

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050620\  
 Data File : VL034938.D  
 Acq On : 6 May 2020 11:26  
 Operator : SY/AP  
 Sample : VSTDIC001  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

Manual Integrations  
 APPROVED

MMDadoda  
 5/7/2020 2:29:35 PM

Quant Time: May 06 12:48:29 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed May 0  
 QLast Update : Wed May 06 12:36:21 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1198447  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.19  | 114  | 2756981  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.12 | 117  | 2586167  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.46  | 95    | 2102134  | 10.42    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 104.20% |

## Target Compounds

|                                | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.01 | 85   | 194713   | 1.186 | ppbv   | 91     |
| 3) Chlorodifluoromethane       | 2.95 | 51   | 150519   | 1.124 | ppbv   | 100    |
| 4) Chloromethane               | 3.11 | 50   | 85675    | 1.132 | ppbv   | 98     |
| 5) Vinyl Chloride              | 3.22 | 62   | 78871    | 1.084 | ppbv   | 96     |
| 6) Bromomethane                | 3.44 | 94   | 50726    | 1.198 | ppbv   | 93     |
| 7) Chloroethane                | 3.53 | 64   | 30734    | 1.170 | ppbv # | 86     |
| 8) Dichlorotetrafluoroethane   | 3.15 | 85   | 201563   | 1.183 | ppbv   | 98     |
| 9) Propene                     | 2.97 | 41   | 63553    | 0.994 | ppbv   | 100    |
| 10) Heptane                    | 8.14 | 43   | 154496   | 0.982 | ppbv   | 98     |
| 11) Trichlorofluoromethane     | 3.92 | 101  | 196632   | 1.126 | ppbv   | 97     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.47 | 101  | 135719   | 1.111 | ppbv   | 99     |
| 13) Ethanol                    | 3.58 | 45   | 26012    | 1.339 | ppbv   | 98     |
| 14) Bromoethene                | 3.71 | 108  | 55054    | 1.043 | ppbv # | 97     |
| 15) Acetone                    | 3.83 | 43   | 183080   | 1.179 | ppbv   | 94     |
| 16) 1,3-Butadiene              | 3.29 | 39   | 67234    | 0.957 | ppbv   | 98     |
| 17) tert-Butyl alcohol         | 4.28 | 59   | 157551   | 1.053 | ppbv   | 99     |
| 18) 1,1-Dichloroethene         | 4.27 | 96   | 57510    | 1.063 | ppbv # | 79     |
| 19) Isopropyl Alcohol          | 3.94 | 45   | 119340   | 1.217 | ppbv # | 95     |
| 20) Methylene Chloride         | 4.32 | 84   | 58122    | 1.183 | ppbv # | 90     |
| 21) Allyl Chloride             | 4.39 | 41   | 91525    | 0.917 | ppbv   | 94     |
| 22) trans-1,2-Dichloroethene   | 4.88 | 96   | 58596m   | 1.067 | ppbv   |        |
| 23) Vinyl Acetate              | 5.06 | 43   | 208105   | 0.907 | ppbv   | 97     |
| 24) 1,1-Dichloroethane         | 4.99 | 63   | 167043m  | 1.086 | ppbv   |        |
| 25) Ethyl Acetate              | 5.68 | 43   | 284097   | 1.027 | ppbv   | 99     |
| 26) Hexane                     | 5.68 | 57   | 126392   | 1.061 | ppbv   | 97     |
| 27) Carbon Disulfide           | 4.53 | 76   | 143036   | 1.058 | ppbv # | 92     |
| 28) Methyl tert-Butyl Ether    | 5.02 | 73   | 186886   | 0.943 | ppbv   | 99     |
| 29) Chloroform                 | 5.74 | 83   | 206611   | 1.136 | ppbv # | 83     |
| 30) Cyclohexane                | 7.14 | 84   | 88093m   | 0.886 | ppbv   |        |
| 31) cis-1,2-Dichloroethene     | 5.54 | 61   | 113959   | 0.935 | ppbv   | 93     |
| 32) 1,1,1-Trichloroethane      | 6.51 | 97   | 183871   | 1.038 | ppbv   | 98     |
| 34) 2-Butanone                 | 5.24 | 43   | 187839   | 1.025 | ppbv   | 99     |
| 35) Carbon Tetrachloride       | 7.02 | 117  | 183735m  | 1.071 | ppbv   |        |
| 36) Benzene                    | 6.90 | 78   | 243104   | 0.989 | ppbv   | 96     |
| 37) 1,2-Dichloroethane         | 6.31 | 62   | 150979   | 1.090 | ppbv   | 100    |
| 38) Trichloroethene            | 7.85 | 130  | 96624    | 1.035 | ppbv # | 80     |
| 39) 1,2-Dichloropropane        | 7.63 | 63   | 95727    | 0.983 | ppbv   | 98     |
| 40) 1,4-Dioxane                | 7.86 | 88   | 42861m   | 1.166 | ppbv   |        |
| 41) Tetrahydrofuran            | 6.06 | 42   | 92012    | 0.928 | ppbv   | 98     |
| 42) Bromodichloromethane       | 7.80 | 83   | 202126   | 1.070 | ppbv   | 92     |
| 43) Methyl Methacrylate        | 8.03 | 69   | 98156m   | 0.948 | ppbv   |        |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050620\  
 Data File : VL034938.D  
 Acq On : 6 May 2020 11:26  
 Operator : SY/AP  
 Sample : VSTDIC001  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

Manual Integrations  
 APPROVED

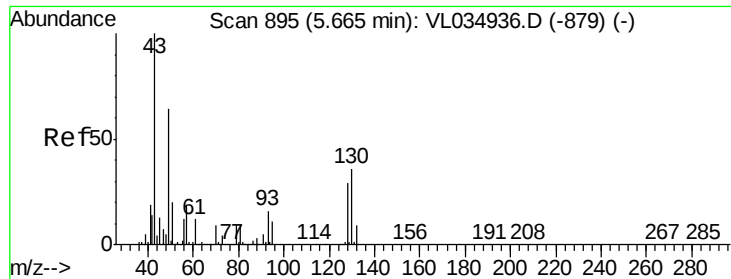
MMDadoda  
 5/7/2020 2:29:35 PM

Quant Time: May 06 12:48:29 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed May 0  
 QLast Update : Wed May 06 12:36:21 2020  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.88  | 57   | 444694   | 1.071 | ppbv   | 98       |
| 45) t-1,3-Dichloropropene     | 9.30  | 75   | 88243    | 0.725 | ppbv   | 96       |
| 46) cis-1,3-Dichloropropene   | 8.73  | 75   | 116023   | 0.803 | ppbv   | 89       |
| 47) 1,1,2-Trichloroethane     | 9.50  | 97   | 105362   | 1.054 | ppbv   | 95       |
| 48) Dibromochloromethane      | 10.33 | 129  | 151286m  | 0.935 | ppbv   |          |
| 49) Bromoform                 | 13.07 | 173  | 127382m  | 0.883 | ppbv   |          |
| 50) 4-Methyl-2-Pentanone      | 8.76  | 43   | 254114   | 0.963 | ppbv   | 98       |
| 51) 2-Hexanone                | 10.16 | 43   | 193101   | 0.901 | ppbv # | 94       |
| 52) Tetrachloroethene         | 11.26 | 164  | 81527m   | 0.839 | ppbv   |          |
| 53) Toluene                   | 9.83  | 91   | 247108   | 0.871 | ppbv   | 98       |
| 54) 1,2-Dibromoethane         | 10.64 | 107  | 149791   | 0.996 | ppbv   | 92       |
| 56) 1,1,1,2-Tetrachloroethane | 12.16 | 131  | 129026m  | 1.111 | ppbv   |          |
| 57) Chlorobenzene             | 12.18 | 112  | 229217   | 1.133 | ppbv # | 92       |
| 58) Ethyl Benzene             | 12.74 | 91   | 343565   | 0.981 | ppbv   | 95       |
| 59) m/p-Xylene                | 13.03 | 91   | 622241m  | 2.121 | ppbv   |          |
| 60) o-Xylene                  | 13.73 | 91   | 309904   | 1.082 | ppbv   | 99       |
| 61) Styrene                   | 13.57 | 104  | 178424   | 0.887 | ppbv   | 98       |
| 62) Isopropylbenzene          | 14.71 | 105  | 466944   | 1.078 | ppbv   | 98       |
| 63) 1,1,2,2-Tetrachloroethane | 13.72 | 83   | 237757   | 1.222 | ppbv   | 99       |
| 64) n-propylbenzene           | 15.60 | 120  | 114810   | 1.018 | ppbv   | 83       |
| 65) tert-Butylbenzene         | 16.79 | 119  | 400125   | 1.057 | ppbv   | 97       |
| 66) Benzyl Chloride           | 17.03 | 91   | 112984   | 0.716 | ppbv   | 99       |
| 67) sec-Butylbenzene          | 17.34 | 105  | 597897   | 1.139 | ppbv   | 96       |
| 69) p-Isopropyltoluene        | 17.70 | 119  | 458992   | 1.042 | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.60 | 91   | 496285   | 1.105 | ppbv   | 97       |
| 71) 2-Chlorotoluene           | 15.50 | 91   | 340545   | 1.038 | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 15.89 | 105  | 339993m  | 1.005 | ppbv   |          |
| 73) 1,3,5-Trimethylbenzene    | 16.04 | 105  | 334877   | 1.057 | ppbv   | 100      |
| 74) 1,2,4-Trimethylbenzene    | 16.81 | 105  | 375941   | 1.152 | ppbv   | 97       |
| 75) 1,3-Dichlorobenzene       | 17.05 | 146  | 215078   | 1.093 | ppbv   | 98       |
| 76) 1,4-Dichlorobenzene       | 17.19 | 146  | 206914   | 1.054 | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 17.86 | 146  | 207710   | 1.089 | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.43 | 225  | 178664   | 1.122 | ppbv   | 98       |
| 79) Naphthalene               | 22.27 | 128  | 248266m  | 0.976 | ppbv   |          |
| 80) Naphthalene, 2-methyl-    | 25.03 | 142  | 17947    | 0.270 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.00 | 180  | 161818m  | 1.001 | ppbv   |          |

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





#1

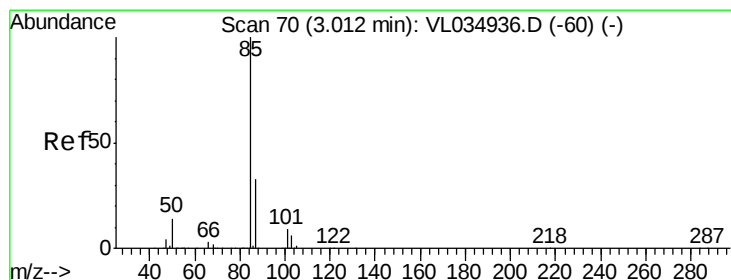
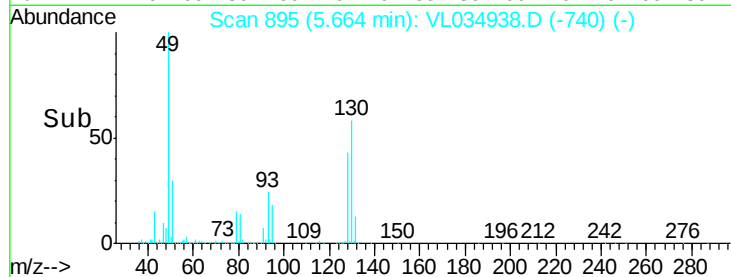
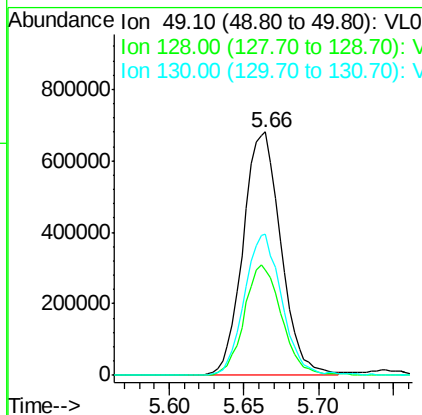
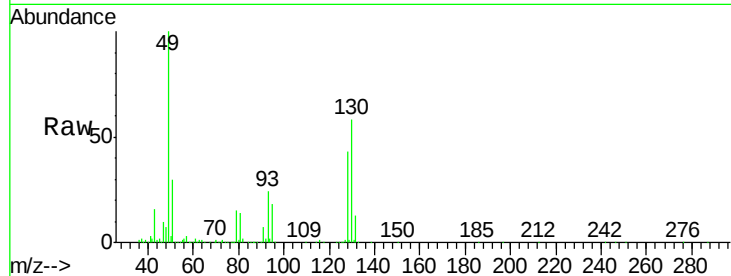
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.66 min Scan# 895  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49      | 100   |       |       |
| 128     | 45.3  | 22.1  | 66.5  |
| 130     | 57.8  | 29.1  | 87.3  |

Manual Integrations  
APPROVED

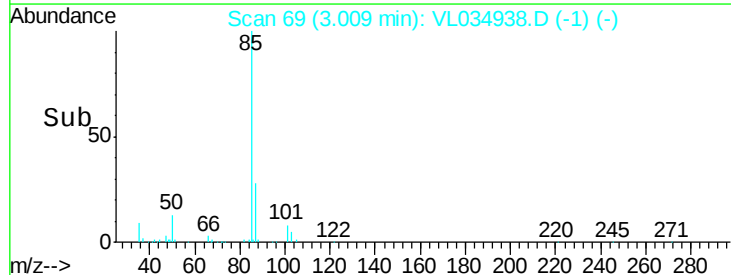
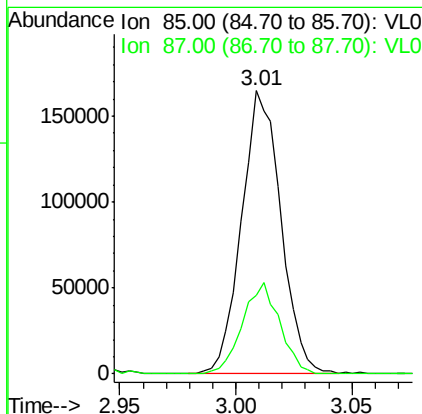
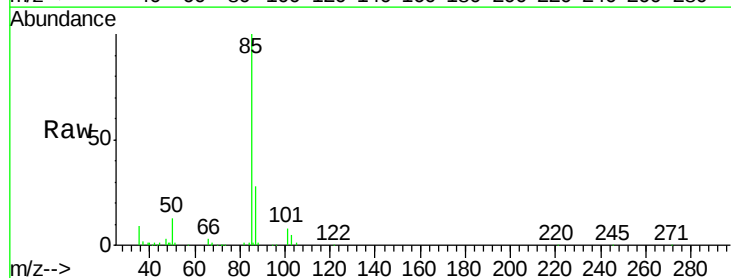
MMDadoda  
5/7/2020 2:29:35 PM

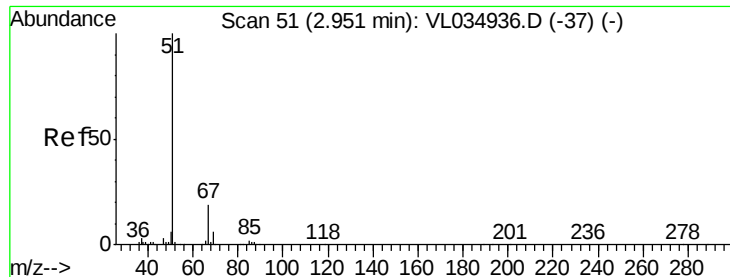


#2

Dichlorodifluoromethane  
Concen: 1.186 ppbv  
RT: 3.01 min Scan# 69  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 85      | 100   |       |       |
| 87      | 27.8  | 26.2  | 39.2  |





#3

Chlorodifluoromethane

Concen: 1.124 ppbv

RT: 2.95 min Scan# 51

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 51 Resp: 150519

Ion Ratio Lower Upper

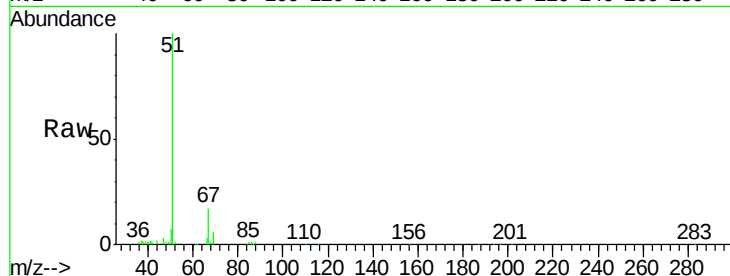
51 100

67 18.7 15.0 22.6

Manual Integrations  
APPROVED

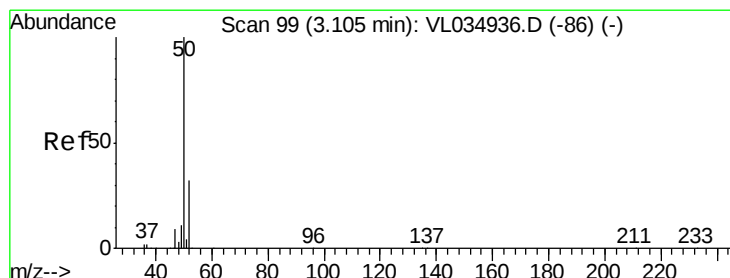
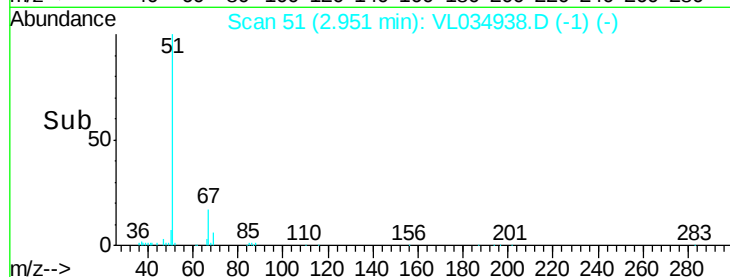
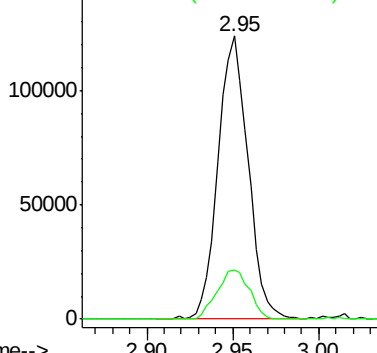
MMDadoda

5/7/2020 2:29:35 PM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 1.132 ppbv

RT: 3.11 min Scan# 99

Delta R.T. -0.00 min

Lab File: VL034938.D

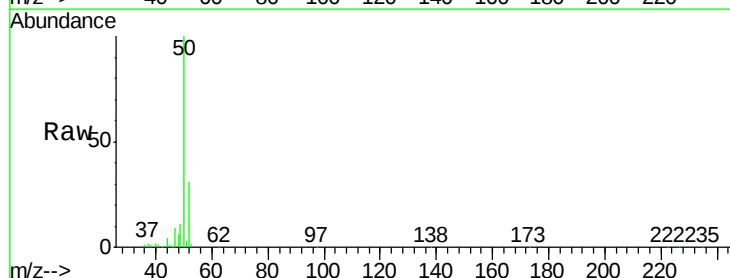
Acq: 6 May 2020 11:26

Tgt Ion: 50 Resp: 85675

Ion Ratio Lower Upper

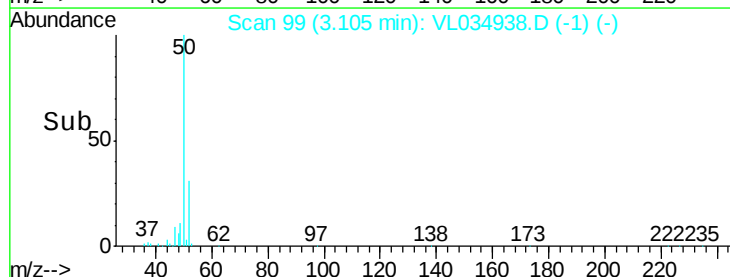
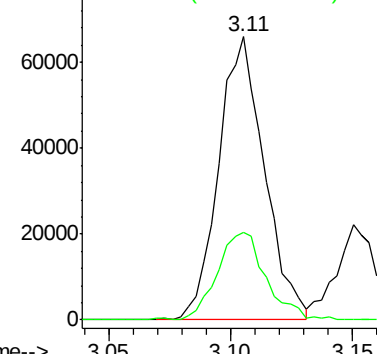
50 100

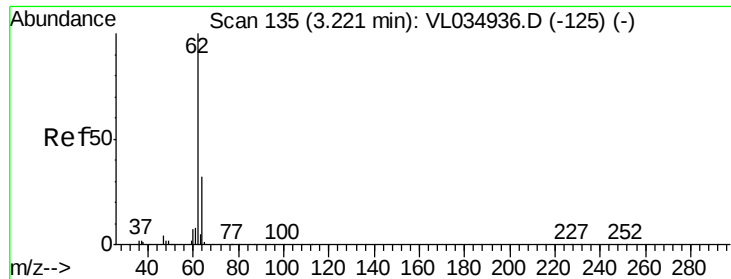
52 30.9 25.4 38.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 1.084 ppbv

RT: 3.22 min Scan# 136

Delta R.T. 0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 62 Resp: 78871

Ion Ratio Lower Upper

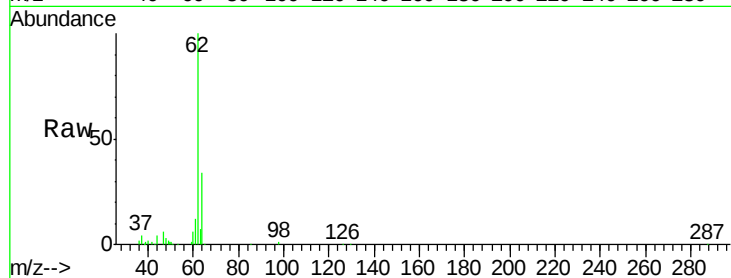
62 100

64 34.2 25.7 38.5

Manual Integrations  
APPROVED

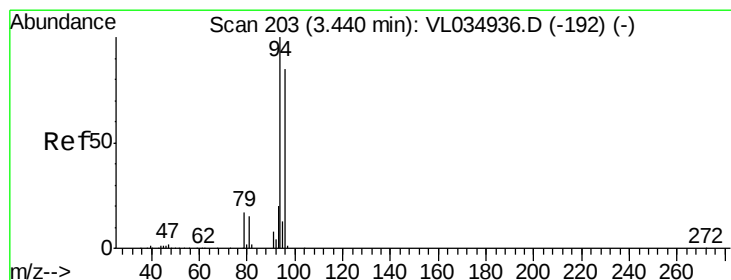
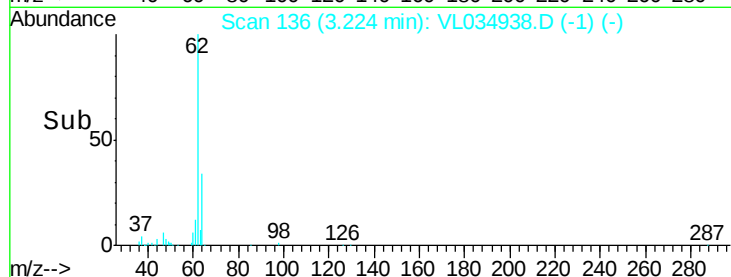
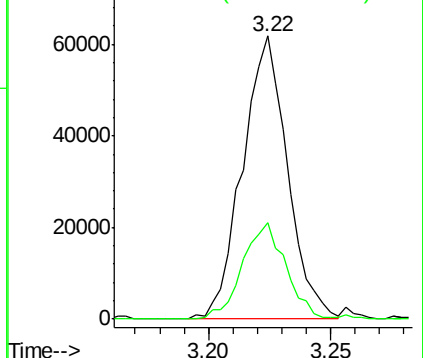
MMDadoda

5/7/2020 2:29:35 PM



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 1.198 ppbv

RT: 3.44 min Scan# 204

Delta R.T. 0.00 min

Lab File: VL034938.D

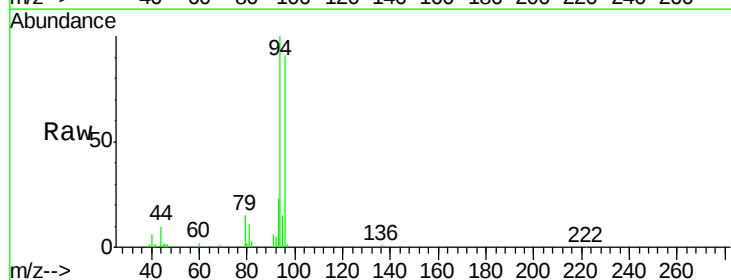
Acq: 6 May 2020 11:26

Tgt Ion: 94 Resp: 50726

Ion Ratio Lower Upper

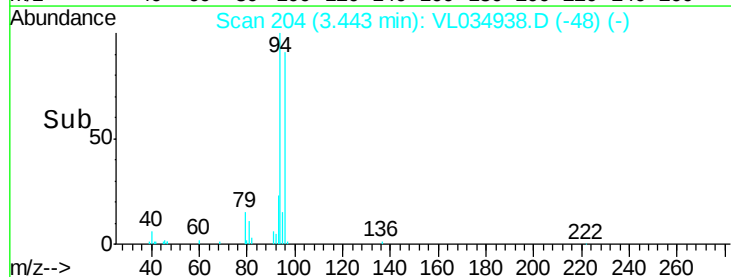
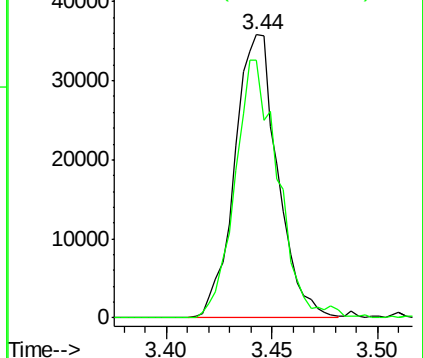
94 100

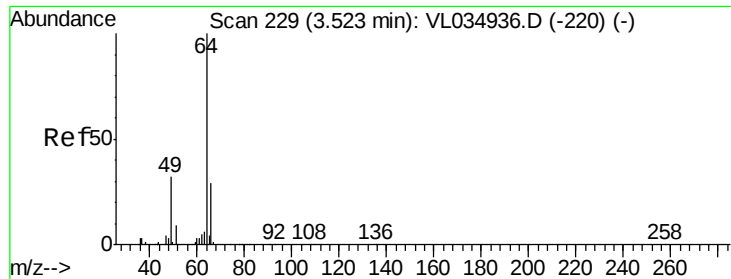
96 91.2 67.9 101.9



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#7

Chloroethane

Concen: 1.170 ppbv

RT: 3.53 min Scan# 230

Delta R.T. 0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 64 Resp: 30734

Ion Ratio Lower Upper

64 100

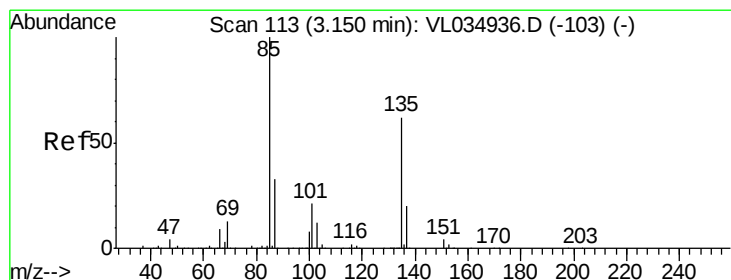
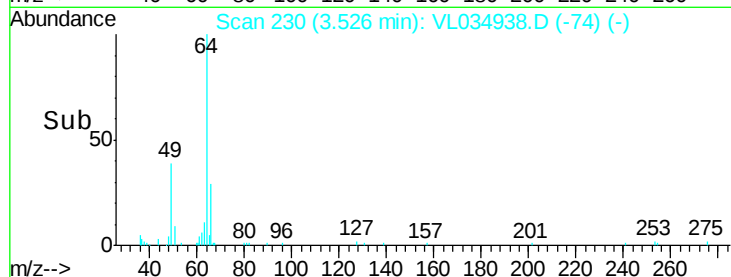
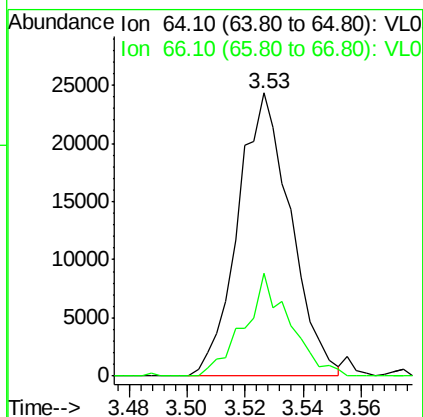
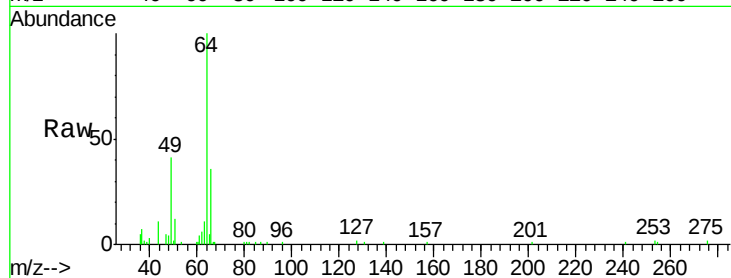
66 36.5 23.2 34.8#

Manual Integrations

APPROVED

MMDadoda

5/7/2020 2:29:35 PM



#8

Dichlorotetrafluoroethane

Concen: 1.183 ppbv

RT: 3.15 min Scan# 113

Delta R.T. -0.00 min

Lab File: VL034938.D

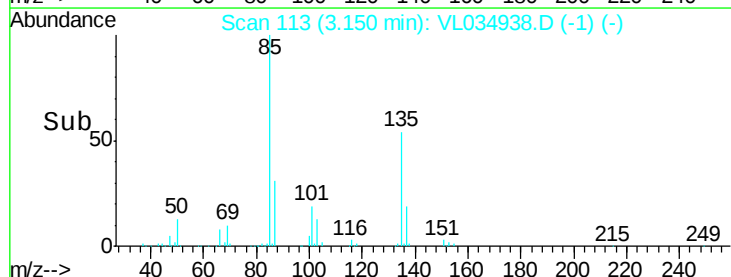
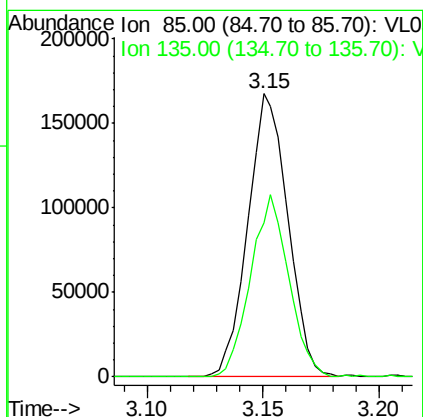
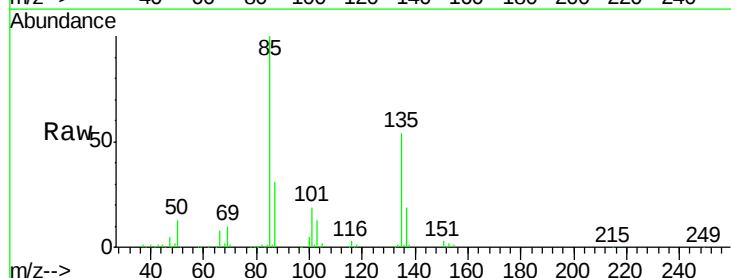
Acq: 6 May 2020 11:26

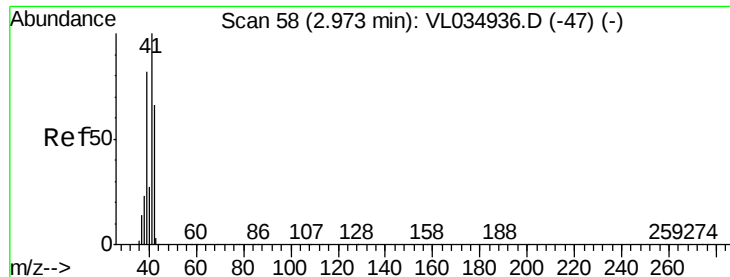
Tgt Ion: 85 Resp: 201563

Ion Ratio Lower Upper

85 100

135 61.8 50.9 76.3





#9

Propene

Concen: 0.994 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 41 Resp: 63553

Ion Ratio Lower Upper

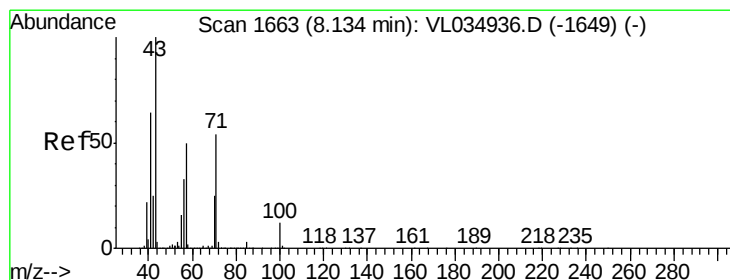
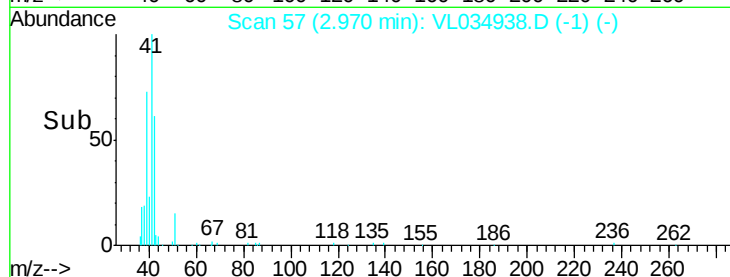
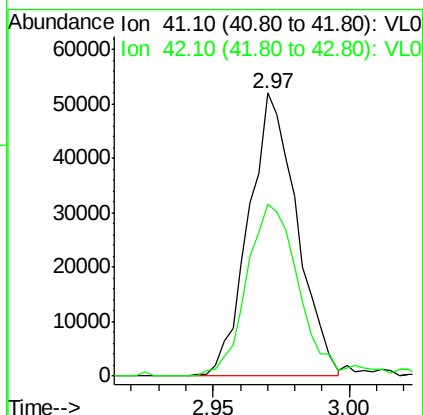
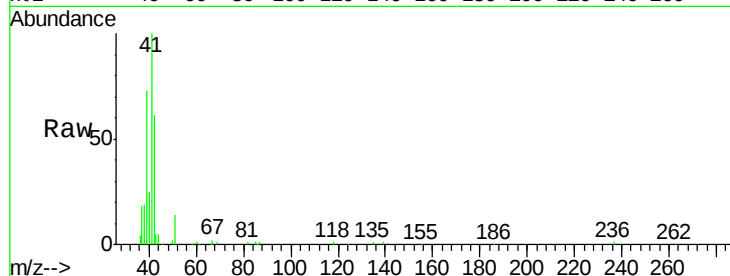
41 100

42 68.1 54.5 81.7

Manual Integrations  
APPROVED

MMDadoda

5/7/2020 2:29:35 PM



#10

Heptane

Concen: 0.982 ppbv

RT: 8.14 min Scan# 1664

Delta R.T. 0.00 min

Lab File: VL034938.D

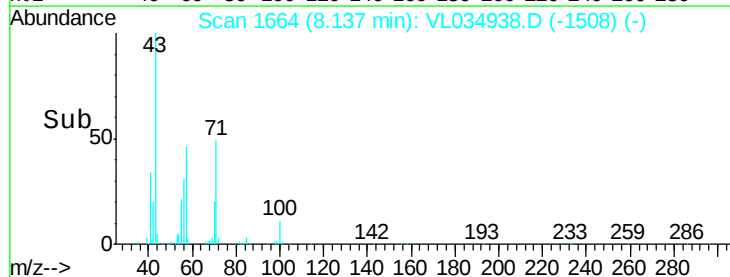
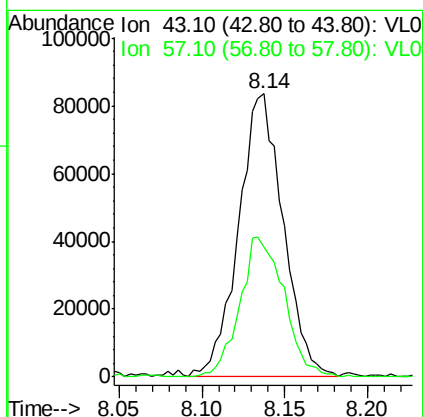
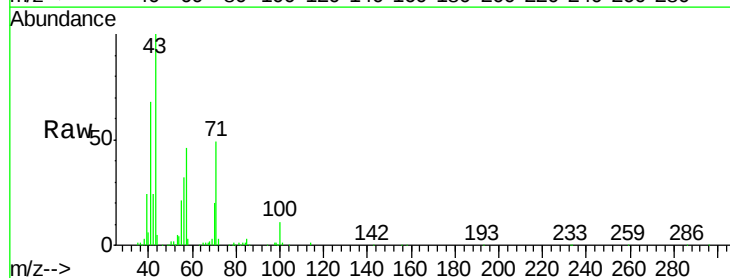
Acq: 6 May 2020 11:26

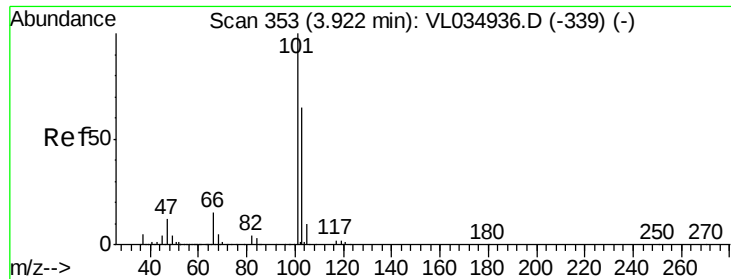
Tgt Ion: 43 Resp: 154496

Ion Ratio Lower Upper

43 100

57 49.7 41.1 61.7





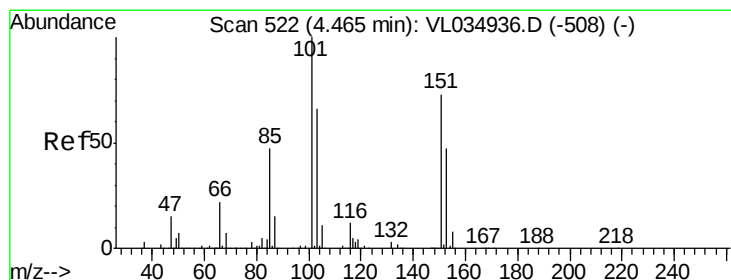
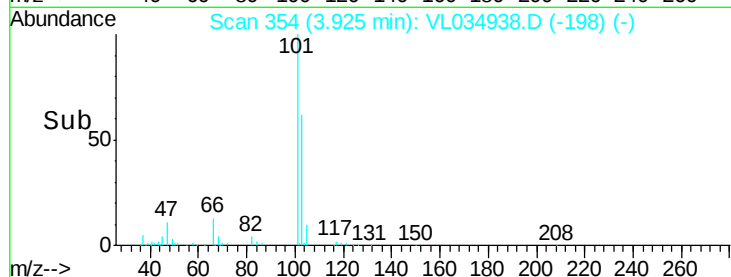
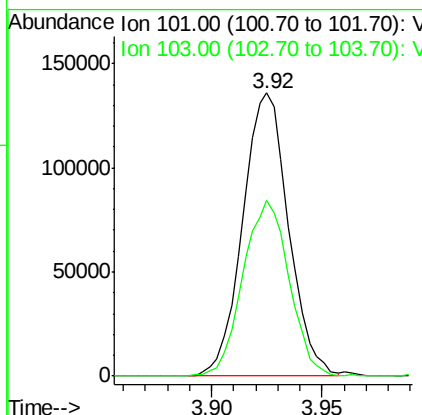
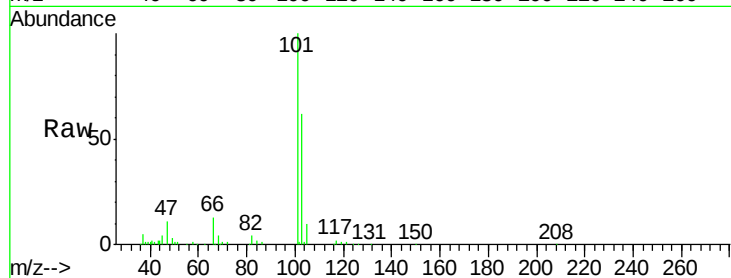
#11  
 Trichlorofluoromethane  
 Concen: 1.126 ppbv  
 RT: 3.92 min Scan# 354  
 Delta R.T. 0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 101     | 100  |       | 196632 |       |       |
| 103     | 62.2 | 51.9  | 77.9   |       |       |

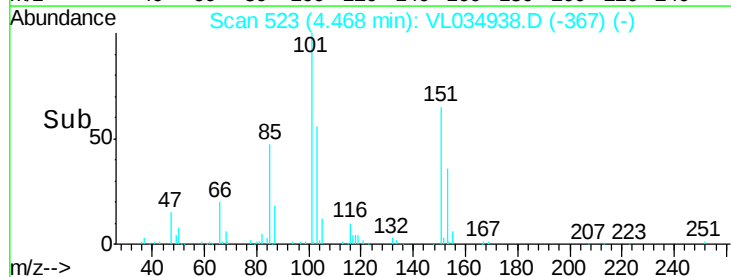
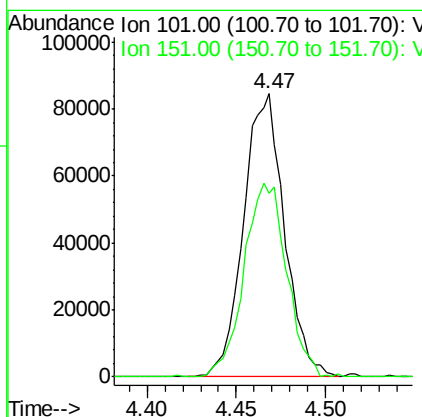
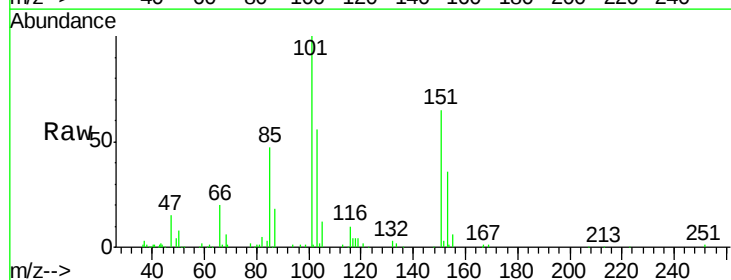
Manual Integrations  
 APPROVED

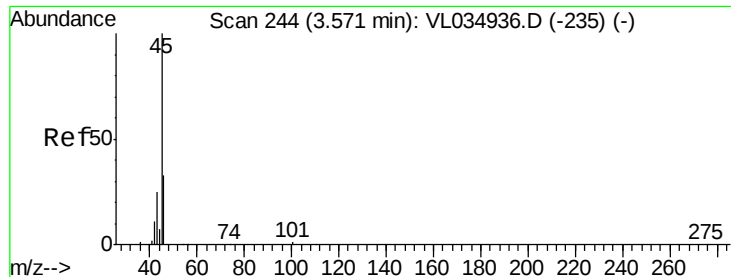
MMDadoda  
 5/7/2020 2:29:35 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 1.111 ppbv  
 RT: 4.47 min Scan# 523  
 Delta R.T. 0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

| Tgt Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 101     | 100  |       | 135719 |       |       |
| 151     | 71.3 | 57.6  | 86.4   |       |       |





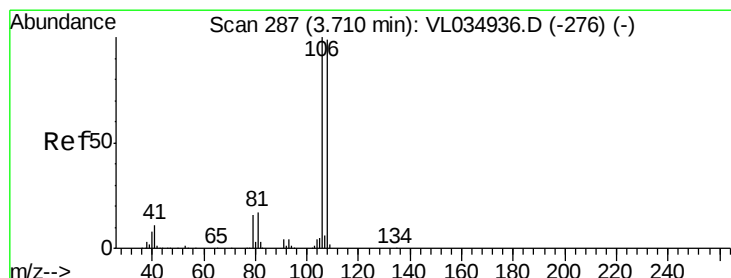
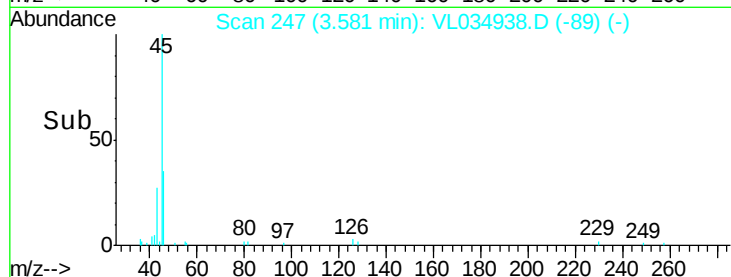
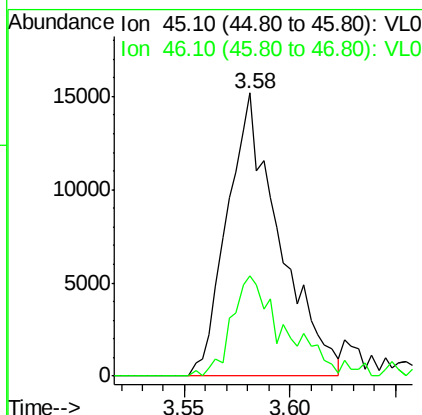
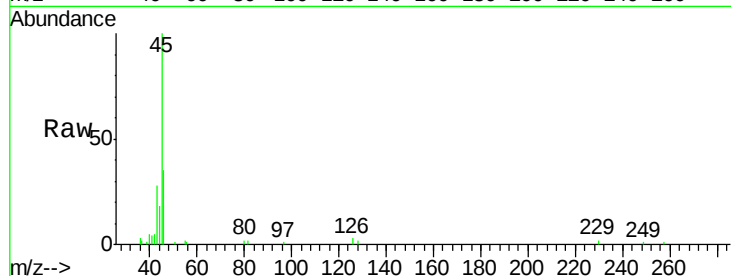
#13  
Ethanol  
Concen: 1.339 ppbv  
RT: 3.58 min Scan# 247  
Delta R.T. 0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | 45   | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 26012   | 100  |       |       |       |
| 46      | 36.7 | 14.3  | 57.3  |       |

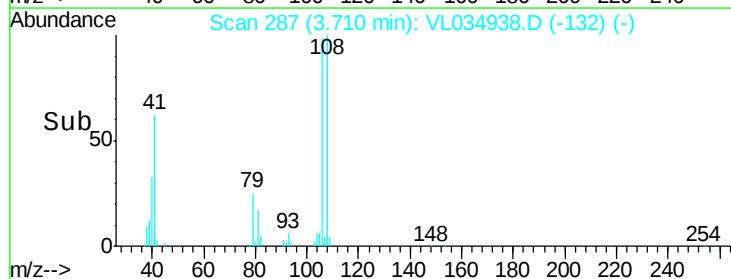
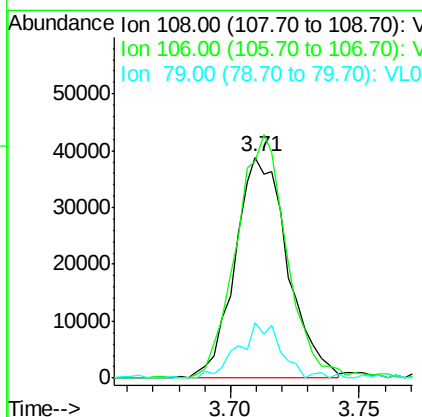
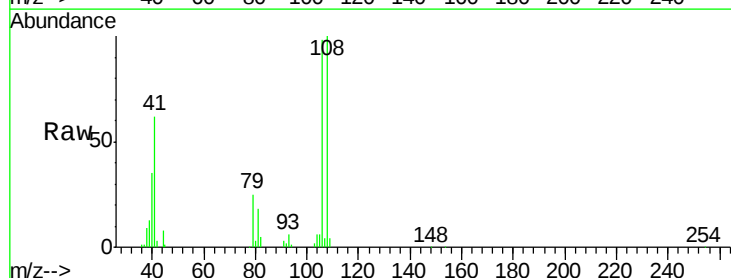
Manual Integrations  
APPROVED

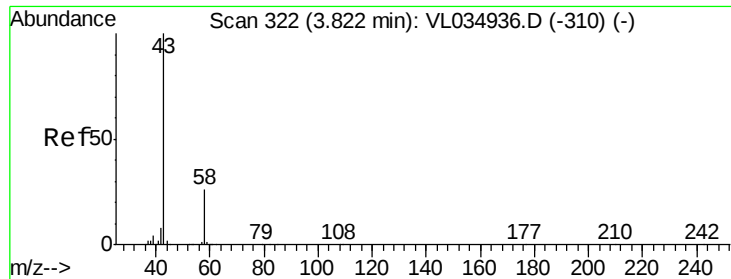
MMDadoda  
5/7/2020 2:29:35 PM



#14  
Bromoethene  
Concen: 1.043 ppbv  
RT: 3.71 min Scan# 287  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | 108   | Ratio | Lower | Upper |
|---------|-------|-------|-------|-------|
| 55054   | 100   |       |       |       |
| 106     | 107.7 | 84.9  | 127.3 |       |
| 79      | 21.5  | 14.1  | 21.1  |       |





#15

Acetone

Concen: 1.179 ppbv

RT: 3.83 min Scan# 324

Delta R.T. 0.01 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 43 Resp: 183080

Ion Ratio Lower Upper

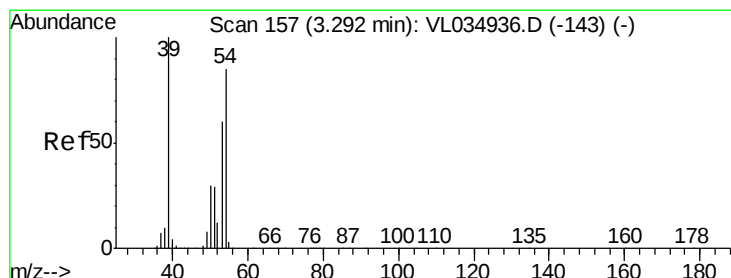
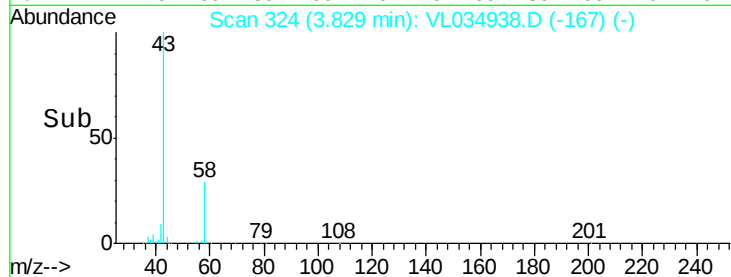
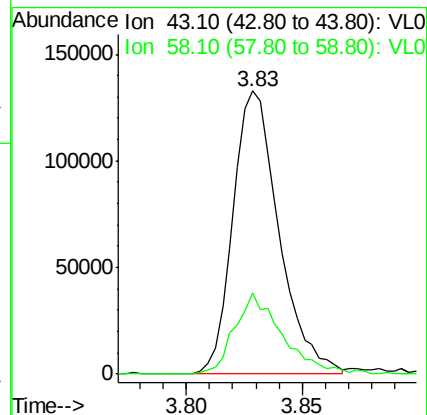
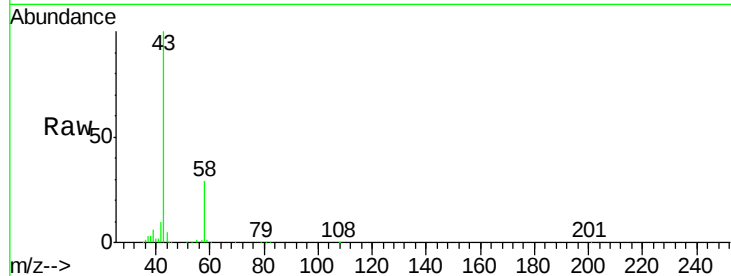
43 100

58 30.0 21.7 32.5

Manual Integrations  
APPROVED

MMDadoda

5/7/2020 2:29:35 PM



#16

1,3-Butadiene

Concen: 0.957 ppbv

RT: 3.29 min Scan# 158

Delta R.T. 0.00 min

Lab File: VL034938.D

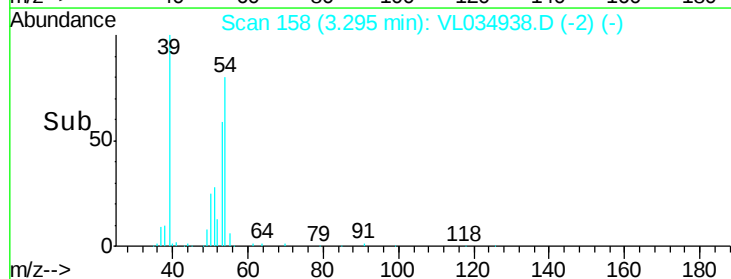
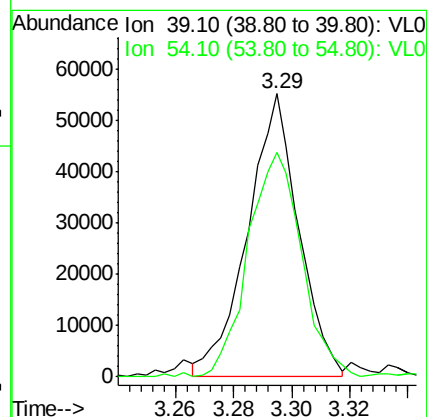
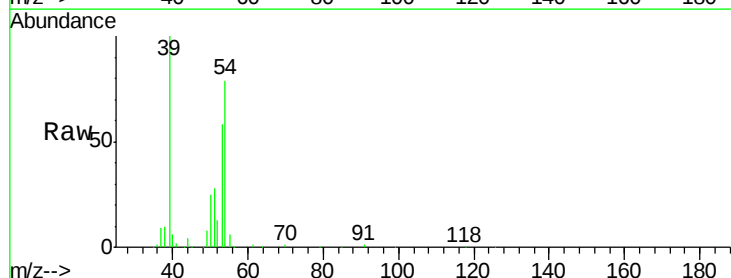
Acq: 6 May 2020 11:26

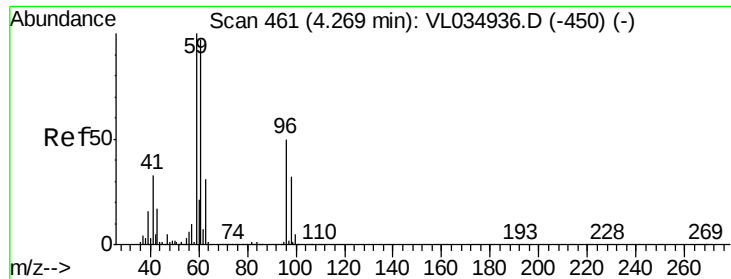
Tgt Ion: 39 Resp: 67234

Ion Ratio Lower Upper

39 100

54 85.0 66.6 100.0





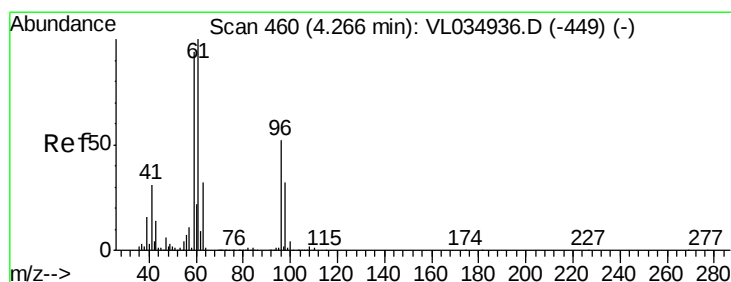
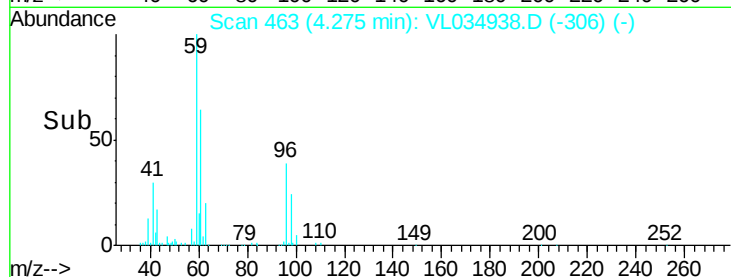
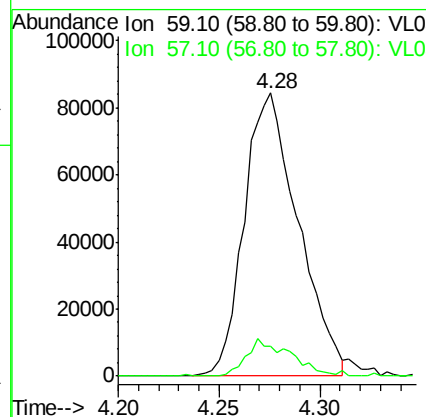
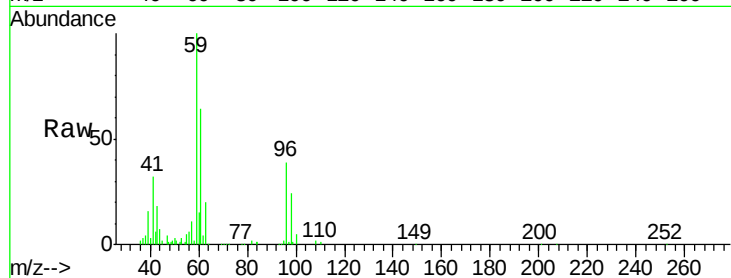
#17  
tert-Butyl alcohol  
Concen: 1.053 ppbv  
RT: 4.28 min Scan# 463  
Delta R.T. 0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

Tot Ion: 59 Resp: 157551  
Ion Ratio Lower Upper  
59 100  
57 11.1 8.7 13.1

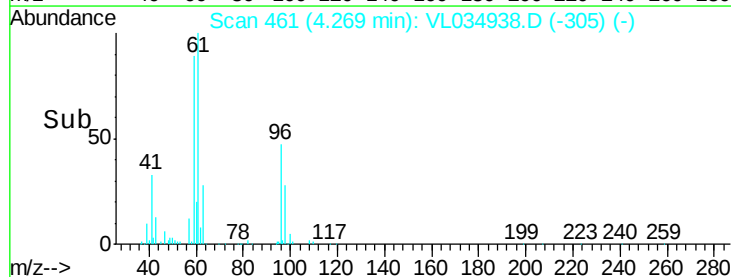
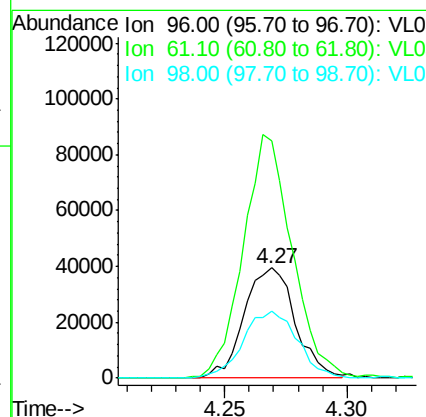
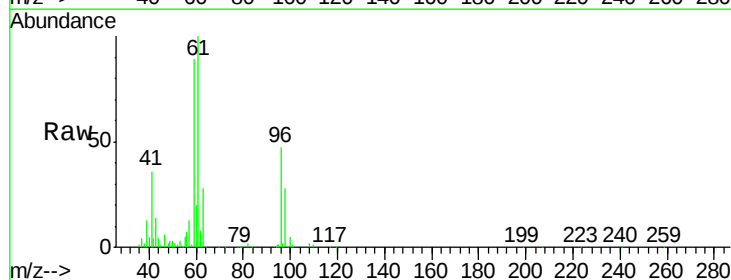
Manual Integrations  
APPROVED

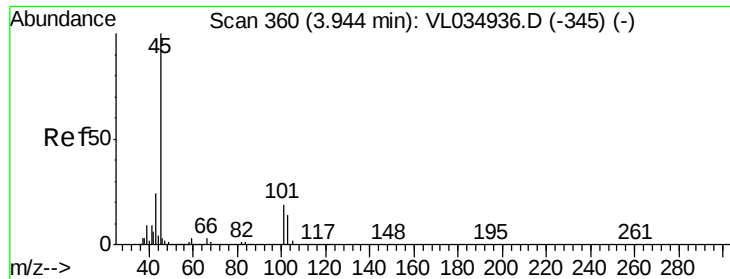
MMDadoda  
5/7/2020 2:29:35 PM



#18  
1,1-Dichloroethene  
Concen: 1.063 ppbv  
RT: 4.27 min Scan# 461  
Delta R.T. 0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Tgt Ion: 96 Resp: 57510  
Ion Ratio Lower Upper  
96 100  
61 231.2 152.4 228.6#  
98 60.4 48.8 73.2





#19

Isopropyl Alcohol

Concen: 1.217 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 45 Resp: 119340

Ion Ratio Lower Upper

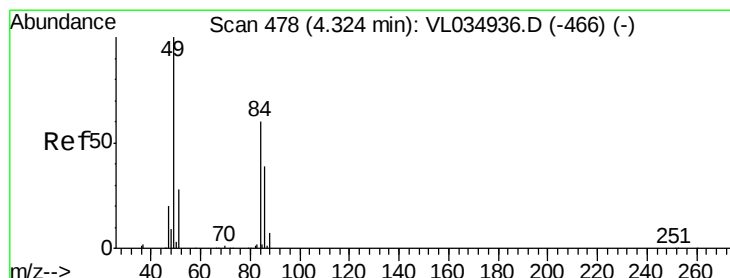
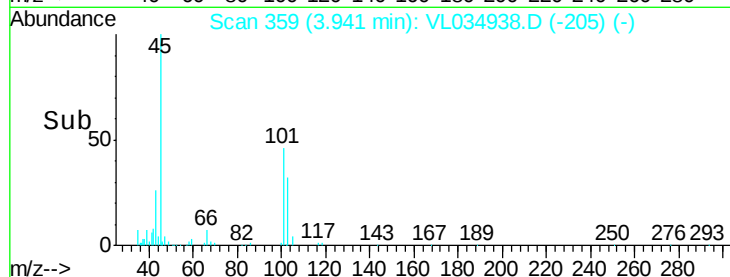
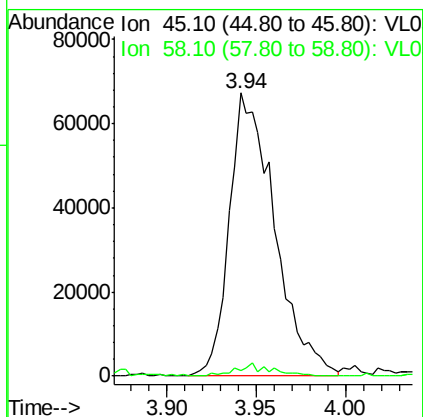
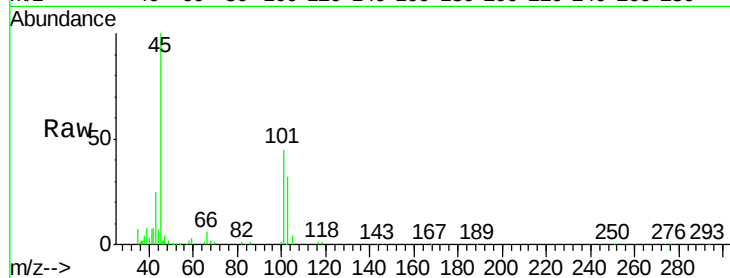
45 100

58 3.7 1.7 2.5#

Manual Integrations  
APPROVED

MMDadoda

5/7/2020 2:29:35 PM



#20

Methylene Chloride

Concen: 1.183 ppbv

RT: 4.32 min Scan# 478

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Tgt Ion: 84 Resp: 58122

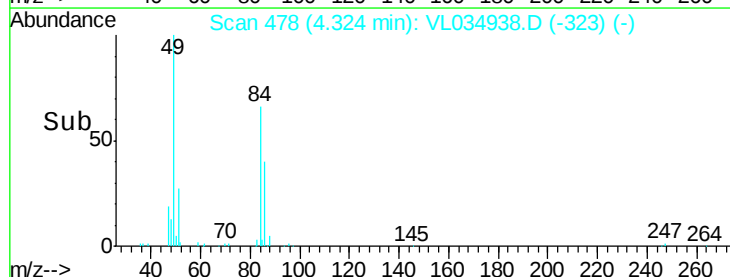
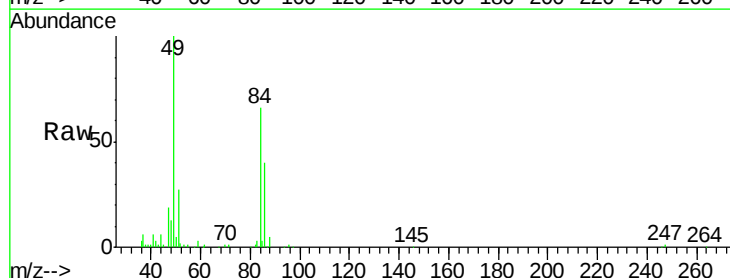
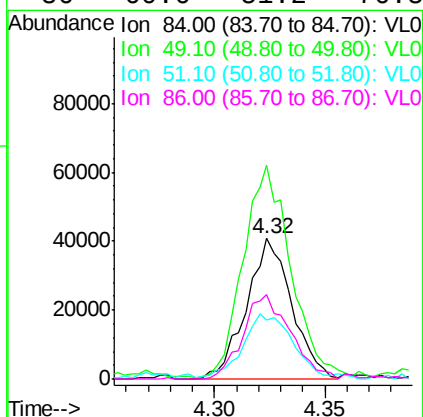
Ion Ratio Lower Upper

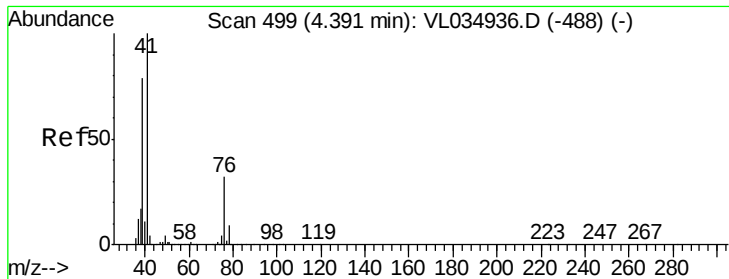
84 100

49 150.3 132.5 198.7

51 37.9 38.4 57.6#

86 60.6 51.2 76.8





#21

Allvl Chloride

Concen: 0.917 ppbv

RT: 4.39 min Scan# 500

Delta R.T. 0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

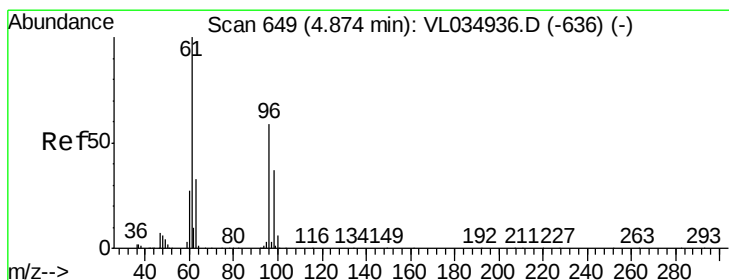
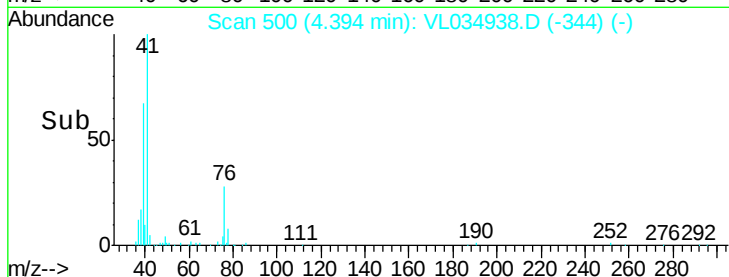
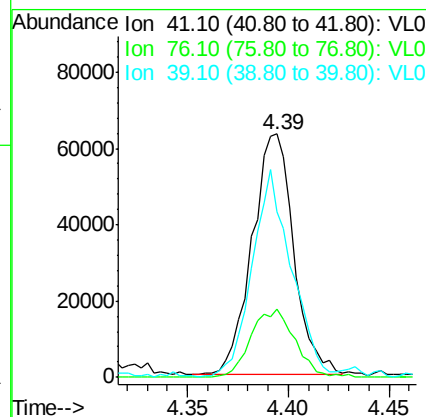
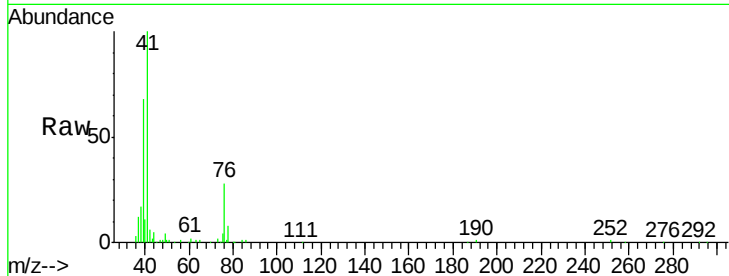
ClientSampleId :

VSTDIC001

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 41    | Resp: | 91525 |
| Ion Ratio | Lower | Upper |       |
| 41        | 100   |       |       |
| 76        | 30.0  | 23.6  | 35.4  |
| 39        | 84.2  | 61.9  | 92.9  |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



#22

trans-1,2-Dichloroethene

Concen: 1.067 ppbv m

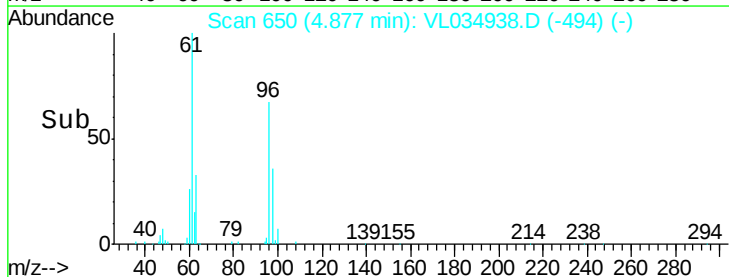
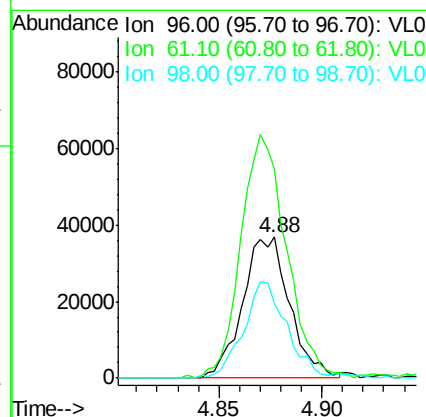
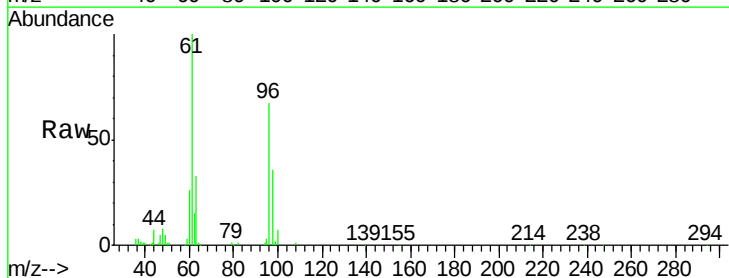
RT: 4.88 min Scan# 650

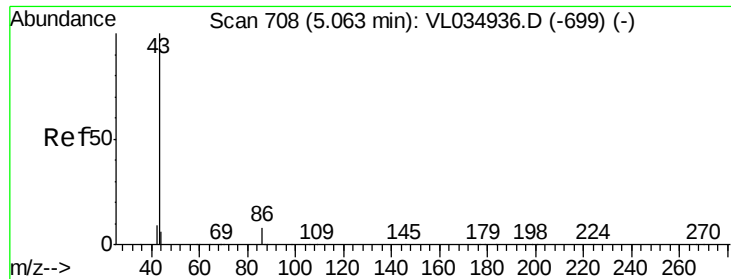
Delta R.T. 0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 96    | Resp: | 58596 |
| Ion Ratio | Lower | Upper |       |
| 96        | 100   |       |       |
| 61        | 148.8 | 135.3 | 202.9 |
| 98        | 53.5  | 50.4  | 75.6  |





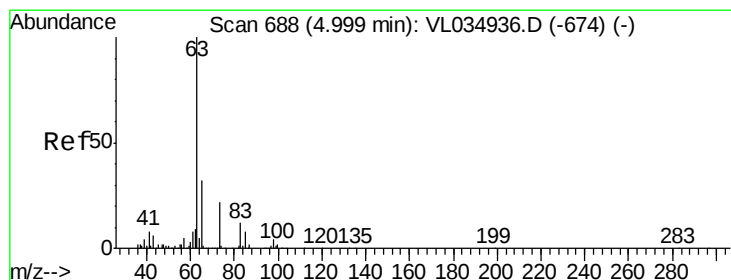
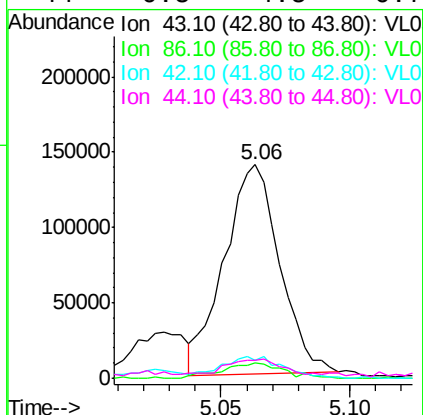
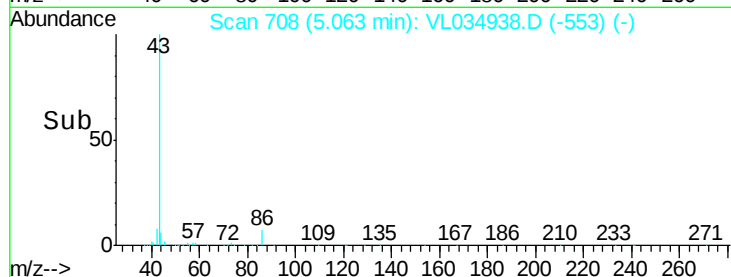
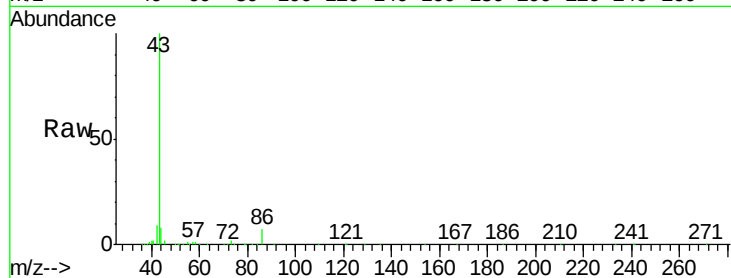
#23  
 Vinyl Acetate  
 Concen: 0.907 ppbv  
 RT: 5.06 min Scan# 708  
 Delta R.T. -0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion   | 43    | Resp  | 208105 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 43        | 100   |       |        |
| 86        | 6.9   | 5.5   | 8.3    |
| 42        | 8.1   | 8.0   | 12.0   |
| 44        | 6.5   | 4.5   | 6.7    |

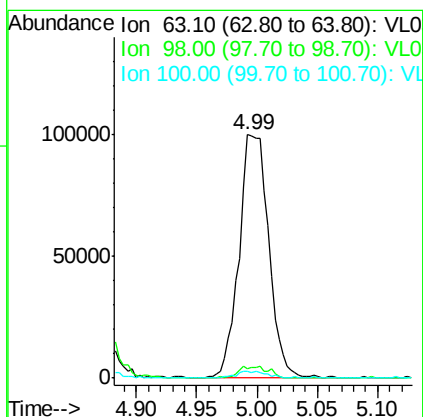
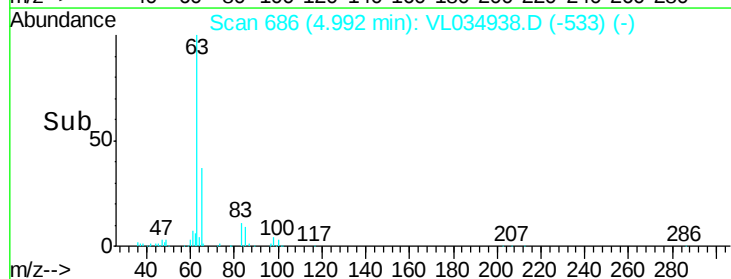
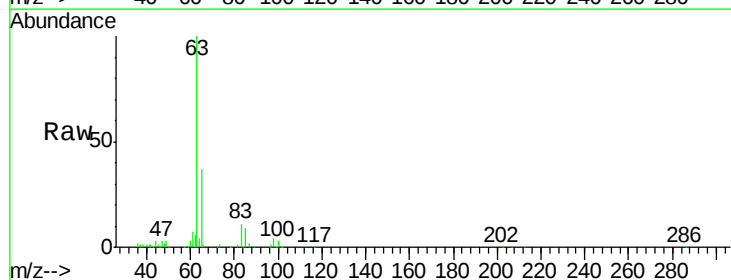
Manual Integrations  
 APPROVED

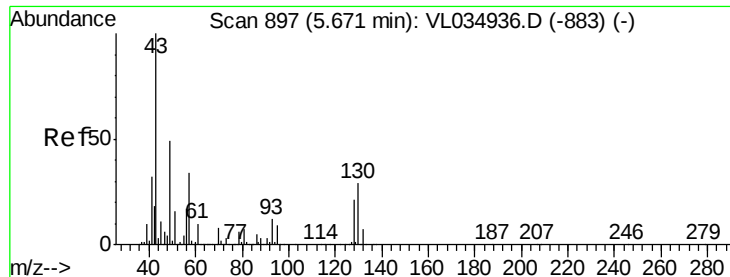
MMDadoda  
 5/7/2020 2:29:35 PM



#24  
 1,1-Dichloroethane  
 Concen: 1.086 ppbv m  
 RT: 4.99 min Scan# 686  
 Delta R.T. -0.01 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

| Tgt Ion   | 63    | Resp  | 167043 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 63        | 100   |       |        |
| 98        | 3.7   | 2.0   | 6.0    |
| 100       | 2.6   | 1.1   | 3.5    |





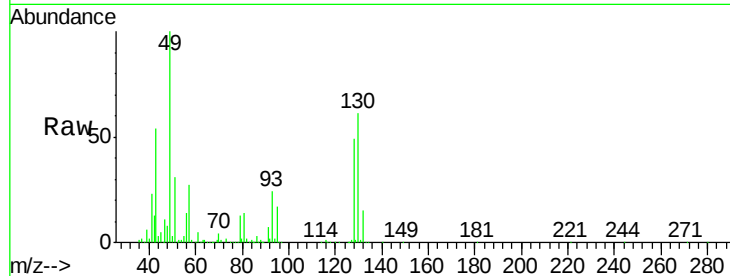
#25  
Ethyl Acetate  
Concen: 1.027 ppbv  
RT: 5.68 min Scan# 899  
Delta R.T. 0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

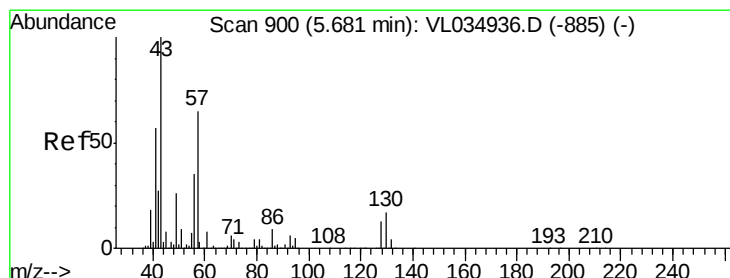
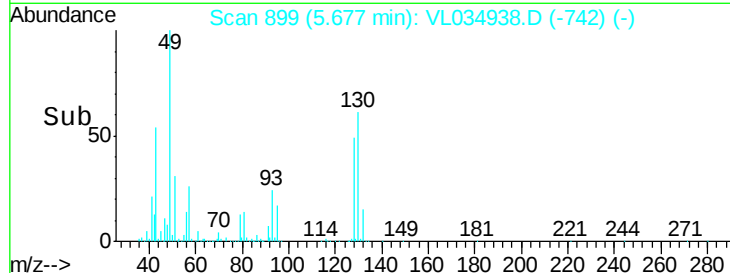
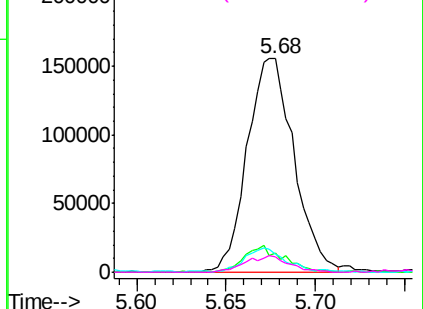
| Tot Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 43      | 100  |       | 284097 |       |       |
| 45      | 10.9 | 8.1   | 12.1   |       |       |
| 61      | 10.0 | 7.8   | 11.8   |       |       |
| 70      | 7.3  | 6.0   | 9.0    |       |       |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



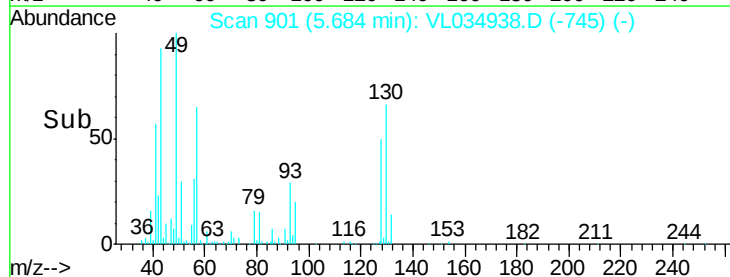
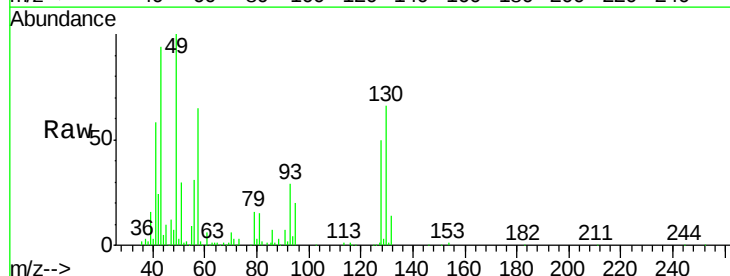
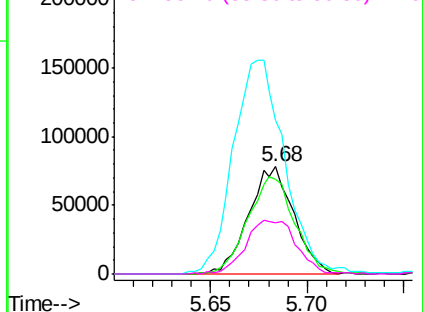
Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 45.10 (44.80 to 45.80): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 70.10 (69.80 to 70.80): VL0

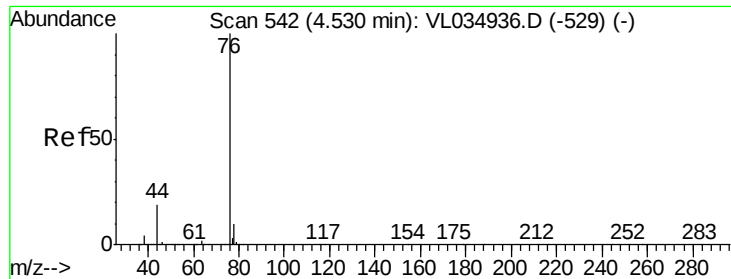


#26  
Hexane  
Concen: 1.061 ppbv  
RT: 5.68 min Scan# 901  
Delta R.T. 0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ion   | Ratio | Resp   | Lower | Upper |
|---------|-------|-------|--------|-------|-------|
| 57      | 100   |       | 126392 |       |       |
| 41      | 96.4  | 72.7  | 109.1  |       |       |
| 43      | 228.8 | 182.1 | 273.1  |       |       |
| 56      | 56.8  | 42.2  | 63.2   |       |       |

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





#27

Carbon Disulfide

Concen: 1.058 ppbv

RT: 4.53 min Scan# 543

Delta R.T. 0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

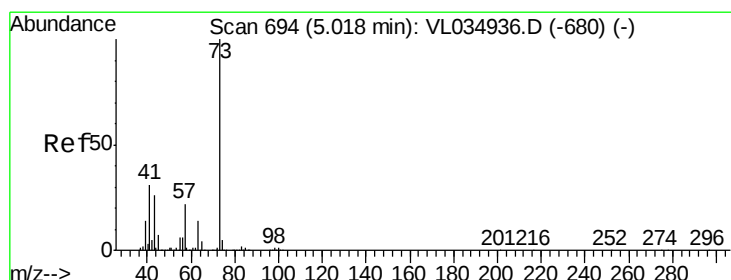
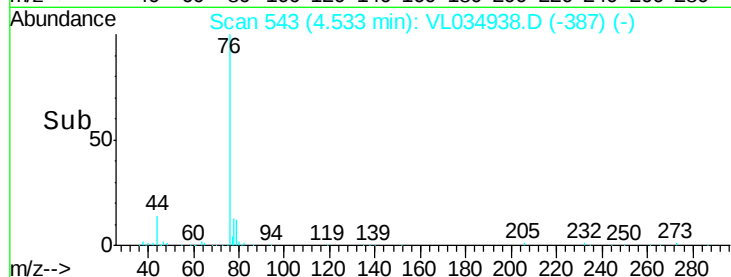
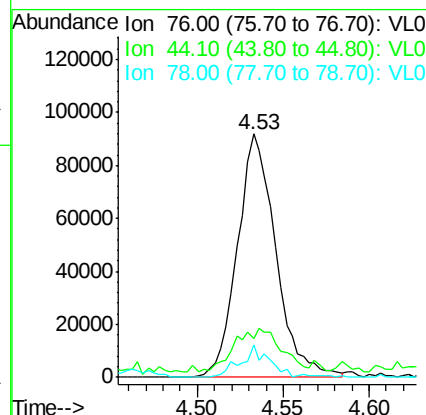
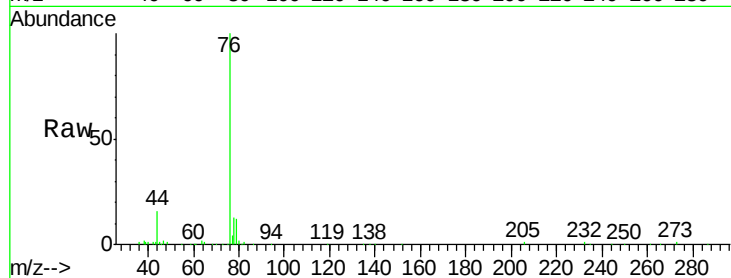
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 76    | Resp: | 143036 |
| Ion Ratio | Lower | Upper |        |
| 76        | 100   |       |        |
| 44        | 24.0  | 15.2  | 22.8#  |
| 78        | 10.2  | 7.7   | 11.5   |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



#28

Methyl tert-Butyl Ether

Concen: 0.943 ppbv

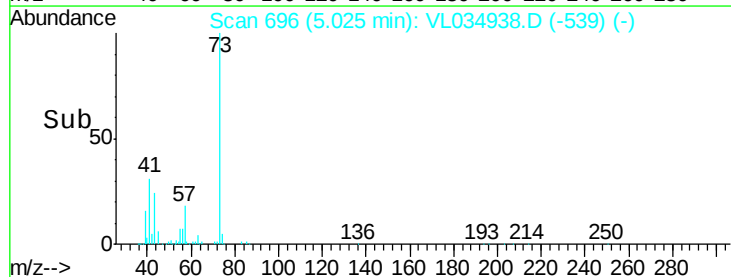
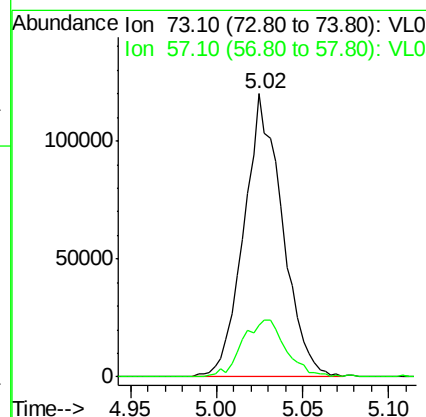
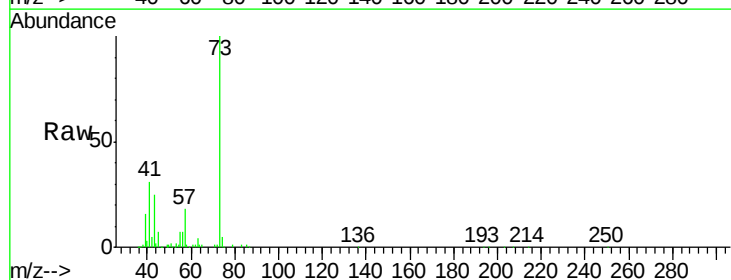
RT: 5.02 min Scan# 696

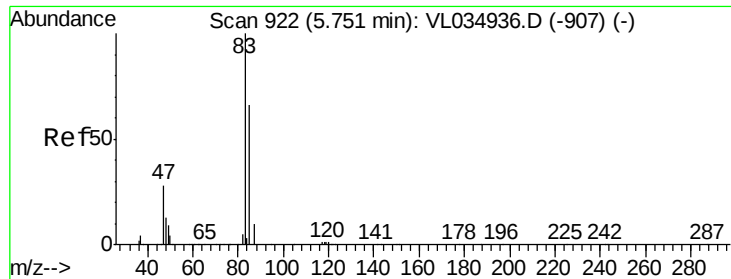
Delta R.T. 0.01 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 73    | Resp: | 186886 |
| Ion Ratio | Lower | Upper |        |
| 73        | 100   |       |        |
| 57        | 23.2  | 18.3  | 27.5   |





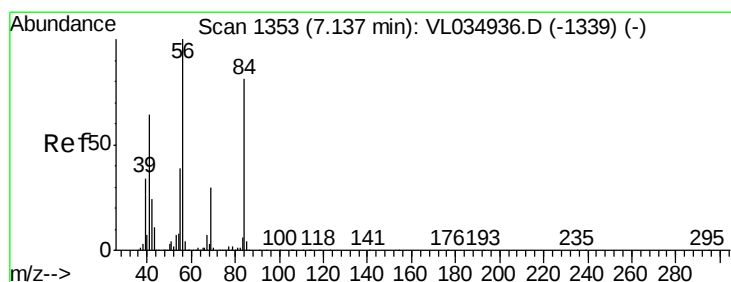
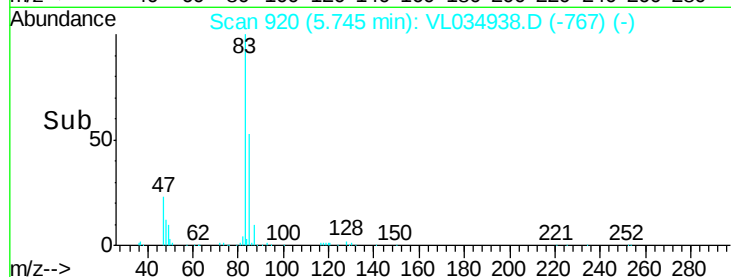
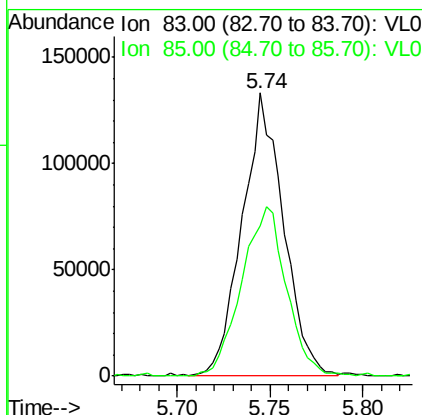
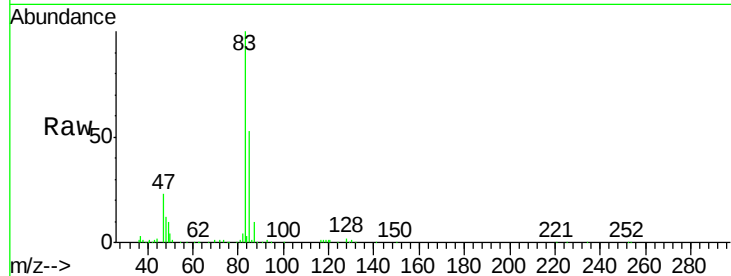
#29  
Chloroform  
Concen: 1.136 ppbv  
RT: 5.74 min Scan# 920  
Delta R.T. -0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion   | 83    | Resp  | 206611 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 83        | 100   |       |        |
| 85        | 53.0  | 53.0  | 79.6#  |

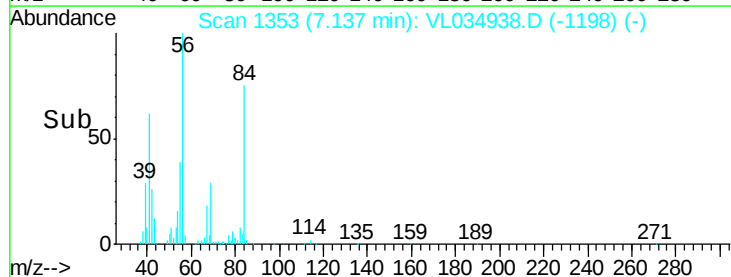
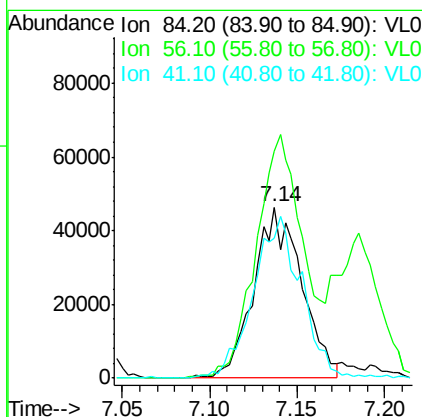
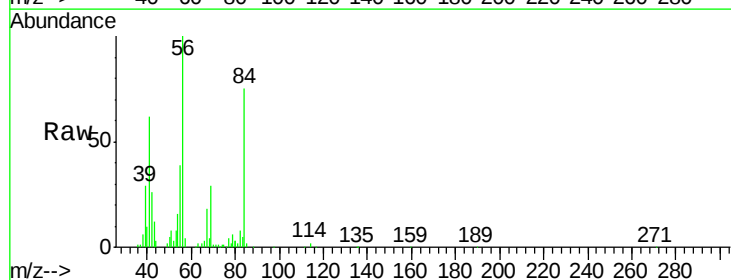
Manual Integrations  
APPROVED

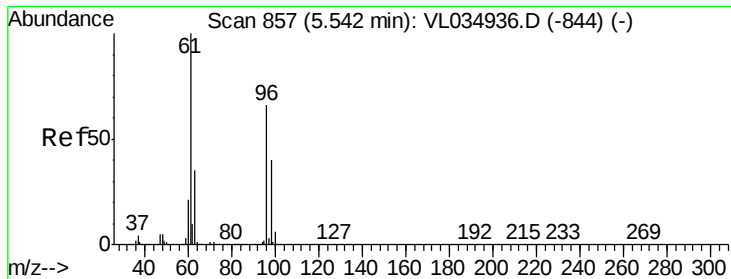
MMDadoda  
5/7/2020 2:29:35 PM



#30  
Cyclohexane  
Concen: 0.886 ppbv m  
RT: 7.14 min Scan# 1353  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion   | 84    | Resp  | 88093  |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 84        | 100   |       |        |
| 56        | 0.0   | 111.4 | 167.2# |
| 41        | 0.0   | 66.7  | 100.1# |





#31

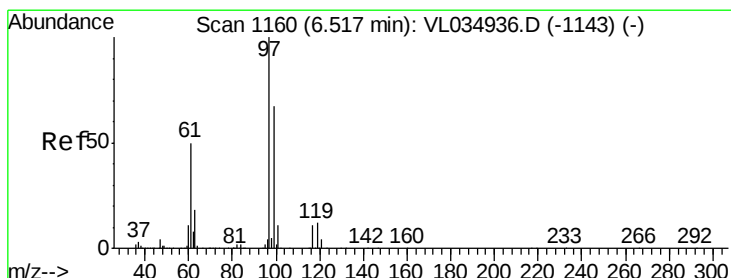
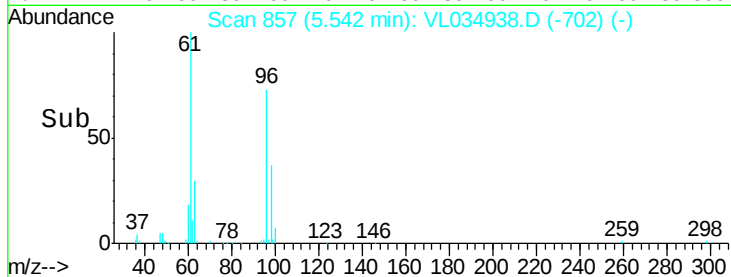
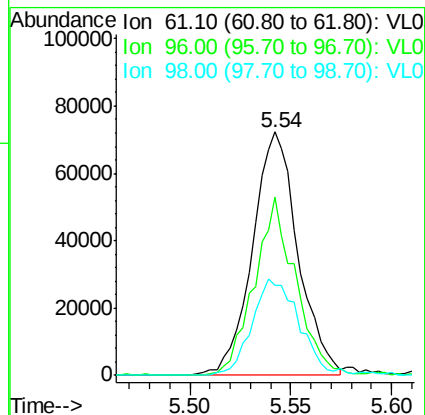
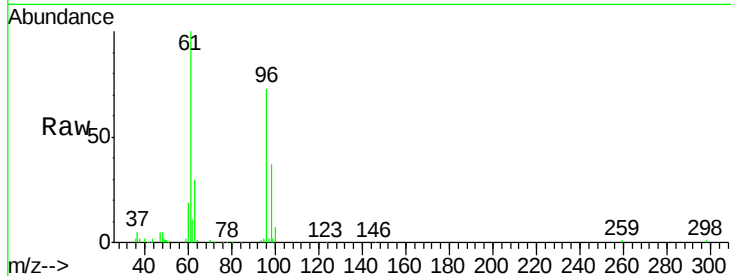
cis-1,2-Dichloroethene  
Concen: 0.935 ppbv  
RT: 5.54 min Scan# 857  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 61      | 100   |      |       |       |
| 96      | 73.3  | 53.0 | 79.6  |       |
| 98      | 37.1  | 32.2 | 48.2  |       |

Manual Integrations  
APPROVED

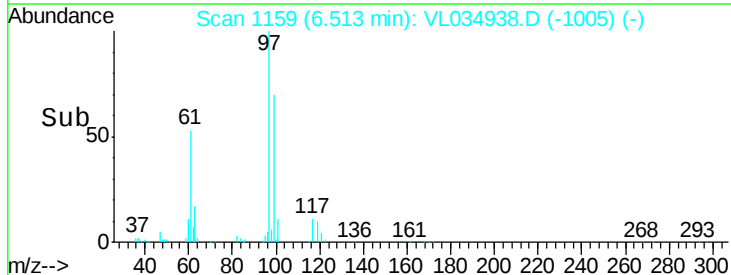
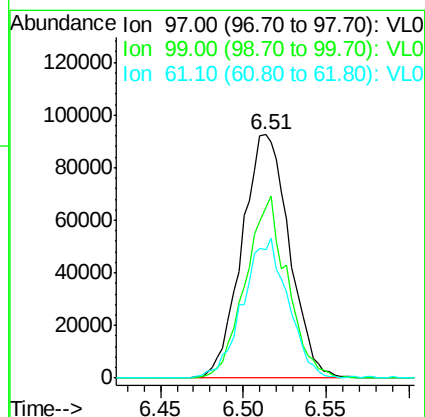
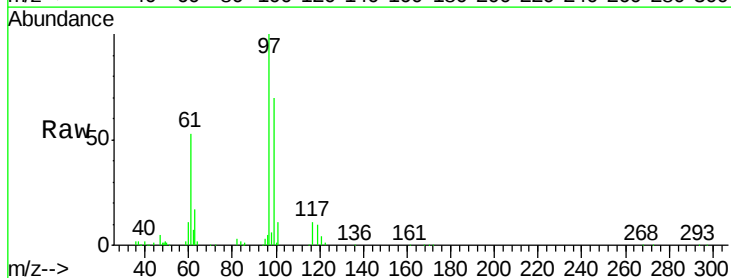
MMDadoda  
5/7/2020 2:29:35 PM

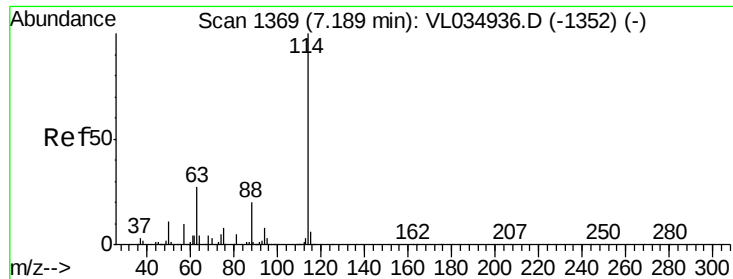


#32

1,1,1-Trichloroethane  
Concen: 1.038 ppbv  
RT: 6.51 min Scan# 1159  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 97      | 100   |      |       |       |
| 99      | 65.6  | 52.1 | 78.1  |       |
| 61      | 54.8  | 41.8 | 62.8  |       |





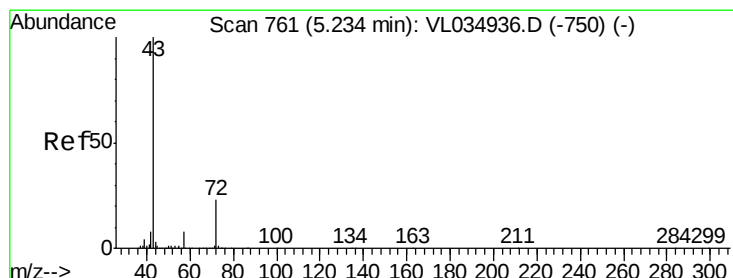
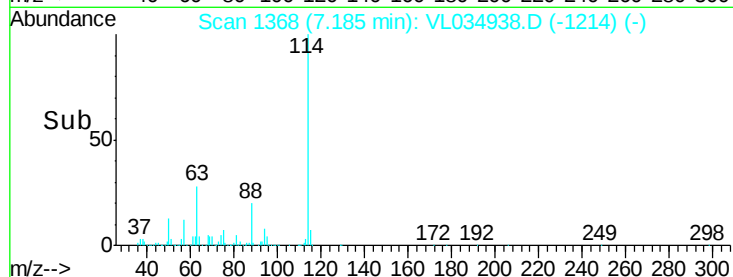
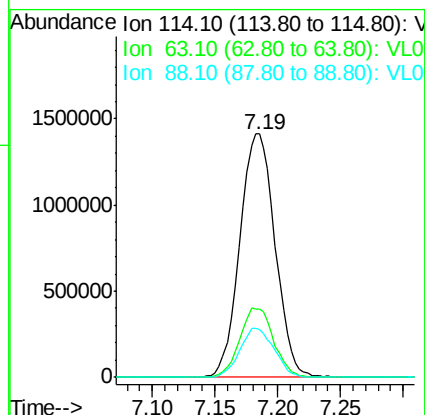
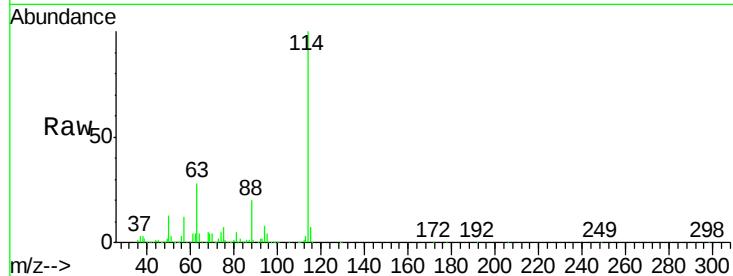
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.19 min Scan# 1368  
 Delta R.T. -0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 27.6  | 22.2  | 33.4  |
| 88      | 19.7  | 15.5  | 23.3  |

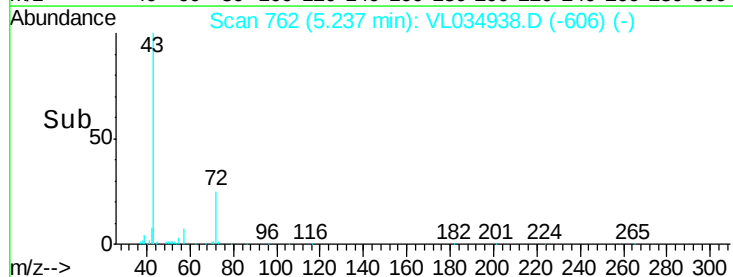
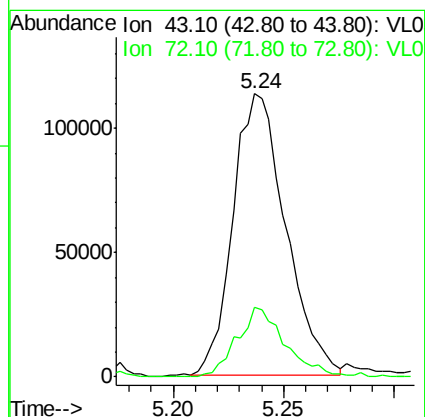
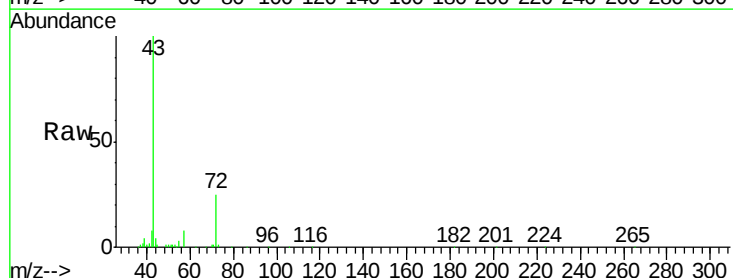
Manual Integrations  
 APPROVED

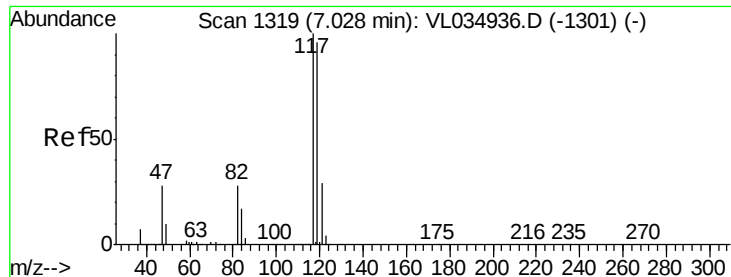
MMDadoda  
 5/7/2020 2:29:35 PM



#34  
 2-Butanone  
 Concen: 1.025 ppbv  
 RT: 5.24 min Scan# 762  
 Delta R.T. 0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 23.0  | 18.0  | 27.0  |





#35

Carbon Tetrachloride

Concen: 1.071 ppbv m

RT: 7.02 min Scan# 1317

Delta R.T. -0.01 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

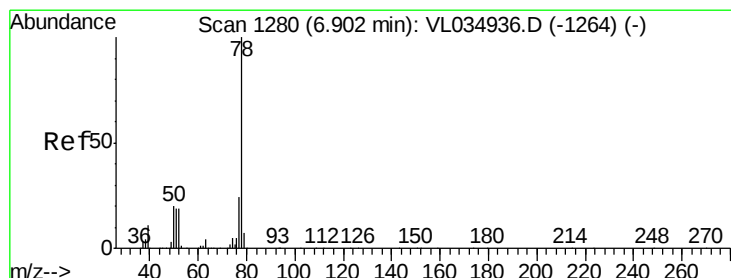
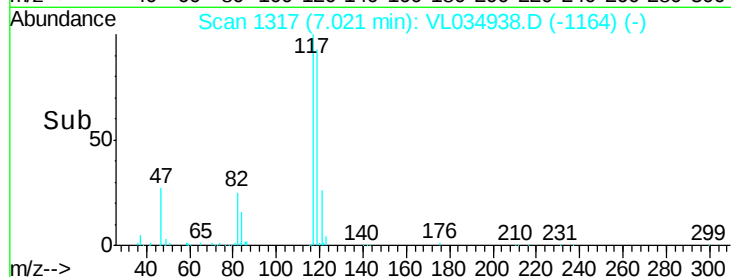
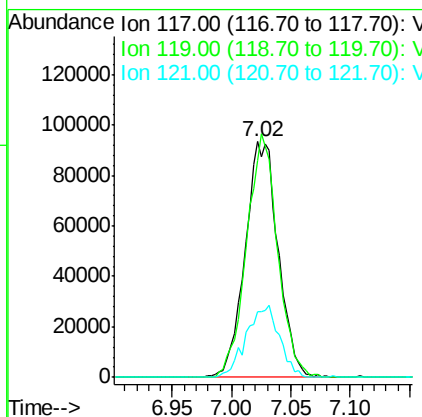
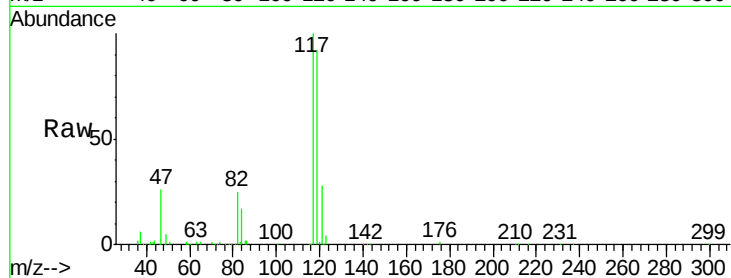
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 117   | Resp: | 183735 |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 91.7  | 77.0  | 115.6  |
| 121       | 27.9  | 23.0  | 34.6   |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



#36

Benzene

Concen: 0.989 ppbv

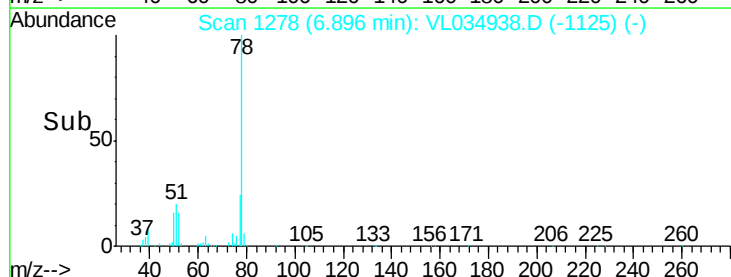
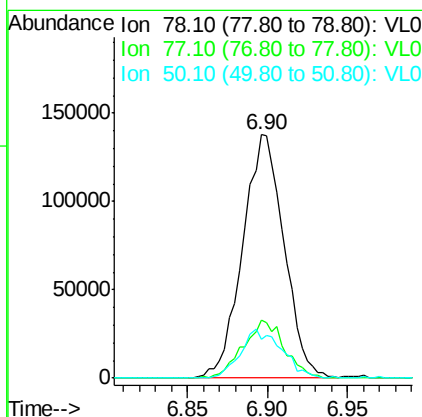
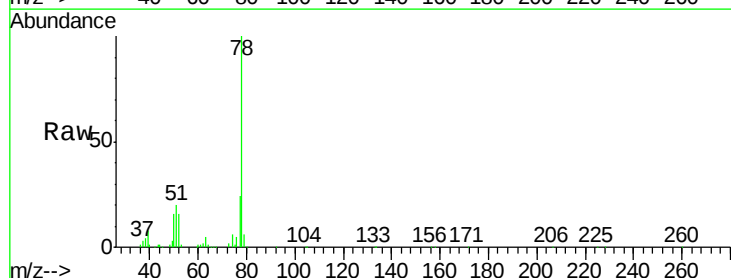
RT: 6.90 min Scan# 1278

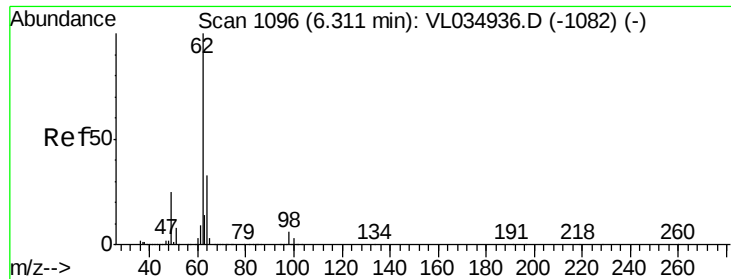
Delta R.T. -0.01 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 78    | Resp: | 243104 |
| Ion Ratio | Lower | Upper |        |
| 78        | 100   |       |        |
| 77        | 23.7  | 19.0  | 28.6   |
| 50        | 16.0  | 15.8  | 23.8   |





#37

1,2-Dichloroethane

Concen: 1.090 ppbv

RT: 6.31 min Scan# 1095

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 62 Resp: 150979

Ion Ratio Lower Upper

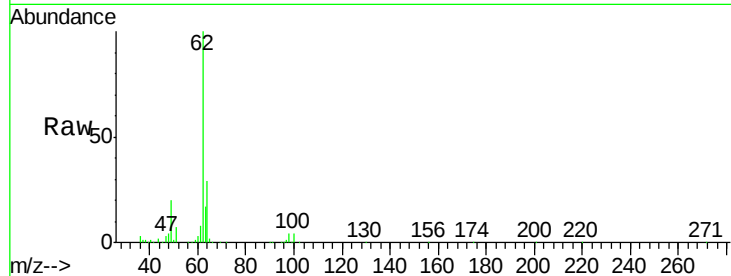
62 100

98 5.9 4.8 7.2

Manual Integrations  
APPROVED

MMDadoda

5/7/2020 2:29:35 PM



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

6.31

100000

80000

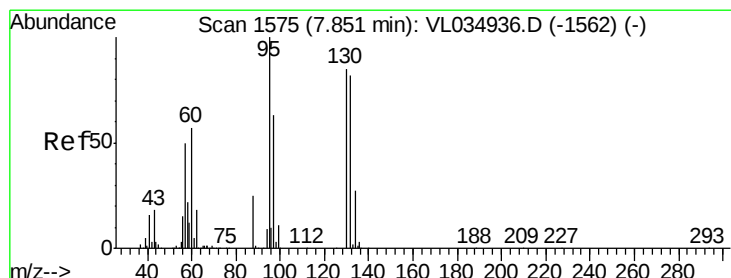
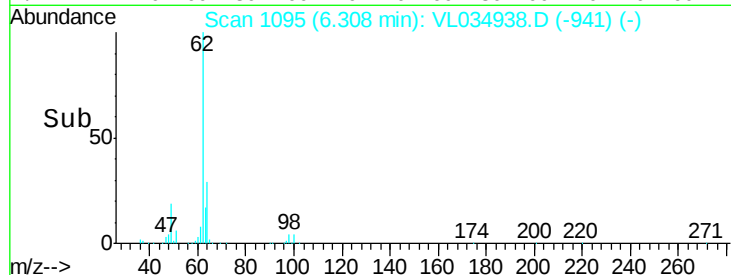
60000

40000

20000

0

Time-->



#38

Trichloroethene

Concen: 1.035 ppbv

RT: 7.85 min Scan# 1574

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Tgt Ion:130 Resp: 96624

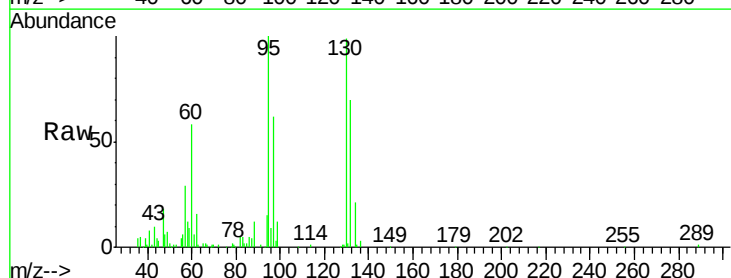
Ion Ratio Lower Upper

130 100

95 99.0 93.4 140.0

132 68.2 76.4 114.6#

97 61.0 58.5 87.7



Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0

7.85

80000

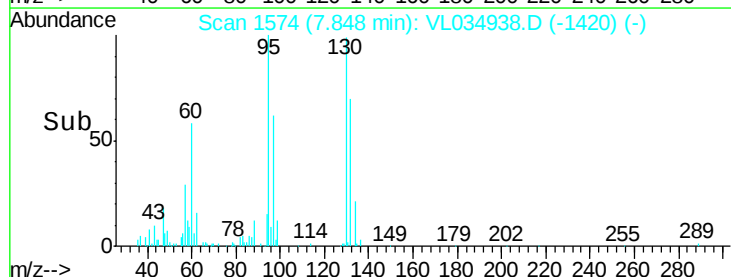
60000

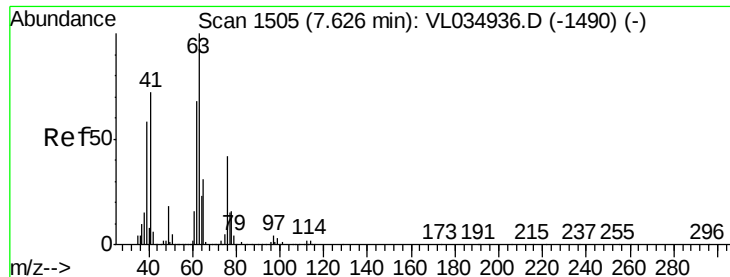
40000

20000

0

Time-->





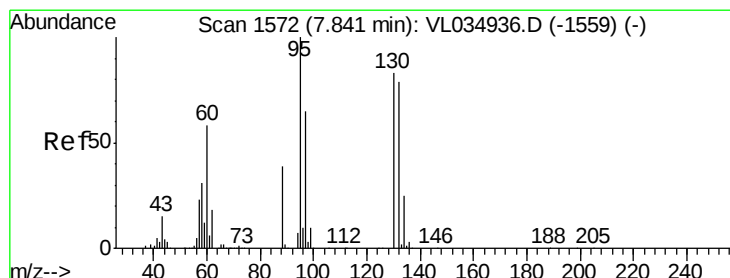
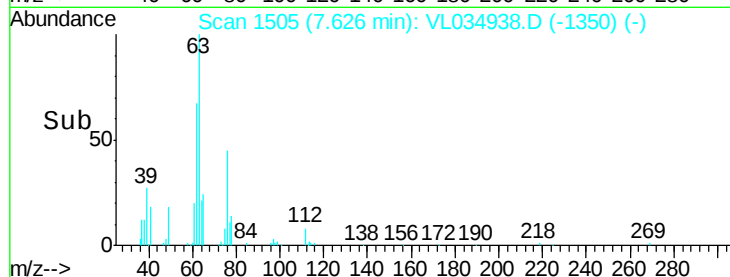
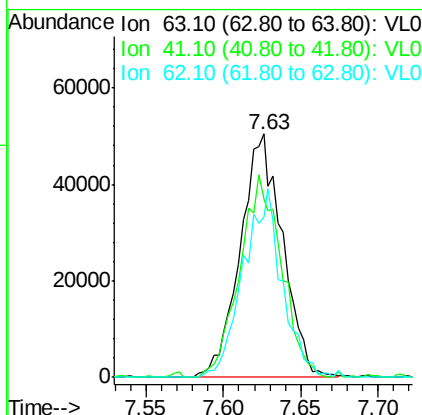
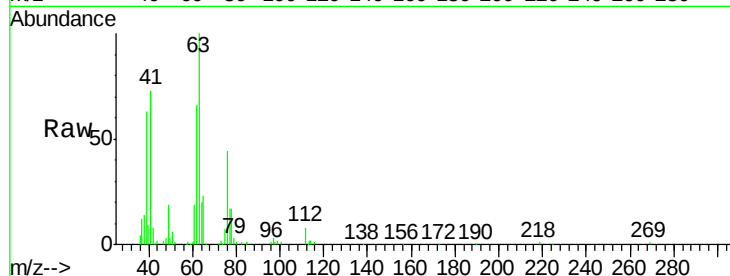
#39  
 1,2-Dichloropropane  
 Concen: 0.983 ppbv  
 RT: 7.63 min Scan# 1505  
 Delta R.T. -0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 73.2  | 57.8  | 86.8  |
| 62      | 65.7  | 54.2  | 81.2  |

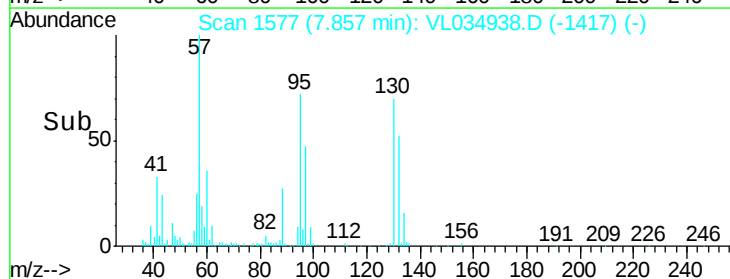
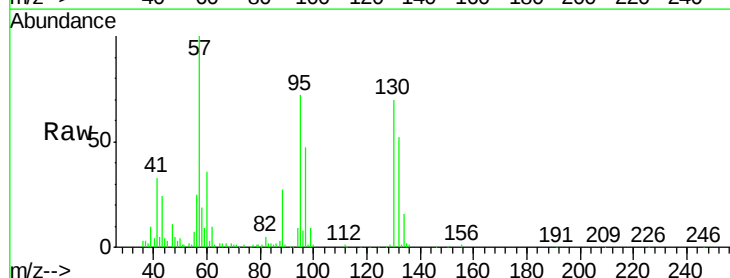
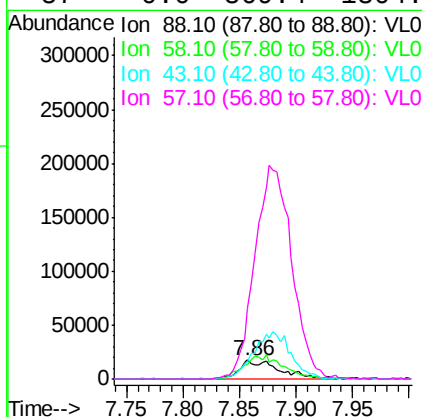
Manual Integrations  
 APPROVED

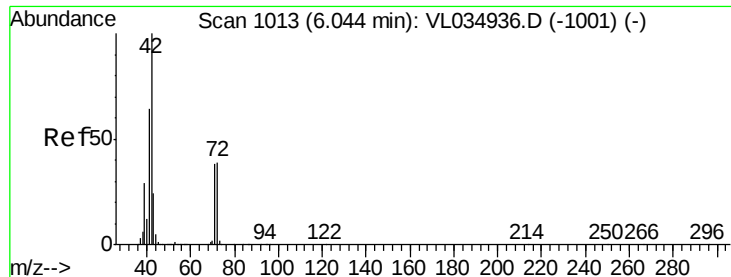
MMDadoda  
 5/7/2020 2:29:35 PM



#40  
 1,4-Dioxane  
 Concen: 1.166 ppbv m  
 RT: 7.86 min Scan# 1577  
 Delta R.T. 0.02 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper   |
|---------|-------|-------|---------|
| 88      | 100   |       |         |
| 58      | 0.0   | 105.1 | 157.7#  |
| 43      | 0.0   | 202.6 | 303.8#  |
| 57      | 0.0   | 869.4 | 1304.0# |





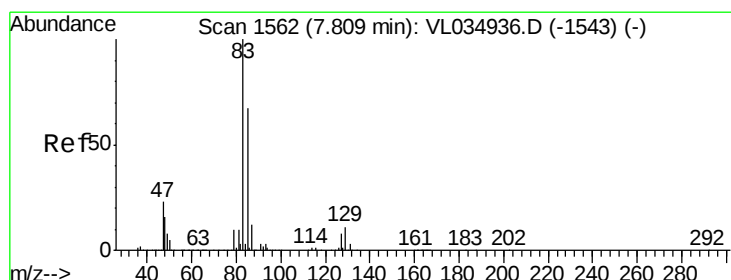
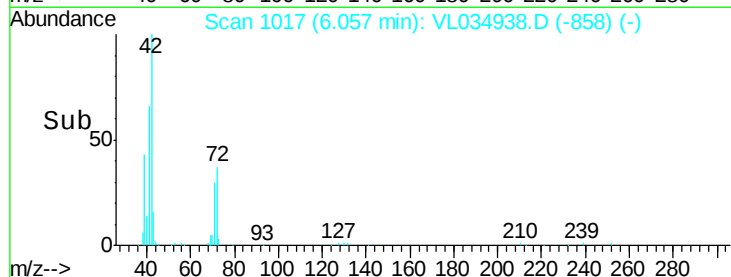
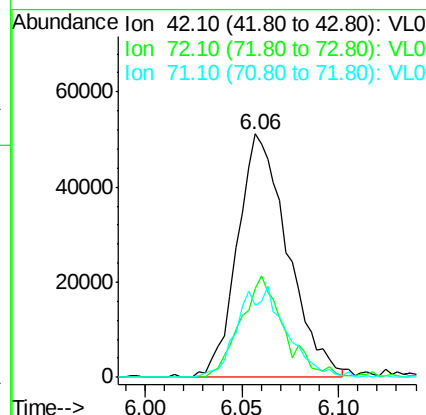
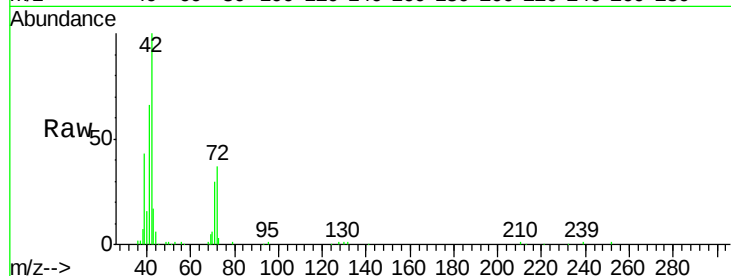
#41  
Tetrahydrofuran  
Concen: 0.928 ppbv  
RT: 6.06 min Scan# 1017  
Delta R.T. 0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 37.6  | 31.4  | 47.0  |
| 71      | 36.4  | 29.8  | 44.8  |

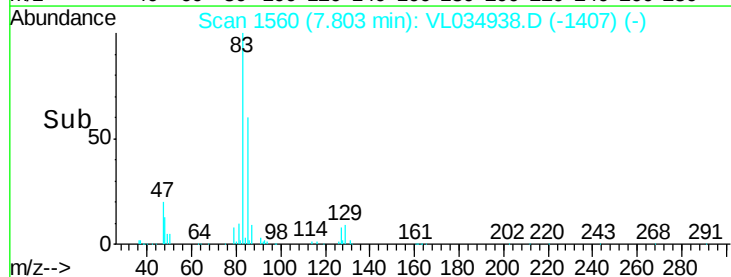
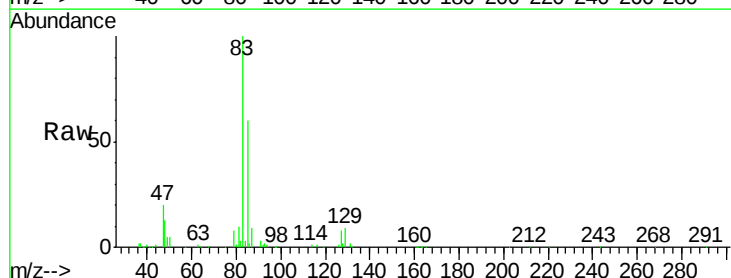
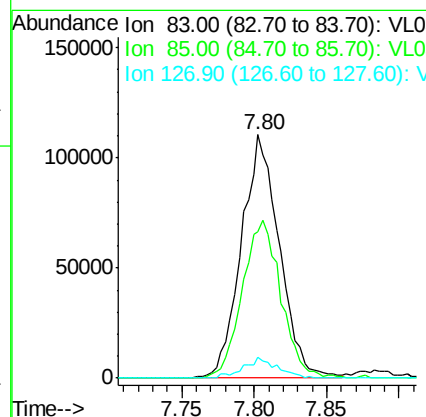
Manual Integrations  
APPROVED

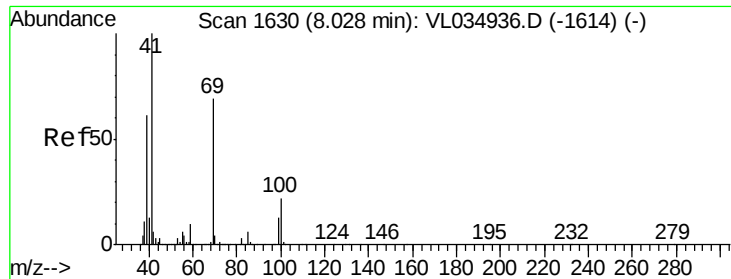
MMDadoda  
5/7/2020 2:29:35 PM



#42  
Bromodichloromethane  
Concen: 1.070 ppbv  
RT: 7.80 min Scan# 1560  
Delta R.T. -0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 60.2  | 53.4  | 80.0  |
| 127     | 8.4   | 6.1   | 9.1   |





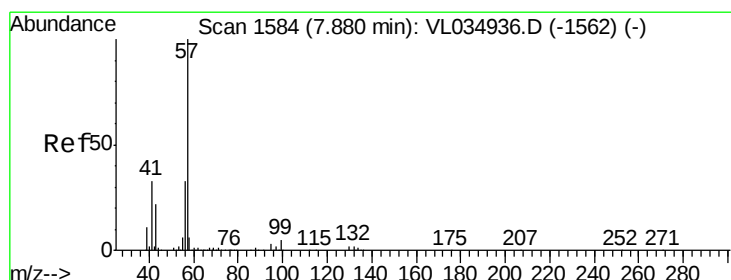
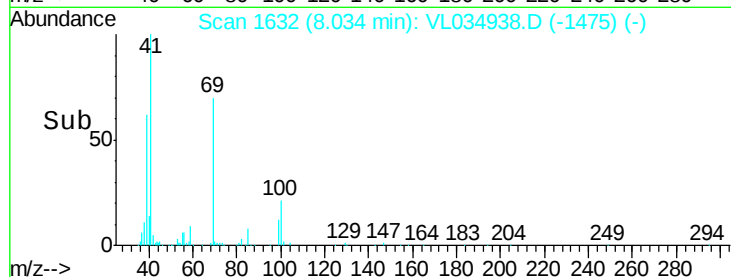
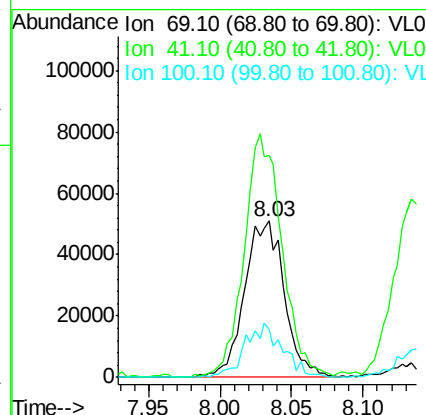
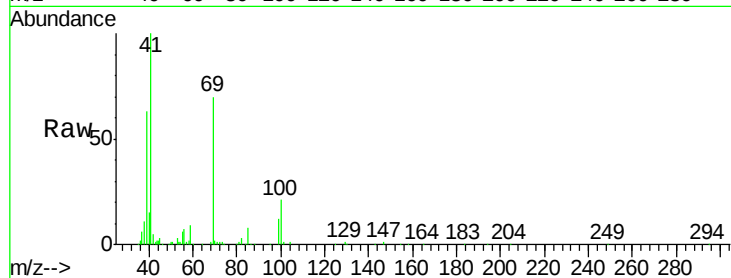
#43  
Methvl Methacrylate  
Concen: 0.948 ppbv m  
RT: 8.03 min Scan# 1632  
Delta R.T. 0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 69      | 100   |       |        |
| 41      | 0.0   | 119.8 | 179.6# |
| 100     | 0.0   | 25.0  | 37.6#  |

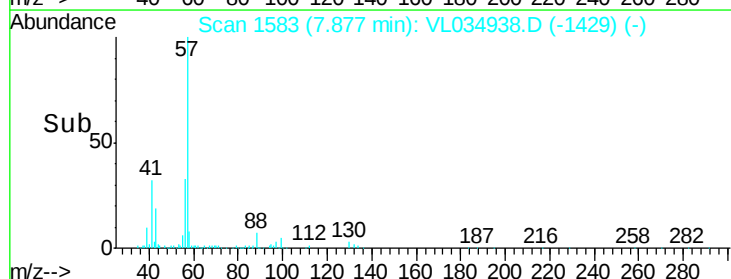
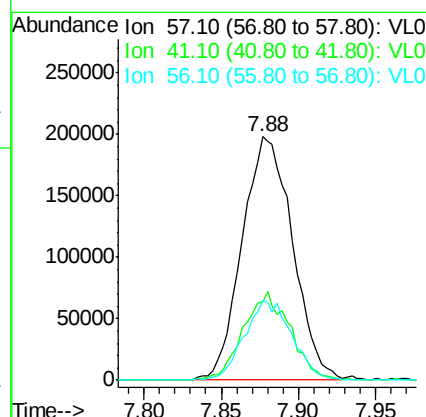
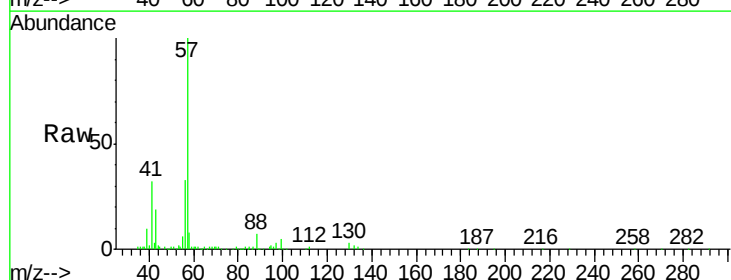
Manual Integrations  
APPROVED

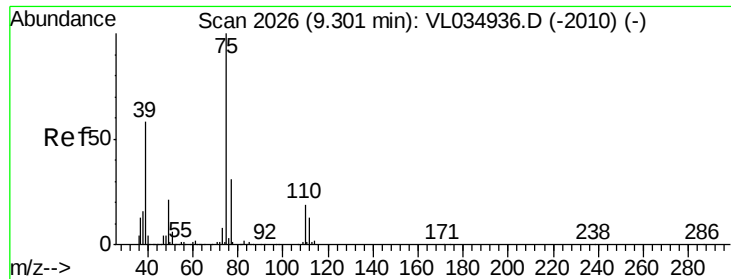
MMDadoda  
5/7/2020 2:29:35 PM



#44  
2,2,4-Trimethylpentane  
Concen: 1.071 ppbv  
RT: 7.88 min Scan# 1583  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 34.1  | 26.4  | 39.6  |
| 56      | 31.3  | 25.5  | 38.3  |





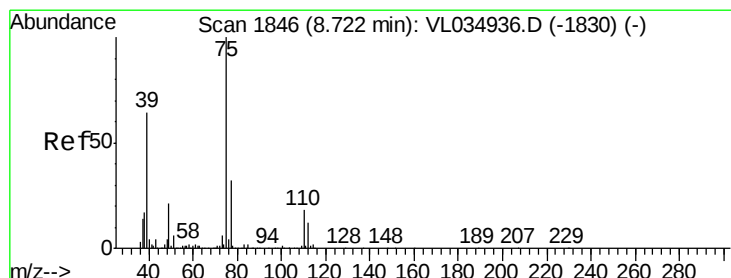
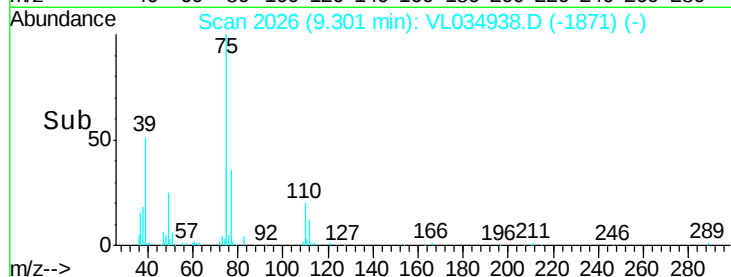
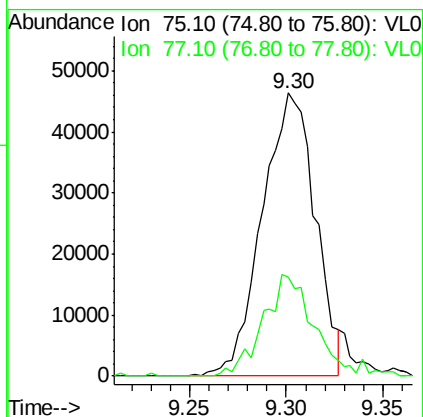
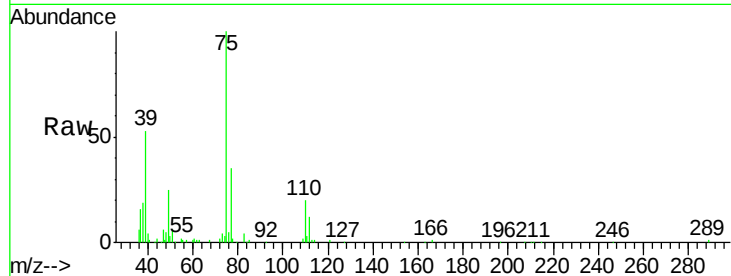
#45  
t-1,3-Dichloropropene  
Concen: 0.725 ppbv  
RT: 9.30 min Scan# 2026  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 33.4  | 24.9  | 37.3  |

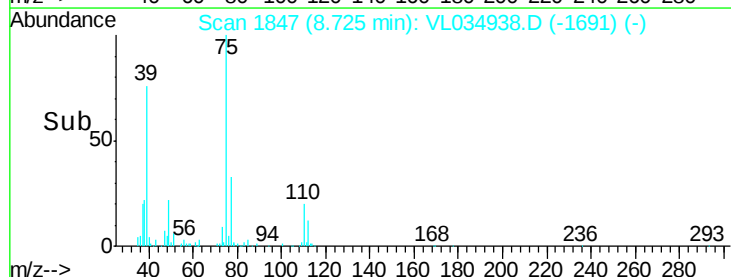
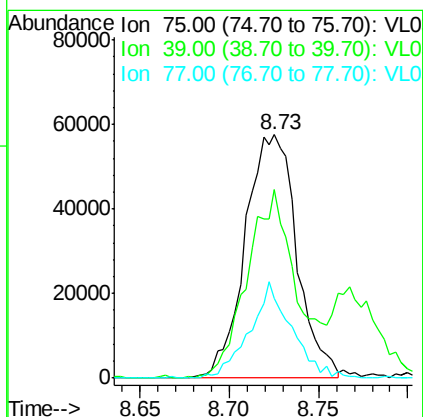
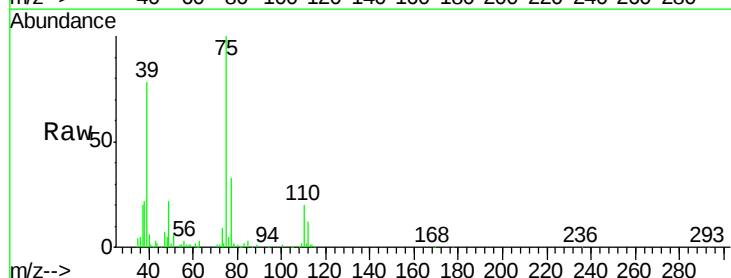
Manual Integrations  
APPROVED

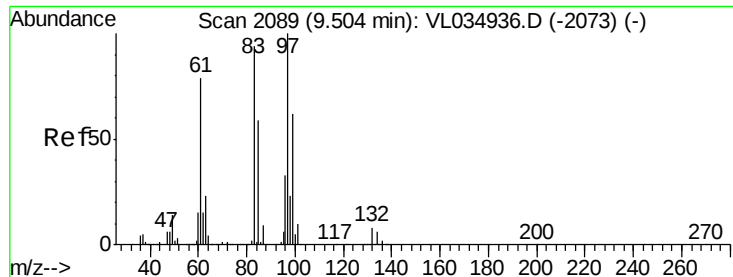
MMDadoda  
5/7/2020 2:29:35 PM



#46  
cis-1,3-Dichloropropene  
Concen: 0.803 ppbv  
RT: 8.73 min Scan# 1847  
Delta R.T. 0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 39      | 77.0  | 51.5  | 77.3  |
| 77      | 32.6  | 25.5  | 38.3  |





#47

1,1,2-Trichloroethane

Concen: 1.054 ppbv

RT: 9.50 min Scan# 2087

Delta R.T. -0.01 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

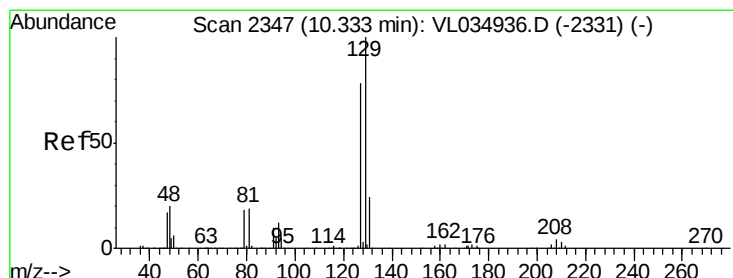
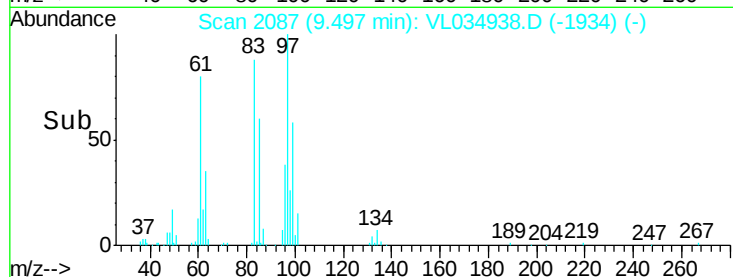
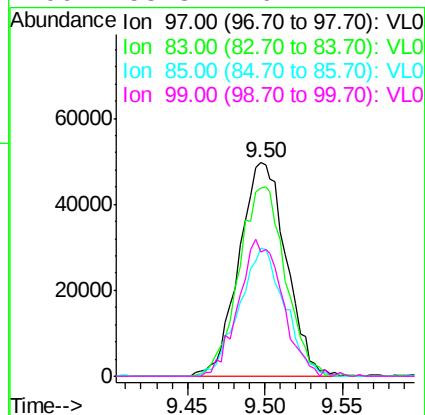
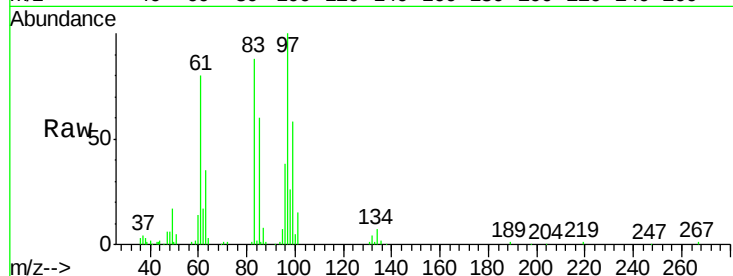
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 97    | Resp: | 105362 |
| Ion Ratio | Lower | Upper |        |
| 97        | 100   |       |        |
| 83        | 88.0  | 75.6  | 113.4  |
| 85        | 60.1  | 47.0  | 70.6   |
| 99        | 58.3  | 49.4  | 74.2   |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



#48

Dibromochloromethane

Concen: 0.935 ppbv m

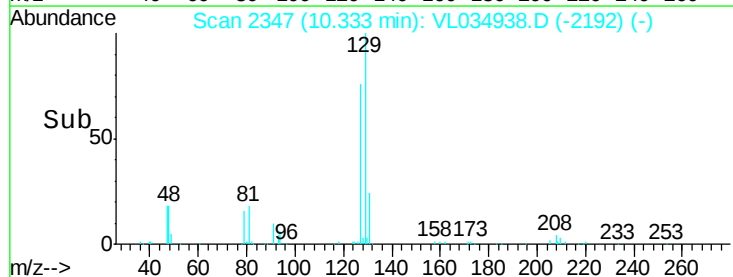
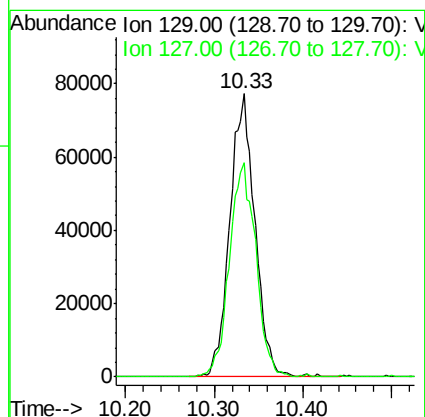
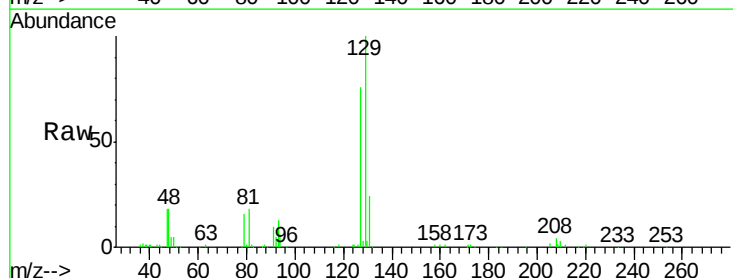
RT: 10.33 min Scan# 2347

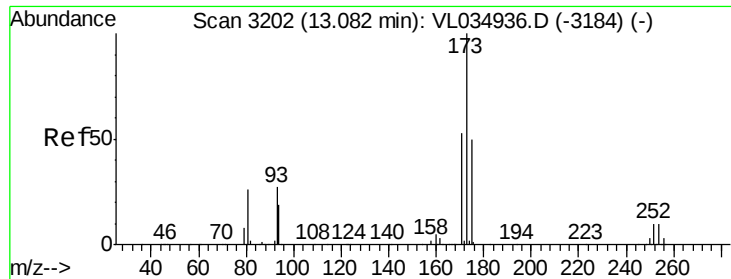
Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 129   | Resp: | 151286 |
| Ion Ratio | Lower | Upper |        |
| 129       | 100   |       |        |
| 127       | 79.4  | 39.1  | 117.2  |





#49

Bromoform

Concen: 0.883 ppbv m

RT: 13.07 min Scan# 3199

Delta R.T. -0.01 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

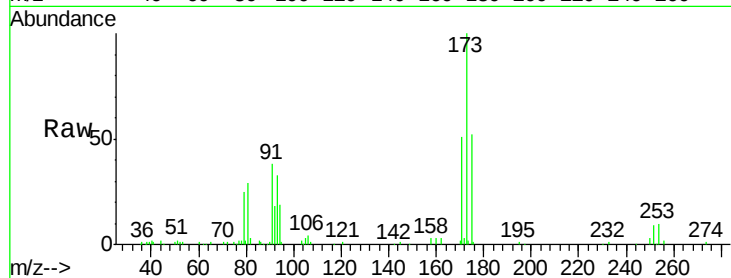
ClientSampleId :

VSTDIC001

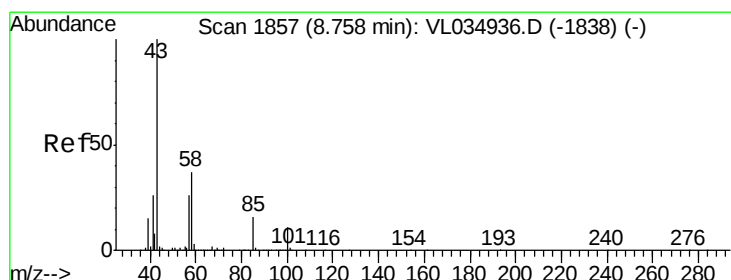
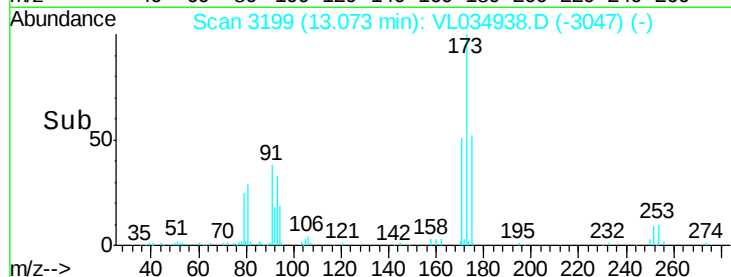
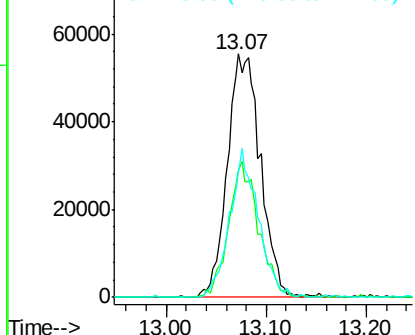
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 173   | Resp: | 127382 |
| Ion Ratio | Lower | Upper |        |
| 173       | 100   |       |        |
| 175       | 51.0  | 39.0  | 58.6   |
| 171       | 52.5  | 41.4  | 62.2   |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



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: 0.963 ppbv

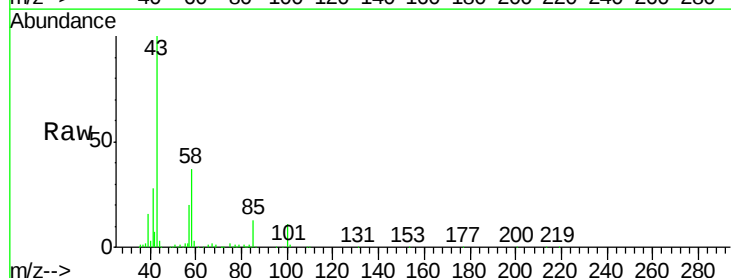
RT: 8.76 min Scan# 1859

Delta R.T. 0.01 min

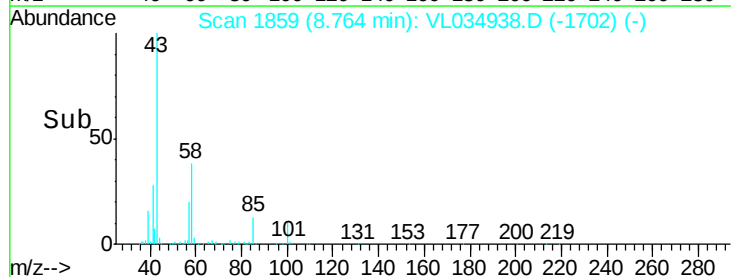
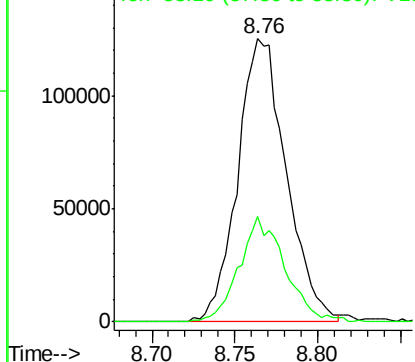
Lab File: VL034938.D

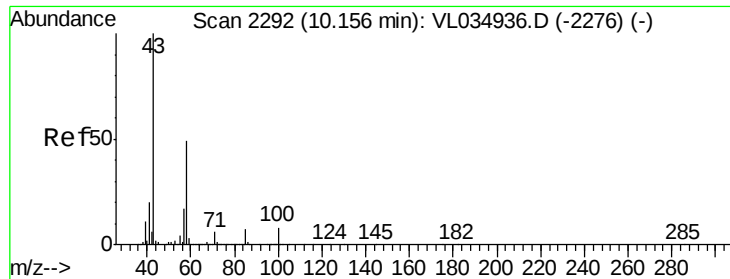
Acq: 6 May 2020 11:26

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 43    | Resp: | 254114 |
| Ion Ratio | Lower | Upper |        |
| 43        | 100   |       |        |
| 58        | 35.4  | 29.1  | 43.7   |



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





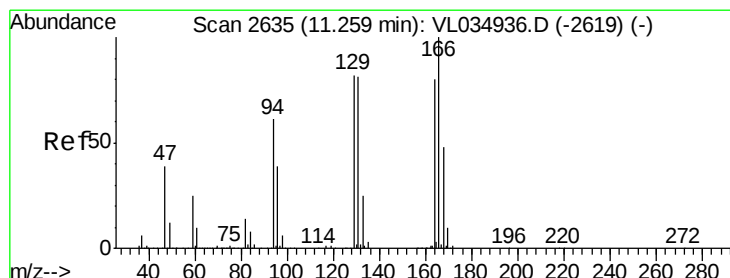
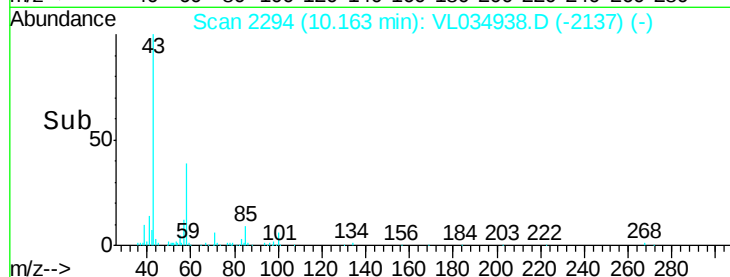
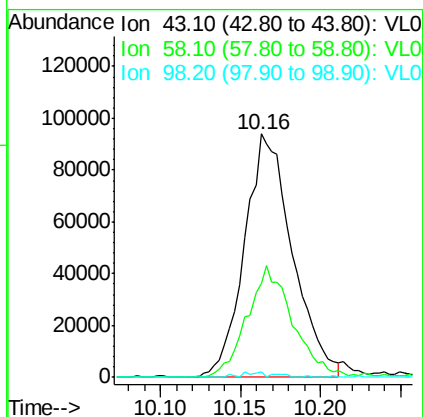
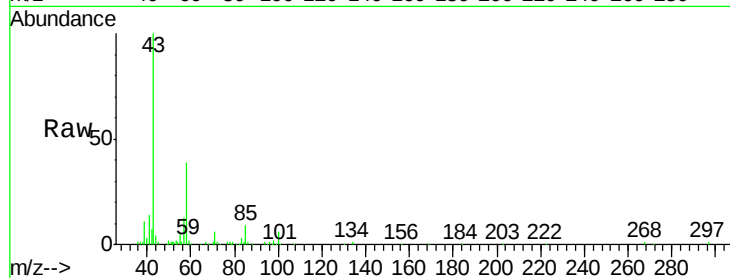
#51  
2-Hexanone  
Concen: 0.901 ppbv  
RT: 10.16 min Scan# 2294  
Delta R.T. 0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 44.6  | 39.1  | 58.7  |
| 98      | 1.6   | 0.3   | 0.5#  |

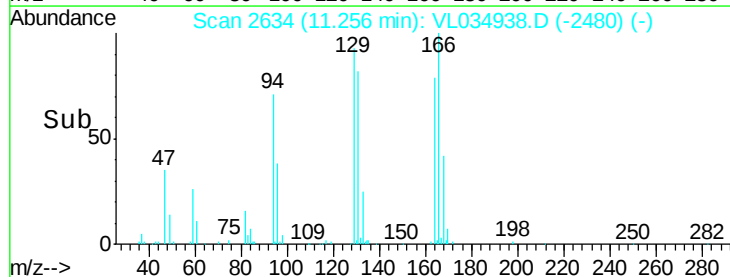
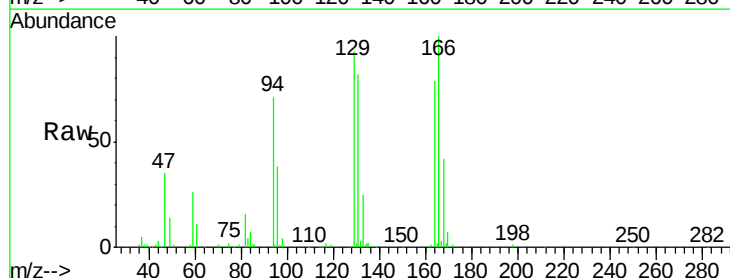
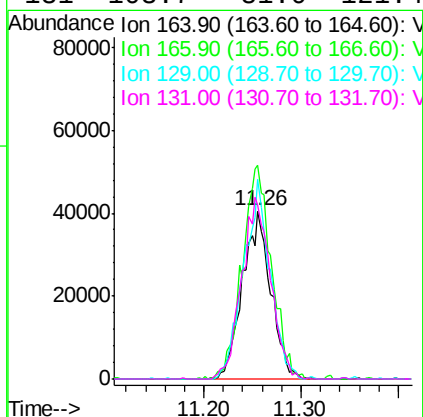
Manual Integrations  
APPROVED

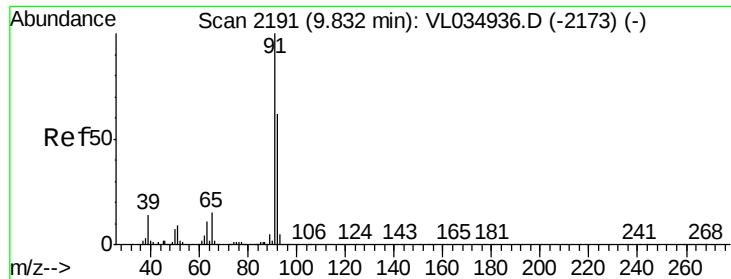
MMDadoda  
5/7/2020 2:29:35 PM



#52  
Tetrachloroethene  
Concen: 0.839 ppbv m  
RT: 11.26 min Scan# 2634  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 127.1 | 100.7 | 151.1 |
| 129     | 118.6 | 83.0  | 124.4 |
| 131     | 103.7 | 81.0  | 121.4 |





#53

Toluene

Concen: 0.871 ppbv

RT: 9.83 min Scan# 2191

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 91 Resp: 247108

Ion Ratio Lower Upper

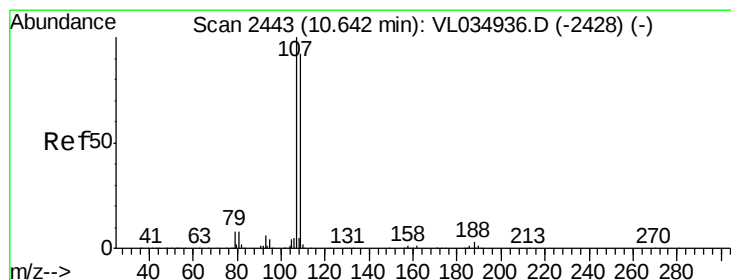
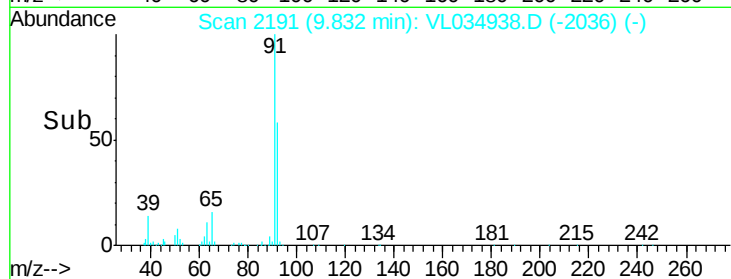
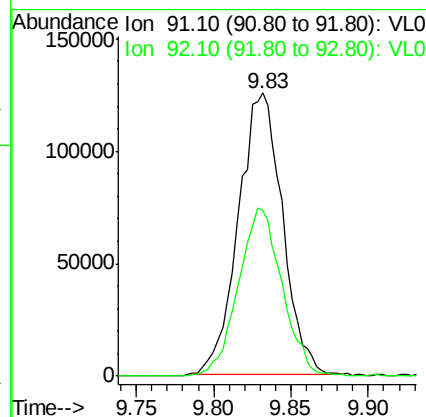
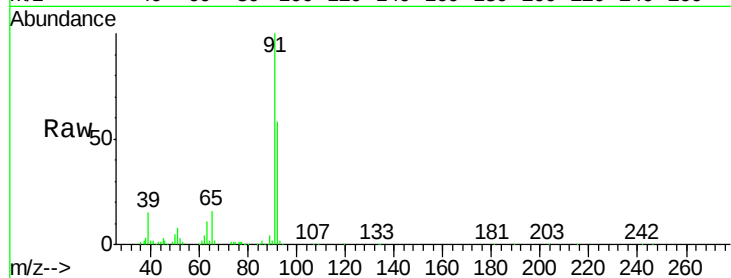
91 100

92 59.3 48.6 73.0

Manual Integrations  
APPROVED

MMDadoda

5/7/2020 2:29:35 PM



#54

1,2-Dibromoethane

Concen: 0.996 ppbv

RT: 10.64 min Scan# 2442

Delta R.T. -0.00 min

Lab File: VL034938.D

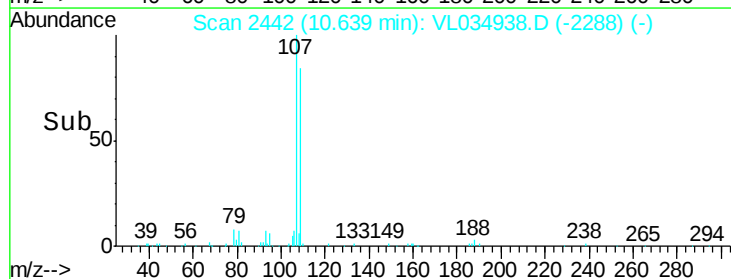
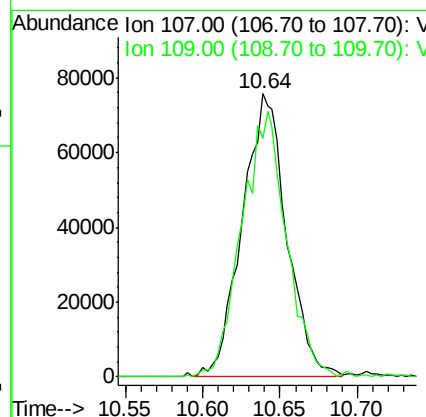
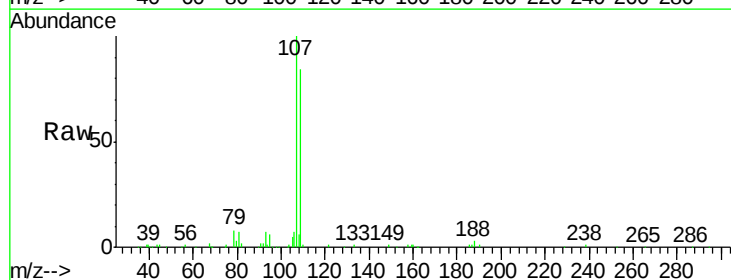
Acq: 6 May 2020 11:26

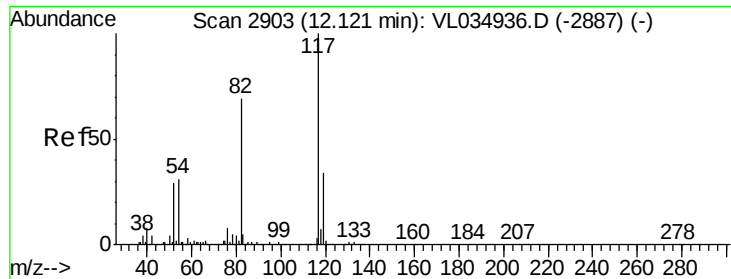
Tgt Ion: 107 Resp: 149791

Ion Ratio Lower Upper

107 100

109 84.3 73.2 109.8





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.12 min Scan# 2903

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion:117 Resp: 2586167

Ion Ratio Lower Upper

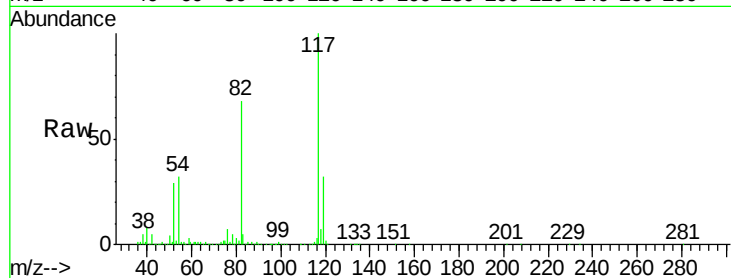
117 100

82 67.7 53.1 79.7

119 35.0 26.7 40.1

Manual Integrations  
APPROVED

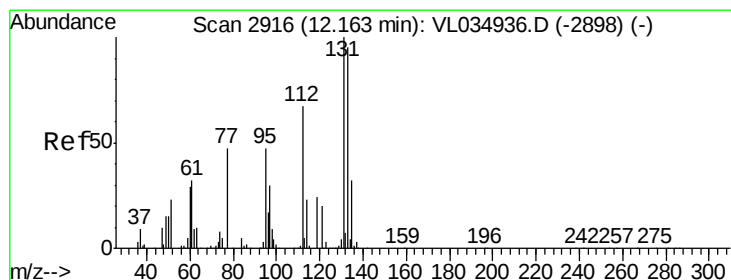
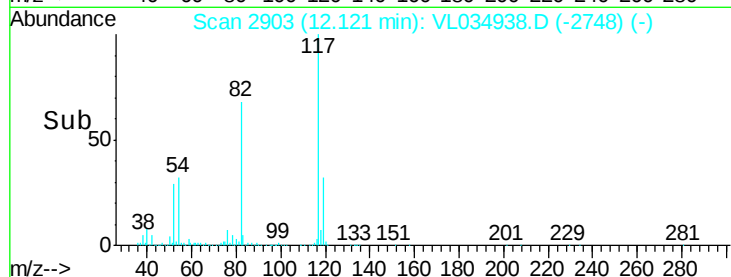
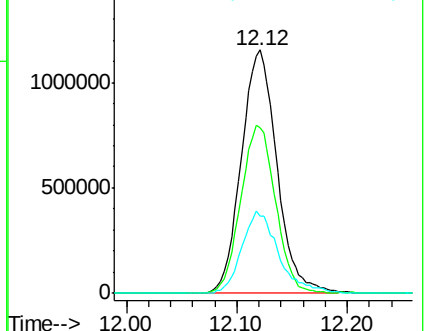
MMDadoda  
5/7/2020 2:29:35 PM



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): V

Ion 119.10 (118.80 to 119.80): V



#56

1,1,1,2-Tetrachloroethane

Concen: 1.111 ppbv m

RT: 12.16 min Scan# 2914

Delta R.T. -0.01 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

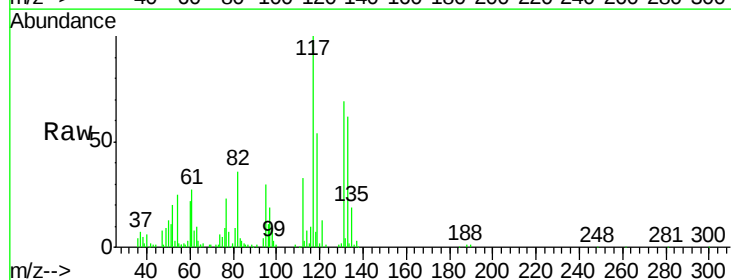
Tgt Ion:131 Resp: 129026

Ion Ratio Lower Upper

131 100

133 0.0 77.7 116.5#

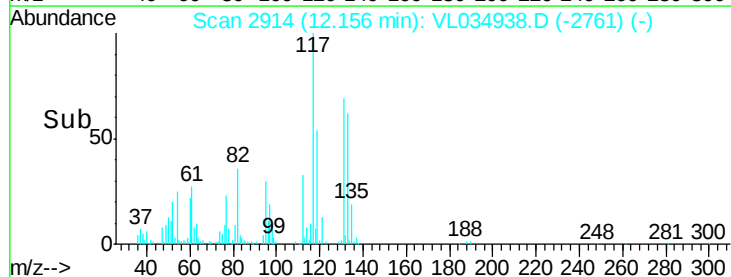
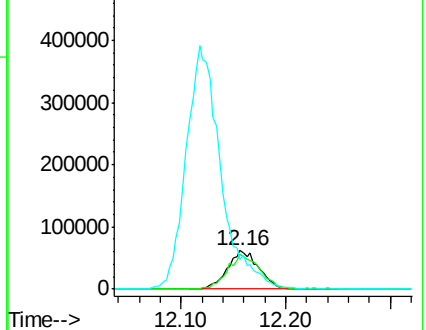
119 0.0 49.8 74.6#

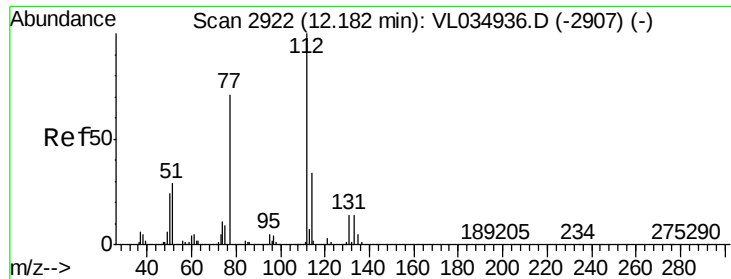


Abundance Ion 131.00 (130.70 to 131.70): V

Ion 133.00 (132.70 to 133.70): V

Ion 119.00 (118.70 to 119.70): V





#57

Chlorobenzene

Concen: 1.133 ppbv

RT: 12.18 min Scan# 2921

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

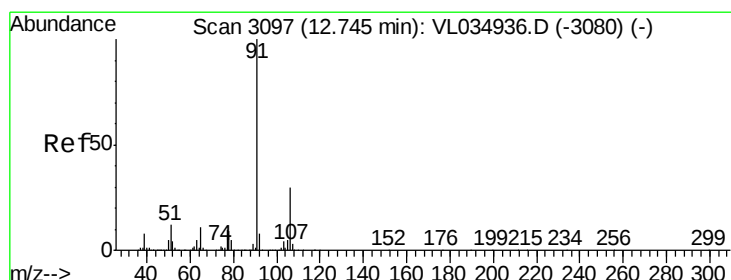
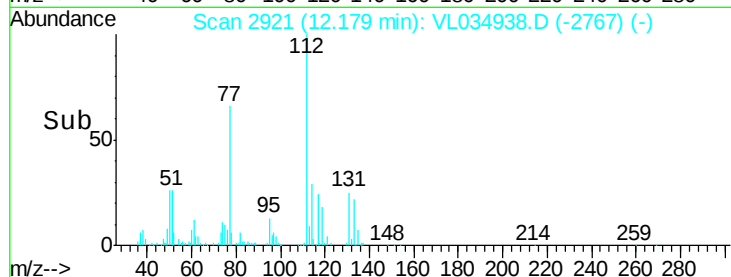
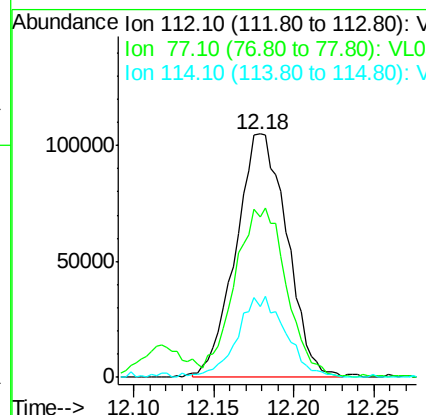
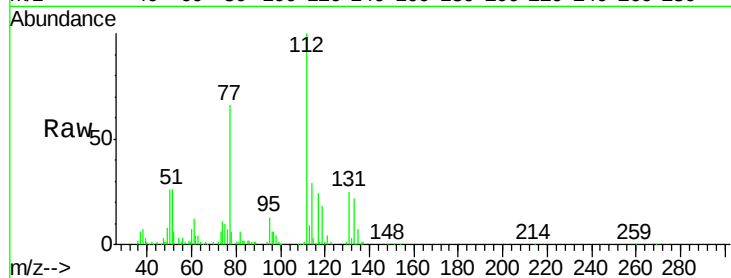
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 112   | Resp: | 229217 |
| Ion Ratio | Lower | Upper |        |
| 112       | 100   |       |        |
| 77        | 65.3  | 57.0  | 85.6   |
| 114       | 28.7  | 30.8  | 37.6#  |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



#58

Ethyl Benzene

Concen: 0.981 ppbv

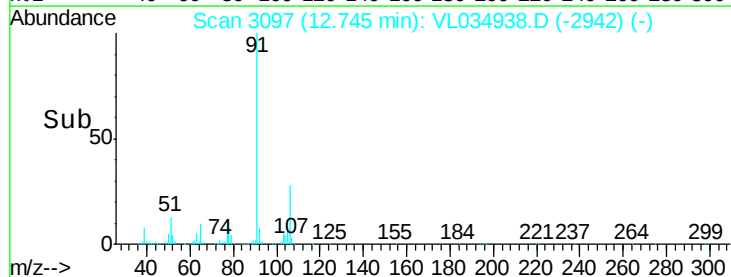
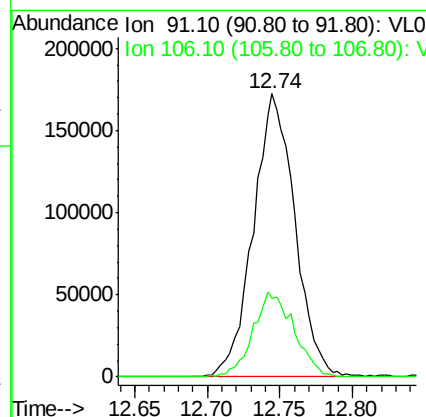
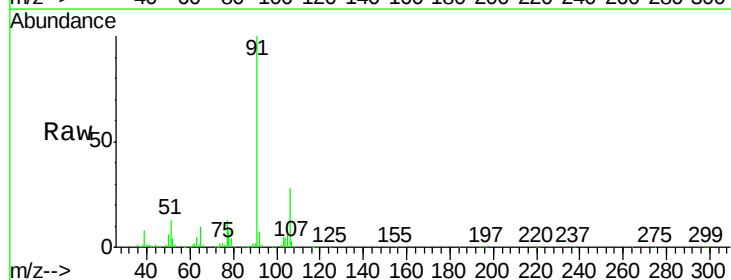
RT: 12.74 min Scan# 3097

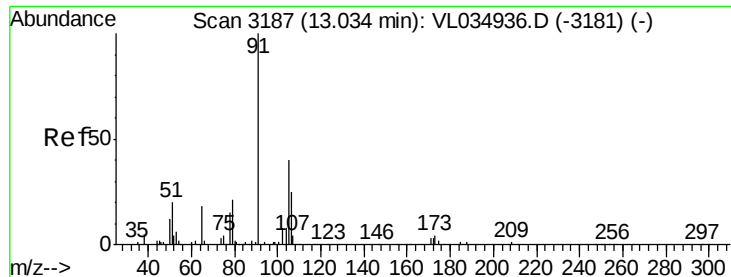
Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 91    | Resp: | 343565 |
| Ion Ratio | Lower | Upper |        |
| 91        | 100   |       |        |
| 106       | 27.8  | 24.2  | 36.4   |





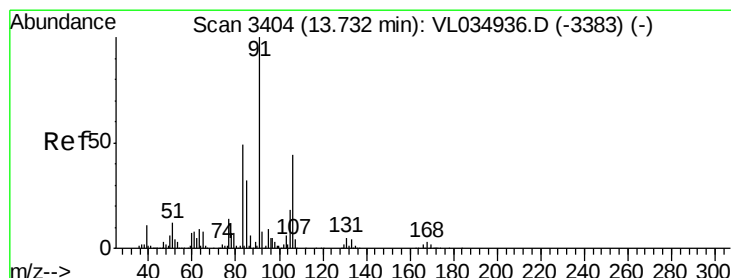
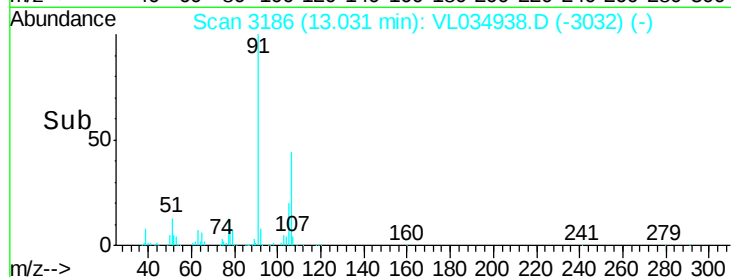
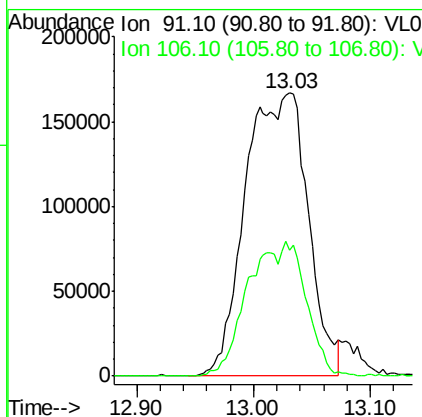
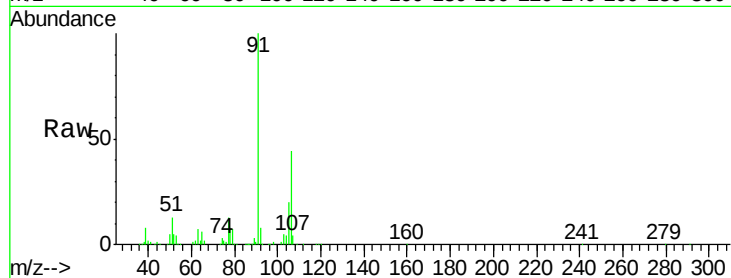
#59  
m/p-Xylene  
Concen: 2.121 ppbv m  
RT: 13.03 min Scan# 3186  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

Tot Ion: 91 Resp: 622241  
Ion Ratio Lower Upper  
91 100  
106 44.3 66.0 99.0#

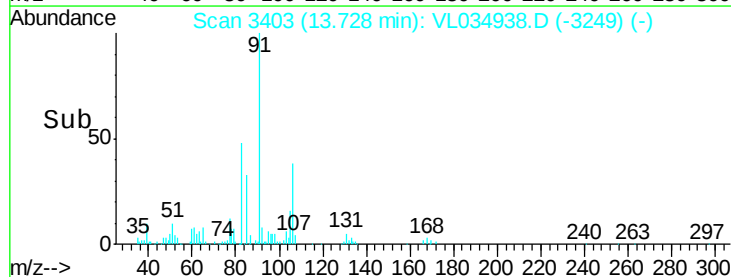
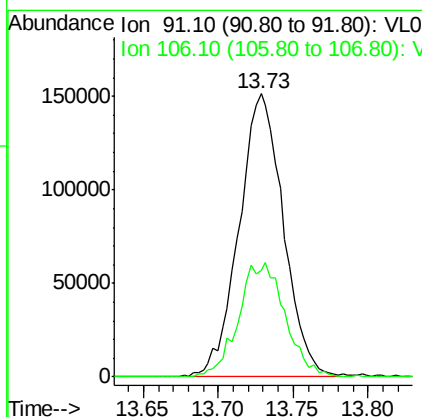
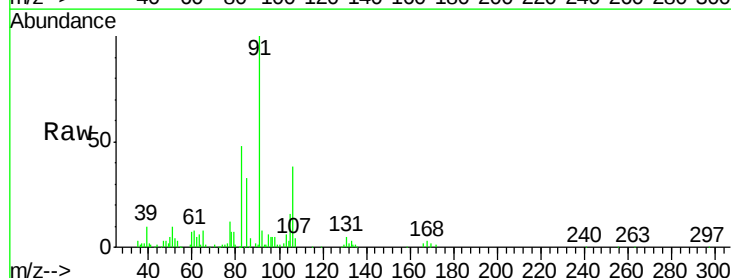
Manual Integrations  
APPROVED

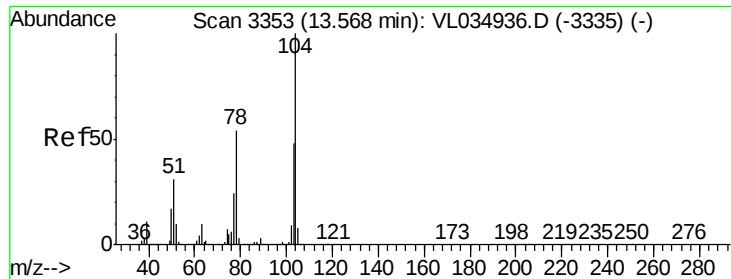
MMDadoda  
5/7/2020 2:29:35 PM



#60  
o-Xylene  
Concen: 1.082 ppbv  
RT: 13.73 min Scan# 3403  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Tgt Ion: 91 Resp: 309904  
Ion Ratio Lower Upper  
91 100  
106 42.8 21.9 65.5





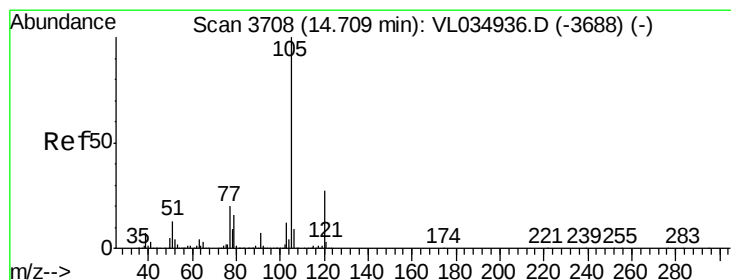
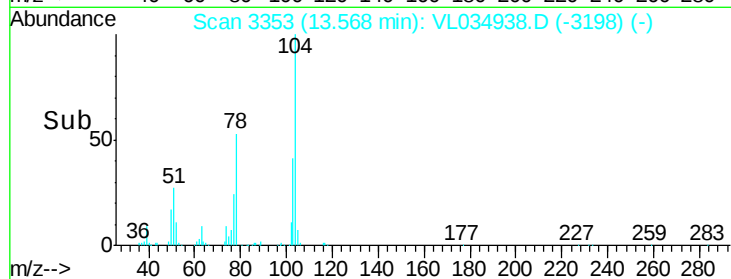
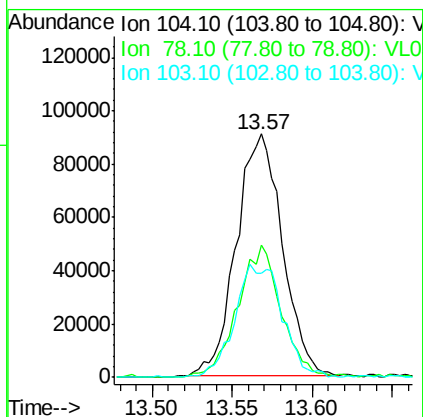
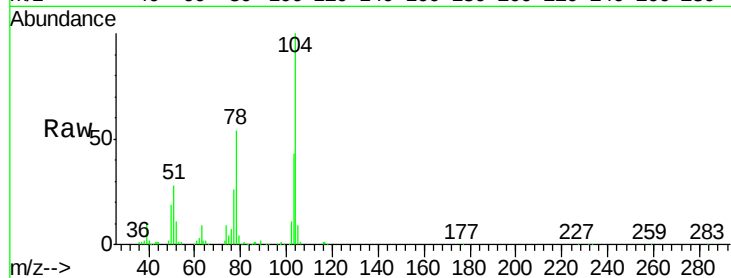
#61  
Stvrene  
Concen: 0.887 ppbv  
RT: 13.57 min Scan# 3353  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 52.1  | 43.7  | 65.5  |
| 103     | 48.4  | 38.8  | 58.2  |

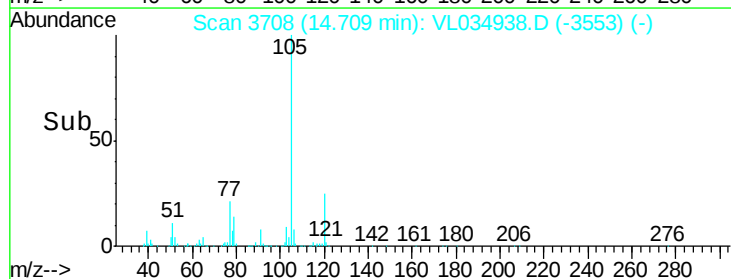
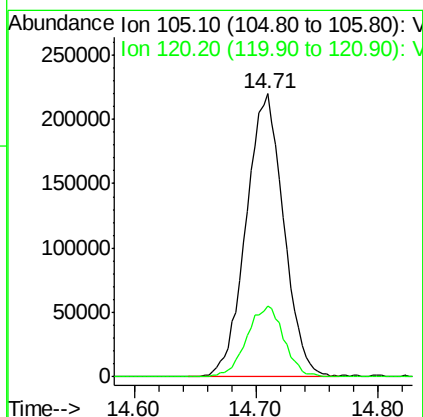
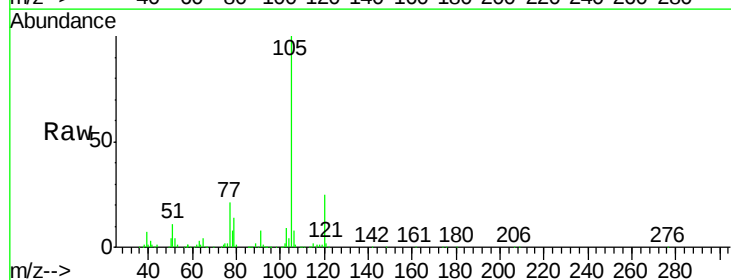
Manual Integrations  
APPROVED

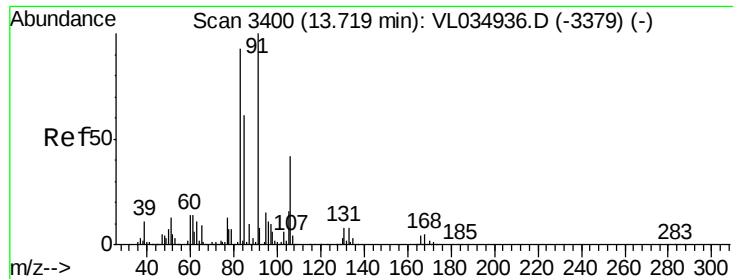
MMDadoda  
5/7/2020 2:29:35 PM



#62  
Isopropylbenzene  
Concen: 1.078 ppbv  
RT: 14.71 min Scan# 3708  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 24.6  | 20.6  | 31.0  |





#63

1,1,2,2-Tetrachloroethane

Concen: 1.222 ppbv

RT: 13.72 min Scan# 3400

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

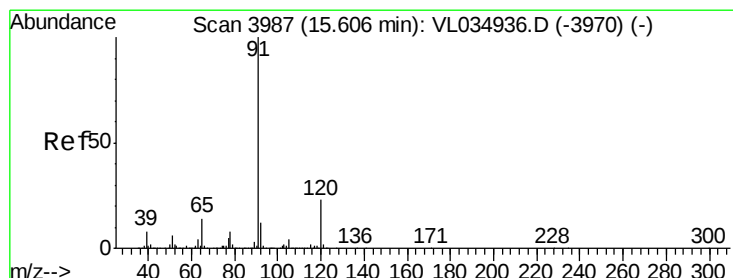
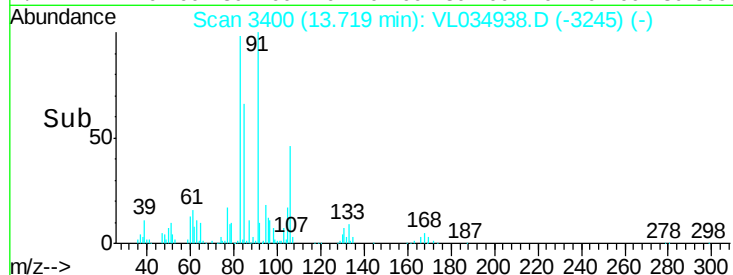
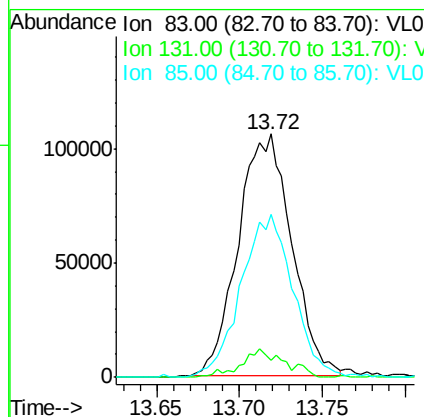
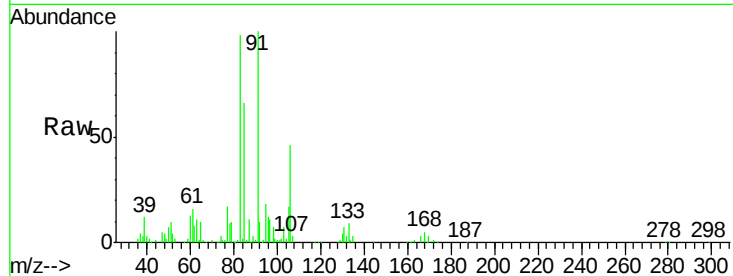
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 83    | Resp: | 237757 |
| Ion Ratio | Lower | Upper |        |
| 83        | 100   |       |        |
| 131       | 9.4   | 4.7   | 14.0   |
| 85        | 66.0  | 32.5  | 97.4   |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



#64

n-propylbenzene

Concen: 1.018 ppbv

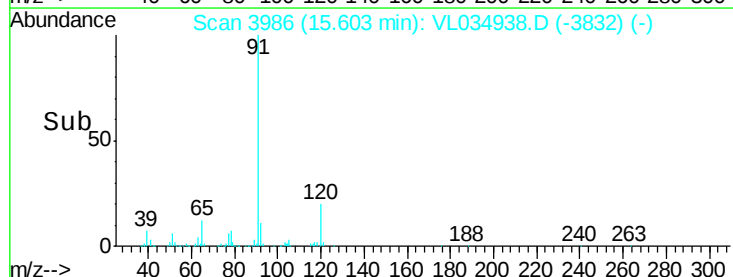
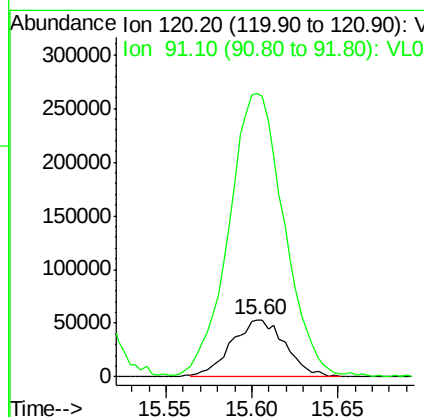
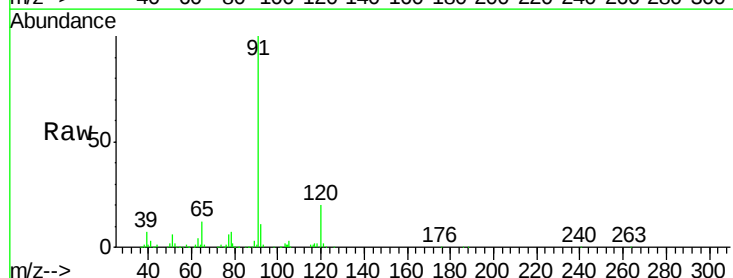
RT: 15.60 min Scan# 3986

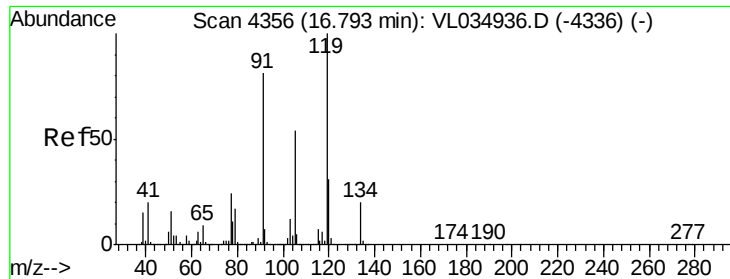
Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 120   | Resp: | 114810 |
| Ion Ratio | Lower | Upper |        |
| 120       | 100   |       |        |
| 91        | 512.3 | 373.5 | 560.3  |





#65

tert-Butylbenzene

Concen: 1.057 ppbv

RT: 16.79 min Scan# 4356

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

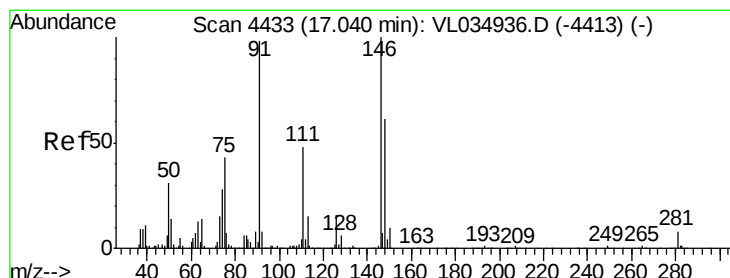
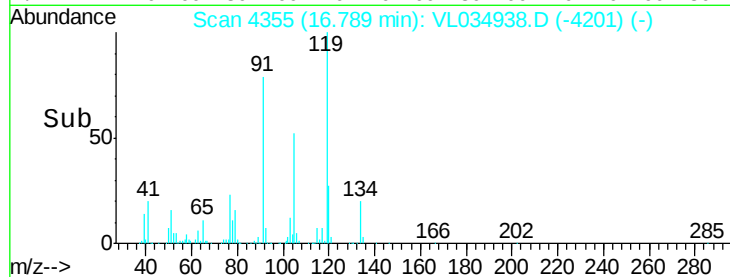
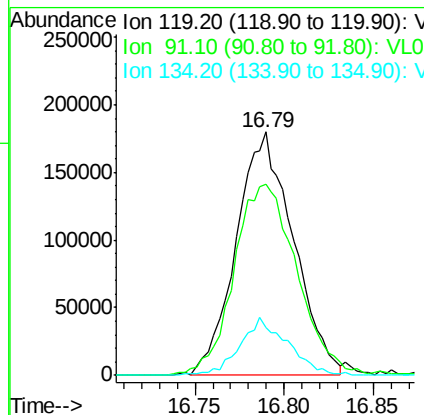
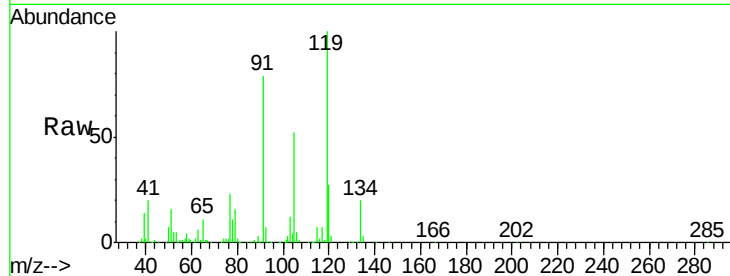
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 119   | Resp: | 400125 |
| Ion Ratio | Lower | Upper |        |
| 119       | 100   |       |        |
| 91        | 87.7  | 67.5  | 101.3  |
| 134       | 20.1  | 16.1  | 24.1   |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



#66

Benzyl Chloride

Concen: 0.716 ppbv

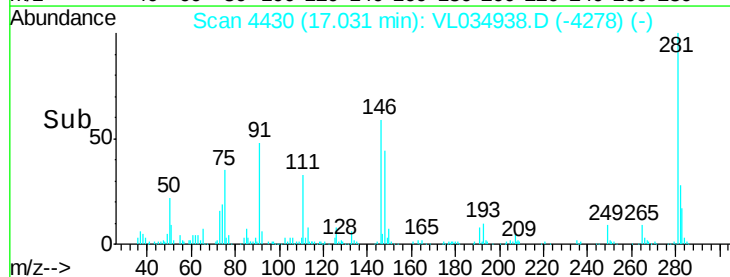
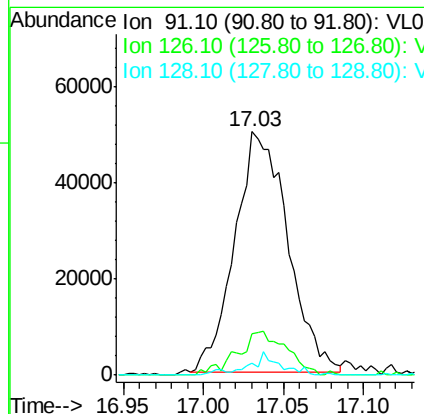
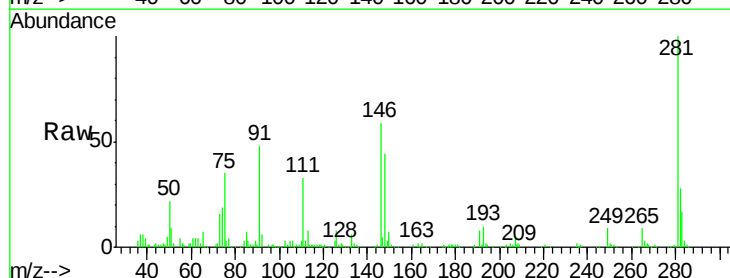
RT: 17.03 min Scan# 4430

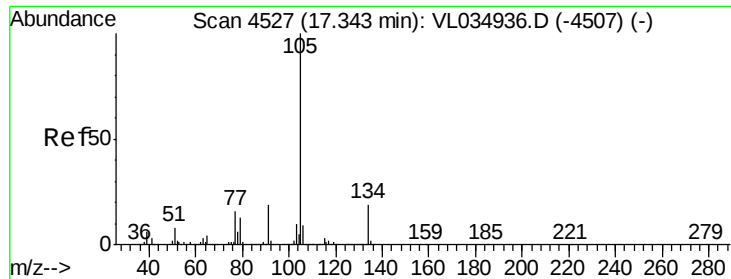
Delta R.T. -0.01 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 91    | Resp: | 112984 |
| Ion Ratio | Lower | Upper |        |
| 91        | 100   |       |        |
| 126       | 17.0  | 13.8  | 20.6   |
| 128       | 5.8   | 4.3   | 6.5    |





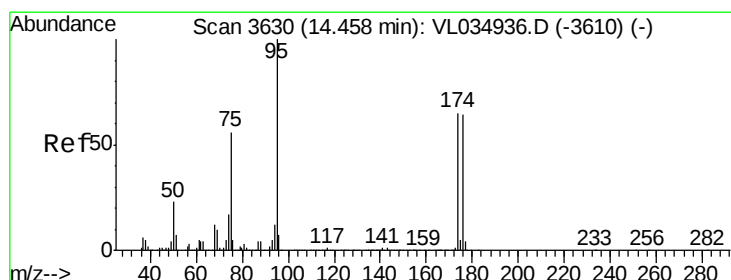
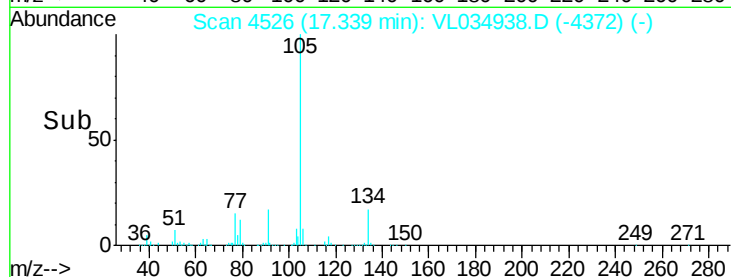
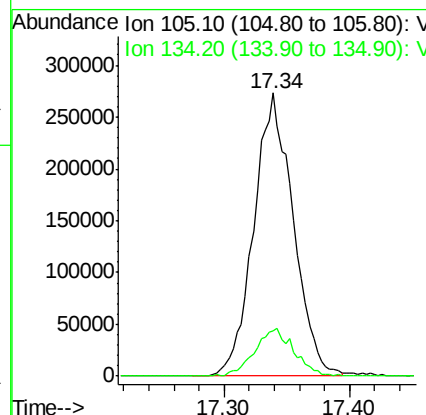
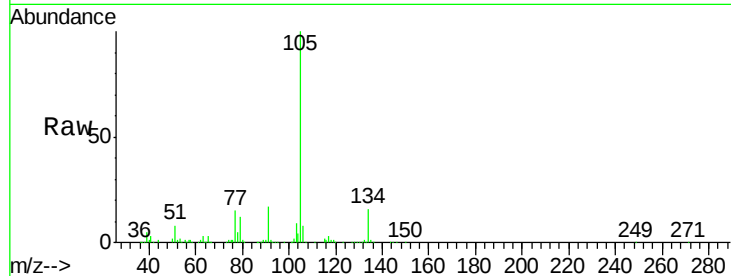
#67  
 sec-Butylbenzene  
 Concen: 1.139 ppbv  
 RT: 17.34 min Scan# 4526  
 Delta R.T. -0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 134     | 16.6  | 14.8  | 22.2  |

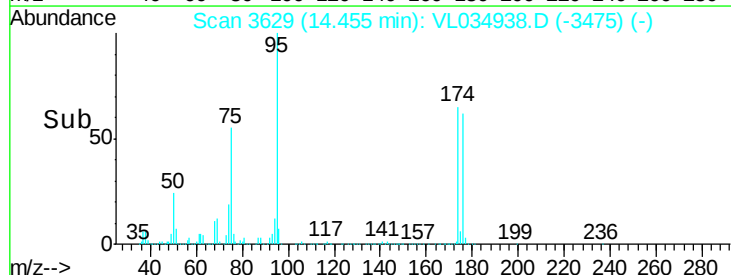
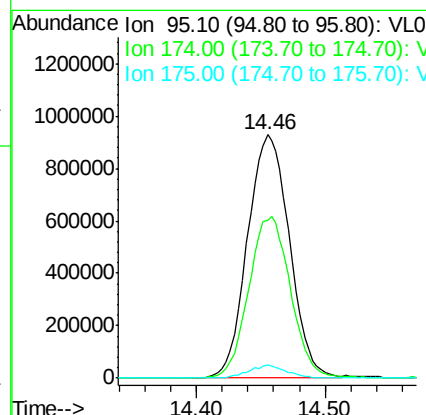
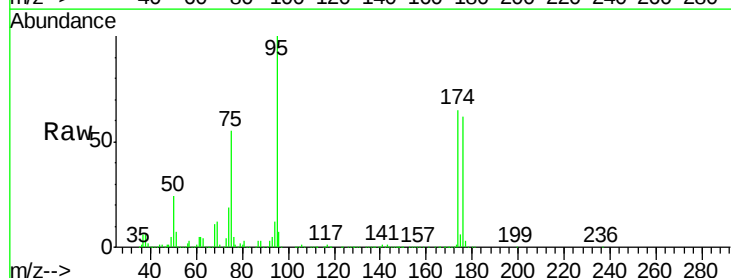
Manual Integrations  
 APPROVED

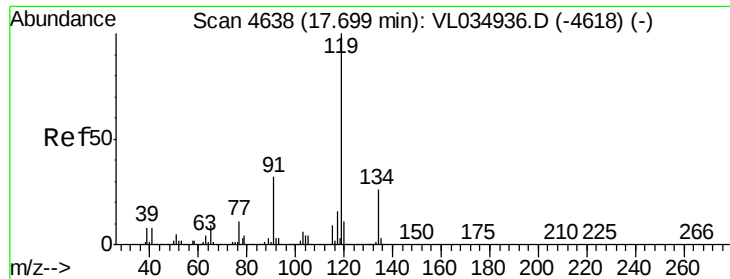
MMDadoda  
 5/7/2020 2:29:35 PM



#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.423 ppbv  
 RT: 14.46 min Scan# 3629  
 Delta R.T. -0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 66.4  | 51.5  | 77.3  |
| 175     | 4.9   | 3.8   | 5.8   |





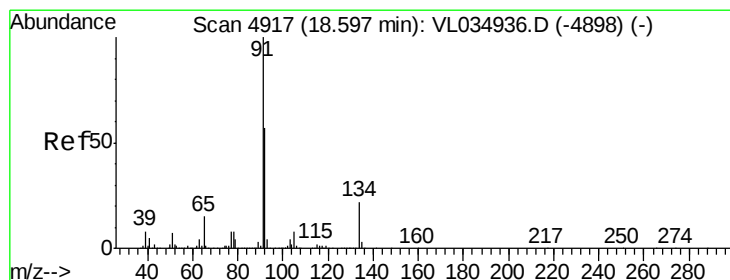
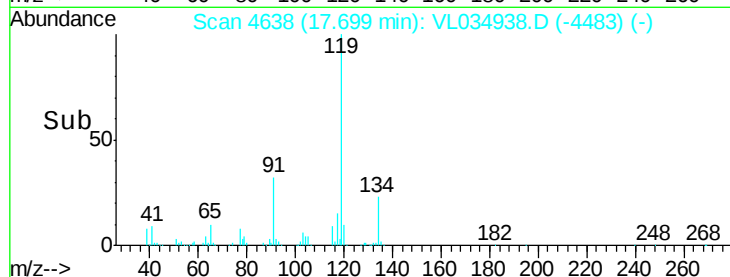
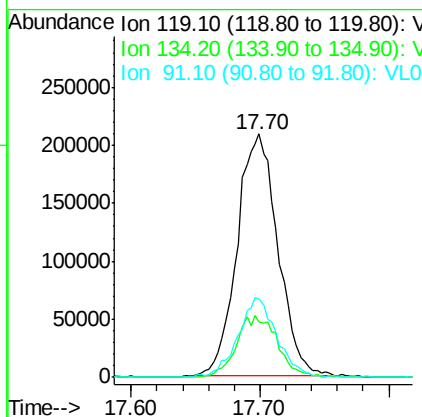
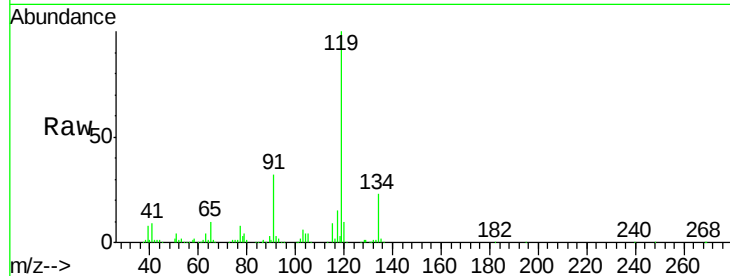
#69  
p-Isopropyltoluene  
Concen: 1.042 ppbv  
RT: 17.70 min Scan# 4638  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 119     | 100   | 458992 |       |       |
| 134     | 25.7  | 20.3   | 30.5  |       |
| 91      | 31.7  | 24.6   | 36.8  |       |

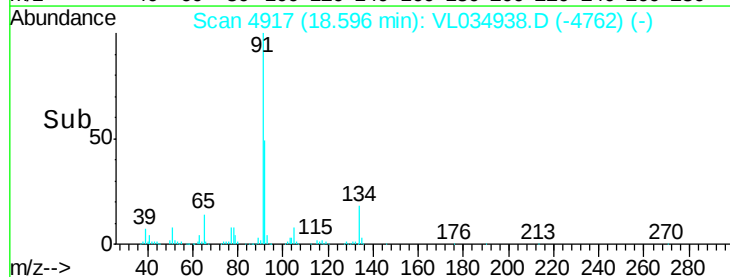
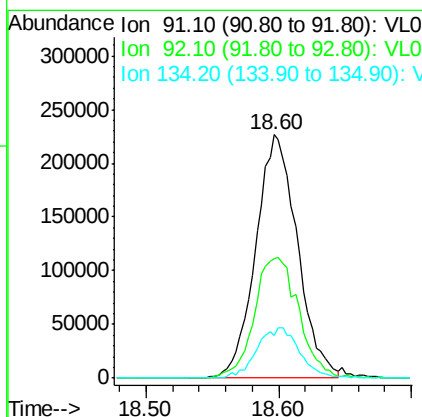
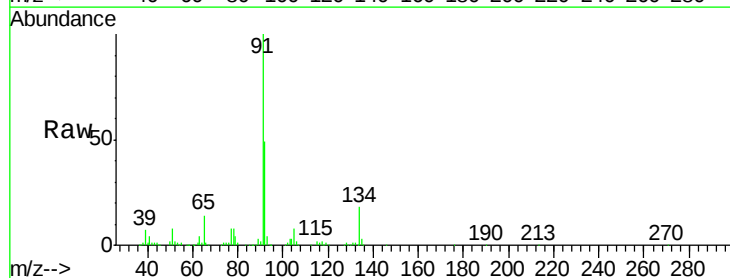
Manual Integrations  
APPROVED

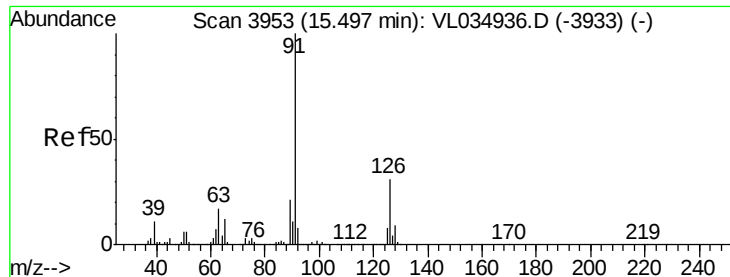
MMDadoda  
5/7/2020 2:29:35 PM



#70  
n-Butylbenzene  
Concen: 1.105 ppbv  
RT: 18.60 min Scan# 4917  
Delta R.T. -0.00 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 91      | 100   | 496285 |       |       |
| 92      | 53.0  | 44.4   | 66.6  |       |
| 134     | 21.3  | 18.0   | 27.0  |       |





#71

2-Chlorotoluene

Concen: 1.038 ppbv

RT: 15.50 min Scan# 3953

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 91 Resp: 340545

Ion Ratio Lower Upper

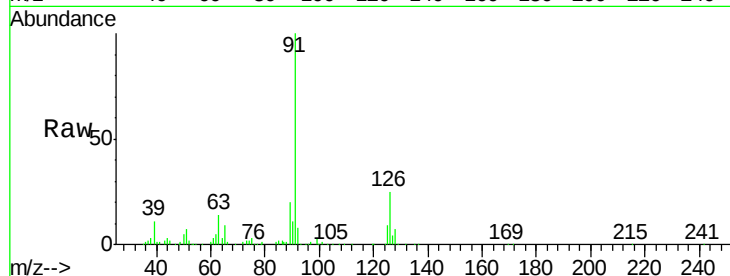
91 100

126 29.2 12.0 47.8

Manual Integrations  
APPROVED

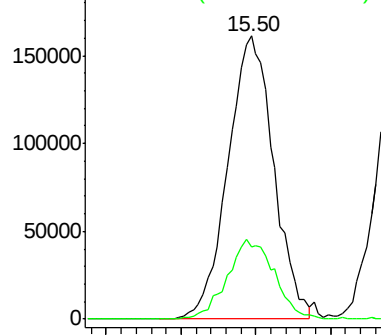
MMDadoda

5/7/2020 2:29:35 PM

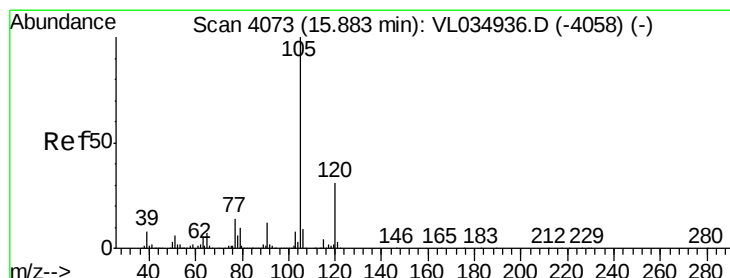
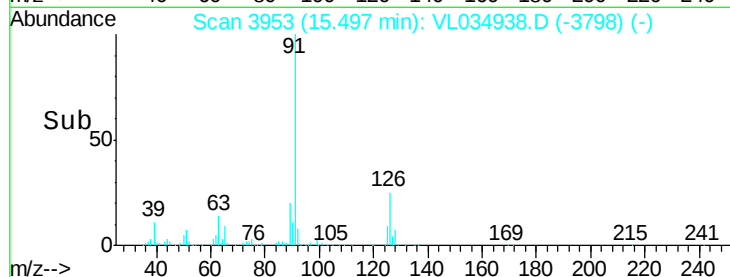


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V



Time-->



#72

4-Ethyltoluene

Concen: 1.005 ppbv m

RT: 15.89 min Scan# 4074

Delta R.T. 0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Tgt Ion:105 Resp: 339993

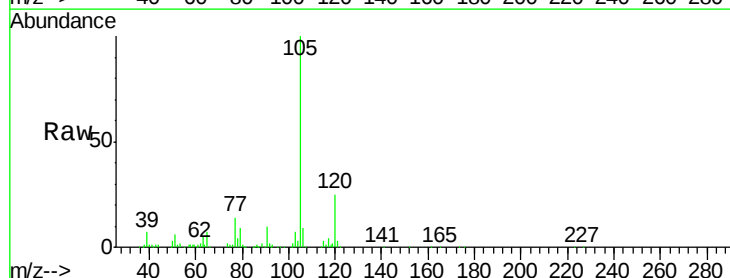
Ion Ratio Lower Upper

105 100

120 28.3 23.8 35.8

91 13.5 10.6 15.8

77 14.7 11.6 17.4

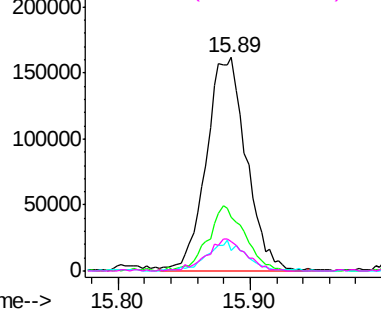


Abundance Ion 105.10 (104.80 to 105.80): V

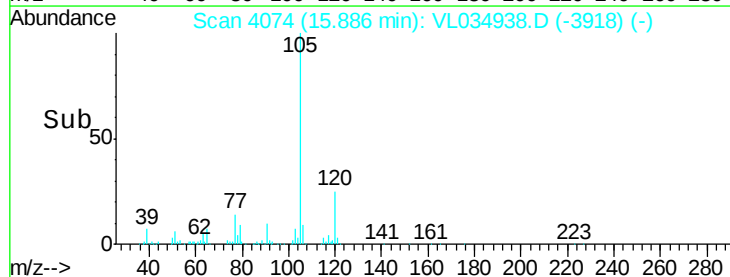
Ion 120.20 (119.90 to 120.90): V

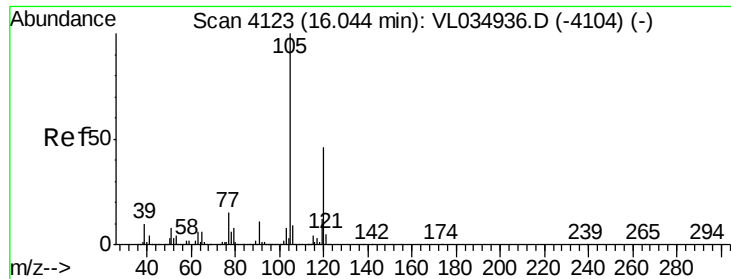
Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



Time-->





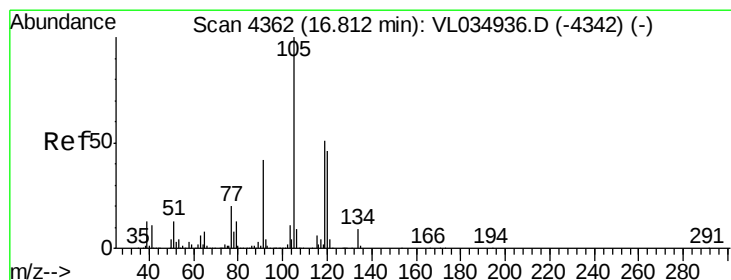
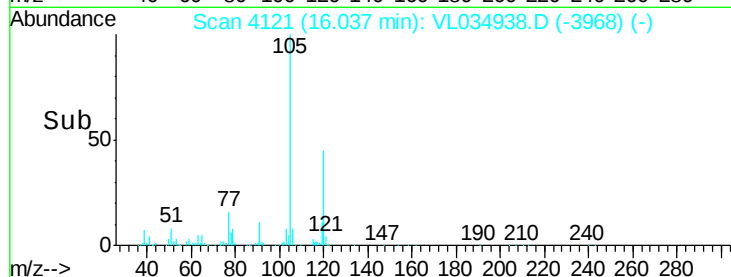
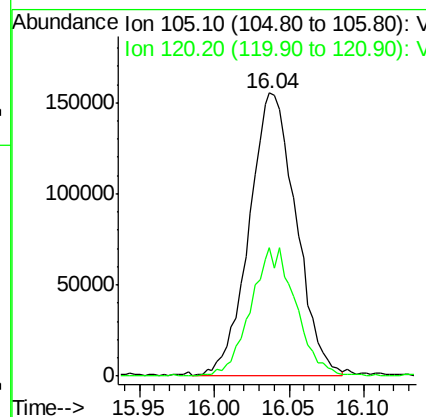
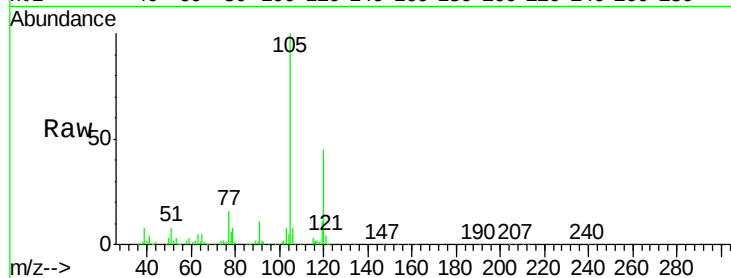
#73  
 1,3,5-Trimethylbenzene  
 Concen: 1.057 ppbv  
 RT: 16.04 min Scan# 4121  
 Delta R.T. -0.01 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 45.6  | 36.4  | 54.6  |

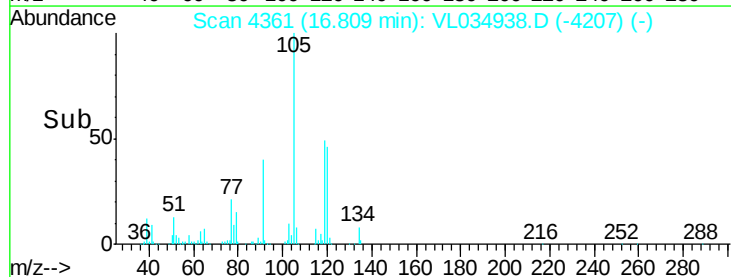
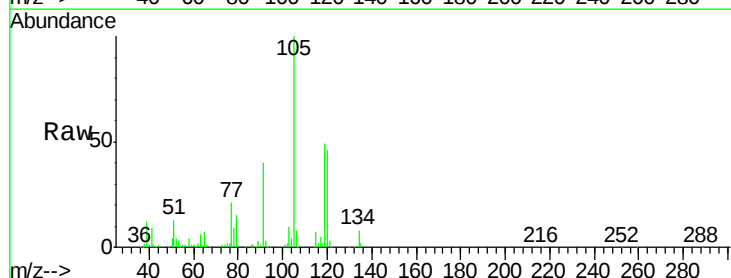
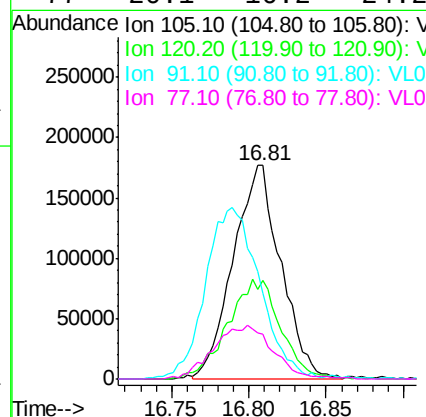
Manual Integrations  
 APPROVED

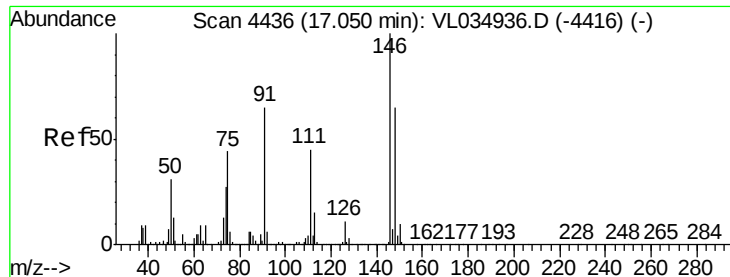
MMDadoda  
 5/7/2020 2:29:35 PM



#74  
 1,2,4-Trimethylbenzene  
 Concen: 1.152 ppbv  
 RT: 16.81 min Scan# 4361  
 Delta R.T. -0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 46.0  | 36.8  | 55.2  |
| 91      | 39.3  | 35.4  | 53.0  |
| 77      | 20.1  | 16.2  | 24.2  |





#75

1,3-Dichlorobenzene

Concen: 1.093 ppbv

RT: 17.05 min Scan# 4435

Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

Instrument :

MSVOA\_L

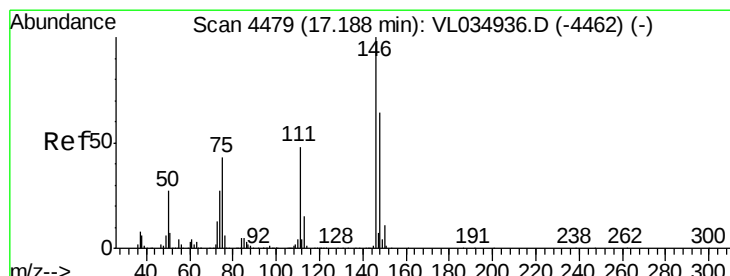
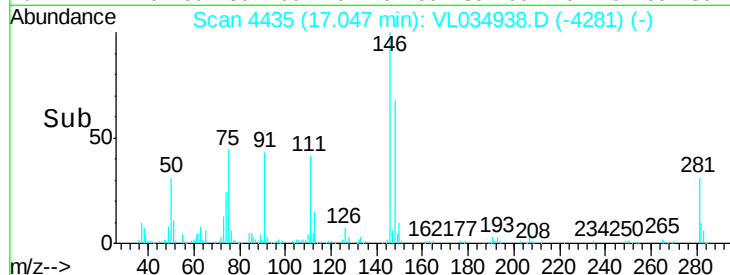
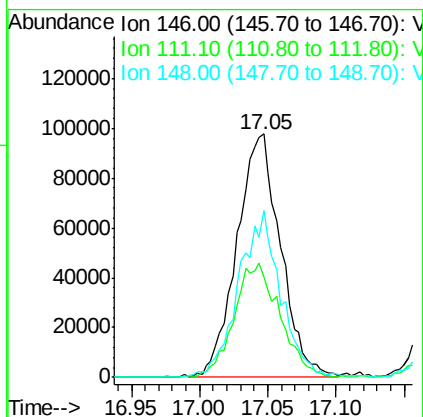
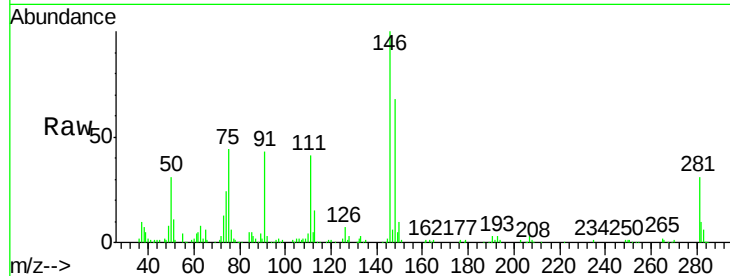
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 146   | Resp: | 215078 |
| Ion Ratio | Lower | Upper |        |
| 146       | 100   |       |        |
| 111       | 49.8  | 24.0  | 72.0   |
| 148       | 66.7  | 32.6  | 97.7   |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:29:35 PM



#76

1,4-Dichlorobenzene

Concen: 1.054 ppbv

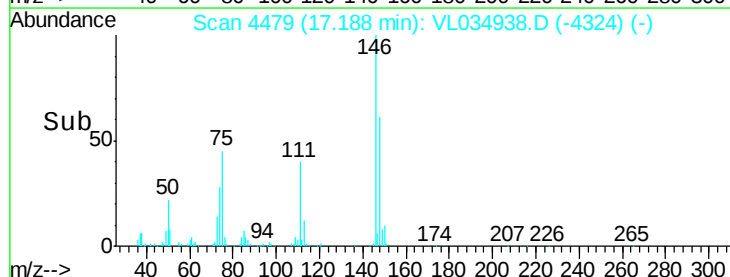
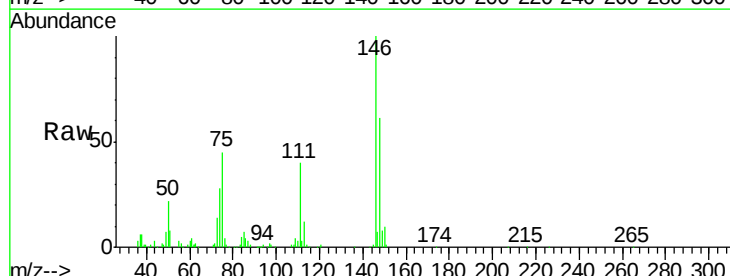
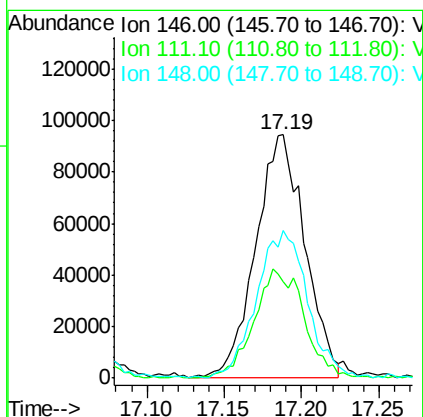
RT: 17.19 min Scan# 4479

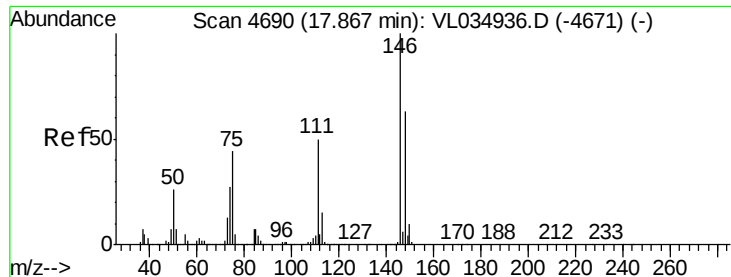
Delta R.T. -0.00 min

Lab File: VL034938.D

Acq: 6 May 2020 11:26

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 146   | Resp: | 206914 |
| Ion Ratio | Lower | Upper |        |
| 146       | 100   |       |        |
| 111       | 46.8  | 23.7  | 71.1   |
| 148       | 63.8  | 32.6  | 97.8   |





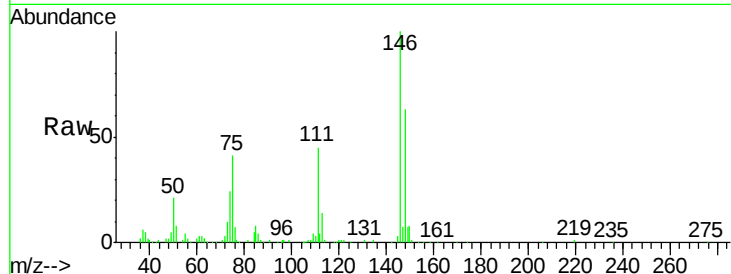
#77  
 1,2-Dichlorobenzene  
 Concen: 1.089 ppbv  
 RT: 17.86 min Scan# 4689  
 Delta R.T. -0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 48.4  | 24.5  | 73.5  |
| 148     | 63.5  | 31.7  | 95.1  |

Manual Integrations  
 APPROVED

MMDadoda  
 5/7/2020 2:29:35 PM

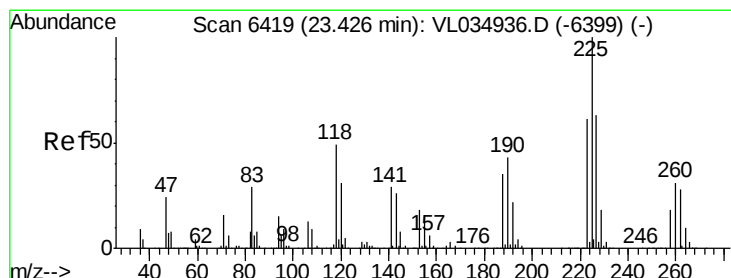
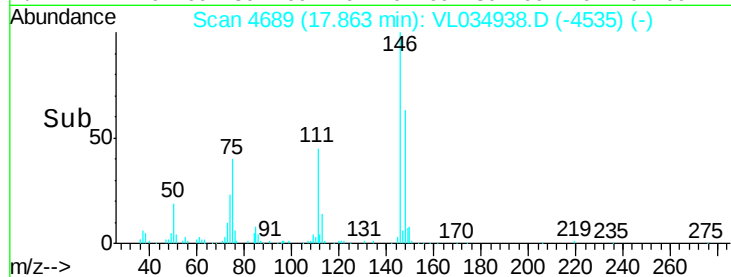
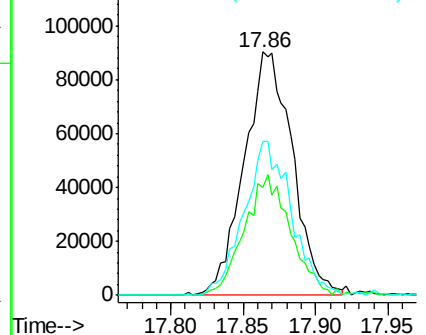


Abundance

Ion 146.00 (145.70 to 146.70): V

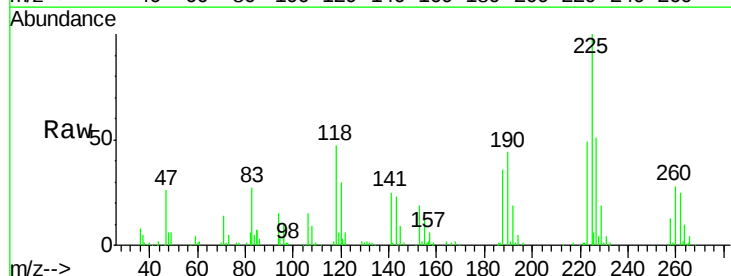
Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#78  
 Hexachloro-1,3-Butadiene  
 Concen: 1.122 ppbv  
 RT: 23.43 min Scan# 6419  
 Delta R.T. -0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 60.8  | 49.8  | 74.8  |
| 227     | 63.0  | 51.8  | 77.6  |

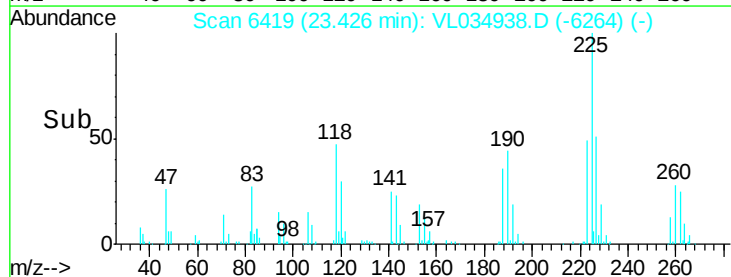
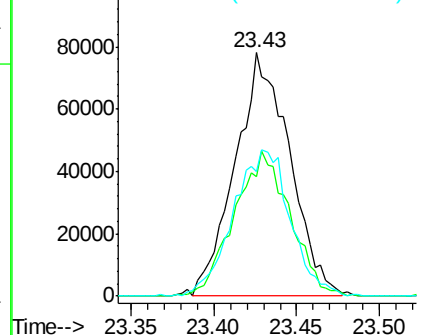


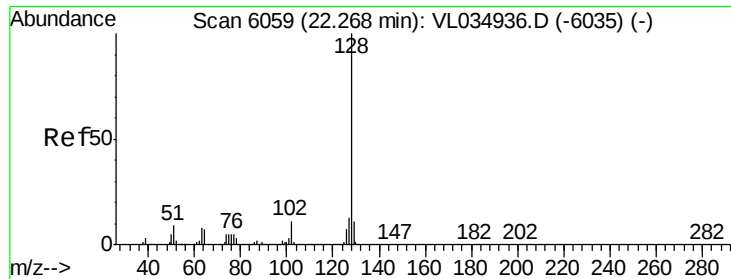
Abundance

Ion 224.90 (224.60 to 225.60): V

Ion 222.90 (222.60 to 223.60): V

Ion 226.90 (226.60 to 227.60): V





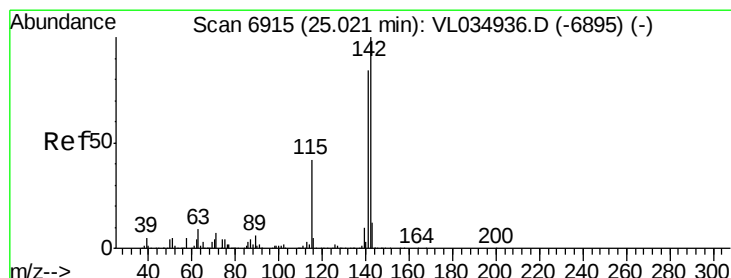
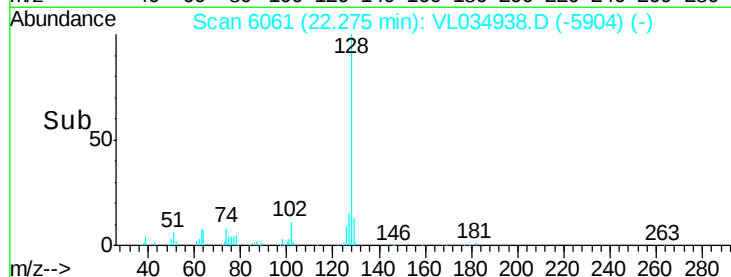
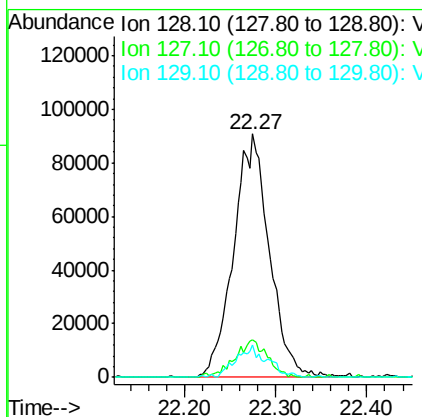
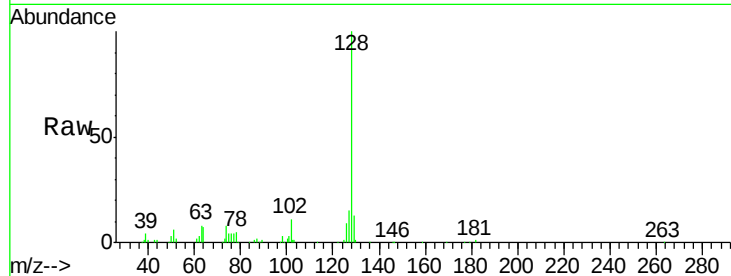
#79  
Naphthalene  
Concen: 0.976 ppbv m  
RT: 22.27 min Scan# 6061  
Delta R.T. 0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 128     | 100   | 248266 |       |       |
| 127     | 15.3  |        | 10.5  | 15.7  |
| 129     | 13.3  |        | 9.0   | 13.4  |

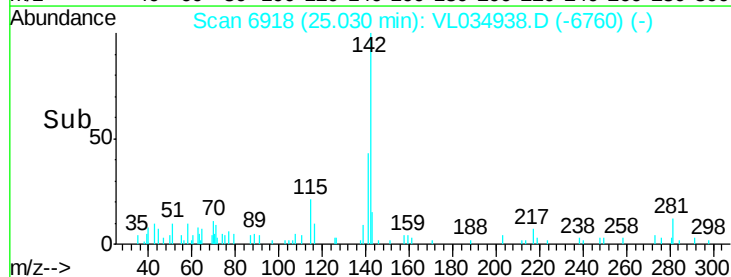
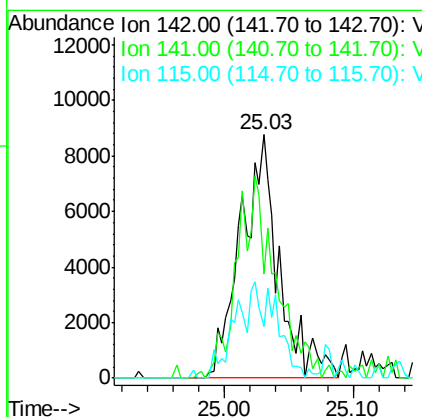
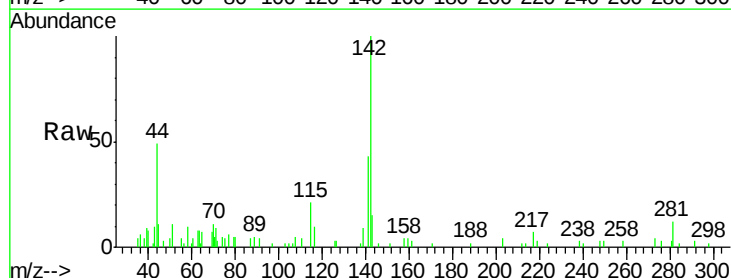
Manual Integrations  
APPROVED

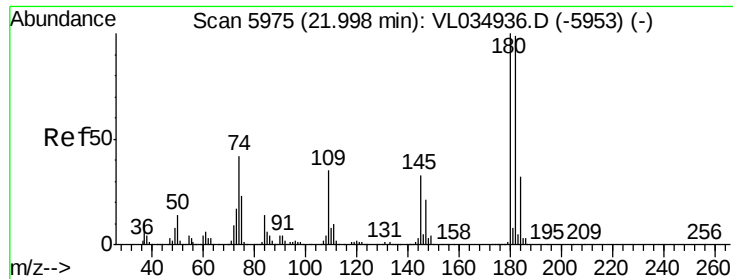
MMDadoda  
5/7/2020 2:29:35 PM



#80  
Naphthalene, 2-methyl-  
Concen: 0.270 ppbv  
RT: 25.03 min Scan# 6918  
Delta R.T. 0.01 min  
Lab File: VL034938.D  
Acq: 6 May 2020 11:26

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 142     | 100   | 17947 |       |       |
| 141     | 84.5  |       | 68.6  | 102.8 |
| 115     | 42.5  |       | 33.9  | 50.9  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 1.001 ppbv m  
 RT: 22.00 min Scan# 5976  
 Delta R.T. 0.00 min  
 Lab File: VL034938.D  
 Acq: 6 May 2020 11:26

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 180     | 100   |            |       |
| 182     | 94.9  | 77.5       | 116.3 |
| 184     | 30.5  | 24.8       | 37.2  |

Manual Integrations  
 APPROVED

MMDadoda  
 5/7/2020 2:29:35 PM

