

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL022620\  
 Data File : VL034692.D  
 Acq On : 26 Feb 2020 17:52  
 Operator : SY/AP  
 Sample : L1664-02DUP  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 CR-104-BRWDUP

Manual Integrations  
 APPROVED

MMDadoda  
 2/27/2020 5:19:56 PM

Quant Time: Feb 27 15:47:50 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL022620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Feb 27 2020  
 QLast Update : Wed Feb 26 06:58:15 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 886914   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 1825197  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.12 | 117  | 1819357  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 14.46  | 95    | 1534854  | 10.29    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.90% |

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 3.02  | 85   | 33786m   | 0.241  | ppbv   |        |
| 3) Chlorodifluoromethane   | 2.95  | 51   | 32423m   | 0.339  | ppbv   |        |
| 4) Chloromethane           | 3.11  | 50   | 29687    | 0.554  | ppbv # | 88     |
| 9) Propene                 | 2.99  | 41   | 61573m   | 1.539  | ppbv   |        |
| 11) Trichlorofluoromethane | 3.93  | 101  | 34311    | 0.280  | ppbv   | 87     |
| 13) Ethanol                | 3.58  | 45   | 293084m  | 23.188 | ppbv   |        |
| 15) Acetone                | 3.83  | 43   | 466724   | 4.618  | ppbv   | 96     |
| 19) Isopropyl Alcohol      | 3.96  | 45   | 47431    | 0.788  | ppbv # | 82     |
| 20) Methylene Chloride     | 4.33  | 84   | 104600   | 2.783  | ppbv   | 99     |
| 26) Hexane                 | 5.68  | 57   | 145006   | 1.759  | ppbv # | 41     |
| 35) Carbon Tetrachloride   | 7.03  | 117  | 9256m    | 0.076  | ppbv   |        |
| 36) Benzene                | 6.90  | 78   | 50071    | 0.318  | ppbv   | 99     |
| 44) 2,2,4-Trimethylpentane | 7.89  | 57   | 26682m   | 0.097  | ppbv   |        |
| 53) Toluene                | 9.83  | 91   | 544169   | 3.246  | ppbv   | 99     |
| 59) m/p-Xylene             | 13.00 | 91   | 33864m   | 0.176  | ppbv   |        |

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

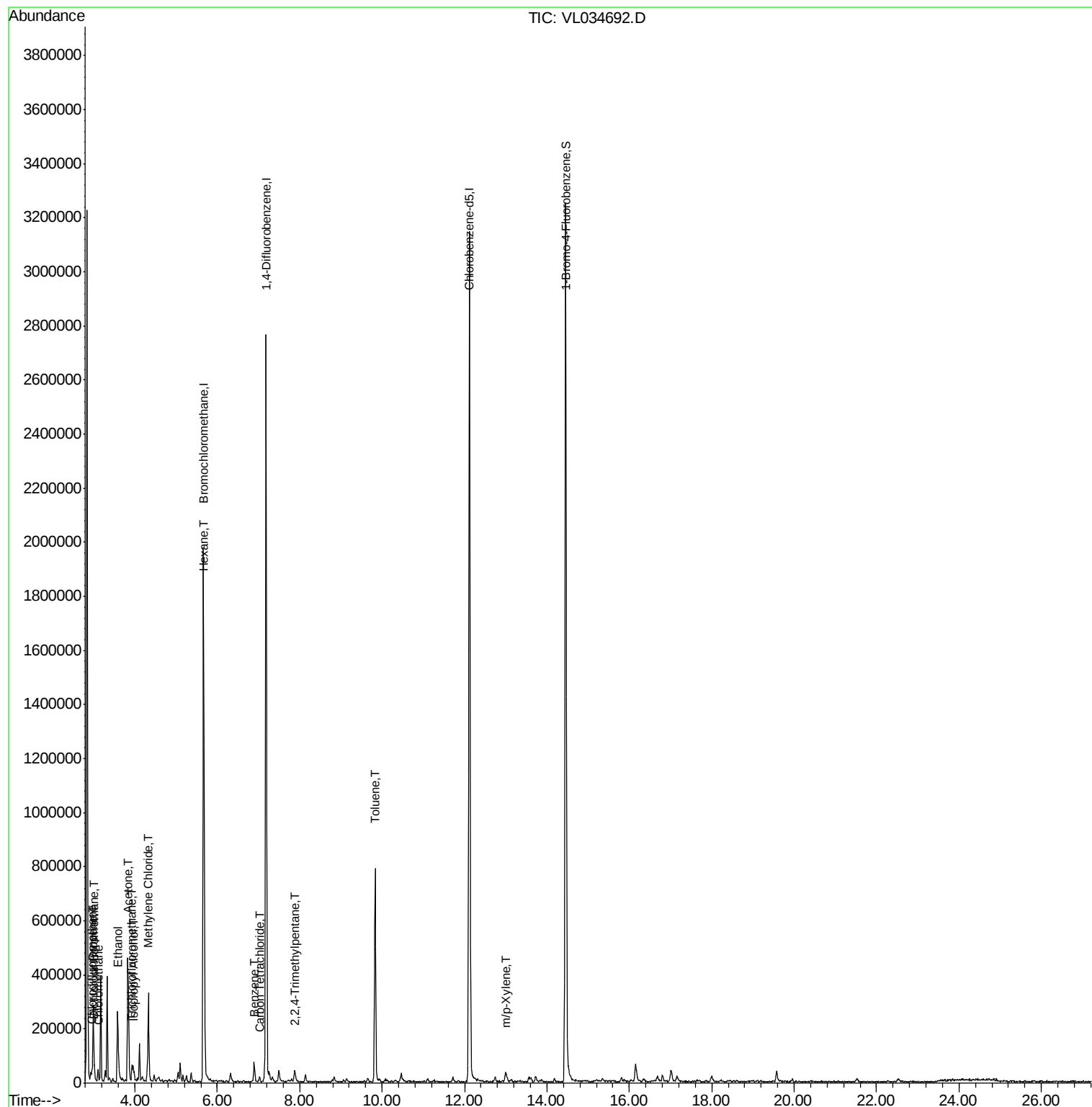
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL022620\  
Data File : VL034692.D  
Acq On : 26 Feb 2020 17:52  
Operator : SY/AP  
Sample : L1664-02DUP  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

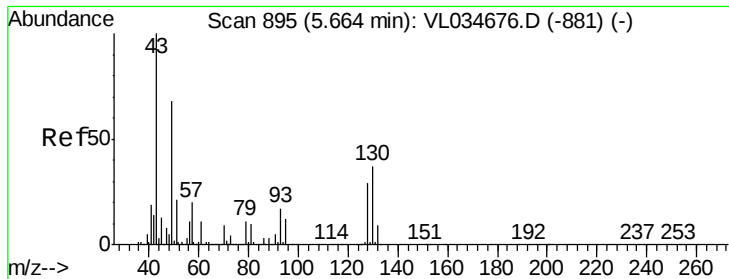
Instrument :  
MSVOA\_L  
ClientSampleId :  
CR-104-BRWDUP

Manual Integrations  
APPROVED

MMDadoda  
2/27/2020 5:19:56 PM

Quant Time: Feb 27 15:47:50 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL022620AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Feb  
QLast Update : Wed Feb 26 06:58:15 2020  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.00 min

Lab File: VL034692.D

Acq: 26 Feb 2020 17:52

Instrument :

MSVOA\_L

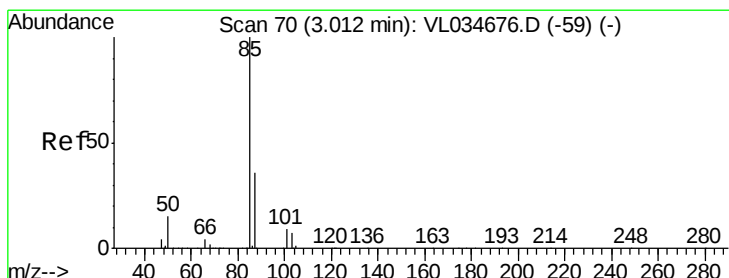
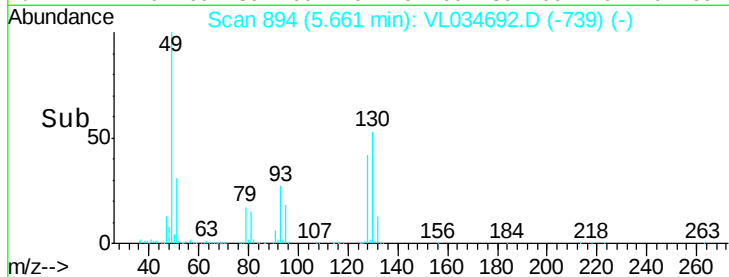
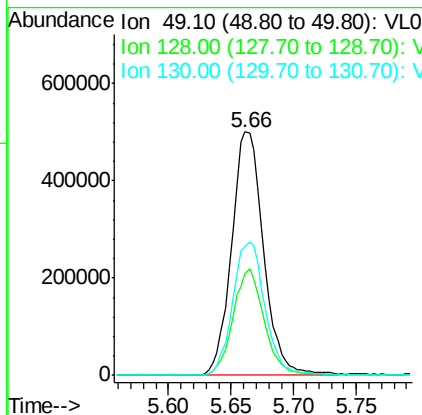
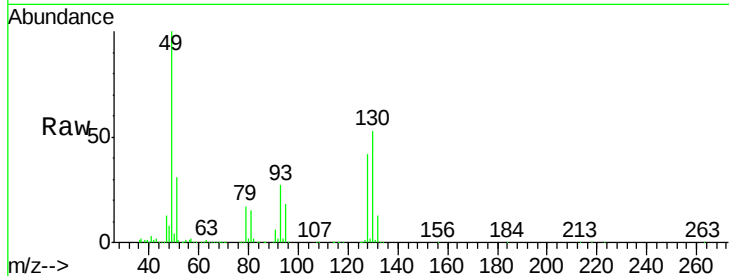
ClientSampleId :

CR-104-BRWDUP

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 49    | Resp: | 886914 |
| Ion Ratio | Lower | Upper |        |
| 49        | 100   |       |        |
| 128       | 42.9  | 21.6  | 65.0   |
| 130       | 55.9  | 27.7  | 83.1   |

Manual Integrations  
APPROVED

MMDadoda  
2/27/2020 5:19:56 PM



#2

Dichlorodifluoromethane

Concen: 0.241 ppbv m

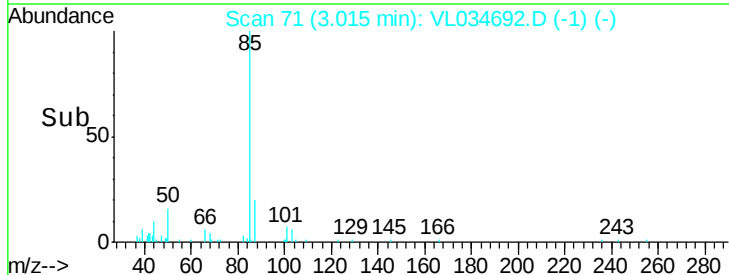
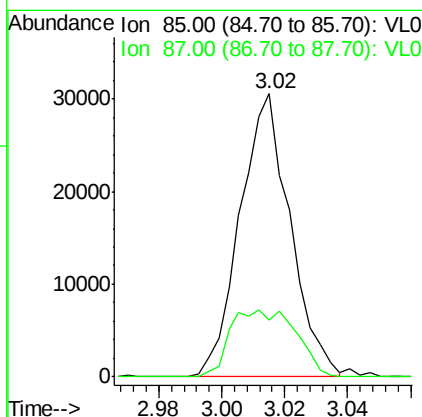
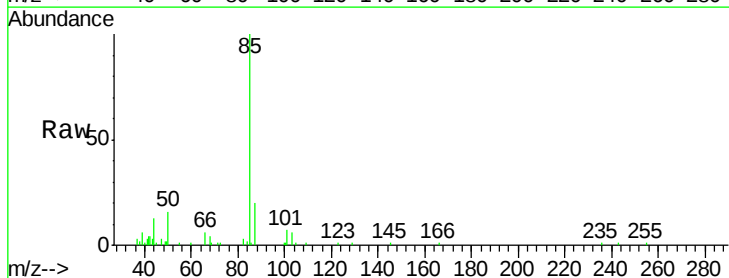
RT: 3.02 min Scan# 71

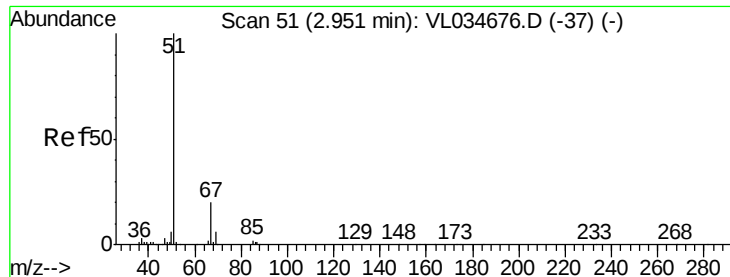
Delta R.T. 0.00 min

Lab File: VL034692.D

Acq: 26 Feb 2020 17:52

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 85    | Resp: | 33786 |
| Ion Ratio | Lower | Upper |       |
| 85        | 100   |       |       |
| 87        | 19.9  | 29.2  | 43.8# |





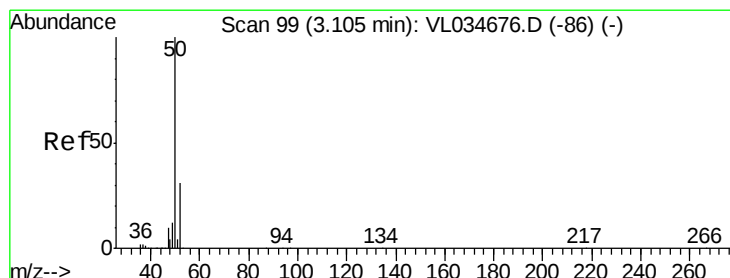
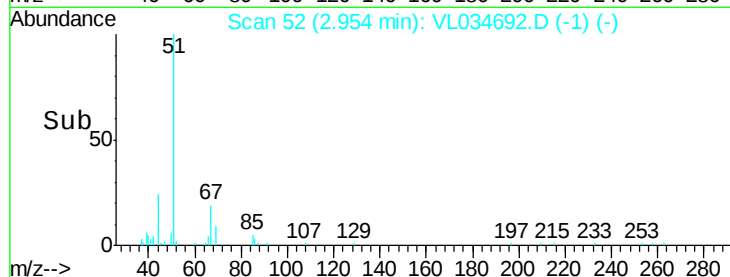
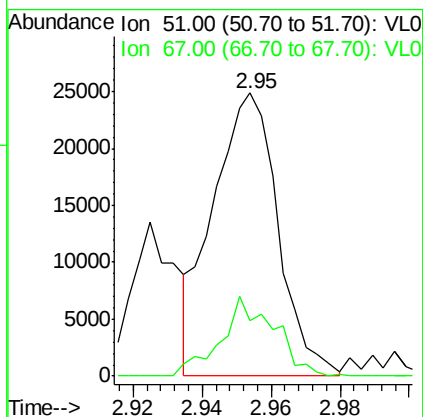
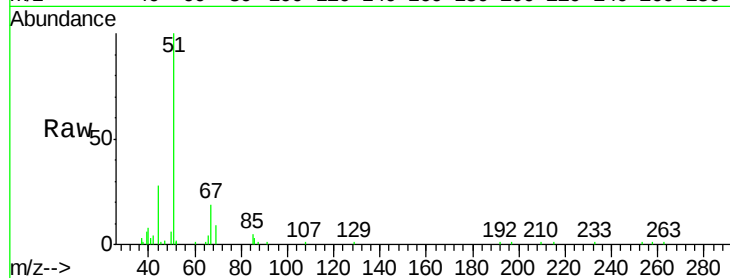
#3  
Chlorodifluoromethane  
Concen: 0.339 ppbv  
RT: 2.95 min Scan# 52  
Delta R.T. 0.00 min  
Lab File: VL034692.D  
Acq: 26 Feb 2020 17:52

Instrument :  
MSVOA\_L  
ClientSampleId :  
CR-104-BRWDUP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 51      | 100   |       |       |
| 67      | 23.1  | 15.5  | 23.3  |

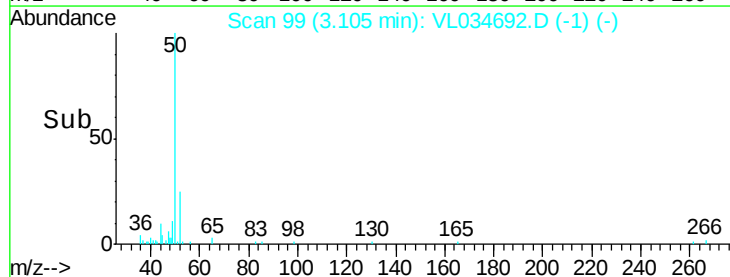
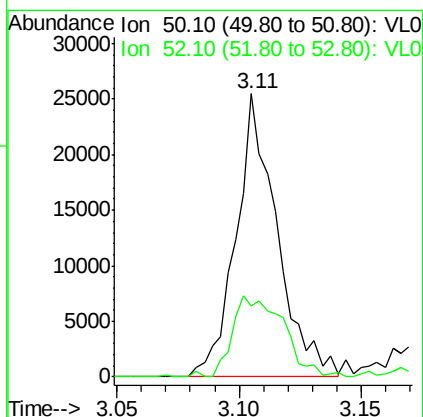
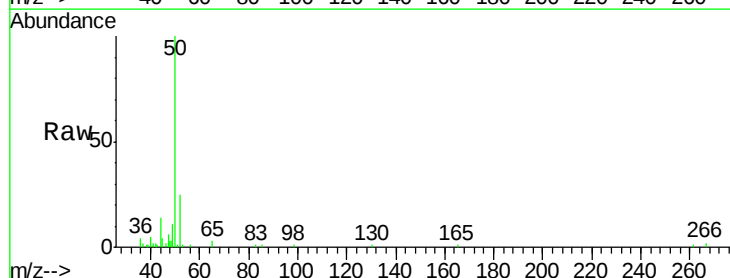
Manual Integrations  
APPROVED

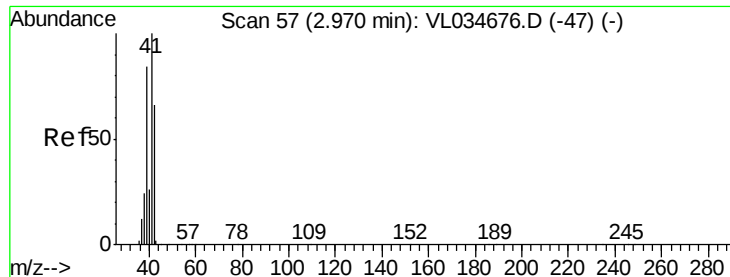
MMDadoda  
2/27/2020 5:19:56 PM



#4  
Chloromethane  
Concen: 0.554 ppbv  
RT: 3.11 min Scan# 99  
Delta R.T. 0.00 min  
Lab File: VL034692.D  
Acq: 26 Feb 2020 17:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50      | 100   |       |       |
| 52      | 24.8  | 25.0  | 37.4# |





#9

Propene

Concen: 1.539 ppbv m

RT: 2.99 min Scan# 62

Delta R.T. 0.02 min

Lab File: VL034692.D

Acq: 26 Feb 2020 17:52

Instrument :

MSVOA\_L

ClientSampleId :

CR-104-BRWDUP

Tot Ion: 41 Resp: 61573

Ion Ratio Lower Upper

41 100

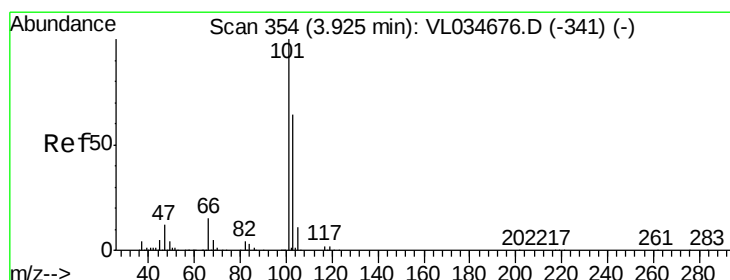
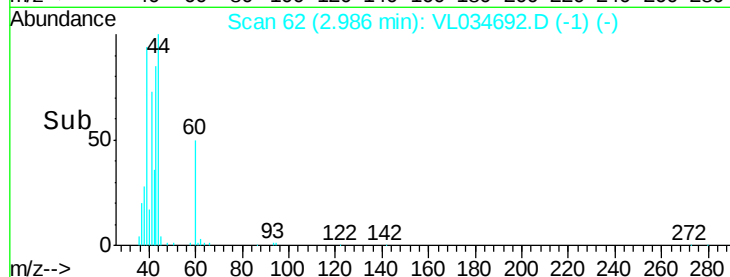
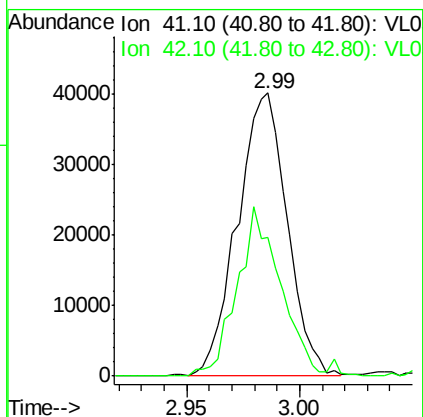
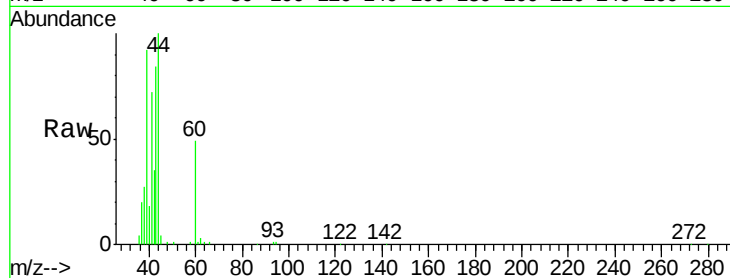
42 105.9 54.9 82.3#

Manual Integrations

APPROVED

MMDadoda

2/27/2020 5:19:56 PM



#11

Trichlorofluoromethane

Concen: 0.280 ppbv

RT: 3.93 min Scan# 355

Delta R.T. 0.00 min

Lab File: VL034692.D

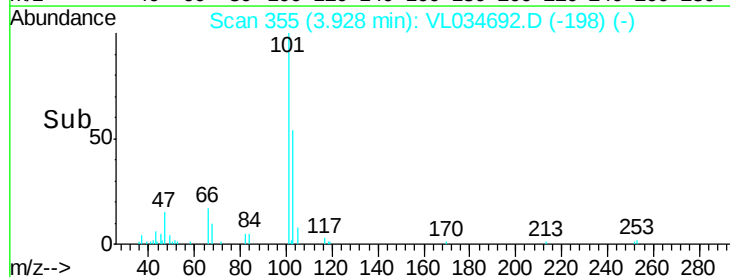
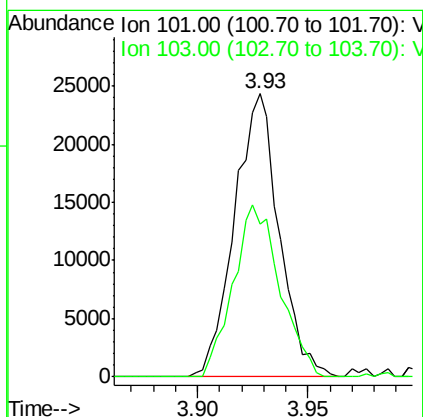
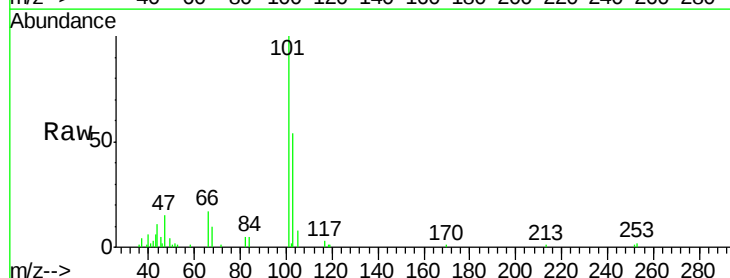
Acq: 26 Feb 2020 17:52

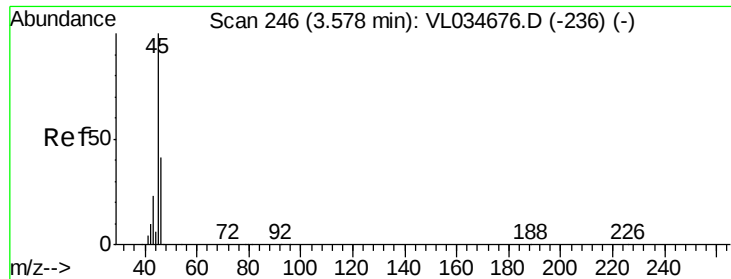
Tgt Ion: 101 Resp: 34311

Ion Ratio Lower Upper

101 100

103 54.1 51.2 76.8





#13

Ethanol

Concen: 23.188 ppbv m

RT: 3.58 min Scan# 247

Delta R.T. 0.00 min

Lab File: VL034692.D

Acq: 26 Feb 2020 17:52

Instrument :

MSVOA\_L

ClientSampleId :

CR-104-BRWDUP

Tot Ion: 45 Resp: 293084

Ion Ratio Lower Upper

45 100

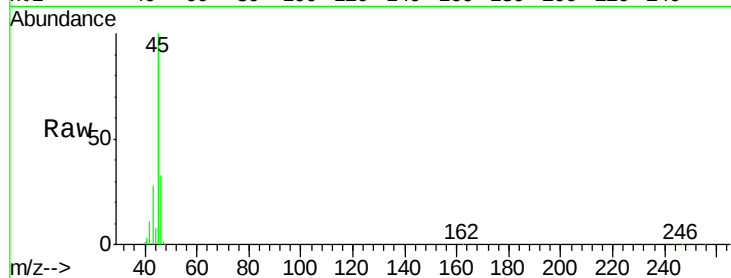
46 36.8 15.4 61.4

Manual Integrations

APPROVED

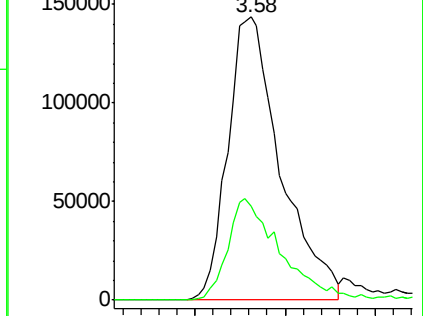
MMDadoda

2/27/2020 5:19:56 PM

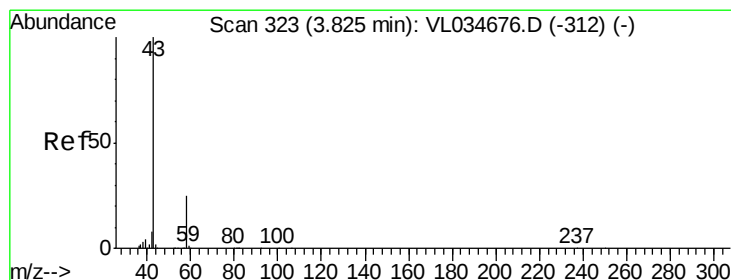
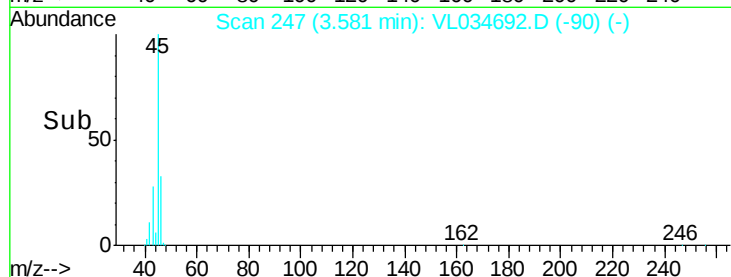


Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



Time-->



#15

Acetone

Concen: 4.618 ppbv

RT: 3.83 min Scan# 324

Delta R.T. 0.00 min

Lab File: VL034692.D

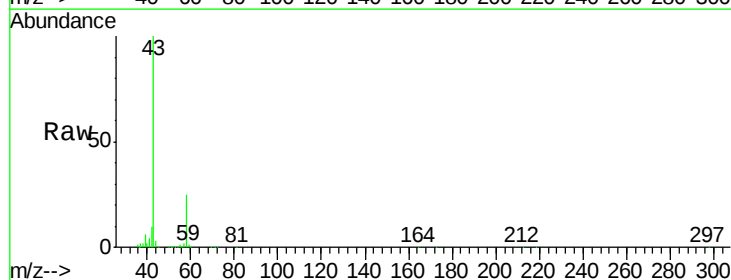
Acq: 26 Feb 2020 17:52

Tgt Ion: 43 Resp: 466724

Ion Ratio Lower Upper

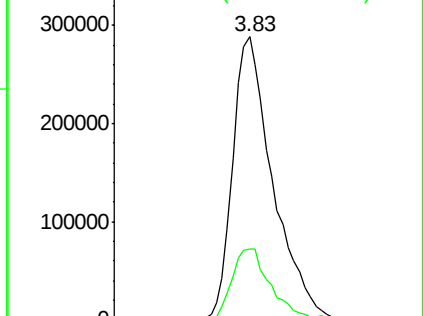
43 100

58 24.8 21.4 32.0

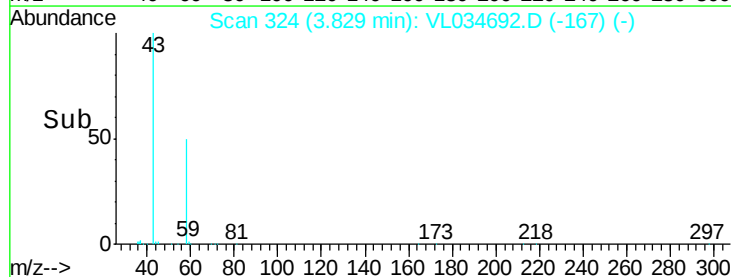


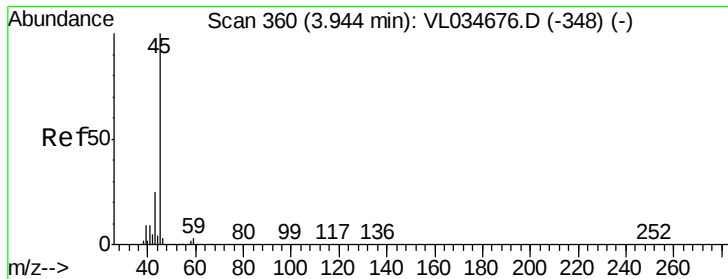
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



Time-->





#19

Isopropyl Alcohol

Concen: 0.788 ppbv

RT: 3.96 min Scan# 364

Delta R.T. 0.01 min

Lab File: VL034692.D

Acq: 26 Feb 2020 17:52

Instrument :

MSVOA\_L

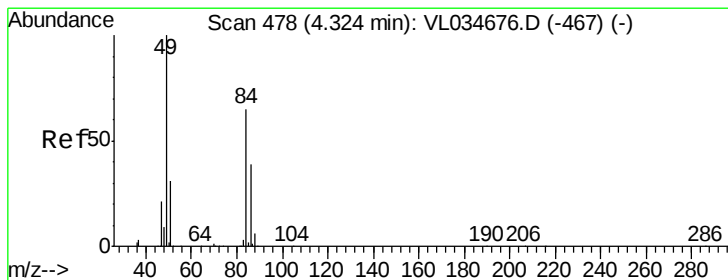
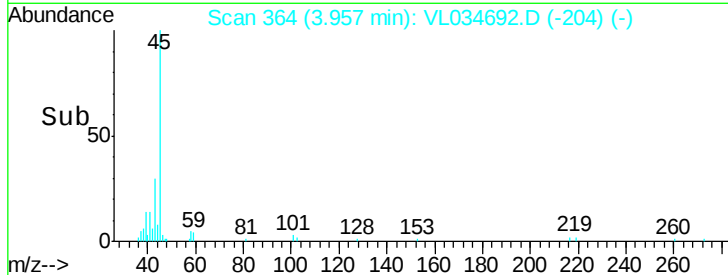
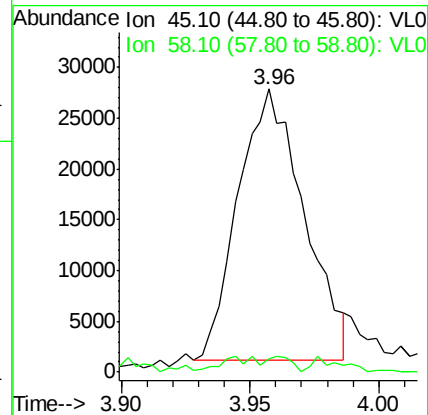
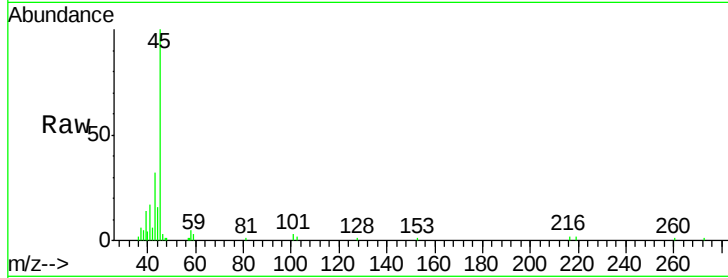
ClientSampleId :

CR-104-BRWDUP

| Tot Ion   | 45  | Resp  | 47431 |
|-----------|-----|-------|-------|
| Ion Ratio | 100 | Lower | Upper |
| 45        | 100 |       |       |
| 58        | 8.4 | 1.8   | 2.6#  |

Manual Integrations  
APPROVED

MMDadoda  
2/27/2020 5:19:56 PM



#20

Methylene Chloride

Concen: 2.783 ppbv

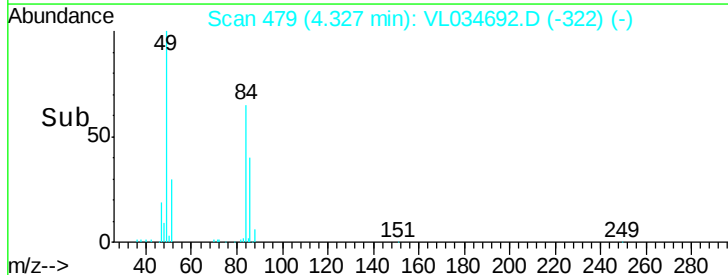
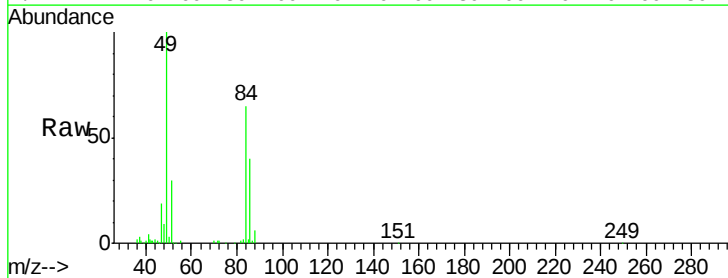
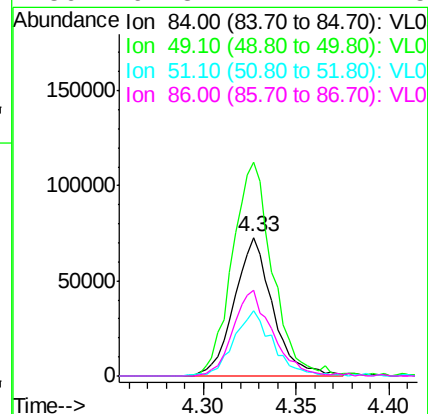
RT: 4.33 min Scan# 479

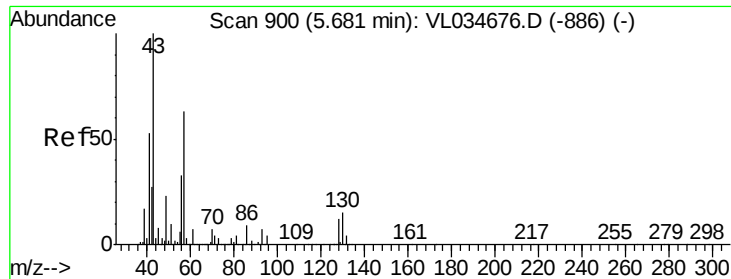
Delta R.T. 0.00 min

Lab File: VL034692.D

Acq: 26 Feb 2020 17:52

| Tgt Ion   | 84    | Resp  | 104600 |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 84        | 100   |       |        |
| 49        | 153.3 | 122.8 | 184.2  |
| 51        | 46.3  | 38.6  | 58.0   |
| 86        | 61.8  | 47.7  | 71.5   |





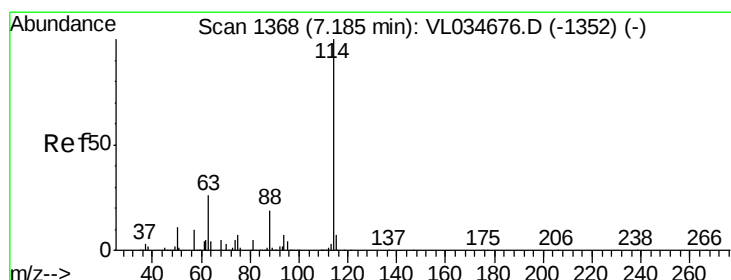
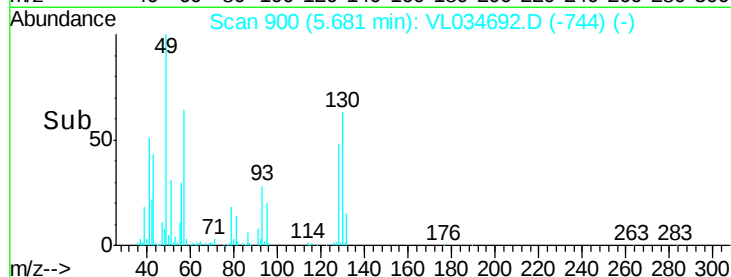
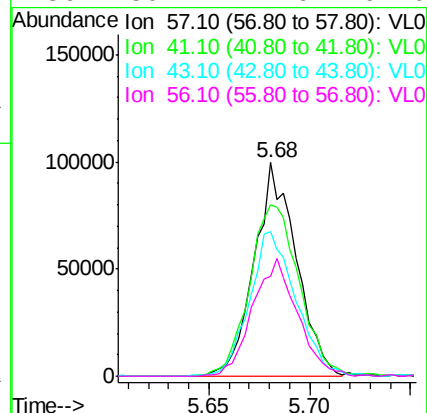
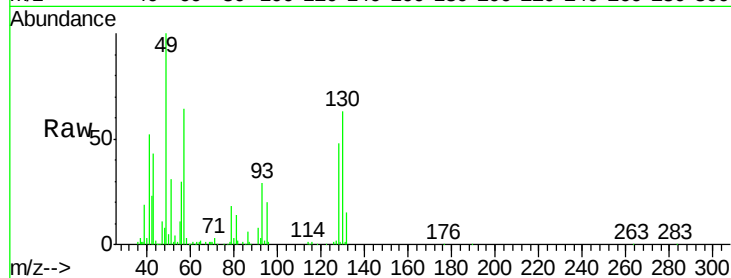
#26  
Hexane  
Concen: 1.759 ppbv  
RT: 5.68 min Scan# 900  
Delta R.T. 0.00 min  
Lab File: VL034692.D  
Acq: 26 Feb 2020 17:52

Instrument :  
MSVOA\_L  
ClientSampleId :  
CR-104-BRWDUP

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 57      | 100   |       |        |
| 41      | 96.5  | 70.3  | 105.5  |
| 43      | 75.3  | 177.0 | 265.4# |
| 56      | 59.4  | 42.6  | 64.0   |

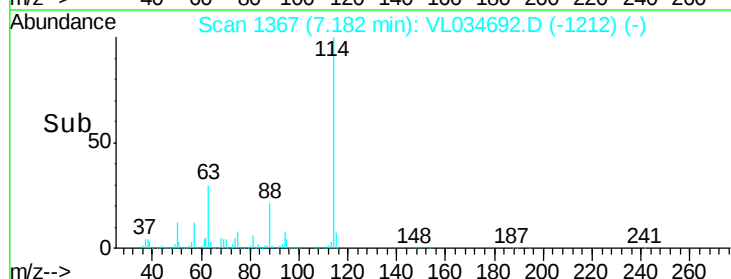
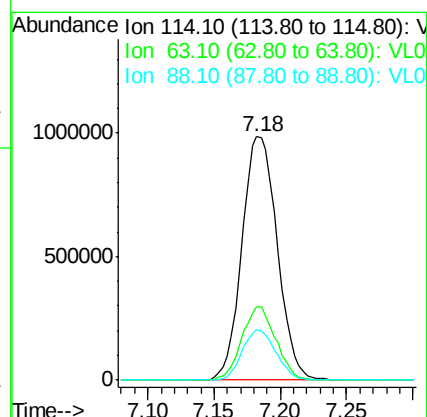
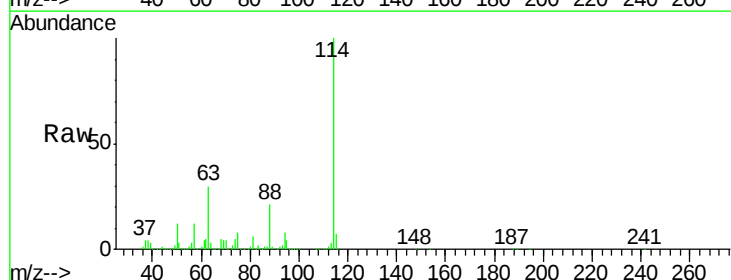
Manual Integrations  
APPROVED

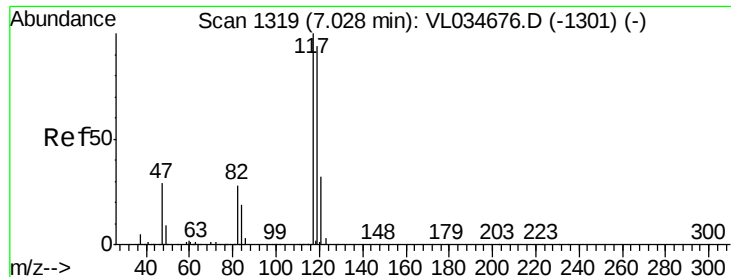
MMDadoda  
2/27/2020 5:19:56 PM



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.18 min Scan# 1367  
Delta R.T. -0.00 min  
Lab File: VL034692.D  
Acq: 26 Feb 2020 17:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 29.1  | 22.9  | 34.3  |
| 88      | 19.8  | 15.8  | 23.6  |





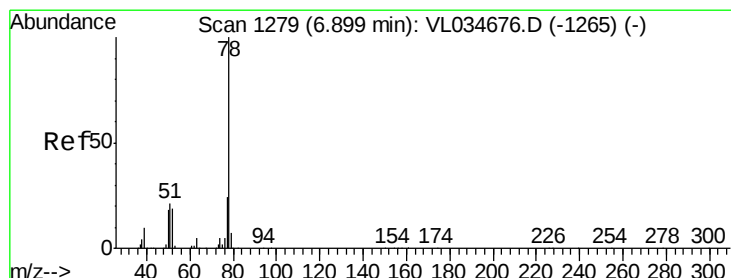
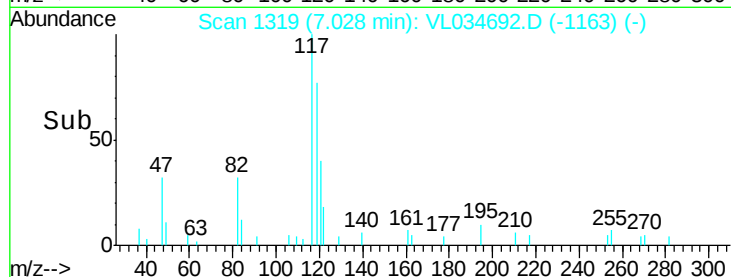
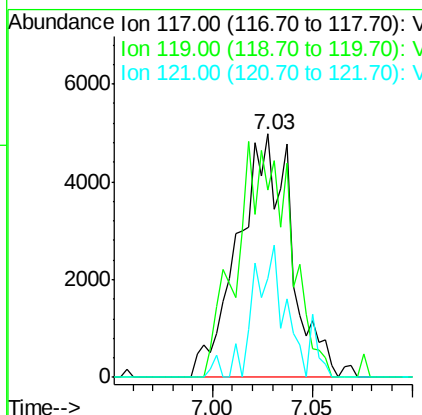
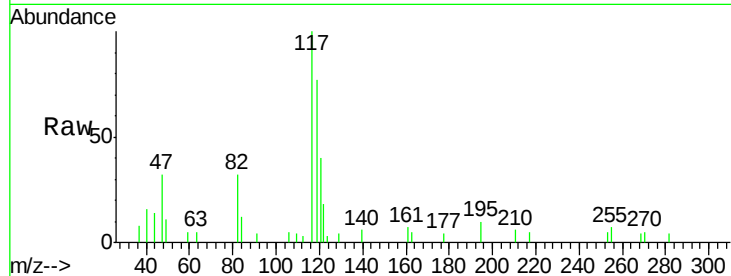
#35  
Carbon Tetrachloride  
Concen: 0.076 ppbv m  
RT: 7.03 min Scan# 1319  
Delta R.T. 0.00 min  
Lab File: VL034692.D  
Acq: 26 Feb 2020 17:52

Instrument :  
MSVOA\_L  
ClientSampleId :  
CR-104-BRWDUP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 76.9  | 75.5  | 113.3 |
| 121     | 40.5  | 25.4  | 38.0  |

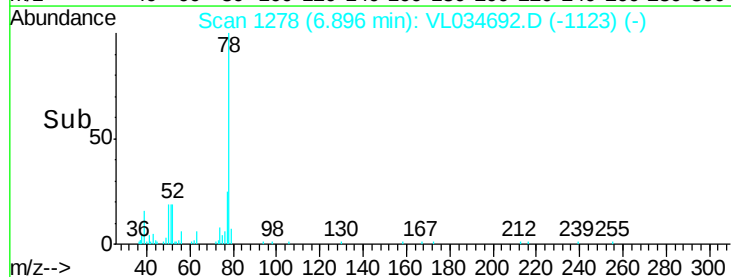
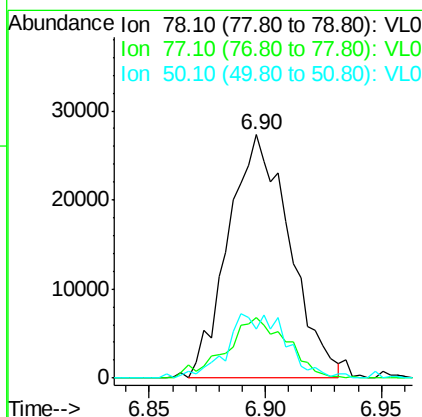
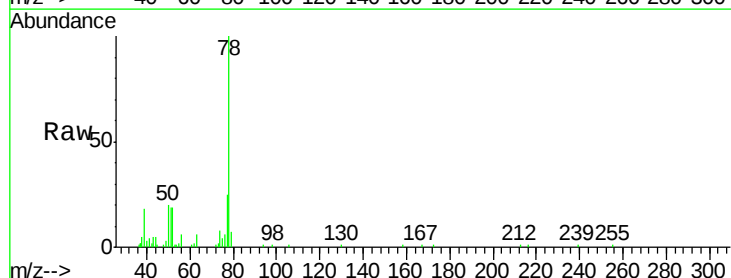
Manual Integrations  
APPROVED

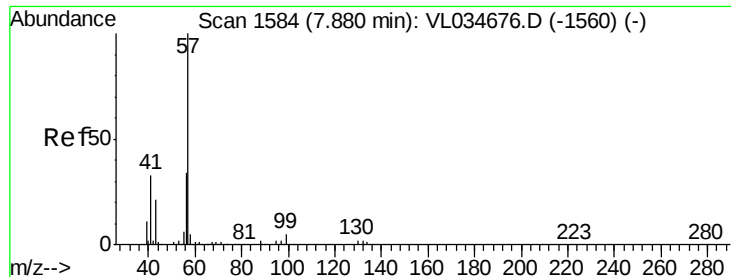
MMDadoda  
2/27/2020 5:19:56 PM



#36  
Benzene  
Concen: 0.318 ppbv  
RT: 6.90 min Scan# 1278  
Delta R.T. -0.00 min  
Lab File: VL034692.D  
Acq: 26 Feb 2020 17:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 24.1  | 19.5  | 29.3  |
| 50      | 17.5  | 14.6  | 21.8  |





#44

2,2,4-Trimethylpentane

Concen: 0.097 ppbv m

RT: 7.89 min Scan# 1586

Delta R.T. 0.01 min

Lab File: VL034692.D

Acq: 26 Feb 2020 17:52

Instrument :

MSVOA\_L

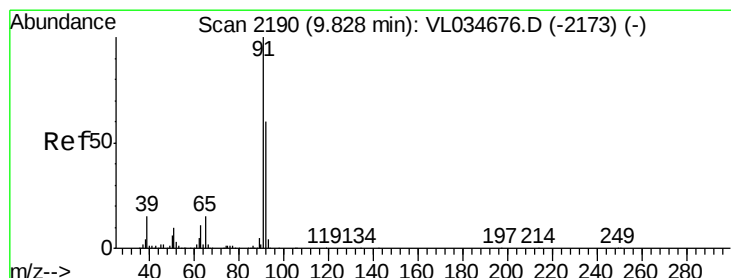
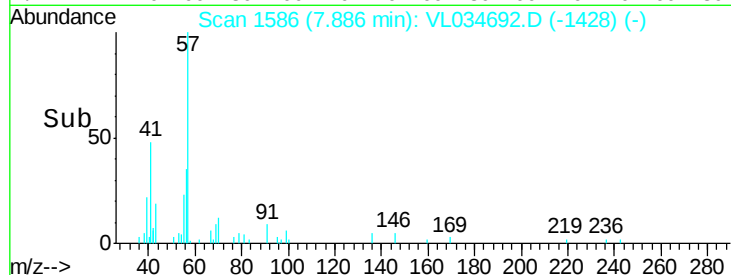
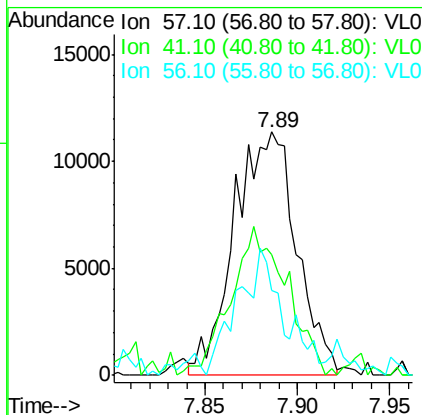
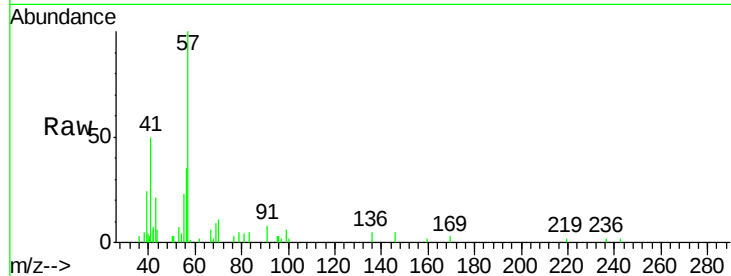
ClientSampleId :

CR-104-BRWDUP

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 57    | Resp: | 26682 |
| Ion      | Ratio | Lower | Upper |
| 57       | 100   |       |       |
| 41       | 55.2  | 26.0  | 39.0# |
| 56       | 46.5  | 25.6  | 38.4# |

Manual Integrations  
APPROVED

MMDadoda  
2/27/2020 5:19:56 PM



#53

Toluene

Concen: 3.246 ppbv

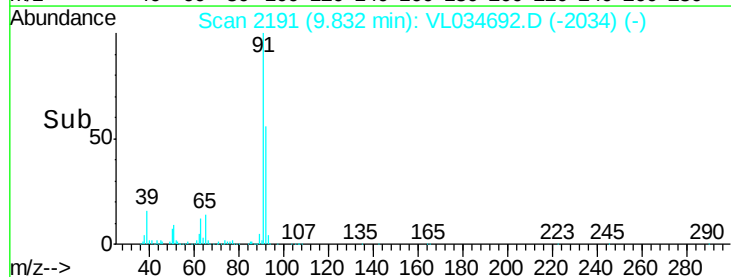
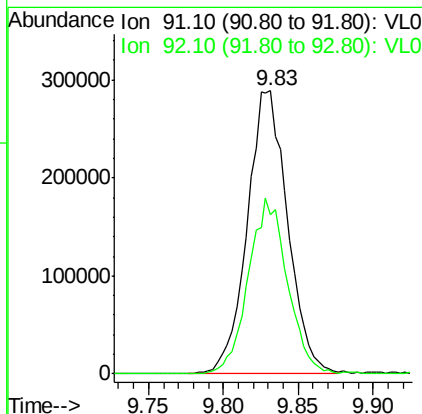
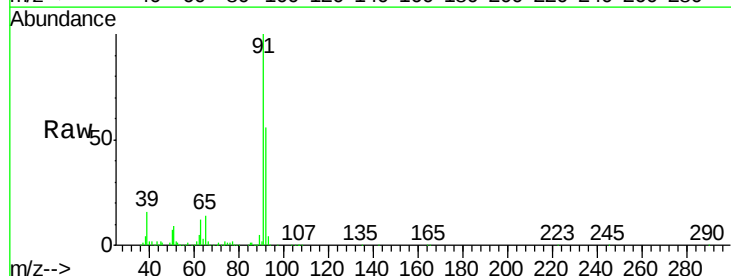
RT: 9.83 min Scan# 2191

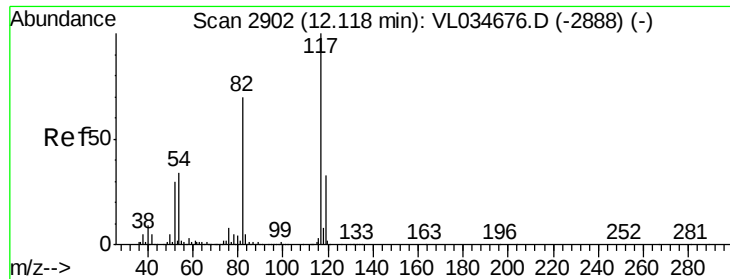
Delta R.T. 0.00 min

Lab File: VL034692.D

Acq: 26 Feb 2020 17:52

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 91    | Resp: | 544169 |
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 92       | 60.1  | 48.5  | 72.7   |





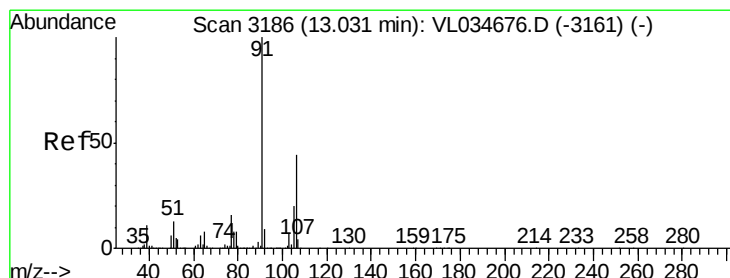
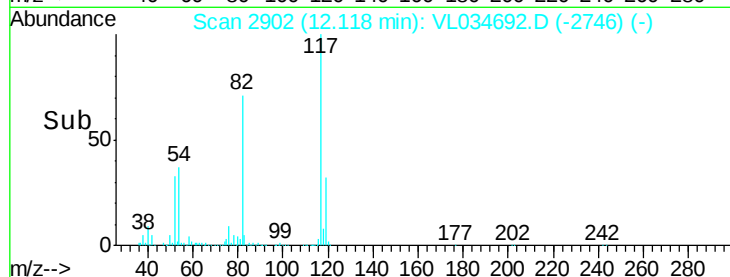
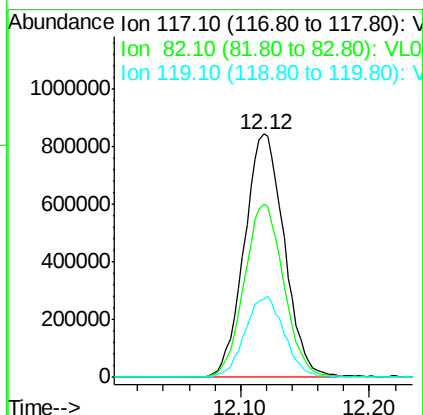
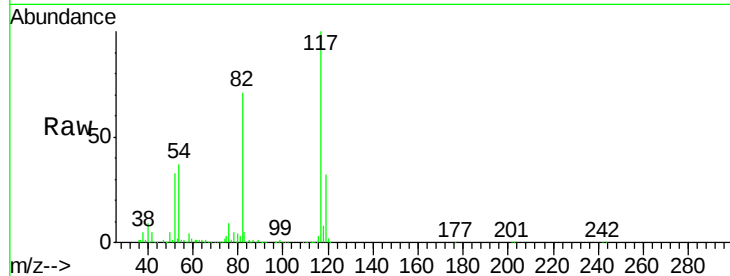
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.12 min Scan# 2902  
Delta R.T. 0.00 min  
Lab File: VL034692.D  
Acq: 26 Feb 2020 17:52

Instrument :  
MSVOA\_L  
ClientSampleId :  
CR-104-BRWDUP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 71.3  | 54.1  | 81.1  |
| 119     | 32.7  | 27.6  | 41.4  |

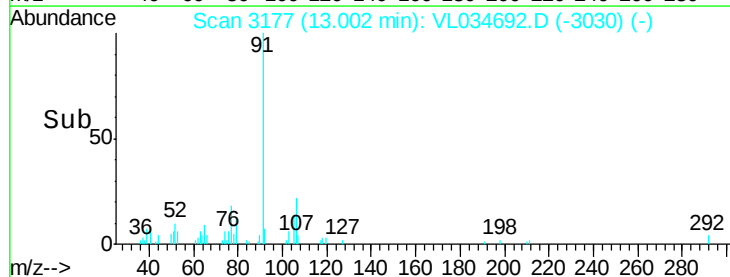
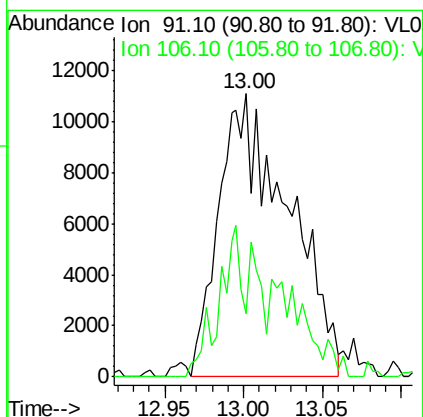
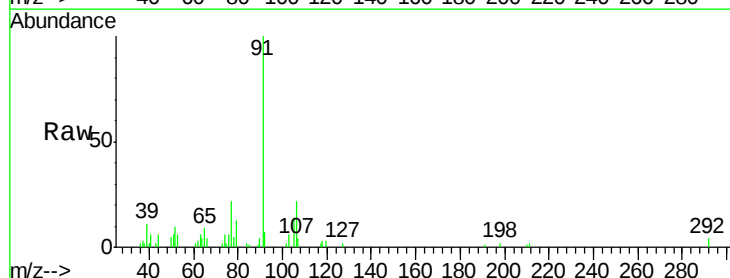
Manual Integrations  
APPROVED

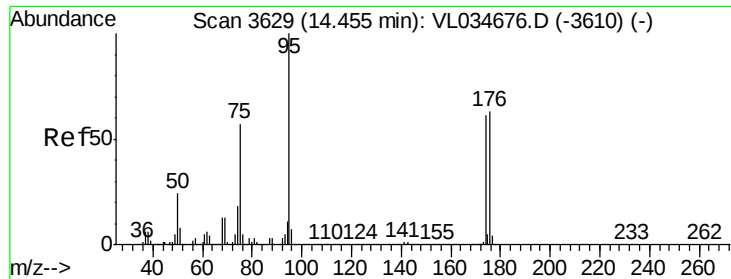
MMDadoda  
2/27/2020 5:19:56 PM



#59  
m/p-Xylene  
Concen: 0.176 ppbv m  
RT: 13.00 min Scan# 3177  
Delta R.T. -0.03 min  
Lab File: VL034692.D  
Acq: 26 Feb 2020 17:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 0.0   | 35.6  | 53.4# |





#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.289 ppbv  
 RT: 14.46 min Scan# 3629  
 Delta R.T. 0.00 min  
 Lab File: VL034692.D  
 Acq: 26 Feb 2020 17:52

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 CR-104-BRWDUP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 63.8  | 50.7  | 76.1  |
| 175     | 4.7   | 3.9   | 5.9   |

Manual Integrations  
 APPROVED

MMDadoda  
 2/27/2020 5:19:56 PM

