  | 8.166  | ppbv | 99     |
| 42) Bromodichloromethane       | 7.91 | 83  | 1803696 | 9.196  | ppbv | 98     |
| 43) Methyl Methacrylate        | 8.13 | 69  | 858574  | 9.524  | ppbv | 99     |

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

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

Manual Integrations  
 APPROVED

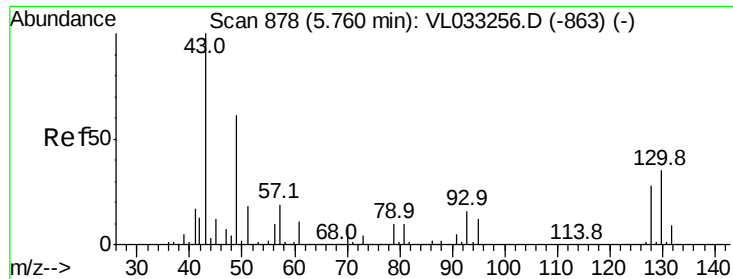
Quant Time: Mar 08 17:13:42 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030819AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Mar 0  
 QLast Update : Wed Mar 06 08:43:44 2019  
 Response via : Initial Calibration

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 3/11/2019 10:10:06 AM

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.99  | 57   | 3492774  | 8.863  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.41  | 75   | 1125152  | 10.314 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.83  | 75   | 1290828  | 9.920  | ppbv   | 96       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 831865   | 8.884  | ppbv   | 94       |
| 48) Dibromochloromethane      | 10.45 | 129  | 1468027  | 9.679  | ppbv   | 99       |
| 49) Bromoform                 | 13.20 | 173  | 1199002  | 9.899  | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.87  | 43   | 2160477  | 8.879  | ppbv   | 99       |
| 51) 2-Hexanone                | 10.27 | 43   | 1684178  | 9.253  | ppbv   | 100      |
| 52) Tetrachloroethene         | 11.37 | 164  | 729937   | 8.789  | ppbv   | 98       |
| 53) Toluene                   | 9.95  | 91   | 2394563  | 9.294  | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.76 | 107  | 1301571  | 9.150  | ppbv   | 100      |
| 56) 1,1,1,2-Tetrachloroethane | 12.28 | 131  | 994737   | 9.171  | ppbv   | 100      |
| 57) Chlorobenzene             | 12.30 | 112  | 1679628  | 8.634  | ppbv   | 99       |
| 58) Ethyl Benzene             | 12.86 | 91   | 3237277  | 9.367  | ppbv   | 100      |
| 59) m/p-Xylene                | 13.15 | 91   | 5395161m | 18.319 | ppbv   |          |
| 60) o-Xylene                  | 13.85 | 91   | 2594798  | 9.240  | ppbv   | 99       |
| 61) Styrene                   | 13.68 | 104  | 1899126  | 9.617  | ppbv   | 100      |
| 62) Isopropylbenzene          | 14.82 | 105  | 3618150  | 9.242  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.84 | 83   | 1673796  | 8.377  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.72 | 120  | 910951   | 9.387  | ppbv   | 100      |
| 65) tert-Butylbenzene         | 16.90 | 119  | 3069933  | 9.185  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.15 | 91   | 1546354  | 11.961 | ppbv   | 99       |
| 67) sec-Butylbenzene          | 17.46 | 105  | 4427558  | 9.292  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.81 | 119  | 3672430  | 9.531  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.71 | 91   | 3974912  | 9.418  | ppbv   | 100      |
| 71) 2-Chlorotoluene           | 15.62 | 91   | 2768602  | 9.249  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 16.00 | 105  | 2963665  | 9.658  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.15 | 105  | 2807841  | 9.532  | ppbv   | 97       |
| 74) 1,2,4-Trimethylbenzene    | 16.92 | 105  | 2854759  | 9.220  | ppbv # | 94       |
| 75) 1,3-Dichlorobenzene       | 17.16 | 146  | 1652958  | 9.128  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.31 | 146  | 1655874  | 9.227  | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 17.98 | 146  | 1609184  | 9.154  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.54 | 225  | 1171855  | 9.419  | ppbv   | 99       |
| 79) Naphthalene               | 22.41 | 128  | 4191931  | 11.072 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.11 | 142  | 1673452  | 14.795 | ppbv   | 100      |
| 81) 1,2,4-Trichlorobenzene    | 22.14 | 180  | 1926730  | 10.128 | ppbv   | 100      |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

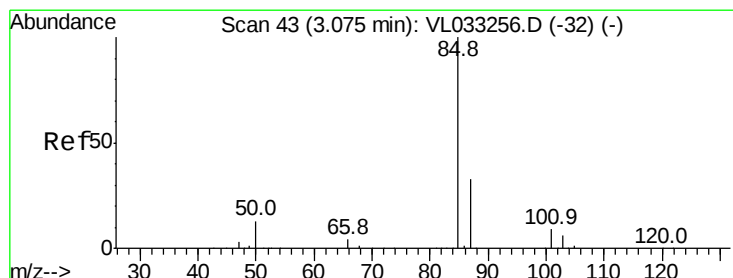
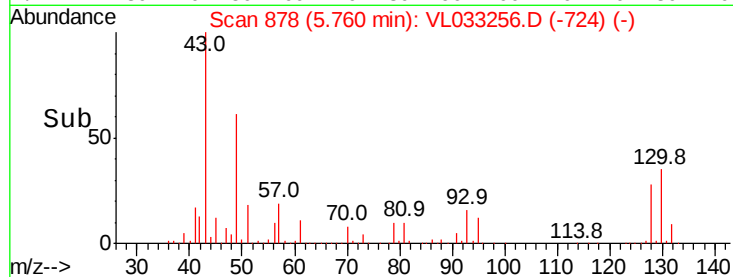
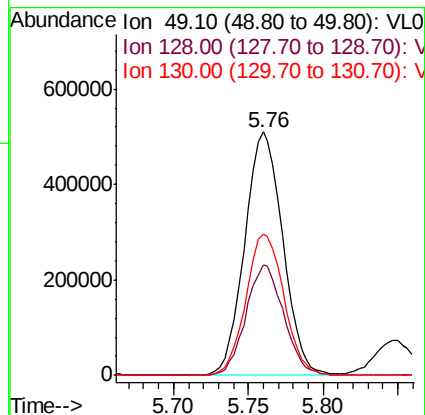
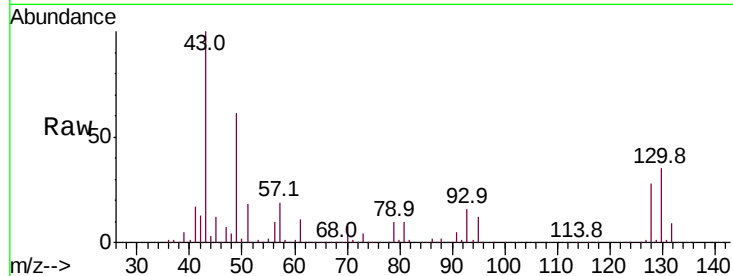
VSTDICCC010

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 49    | Resp: | 903893 |
| Ion      | Ratio | Lower | Upper  |
| 49       | 100   |       |        |
| 128      | 45.0  | 22.9  | 68.8   |
| 130      | 58.3  | 29.3  | 88.0   |

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#2

Dichlorodifluoromethane

Concen: 13.364 ppbv

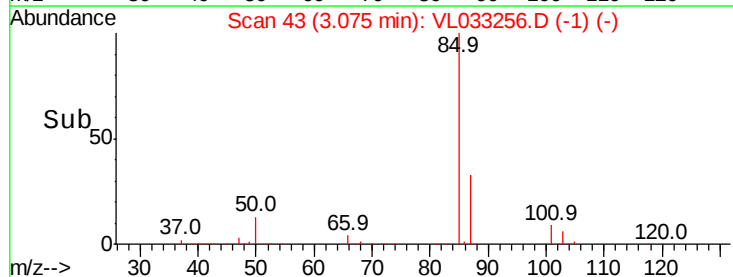
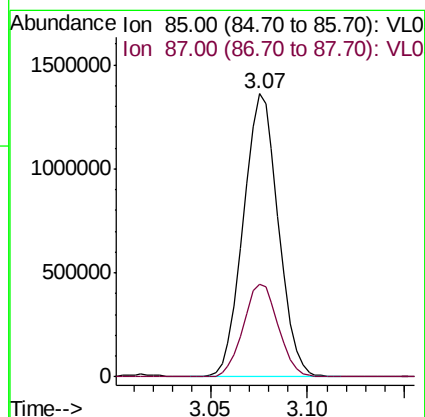
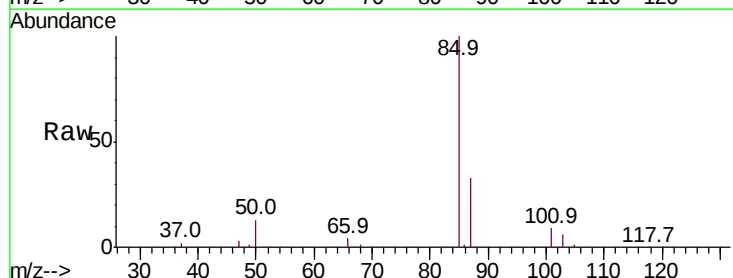
RT: 3.07 min Scan# 43

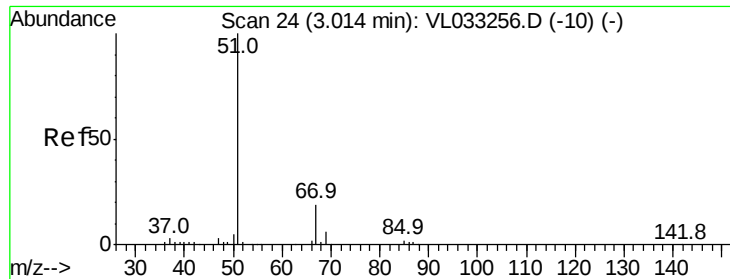
Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 85    | Resp: | 1706359 |
| Ion      | Ratio | Lower | Upper   |
| 85       | 100   |       |         |
| 87       | 32.8  | 26.7  | 40.1    |





#3

Chlorodifluoromethane

Concen: 9.825 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 51 Resp: 1016359

Ion Ratio Lower Upper

51 100

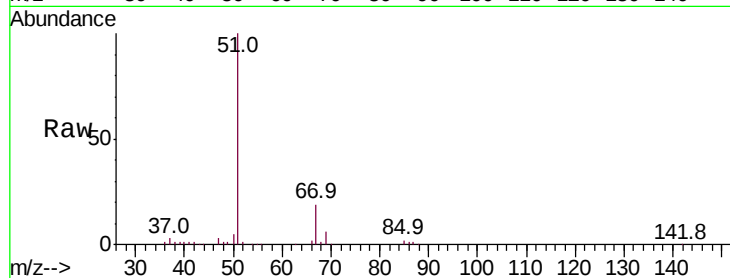
67 18.8 15.0 22.4

Manual Integrations

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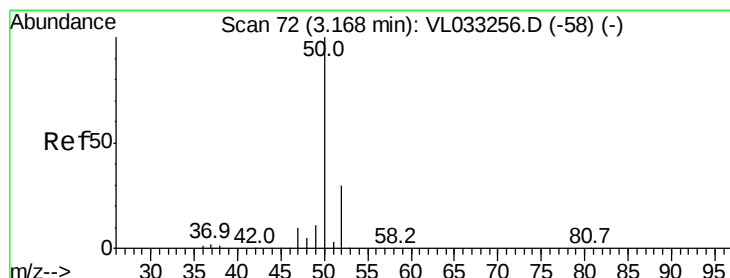
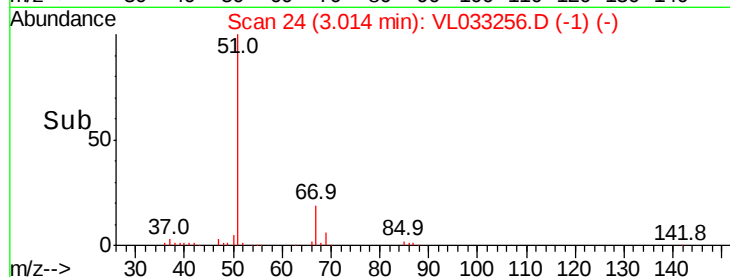
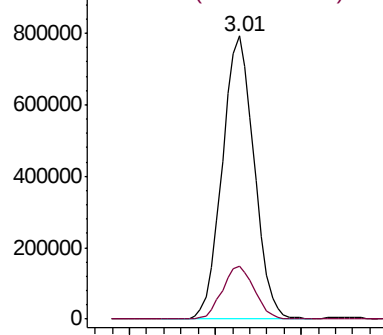
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 10.039 ppbv

RT: 3.17 min Scan# 72

Delta R.T. -0.01 min

Lab File: VL033256.D

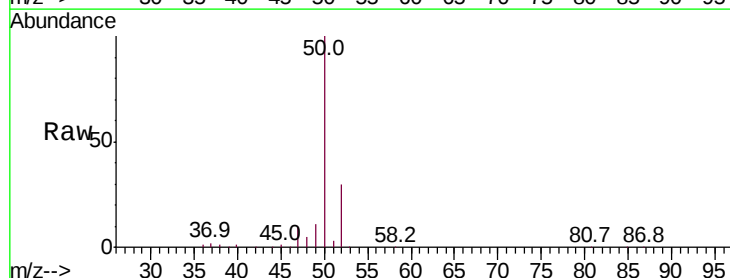
Acq: 8 Mar 2019 12:46

Tgt Ion: 50 Resp: 534616

Ion Ratio Lower Upper

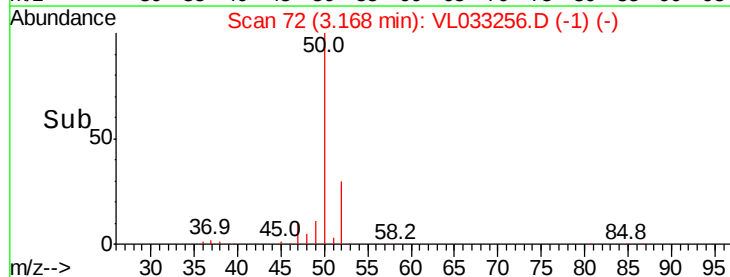
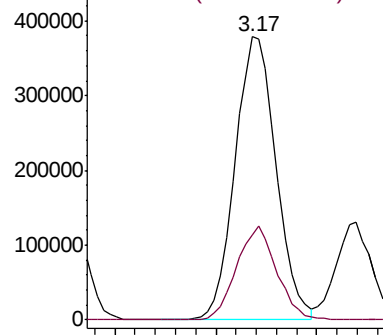
50 100

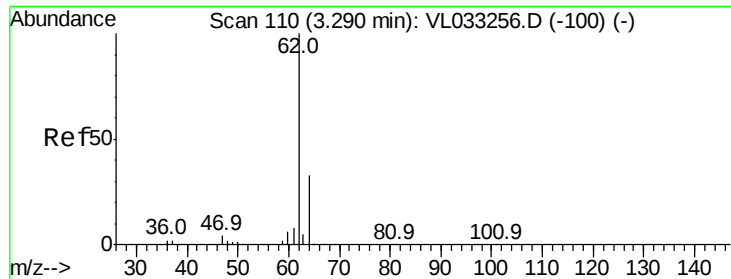
52 30.2 24.3 36.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 8.821 ppbv

RT: 3.29 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 62 Resp: 526726

Ion Ratio Lower Upper

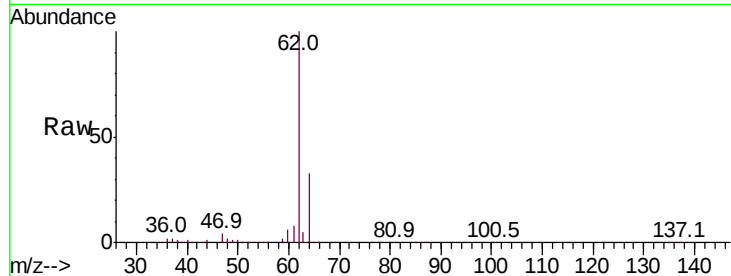
62 100

64 33.0 26.2 39.2

Manual Integrations  
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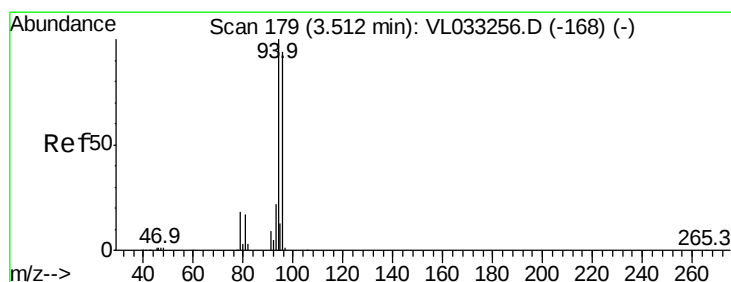
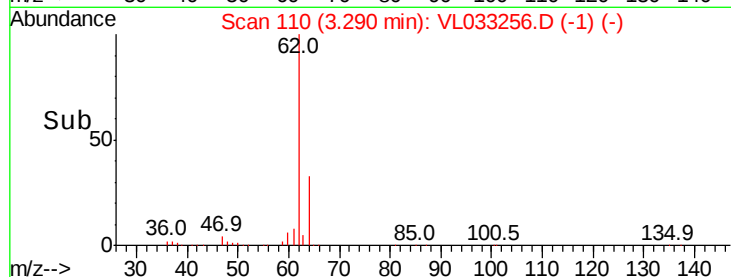
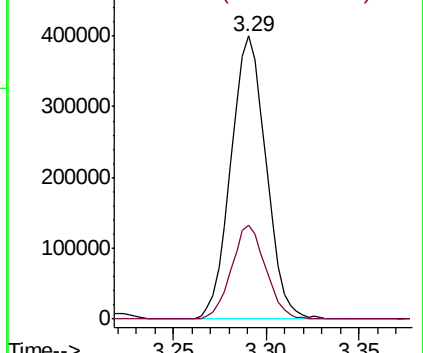
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Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 9.540 ppbv

RT: 3.51 min Scan# 179

Delta R.T. -0.00 min

Lab File: VL033256.D

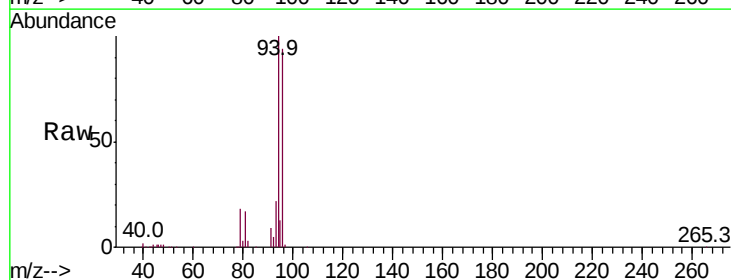
Acq: 8 Mar 2019 12:46

Tgt Ion: 94 Resp: 325767

Ion Ratio Lower Upper

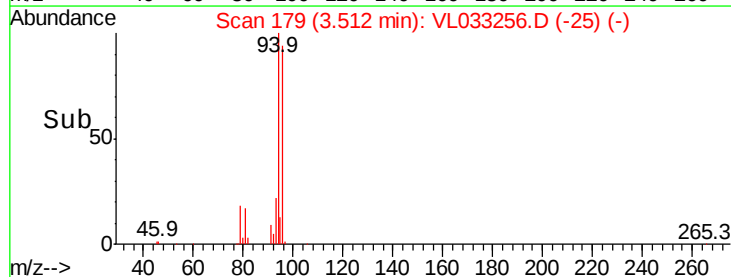
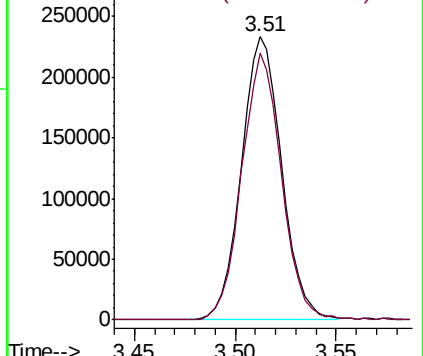
94 100

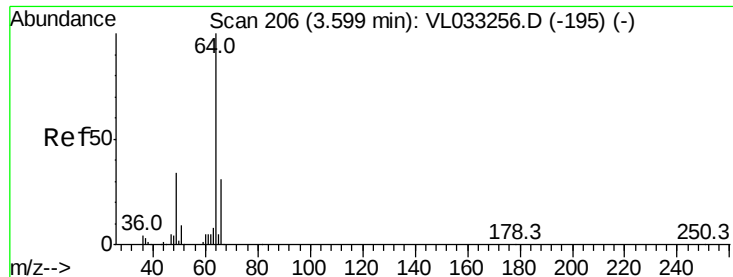
96 94.1 74.0 111.0



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#7

Chloroethane

Concen: 9.700 ppbv

RT: 3.60 min Scan# 206

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 64 Resp: 193540

Ion Ratio Lower Upper

64 100

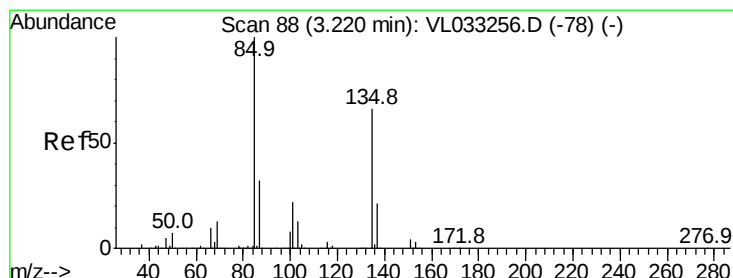
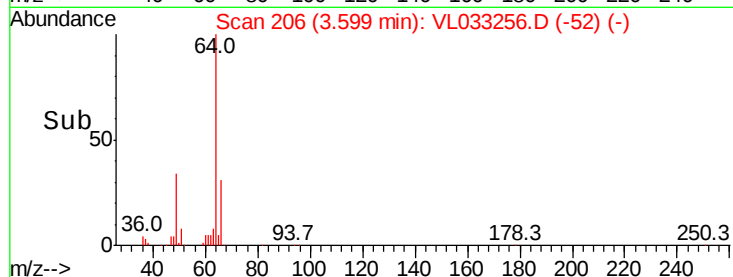
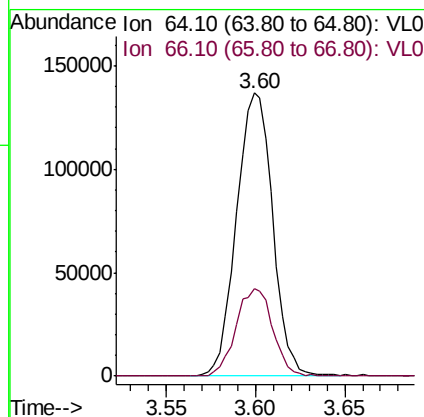
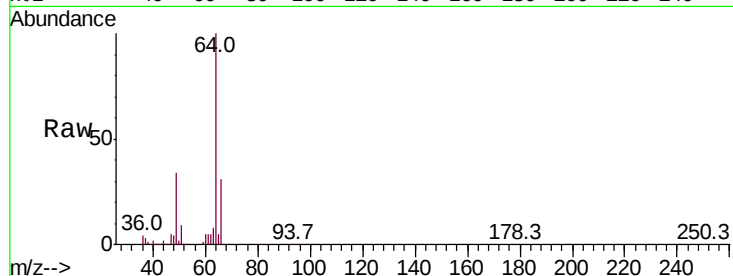
66 31.5 25.7 38.5

Manual Integrations

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#8

Dichlorotetrafluoroethane

Concen: 10.174 ppbv

RT: 3.22 min Scan# 88

Delta R.T. -0.00 min

Lab File: VL033256.D

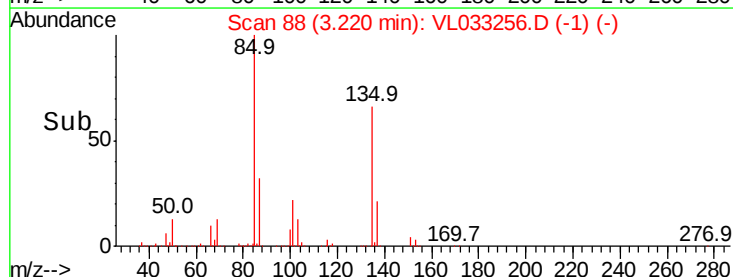
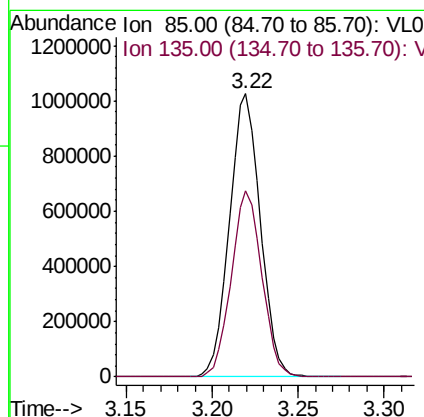
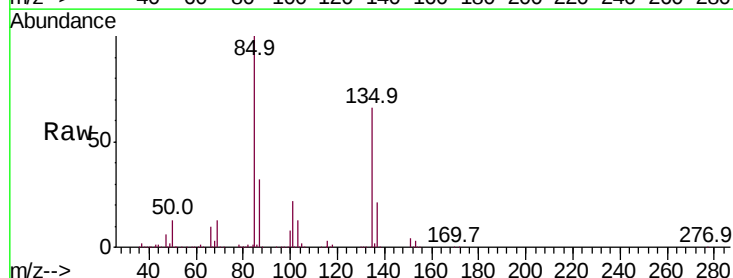
Acq: 8 Mar 2019 12:46

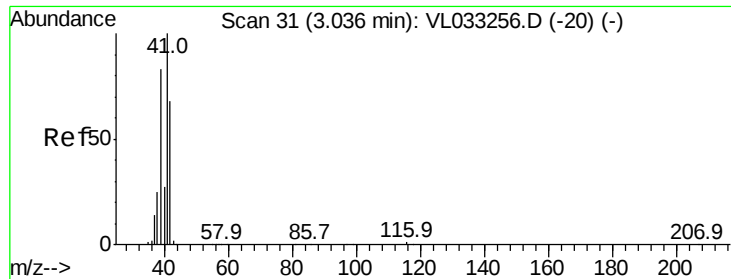
Tgt Ion: 85 Resp: 1284204

Ion Ratio Lower Upper

85 100

135 65.4 52.6 79.0





#9

Propene

Concen: 9.826 ppbv

RT: 3.04 min Scan# 31

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 41 Resp: 452967

Ion Ratio Lower Upper

41 100

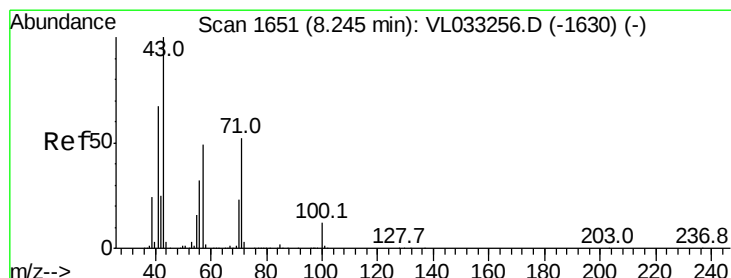
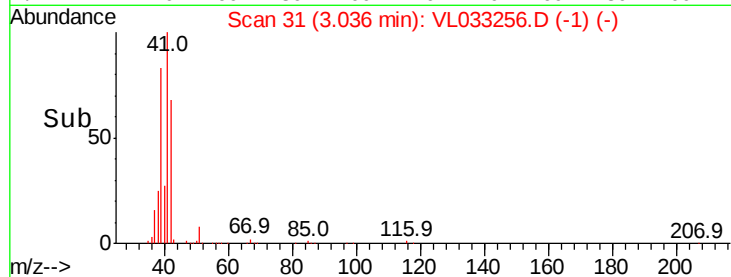
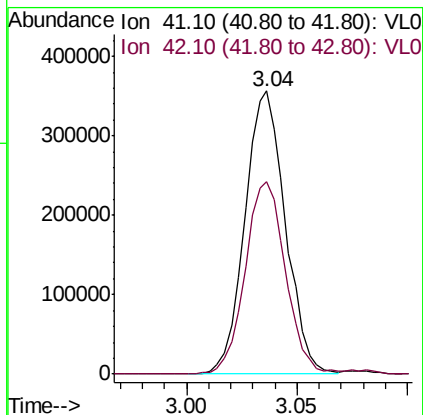
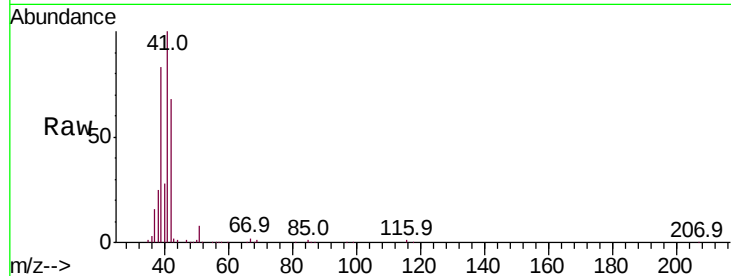
42 69.0 55.3 82.9

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#10

Heptane

Concen: 10.832 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. -0.00 min

Lab File: VL033256.D

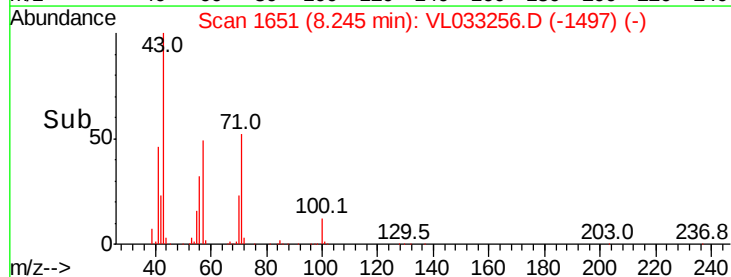
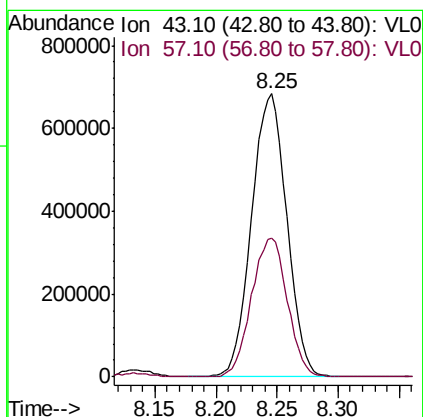
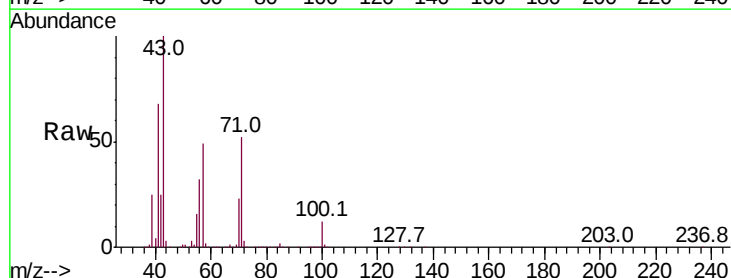
Acq: 8 Mar 2019 12:46

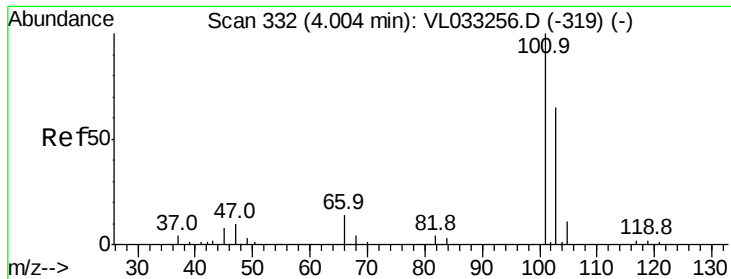
Tgt Ion: 43 Resp: 1358572

Ion Ratio Lower Upper

43 100

57 50.0 39.8 59.6





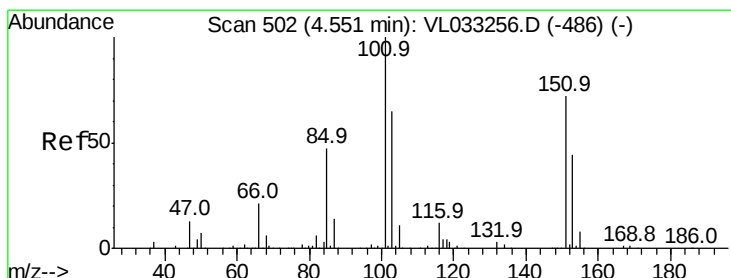
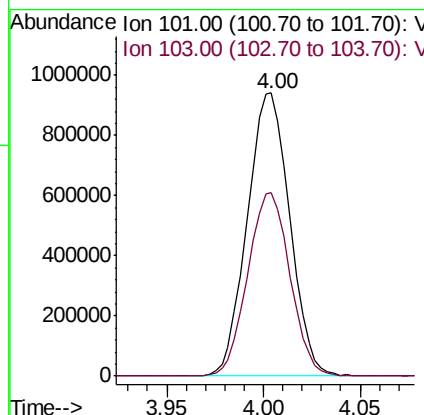
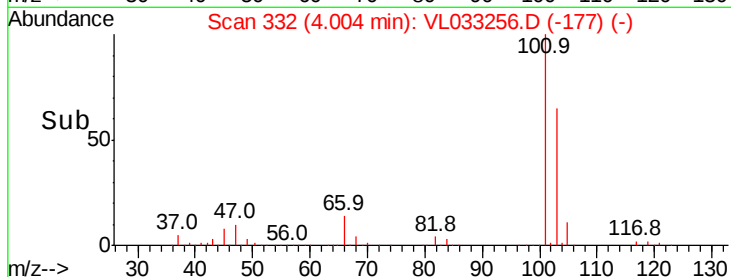
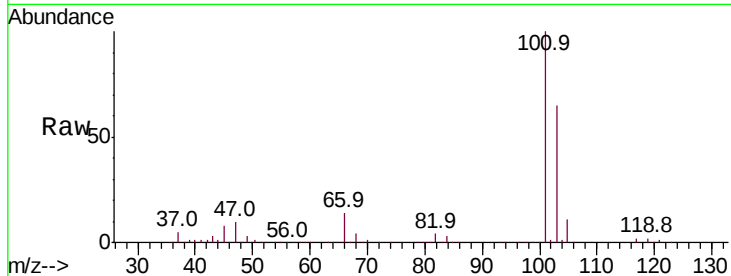
#11  
 Trichlorofluoromethane  
 Concen: 9.603 ppbv  
 RT: 4.00 min Scan# 332  
 Delta R.T. -0.00 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

Tot Ion:101 Resp: 1439794  
 Ion Ratio Lower Upper  
 101 100  
 103 64.9 51.7 77.5

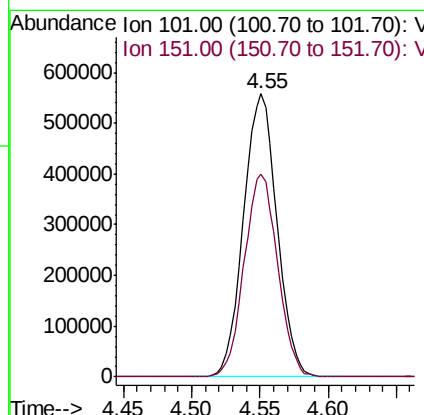
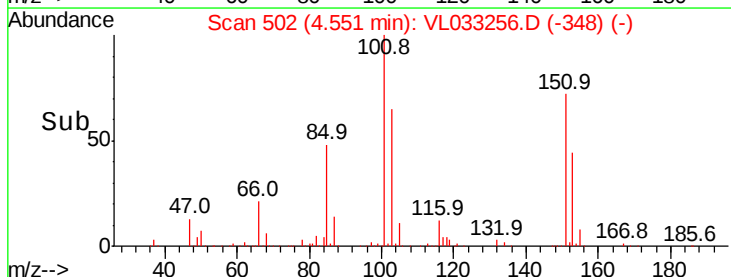
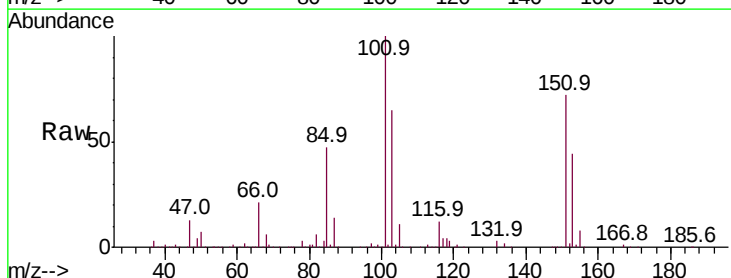
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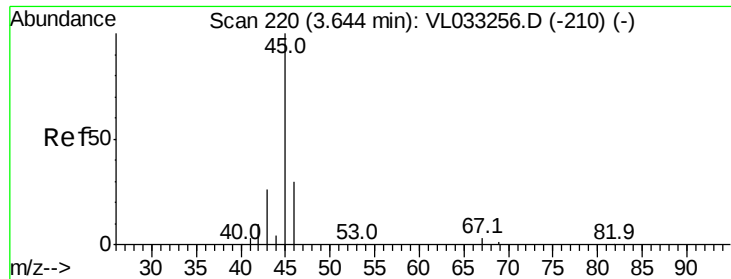
MMDadoda  
 3/11/2019 10:10:06 AM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 9.799 ppbv  
 RT: 4.55 min Scan# 502  
 Delta R.T. -0.00 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Tgt Ion:101 Resp: 952443  
 Ion Ratio Lower Upper  
 101 100  
 151 71.5 57.0 85.6





#13

Ethanol

Concen: 6.420 ppbv

RT: 3.64 min Scan# 220

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 45 Resp: 88491

Ion Ratio Lower Upper

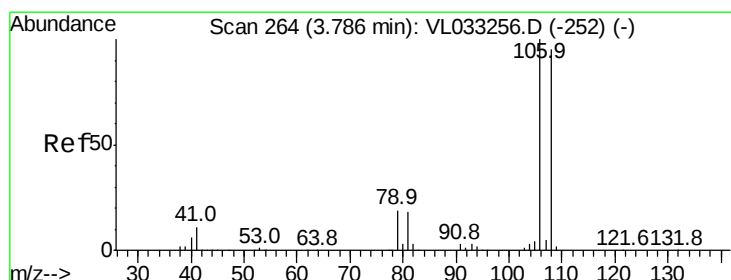
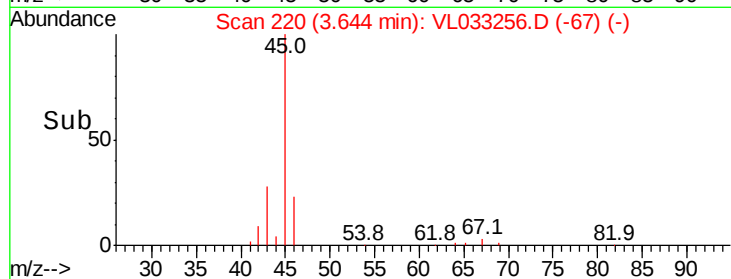
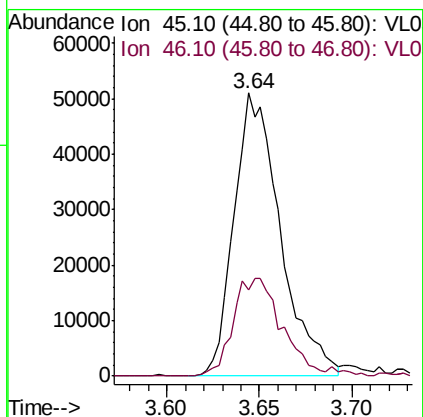
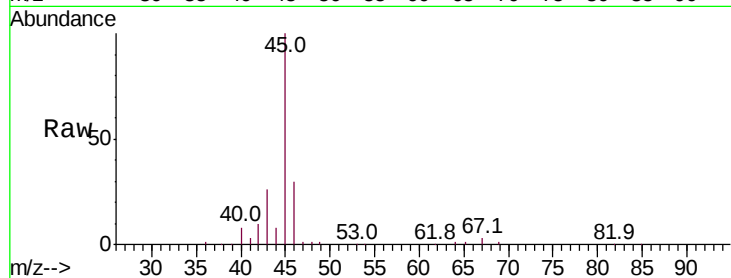
45 100

46 37.3 15.3 61.3

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#14

Bromoethene

Concen: 9.834 ppbv

RT: 3.79 min Scan# 264

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

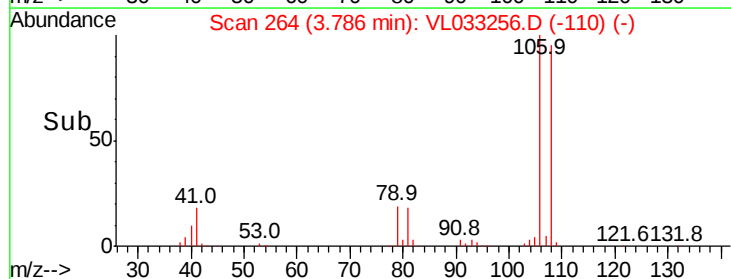
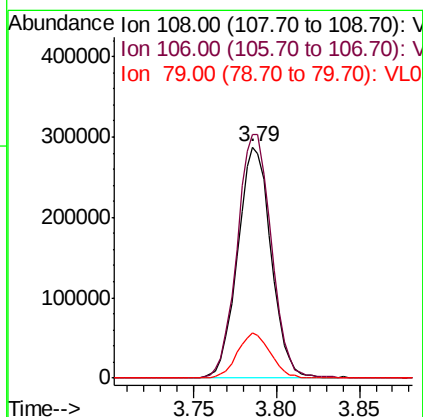
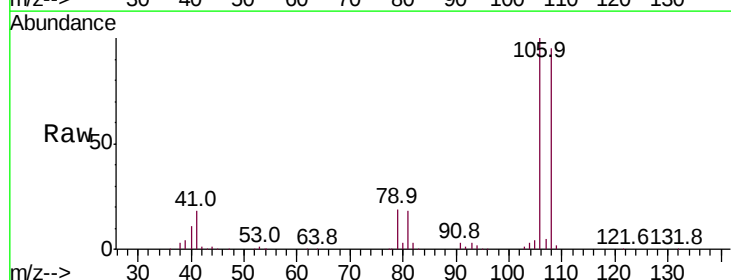
Tgt Ion: 108 Resp: 402696

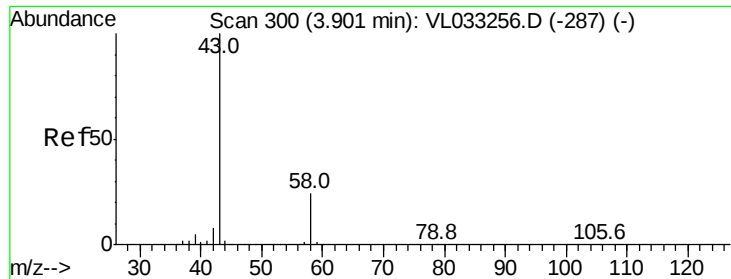
Ion Ratio Lower Upper

108 100

106 108.6 85.5 128.3

79 19.7 15.3 22.9





#15

Acetone

Concen: 8.022 ppbv

RT: 3.90 min Scan# 300

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 43 Resp: 933108

Ion Ratio Lower Upper

43 100

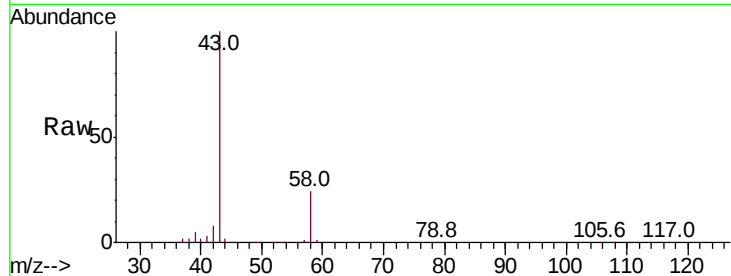
58 25.2 20.2 30.4

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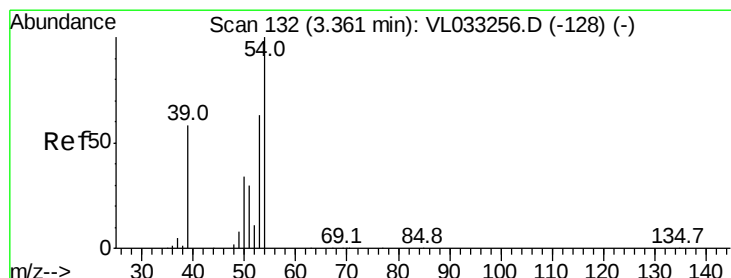
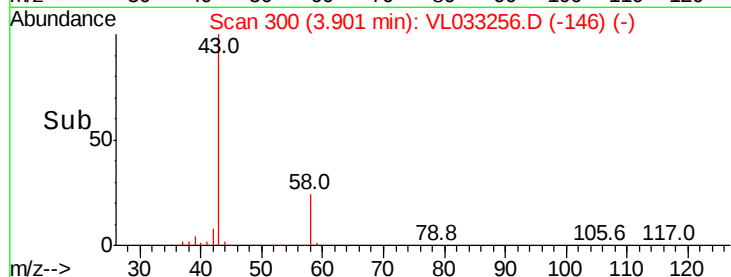
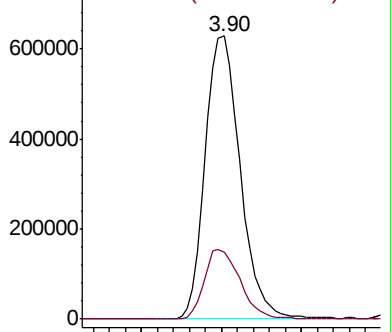
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 10.290 ppbv

RT: 3.36 min Scan# 132

Delta R.T. -0.00 min

Lab File: VL033256.D

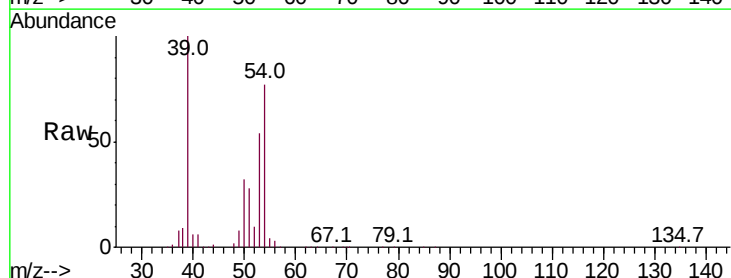
Acq: 8 Mar 2019 12:46

Tgt Ion: 39 Resp: 477982

Ion Ratio Lower Upper

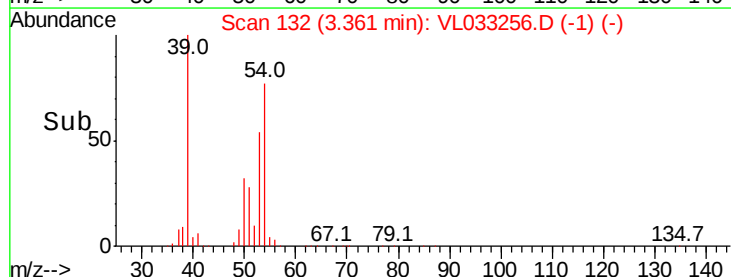
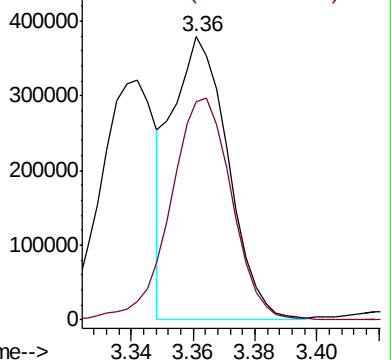
39 100

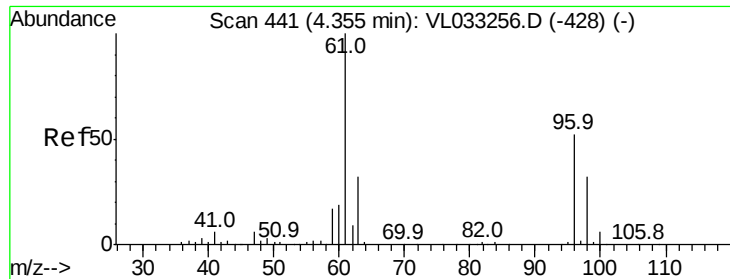
54 85.8 69.6 104.4



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#17

tert-Butyl alcohol

Concen: 8.943 ppbv

RT: 4.35 min Scan# 441

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

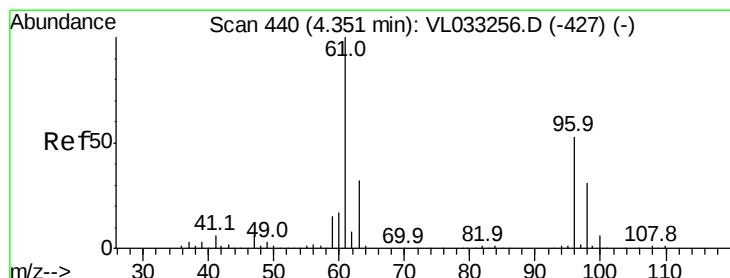
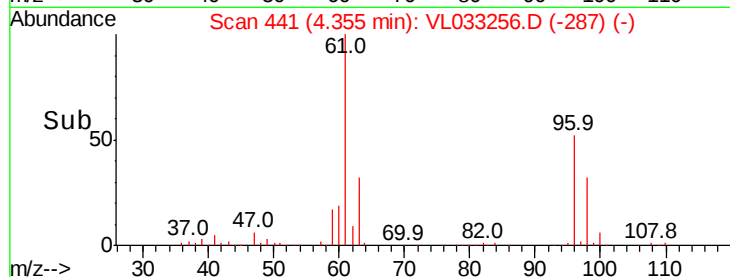
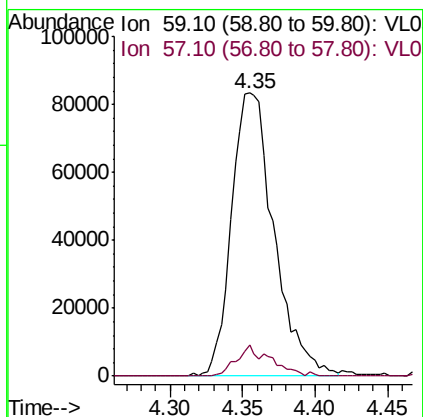
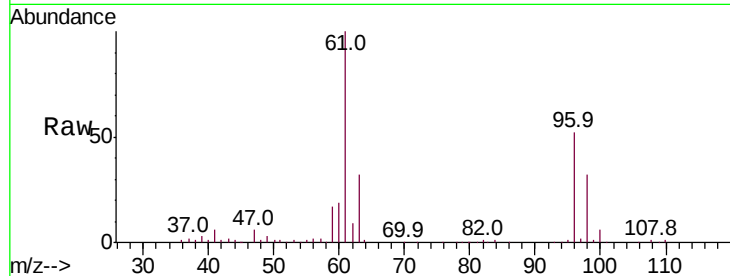
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

Tot Ion: 59 Resp: 169534

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 59  | 100   |       |       |
| 57  | 9.0   | 7.5   | 11.3  |

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#18

1,1-Dichloroethene

Concen: 9.833 ppbv

RT: 4.35 min Scan# 440

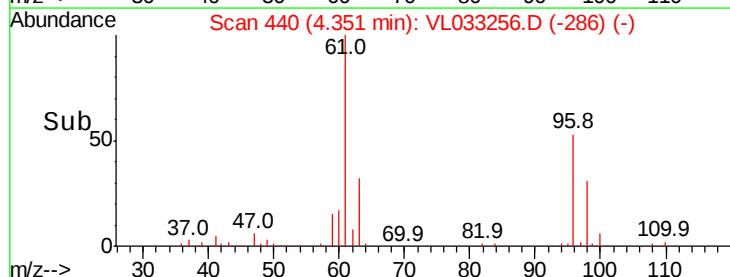
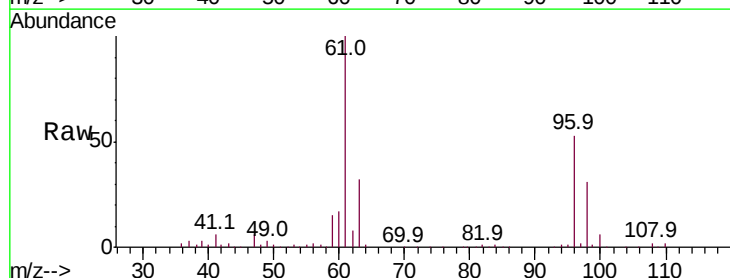
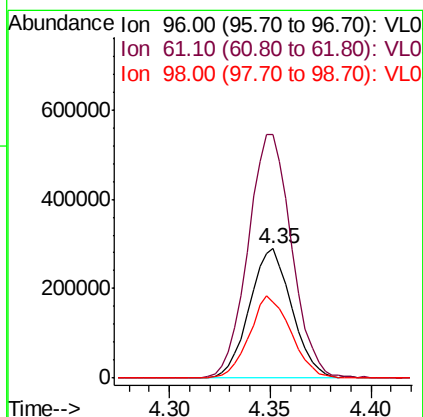
Delta R.T. -0.00 min

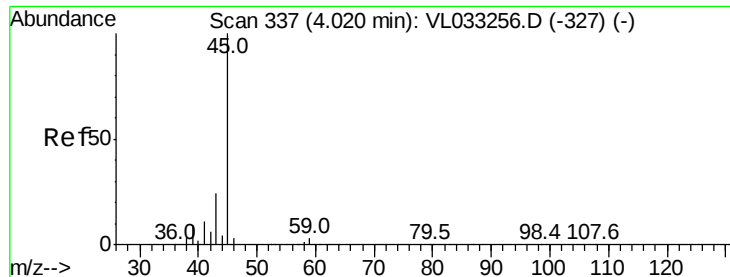
Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Tgt Ion: 96 Resp: 425542

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 96  | 100   |       |       |
| 61  | 188.3 | 150.2 | 225.2 |
| 98  | 58.7  | 49.2  | 73.8  |





#19

Isopropyl Alcohol

Concen: 8.605 ppbv

RT: 4.02 min Scan# 337

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 45 Resp: 595045

Ion Ratio Lower Upper

45 100

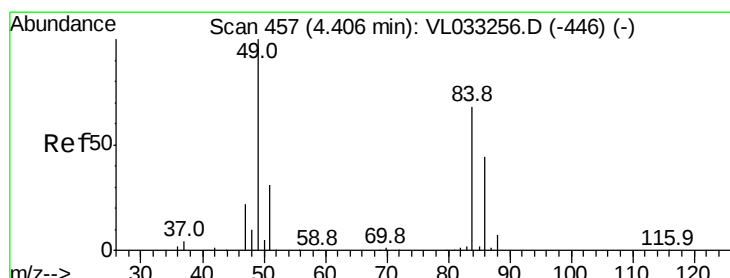
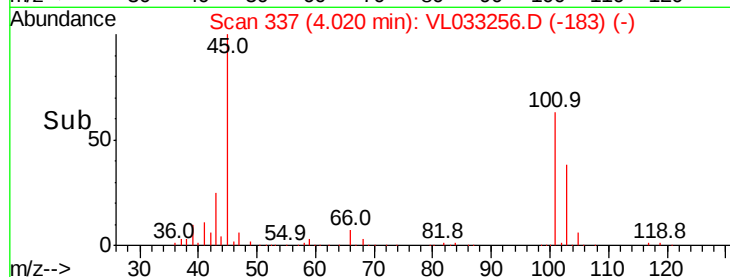
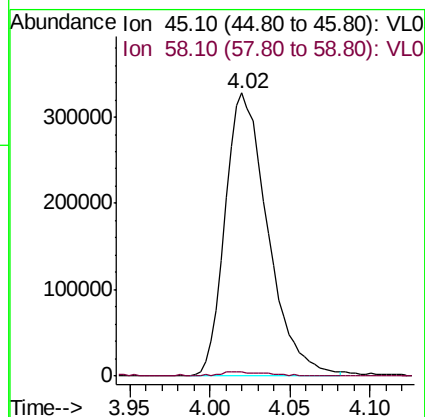
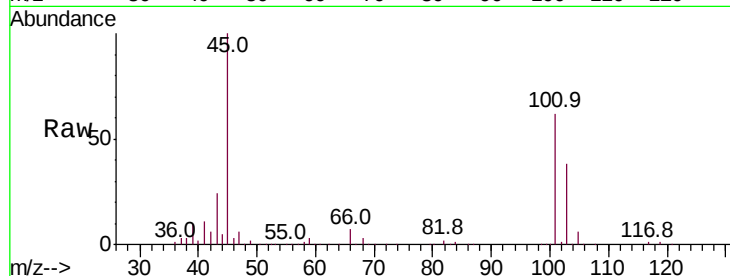
58 1.9 1.4 2.0

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#20

Methylene Chloride

Concen: 8.362 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Tgt Ion: 84 Resp: 368627

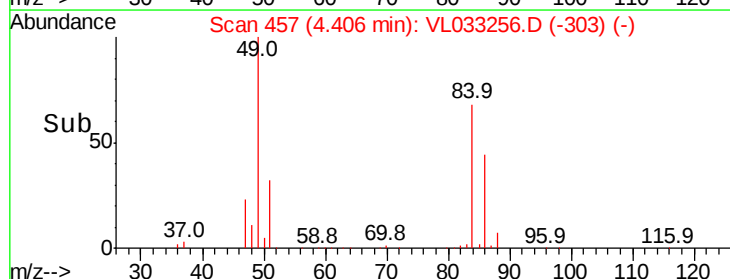
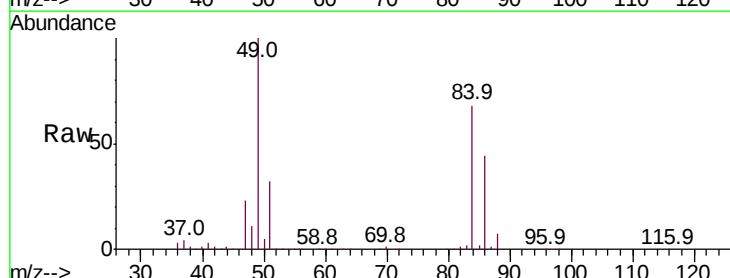
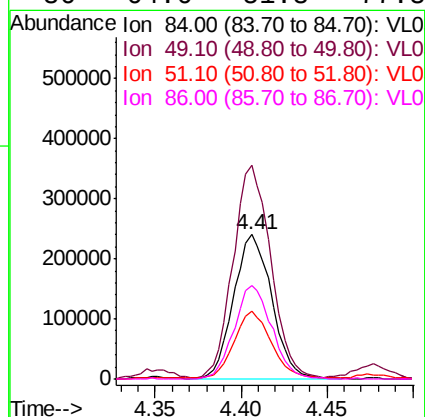
Ion Ratio Lower Upper

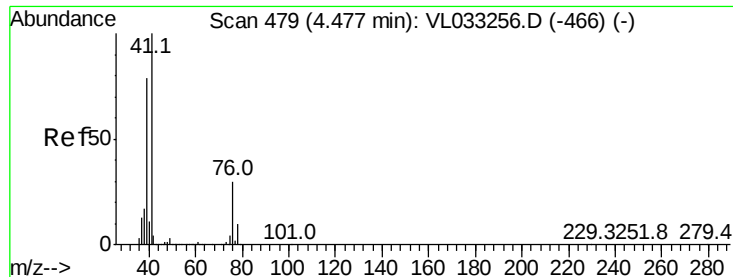
84 100

49 147.2 120.4 180.6

51 46.1 36.7 55.1

86 64.6 51.8 77.8





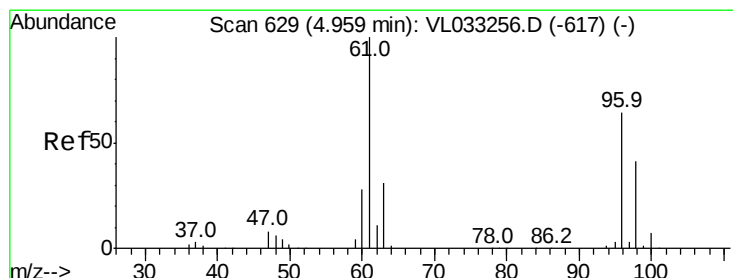
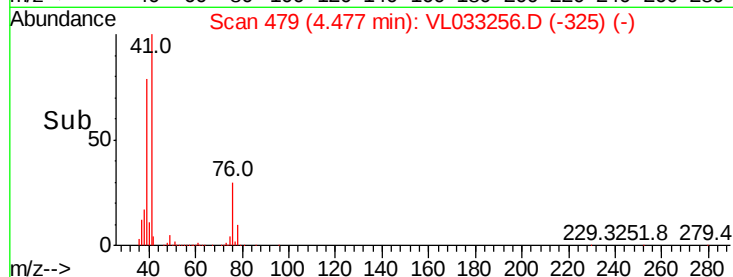
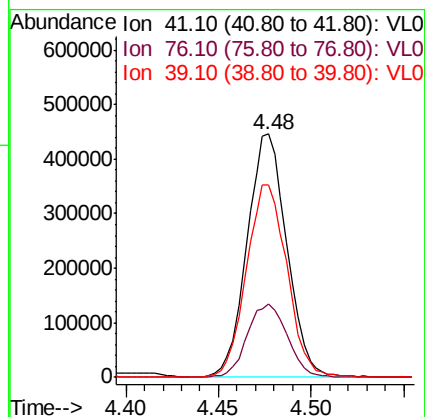
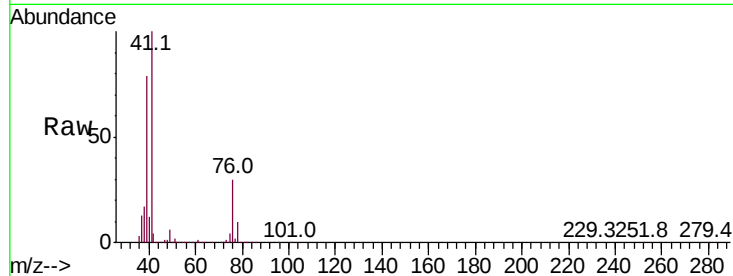
#21  
Allvl Chloride  
Concen: 10.174 ppbv  
RT: 4.48 min Scan# 479  
Delta R.T. -0.00 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 76      | 30.6  | 24.6  | 36.8  |
| 39      | 81.6  | 65.2  | 97.8  |

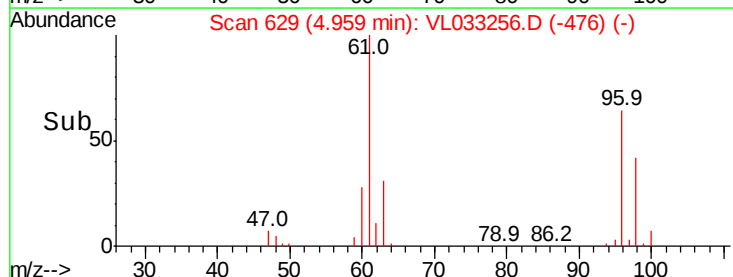
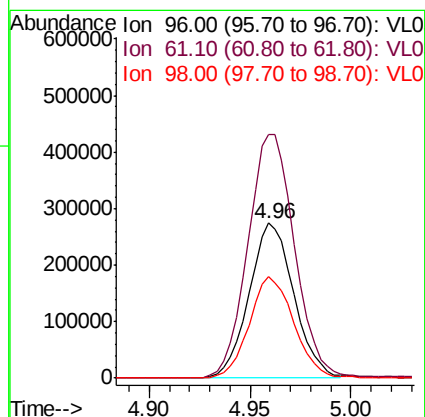
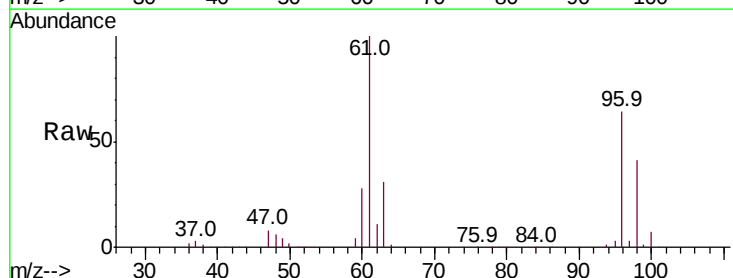
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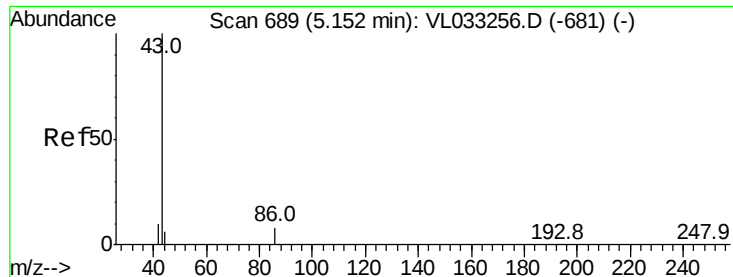
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#22  
trans-1,2-Dichloroethene  
Concen: 9.636 ppbv  
RT: 4.96 min Scan# 629  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 157.1 | 128.3 | 192.5 |
| 98      | 65.1  | 50.6  | 75.8  |





#23

Vinyl Acetate

Concen: 9.198 ppbv

RT: 5.15 min Scan# 689

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 43 Resp: 1578288

Ion Ratio Lower Upper

43 100

86 7.0 5.5 8.3

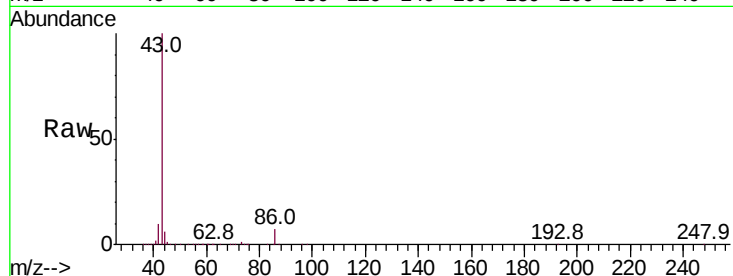
42 10.1 7.7 11.5

44 5.4 4.1 6.1

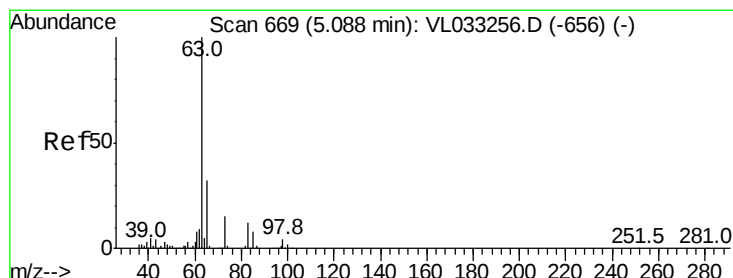
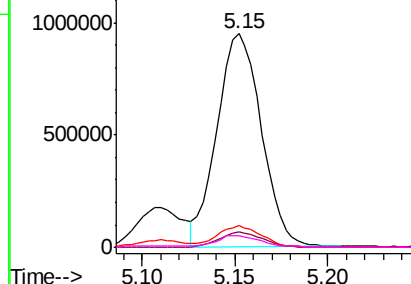
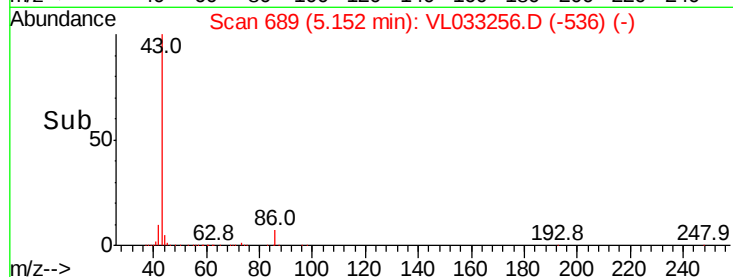
Manual Integrations  
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Abundance Ion 43.10 (42.80 to 43.80): VL0  
1500000  
Ion 86.10 (85.80 to 86.80): VL0  
Ion 42.10 (41.80 to 42.80): VL0  
Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 8.967 ppbv

RT: 5.09 min Scan# 669

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

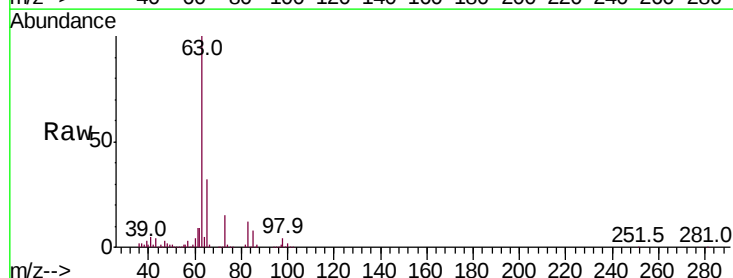
Tgt Ion: 63 Resp: 1096923

Ion Ratio Lower Upper

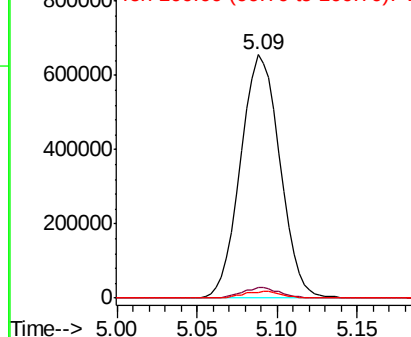
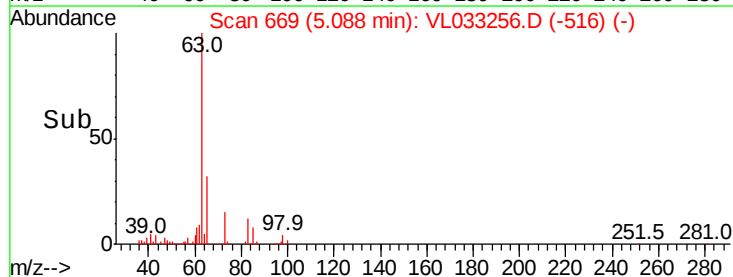
63 100

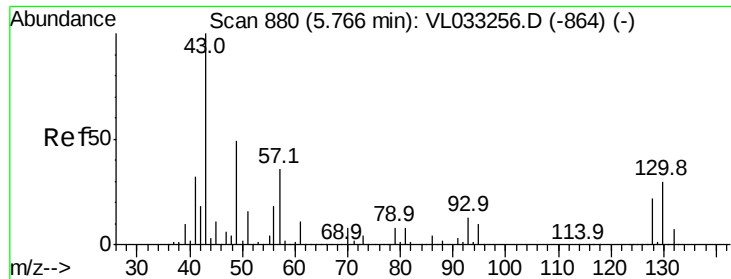
98 4.1 2.1 6.3

100 2.5 1.3 3.8



Abundance Ion 63.10 (62.80 to 63.80): VL0  
800000  
Ion 98.00 (97.70 to 98.70): VL0  
Ion 100.00 (99.70 to 100.70): VL0





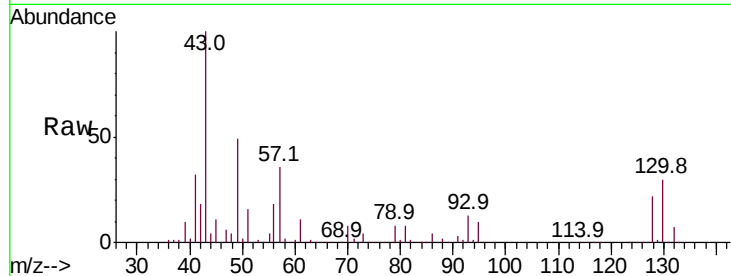
#25  
Ethyl Acetate  
Concen: 8.983 ppbv  
RT: 5.77 min Scan# 880  
Delta R.T. -0.00 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampled :  
VSTDICCC010

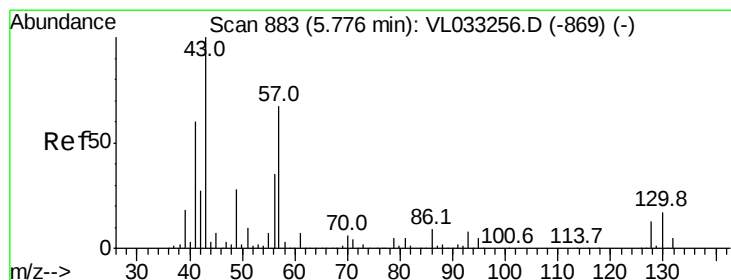
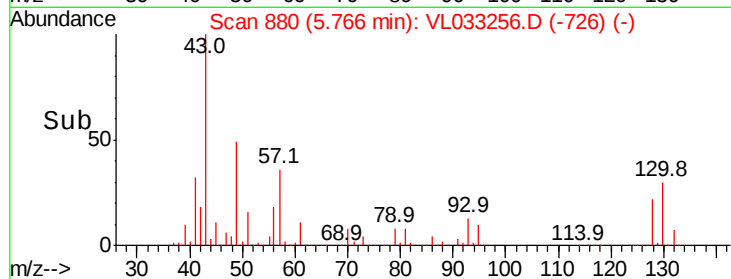
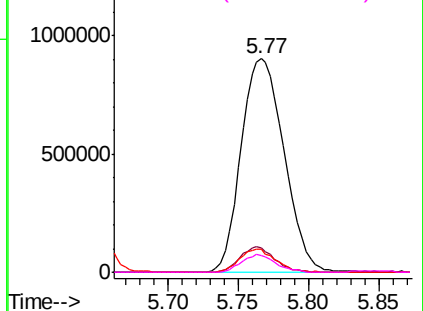
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 45      | 9.8   | 7.8   | 11.6  |
| 61      | 9.2   | 7.0   | 10.6  |
| 70      | 6.8   | 5.5   | 8.3   |

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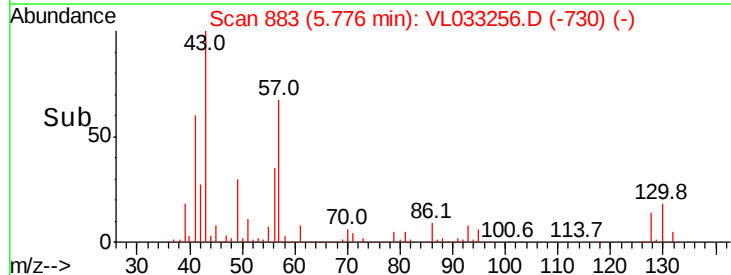
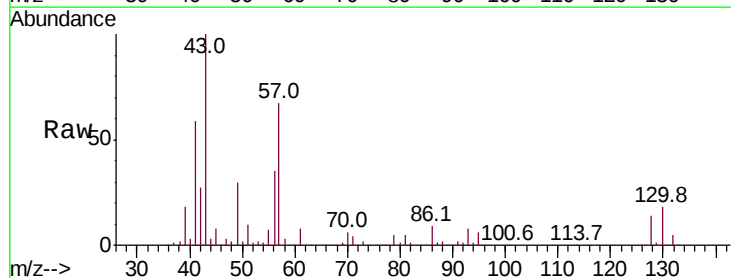
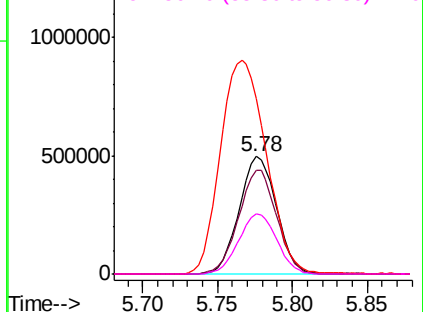
Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 45.10 (44.80 to 45.80): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 70.10 (69.80 to 70.80): VL0

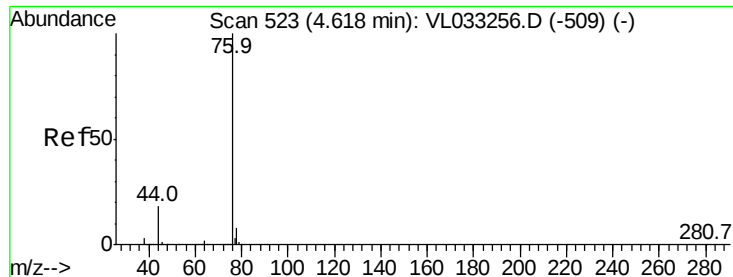


#26  
Hexane  
Concen: 8.644 ppbv  
RT: 5.78 min Scan# 883  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 90.3  | 73.4  | 110.2 |
| 43      | 223.7 | 182.1 | 273.1 |
| 56      | 52.3  | 42.6  | 64.0  |

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





#27

Carbon Disulfide

Concen: 11.322 ppbv

RT: 4.62 min Scan# 523

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 76 Resp: 1088010

Ion Ratio Lower Upper

76 100

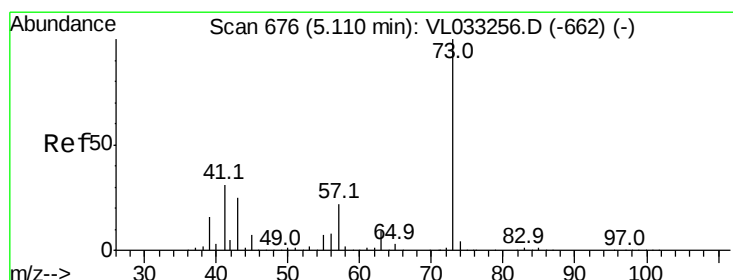
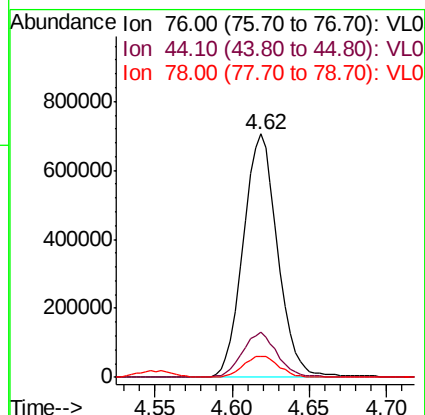
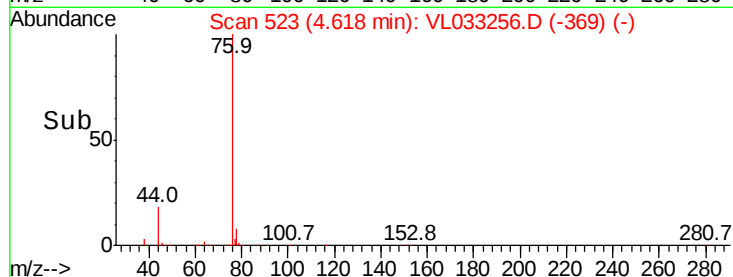
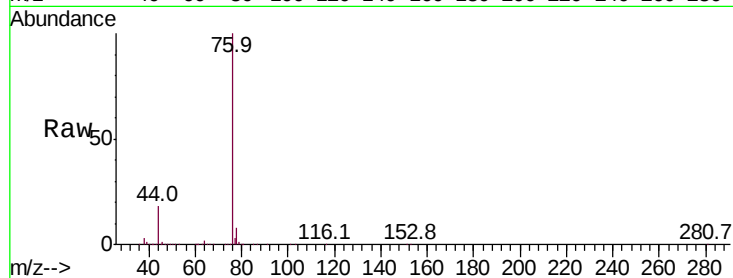
44 18.5 15.0 22.6

78 9.0 7.3 10.9

Manual Integrations  
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#28

Methyl tert-Butyl Ether

Concen: 9.173 ppbv

RT: 5.11 min Scan# 676

Delta R.T. -0.00 min

Lab File: VL033256.D

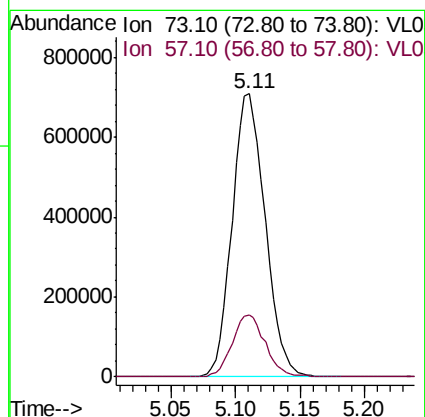
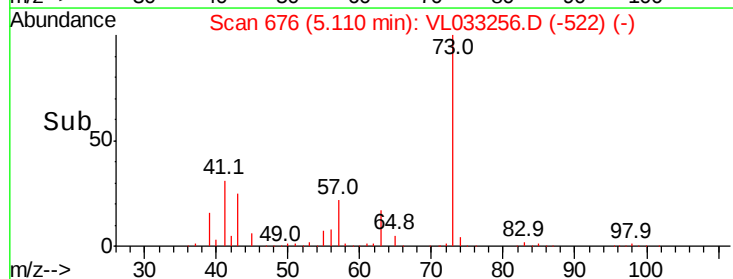
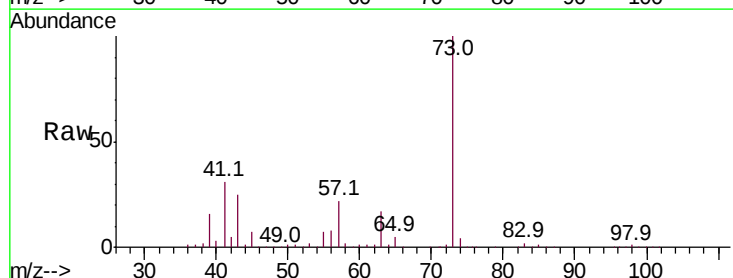
Acq: 8 Mar 2019 12:46

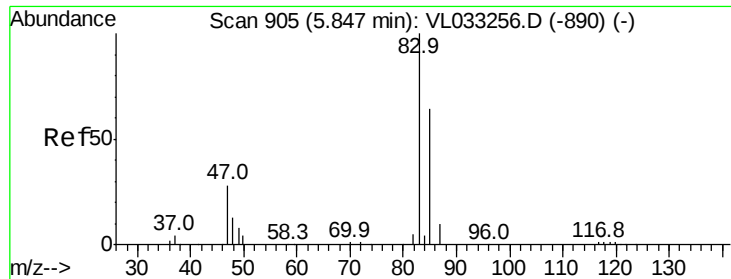
Tgt Ion: 73 Resp: 1261148

Ion Ratio Lower Upper

73 100

57 22.1 17.6 26.4





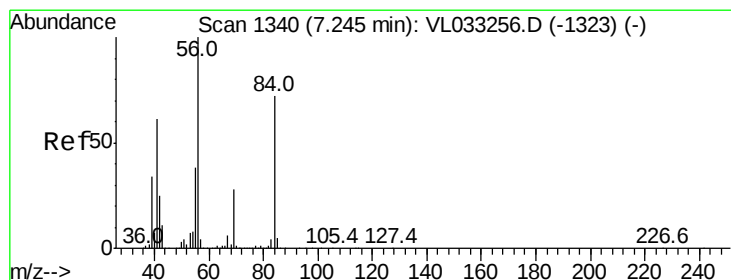
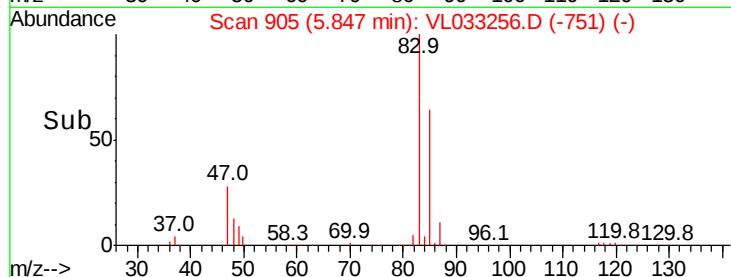
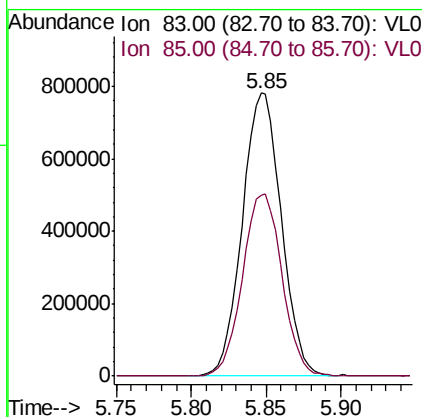
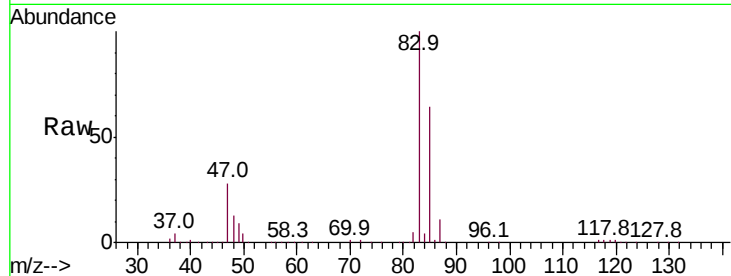
#29  
Chloroform  
Concen: 9.156 ppbv  
RT: 5.85 min Scan# 905  
Delta R.T. -0.00 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

Tot Ion: 83 Resp: 1419574  
Ion Ratio Lower Upper  
83 100  
85 63.8 51.2 76.8

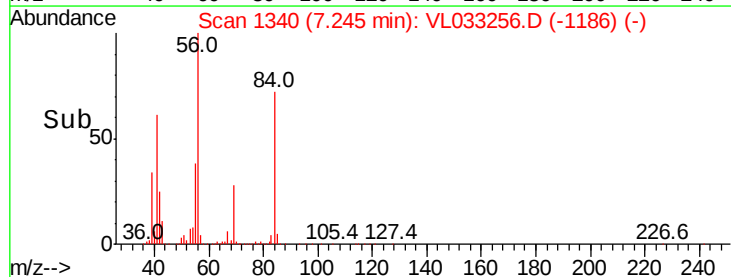
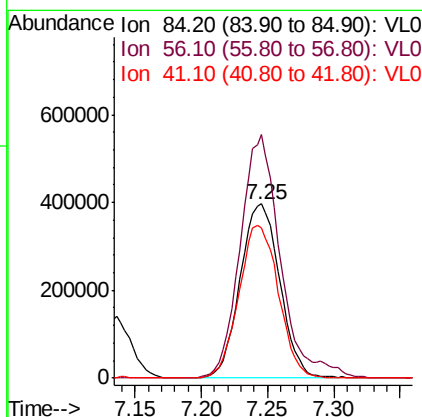
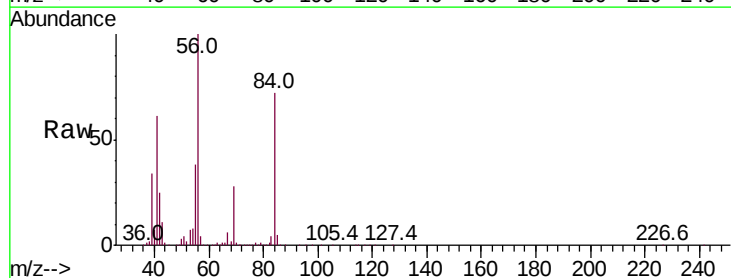
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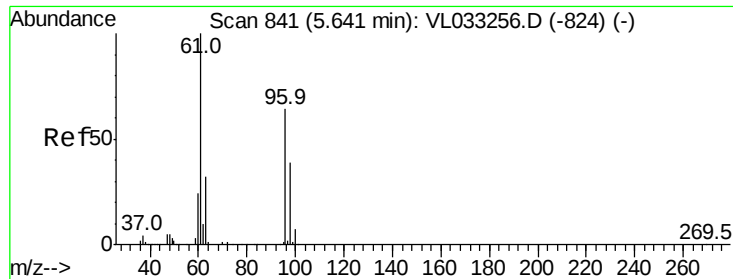
MMDadoda  
3/11/2019 10:10:06 AM



#30  
Cyclohexane  
Concen: 11.087 ppbv  
RT: 7.25 min Scan# 1340  
Delta R.T. -0.00 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Tgt Ion: 84 Resp: 827536  
Ion Ratio Lower Upper  
84 100  
56 141.8 113.1 169.7  
41 87.8 70.8 106.2





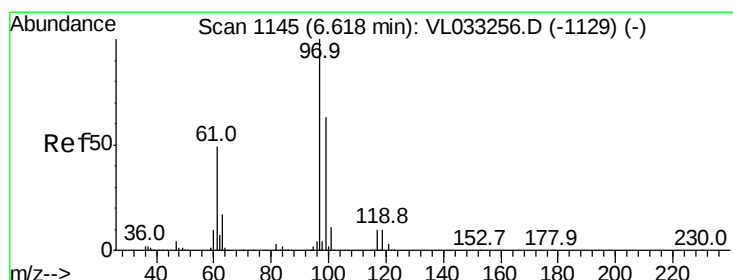
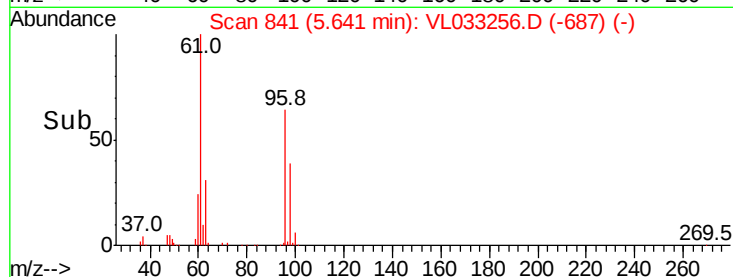
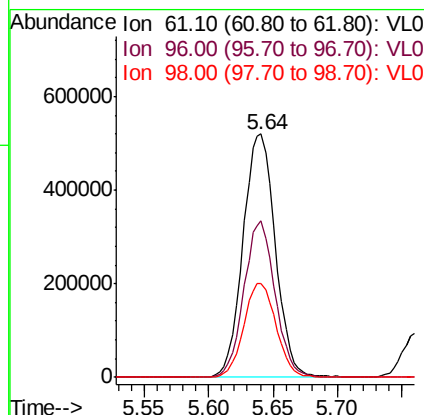
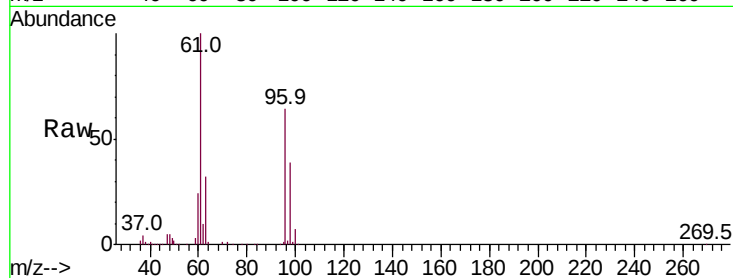
#31  
 cis-1,2-Dichloroethene  
 Concen: 9.414 ppbv  
 RT: 5.64 min Scan# 841  
 Delta R.T. -0.00 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 64.0  | 49.4  | 74.0  |
| 98      | 38.5  | 31.2  | 46.8  |

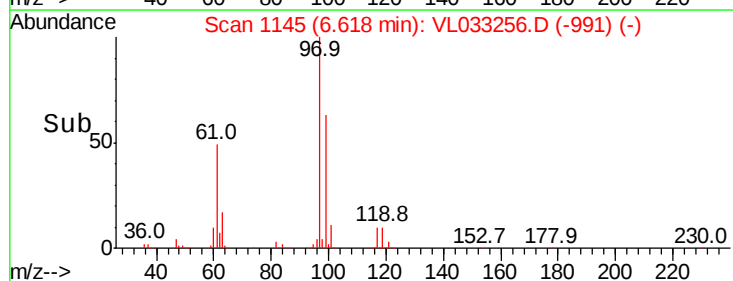
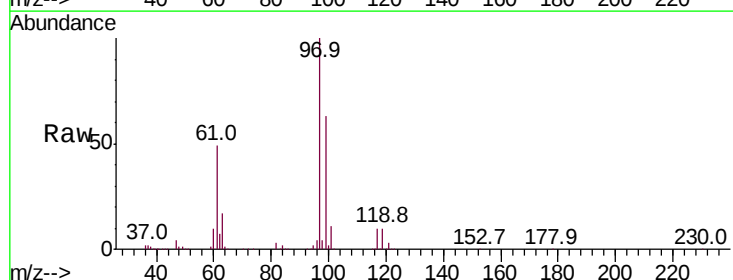
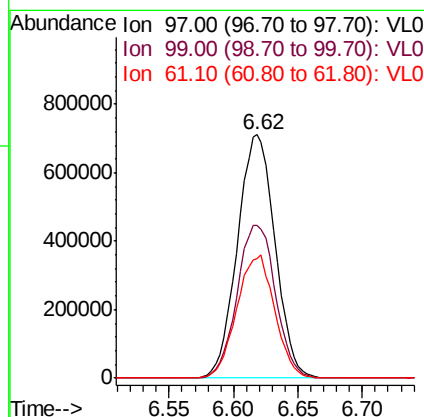
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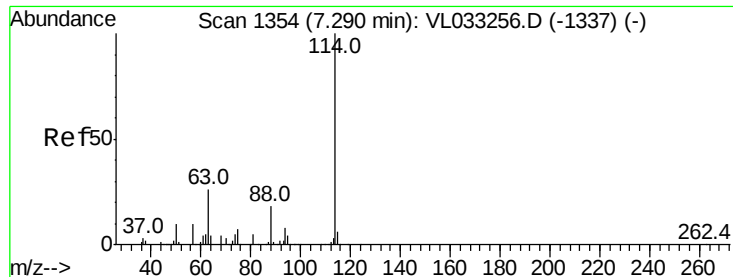
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 3/11/2019 10:10:06 AM



#32  
 1,1,1-Trichloroethane  
 Concen: 9.572 ppbv  
 RT: 6.62 min Scan# 1145  
 Delta R.T. -0.00 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.5  | 51.4  | 77.0  |
| 61      | 51.0  | 40.1  | 60.1  |





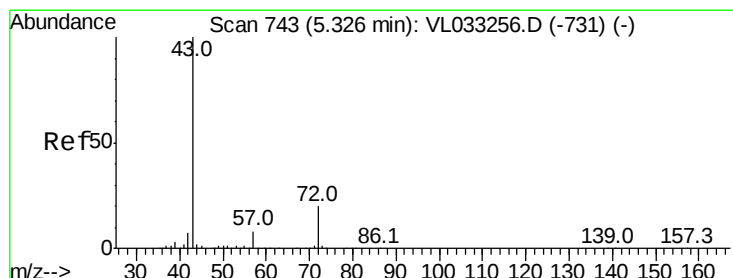
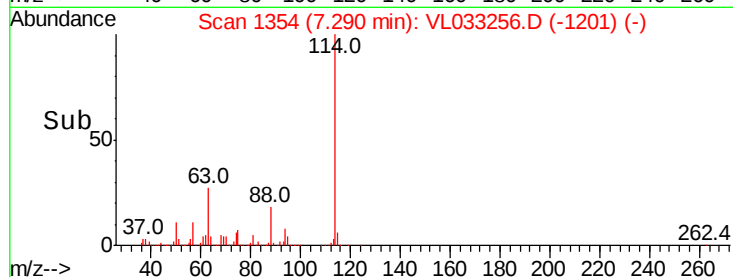
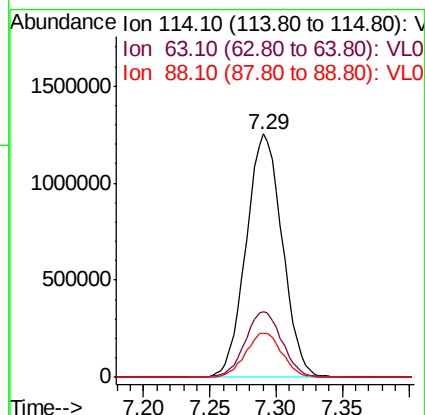
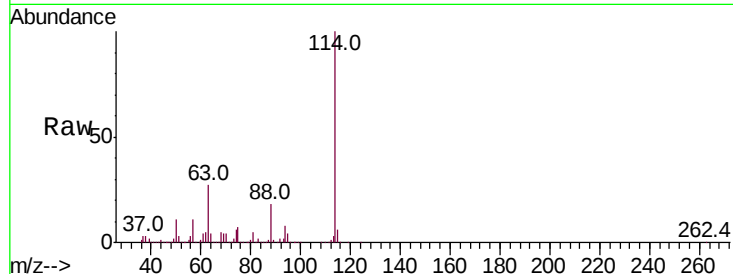
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.29 min Scan# 1354  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 27.7  | 22.0  | 33.0  |
| 88      | 18.3  | 15.0  | 22.4  |

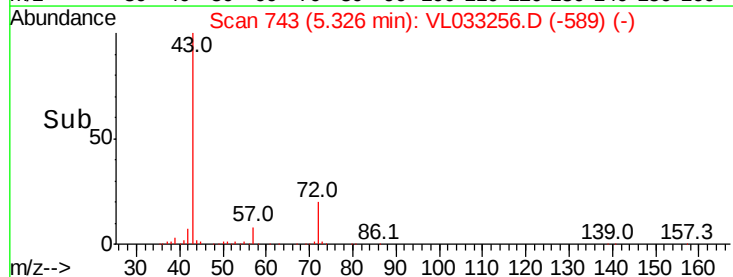
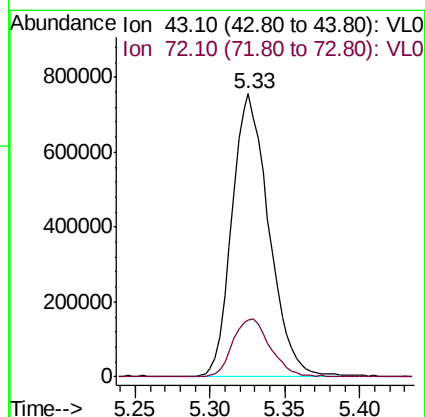
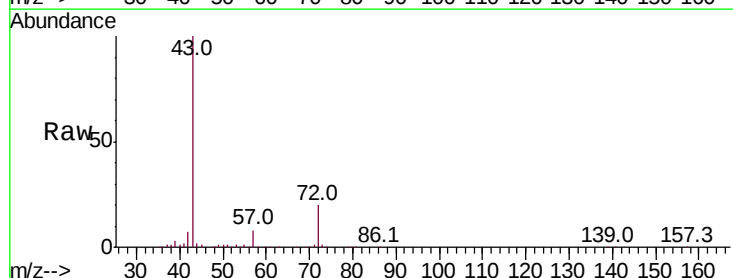
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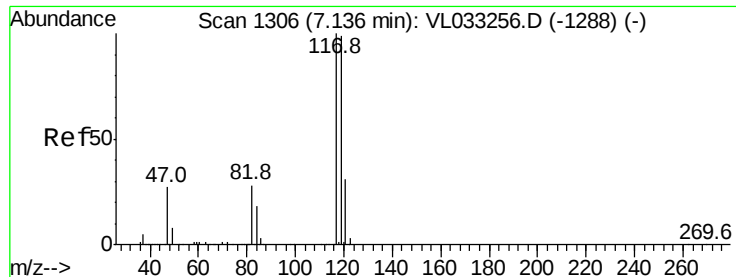
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#34  
 2-Butanone  
 Concen: 7.871 ppbv  
 RT: 5.33 min Scan# 743  
 Delta R.T. -0.00 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 21.1  | 17.1  | 25.7  |





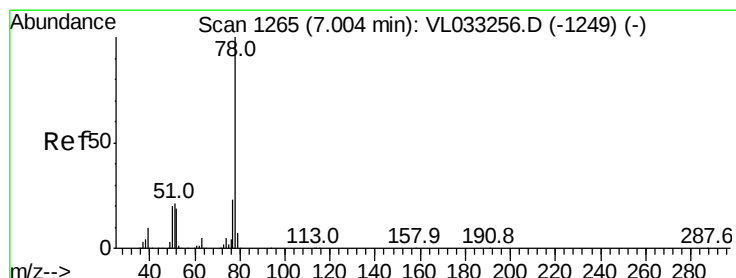
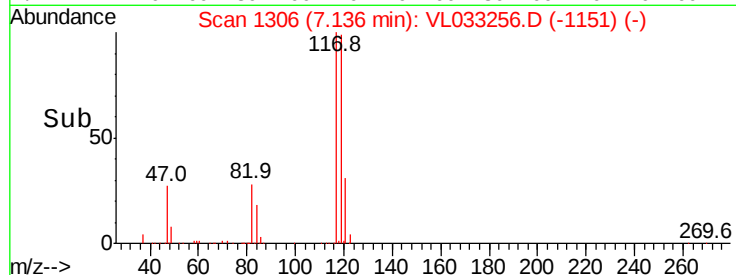
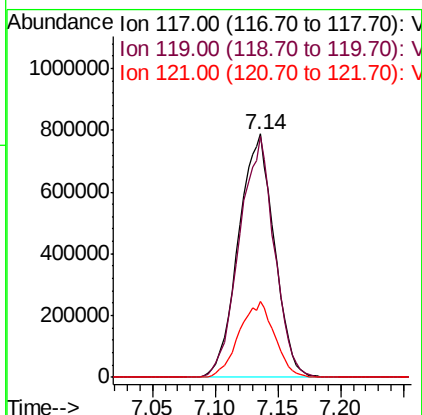
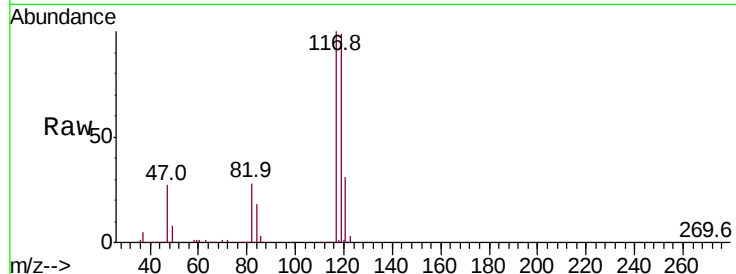
#35  
Carbon Tetrachloride  
Concen: 8.717 ppbv  
RT: 7.14 min Scan# 1306  
Delta R.T. -0.00 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 98.8  | 75.8  | 113.6 |
| 121     | 30.9  | 25.6  | 38.4  |

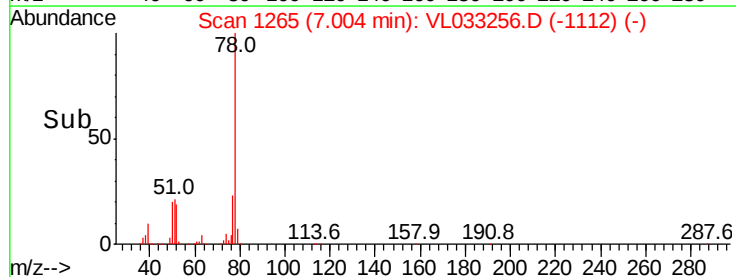
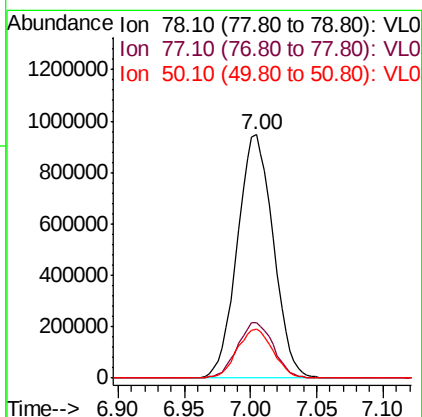
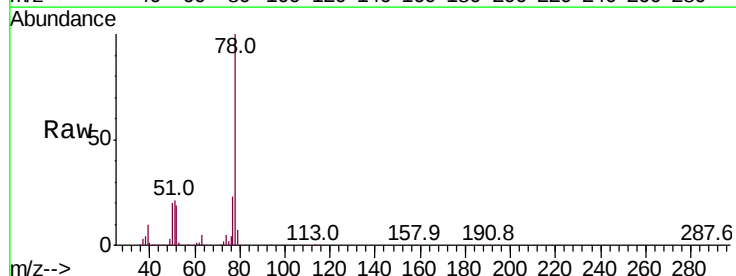
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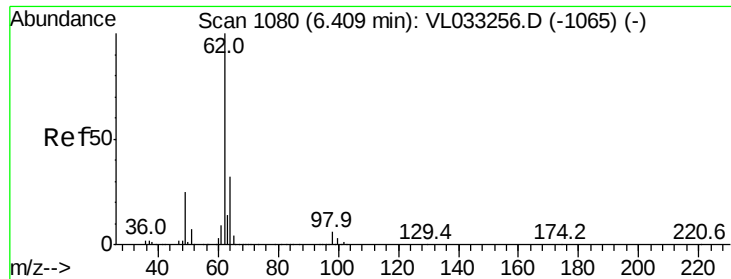
MMDadoda  
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#36  
Benzene  
Concen: 8.028 ppbv  
RT: 7.00 min Scan# 1265  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 22.7  | 18.0  | 27.0  |
| 50      | 20.2  | 16.2  | 24.4  |





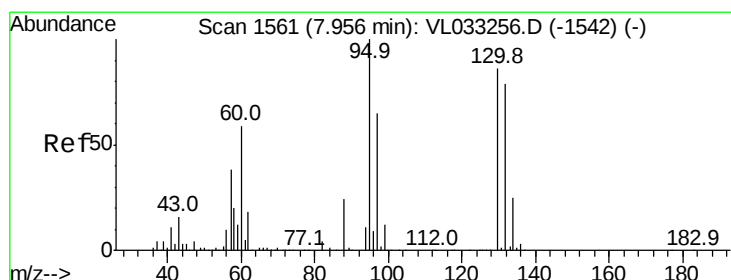
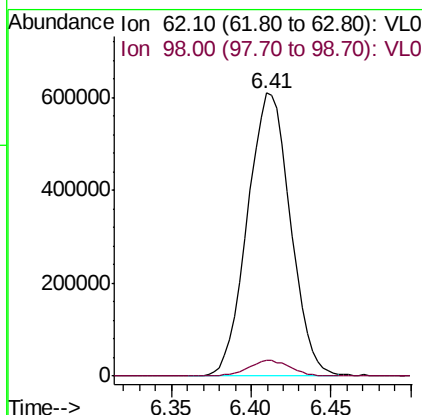
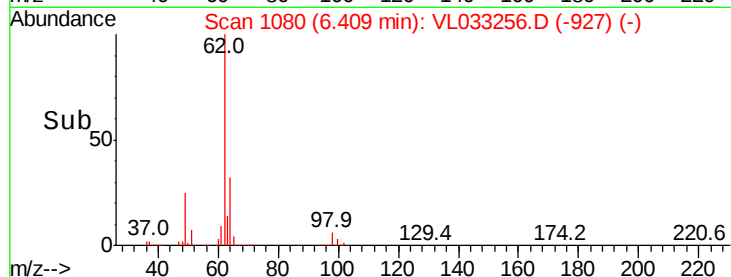
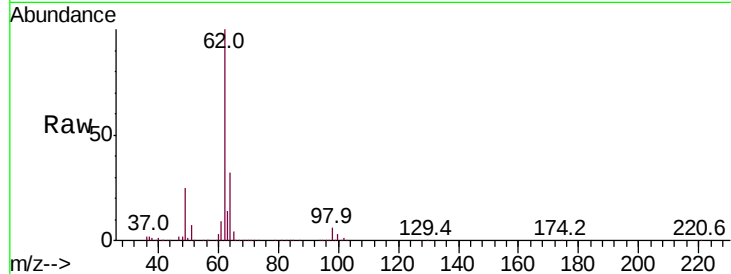
#37  
 1,2-Dichloroethane  
 Concen: 8.089 ppbv  
 RT: 6.41 min Scan# 1080  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

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

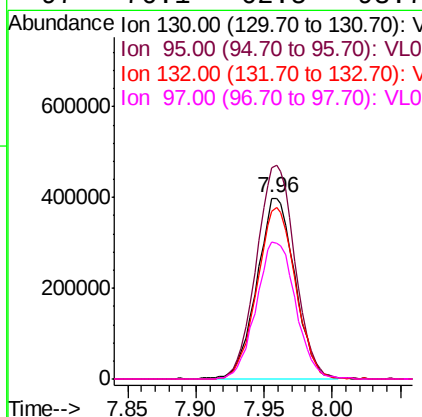
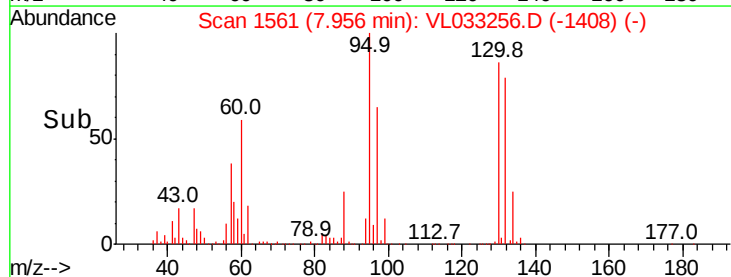
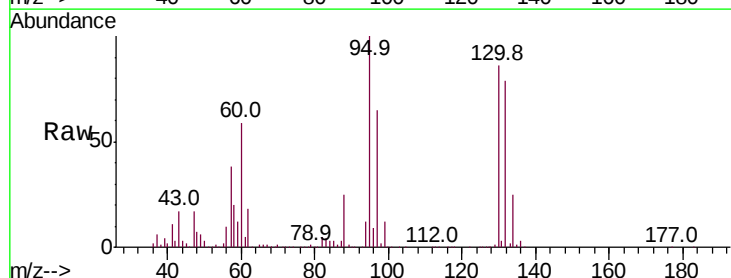
Manual Integrations  
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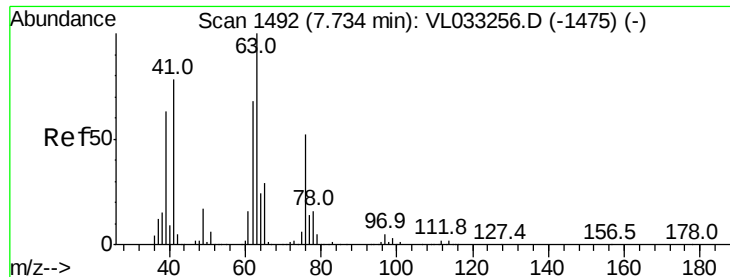
MMDadoda  
 3/11/2019 10:10:06 AM



#38  
 Trichloroethene  
 Concen: 9.162 ppbv  
 RT: 7.96 min Scan# 1561  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 116.7 | 95.7  | 143.5 |
| 132     | 92.5  | 77.4  | 116.2 |
| 97      | 76.1  | 62.5  | 93.7  |





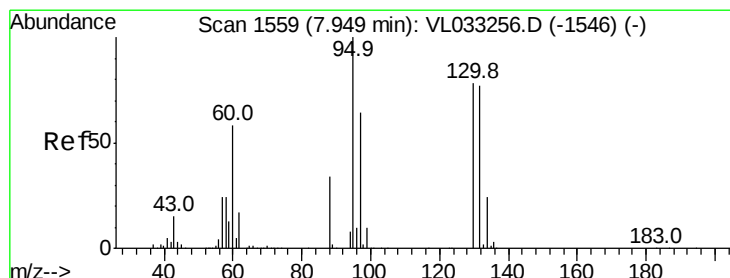
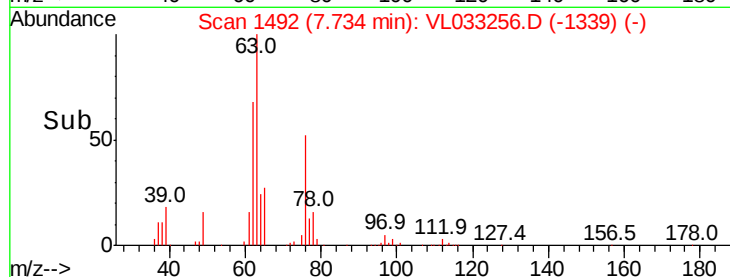
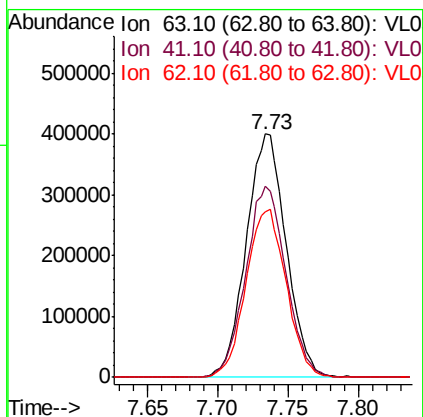
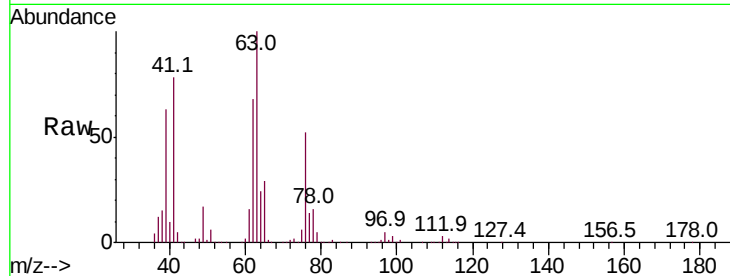
#39  
 1,2-Dichloropropane  
 Concen: 9.107 ppbv  
 RT: 7.73 min Scan# 1492  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 78.3  | 60.0  | 90.0  |
| 62      | 68.2  | 54.2  | 81.4  |

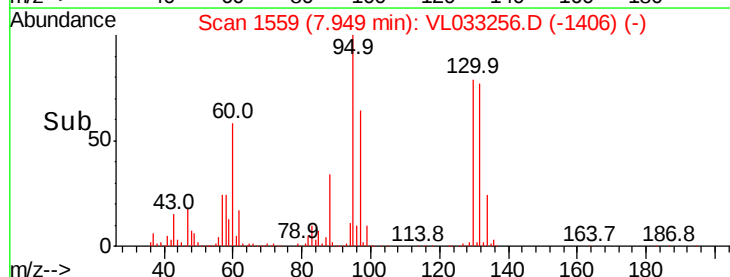
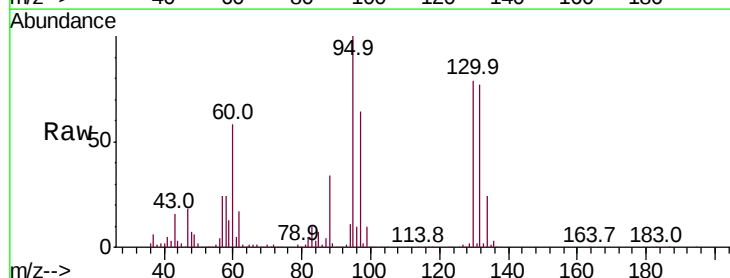
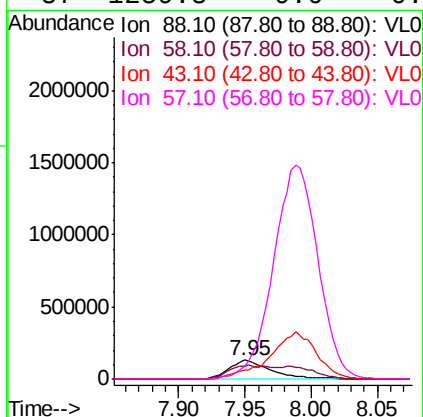
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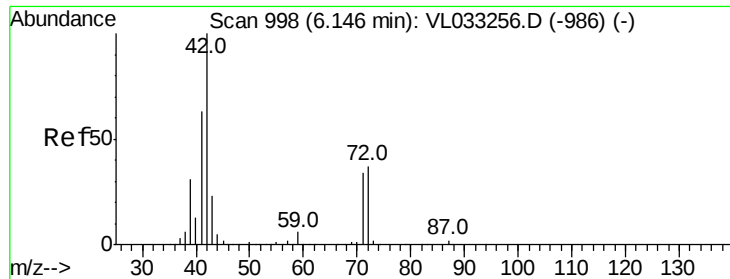
MMDadoda  
 3/11/2019 10:10:06 AM



#40  
 1,4-Dioxane  
 Concen: 8.599 ppbv  
 RT: 7.95 min Scan# 1559  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio  | Lower | Upper |
|---------|--------|-------|-------|
| 88      | 100    |       |       |
| 58      | 135.5  | 105.1 | 157.7 |
| 43      | 290.4  | 0.0   | 0.0#  |
| 57      | 1259.8 | 0.0   | 0.0#  |





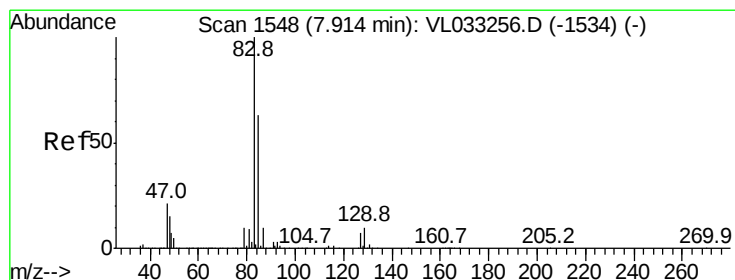
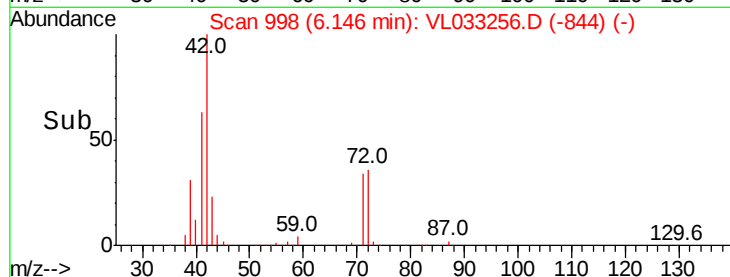
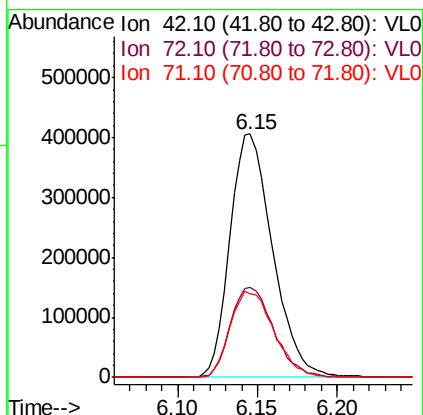
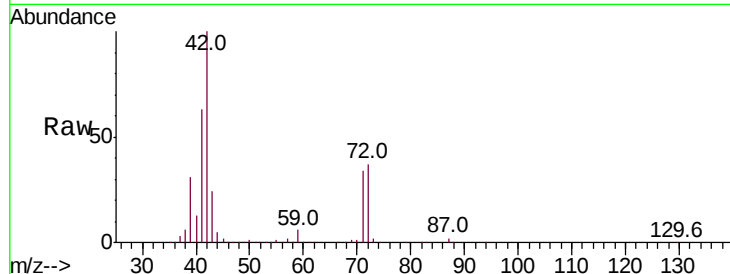
#41  
Tetrahydrofuran  
Concen: 8.166 ppbv  
RT: 6.15 min Scan# 998  
Delta R.T. -0.00 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampled :  
VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 37.7  | 30.2  | 45.4  |
| 71      | 36.3  | 29.6  | 44.4  |

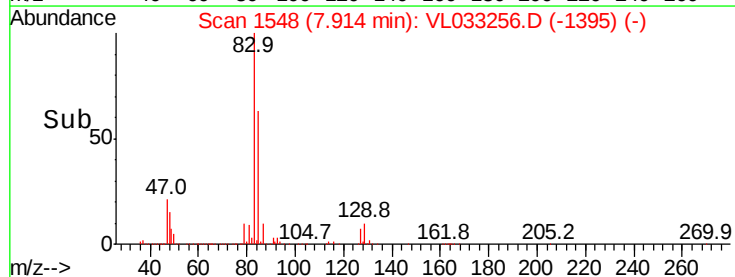
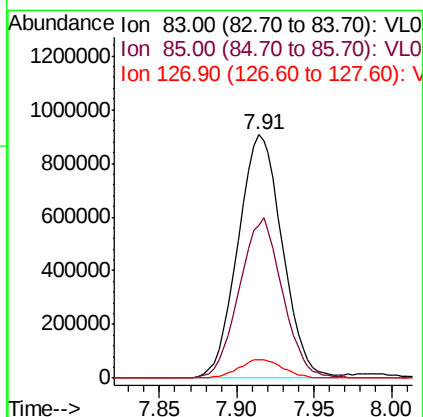
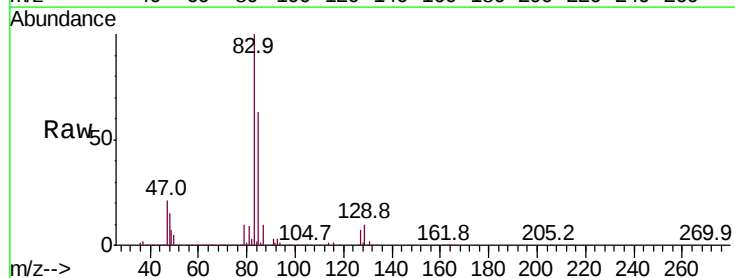
Manual Integrations  
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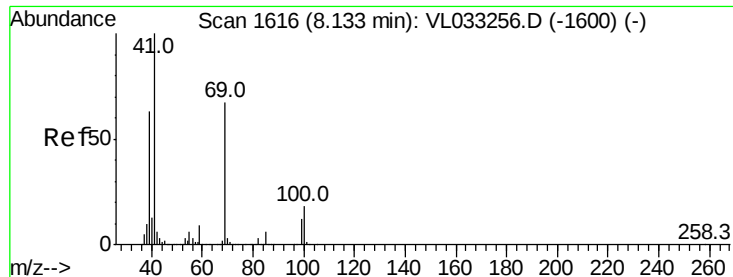
MMDadoda  
3/11/2019 10:10:06 AM



#42  
Bromodichloromethane  
Concen: 9.196 ppbv  
RT: 7.91 min Scan# 1548  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 62.6  | 51.5  | 77.3  |
| 127     | 7.4   | 5.9   | 8.9   |





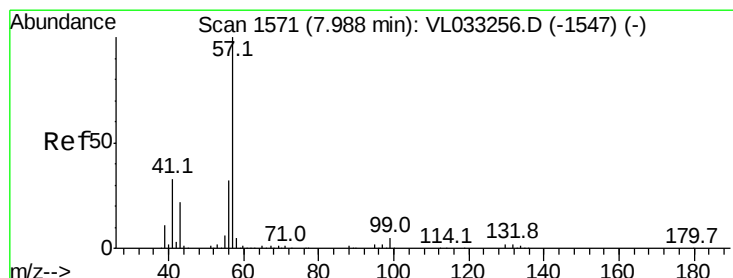
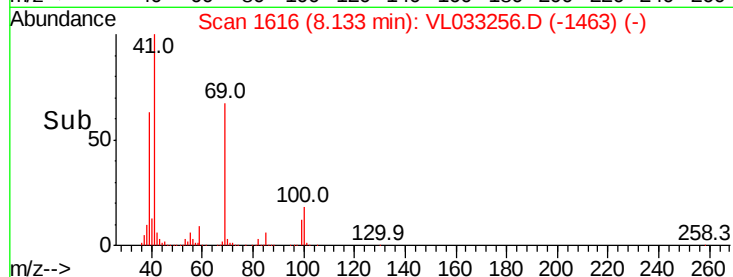
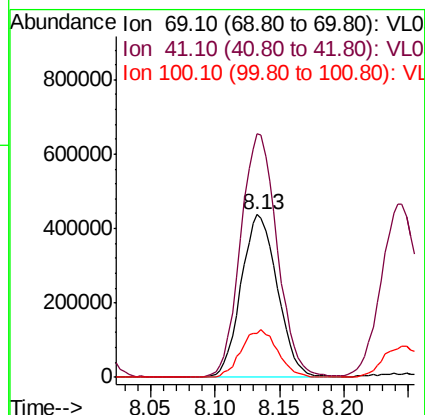
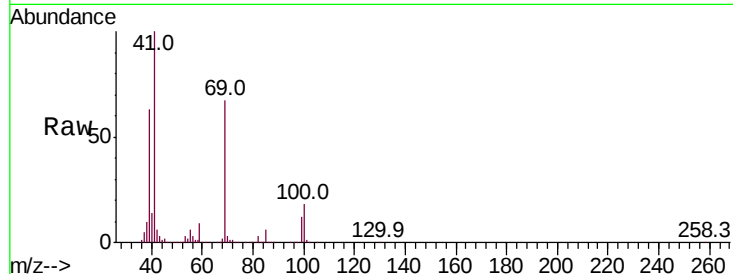
#43  
Methvl Methacrylate  
Concen: 9.524 ppbv  
RT: 8.13 min Scan# 1616  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 69      | 100   |       |       |
| 41      | 150.4 | 120.9 | 181.3 |
| 100     | 29.4  | 24.4  | 36.6  |

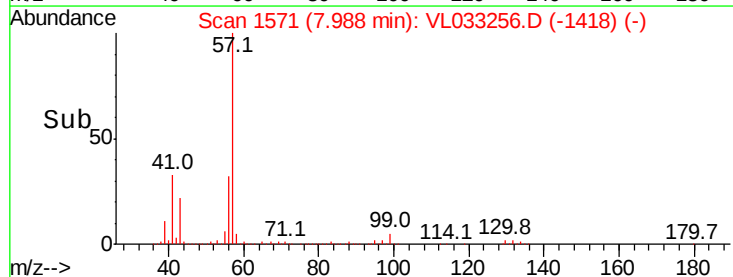
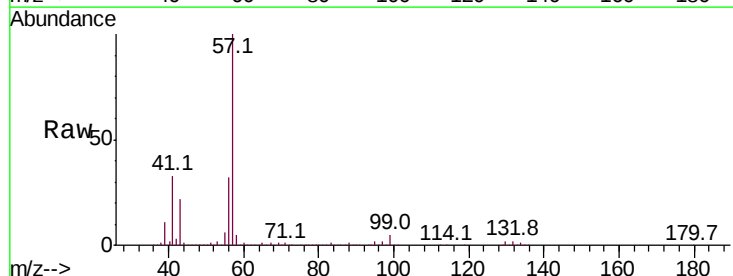
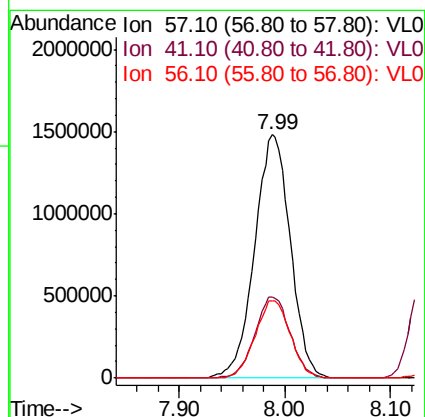
Manual Integrations  
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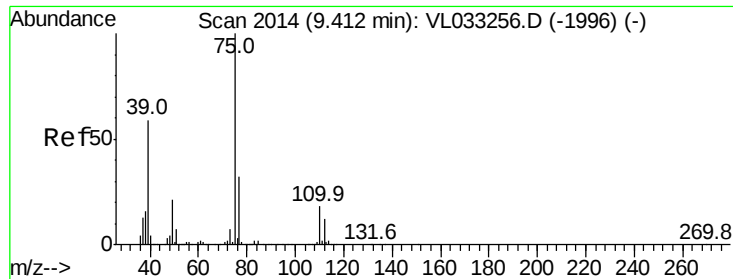
MMDadoda  
3/11/2019 10:10:06 AM



#44  
2,2,4-Trimethylpentane  
Concen: 8.863 ppbv  
RT: 7.99 min Scan# 1571  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 33.0  | 26.1  | 39.1  |
| 56      | 31.4  | 24.7  | 37.1  |





#45

t-1,3-Dichloropropene

Concen: 10.314 ppbv

RT: 9.41 min Scan# 2014

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

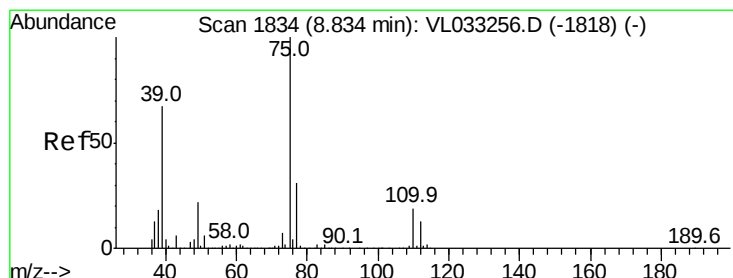
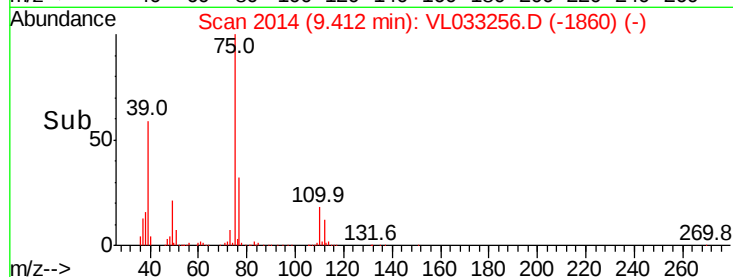
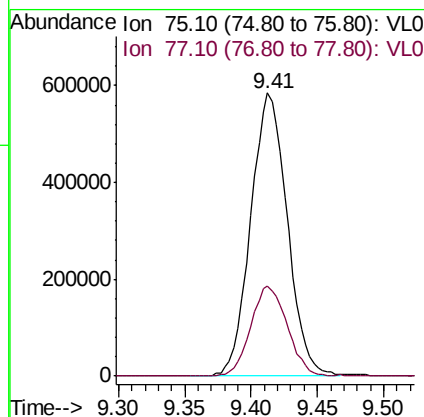
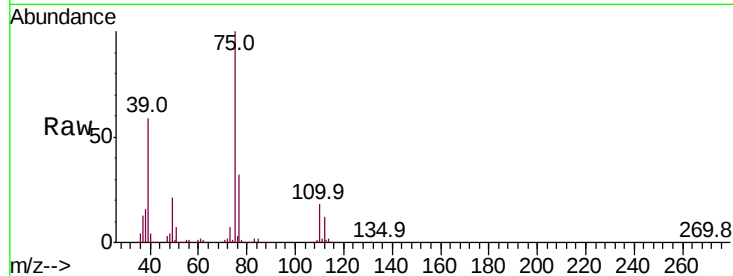
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

Tot Ion: 75 Resp: 1125152

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 75  | 100   |       |       |
| 77  | 31.7  | 24.7  | 37.1  |

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3/11/2019 10:10:06 AM



#46

cis-1,3-Dichloropropene

Concen: 9.920 ppbv

RT: 8.83 min Scan# 1834

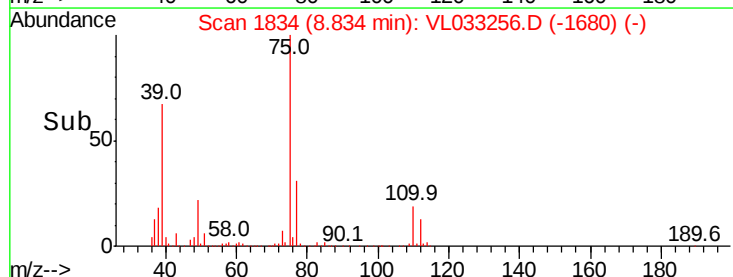
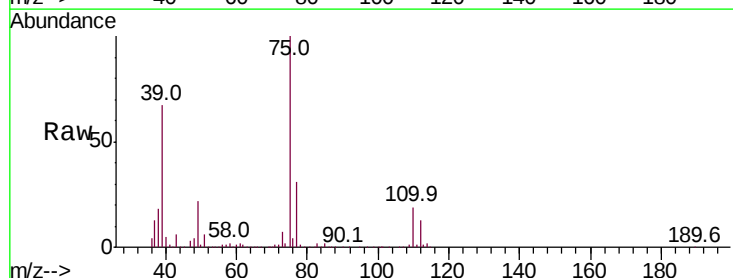
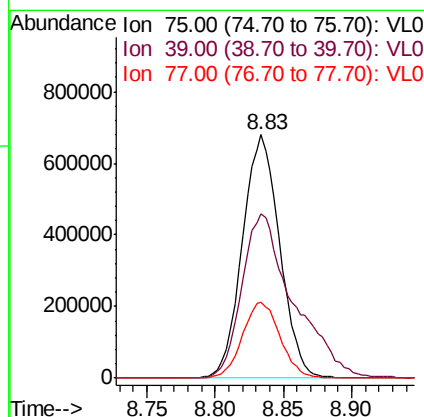
Delta R.T. -0.00 min

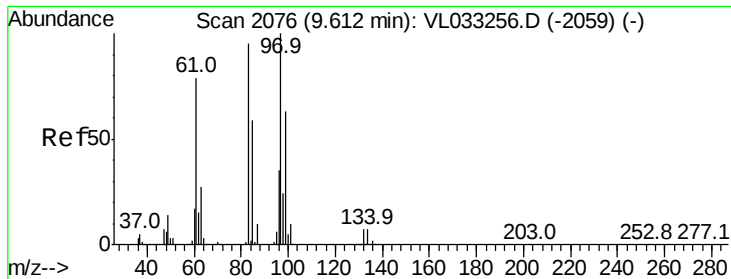
Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Tgt Ion: 75 Resp: 1290828

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 75  | 100   |       |       |
| 39  | 67.2  | 57.0  | 85.6  |
| 77  | 31.3  | 24.0  | 36.0  |





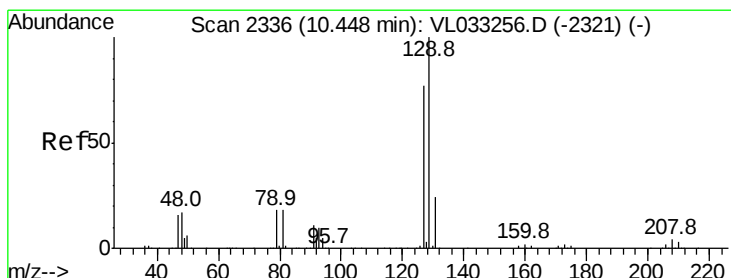
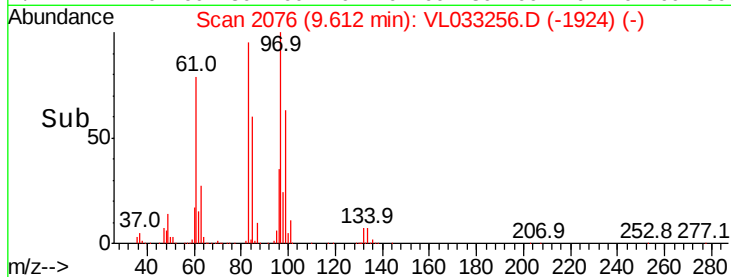
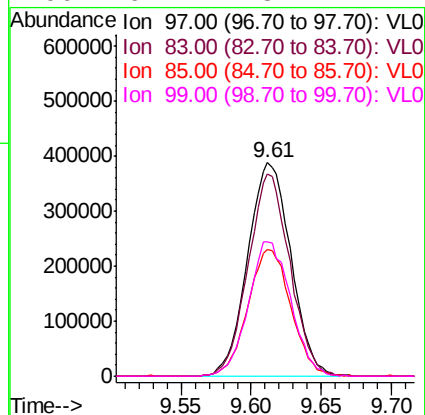
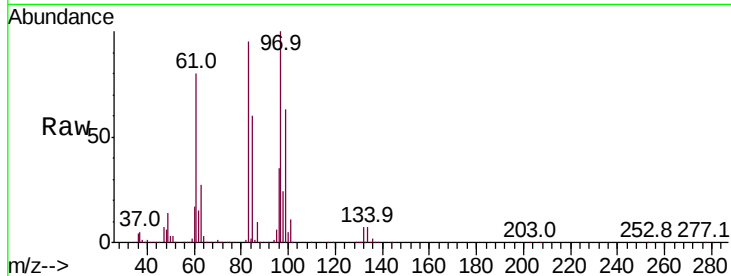
#47  
 1,1,2-Trichloroethane  
 Concen: 8.884 ppbv  
 RT: 9.61 min Scan# 2076  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 97      | 100  |       |       |       |
| 83      | 94.8 | 71.1  | 106.7 |       |
| 85      | 59.4 | 42.9  | 64.3  |       |
| 99      | 62.7 | 48.2  | 72.4  |       |

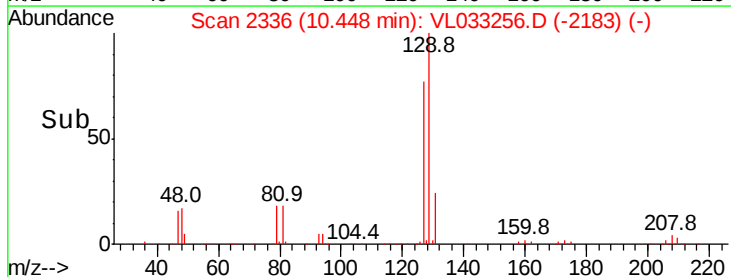
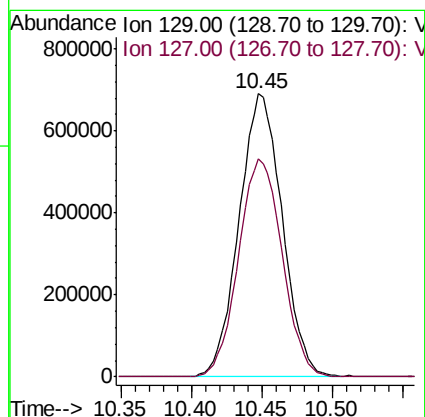
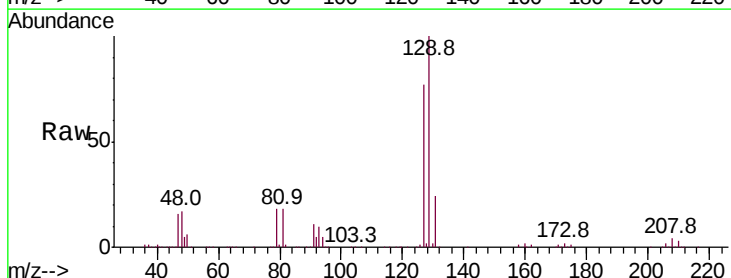
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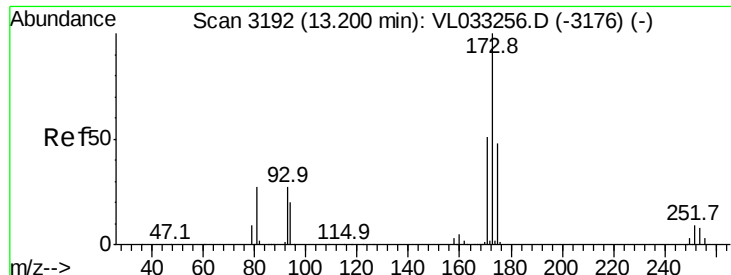
MMDadoda  
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#48  
 Dibromochloromethane  
 Concen: 9.679 ppbv  
 RT: 10.45 min Scan# 2336  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 129     | 100  |       |       |       |
| 127     | 78.8 | 39.0  | 117.0 |       |





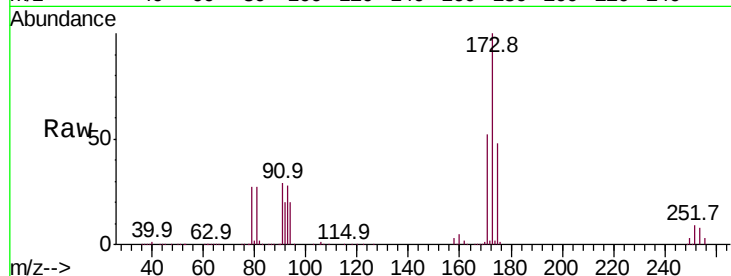
#49  
Bromoform  
Concen: 9.899 ppbv  
RT: 13.20 min Scan# 3192  
Delta R.T. -0.00 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

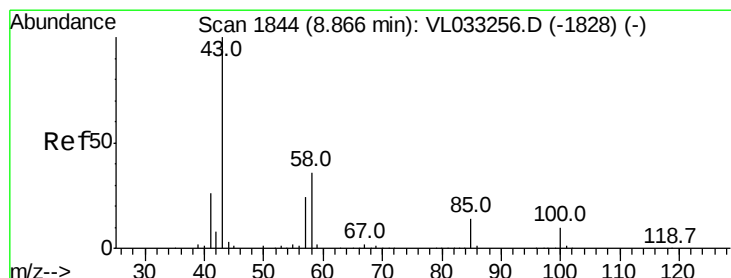
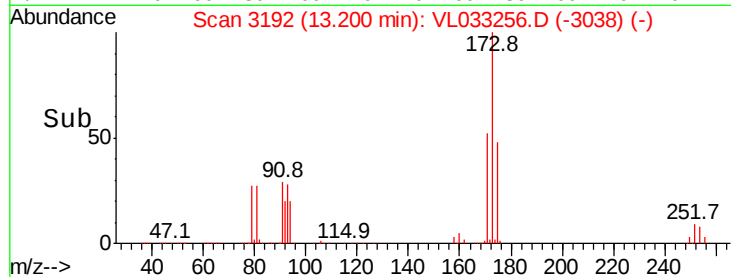
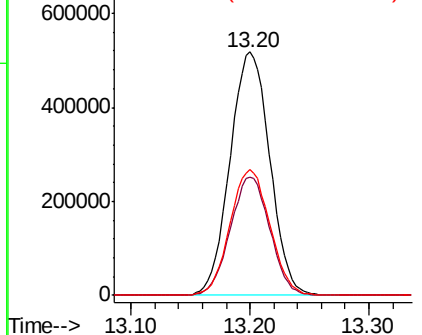
Tot Ion:173 Resp: 1199002  
Ion Ratio Lower Upper  
173 100  
175 48.5 38.9 58.3  
171 51.9 41.4 62.0

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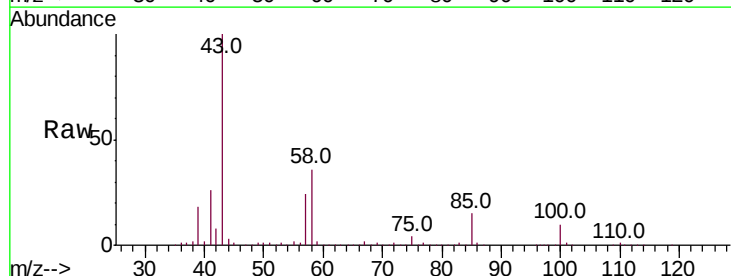


Abundance Ion 172.90 (172.60 to 173.60): V  
Ion 174.90 (174.60 to 175.60): V  
Ion 170.90 (170.60 to 171.60): V

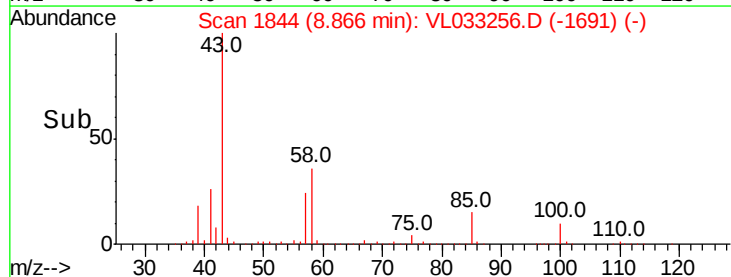
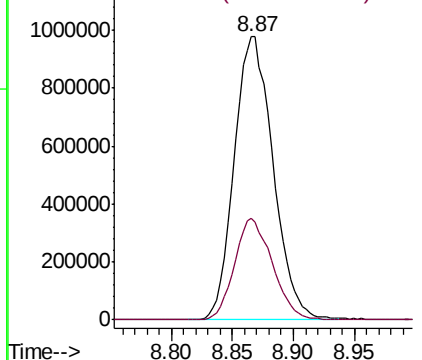


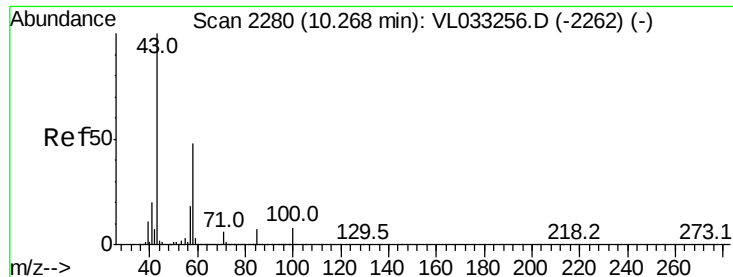
#50  
4-Methyl-2-Pentanone  
Concen: 8.879 ppbv  
RT: 8.87 min Scan# 1844  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Tgt Ion: 43 Resp: 2160477  
Ion Ratio Lower Upper  
43 100  
58 35.1 27.8 41.6



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





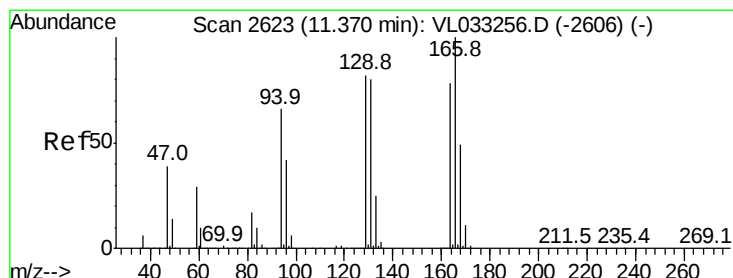
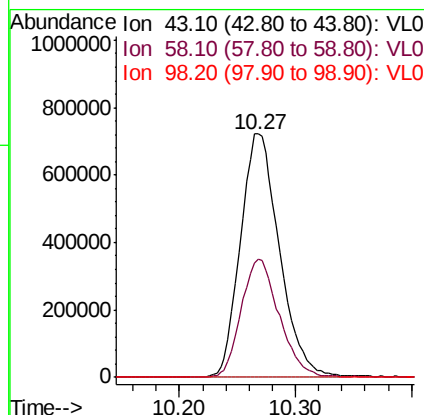
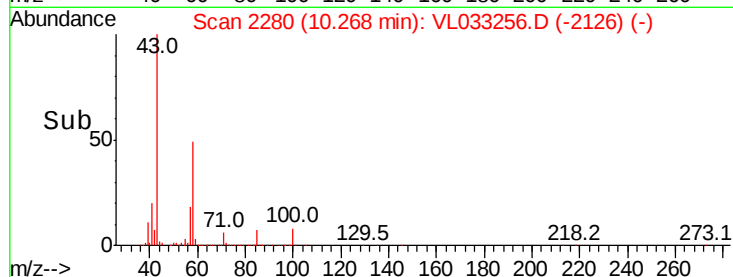
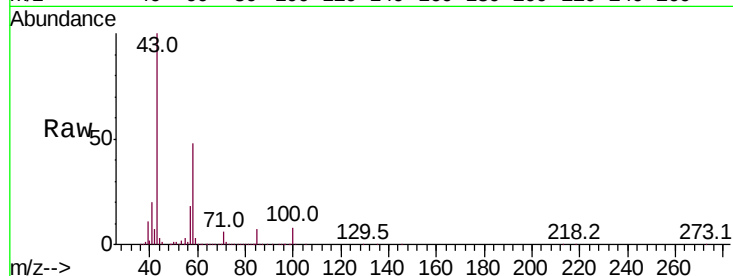
#51  
2-Hexanone  
Concen: 9.253 ppbv  
RT: 10.27 min Scan# 2280  
Delta R.T. -0.00 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 47.6  | 38.2  | 57.2  |
| 98      | 0.3   | 0.2   | 0.4   |

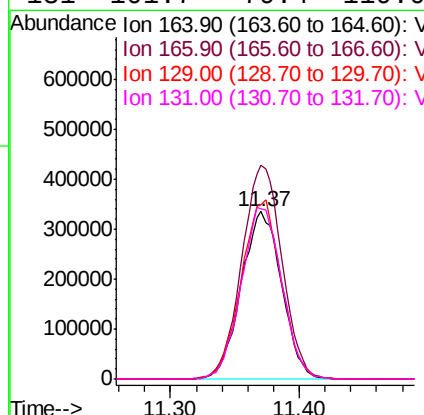
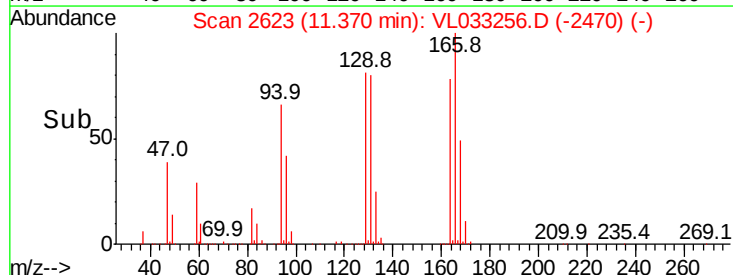
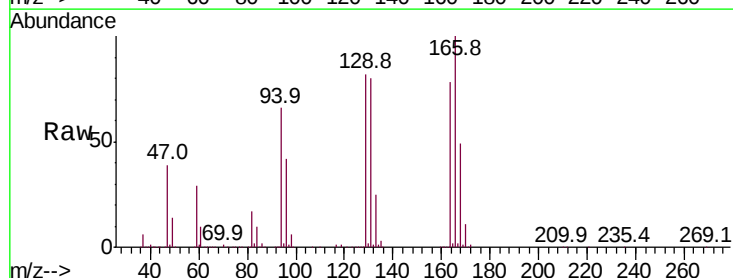
Manual Integrations  
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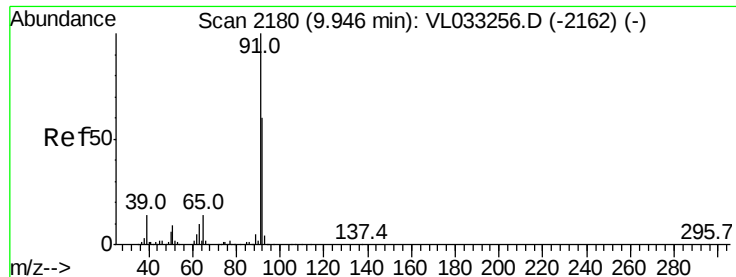
MMDadoda  
3/11/2019 10:10:06 AM



#52  
Tetrachloroethene  
Concen: 8.789 ppbv  
RT: 11.37 min Scan# 2623  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 127.5 | 103.3 | 154.9 |
| 129     | 104.0 | 84.4  | 126.6 |
| 131     | 101.7 | 79.4  | 119.0 |





#53

Toluene

Concen: 9.294 ppbv

RT: 9.95 min Scan# 2180

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 91 Resp: 2394563

Ion Ratio Lower Upper

91 100

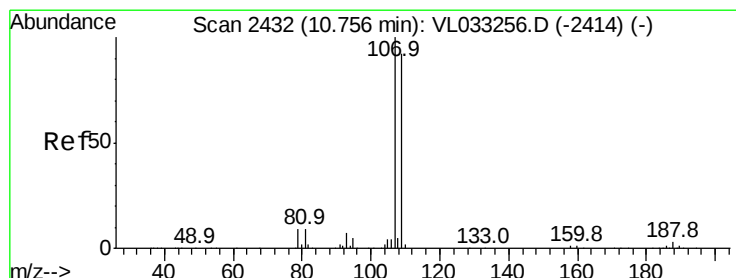
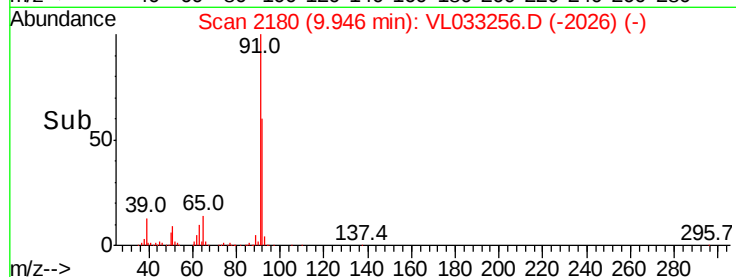
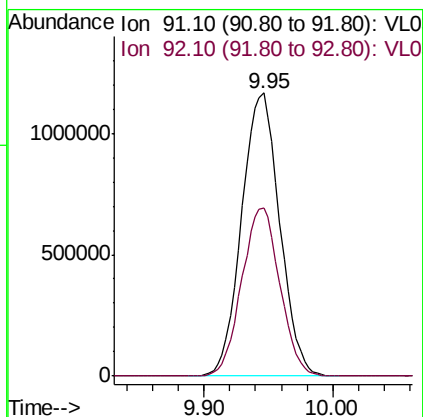
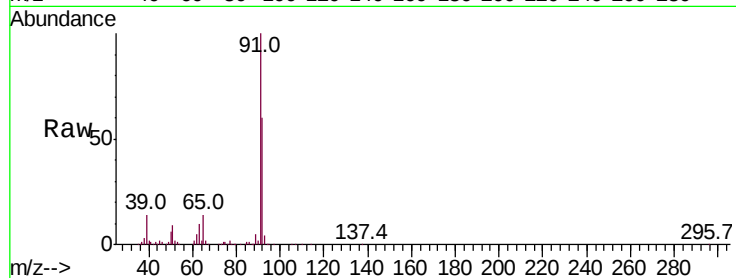
92 59.6 47.4 71.2

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#54

1,2-Dibromoethane

Concen: 9.150 ppbv

RT: 10.76 min Scan# 2432

Delta R.T. -0.01 min

Lab File: VL033256.D

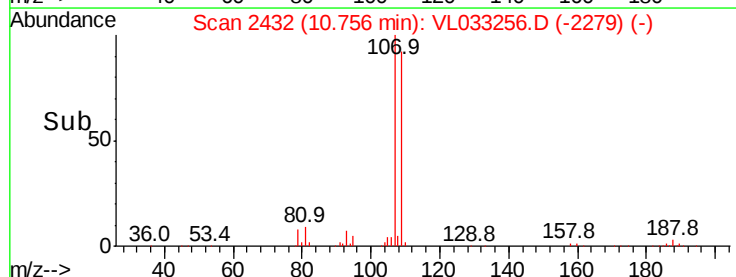
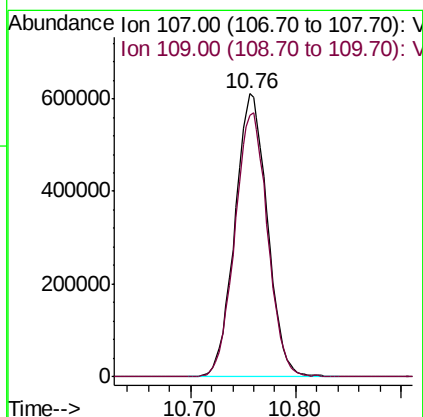
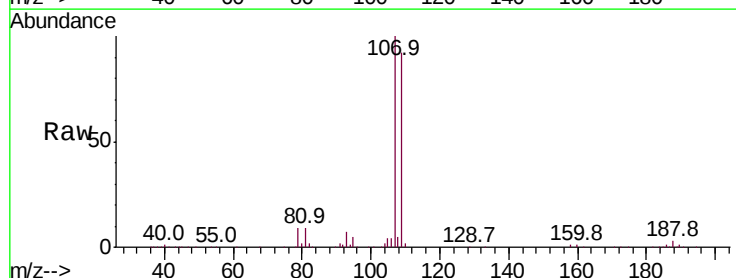
Acq: 8 Mar 2019 12:46

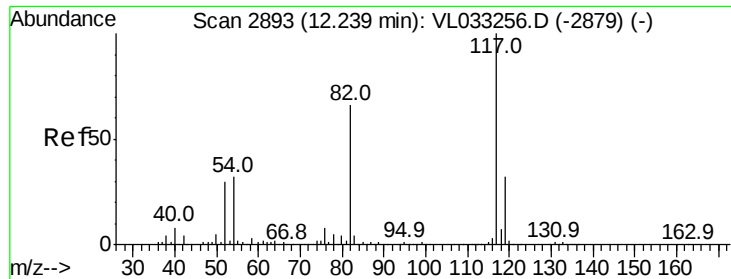
Tgt Ion:107 Resp: 1301571

Ion Ratio Lower Upper

107 100

109 92.4 73.6 110.4





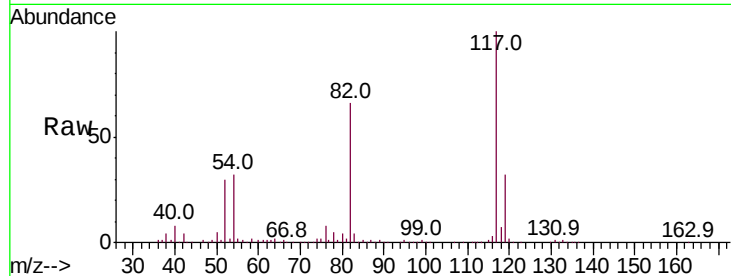
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv m  
RT: 12.24 min Scan# 2893  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampled :  
VSTDICCC010

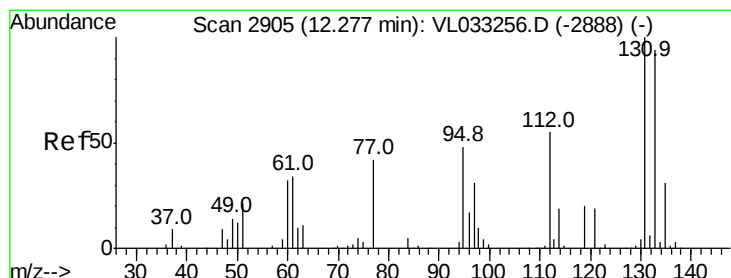
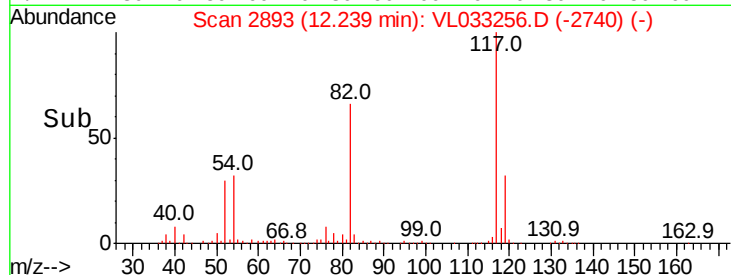
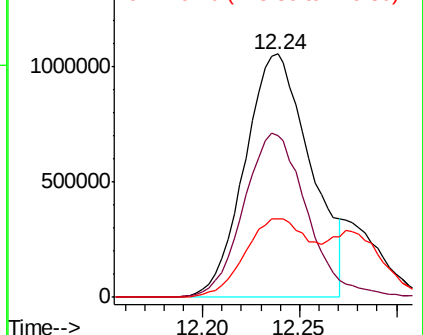
Tot Ion:117 Resp: 2498637  
Ion Ratio Lower Upper  
117 100  
82 65.3 51.8 77.8  
119 54.3 43.6 65.4

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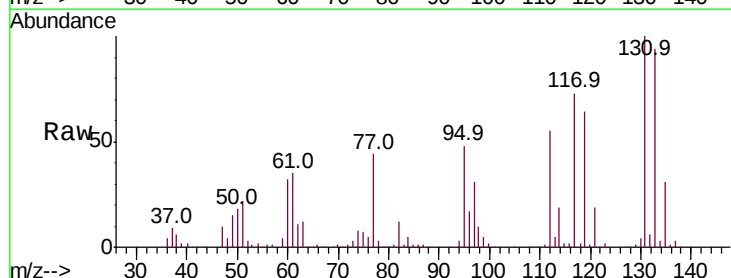


Abundance Ion 117.10 (116.80 to 117.80): V  
Ion 82.10 (81.80 to 82.80): V  
Ion 119.10 (118.80 to 119.80): V

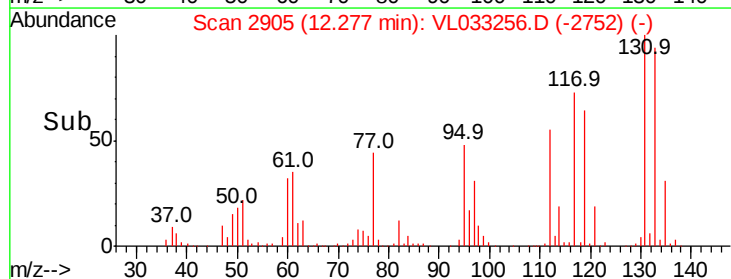
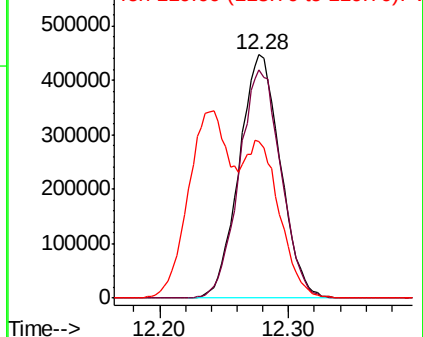


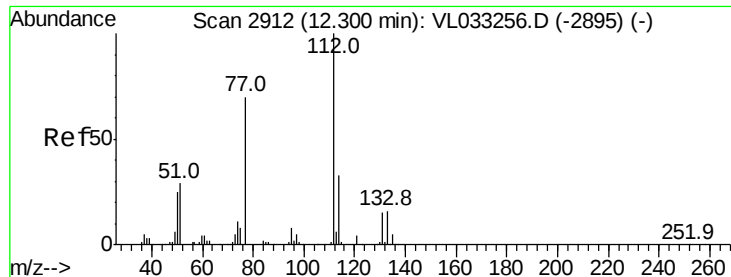
#56  
1,1,1,2-Tetrachloroethane  
Concen: 9.171 ppbv  
RT: 12.28 min Scan# 2905  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Tgt Ion:131 Resp: 994737  
Ion Ratio Lower Upper  
131 100  
133 95.4 76.2 114.2  
119 136.5 108.9 163.3



Abundance Ion 131.00 (130.70 to 131.70): V  
Ion 133.00 (132.70 to 133.70): V  
Ion 119.00 (118.70 to 119.70): V





#57

Chlorobenzene

Concen: 8.634 ppbv

RT: 12.30 min Scan# 2912

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 112 Resp: 1679628

Ion Ratio Lower Upper

112 100

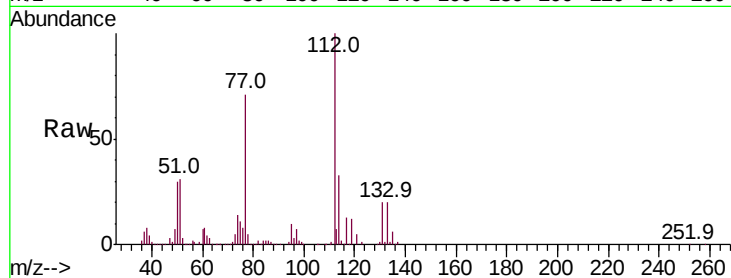
77 71.0 56.5 84.7

114 32.8 28.4 34.7

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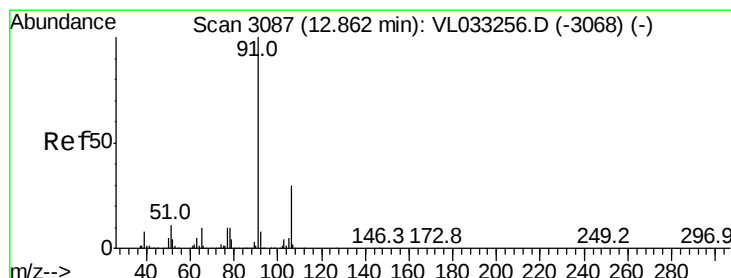
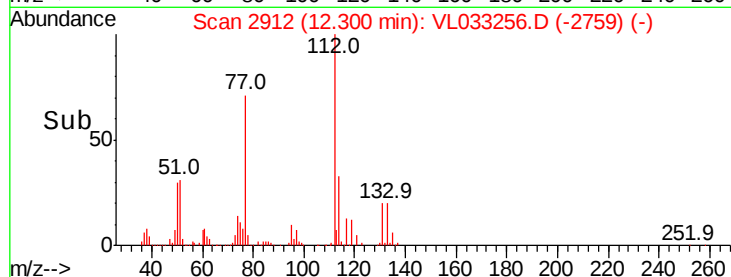
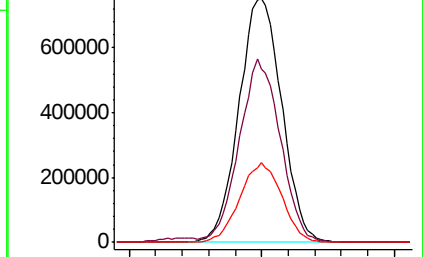
3/11/2019 10:10:06 AM



Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V



#58

Ethyl Benzene

Concen: 9.367 ppbv

RT: 12.86 min Scan# 3087

Delta R.T. -0.01 min

Lab File: VL033256.D

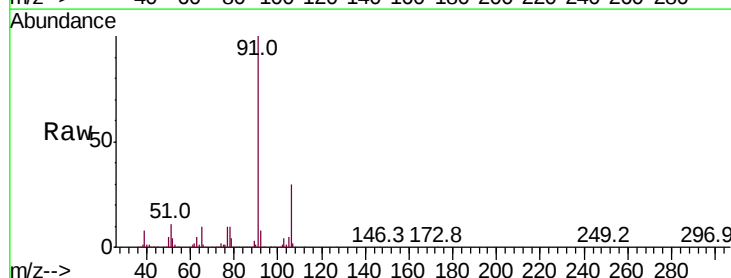
Acq: 8 Mar 2019 12:46

Tgt Ion: 91 Resp: 3237277

Ion Ratio Lower Upper

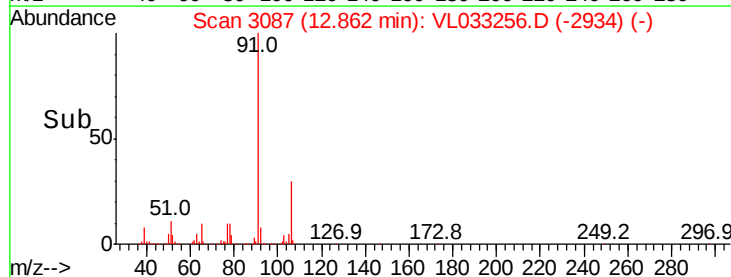
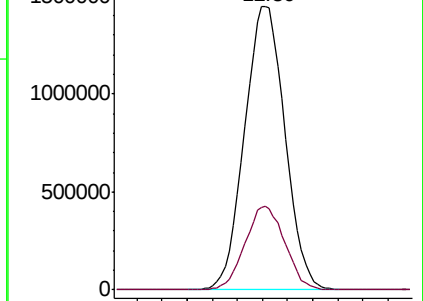
91 100

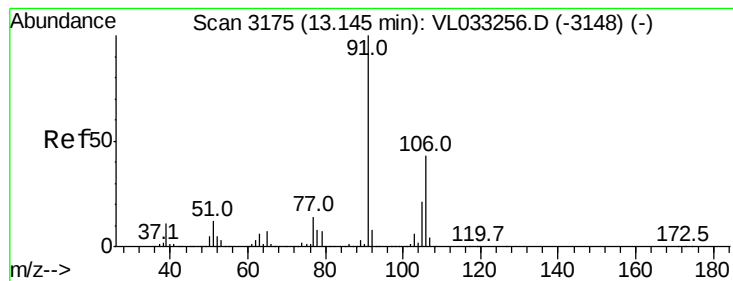
106 29.6 23.5 35.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#59

m/p-Xylene

Concen: 18.319 ppbv m

RT: 13.15 min Scan# 3175

Delta R.T. 0.02 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 91 Resp: 5395161

Ion Ratio Lower Upper

91 100

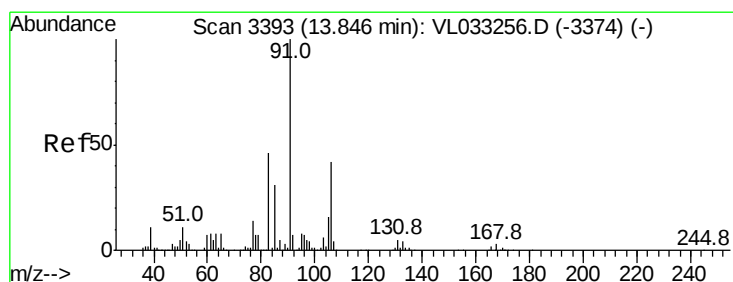
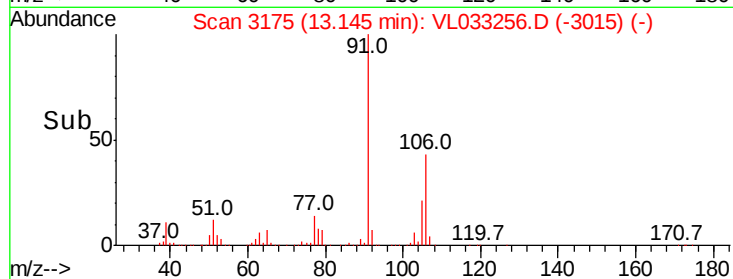
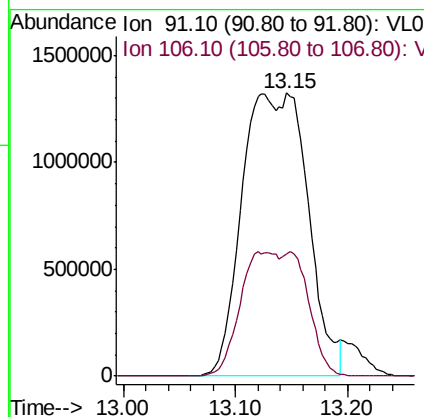
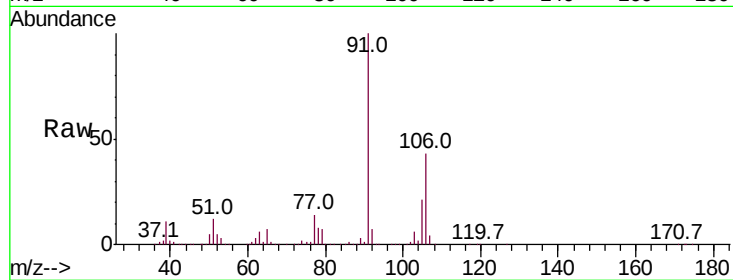
106 43.7 35.6 53.4

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#60

o-Xylene

Concen: 9.240 ppbv

RT: 13.85 min Scan# 3393

Delta R.T. -0.01 min

Lab File: VL033256.D

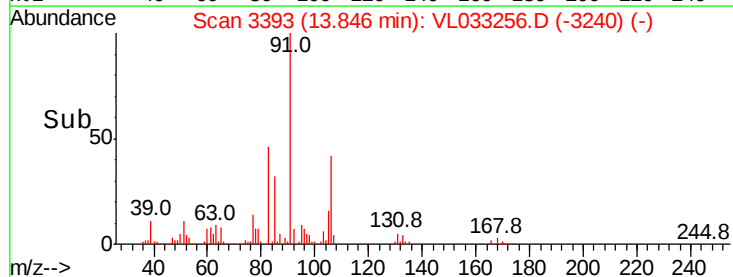
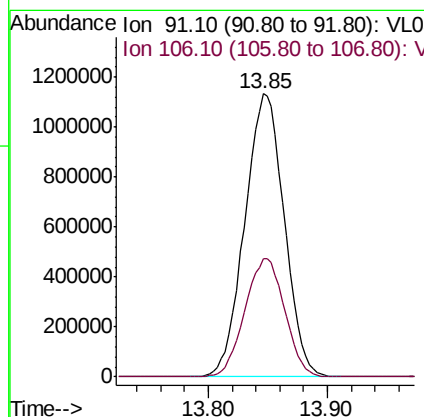
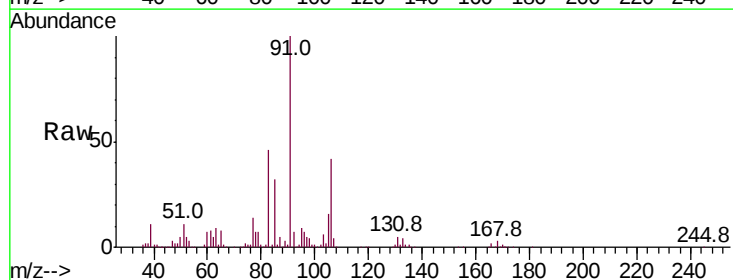
Acq: 8 Mar 2019 12:46

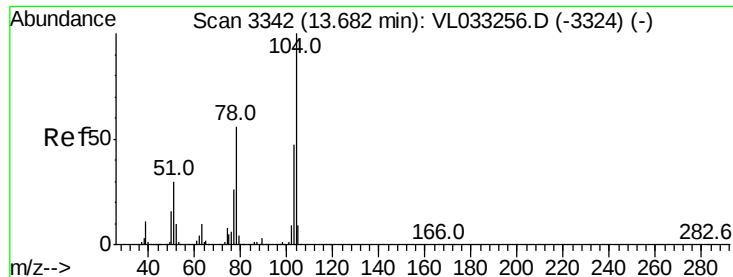
Tgt Ion: 91 Resp: 2594798

Ion Ratio Lower Upper

91 100

106 42.3 21.4 64.3





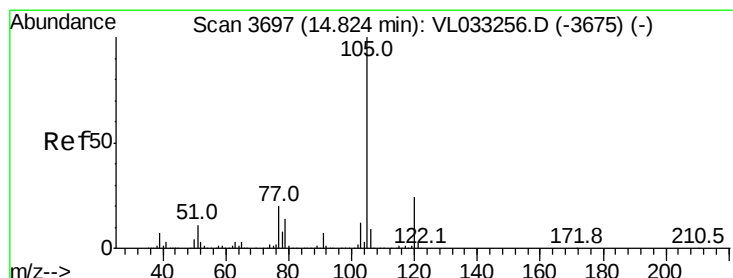
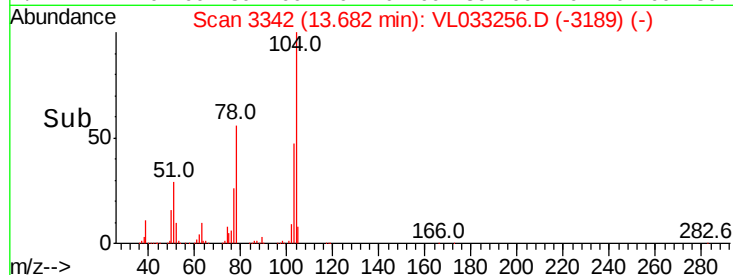
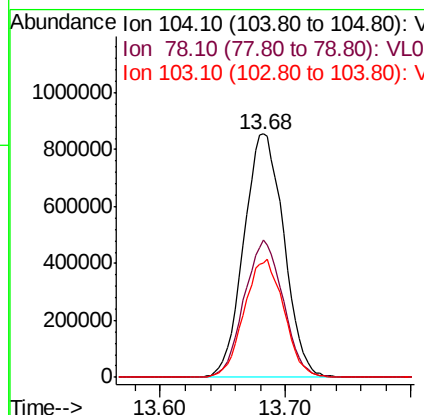
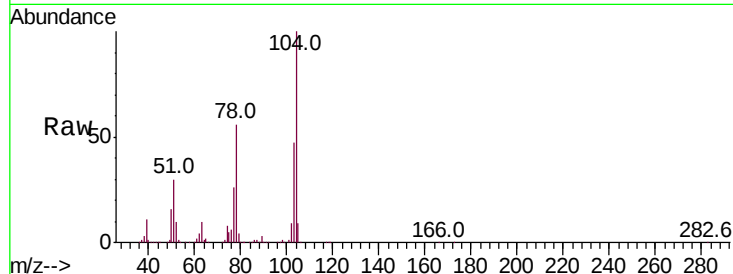
#61  
Stvrene  
Concen: 9.617 ppbv  
RT: 13.68 min Scan# 3342  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 54.9  | 43.7  | 65.5  |
| 103     | 47.9  | 38.2  | 57.2  |

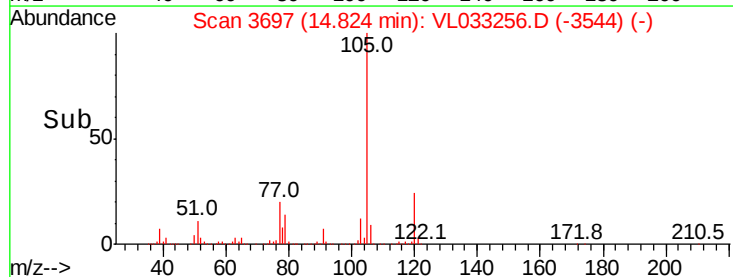
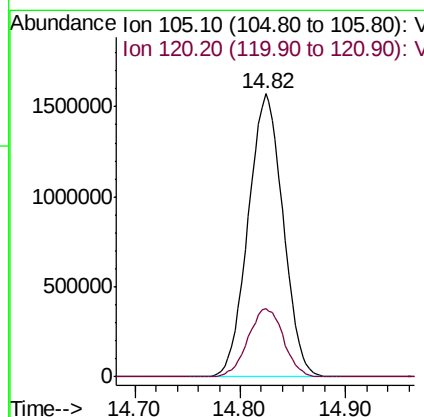
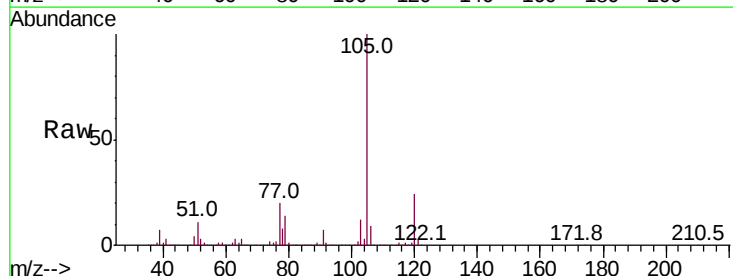
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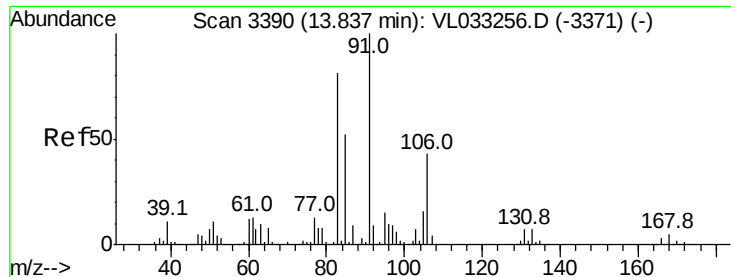
MMDadoda  
3/11/2019 10:10:06 AM



#62  
Isopropylbenzene  
Concen: 9.242 ppbv  
RT: 14.82 min Scan# 3697  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 24.6  | 20.1  | 30.1  |





#63

1,1,2,2-Tetrachloroethane

Concen: 8.377 ppbv

RT: 13.84 min Scan# 3390

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 83 Resp: 1673796

Ion Ratio Lower Upper

83 100

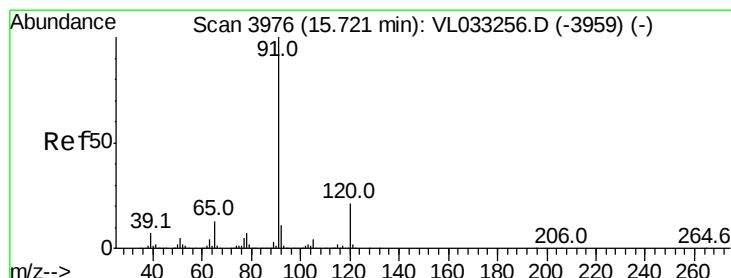
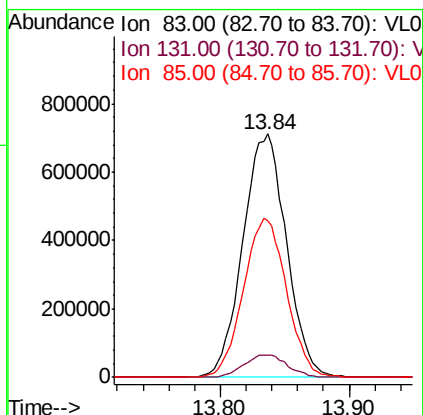
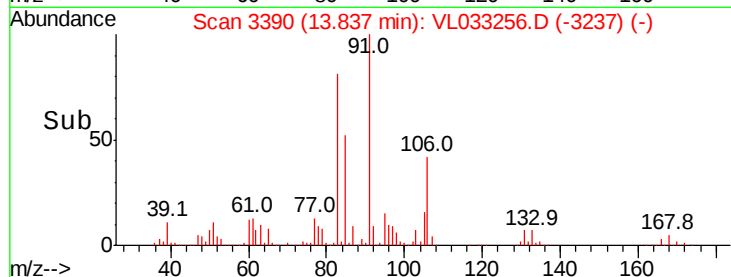
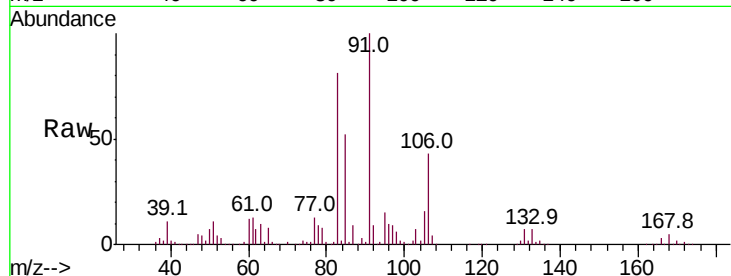
131 9.3 4.7 14.0

85 64.7 32.6 97.8

Manual Integrations  
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#64

n-propylbenzene

Concen: 9.387 ppbv

RT: 15.72 min Scan# 3976

Delta R.T. -0.01 min

Lab File: VL033256.D

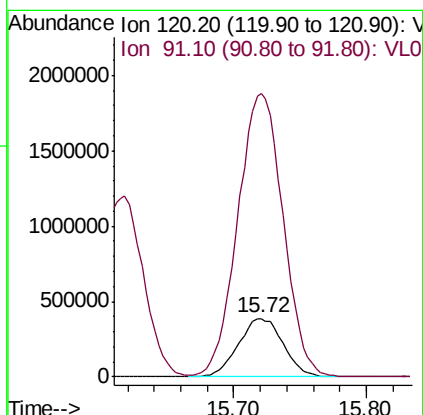
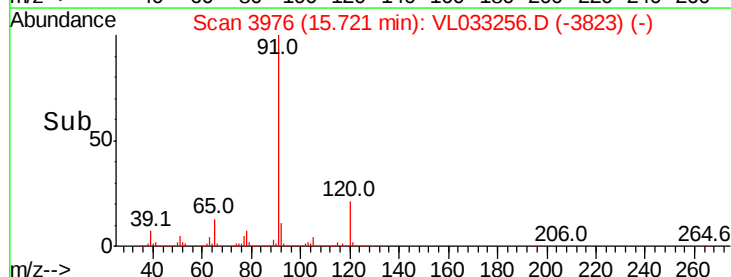
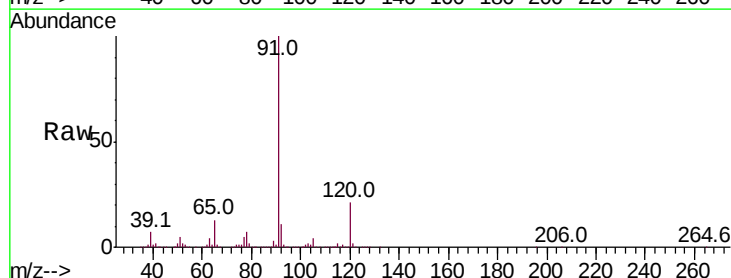
Acq: 8 Mar 2019 12:46

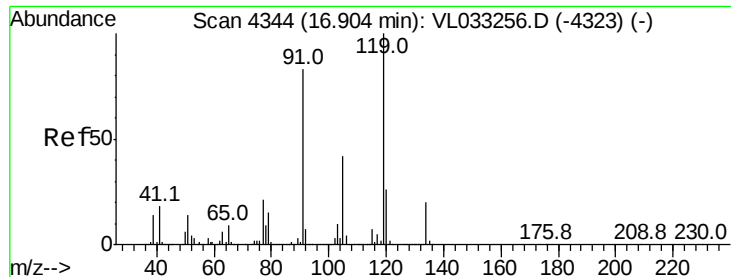
Tgt Ion: 120 Resp: 910951

Ion Ratio Lower Upper

120 100

91 491.0 392.2 588.4





#65

tert-Butylbenzene

Concen: 9.185 ppbv

RT: 16.90 min Scan# 4344

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion:119 Resp: 3069933

Ion Ratio Lower Upper

119 100

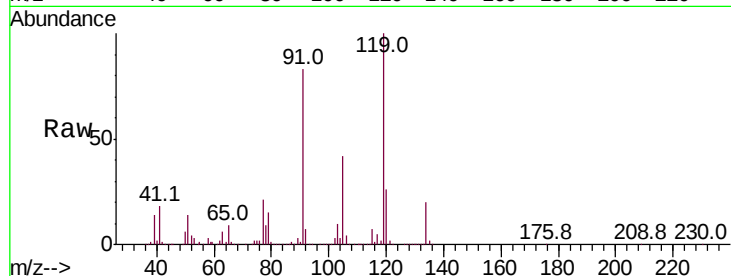
91 84.1 67.0 100.4

134 19.4 15.4 23.2

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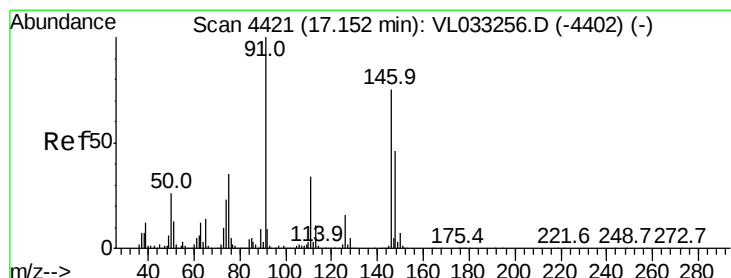
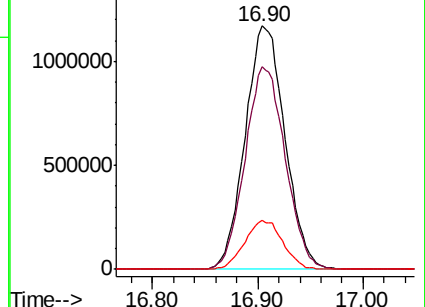
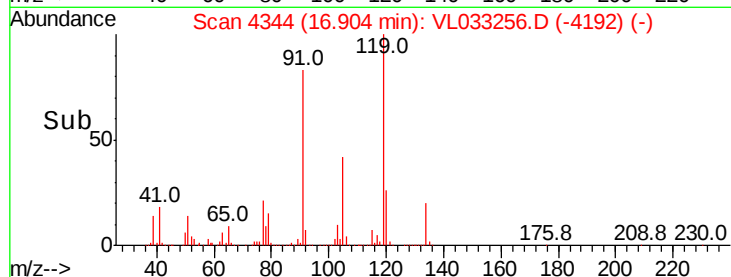
3/11/2019 10:10:06 AM



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: 11.961 ppbv

RT: 17.15 min Scan# 4421

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

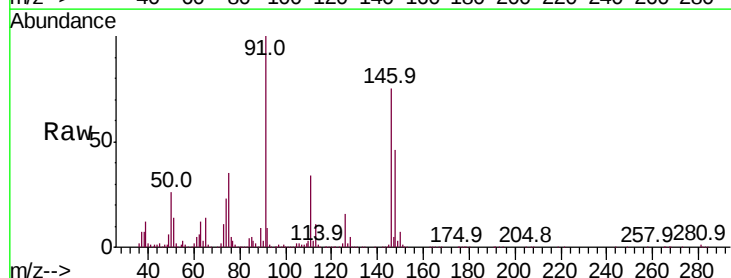
Tgt Ion: 91 Resp: 1546354

Ion Ratio Lower Upper

91 100

126 16.3 13.4 20.0

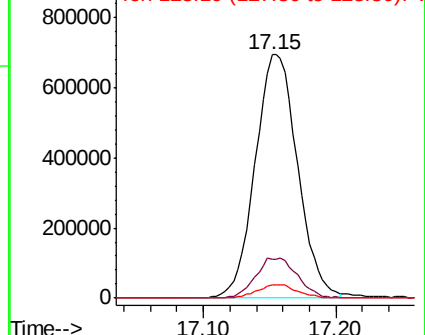
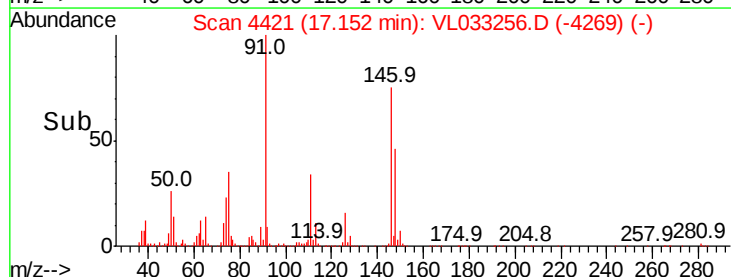
128 5.2 4.2 6.2

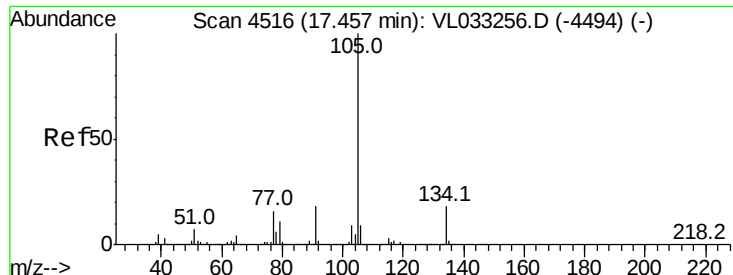


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#67

sec-Butylbenzene

Concen: 9.292 ppbv

RT: 17.46 min Scan# 4516

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion: 105 Resp: 4427558

Ion Ratio Lower Upper

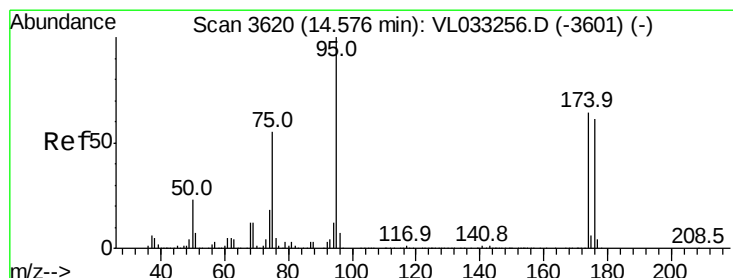
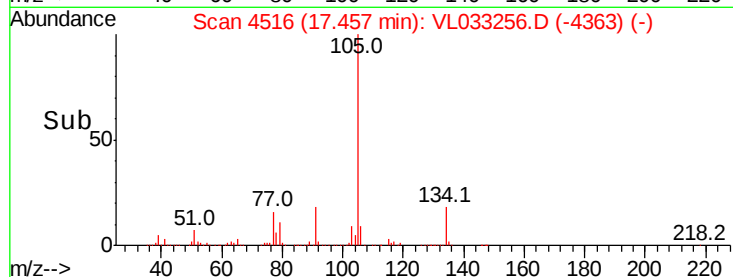
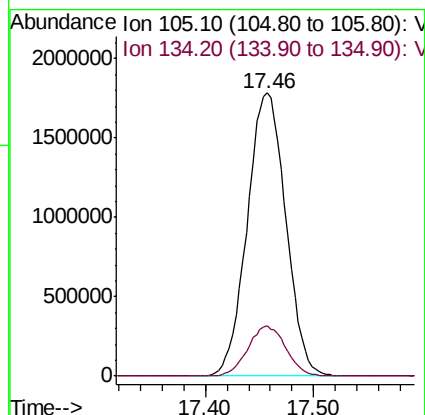
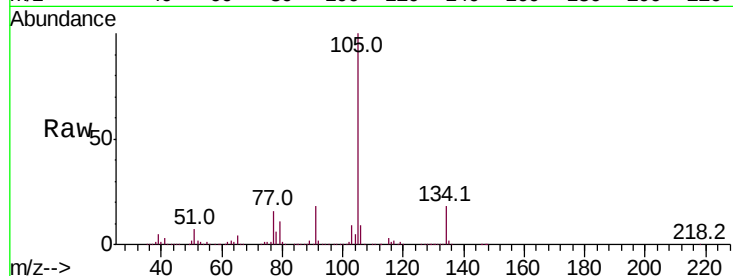
105 100

134 17.5 14.2 21.4

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#68

1-Bromo-4-Fluorobenzene

Concen: 10.083 ppbv

RT: 14.58 min Scan# 3620

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

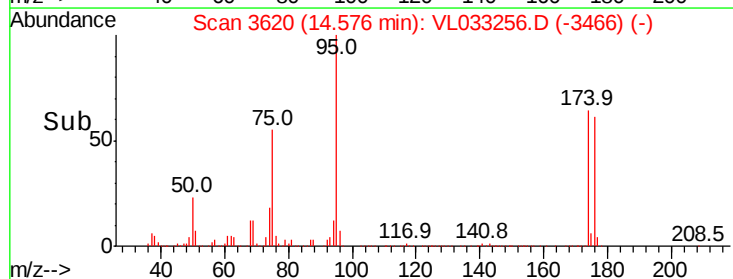
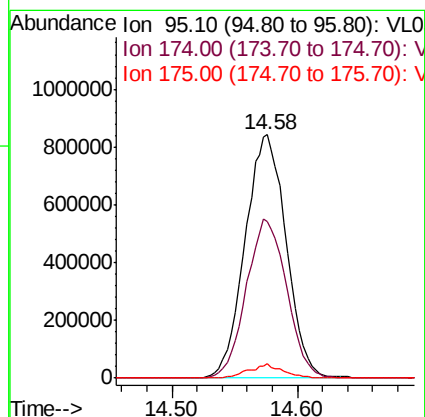
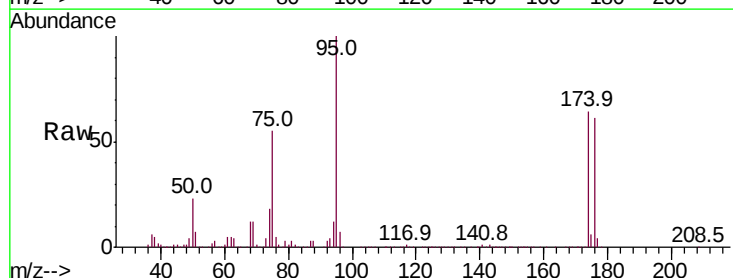
Tgt Ion: 95 Resp: 1911722

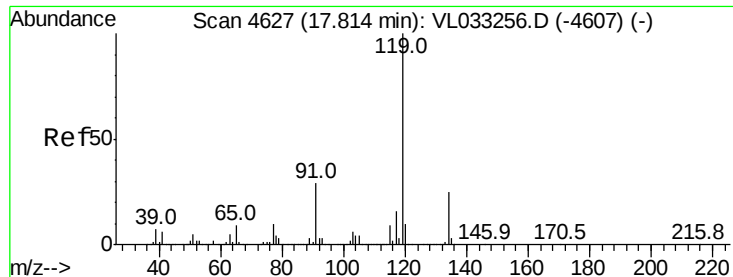
Ion Ratio Lower Upper

95 100

174 64.6 51.0 76.4

175 4.8 3.8 5.6





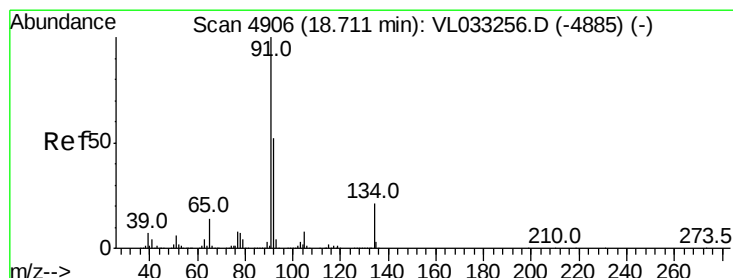
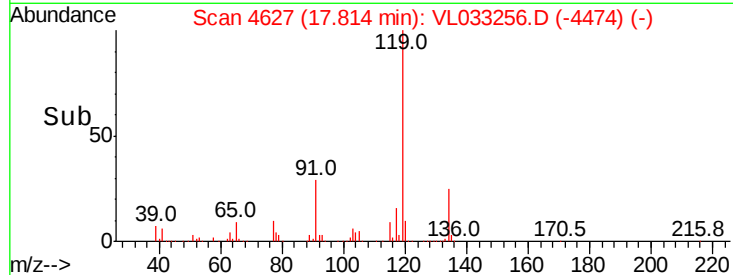
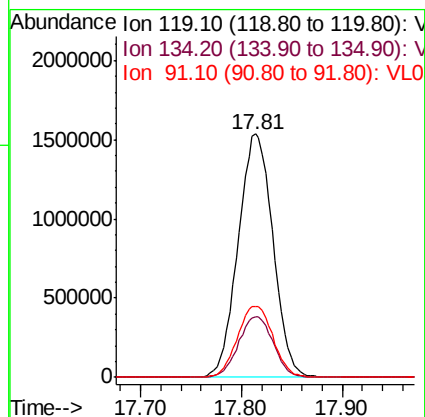
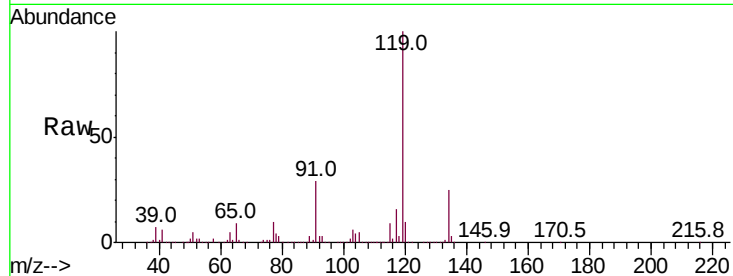
#69  
 p-Isopropyltoluene  
 Concen: 9.531 ppbv  
 RT: 17.81 min Scan# 4627  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 119   | Resp: | 3672430 |
| Ion      | Ratio | Lower | Upper   |
| 119      | 100   |       |         |
| 134      | 24.8  | 19.9  | 29.9    |
| 91       | 29.9  | 23.9  | 35.9    |

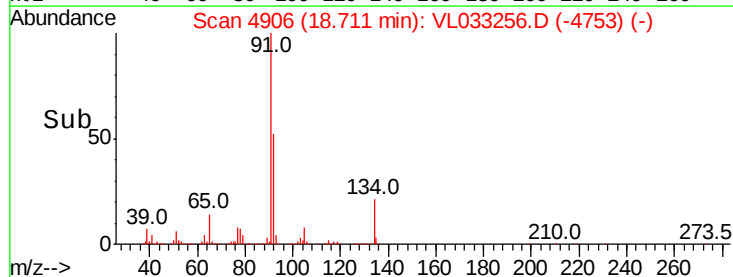
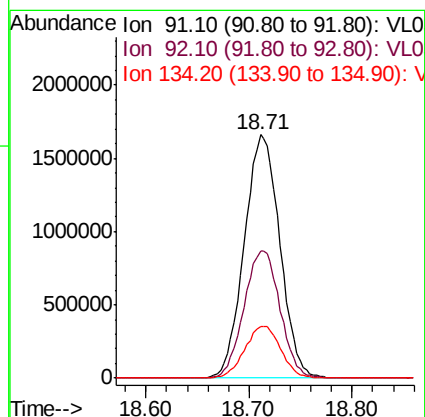
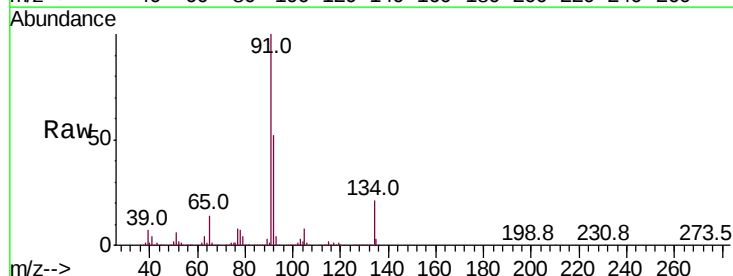
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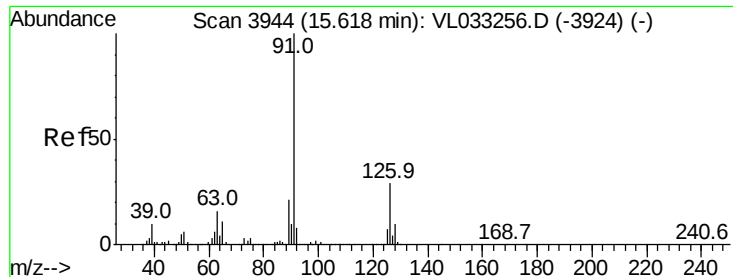
MMDadoda  
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#70  
 n-Butylbenzene  
 Concen: 9.418 ppbv  
 RT: 18.71 min Scan# 4906  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 91    | Resp: | 3974912 |
| Ion      | Ratio | Lower | Upper   |
| 91       | 100   |       |         |
| 92       | 53.2  | 42.4  | 63.6    |
| 134      | 21.6  | 17.3  | 25.9    |





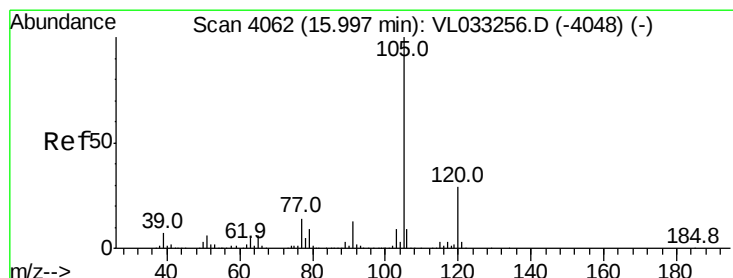
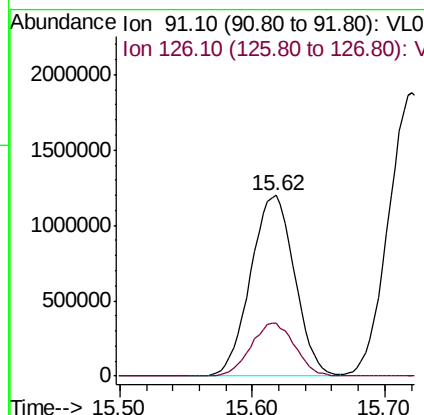
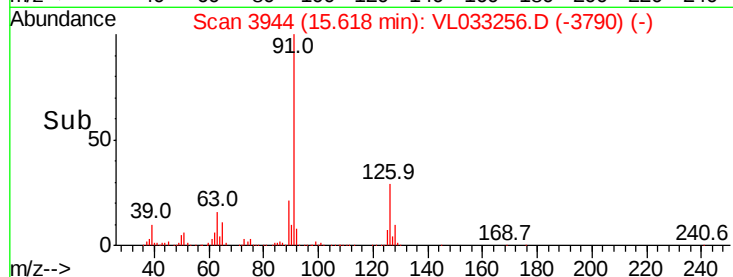
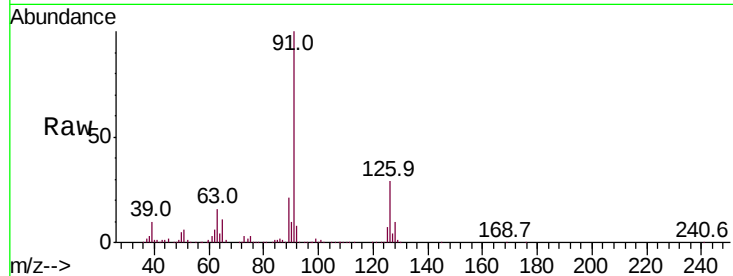
#71  
 2-Chlorotoluene  
 Concen: 9.249 ppbv  
 RT: 15.62 min Scan# 3944  
 Delta R.T. -0.00 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

Tot Ion: 91 Resp: 2768602  
 Ion Ratio Lower Upper  
 91 100  
 126 29.3 11.6 46.2

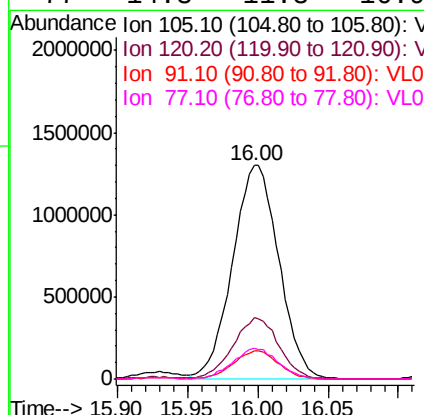
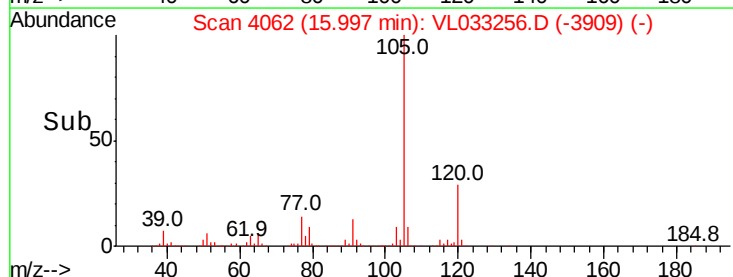
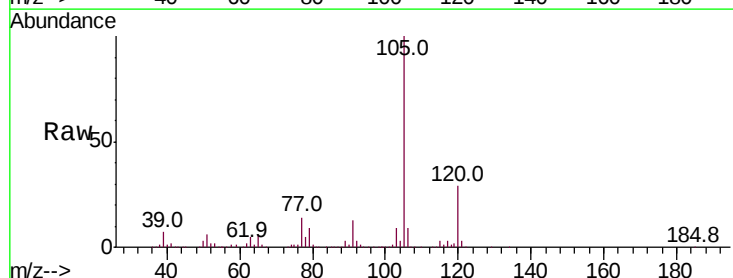
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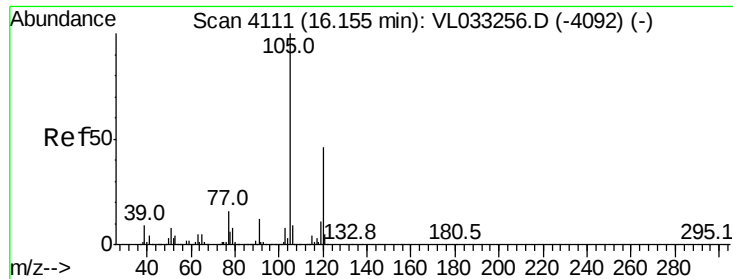
MMDadoda  
 3/11/2019 10:10:06 AM



#72  
 4-Ethyltoluene  
 Concen: 9.658 ppbv  
 RT: 16.00 min Scan# 4062  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Tgt Ion: 105 Resp: 2963665  
 Ion Ratio Lower Upper  
 105 100  
 120 28.6 22.3 33.5  
 91 13.0 10.3 15.5  
 77 14.3 11.3 16.9





#73

1,3,5-Trimethylbenzene

Concen: 9.532 ppbv

RT: 16.15 min Scan# 4111

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

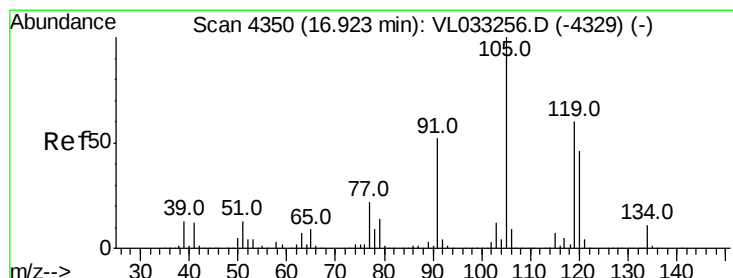
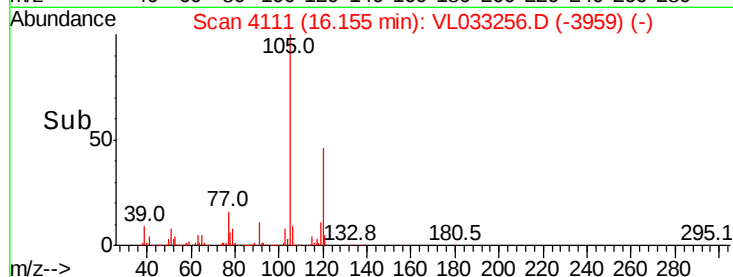
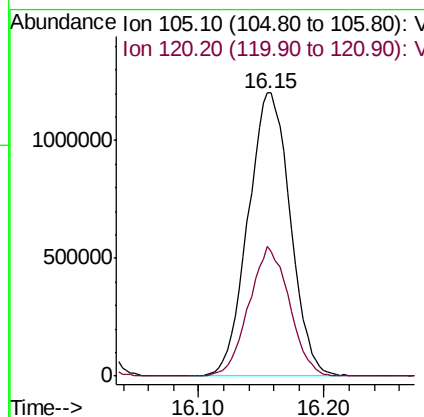
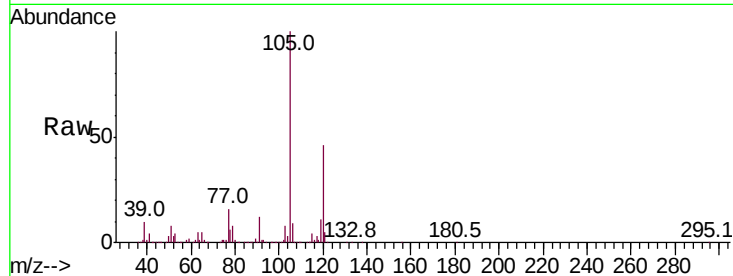
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

Tot Ion:105 Resp: 2807841

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 105 | 100   |       |       |
| 120 | 45.8  | 35.0  | 52.6  |

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3/11/2019 10:10:06 AM



#74

1,2,4-Trimethylbenzene

Concen: 9.220 ppbv

RT: 16.92 min Scan# 4350

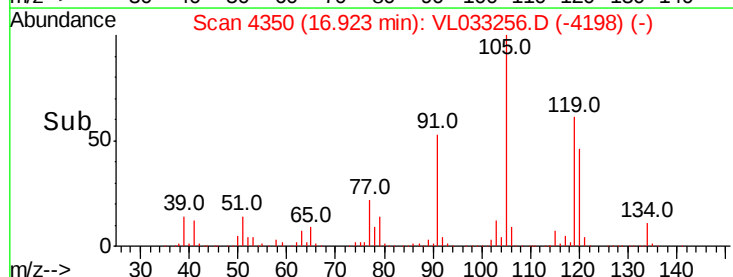
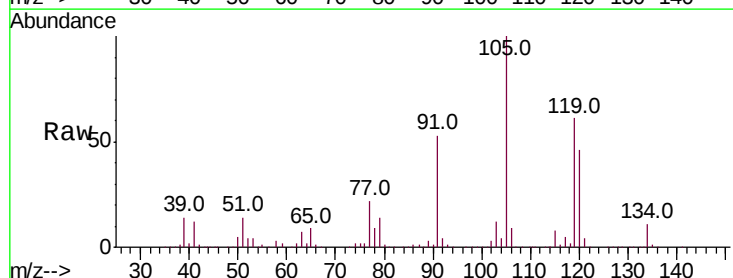
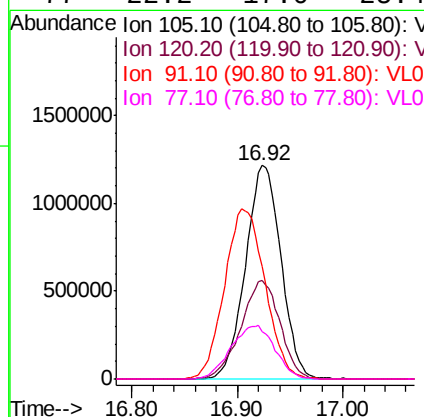
Delta R.T. -0.01 min

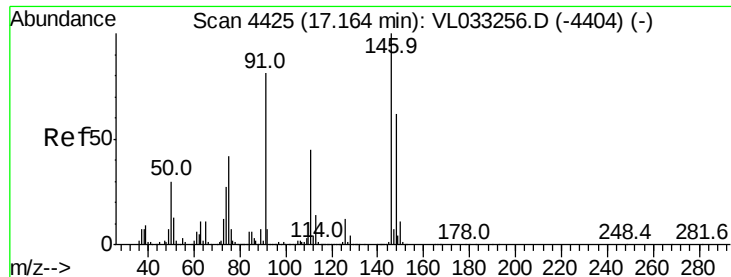
Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Tgt Ion:105 Resp: 2854759

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 105 | 100   |       |       |
| 120 | 45.9  | 36.5  | 54.7  |
| 91  | 52.6  | 34.4  | 51.6  |
| 77  | 22.2  | 17.0  | 25.4  |





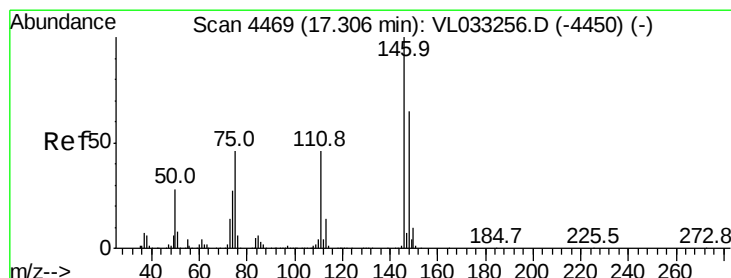
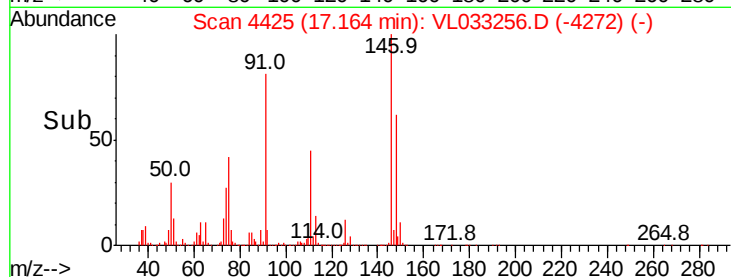
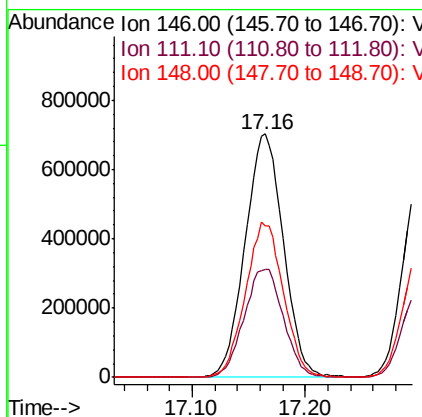
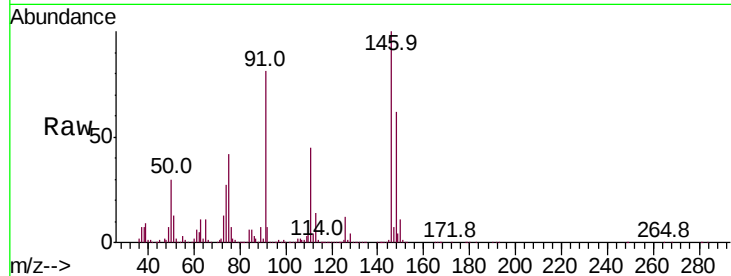
#75  
 1,3-Dichlorobenzene  
 Concen: 9.128 ppbv  
 RT: 17.16 min Scan# 4425  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

Tot Ion:146 Resp: 1652958  
 Ion Ratio Lower Upper  
 146 100  
 111 45.8 23.4 70.0  
 148 63.1 32.1 96.3

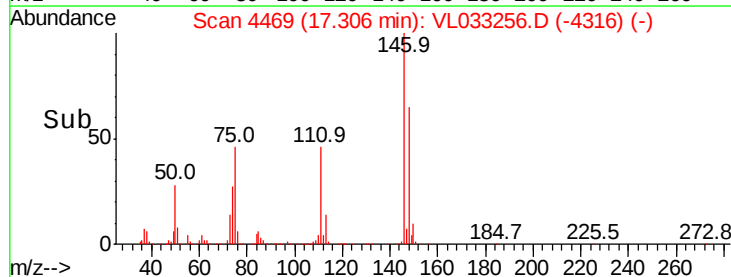
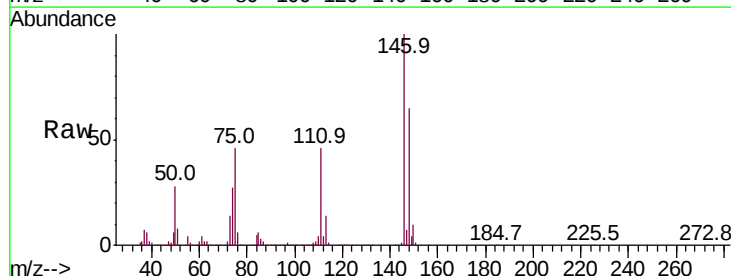
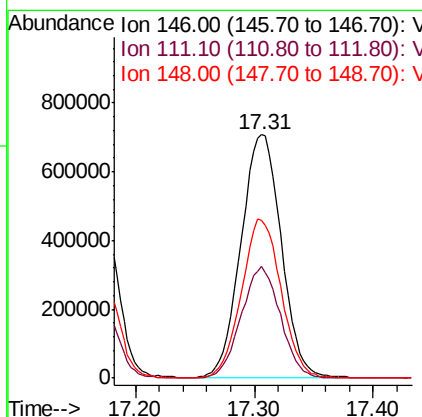
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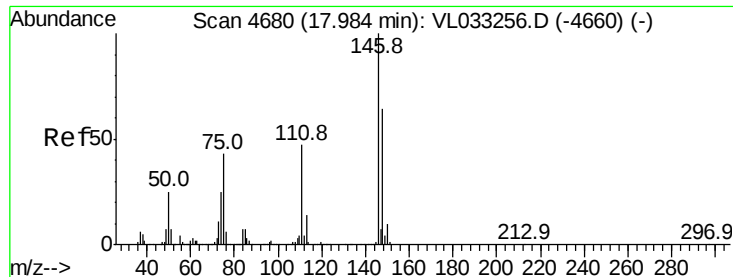
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#76  
 1,4-Dichlorobenzene  
 Concen: 9.227 ppbv  
 RT: 17.31 min Scan# 4469  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Tgt Ion:146 Resp: 1655874  
 Ion Ratio Lower Upper  
 146 100  
 111 45.1 22.4 67.3  
 148 64.6 32.1 96.3





#77

1,2-Dichlorobenzene

Concen: 9.154 ppbv

RT: 17.98 min Scan# 4680

Delta R.T. -0.01 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

Instrument :

MSVOA\_L

ClientSampleId :

VSTDICCC010

Tot Ion:146 Resp: 1609184

Ion Ratio Lower Upper

146 100

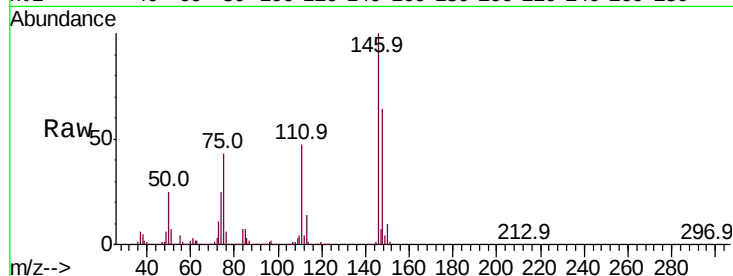
111 47.5 23.6 71.0

148 64.1 32.3 96.9

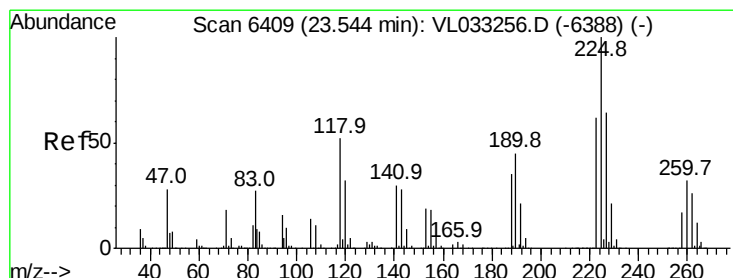
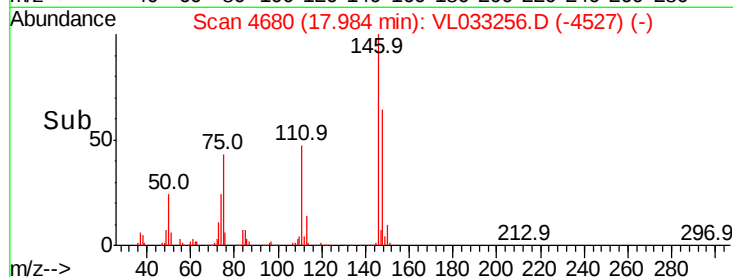
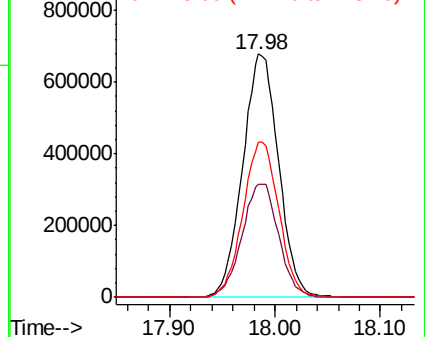
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Abundance Ion 146.00 (145.70 to 146.70): V  
Ion 111.10 (110.80 to 111.80): V  
Ion 148.00 (147.70 to 148.70): V



#78

Hexachloro-1,3-Butadiene

Concen: 9.419 ppbv

RT: 23.54 min Scan# 6409

Delta R.T. -0.00 min

Lab File: VL033256.D

Acq: 8 Mar 2019 12:46

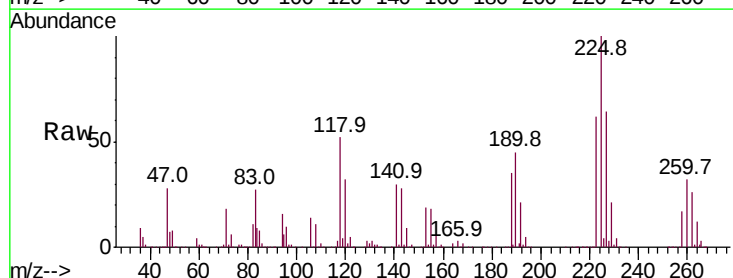
Tgt Ion:225 Resp: 1171855

Ion Ratio Lower Upper

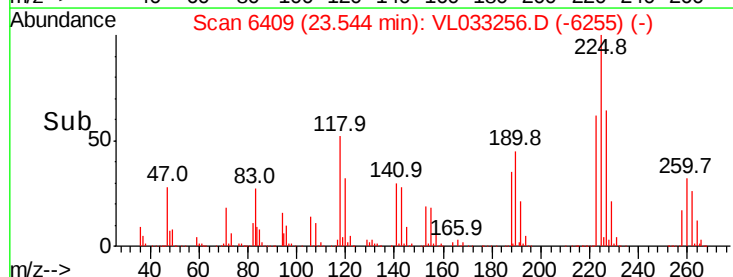
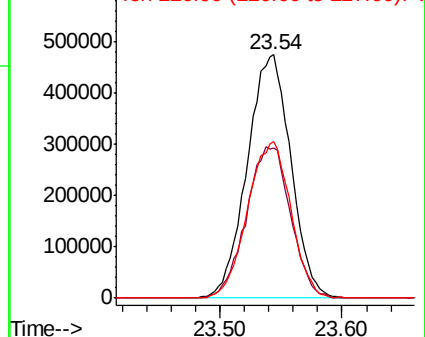
225 100

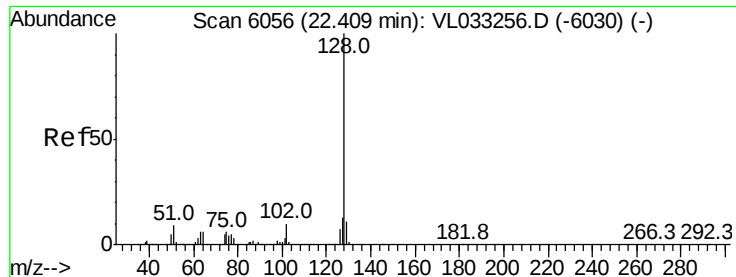
223 63.0 50.9 76.3

227 64.2 50.7 76.1



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





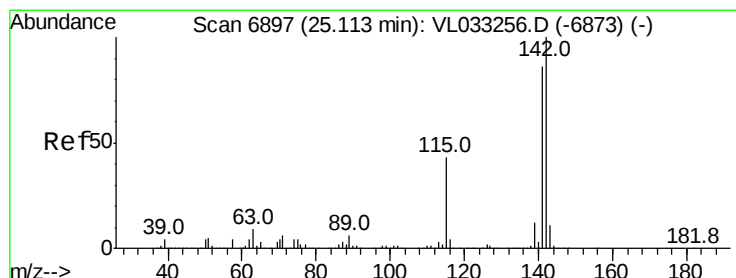
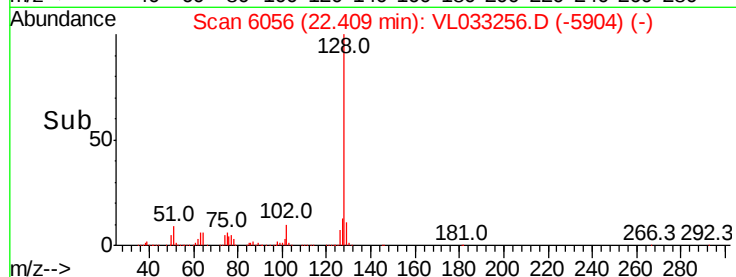
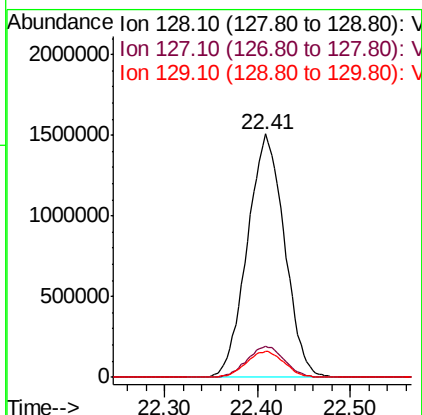
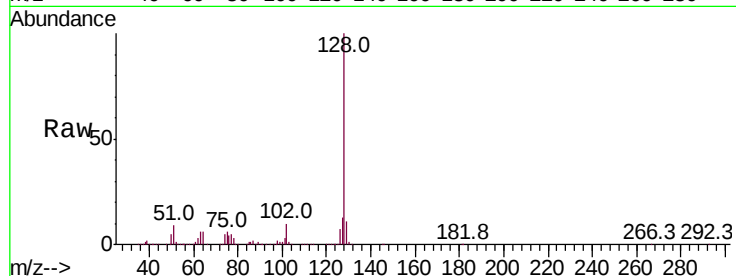
#79  
Naphthalene  
Concen: 11.072 ppbv  
RT: 22.41 min Scan# 6056  
Delta R.T. -0.01 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICCC010

|             |               |
|-------------|---------------|
| Tot Ion:128 | Resp: 4191931 |
| Ion Ratio   | Lower Upper   |
| 128 100     |               |
| 127 12.9    | 10.8 16.2     |
| 129 10.8    | 8.6 13.0      |

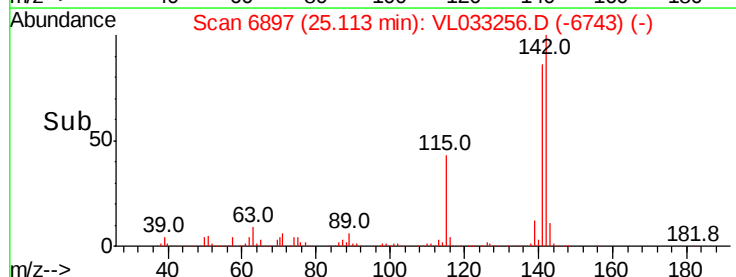
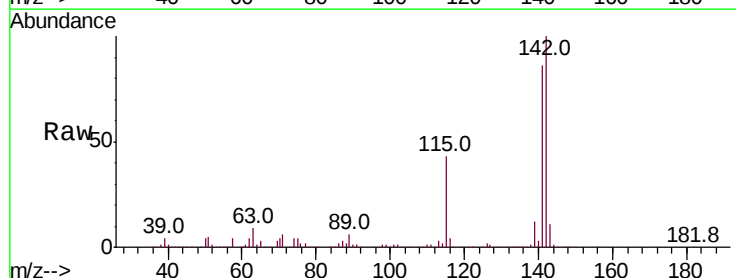
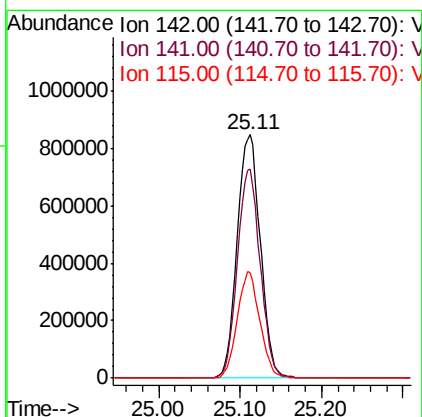
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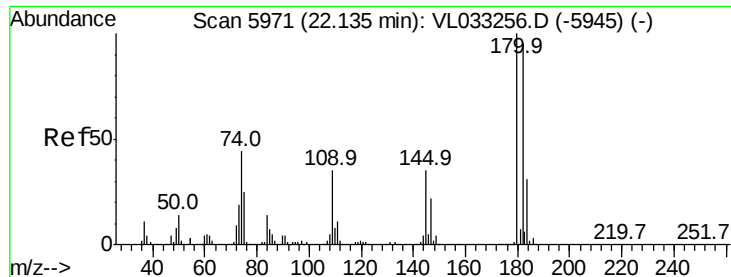
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#80  
Naphthalene, 2-methyl-  
Concen: 14.795 ppbv  
RT: 25.11 min Scan# 6897  
Delta R.T. -0.00 min  
Lab File: VL033256.D  
Acq: 8 Mar 2019 12:46

|             |               |
|-------------|---------------|
| Tgt Ion:142 | Resp: 1673452 |
| Ion Ratio   | Lower Upper   |
| 142 100     |               |
| 141 84.5    | 68.0 102.0    |
| 115 42.4    | 34.1 51.1     |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 10.128 ppbv  
 RT: 22.14 min Scan# 5971  
 Delta R.T. -0.01 min  
 Lab File: VL033256.D  
 Acq: 8 Mar 2019 12:46

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.4  | 76.6  | 114.8 |
| 184     | 30.7  | 24.3  | 36.5  |

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