

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL041918\  
 Data File : VL031882.D  
 Acq On : 19 Apr 2018 17:53  
 Operator : SY/AP  
 Sample : VL0419ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

Manual Integrations  
 APPROVED

sam  
 4/23/2018 12:49:52 PM

Quant Time: Apr 20 08:17:06 2018  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL041218AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Apr 13 16:50:02 2018  
 QLast Update : Fri Apr 13 16:50:02 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.89  | 49   | 1229561  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.43  | 114  | 2899560  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.39 | 117  | 3014132m | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.73  | 95    | 2373804  | 9.79     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 97.90% |

| Target Compounds               |      |     |         |       |      | Ovalue |
|--------------------------------|------|-----|---------|-------|------|--------|
| 2) Dichlorodifluoromethane     | 3.16 | 85  | 1906748 | 7.52  | ppbv | 99     |
| 3) Chlorodifluoromethane       | 3.10 | 51  | 1069017 | 7.48  | ppbv | 99     |
| 4) Chloromethane               | 3.26 | 50  | 644937  | 8.83  | ppbv | 97     |
| 5) Vinyl Chloride              | 3.38 | 62  | 697847  | 8.49  | ppbv | 96     |
| 6) Bromomethane                | 3.61 | 94  | 472027  | 8.74  | ppbv | 98     |
| 7) Chloroethane                | 3.70 | 64  | 284072  | 8.67  | ppbv | 90     |
| 8) Dichlorotetrafluoroethane   | 3.31 | 85  | 1790378 | 8.60  | ppbv | 99     |
| 9) Propene                     | 3.12 | 41  | 462175  | 9.35  | ppbv | 97     |
| 10) Heptane                    | 8.39 | 43  | 1638716 | 10.21 | ppbv | 99     |
| 11) Trichlorofluoromethane     | 4.11 | 101 | 2134084 | 8.58  | ppbv | 99     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.67 | 101 | 1333795 | 8.25  | ppbv | 99     |
| 13) Ethanol                    | 3.75 | 45  | 132914m | 7.92  | ppbv |        |
| 14) Bromoethene                | 3.89 | 108 | 558353  | 9.16  | ppbv | 99     |
| 15) Acetone                    | 4.01 | 43  | 1404069 | 7.42  | ppbv | 99     |
| 16) 1,3-Butadiene              | 3.46 | 39  | 619190  | 8.84  | ppbv | 90     |
| 17) tert-Butyl alcohol         | 4.47 | 59  | 584211  | 7.47  | ppbv | 99     |
| 18) 1,1-Dichloroethene         | 4.46 | 96  | 614505  | 8.85  | ppbv | 96     |
| 19) Isopropyl Alcohol          | 4.13 | 45  | 889907  | 8.42  | ppbv | 100    |
| 20) Methylene Chloride         | 4.52 | 84  | 561105  | 8.14  | ppbv | 95     |
| 21) Allyl Chloride             | 4.59 | 41  | 954548  | 8.83  | ppbv | 99     |
| 22) trans-1,2-Dichloroethene   | 5.08 | 96  | 622130  | 8.65  | ppbv | 94     |
| 23) Vinyl Acetate              | 5.27 | 43  | 1751419 | 9.13  | ppbv | 99     |
| 24) 1,1-Dichloroethane         | 5.21 | 63  | 1646867 | 8.61  | ppbv | 98     |
| 25) Ethyl Acetate              | 5.90 | 43  | 2650442 | 8.98  | ppbv | 100    |
| 26) Hexane                     | 5.90 | 57  | 1254590 | 9.12  | ppbv | 99     |
| 27) Carbon Disulfide           | 4.74 | 76  | 1631666 | 9.13  | ppbv | 99     |
| 28) Methyl tert-Butyl Ether    | 5.23 | 73  | 1566516 | 9.25  | ppbv | 100    |
| 29) Chloroform                 | 5.97 | 83  | 2033915 | 8.72  | ppbv | 98     |
| 30) Cyclohexane                | 7.39 | 84  | 982072  | 9.99  | ppbv | 99     |
| 31) cis-1,2-Dichloroethene     | 5.77 | 61  | 1173763 | 9.42  | ppbv | 94     |
| 32) 1,1,1-Trichloroethane      | 6.75 | 97  | 2024550 | 8.91  | ppbv | 99     |
| 34) 2-Butanone                 | 5.45 | 43  | 1652534 | 8.22  | ppbv | 99     |
| 35) Carbon Tetrachloride       | 7.27 | 117 | 2120148 | 8.42  | ppbv | 99     |
| 36) Benzene                    | 7.14 | 78  | 2420201 | 9.28  | ppbv | 99     |
| 37) 1,2-Dichloroethane         | 6.55 | 62  | 1640643 | 8.45  | ppbv | 99     |
| 38) Trichloroethene            | 8.11 | 130 | 970713  | 9.17  | ppbv | 100    |
| 39) 1,2-Dichloropropane        | 7.88 | 63  | 873223  | 9.01  | ppbv | 97     |
| 40) 1,4-Dioxane                | 8.10 | 88  | 359164  | 9.13  | ppbv | 84     |
| 41) Tetrahydrofuran            | 6.28 | 42  | 857474  | 9.21  | ppbv | 99     |
| 42) Bromodichloromethane       | 8.06 | 83  | 2109220 | 9.08  | ppbv | 99     |
| 43) Methyl Methacrylate        | 8.28 | 69  | 915163  | 9.97  | ppbv | 99     |

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL041918\  
 Data File : VL031882.D  
 Acq On : 19 Apr 2018 17:53  
 Operator : SY/AP  
 Sample : VL0419ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

Manual Integrations  
 APPROVED

sam  
 4/23/2018 12:49:52 PM

Quant Time: Apr 20 08:17:06 2018  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL041218AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Apr 13 2018  
 QLast Update : Fri Apr 13 16:50:02 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.13  | 57   | 4173385  | 9.29  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.56  | 75   | 1273909  | 10.70 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.98  | 75   | 1554868  | 10.22 | ppbv   | 96       |
| 47) 1,1,2-Trichloroethane     | 9.76  | 97   | 1037296  | 9.00  | ppbv   | 99       |
| 48) Dibromochloromethane      | 10.60 | 129  | 1764679  | 9.48  | ppbv   | 100      |
| 49) Bromoform                 | 13.36 | 173  | 1395250  | 9.73  | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 9.01  | 43   | 2122618  | 9.22  | ppbv   | 100      |
| 51) 2-Hexanone                | 10.42 | 43   | 1900560  | 9.44  | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.52 | 164  | 927148   | 9.12  | ppbv   | 96       |
| 53) Toluene                   | 10.10 | 91   | 2884920  | 9.92  | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.91 | 107  | 1550957  | 9.27  | ppbv   | 97       |
| 56) 1,1,1,2-Tetrachloroethane | 12.43 | 131  | 1224833  | 8.64  | ppbv   | 99       |
| 57) Chlorobenzene             | 12.45 | 112  | 2210254  | 8.65  | ppbv   | 98       |
| 58) Ethyl Benzene             | 13.02 | 91   | 4046819  | 9.67  | ppbv   | 99       |
| 59) m/p-Xylene                | 13.30 | 91   | 6636661m | 18.26 | ppbv   |          |
| 60) o-Xylene                  | 14.00 | 91   | 3421335  | 9.42  | ppbv   | 100      |
| 61) Styrene                   | 13.84 | 104  | 744009   | 10.76 | ppbv   | 100      |
| 62) Isopropylbenzene          | 14.98 | 105  | 4259841  | 9.13  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.99 | 83   | 2251679  | 8.06  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.87 | 120  | 1057883  | 9.33  | ppbv   | 99       |
| 65) tert-Butylbenzene         | 17.06 | 119  | 3678803  | 9.17  | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.30 | 91   | 419261   | 11.59 | ppbv   | 97       |
| 67) sec-Butylbenzene          | 17.61 | 105  | 5262843  | 9.10  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.97 | 119  | 4147411  | 9.25  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.86 | 91   | 4224779  | 9.05  | ppbv   | 100      |
| 71) 2-Chlorotoluene           | 15.77 | 91   | 3190151  | 9.46  | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 16.15 | 105  | 3442986  | 9.27  | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.31 | 105  | 3116045  | 9.17  | ppbv   | 98       |
| 74) 1,2,4-Trimethylbenzene    | 17.08 | 105  | 3311868  | 8.73  | ppbv   | 99       |
| 75) 1,3-Dichlorobenzene       | 17.32 | 146  | 1989399  | 8.55  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.46 | 146  | 1992509  | 8.83  | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 18.14 | 146  | 1985258  | 8.67  | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.68 | 225  | 627519   | 7.13  | ppbv   | 100      |
| 79) Naphthalene               | 22.59 | 128  | 2022501  | 9.47  | ppbv   | 98       |
| 80) Naphthalene, 2-methyl-    | 25.23 | 142  | 279908   | 6.71  | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.31 | 180  | 1020869  | 8.62  | ppbv   | 99       |

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

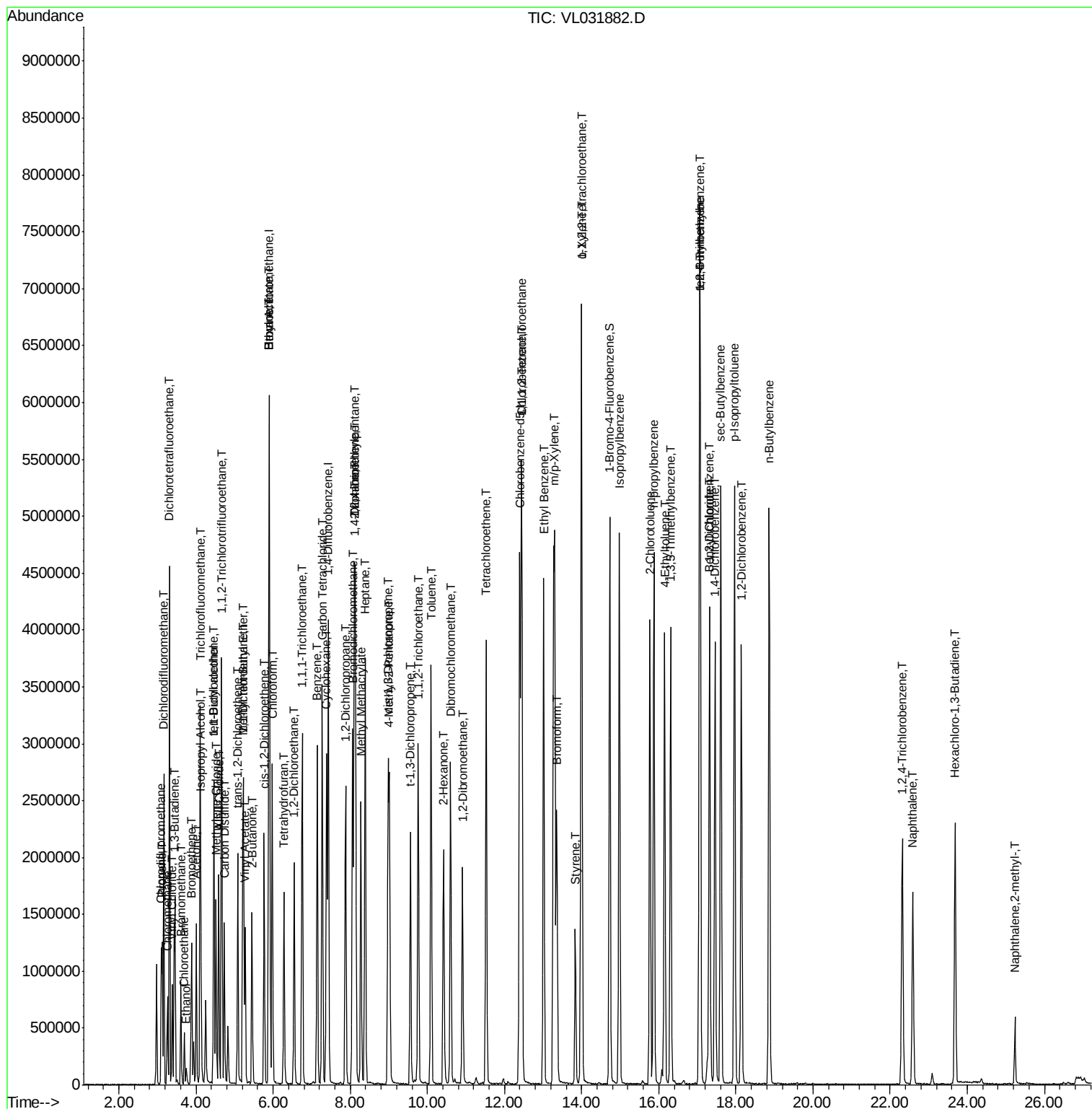
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Data Path : W:\HPCHEM1\MSVOA L\DATA\VL041918\  
Data File : VL031882.D  
Acq On    : 19 Apr 2018   17:53  
Operator  : SY/AP  
Sample    : VL0419ABS01  
Misc      : 400ml/MSVOA L  
ALS Vial  : 1      Sample Multiplier: 1
```

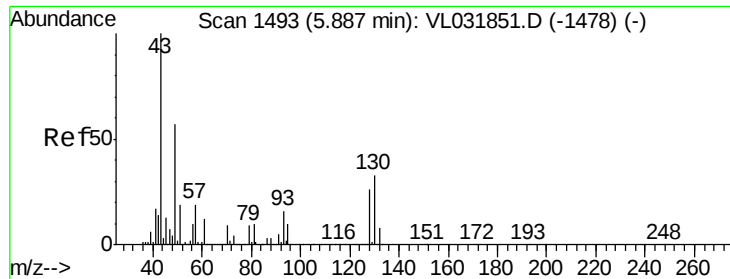
**Instrument :**  
MSVOA\_L  
**ClientSampleId :**  
VL0419ABS01

## Manual Integrations APPROVED

4/23/2018 12:49:52 PM

Quant Time: Apr 20 08:17:06 2018  
Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL041218AIR.M  
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_LFri Apr  
QLast Update : Fri Apr 13 16:50:02 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.89 min Scan# 1493

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion: 49 Resp: 1229561

Ion Ratio Lower Upper

49 100

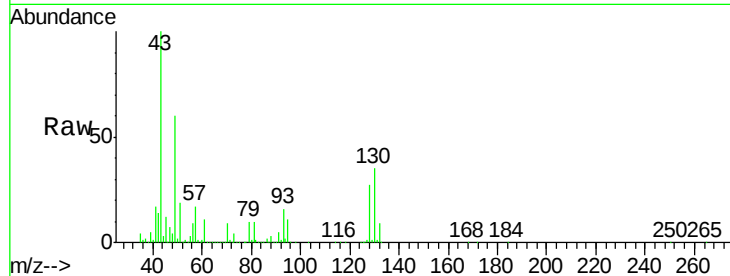
128 48.4 23.9 71.7

130 61.9 30.9 92.7

Manual Integrations  
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sam

4/23/2018 12:49:52 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

800000

600000

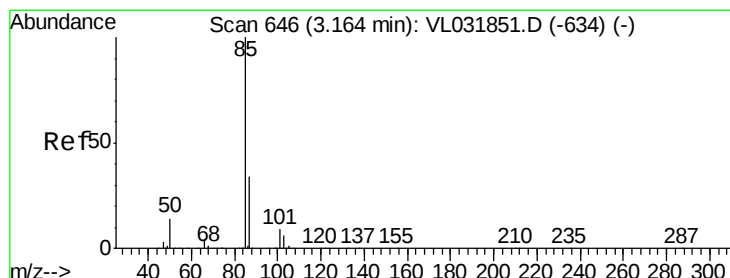
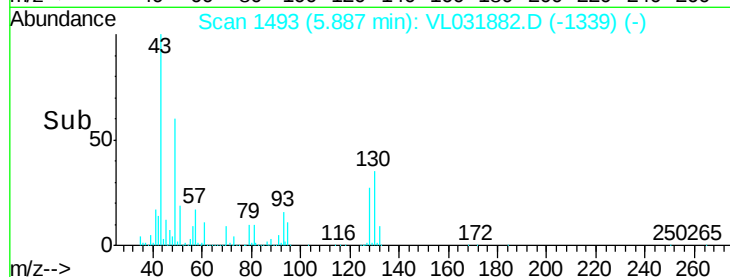
400000

200000

0

5.80 5.85 5.90 5.95

Time-->



#2

Dichlorodifluoromethane

Concen: 7.52 ppbv

RT: 3.16 min Scan# 646

Delta R.T. -0.00 min

Lab File: VL031882.D

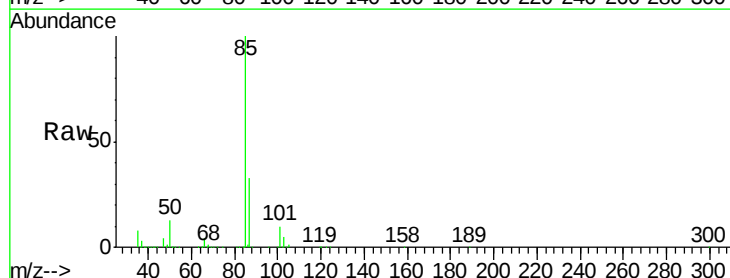
Acq: 19 Apr 2018 17:53

Tgt Ion: 85 Resp: 1906748

Ion Ratio Lower Upper

85 100

87 32.7 25.9 38.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

1500000

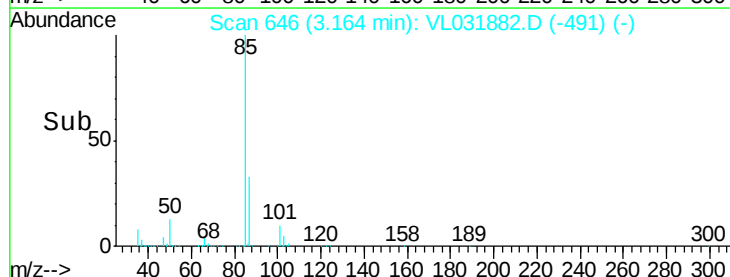
1000000

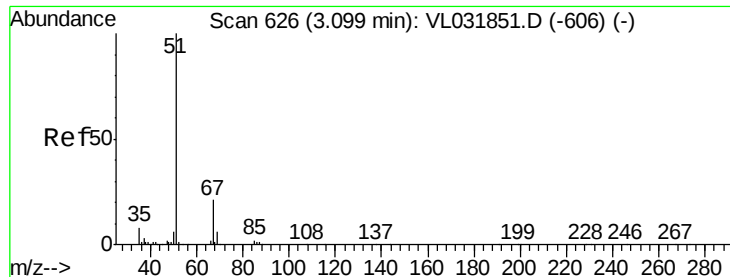
500000

0

3.10 3.15 3.20

Time-->





#3

Chlorodifluoromethane

Concen: 7.48 ppbv

RT: 3.10 min Scan# 626

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Tot Ion: 51 Resp: 1069017

Ion Ratio Lower Upper

51 100

67 21.3 17.5 26.3

Instrument :

MSVOA\_L

ClientSampleId :

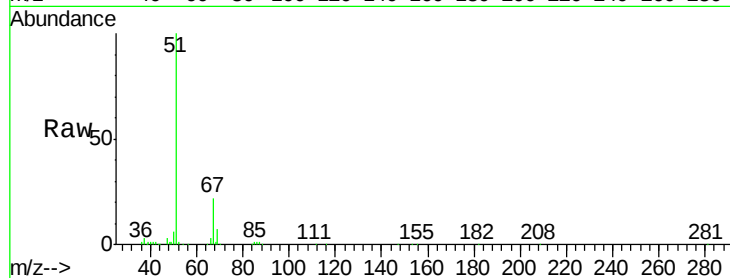
VL0419ABS01

Manual Integrations

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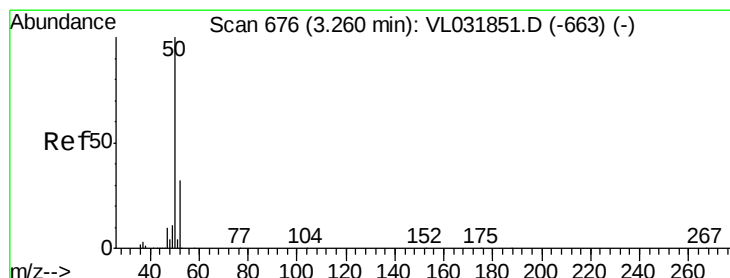
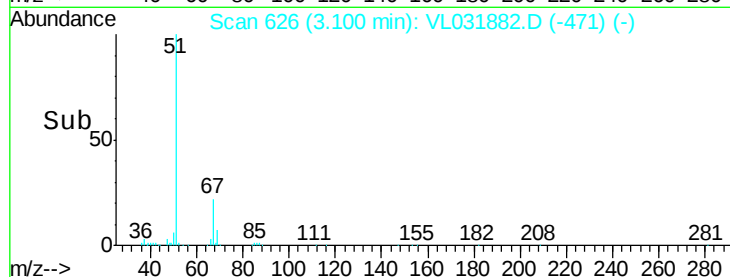
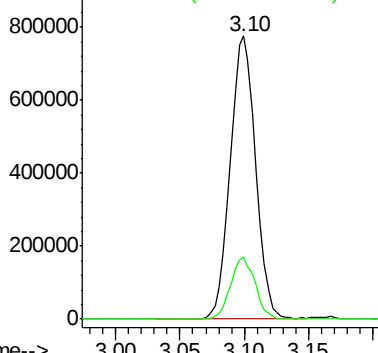
sam

4/23/2018 12:49:52 PM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 8.83 ppbv

RT: 3.26 min Scan# 676

Delta R.T. -0.00 min

Lab File: VL031882.D

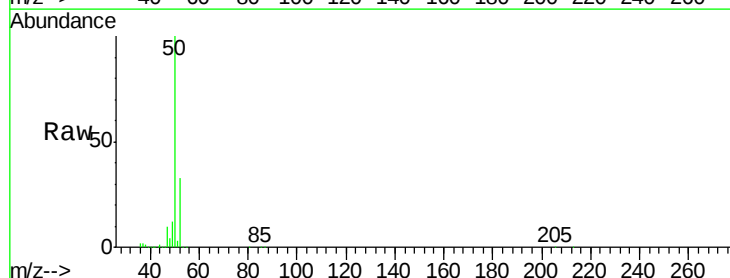
Acq: 19 Apr 2018 17:53

Tgt Ion: 50 Resp: 644937

Ion Ratio Lower Upper

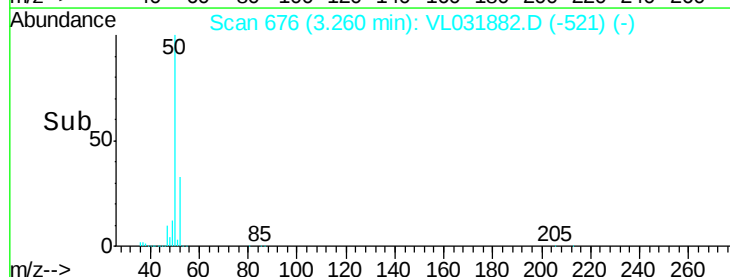
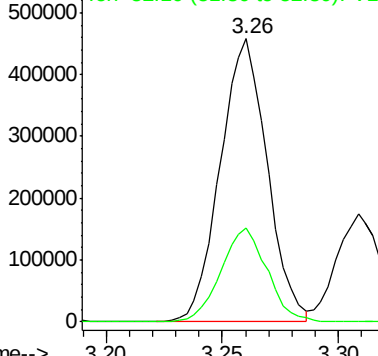
50 100

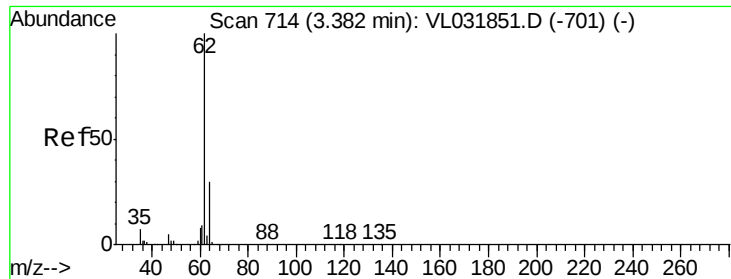
52 33.3 28.1 42.1



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 8.49 ppbv

RT: 3.38 min Scan# 714

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion: 62 Resp: 697847

Ion Ratio Lower Upper

62 100

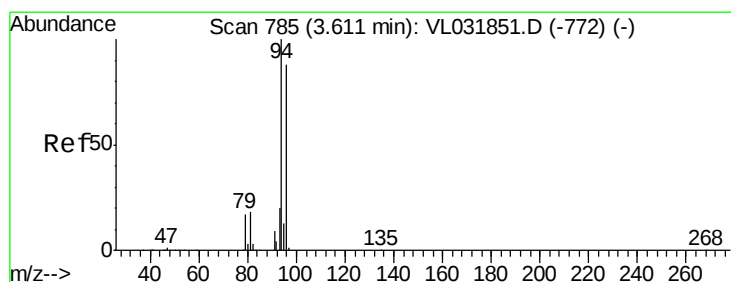
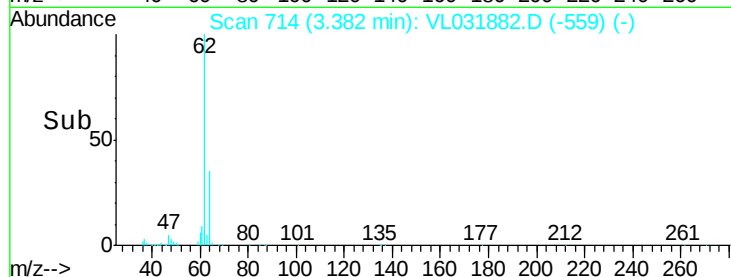
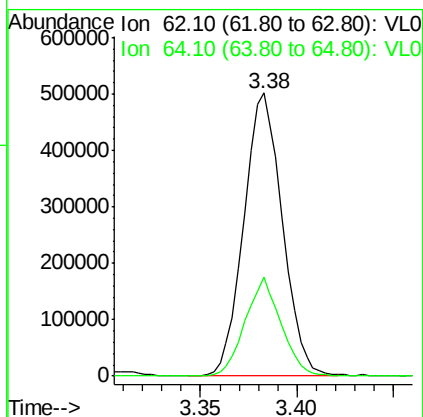
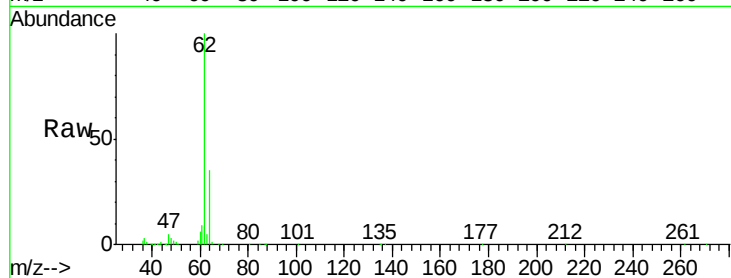
64 34.8 25.9 38.9

Manual Integrations

APPROVED

sam

4/23/2018 12:49:52 PM



#6

Bromomethane

Concen: 8.74 ppbv

RT: 3.61 min Scan# 785

Delta R.T. -0.00 min

Lab File: VL031882.D

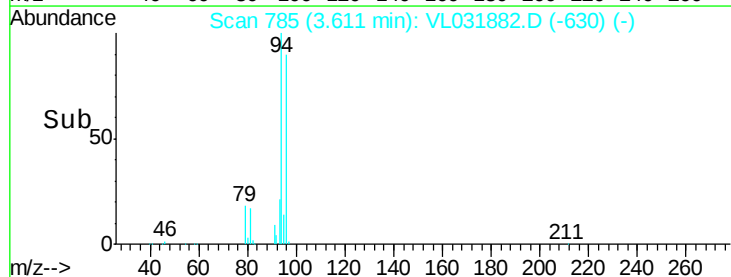
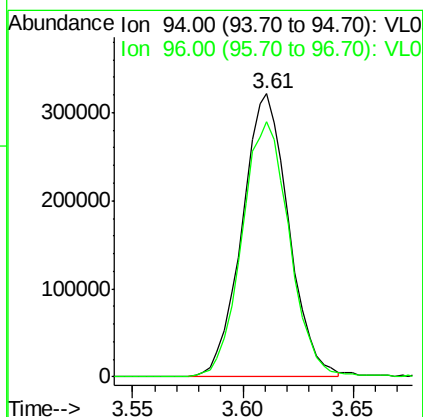
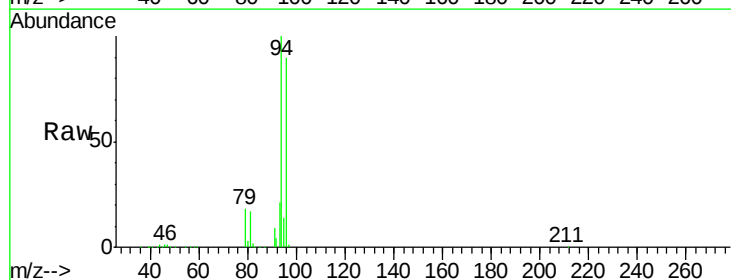
Acq: 19 Apr 2018 17:53

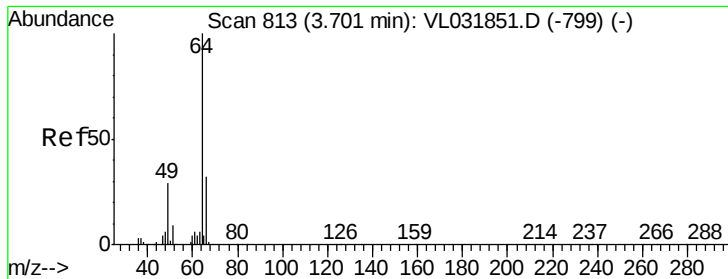
Tgt Ion: 94 Resp: 472027

Ion Ratio Lower Upper

94 100

96 90.0 73.8 110.6





#7

Chloroethane

Concen: 8.67 ppbv

RT: 3.70 min Scan# 812

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion: 64 Resp: 284072

Ion Ratio Lower Upper

64 100

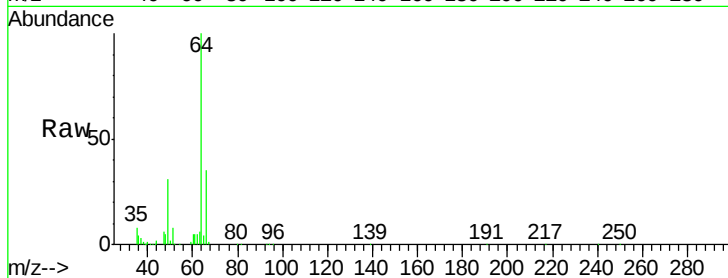
66 34.7 23.4 35.0

Manual Integrations

APPROVED

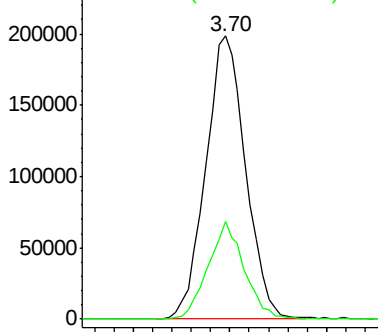
sam

4/23/2018 12:49:52 PM

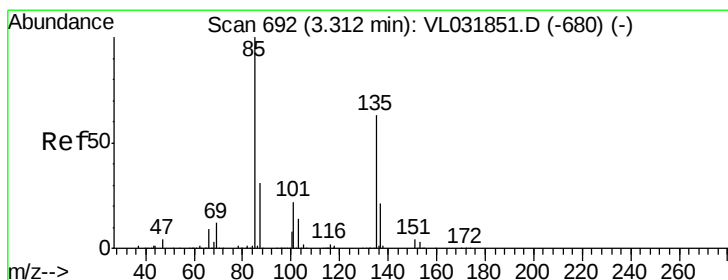
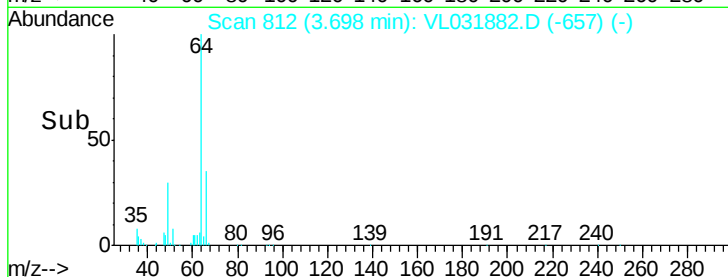


Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



Time-->



#8

Dichlorotetrafluoroethane

Concen: 8.60 ppbv

RT: 3.31 min Scan# 691

Delta R.T. -0.00 min

Lab File: VL031882.D

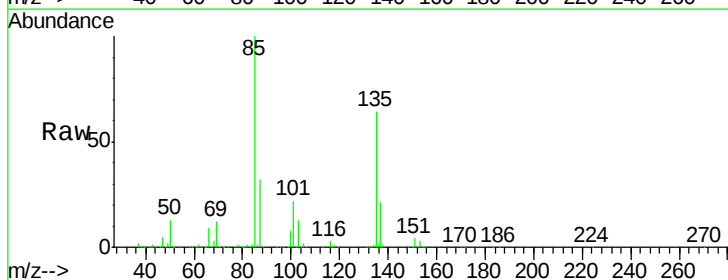
Acq: 19 Apr 2018 17:53

Tgt Ion: 85 Resp: 1790378

Ion Ratio Lower Upper

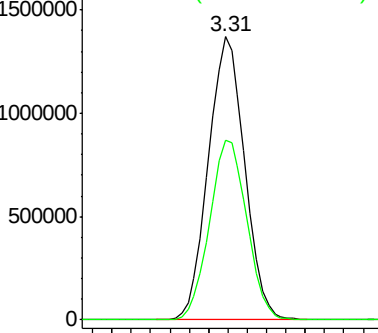
85 100

135 65.3 52.7 79.1

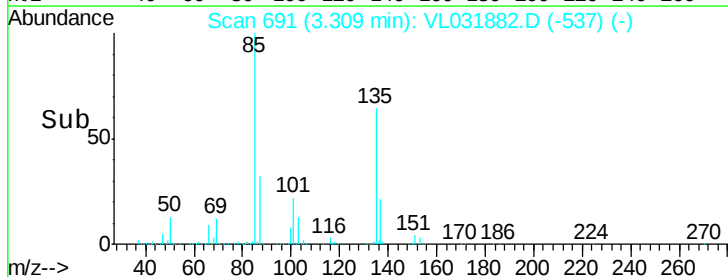


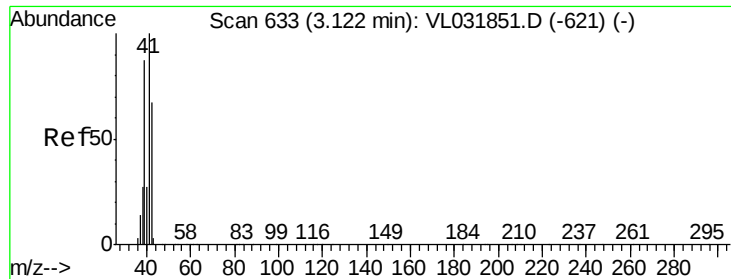
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V



Time-->





#9

Propene

Concen: 9.35 ppbv

RT: 3.12 min Scan# 633

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion: 41 Resp: 462175

Ion Ratio Lower Upper

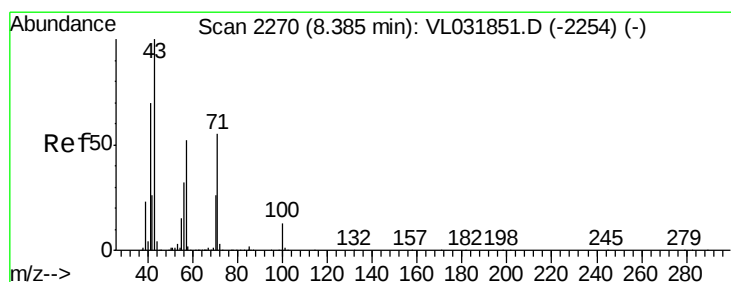
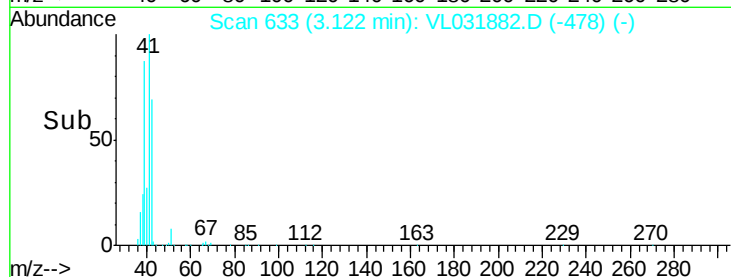
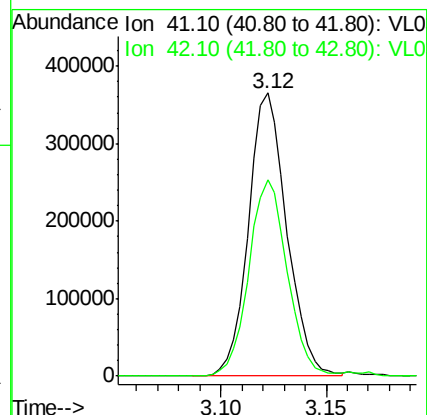
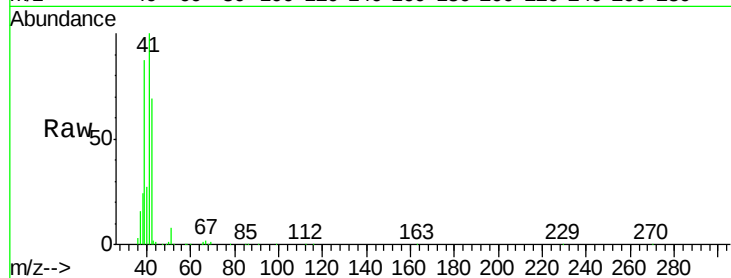
41 100

42 70.9 55.0 82.4

Manual Integrations  
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#10

Heptane

Concen: 10.21 ppbv

RT: 8.39 min Scan# 2270

Delta R.T. -0.00 min

Lab File: VL031882.D

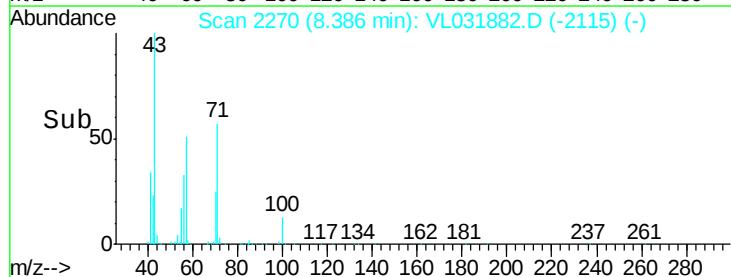
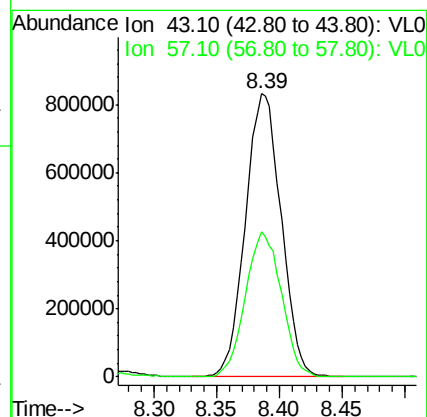
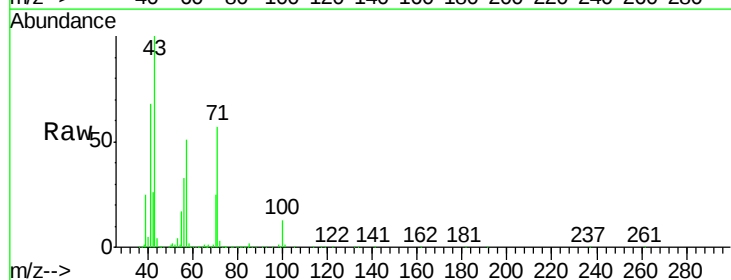
Acq: 19 Apr 2018 17:53

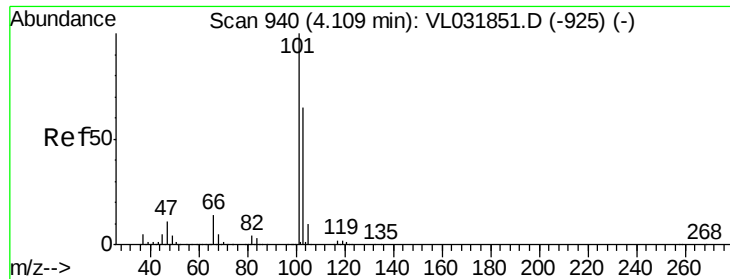
Tgt Ion: 43 Resp: 1638716

Ion Ratio Lower Upper

43 100

57 51.5 41.5 62.3





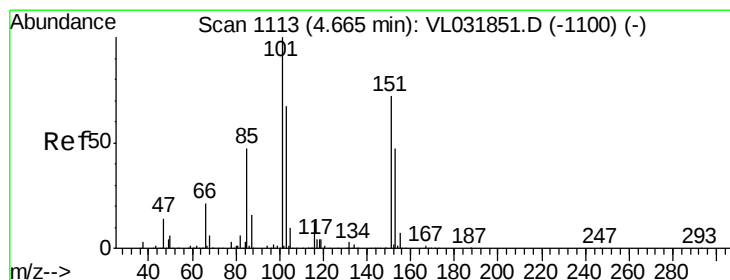
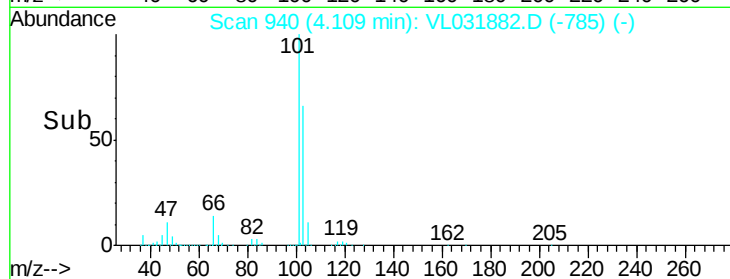
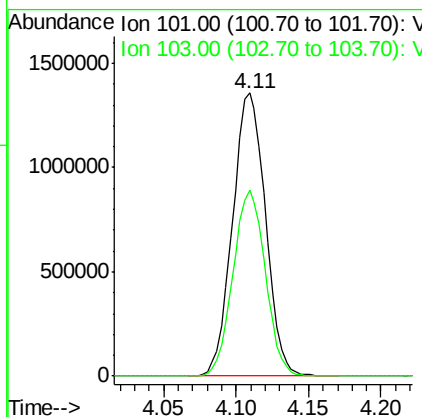
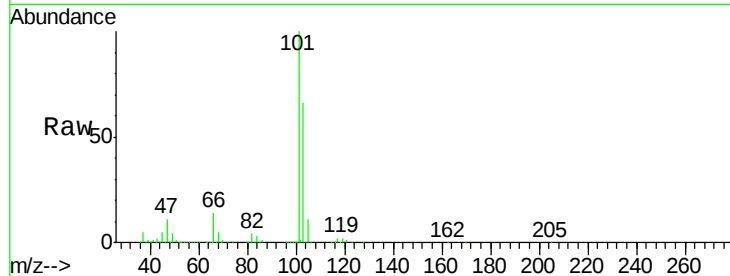
#11  
 Trichlorofluoromethane  
 Concen: 8.58 ppbv  
 RT: 4.11 min Scan# 940  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

Tot Ion:101 Resp: 2134084  
 Ion Ratio Lower Upper  
 101 100  
 103 65.6 51.8 77.8

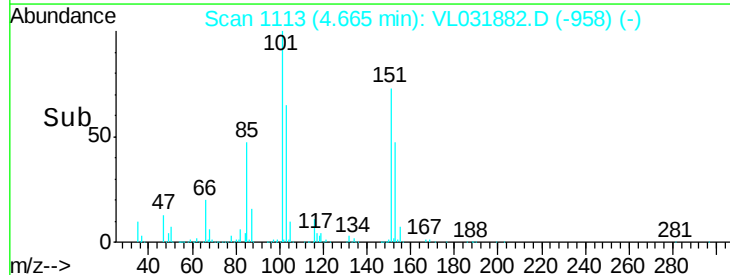
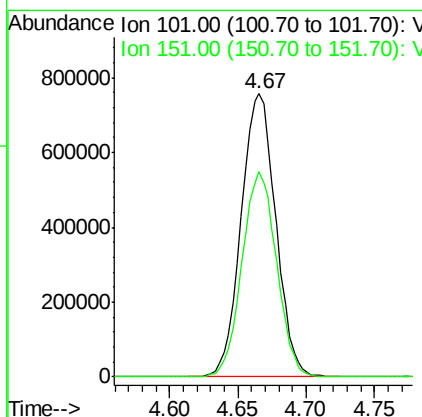
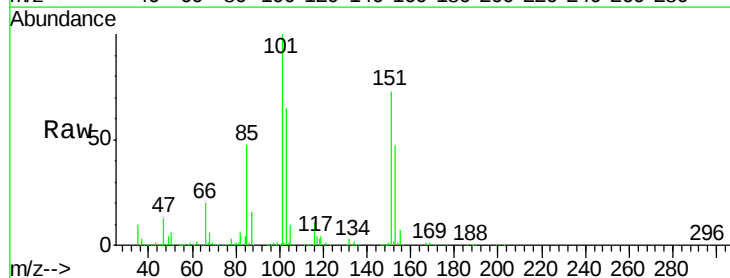
Manual Integrations  
 APPROVED

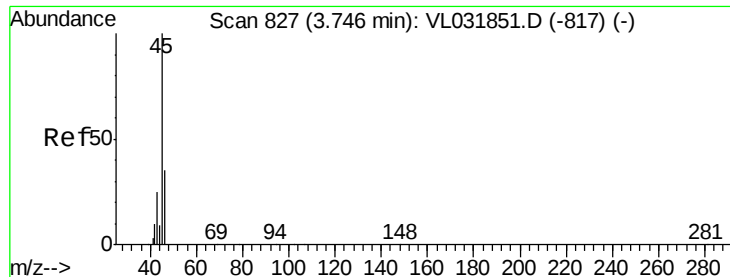
sam  
 4/23/2018 12:49:52 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 8.25 ppbv  
 RT: 4.67 min Scan# 1113  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Tgt Ion:101 Resp: 1333795  
 Ion Ratio Lower Upper  
 101 100  
 151 72.4 57.0 85.6





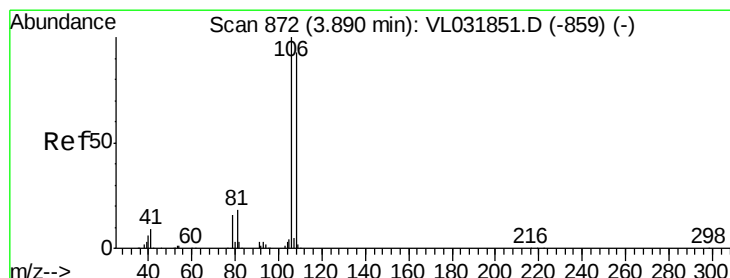
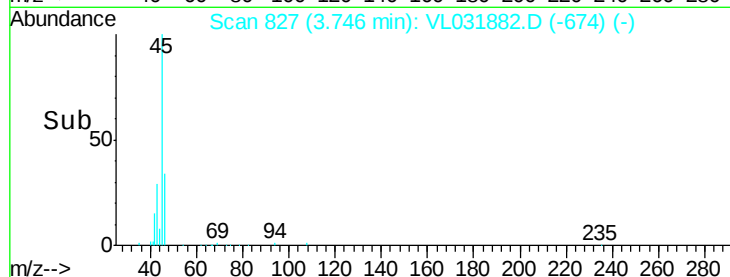
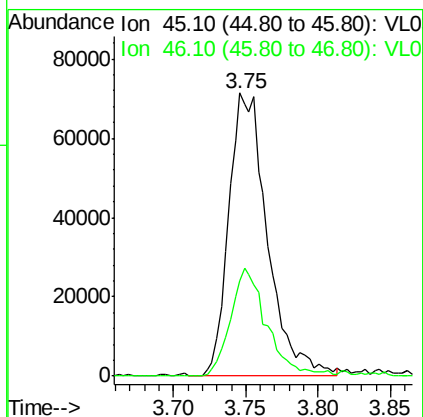
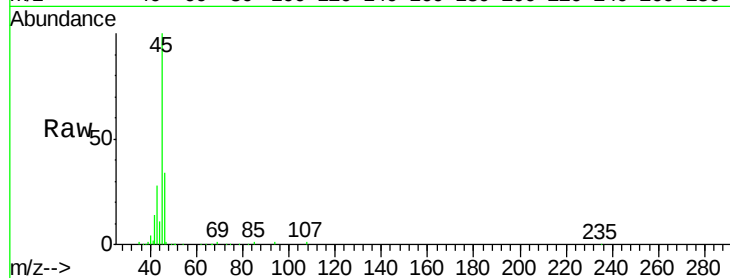
#13  
Ethanol  
Concen: 7.92 ppbv m  
RT: 3.75 min Scan# 827  
Delta R.T. -0.01 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

| Tot Ion | 45  | 46   | Ratio | Lower | Upper |
|---------|-----|------|-------|-------|-------|
| 132914  | 100 | 35.7 |       | 14.6  | 58.6  |

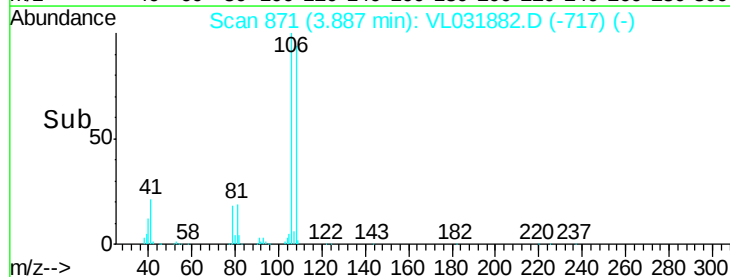
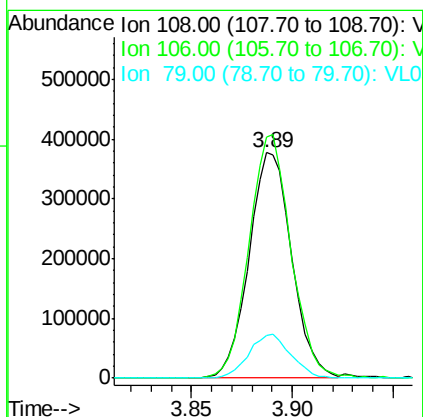
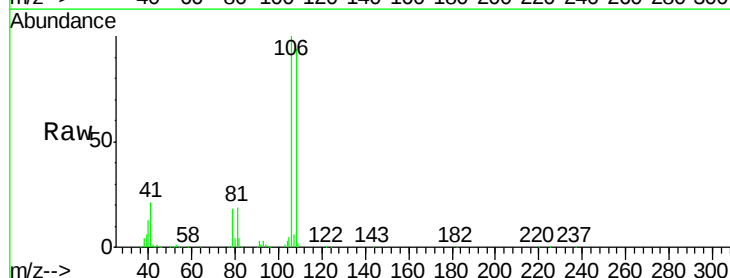
Manual Integrations  
APPROVED

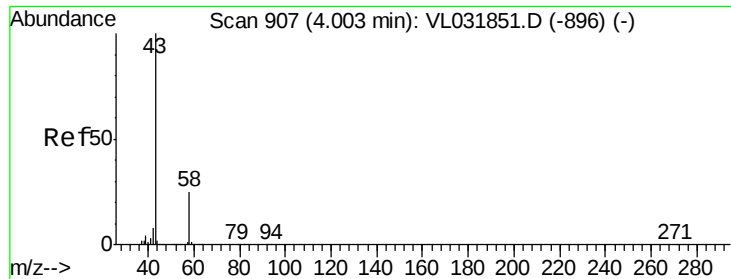
sam  
4/23/2018 12:49:52 PM



#14  
Bromoethene  
Concen: 9.16 ppbv  
RT: 3.89 min Scan# 871  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | 108 | 106   | 79   | Ratio | Lower | Upper |
|---------|-----|-------|------|-------|-------|-------|
| 558353  | 100 | 107.0 | 19.5 |       | 86.6  | 130.0 |
|         |     |       |      |       | 15.5  | 23.3  |





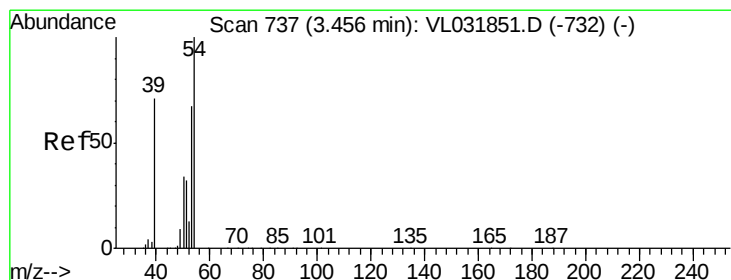
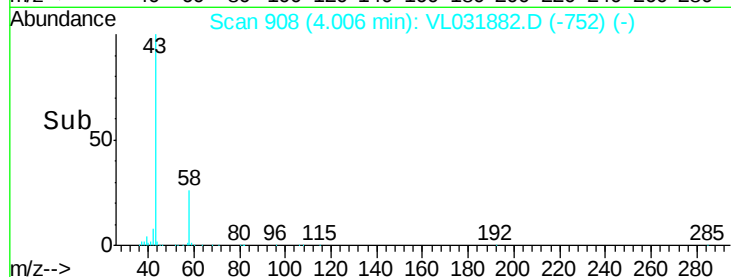
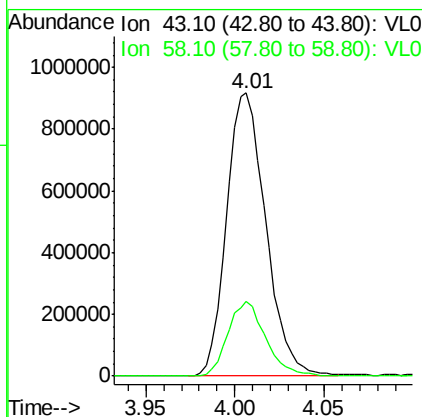
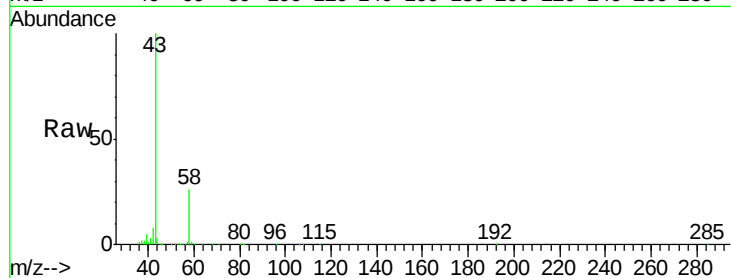
#15  
Acetone  
Concen: 7.42 ppbv  
RT: 4.01 min Scan# 908  
Delta R.T. 0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

Tot Ion: 43 Resp: 1404069  
Ion Ratio Lower Upper  
43 100  
58 25.6 20.9 31.3

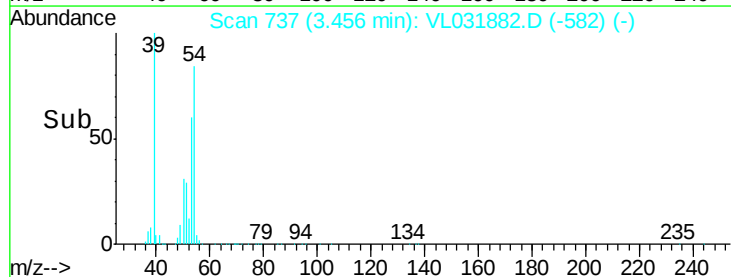
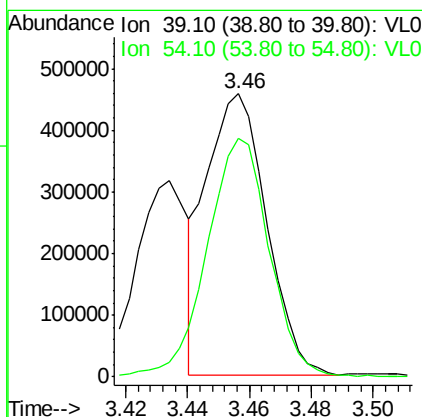
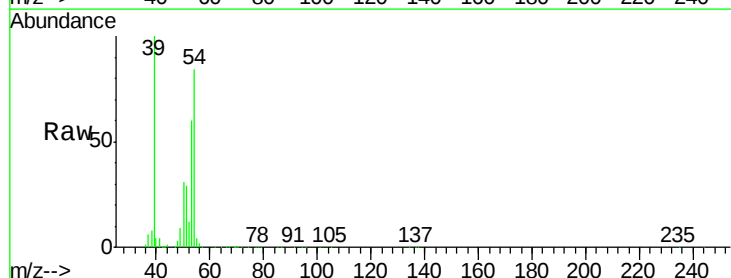
Manual Integrations  
APPROVED

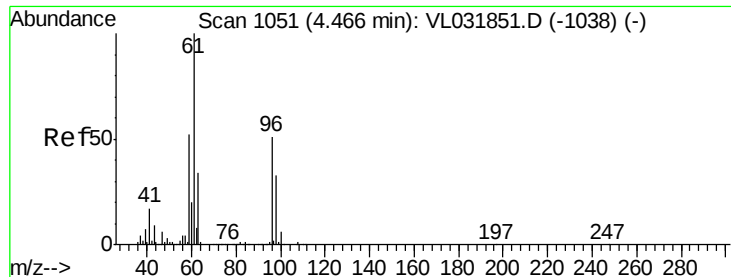
sam  
4/23/2018 12:49:52 PM



#16  
1,3-Butadiene  
Concen: 8.84 ppbv  
RT: 3.46 min Scan# 737  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Tgt Ion: 39 Resp: 619190  
Ion Ratio Lower Upper  
39 100  
54 88.1 63.3 94.9





#17

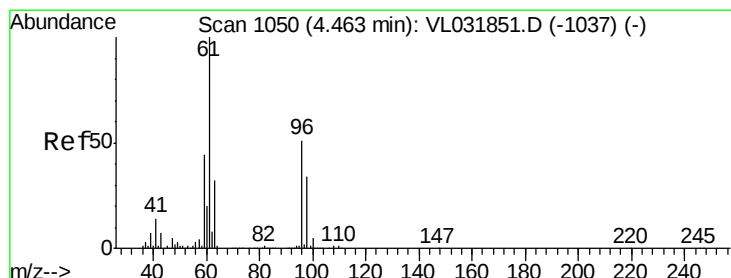
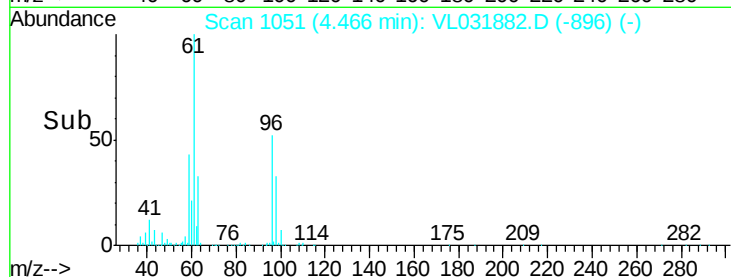
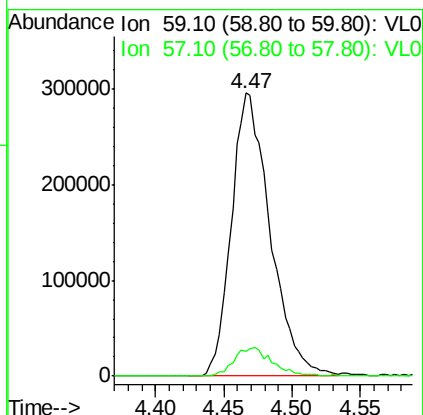
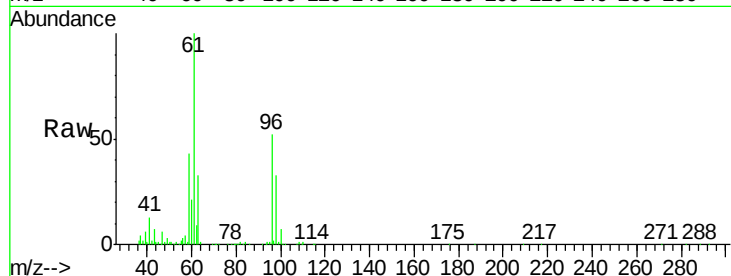
tert-Butyl alcohol  
Concen: 7.47 ppbv  
RT: 4.47 min Scan# 1051  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 57      | 10.3  | 8.5   | 12.7  |

Manual Integrations  
APPROVED

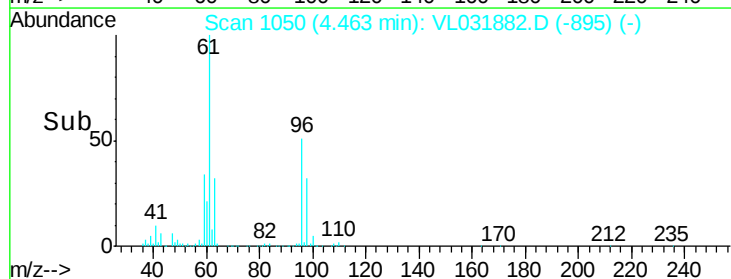
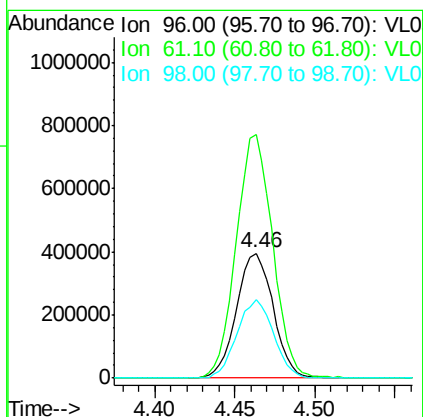
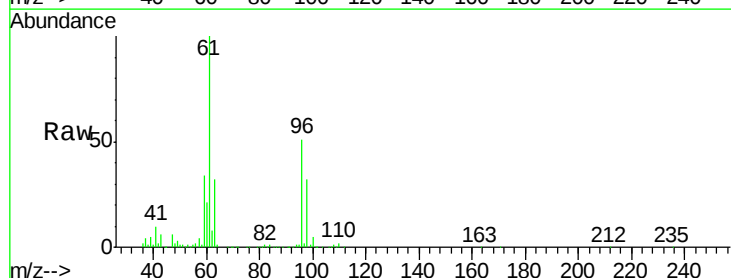
sam  
4/23/2018 12:49:52 PM

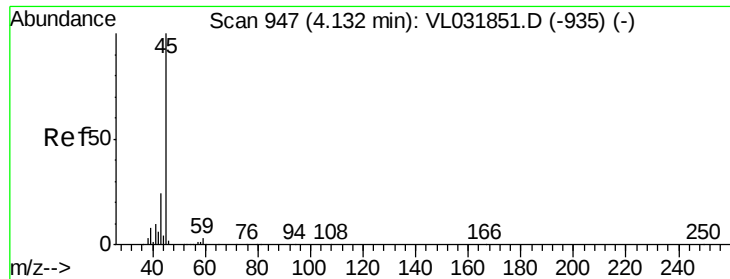


#18

1,1-Dichloroethene  
Concen: 8.85 ppbv  
RT: 4.46 min Scan# 1050  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 194.9 | 161.0 | 241.6 |
| 98      | 62.5  | 52.7  | 79.1  |





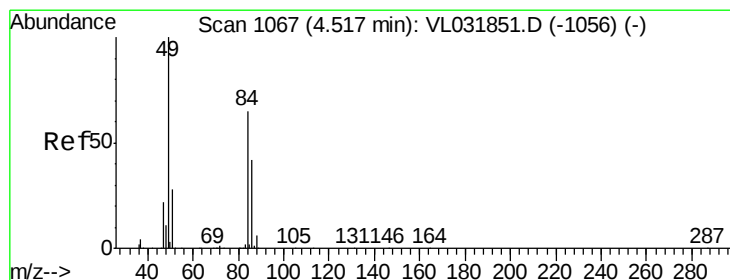
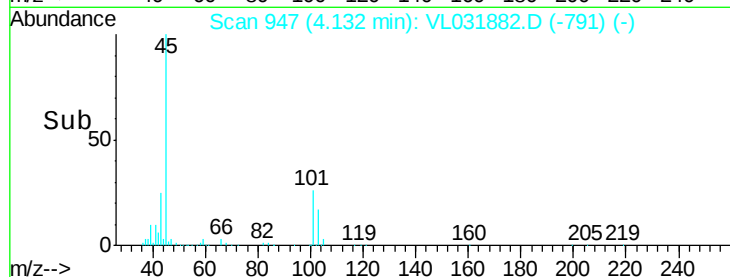
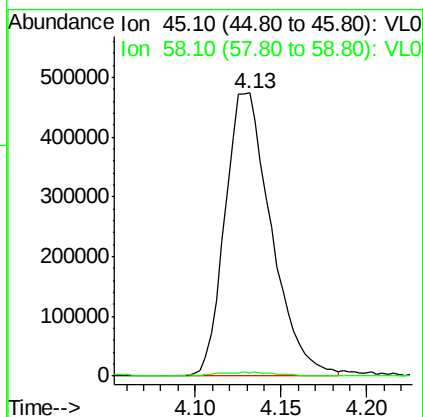
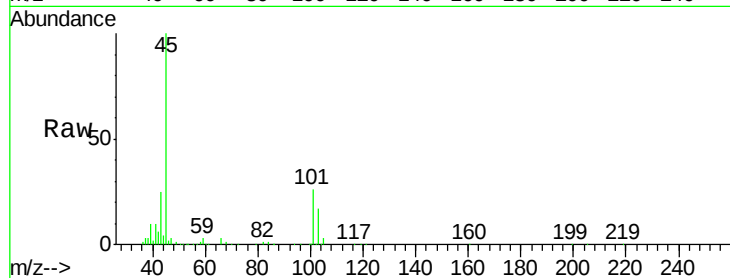
#19  
Isopropyl Alcohol  
Concen: 8.42 ppbv  
RT: 4.13 min Scan# 947  
Delta R.T. 0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45      | 100   |       |       |
| 58      | 2.0   | 1.7   | 2.5   |

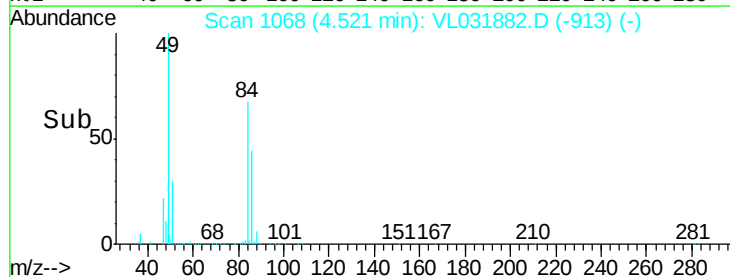
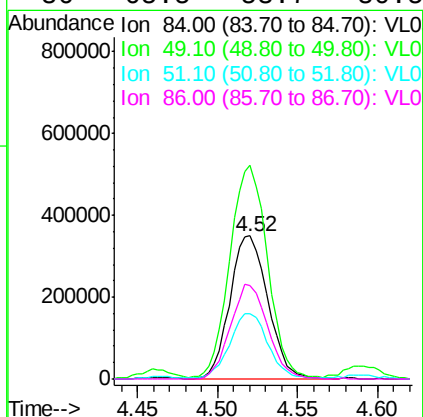
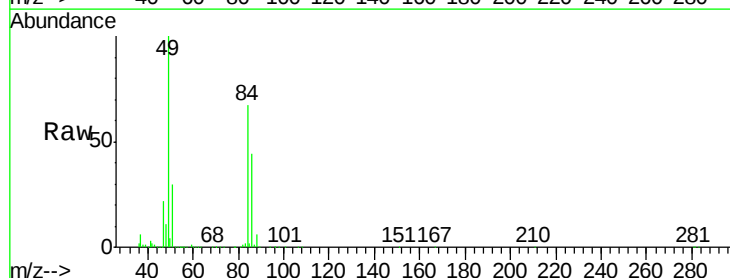
Manual Integrations  
APPROVED

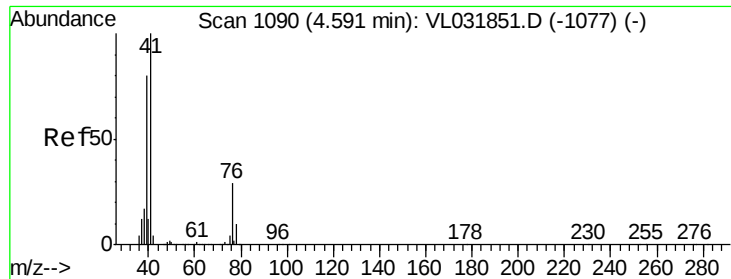
sam  
4/23/2018 12:49:52 PM



#20  
Methylene Chloride  
Concen: 8.14 ppbv  
RT: 4.52 min Scan# 1068  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 148.3 | 125.6 | 188.4 |
| 51      | 44.5  | 36.4  | 54.6  |
| 86      | 65.5  | 53.7  | 80.5  |





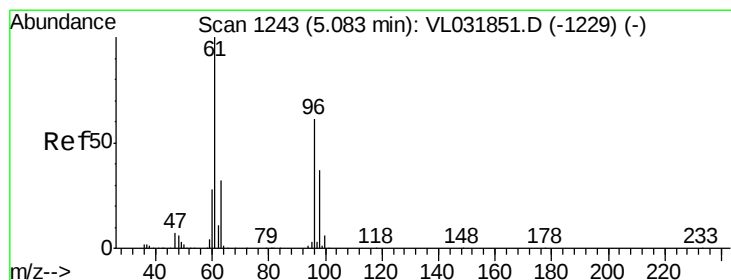
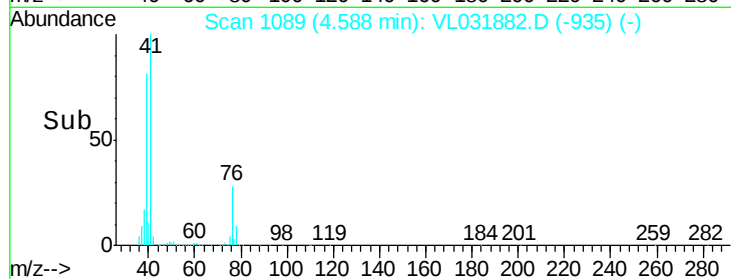
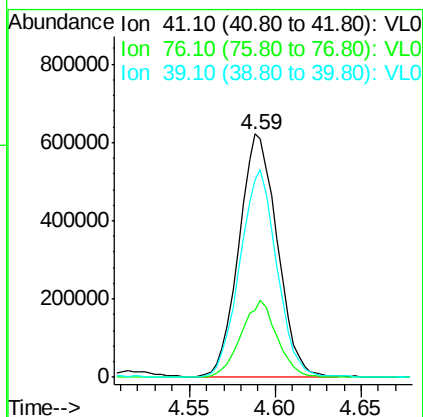
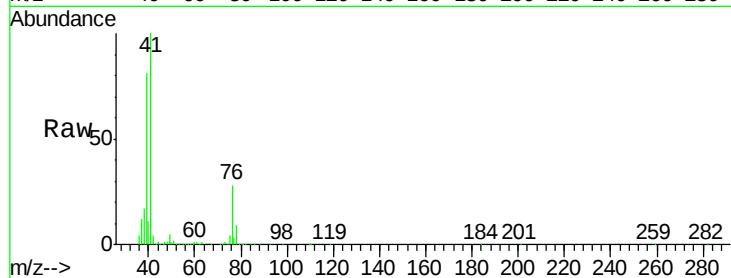
#21  
Allvl Chloride  
Concen: 8.83 ppbv  
RT: 4.59 min Scan# 1089  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 76      | 30.1  | 23.4  | 35.2  |
| 39      | 83.2  | 67.6  | 101.4 |

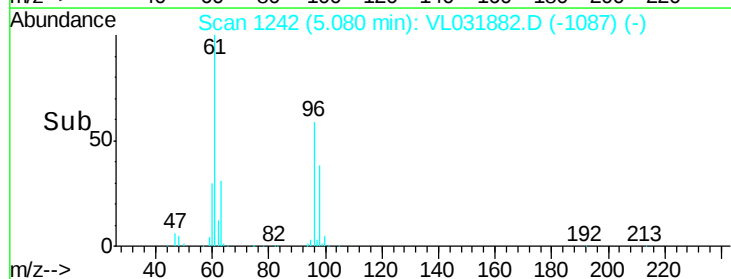
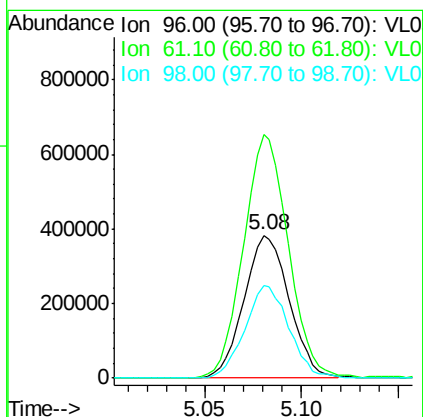
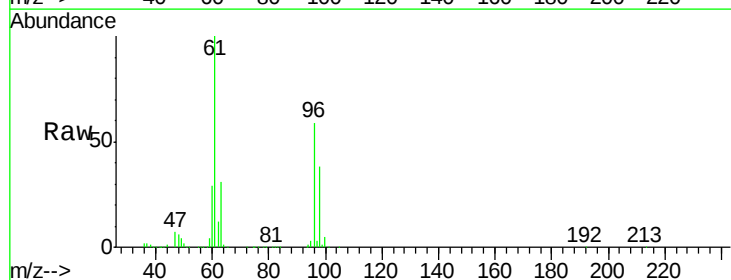
Manual Integrations  
APPROVED

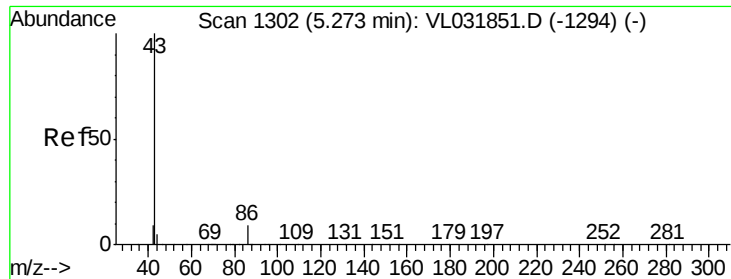
sam  
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#22  
trans-1,2-Dichloroethene  
Concen: 8.65 ppbv  
RT: 5.08 min Scan# 1242  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 170.8 | 131.1 | 196.7 |
| 98      | 64.9  | 47.6  | 71.4  |





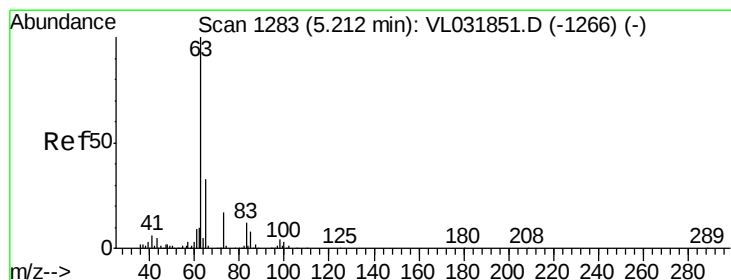
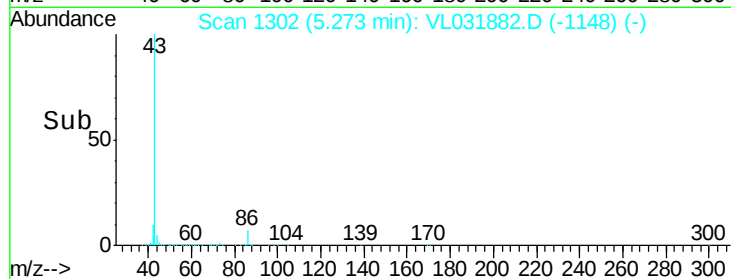
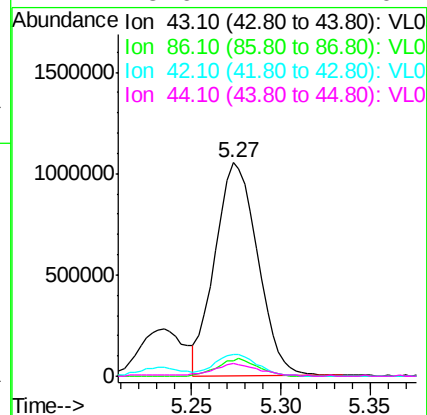
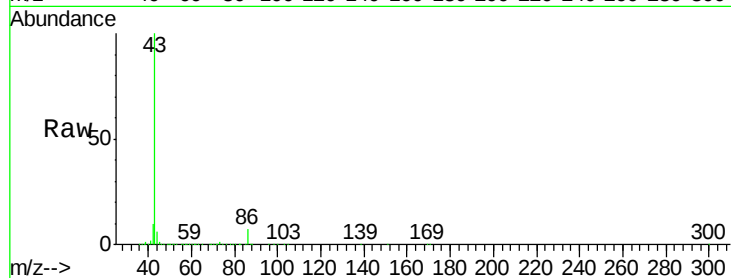
#23  
 Vinyl Acetate  
 Concen: 9.13 ppbv  
 RT: 5.27 min Scan# 1302  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

| Tot Ion | 43    | Resp  | 1751419 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 43      | 100   |       |         |
| 86      | 7.4   | 5.8   | 8.8     |
| 42      | 10.0  | 8.5   | 12.7    |
| 44      | 5.6   | 4.2   | 6.4     |

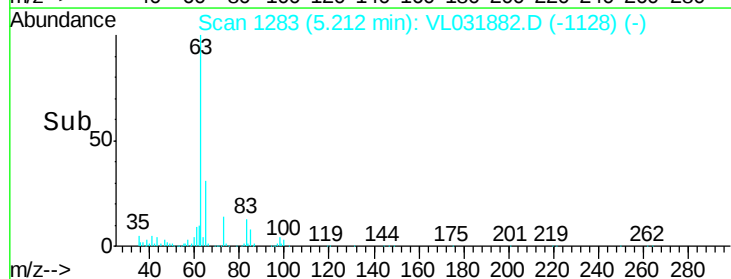
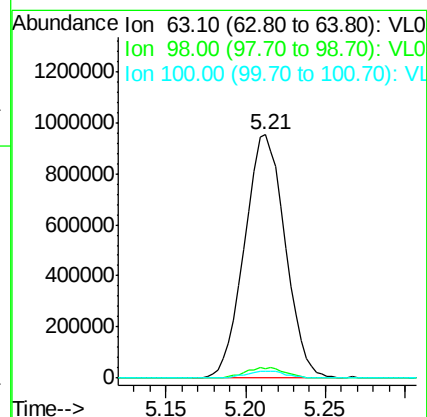
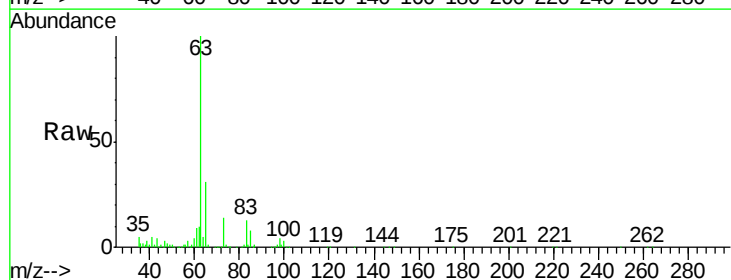
Manual Integrations  
 APPROVED

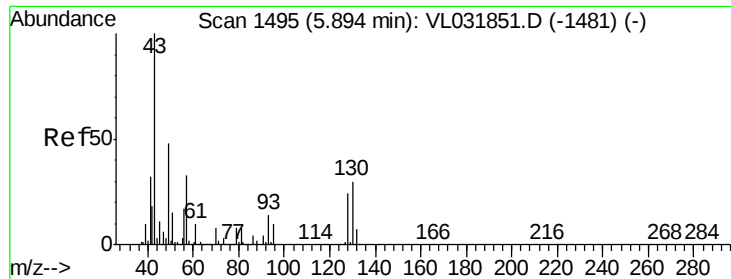
sam  
 4/23/2018 12:49:52 PM



#24  
 1,1-Dichloroethane  
 Concen: 8.61 ppbv  
 RT: 5.21 min Scan# 1283  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

| Tgt Ion | 63    | Resp  | 1646867 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 63      | 100   |       |         |
| 98      | 4.0   | 2.4   | 7.2     |
| 100     | 3.0   | 1.5   | 4.4     |





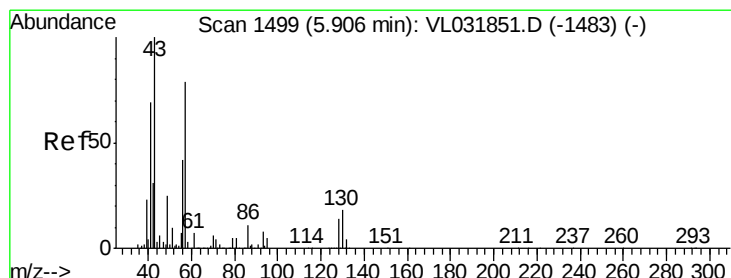
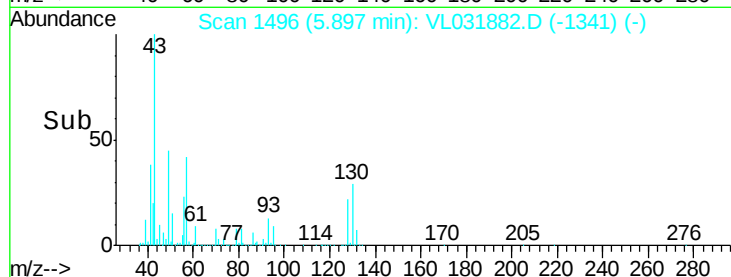
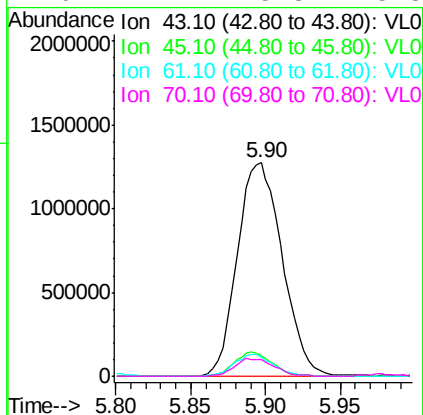
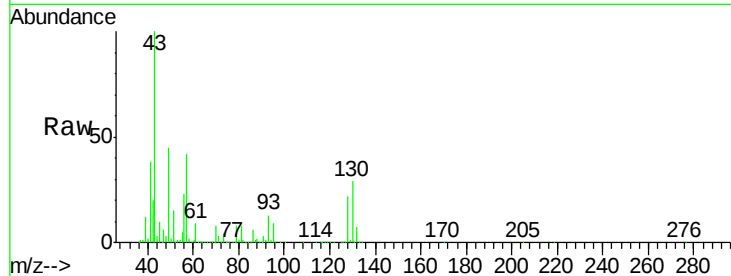
#25  
Ethyl Acetate  
Concen: 8.98 ppbv  
RT: 5.90 min Scan# 1496  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 45      | 9.7   | 7.8   | 11.8  |
| 61      | 9.1   | 7.2   | 10.8  |
| 70      | 7.4   | 5.8   | 8.8   |

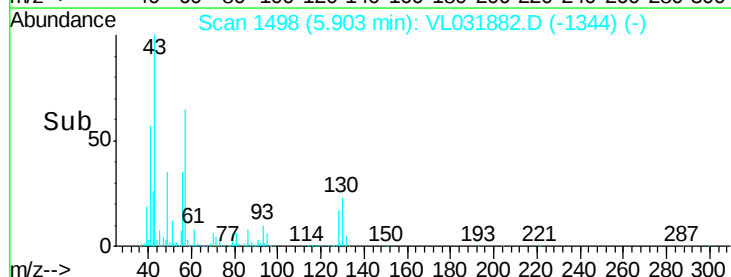
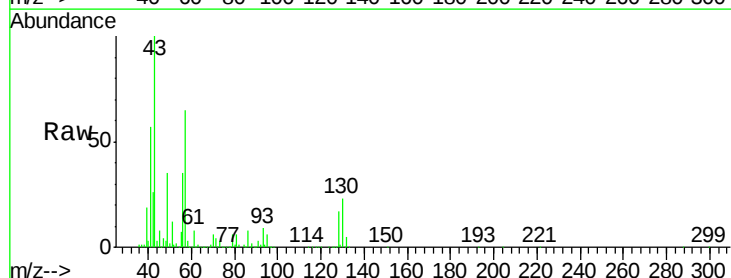
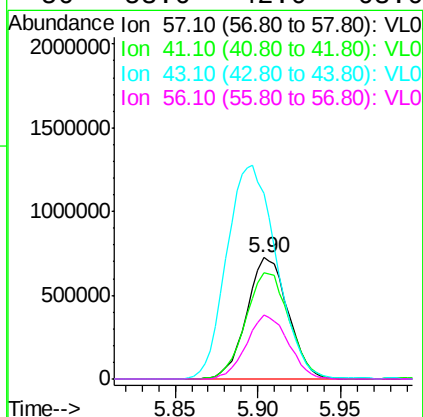
Manual Integrations  
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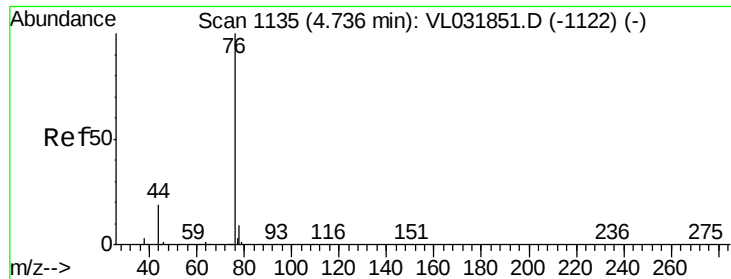
sam  
4/23/2018 12:49:52 PM



#26  
Hexane  
Concen: 9.12 ppbv  
RT: 5.90 min Scan# 1498  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 92.6  | 72.0  | 108.0 |
| 43      | 212.7 | 169.8 | 254.8 |
| 56      | 53.6  | 42.0  | 63.0  |





#27

Carbon Disulfide

Concen: 9.13 ppbv

RT: 4.74 min Scan# 1135

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

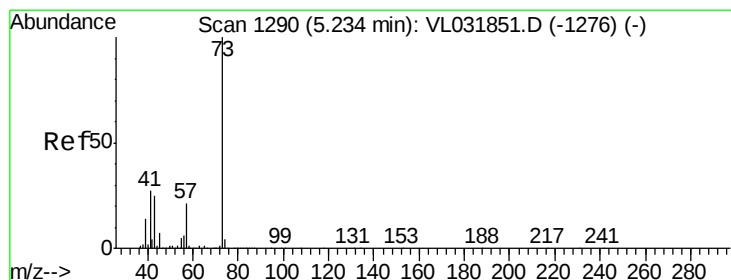
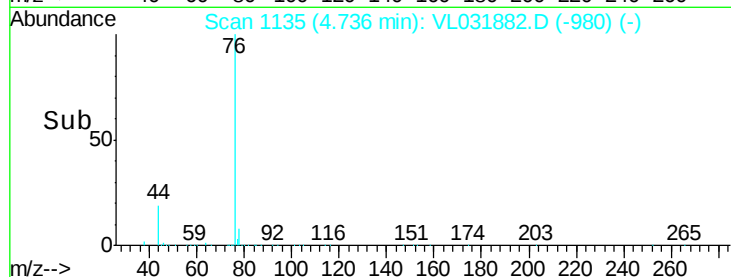
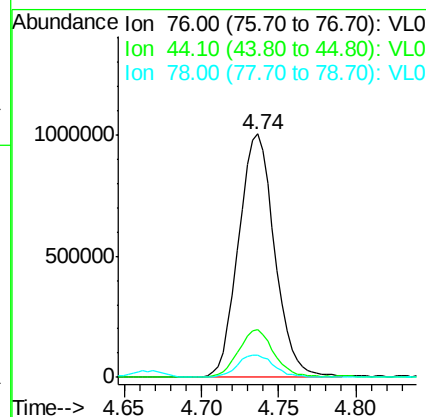
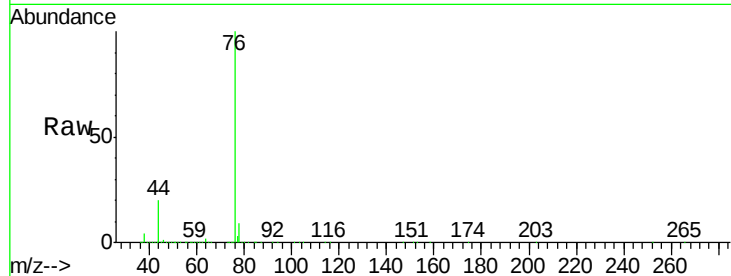
ClientSampleId :

VL0419ABS01

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 76    | Resp: | 1631666 |
| Ion      | Ratio | Lower | Upper   |
| 76       | 100   |       |         |
| 44       | 19.2  | 15.6  | 23.4    |
| 78       | 9.3   | 7.6   | 11.4    |

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#28

Methyl tert-Butyl Ether

Concen: 9.25 ppbv

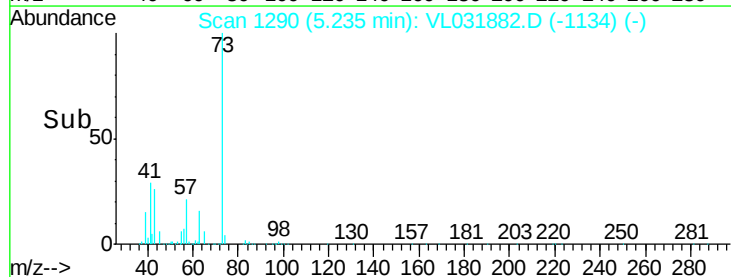
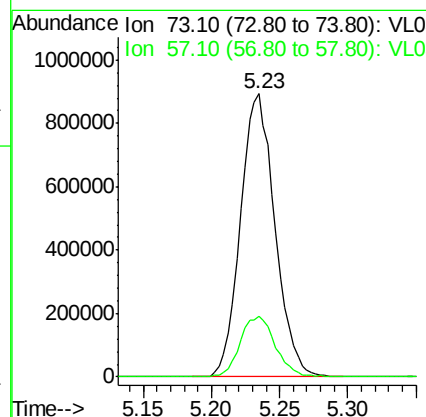
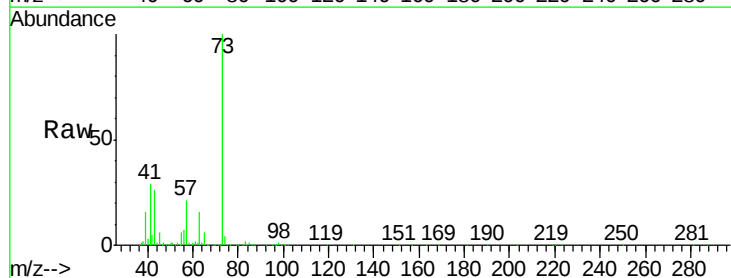
RT: 5.23 min Scan# 1290

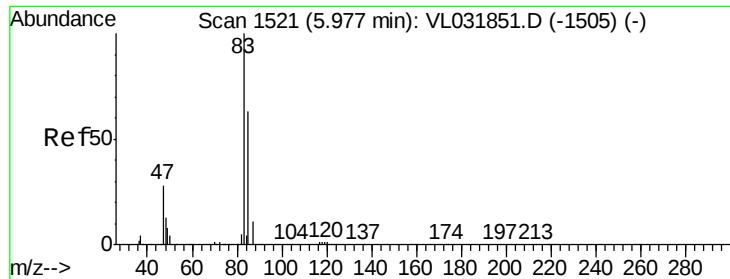
Delta R.T. 0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 73    | Resp: | 1566516 |
| Ion      | Ratio | Lower | Upper   |
| 73       | 100   |       |         |
| 57       | 22.0  | 17.6  | 26.4    |





#29

Chloroform

Concen: 8.72 ppbv

RT: 5.97 min Scan# 1520

Delta R.T. -0.01 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion: 83 Resp: 2033915

Ion Ratio Lower Upper

83 100

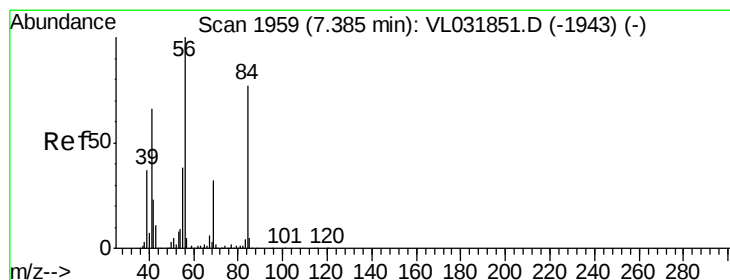
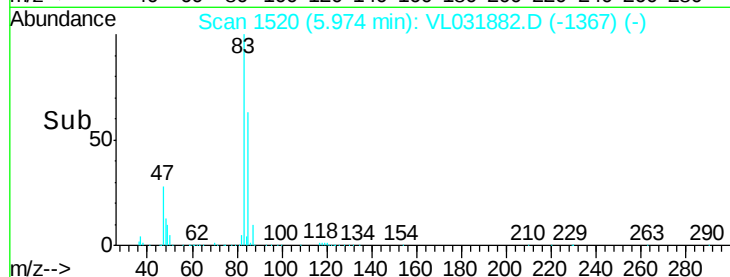
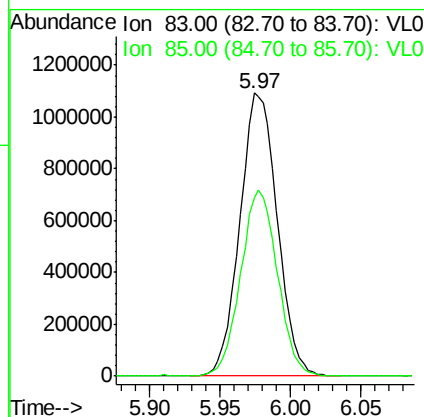
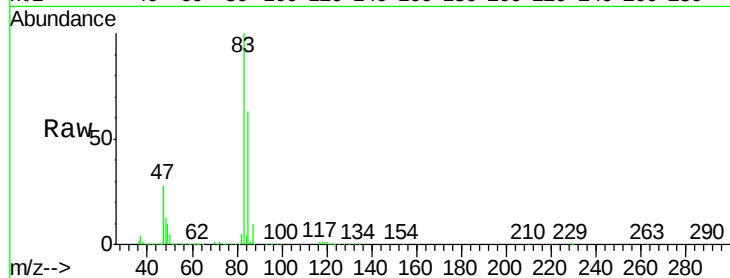
85 63.0 51.4 77.0

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#30

Cyclohexane

Concen: 9.99 ppbv

RT: 7.39 min Scan# 1959

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

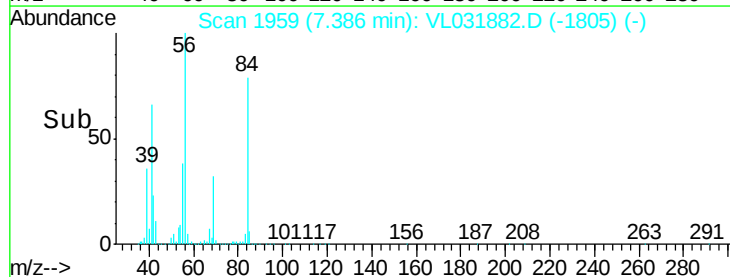
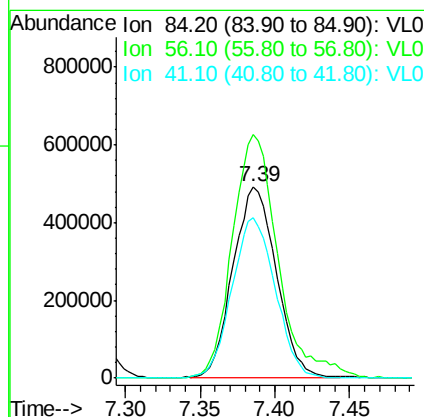
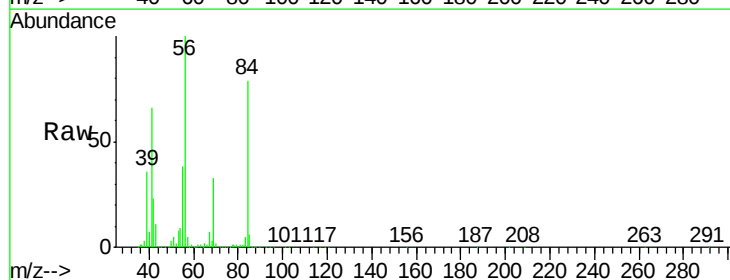
Tgt Ion: 84 Resp: 982072

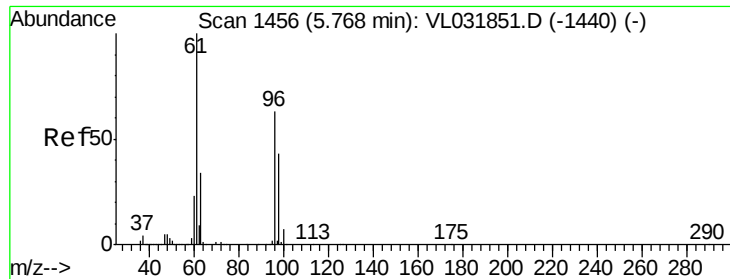
Ion Ratio Lower Upper

84 100

56 136.3 107.7 161.5

41 85.1 68.2 102.2





#31

cis-1,2-Dichloroethene

Concen: 9.42 ppbv

RT: 5.77 min Scan# 1456

Delta R.T. 0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion: 61 Resp: 1173763

Ion Ratio Lower Upper

61 100

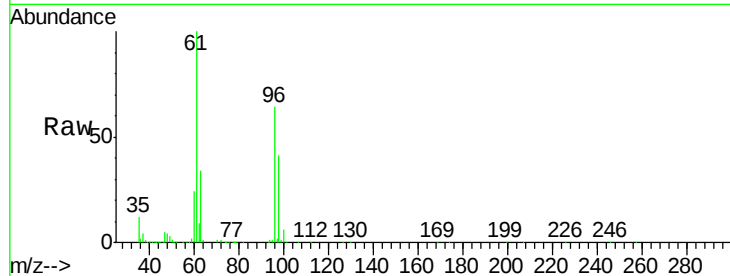
96 63.9 47.6 71.4

98 41.0 30.3 45.5

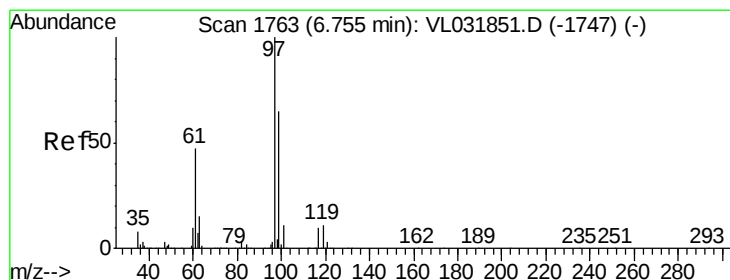
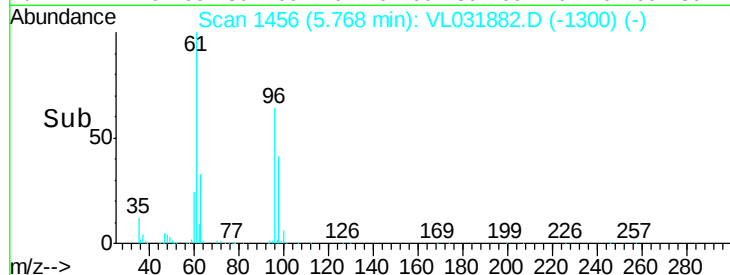
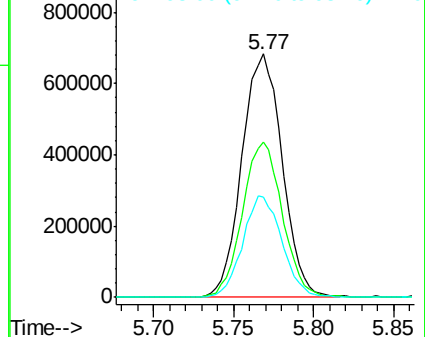
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Abundance Ion 61.10 (60.80 to 61.80): VL0  
Ion 96.00 (95.70 to 96.70): VL0  
Ion 98.00 (97.70 to 98.70): VL0



#32

1,1,1-Trichloroethane

Concen: 8.91 ppbv

RT: 6.75 min Scan# 1762

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

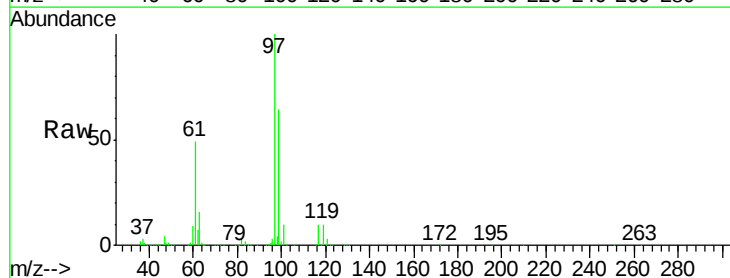
Tgt Ion: 97 Resp: 2024550

Ion Ratio Lower Upper

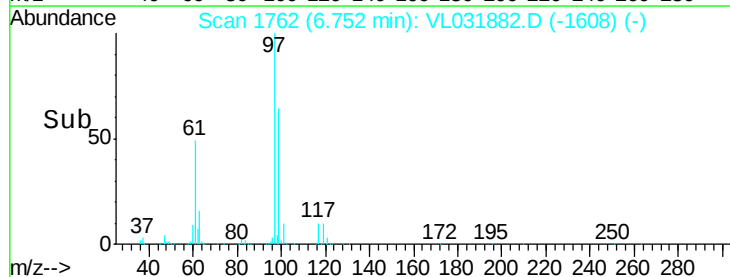
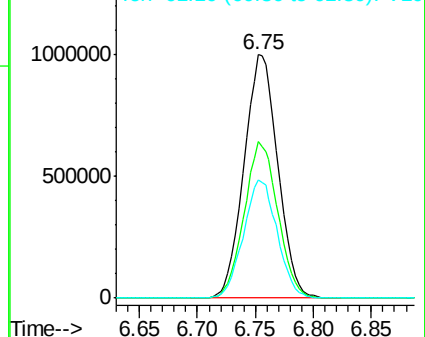
97 100

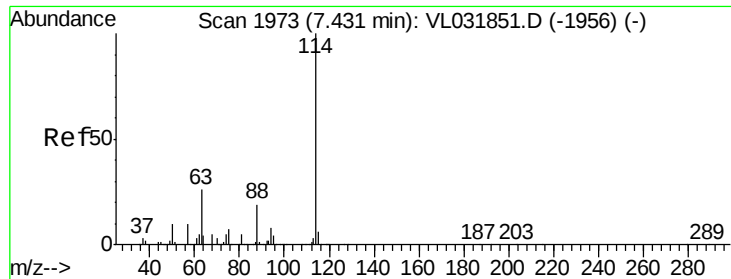
99 64.0 51.5 77.3

61 48.6 40.0 60.0



Abundance Ion 97.00 (96.70 to 97.70): VL0  
Ion 99.00 (98.70 to 99.70): VL0  
Ion 61.10 (60.80 to 61.80): VL0





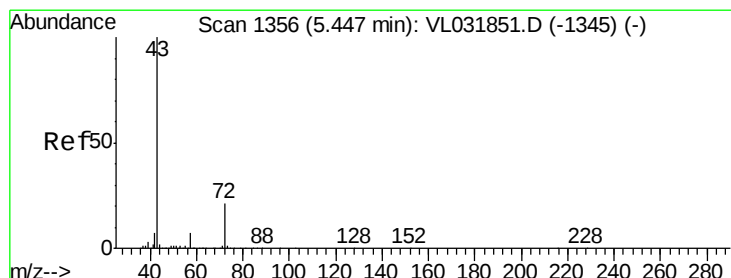
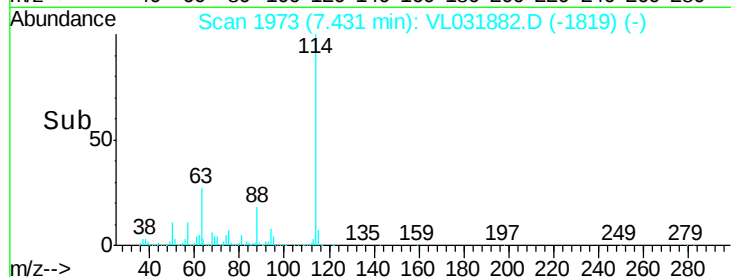
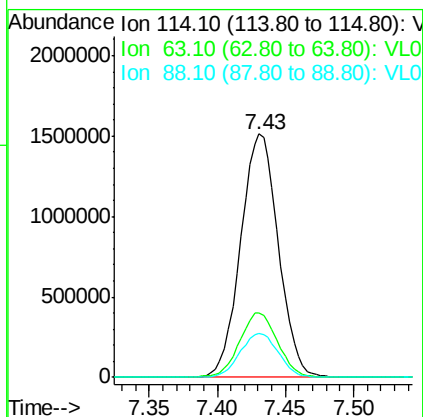
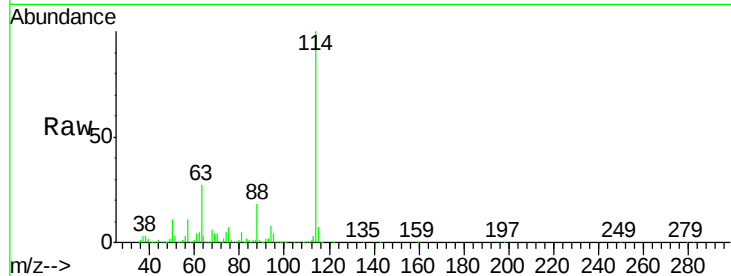
#33  
 1,4-Difluorobenzene  
 Concen: 10.00 ppbv  
 RT: 7.43 min Scan# 1973  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 27.0  | 21.8  | 32.6  |
| 88      | 18.4  | 14.6  | 22.0  |

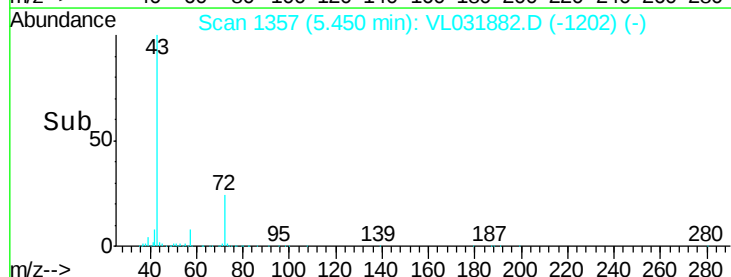
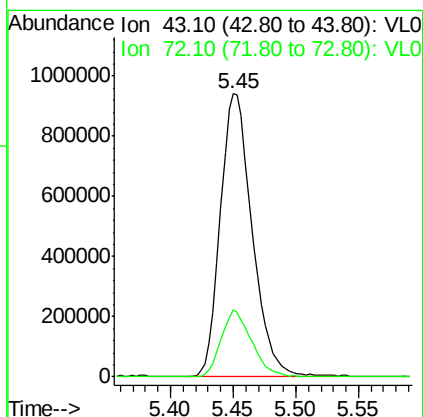
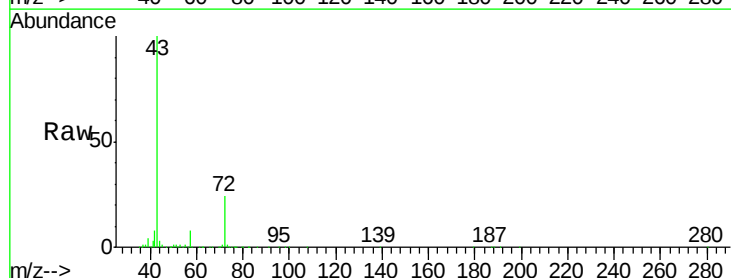
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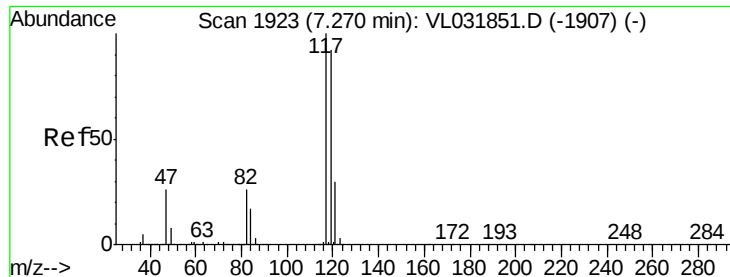
Sam  
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#34  
 2-Butanone  
 Concen: 8.22 ppbv  
 RT: 5.45 min Scan# 1357  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 22.8  | 18.6  | 27.8  |





#35

Carbon Tetrachloride

Concen: 8.42 ppbv

RT: 7.27 min Scan# 1923

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

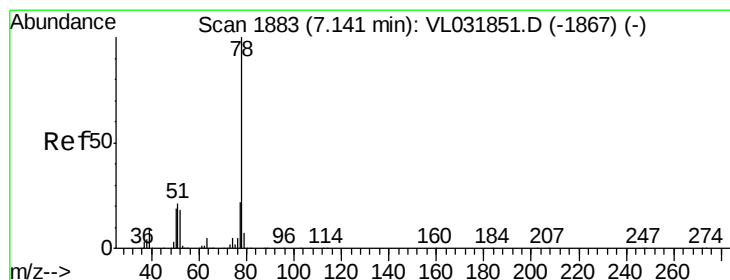
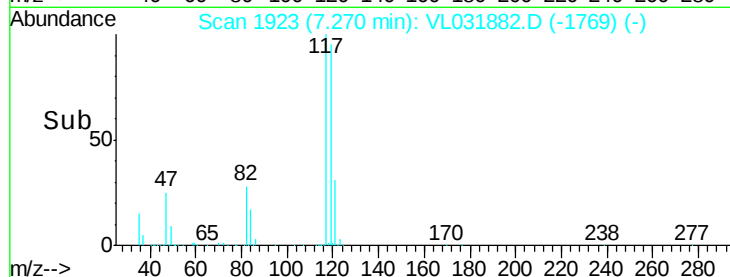
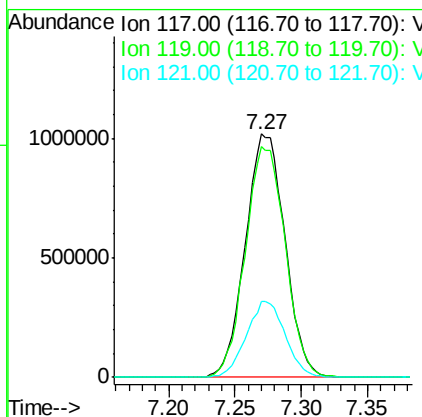
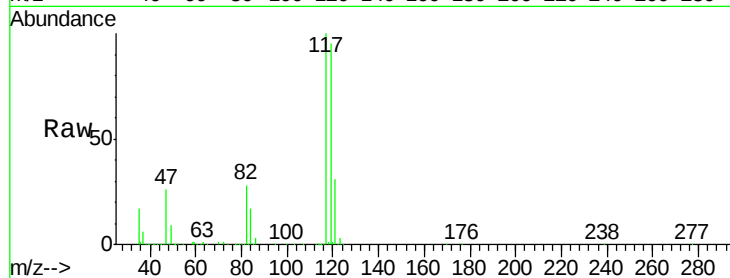
ClientSampleId :

VL0419ABS01

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 117   | Resp: | 2120148 |
| Ion      | Ratio | Lower | Upper   |
| 117      | 100   |       |         |
| 119      | 94.9  | 76.9  | 115.3   |
| 121      | 31.2  | 24.5  | 36.7    |

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#36

Benzene

Concen: 9.28 ppbv

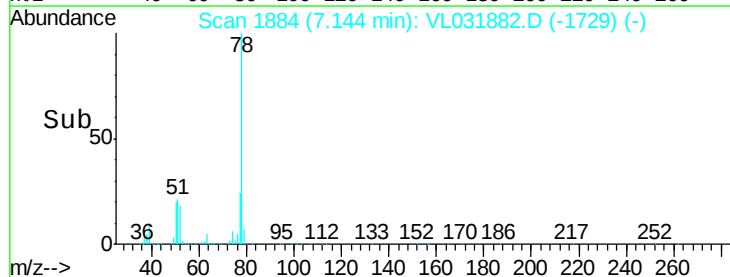
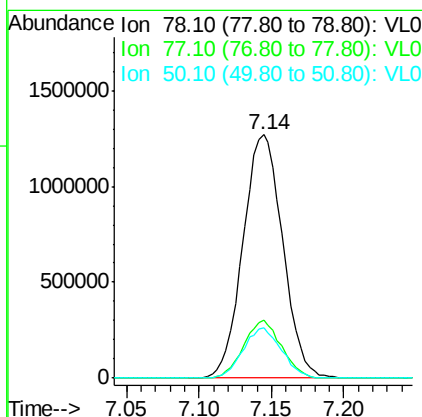
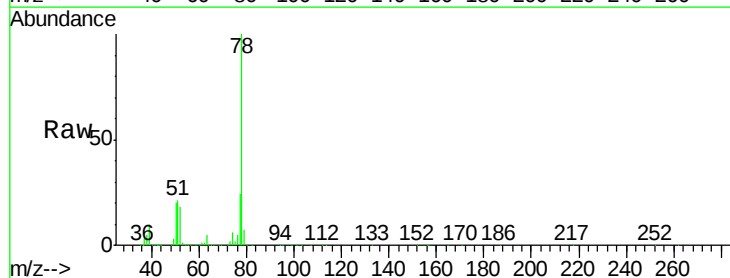
RT: 7.14 min Scan# 1884

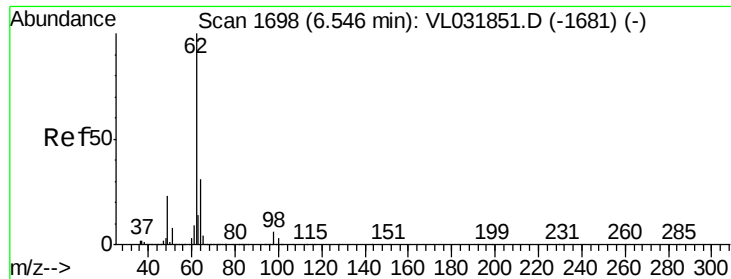
Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 78    | Resp: | 2420201 |
| Ion      | Ratio | Lower | Upper   |
| 78       | 100   |       |         |
| 77       | 23.7  | 19.2  | 28.8    |
| 50       | 20.4  | 16.7  | 25.1    |





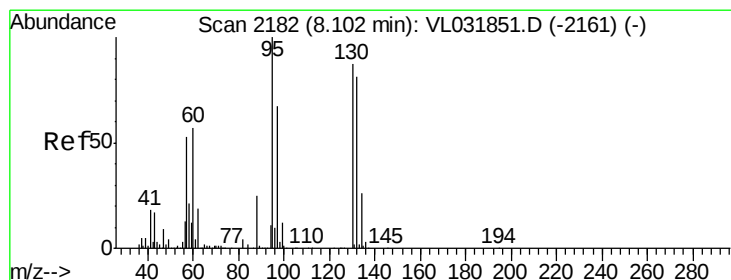
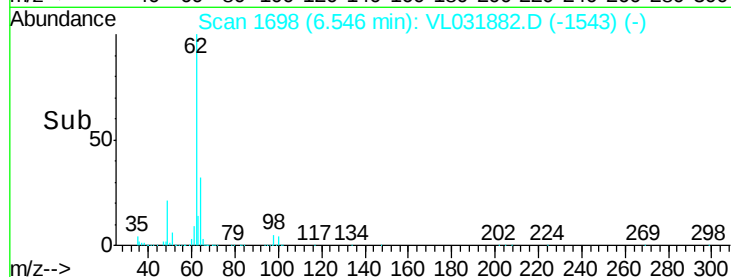
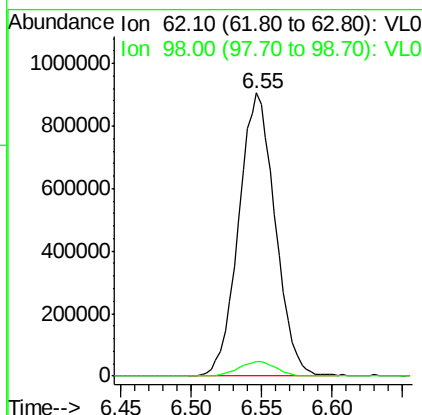
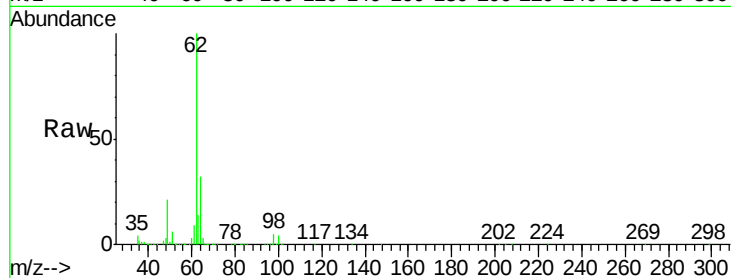
#37  
 1,2-Dichloroethane  
 Concen: 8.45 ppbv  
 RT: 6.55 min Scan# 1698  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 5.2   | 4.0   | 6.0   |

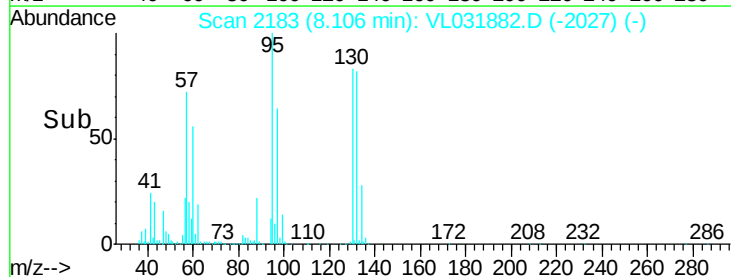
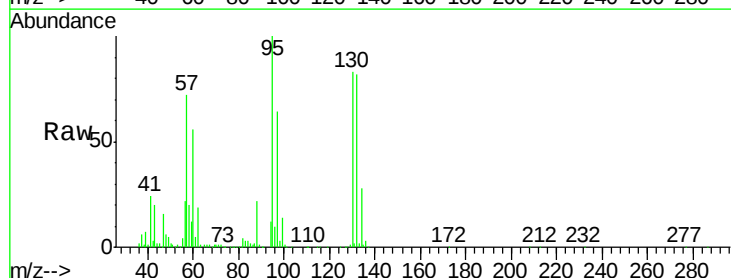
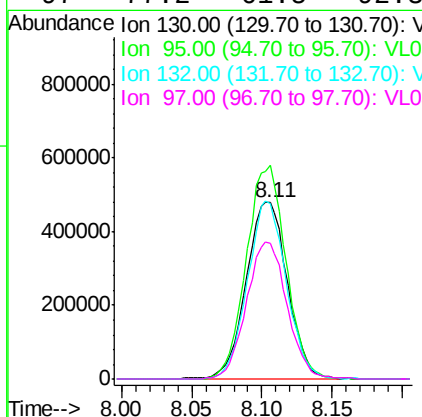
Manual Integrations  
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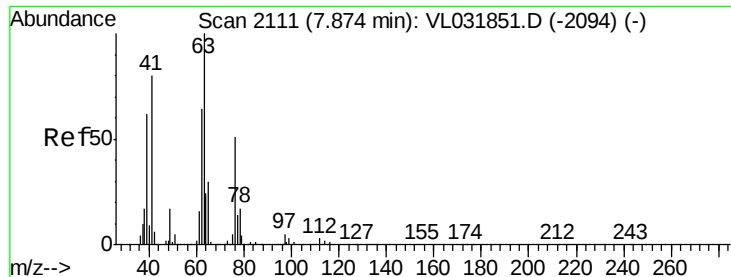
sam  
 4/23/2018 12:49:52 PM



#38  
 Trichloroethene  
 Concen: 9.17 ppbv  
 RT: 8.11 min Scan# 2183  
 Delta R.T. 0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 121.3 | 96.6  | 144.8 |
| 132     | 99.3  | 79.1  | 118.7 |
| 97      | 77.2  | 61.5  | 92.3  |





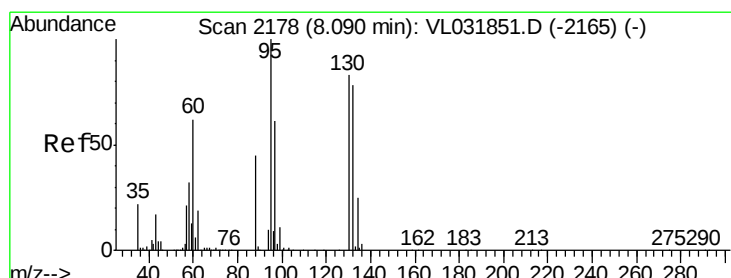
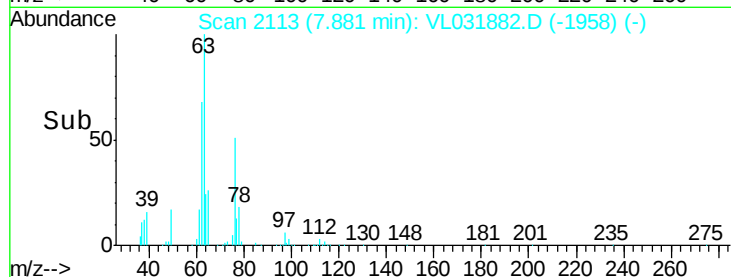
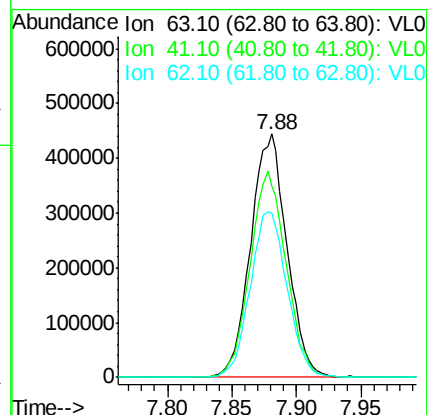
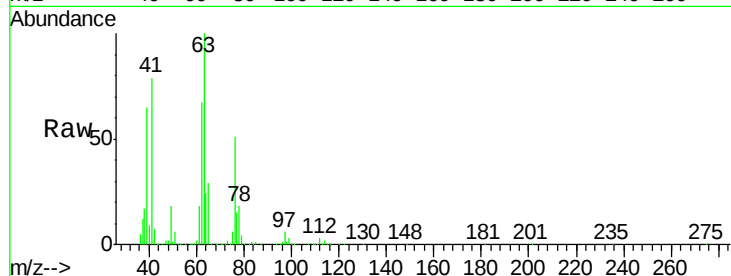
#39  
 1,2-Dichloropropane  
 Concen: 9.01 ppbv  
 RT: 7.88 min Scan# 2113  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 78.6  | 65.8  | 98.6  |
| 62      | 67.4  | 55.0  | 82.6  |

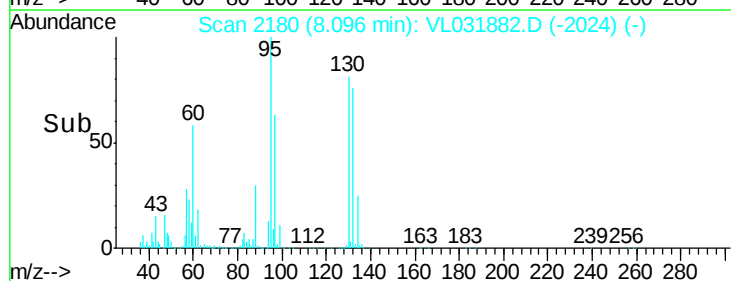
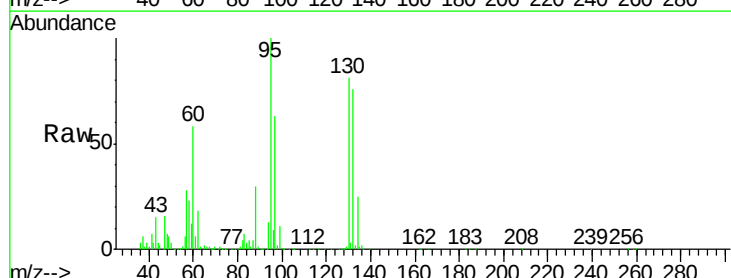
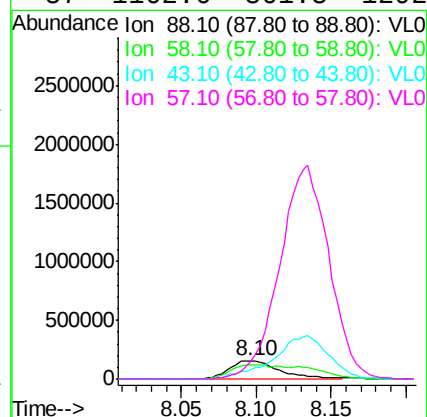
Manual Integrations  
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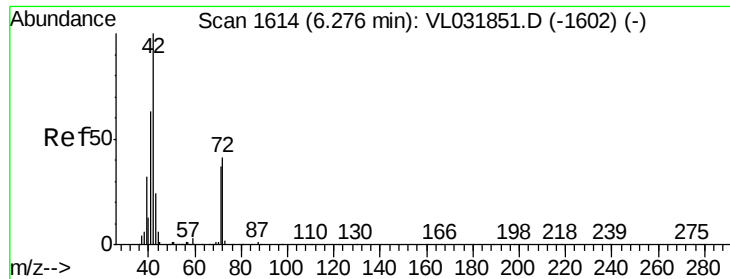
sam  
 4/23/2018 12:49:52 PM



#40  
 1,4-Dioxane  
 Concen: 9.13 ppbv  
 RT: 8.10 min Scan# 2180  
 Delta R.T. 0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio  | Lower | Upper  |
|---------|--------|-------|--------|
| 88      | 100    |       |        |
| 58      | 130.7  | 98.5  | 147.7  |
| 43      | 260.6  | 194.3 | 291.5  |
| 57      | 1162.6 | 861.8 | 1292.6 |





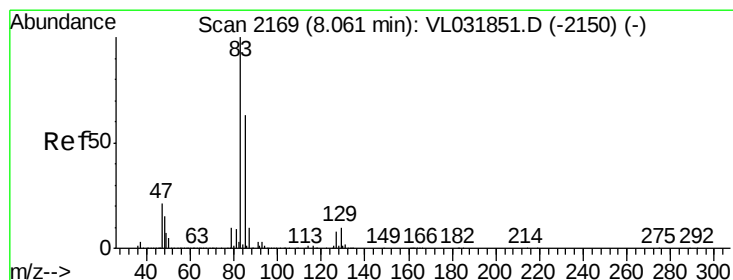
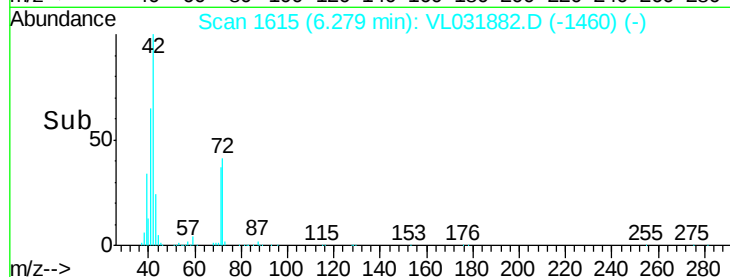
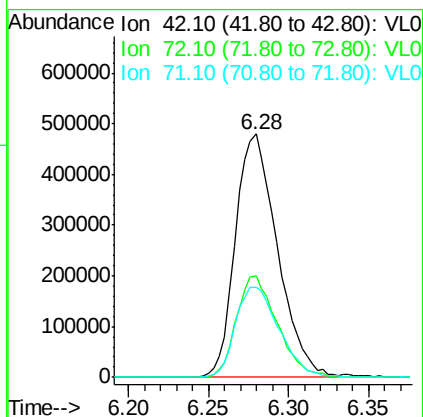
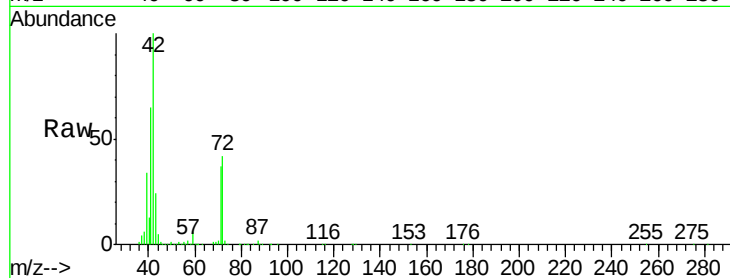
#41  
Tetrahydrofuran  
Concen: 9.21 ppbv  
RT: 6.28 min Scan# 1615  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 40.6  | 33.2  | 49.8  |
| 71      | 38.7  | 31.5  | 47.3  |

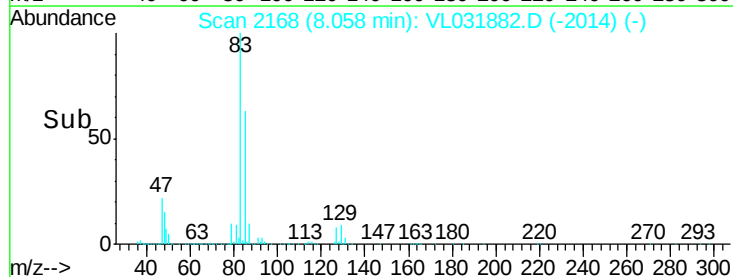
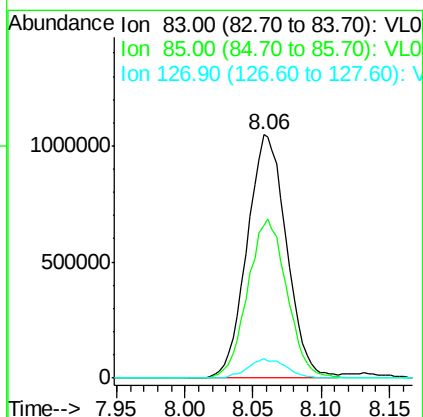
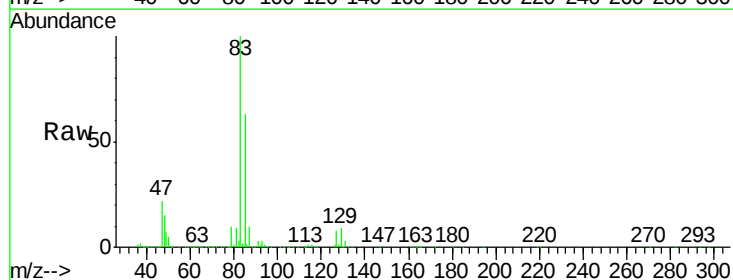
Manual Integrations  
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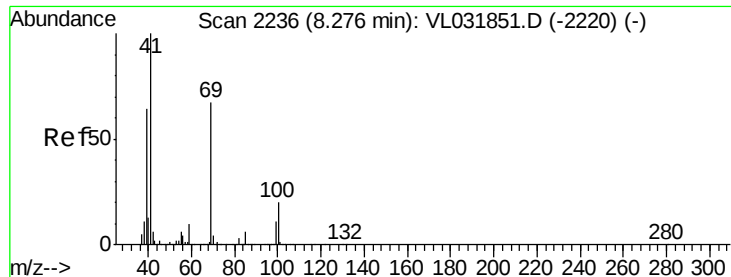
sam  
4/23/2018 12:49:52 PM



#42  
Bromodichloromethane  
Concen: 9.08 ppbv  
RT: 8.06 min Scan# 2168  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 62.7  | 50.5  | 75.7  |
| 127     | 7.8   | 6.0   | 9.0   |





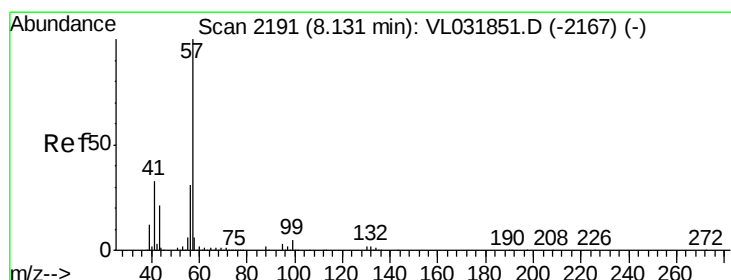
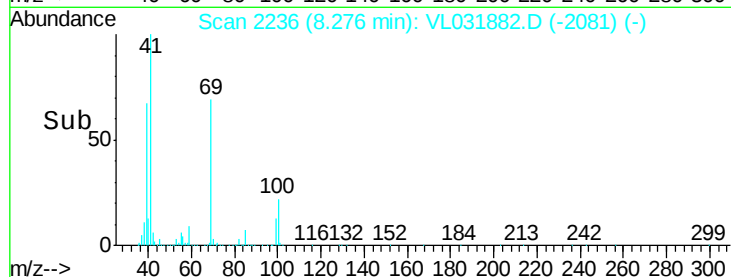
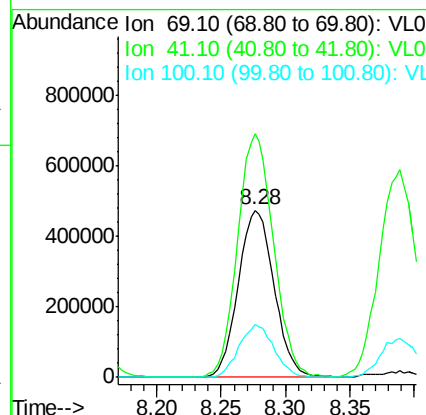
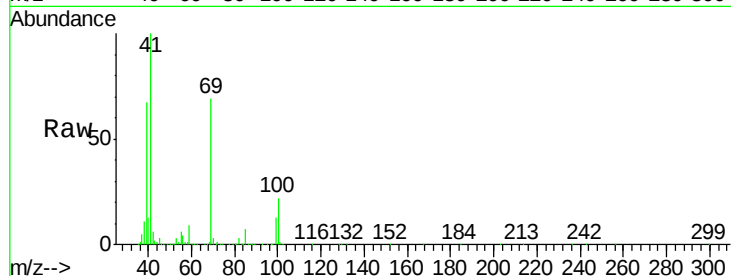
#43  
Methvl Methacrilate  
Concen: 9.97 ppbv  
RT: 8.28 min Scan# 2236  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 69      | 100   |       |       |
| 41      | 146.4 | 117.8 | 176.8 |
| 100     | 31.0  | 24.6  | 37.0  |

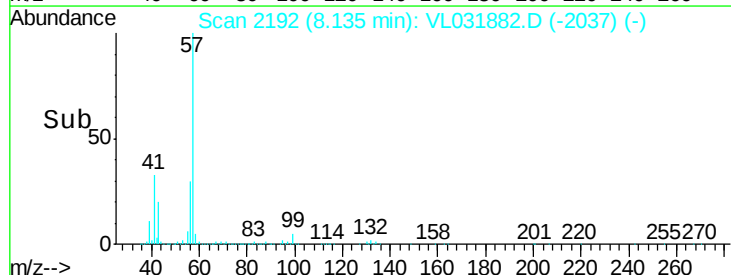
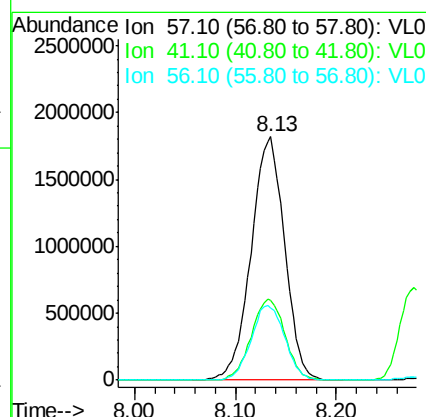
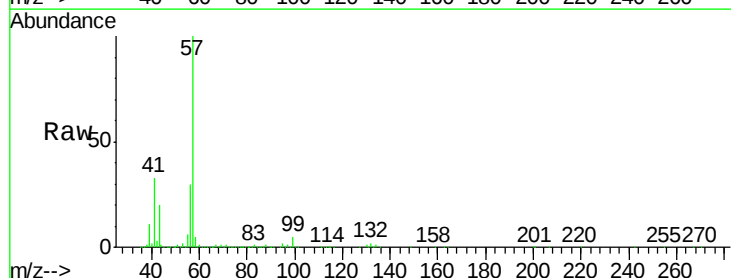
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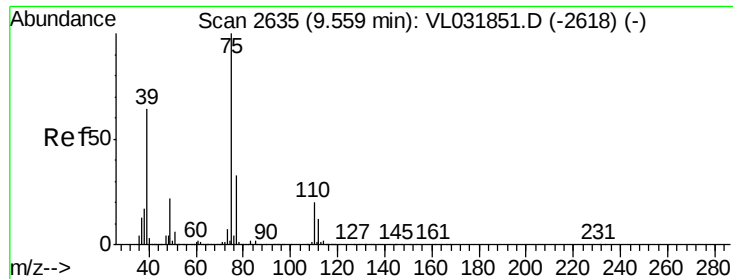
sam  
4/23/2018 12:49:52 PM



#44  
2,2,4-Trimethylpentane  
Concen: 9.29 ppbv  
RT: 8.13 min Scan# 2192  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 33.7  | 27.0  | 40.6  |
| 56      | 31.0  | 24.1  | 36.1  |





#45

t-1,3-Dichloropropene

Concen: 10.70 ppbv

RT: 9.56 min Scan# 2636

Delta R.T. 0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion: 75 Resp: 1273909

Ion Ratio Lower Upper

75 100

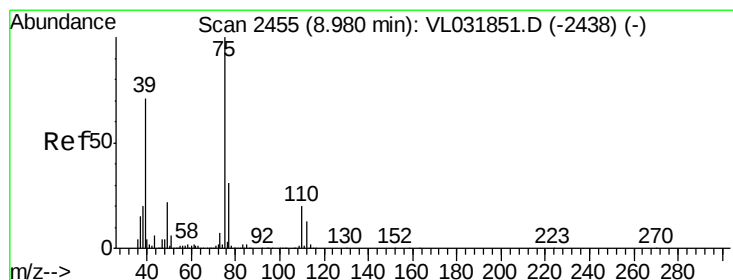
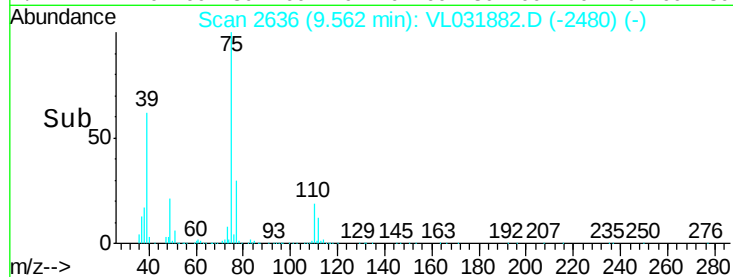
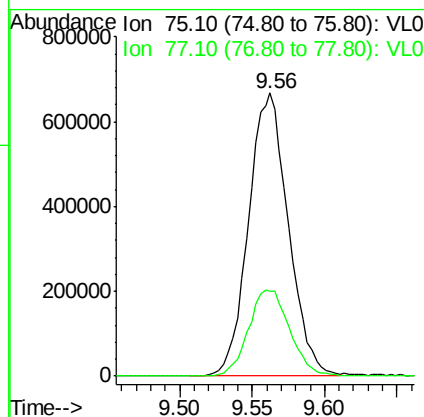
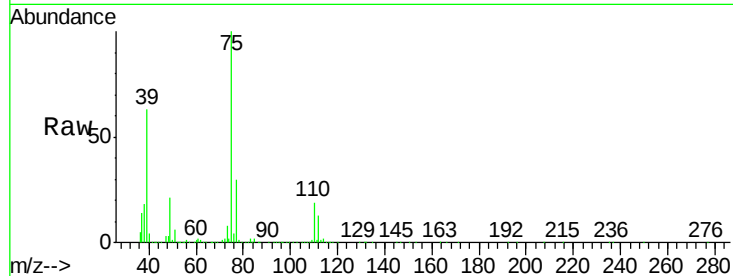
77 30.1 25.1 37.7

Manual Integrations

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sam

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#46

cis-1,3-Dichloropropene

Concen: 10.22 ppbv

RT: 8.98 min Scan# 2455

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

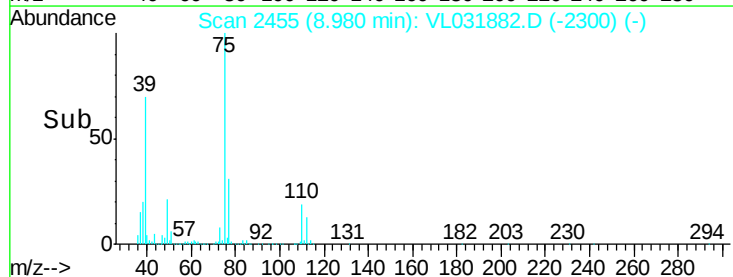
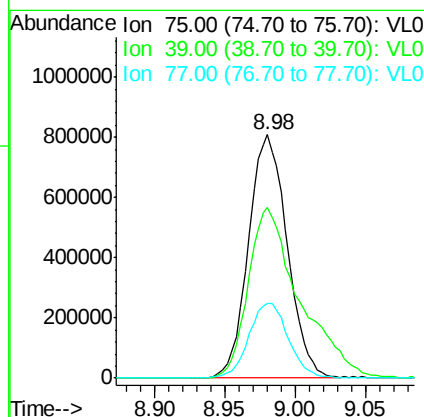
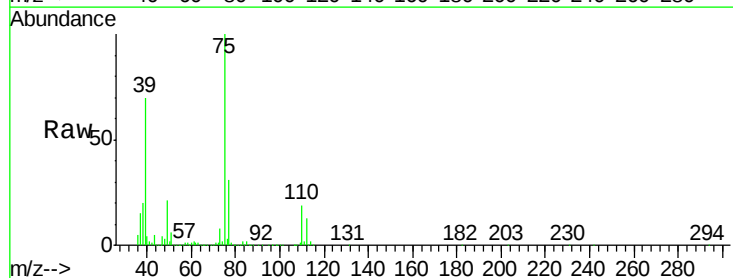
Tgt Ion: 75 Resp: 1554868

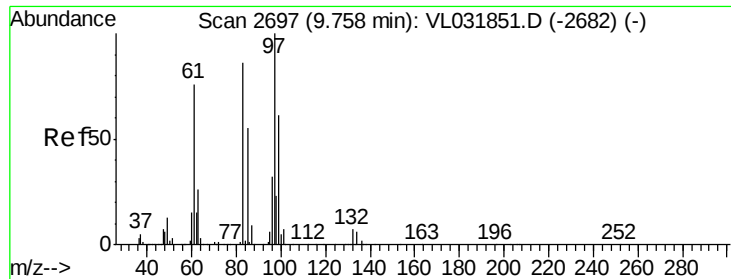
Ion Ratio Lower Upper

75 100

39 70.1 58.6 87.8

77 30.7 26.8 40.2





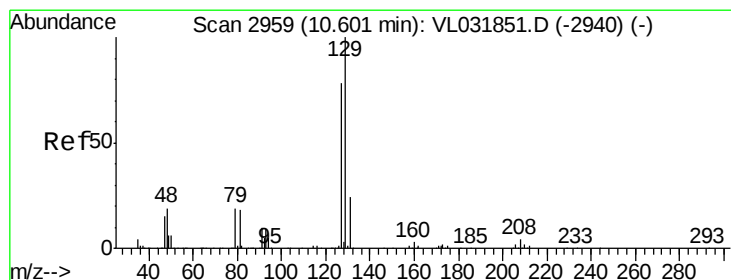
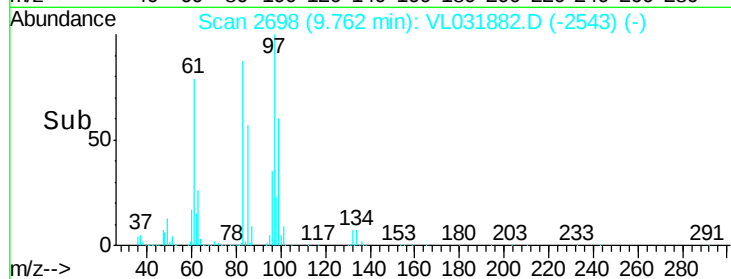
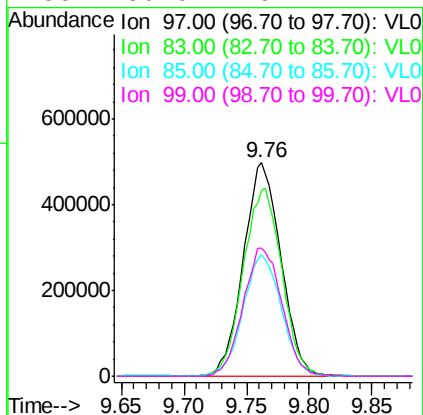
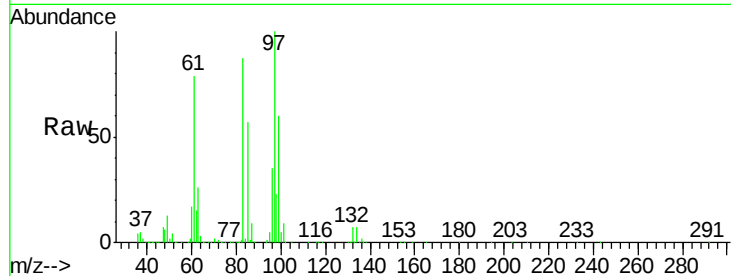
#47  
 1,1,2-Trichloroethane  
 Concen: 9.00 ppbv  
 RT: 9.76 min Scan# 2698  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 83      | 86.5  | 69.1  | 103.7 |
| 85      | 56.5  | 43.7  | 65.5  |
| 99      | 60.0  | 49.4  | 74.2  |

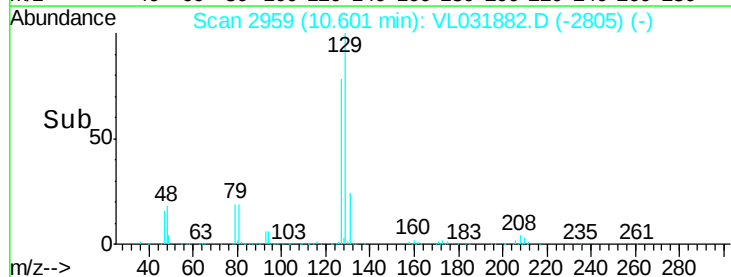
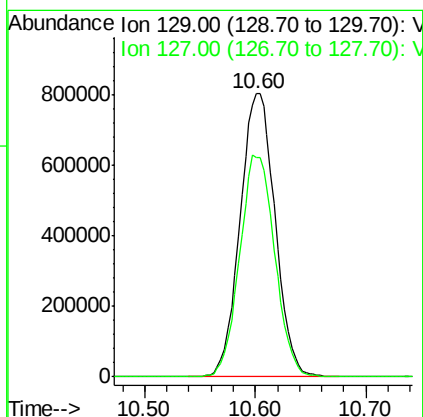
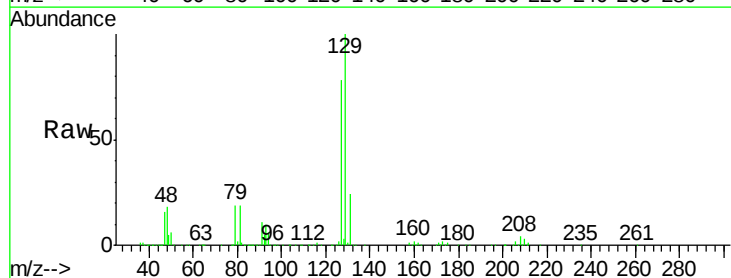
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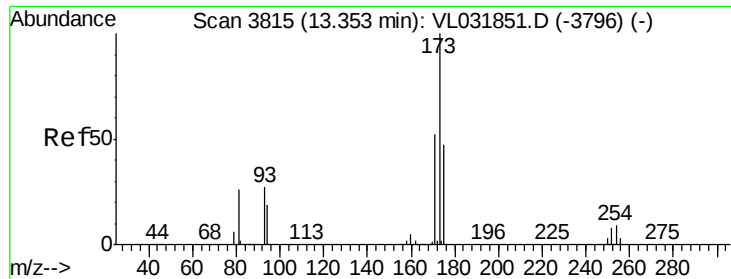
sam  
 4/23/2018 12:49:52 PM



#48  
 Dibromochloromethane  
 Concen: 9.48 ppbv  
 RT: 10.60 min Scan# 2959  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 129     | 100   |       |       |
| 127     | 78.5  | 39.1  | 117.5 |





#49

Bromoform

Concen: 9.73 ppbv

RT: 13.36 min Scan# 3816

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion:173 Resp: 1395250

Ion Ratio Lower Upper

173 100

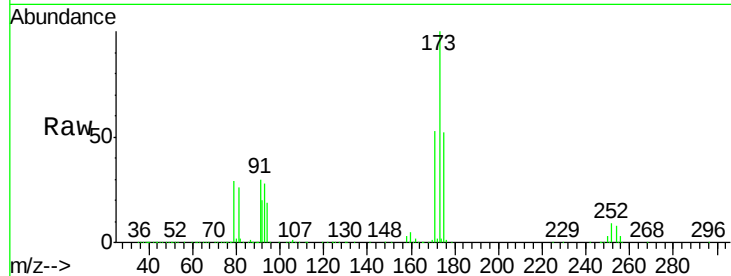
175 49.4 39.0 58.6

171 51.8 41.4 62.0

Manual Integrations  
APPROVED

sam

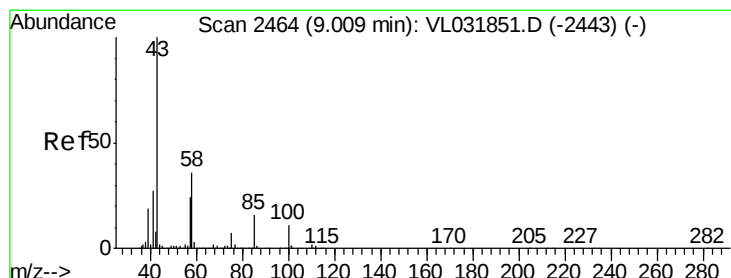
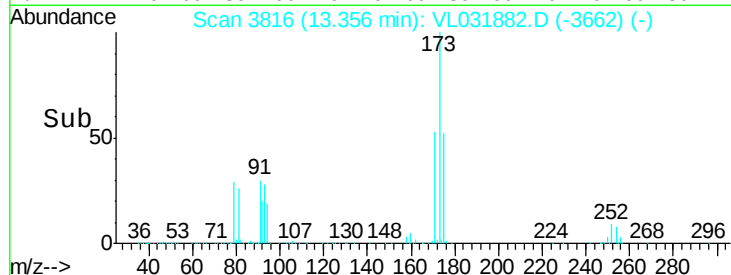
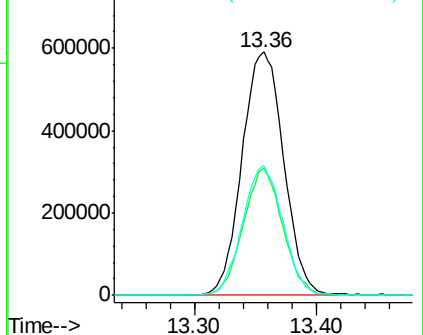
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Abundance Ion 172.90 (172.60 to 173.60): V

Ion 174.90 (174.60 to 175.60): V

Ion 170.90 (170.60 to 171.60): V



#50

4-Methyl-2-Pentanone

Concen: 9.22 ppbv

RT: 9.01 min Scan# 2465

Delta R.T. -0.00 min

Lab File: VL031882.D

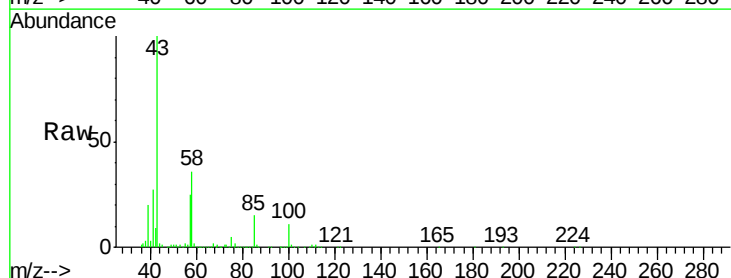
Acq: 19 Apr 2018 17:53

Tgt Ion: 43 Resp: 2122618

Ion Ratio Lower Upper

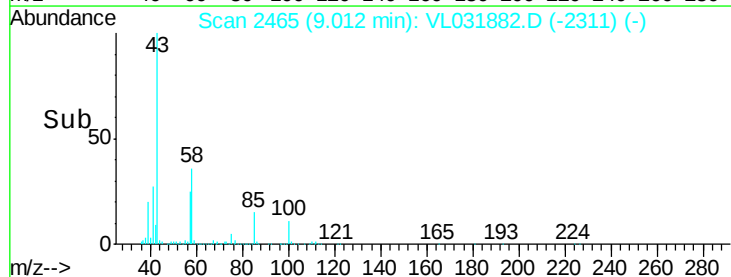
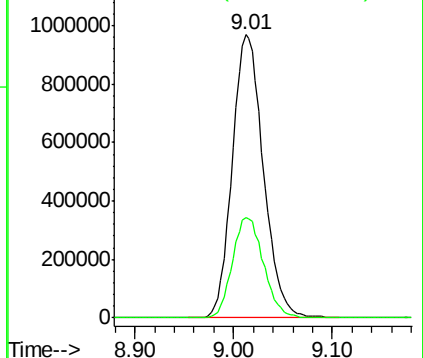
43 100

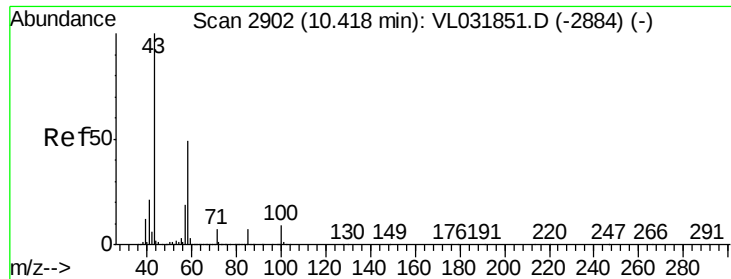
58 35.6 28.6 43.0



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#51

2-Hexanone

Concen: 9.44 ppbv

RT: 10.42 min Scan# 2902

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampled :

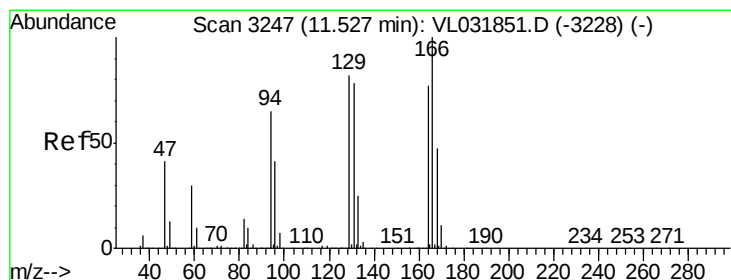
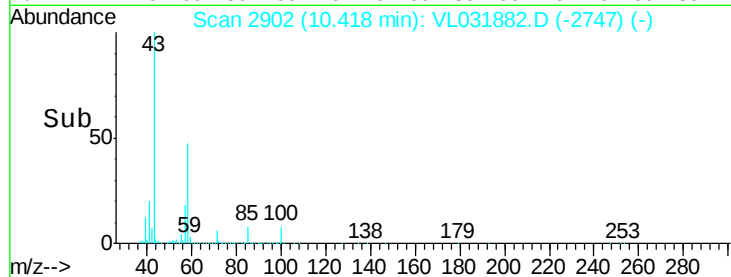
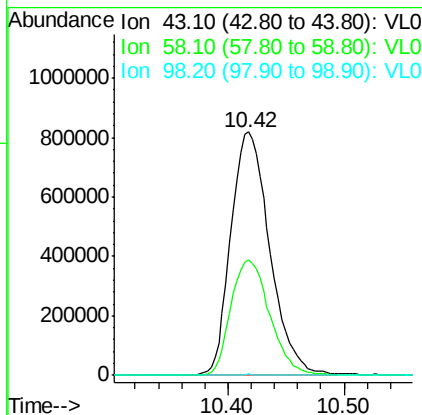
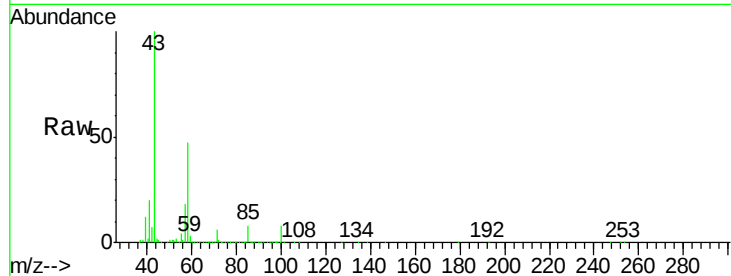
VL0419ABS01

Tot Ion: 43 Resp: 1900560

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 58  | 47.5  | 38.5  | 57.7  |
| 98  | 0.5   | 0.2   | 0.4   |

Manual Integrations  
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sam  
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#52

Tetrachloroethene

Concen: 9.12 ppbv

RT: 11.52 min Scan# 3246

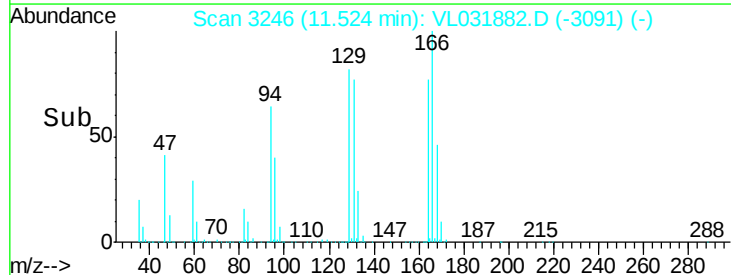
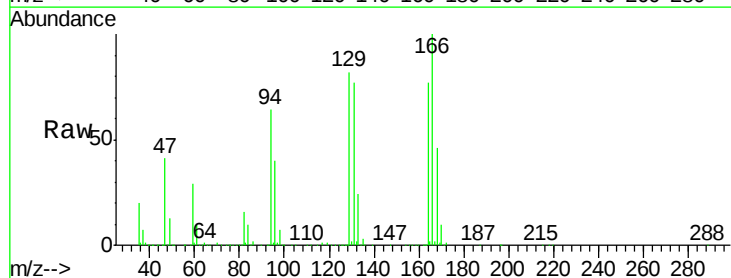
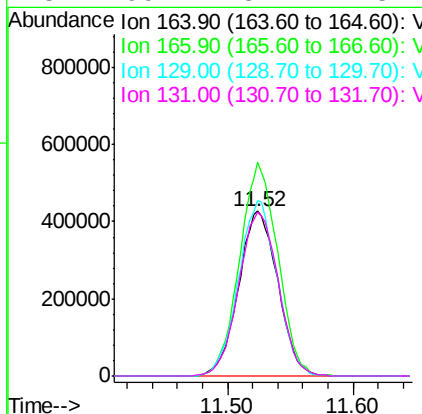
Delta R.T. -0.00 min

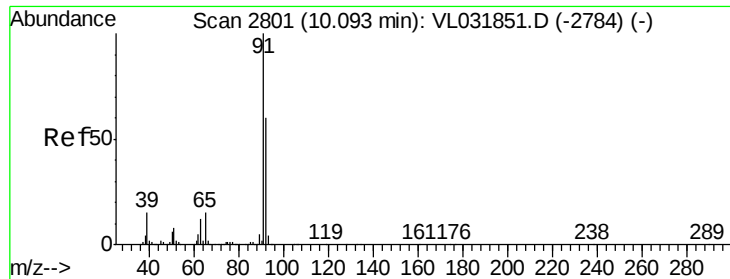
Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Tgt Ion: 164 Resp: 927148

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 164 | 100   |       |       |
| 166 | 129.4 | 98.2  | 147.4 |
| 129 | 105.7 | 86.5  | 129.7 |
| 131 | 99.1  | 82.2  | 123.2 |





#53

Toluene

Concen: 9.92 ppbv

RT: 10.10 min Scan# 2802

Delta R.T. 0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion: 91 Resp: 2884920

Ion Ratio Lower Upper

91 100

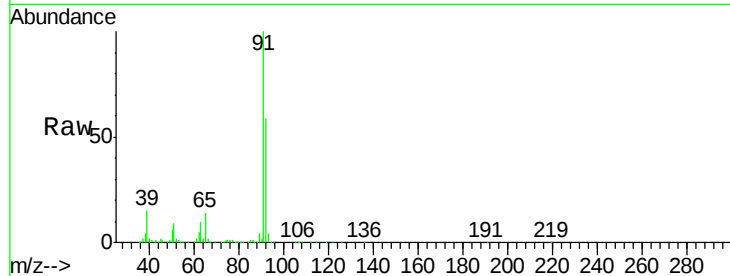
92 59.5 47.4 71.2

Manual Integrations

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sam

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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

10.10

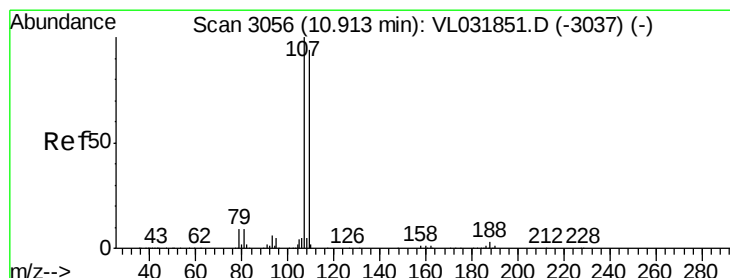
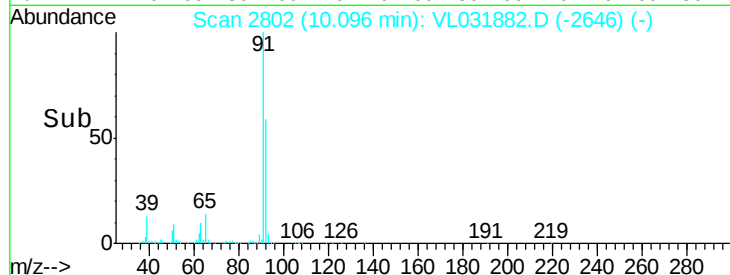
1500000

1000000

500000

0

Time-->



#54

1,2-Dibromoethane

Concen: 9.27 ppbv

RT: 10.91 min Scan# 3055

Delta R.T. -0.00 min

Lab File: VL031882.D

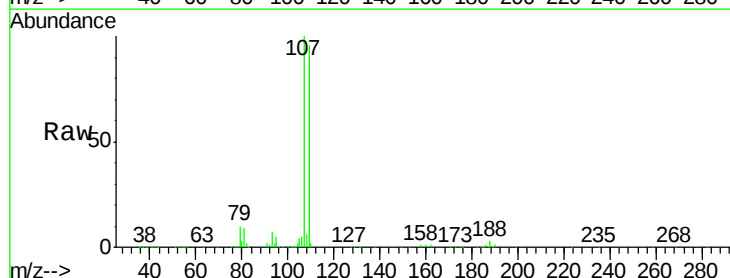
Acq: 19 Apr 2018 17:53

Tgt Ion:107 Resp: 1550957

Ion Ratio Lower Upper

107 100

109 96.1 74.6 112.0



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V

10.91

800000

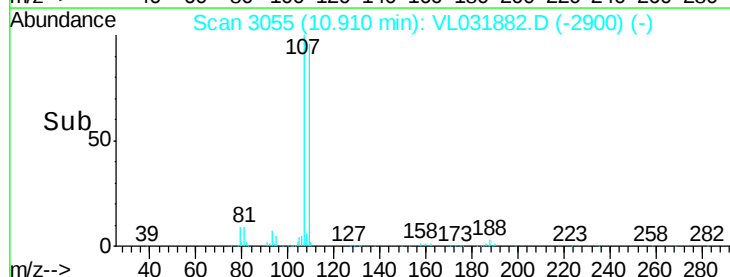
600000

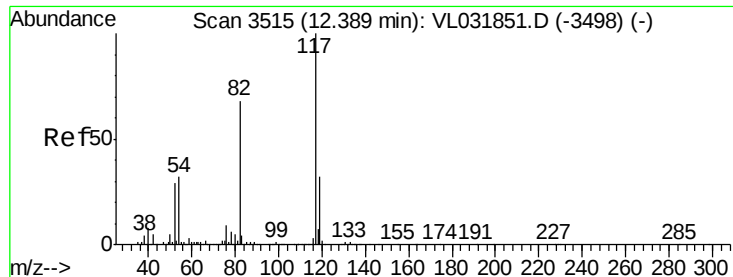
400000

200000

0

Time-->





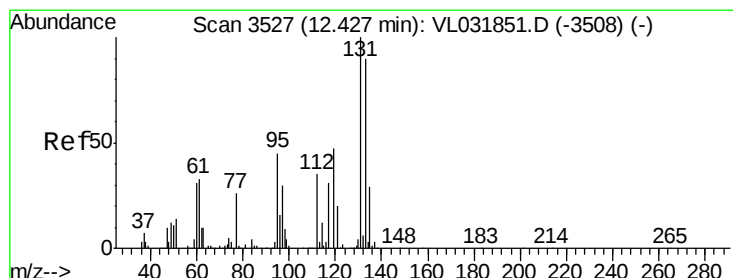
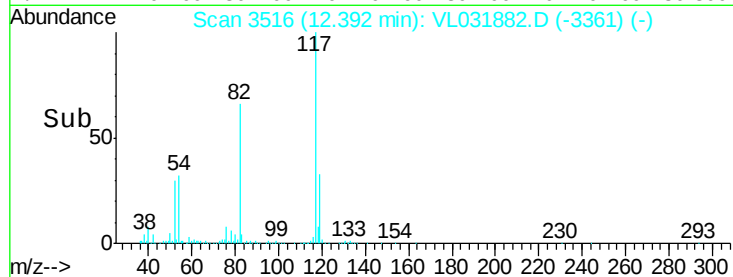
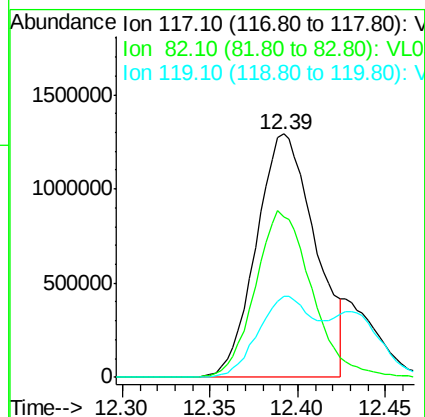
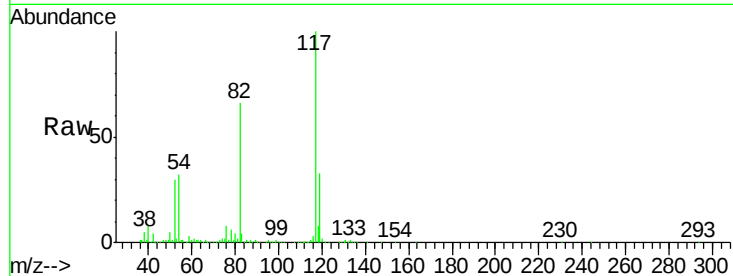
#55  
Chlorobenzene-d5  
Concen: 10.00 ppbv m  
RT: 12.39 min Scan# 3516  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

Tot Ion:117 Resp: 3014132  
Ion Ratio Lower Upper  
117 100  
82 65.9 54.6 81.8  
119 54.7 26.0 39.0#

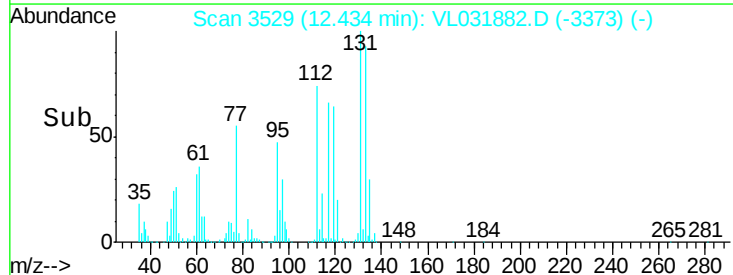
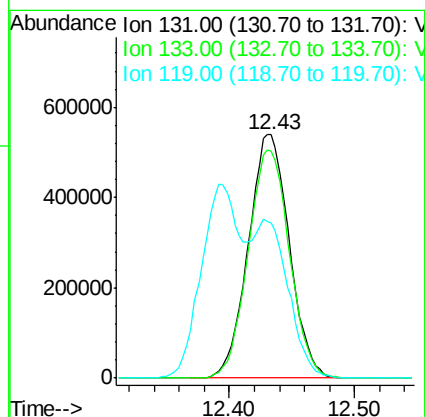
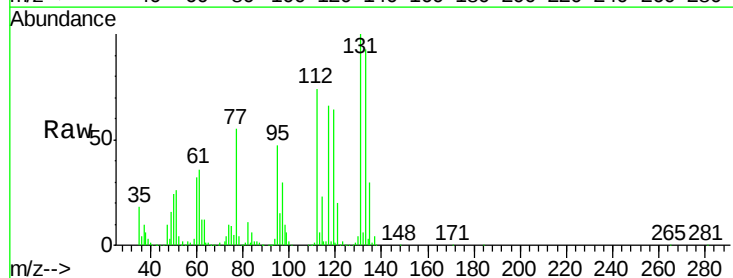
Manual Integrations  
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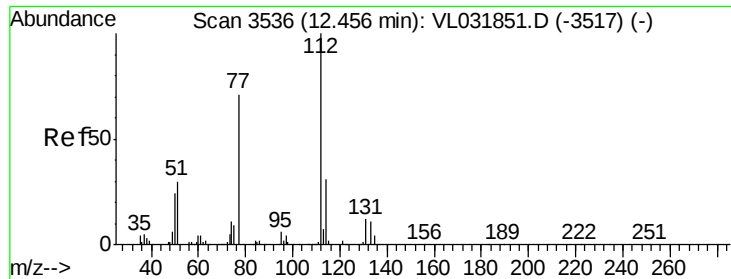
sam  
4/23/2018 12:49:52 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 8.64 ppbv  
RT: 12.43 min Scan# 3529  
Delta R.T. 0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Tgt Ion:131 Resp: 1224833  
Ion Ratio Lower Upper  
131 100  
133 94.9 76.1 114.1  
119 134.8 106.3 159.5





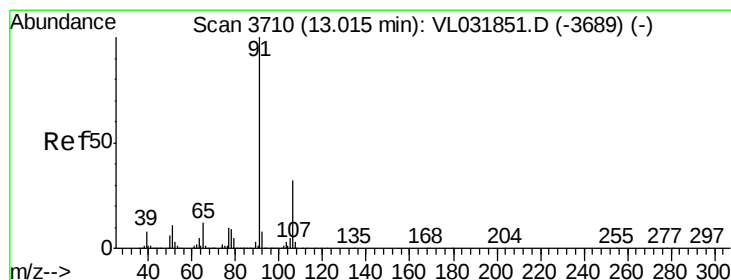
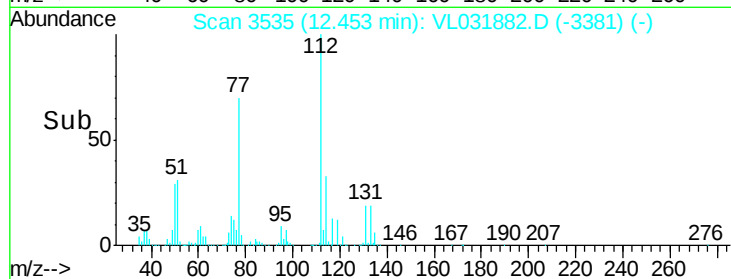
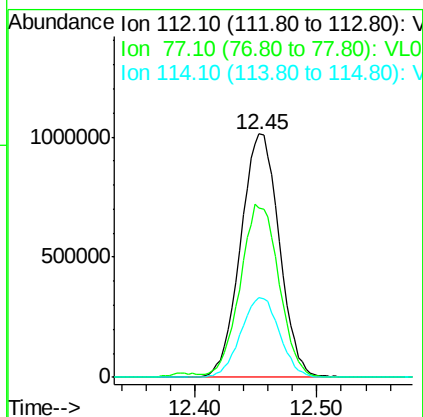
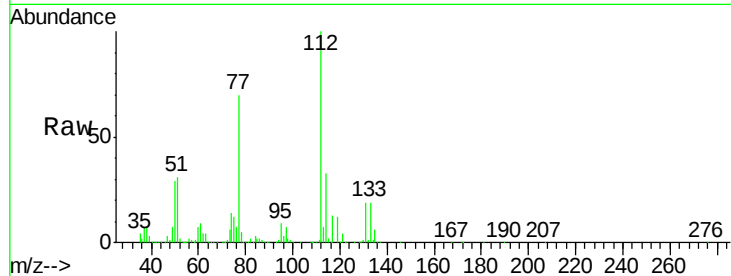
#57  
Chlorobenzene  
Concen: 8.65 ppbv  
RT: 12.45 min Scan# 3535  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 69.3  | 57.0  | 85.6  |
| 114     | 32.6  | 28.5  | 34.9  |

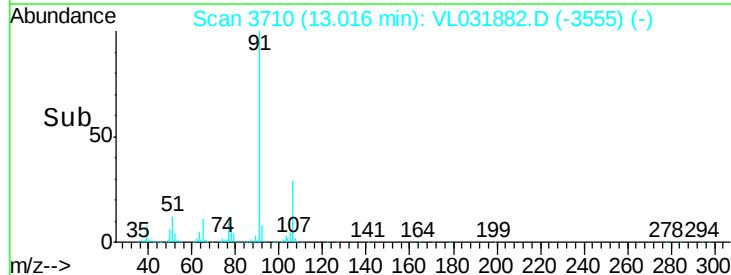
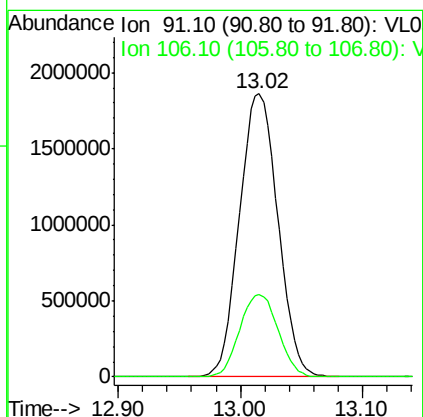
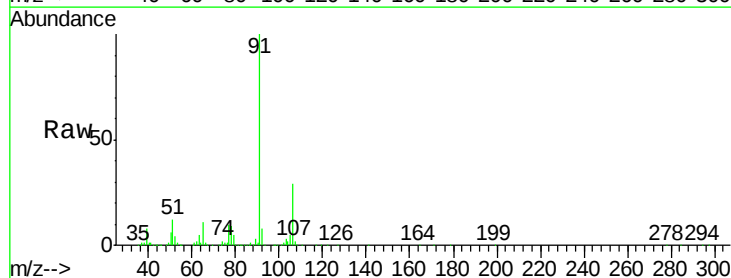
Manual Integrations  
APPROVED

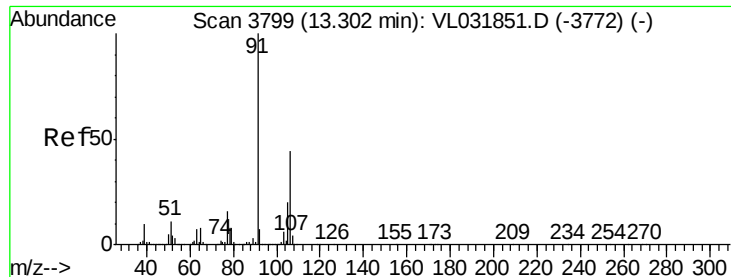
sam  
4/23/2018 12:49:52 PM



#58  
Ethyl Benzene  
Concen: 9.67 ppbv  
RT: 13.02 min Scan# 3710  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 29.2  | 23.8  | 35.6  |





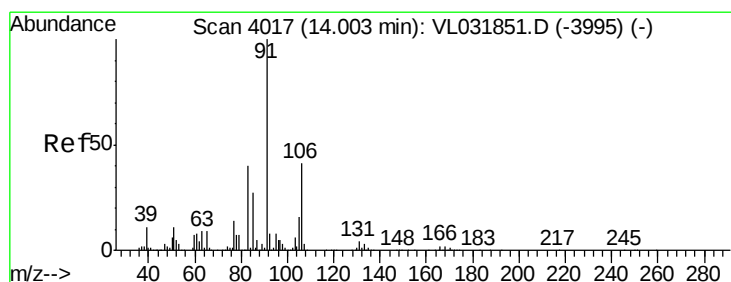
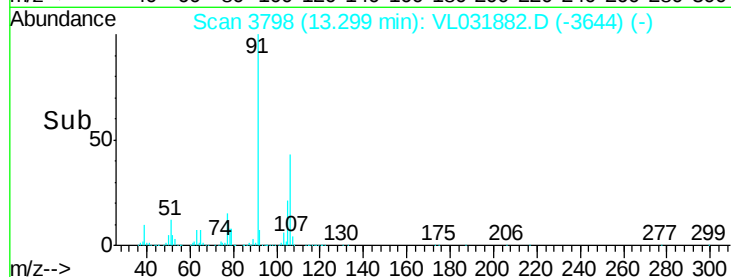
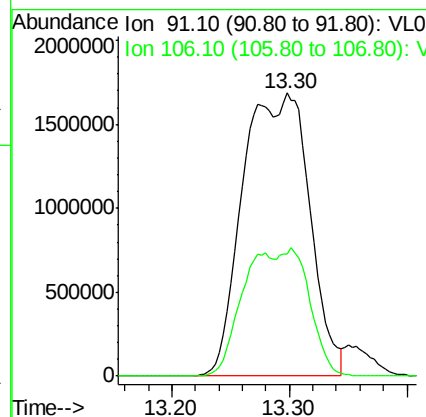
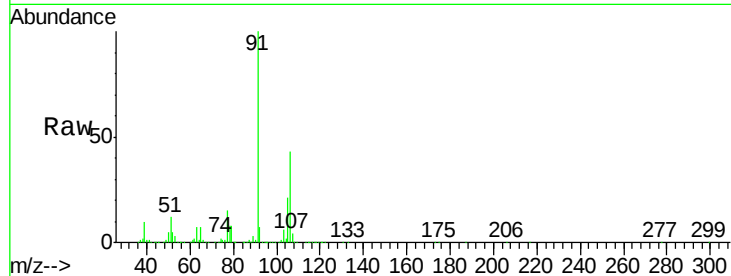
#59  
m/p-Xylene  
Concen: 18.26 ppbv m  
RT: 13.30 min Scan# 3798  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

Tot Ion: 91 Resp: 6636661  
Ion Ratio Lower Upper  
91 100  
106 44.5 35.5 53.3

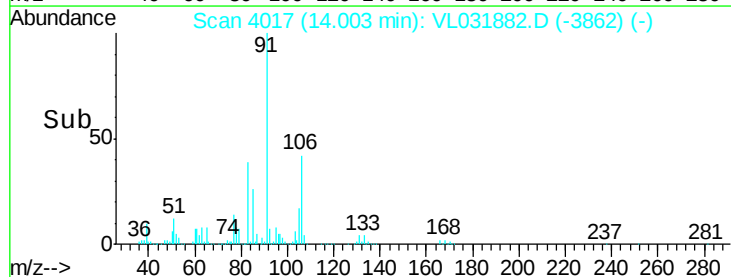
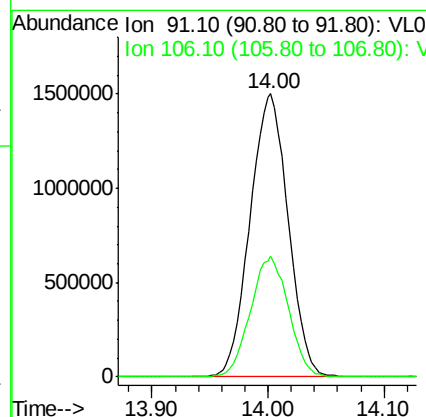
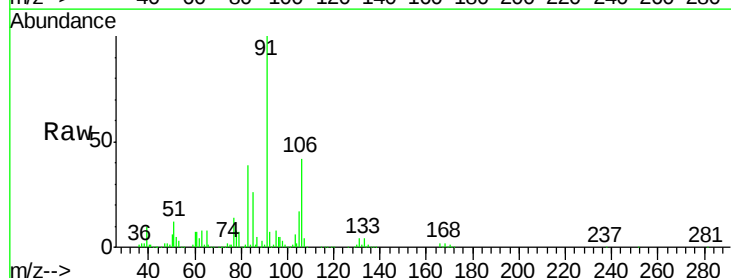
Manual Integrations  
APPROVED

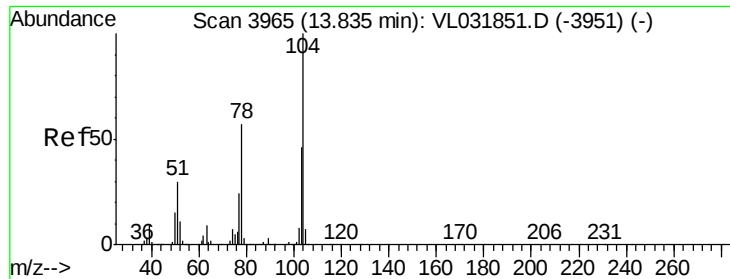
sam  
4/23/2018 12:49:52 PM



#60  
o-Xylene  
Concen: 9.42 ppbv  
RT: 14.00 min Scan# 4017  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Tgt Ion: 91 Resp: 3421335  
Ion Ratio Lower Upper  
91 100  
106 42.4 21.3 63.9





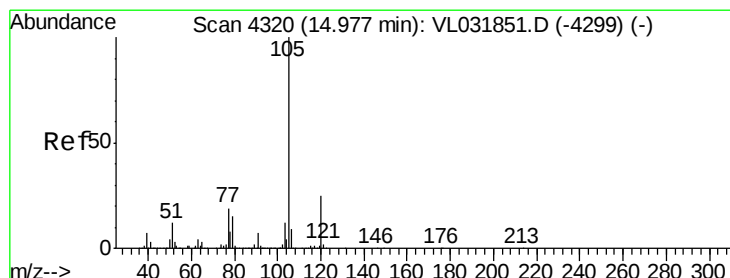
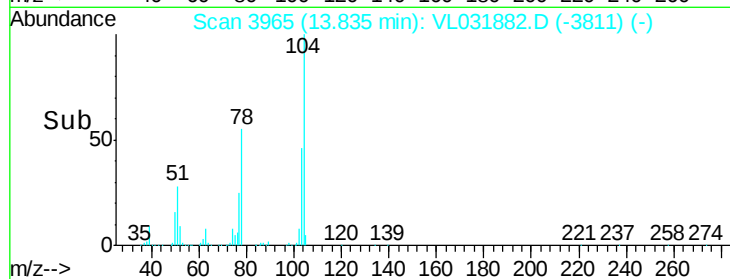
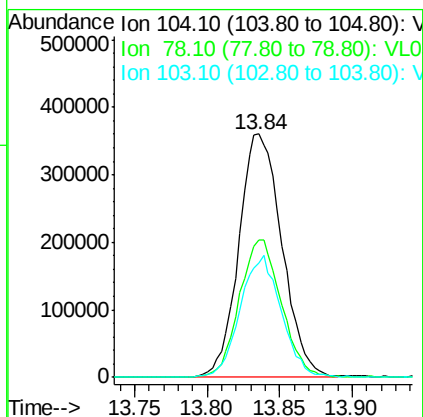
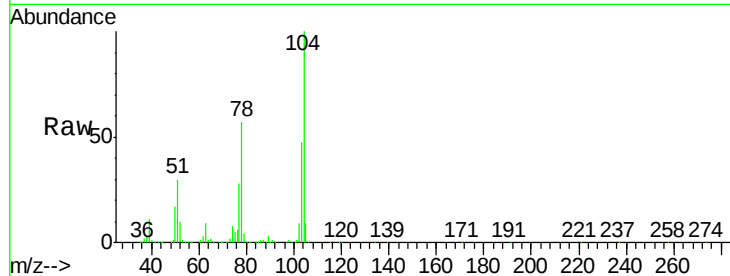
#61  
Stvrene  
Concen: 10.76 ppbv  
RT: 13.84 min Scan# 3965  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 55.3  | 44.4  | 66.6  |
| 103     | 47.8  | 37.9  | 56.9  |

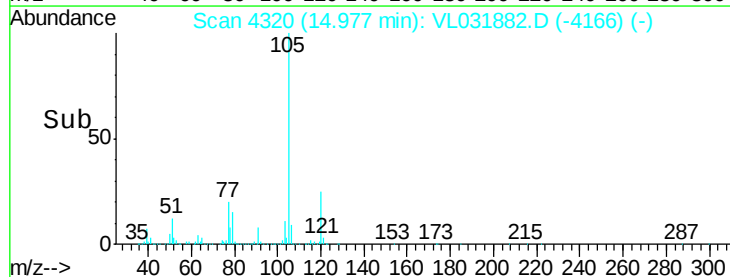
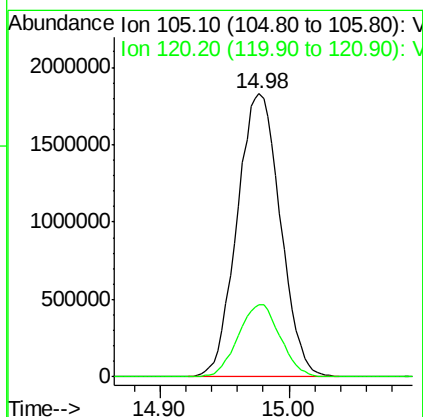
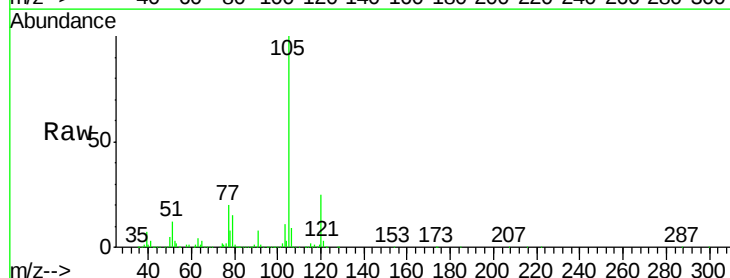
Manual Integrations  
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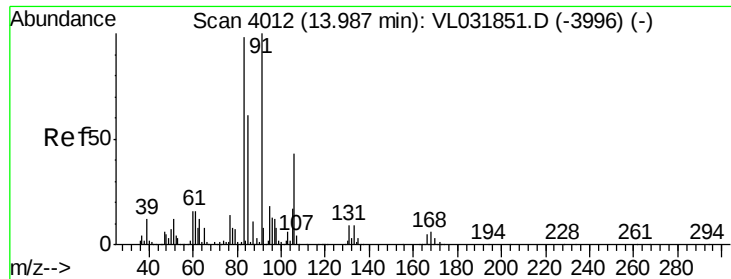
sam  
4/23/2018 12:49:52 PM



#62  
Isopropylbenzene  
Concen: 9.13 ppbv  
RT: 14.98 min Scan# 4320  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 24.9  | 19.4  | 29.2  |





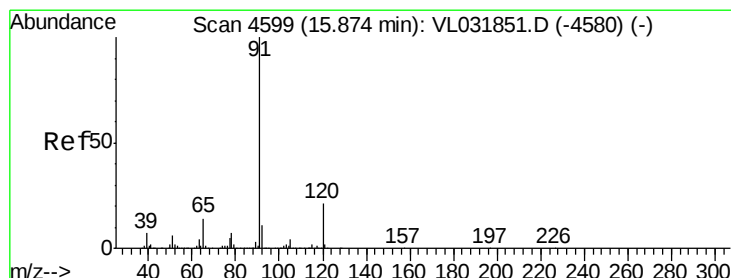
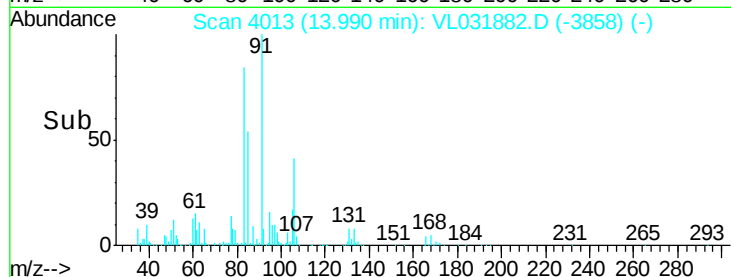
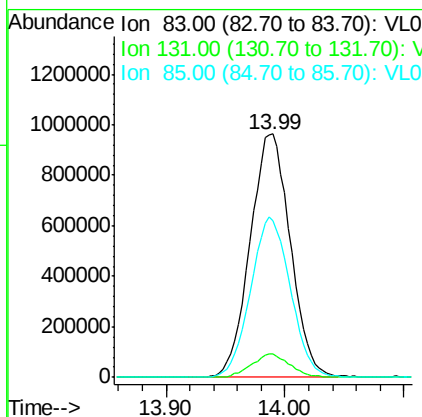
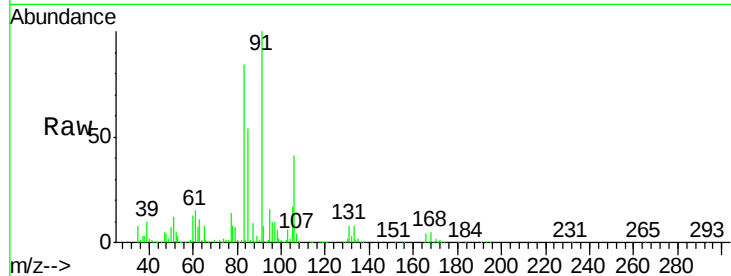
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 8.06 ppbv  
 RT: 13.99 min Scan# 4013  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

| Tot Ion   | 83    | Resp  | 2251679 |
|-----------|-------|-------|---------|
| Ion Ratio | Lower | Upper |         |
| 83        | 100   |       |         |
| 131       | 9.2   | 4.9   | 14.6    |
| 85        | 65.4  | 32.2  | 96.6    |

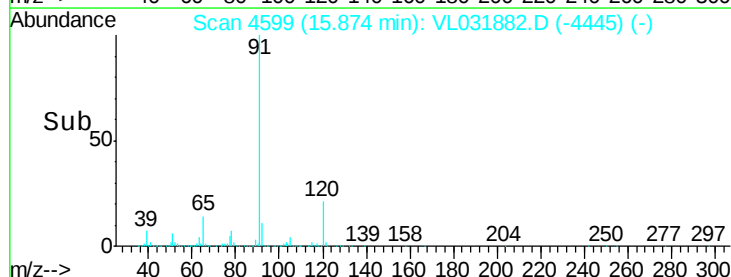
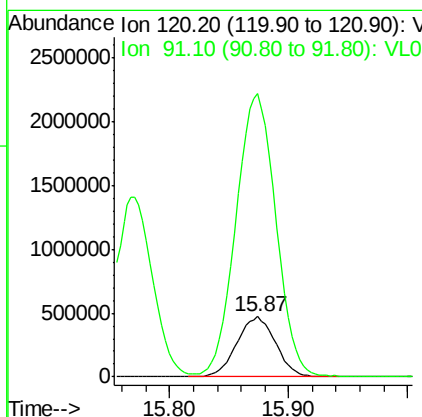
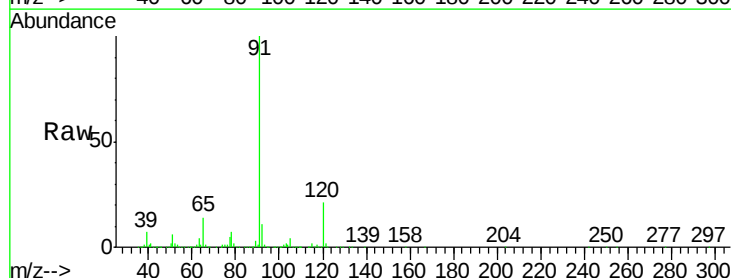
Manual Integrations  
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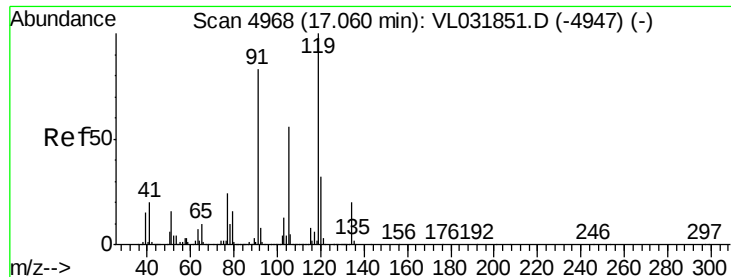
sam  
 4/23/2018 12:49:52 PM



#64  
 n-propylbenzene  
 Concen: 9.33 ppbv  
 RT: 15.87 min Scan# 4599  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

| Tgt Ion   | 120   | Resp  | 1057883 |
|-----------|-------|-------|---------|
| Ion Ratio | Lower | Upper |         |
| 120       | 100   |       |         |
| 91        | 489.0 | 393.7 | 590.5   |





#65

tert-Butylbenzene

Concen: 9.17 ppbv

RT: 17.06 min Scan# 4968

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

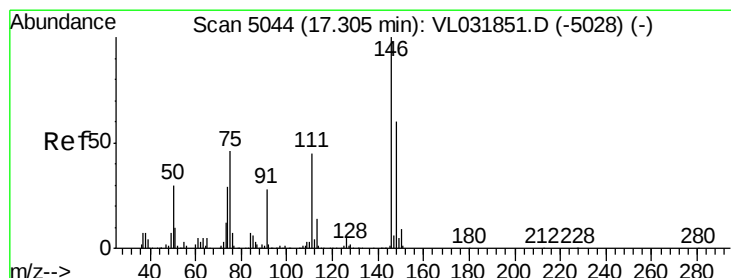
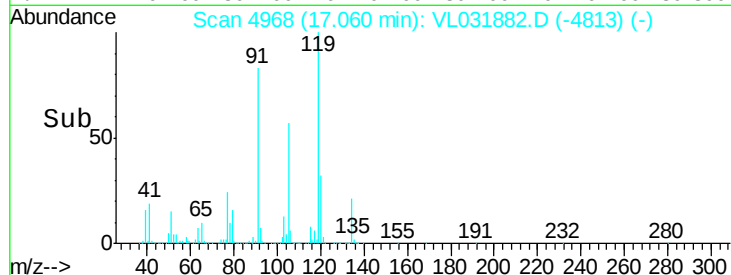
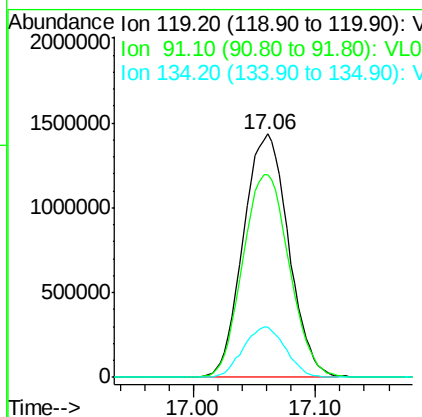
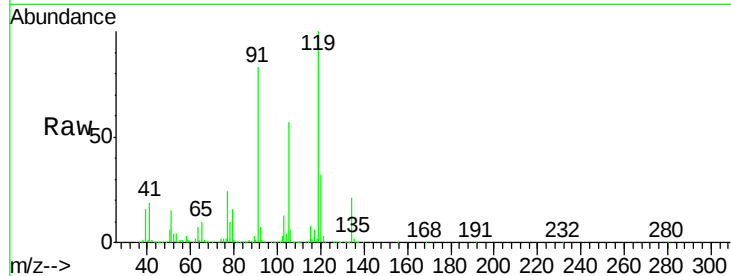
ClientSampleId :

VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 91      | 86.2  | 69.4  | 104.0 |
| 134     | 19.6  | 15.4  | 23.2  |

Manual Integrations  
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sam  
4/23/2018 12:49:52 PM



#66

Benzyl Chloride

Concen: 11.59 ppbv

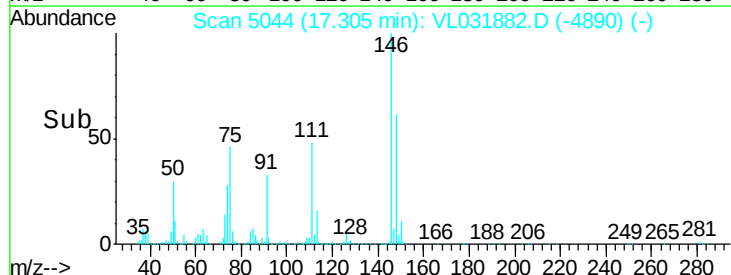
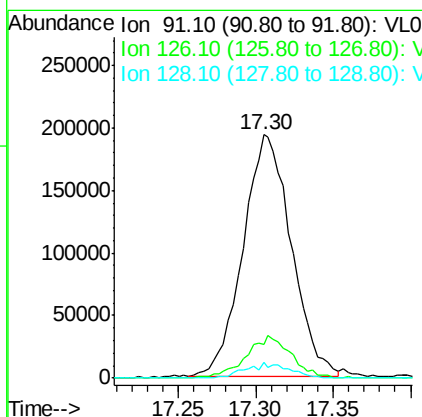
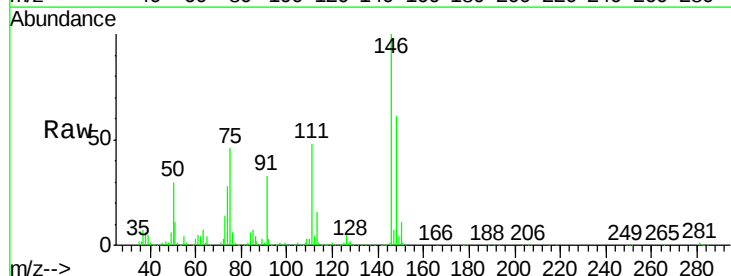
RT: 17.30 min Scan# 5044

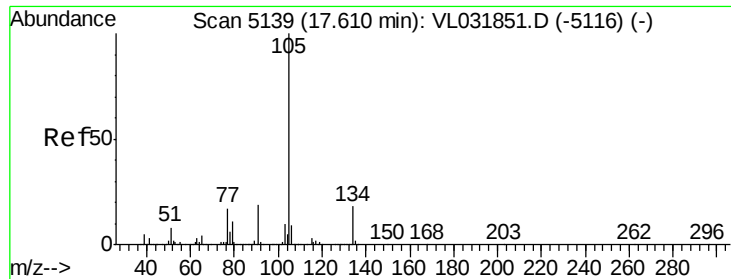
Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 16.9  | 12.6  | 19.0  |
| 128     | 5.9   | 4.0   | 6.0   |





#67

sec-Butylbenzene

Concen: 9.10 ppbv

RT: 17.61 min Scan# 5138

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion: 105 Resp: 5262843

Ion Ratio Lower Upper

105 100

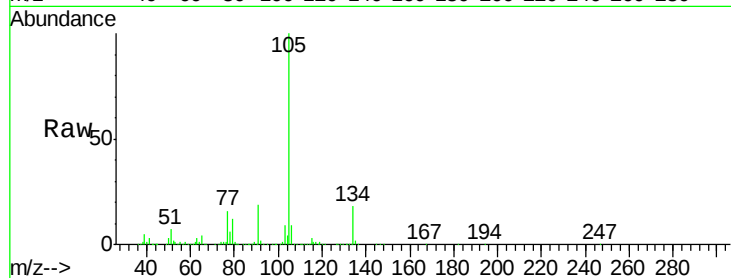
134 17.6 14.2 21.2

Manual Integrations

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sam

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V

2500000

2000000

1500000

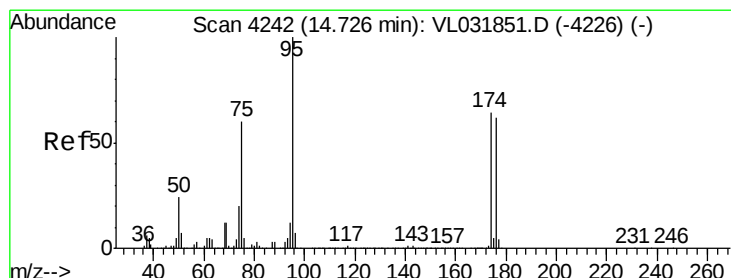
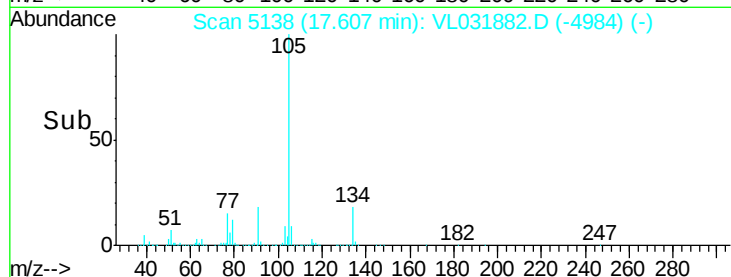
1000000

500000

0

17.50 17.60 17.70

Time-->



#68

1-Bromo-4-Fluorobenzene

Concen: 9.79 ppbv

RT: 14.73 min Scan# 4243

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

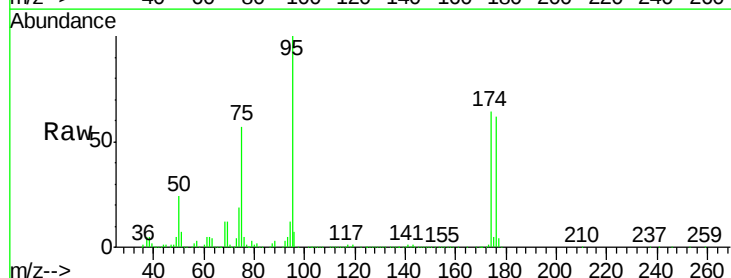
Tgt Ion: 95 Resp: 2373804

Ion Ratio Lower Upper

95 100

174 64.7 52.3 78.5

175 4.7 3.9 5.9



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

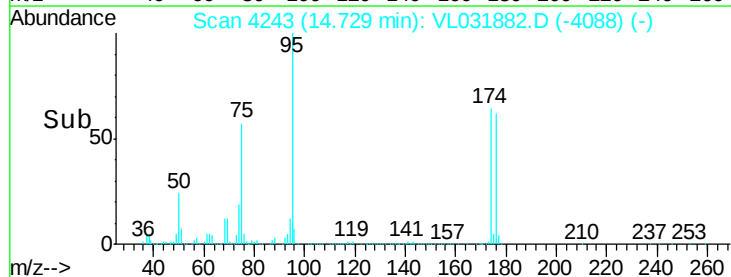
1000000

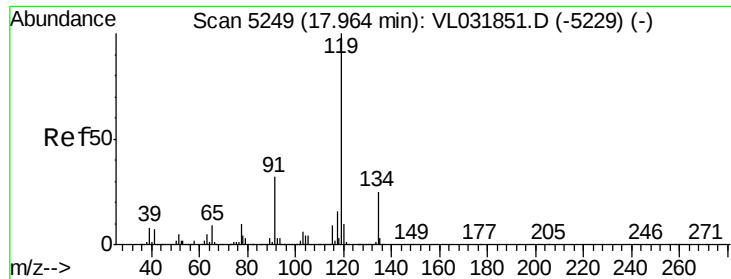
500000

0

14.70 14.80

Time-->





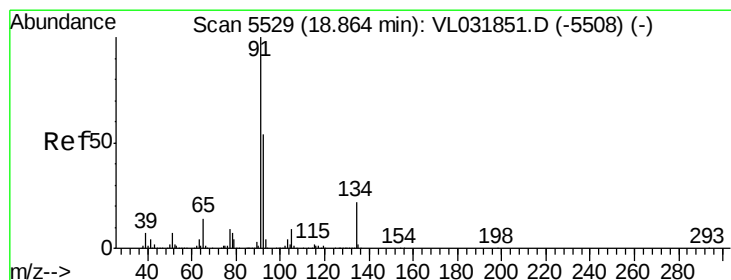
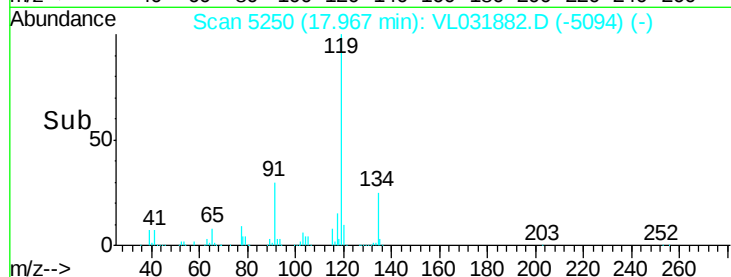
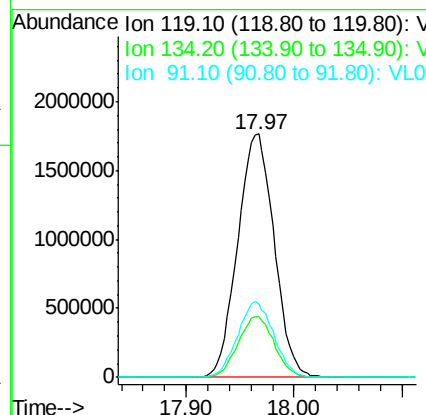
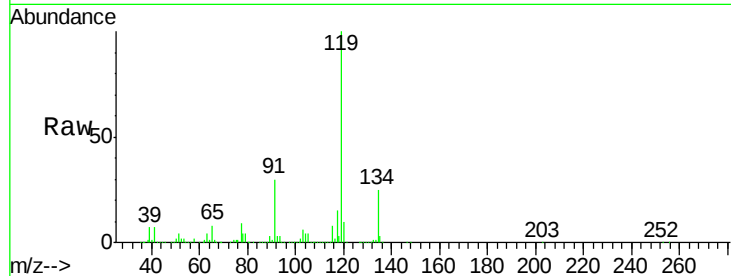
#69  
 p-Isopropyltoluene  
 Concen: 9.25 ppbv  
 RT: 17.97 min Scan# 5250  
 Delta R.T. 0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 24.7  | 20.0  | 30.0  |
| 91      | 31.0  | 24.9  | 37.3  |

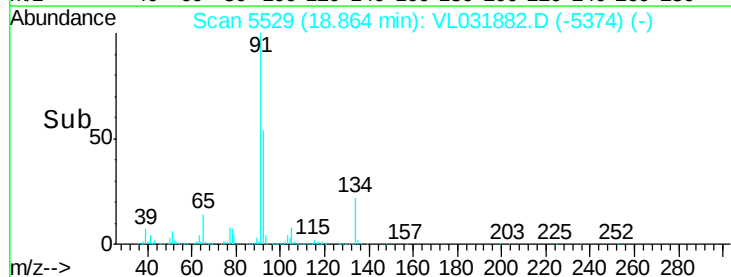
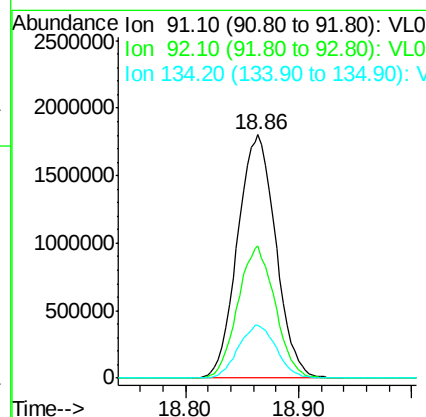
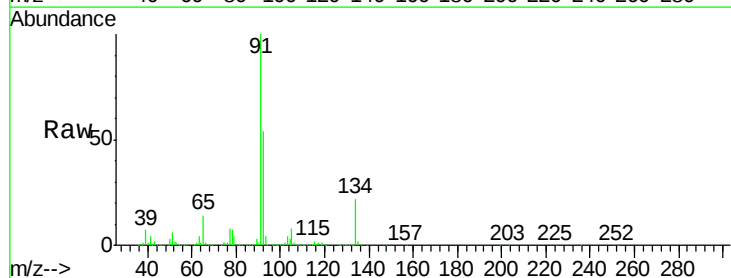
Manual Integrations  
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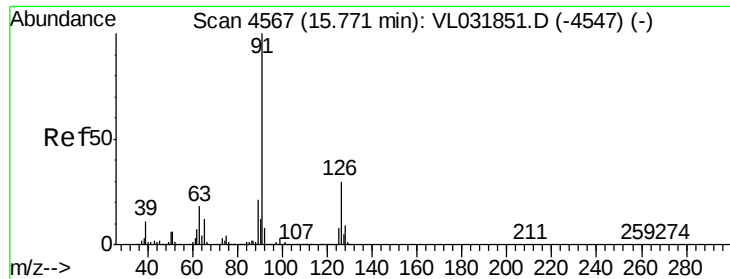
sam  
 4/23/2018 12:49:52 PM



#70  
 n-Butylbenzene  
 Concen: 9.05 ppbv  
 RT: 18.86 min Scan# 5529  
 Delta R.T. -0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 53.1  | 42.2  | 63.4  |
| 134     | 21.7  | 17.4  | 26.0  |





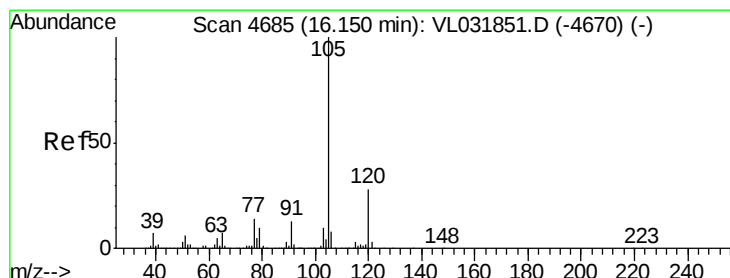
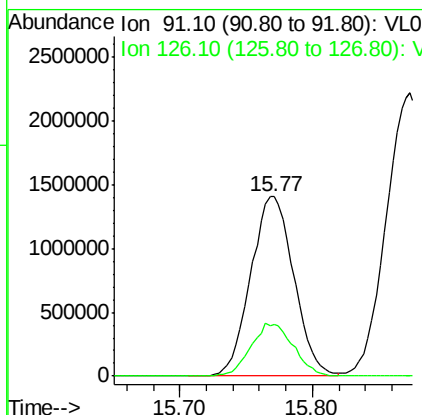
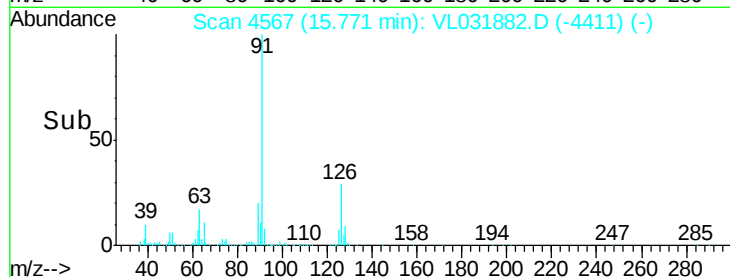
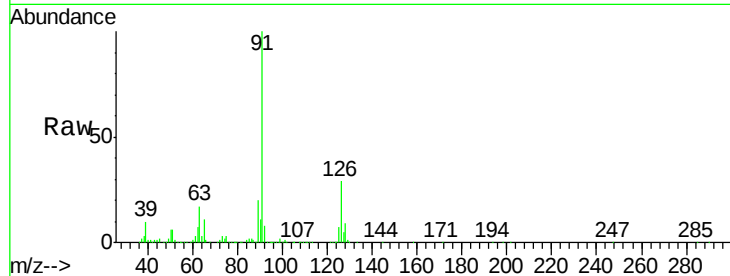
#71  
2-Chlorotoluene  
Concen: 9.46 ppbv  
RT: 15.77 min Scan# 4567  
Delta R.T. 0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampleId :  
VL0419ABS01

Tot Ion: 91 Resp: 3190151  
Ion Ratio Lower Upper  
91 100  
126 29.0 11.6 46.2

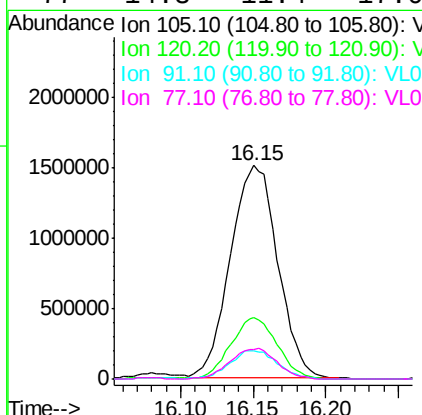
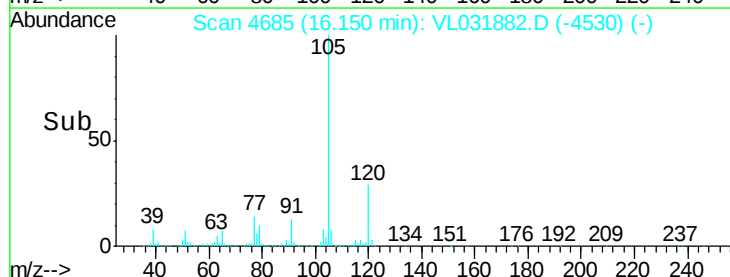
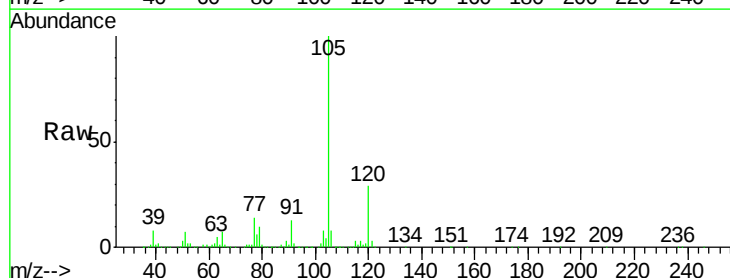
Manual Integrations  
APPROVED

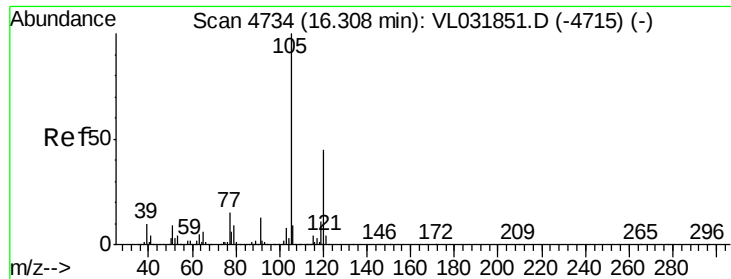
sam  
4/23/2018 12:49:52 PM



#72  
4-Ethyltoluene  
Concen: 9.27 ppbv  
RT: 16.15 min Scan# 4685  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Tgt Ion:105 Resp: 3442986  
Ion Ratio Lower Upper  
105 100  
120 28.3 22.7 34.1  
91 13.4 10.6 16.0  
77 14.3 11.4 17.0





#73

1,3,5-Trimethylbenzene

Concen: 9.17 ppbv

RT: 16.31 min Scan# 4734

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampled :

VL0419ABS01

Tot Ion:105 Resp: 3116045

Ion Ratio Lower Upper

105 100

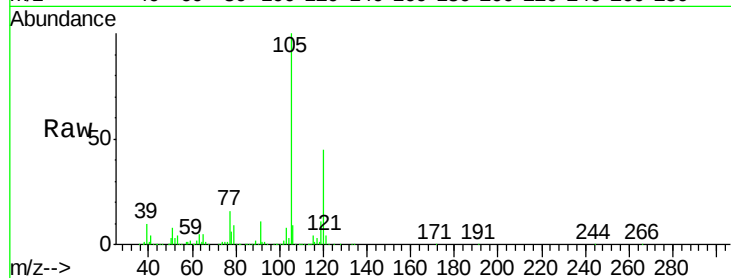
120 45.2 35.3 52.9

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.31

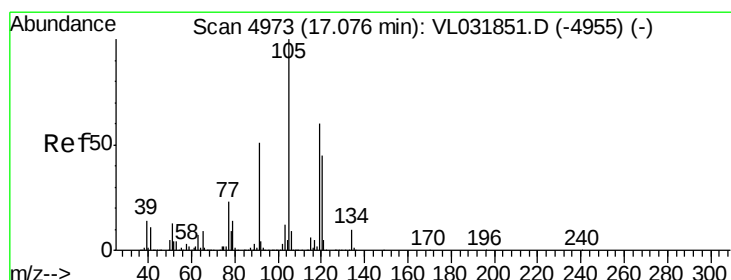
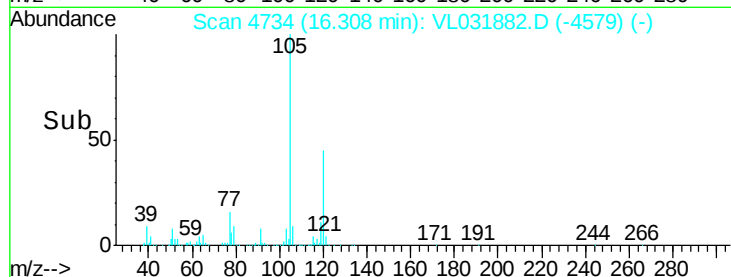
1500000

1000000

500000

0

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 8.73 ppbv

RT: 17.08 min Scan# 4973

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Tgt Ion:105 Resp: 3311868

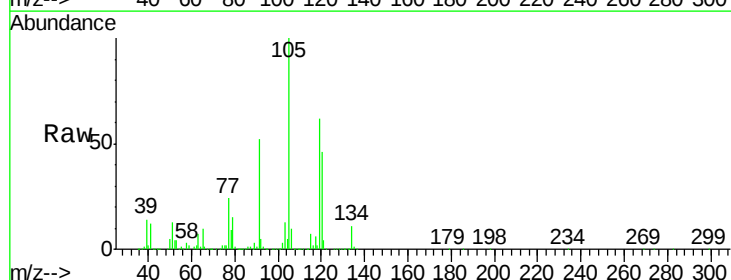
Ion Ratio Lower Upper

105 100

120 45.7 37.0 55.4

91 52.0 43.0 64.4

77 23.5 18.7 28.1



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

2000000

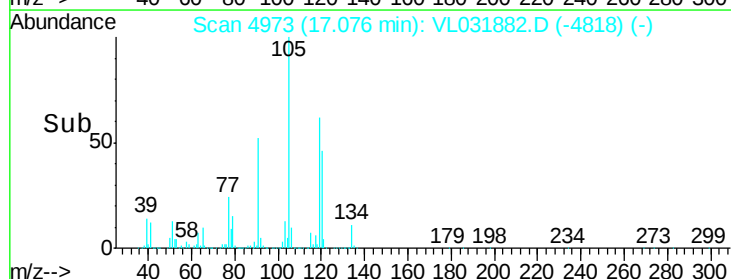
1500000

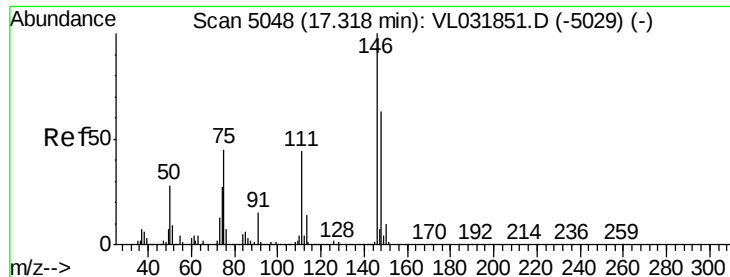
1000000

500000

0

Time-->





#75

1,3-Dichlorobenzene

Concen: 8.55 ppbv

RT: 17.32 min Scan# 5049

Delta R.T. 0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion:146 Resp: 1989399

Ion Ratio Lower Upper

146 100

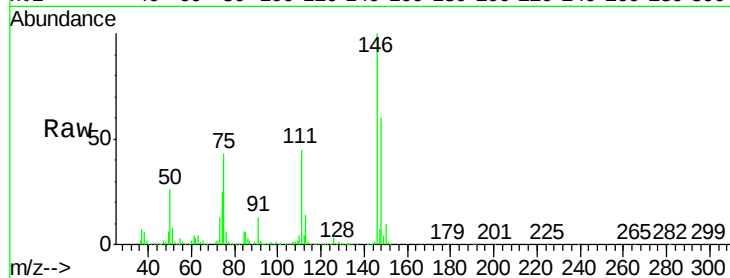
111 46.7 23.8 71.4

148 63.3 32.0 96.2

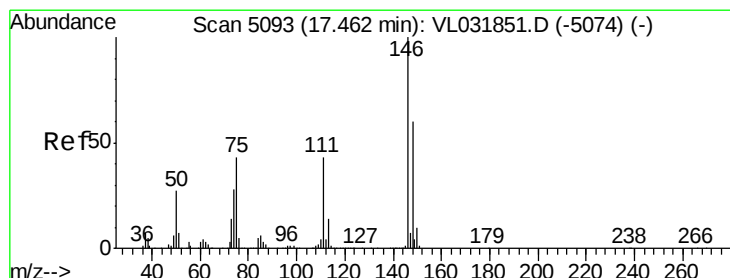
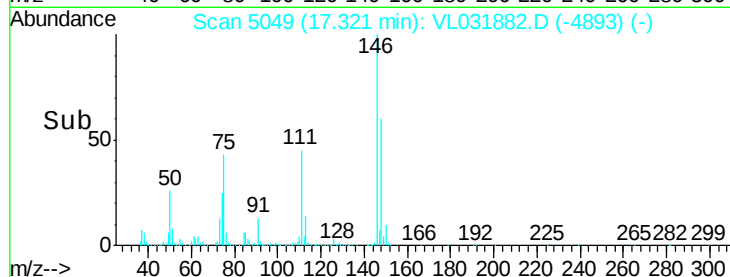
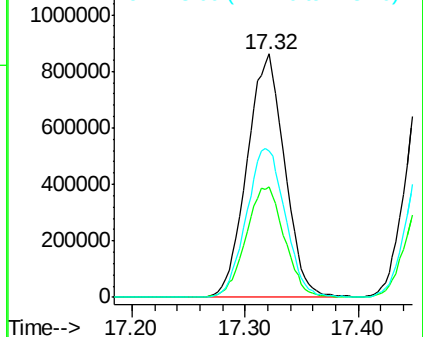
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Abundance Ion 146.00 (145.70 to 146.70): V  
Ion 111.10 (110.80 to 111.80): V  
Ion 148.00 (147.70 to 148.70): V



#76

1,4-Dichlorobenzene

Concen: 8.83 ppbv

RT: 17.46 min Scan# 5093

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

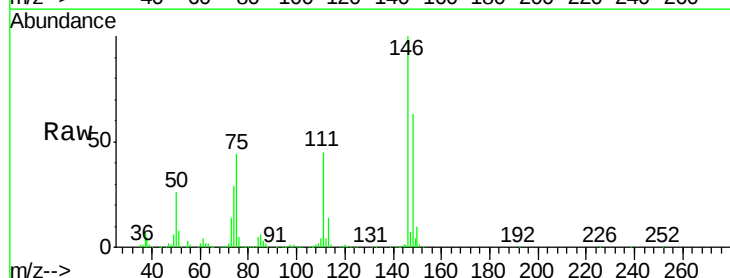
Tgt Ion:146 Resp: 1992509

Ion Ratio Lower Upper

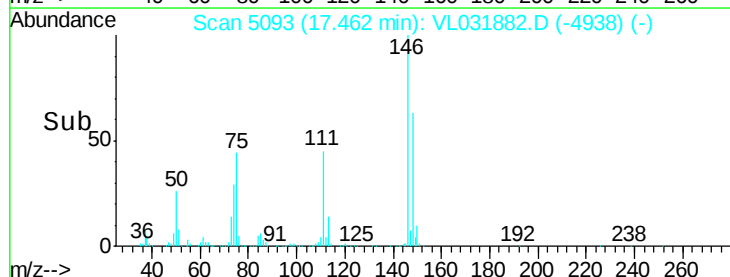
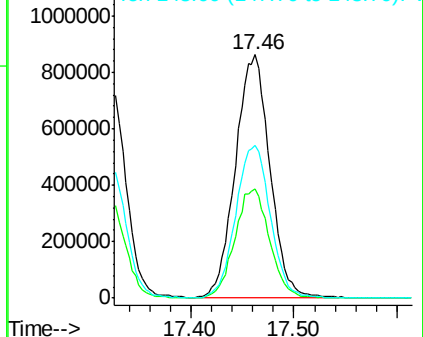
146 100

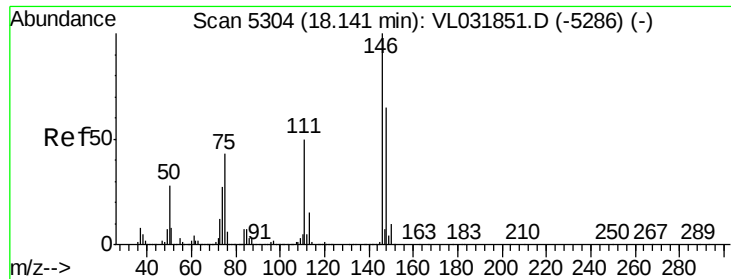
111 45.5 22.9 68.7

148 63.8 32.0 96.0



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





#77

1,2-Dichlorobenzene

Concen: 8.67 ppbv

RT: 18.14 min Scan# 5304

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

Instrument :

MSVOA\_L

ClientSampleId :

VL0419ABS01

Tot Ion:146 Resp: 1985258

Ion Ratio Lower Upper

146 100

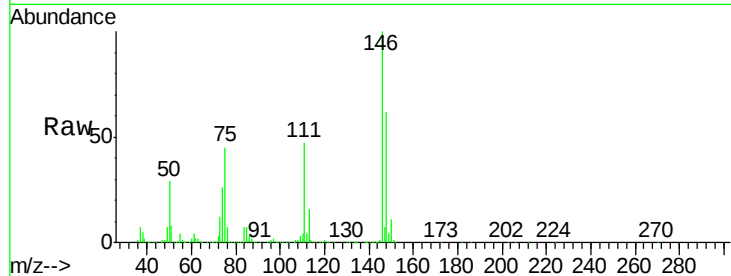
111 48.3 24.3 72.8

148 63.0 31.8 95.3

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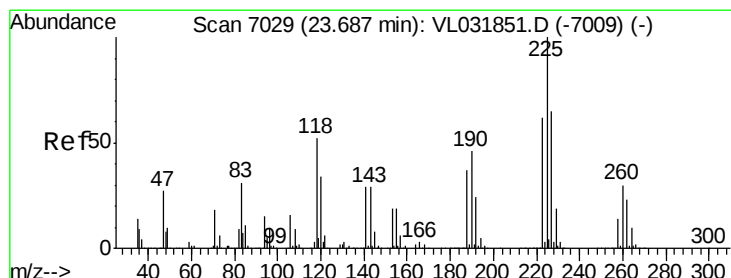
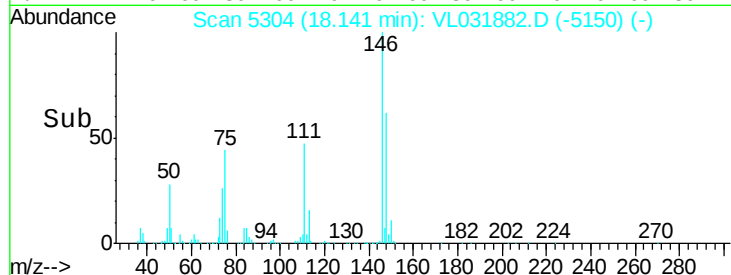
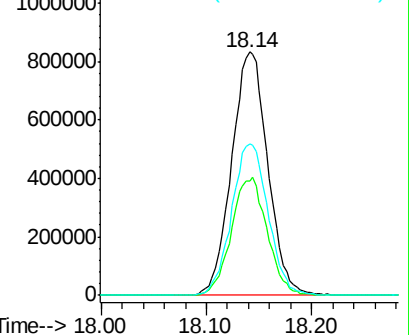
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Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#78

Hexachloro-1,3-Butadiene

Concen: 7.13 ppbv

RT: 23.68 min Scan# 7028

Delta R.T. -0.00 min

Lab File: VL031882.D

Acq: 19 Apr 2018 17:53

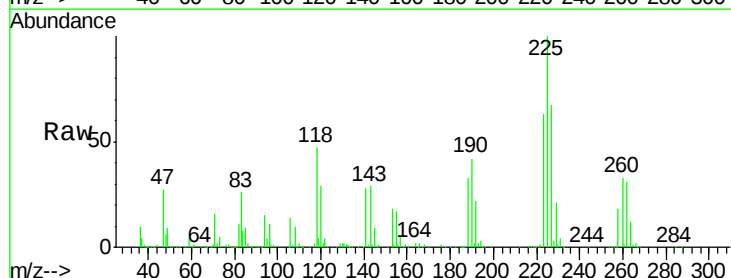
Tgt Ion:225 Resp: 627519

Ion Ratio Lower Upper

225 100

223 63.4 50.6 76.0

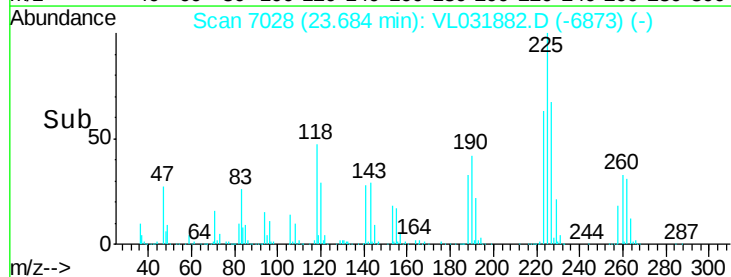
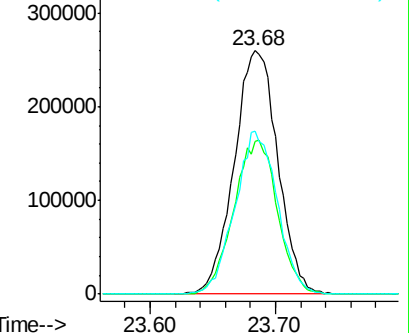
227 65.0 52.2 78.4

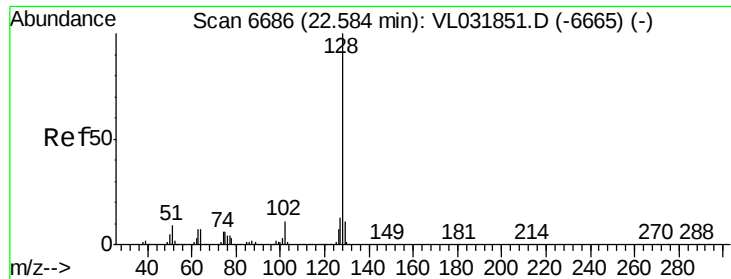


Abundance Ion 224.90 (224.60 to 225.60): V

Ion 222.90 (222.60 to 223.60): V

Ion 226.90 (226.60 to 227.60): V





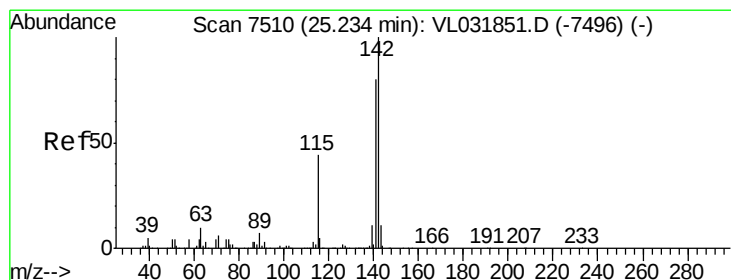
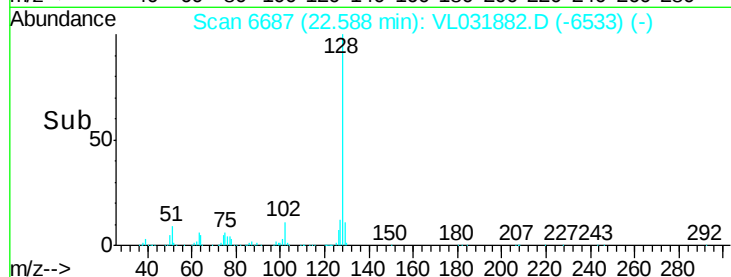
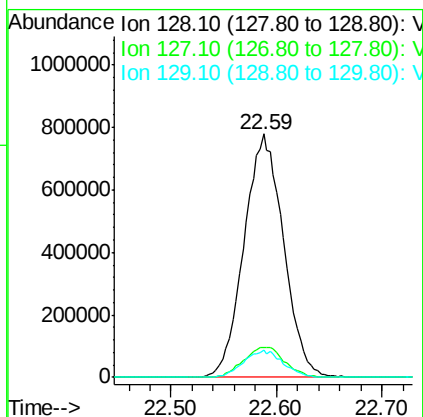
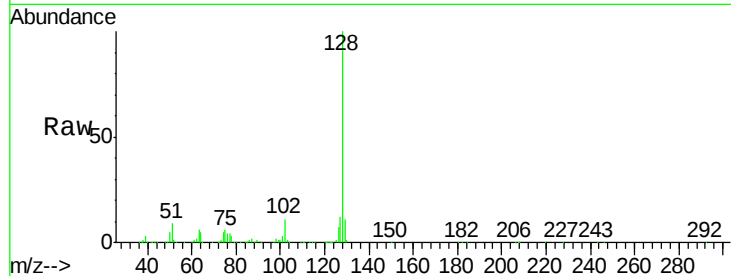
#79  
Naphthalene  
Concen: 9.47 ppbv  
RT: 22.59 min Scan# 6687  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

Instrument :  
MSVOA\_L  
ClientSampled :  
VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.2  | 10.2  | 15.4  |
| 129     | 11.2  | 9.4   | 14.2  |

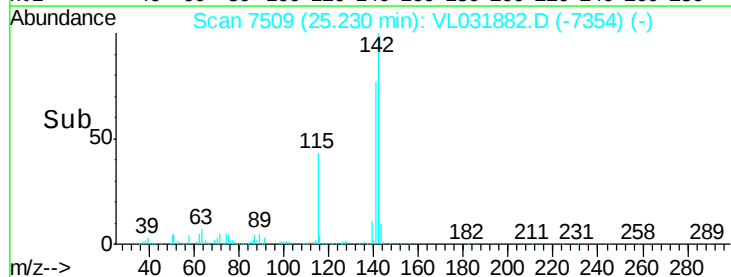
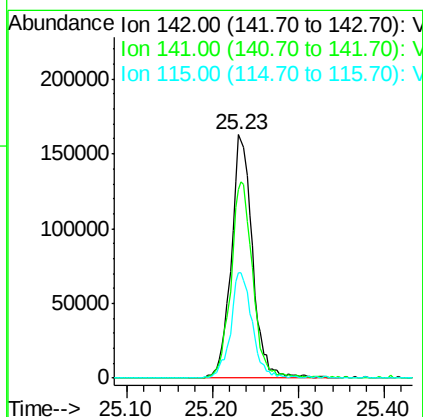
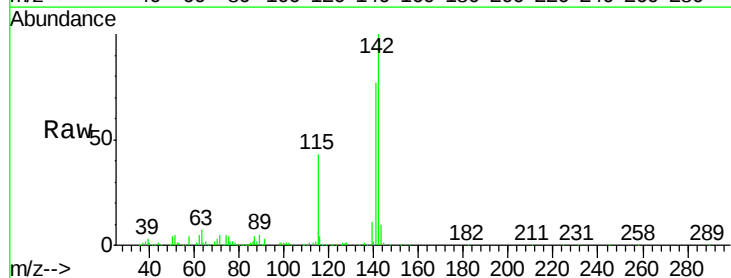
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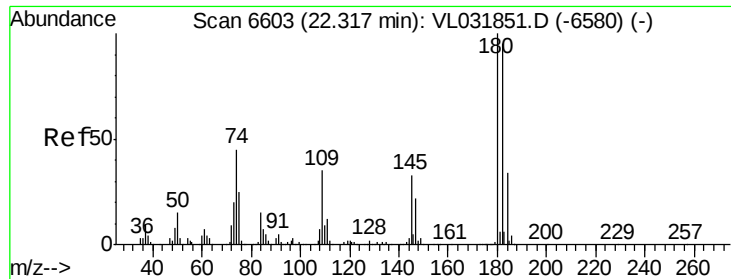
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#80  
Naphthalene, 2-methyl-  
Concen: 6.71 ppbv  
RT: 25.23 min Scan# 7509  
Delta R.T. -0.00 min  
Lab File: VL031882.D  
Acq: 19 Apr 2018 17:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 82.6  | 67.0  | 100.4 |
| 115     | 44.4  | 35.3  | 52.9  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 8.62 ppbv  
 RT: 22.31 min Scan# 6602  
 Delta R.T. 0.00 min  
 Lab File: VL031882.D  
 Acq: 19 Apr 2018 17:53

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0419ABS01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.5  | 76.3  | 114.5 |
| 184     | 30.4  | 24.2  | 36.2  |

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