

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110921\  
 Data File : VL037989.D  
 Acq On : 9 Nov 2021 21:26  
 Operator : SY/AP  
 Sample : M4555-04DL 10X  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Nov 10 04:49:18 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Nov 02 05:54:07 2021  
 QLast Update : Tue Nov 02 05:54:07 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1492606  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 4237026  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.08 | 117  | 3563228  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.41  | 95    | 2362360  | 9.12     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 91.20% |

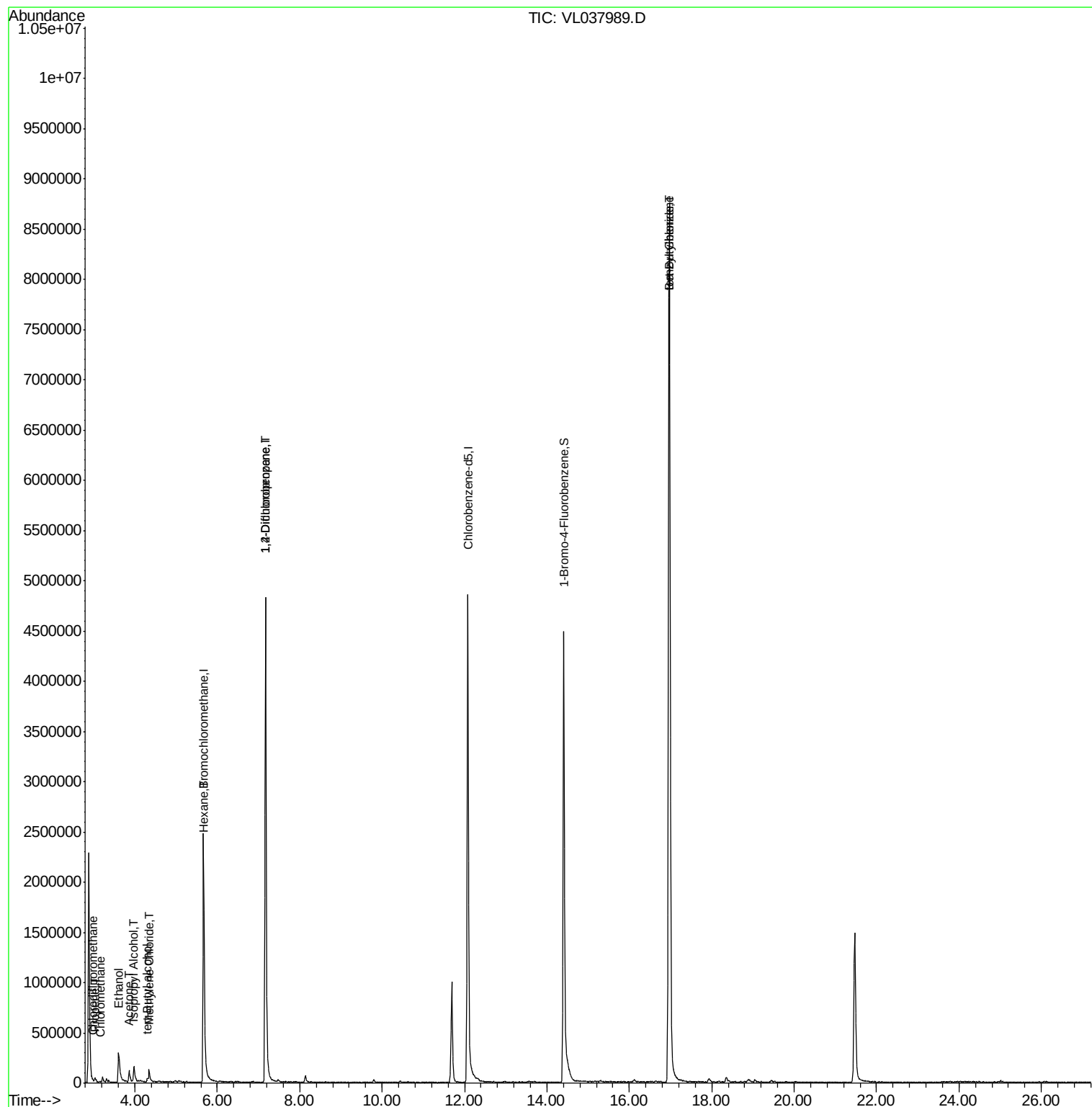
| Target Compounds         | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------|-------|------|----------|--------|--------|--------|
| 3) Chlorodifluoromethane | 2.99  | 51   | 11655    | 0.042  | ppbv # | 91     |
| 4) Chloromethane         | 3.15  | 50   | 3678     | 0.035  | ppbv # | 79     |
| 9) Propene               | 3.02  | 41   | 14832    | 0.149  | ppbv   | 92     |
| 13) Ethanol              | 3.61  | 45   | 438357   | 43.616 | ppbv   | 97     |
| 15) Acetone              | 3.86  | 43   | 126807   | 1.028  | ppbv   | 92     |
| 17) tert-Butyl alcohol   | 4.30  | 59   | 8985     | 0.070  | ppbv # | 71     |
| 19) Isopropyl Alcohol    | 3.97  | 45   | 180711   | 2.291  | ppbv   | 98     |
| 20) Methylene Chloride   | 4.34  | 84   | 24290    | 0.359  | ppbv # | 91     |
| 26) Hexane               | 5.68  | 57   | 6288     | 0.036  | ppbv # | 1      |
| 39) 1,2-Dichloropropane  | 7.17  | 63   | 981790   | 7.562  | ppbv # | 28     |
| 65) tert-Butylbenzene    | 16.97 | 119  | 145806   | 0.319  | ppbv # | 28     |
| 66) Benzyl Chloride      | 16.98 | 91   | 1209     | 0.051  | ppbv # | 66     |

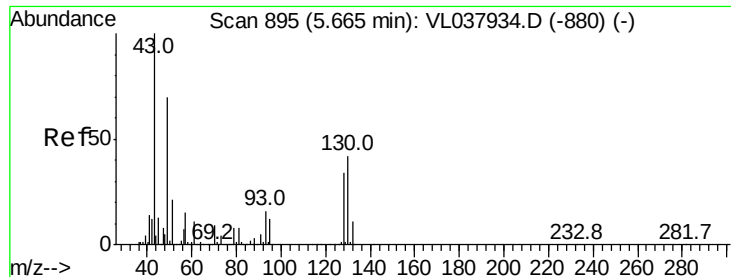
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Nov 10 04:49:18 2021  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M  
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_LTue Nov 02 05:54:07 2021  
QLast Update : Tue Nov 02 05:54:07 2021  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 9 Nov 2021 21:20

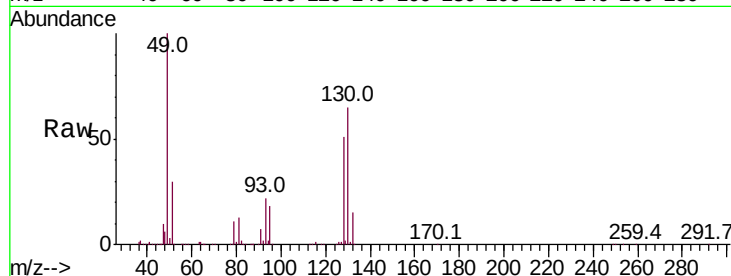
Tot Ion: 49 Resp: 1492606

Ion Ratio Lower Upper

49 100

128 52.6 27.0 81.0

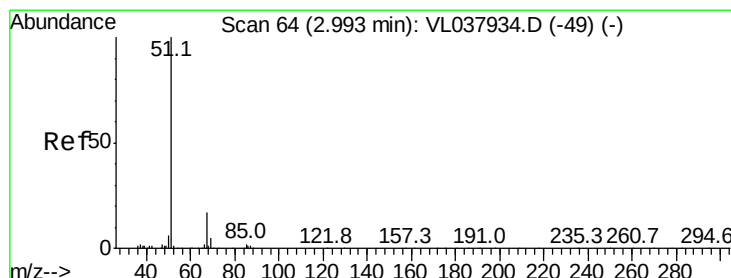
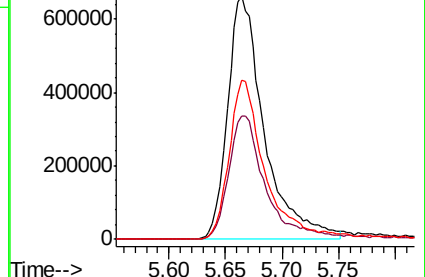
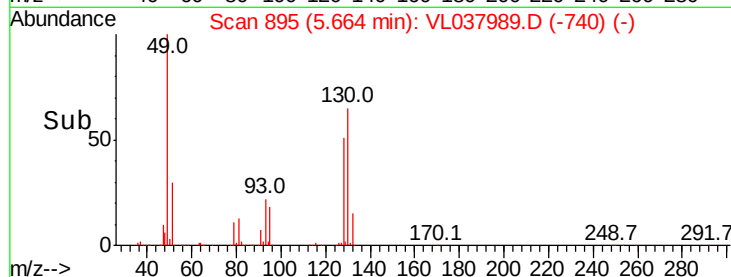
130 65.8 33.4 100.2



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.042 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.00 min

Lab File: VL037989.D

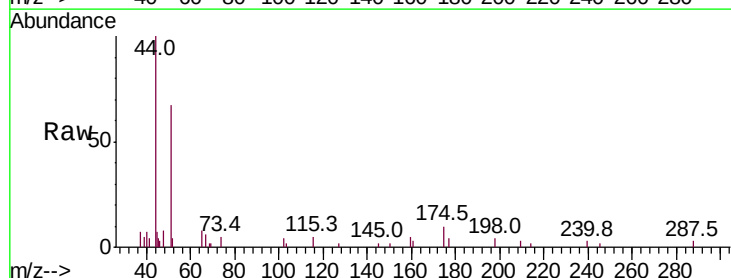
Acq: 9 Nov 2021 21:26

Tgt Ion: 51 Resp: 11655

Ion Ratio Lower Upper

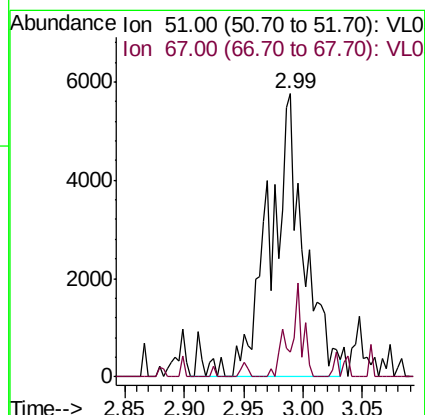
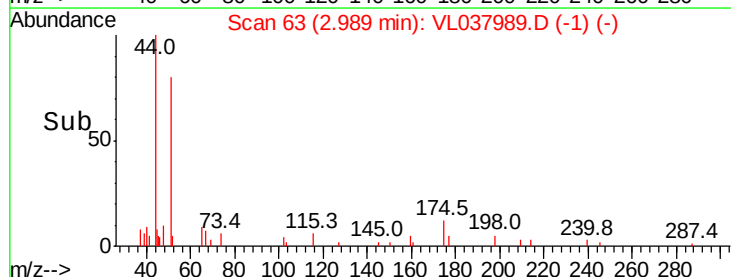
51 100

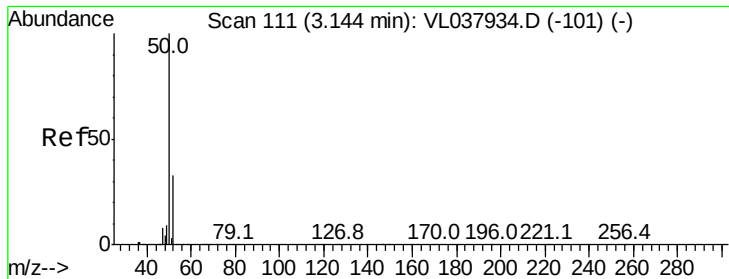
67 12.9 13.4 20.0#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.035 ppbv

RT: 3.15 Instrument:

Delta R.T. MSVOA\_L

Lab File:

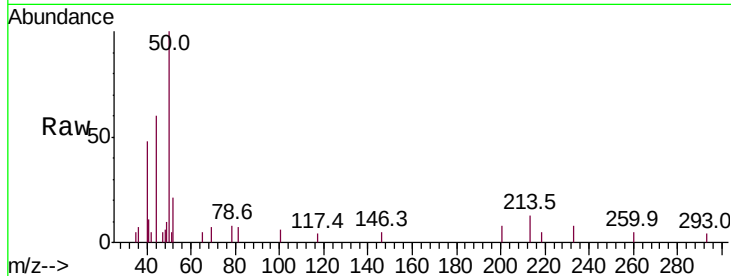
Acq: 9 Nov 2021 21:20

Tot Ion: 50 Resp: 3678

Ion Ratio Lower Upper

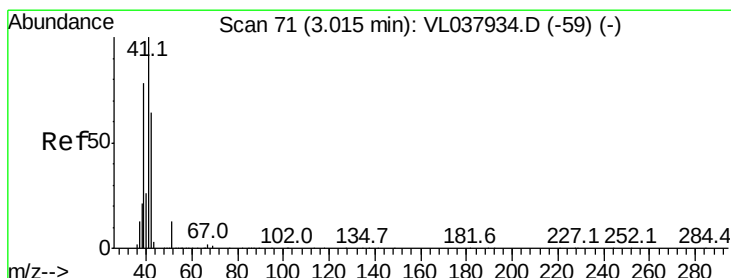
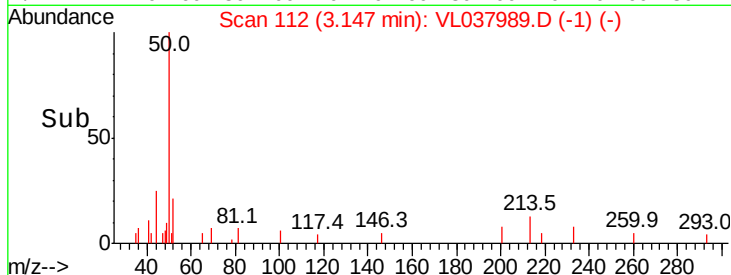
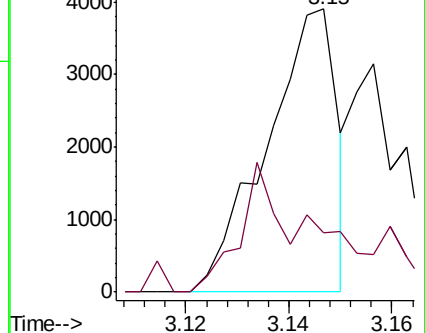
50 100

52 20.9 26.3 39.5#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 0.149 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.01 min

Lab File: VL037989.D

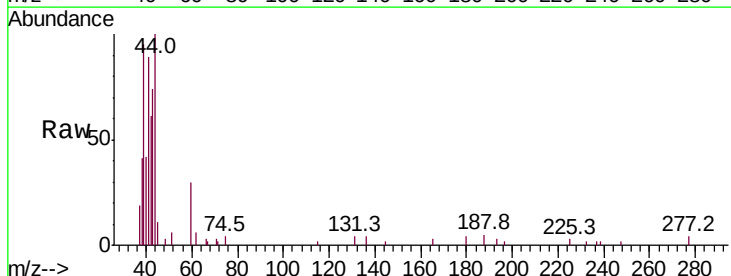
Acq: 9 Nov 2021 21:26

Tgt Ion: 41 Resp: 14832

Ion Ratio Lower Upper

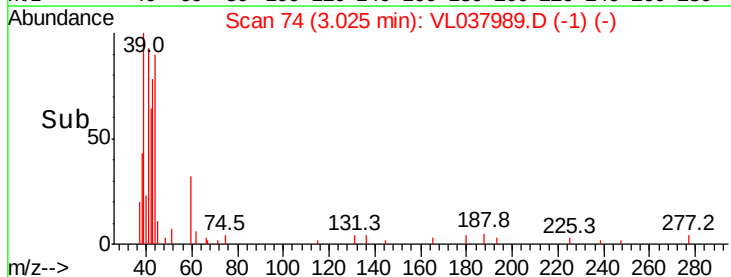
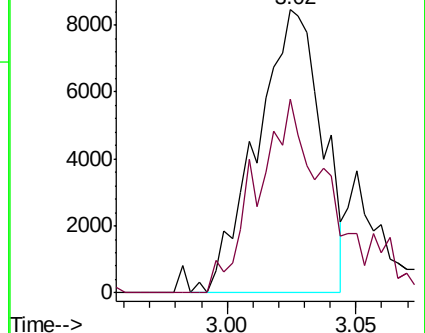
41 100

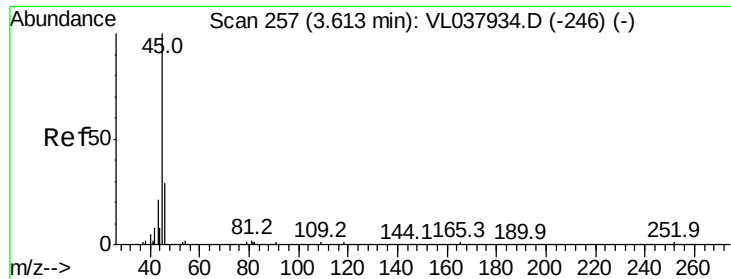
42 79.0 57.6 86.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

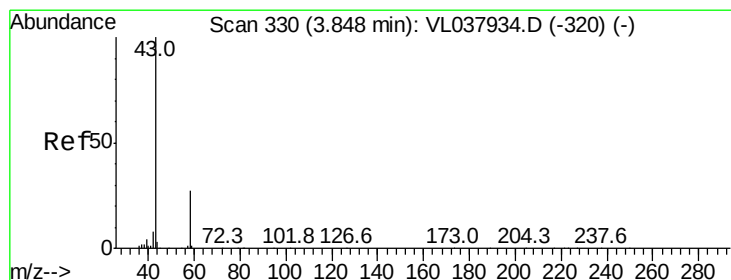
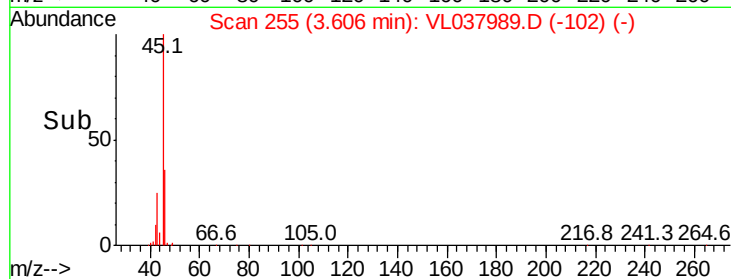
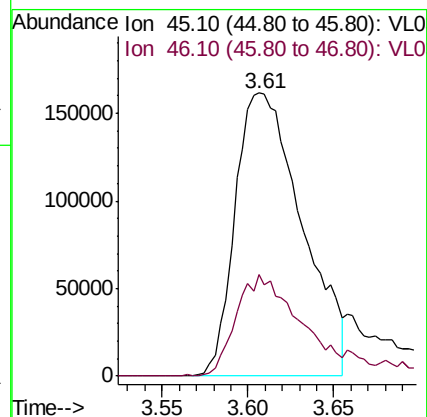
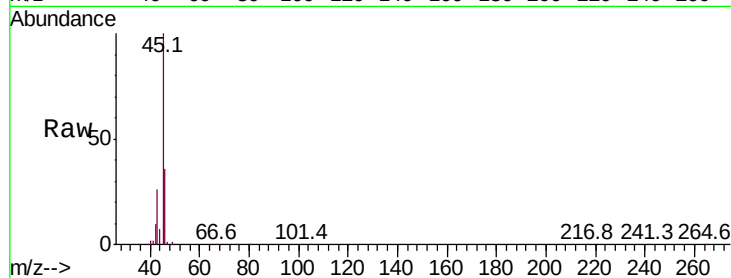
Ion 42.10 (41.80 to 42.80): VL0





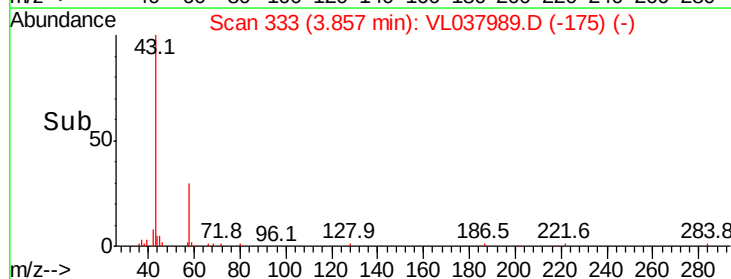
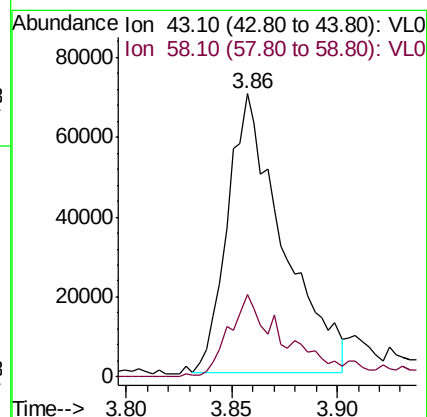
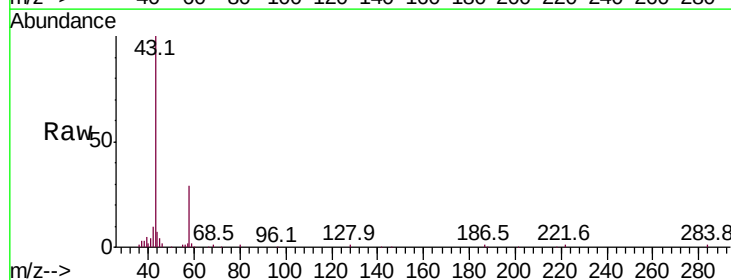
#13  
 Ethanol  
 Concen: 43.616 ppbv  
 RT: 3.61  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 Acq: 9 Nov 2021 21:26

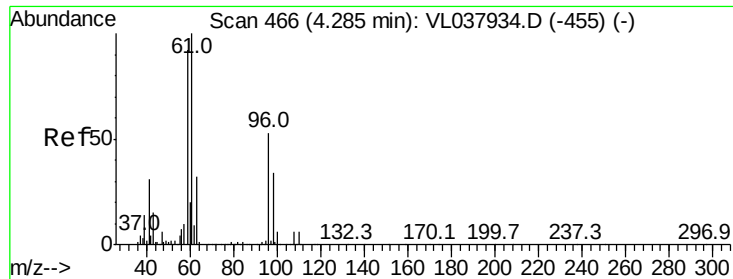
Tot Ion: 45 Resp: 438357  
 Ion Ratio Lower Upper  
 45 100  
 46 41.4 17.4 69.8



#15  
 Acetone  
 Concen: 1.028 ppbv  
 RT: 3.86 min Scan# 333  
 Delta R.T. 0.01 min  
 Lab File: VL037989.D  
 Acq: 9 Nov 2021 21:26

Tgt Ion: 43 Resp: 126807  
 Ion Ratio Lower Upper  
 43 100  
 58 33.4 23.3 34.9





#17

tert-Butyl alcohol

Concen: 0.070 ppbv

RT: 4.30

Instrument: MSVOA\_1

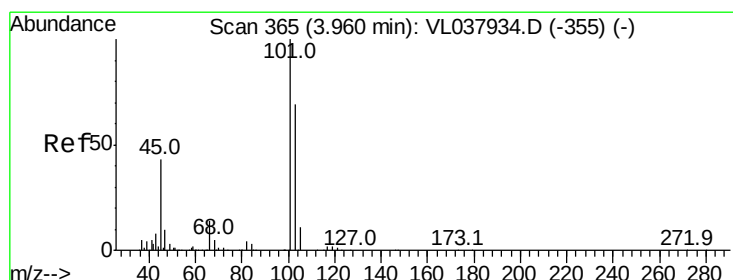
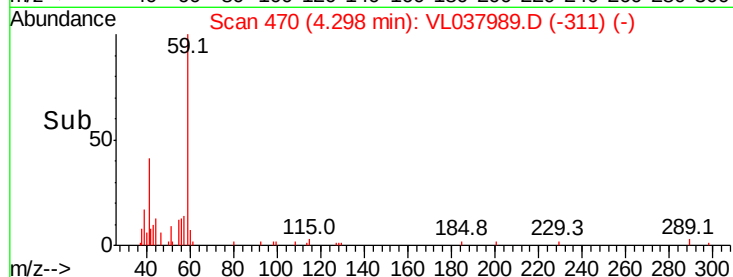
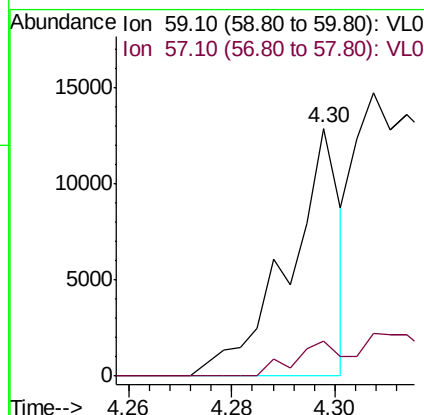
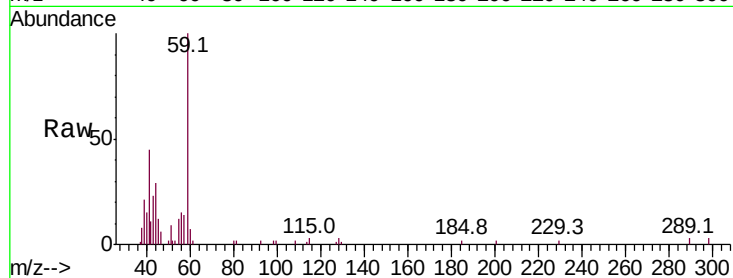
Delta R.T.

Lab File: ClientSampleId:

Acq: 9 Nov 2021 21:20

Tot Ion: 59 Resp: 8985

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 59  | 100   |       |       |
| 57  | 0.0   | 8.9   | 13.3# |



#19

Isopropyl Alcohol

Concen: 2.291 ppbv

RT: 3.97 min Scan# 369

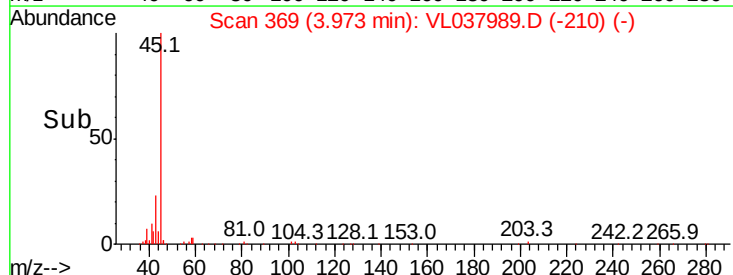
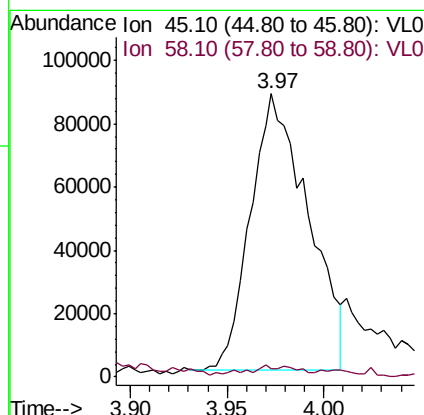
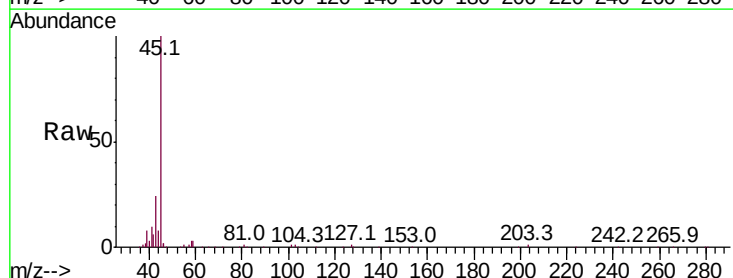
Delta R.T. 0.01 min

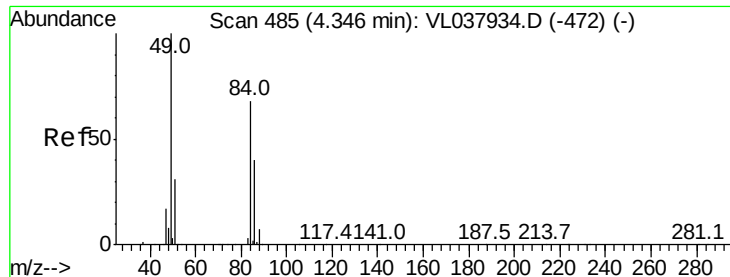
Lab File: VL037989.D

Acq: 9 Nov 2021 21:26

Tgt Ion: 45 Resp: 180711

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 45  | 100   |       |       |
| 58  | 4.2   | 4.0   | 6.0   |





#20

Methylene Chloride

Concen: 0.359 ppbv

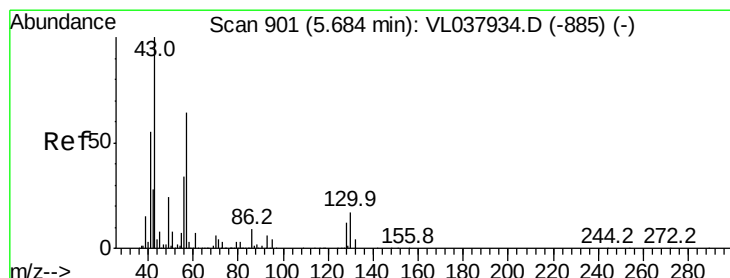
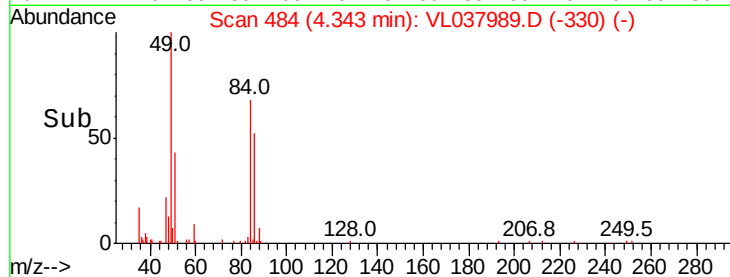
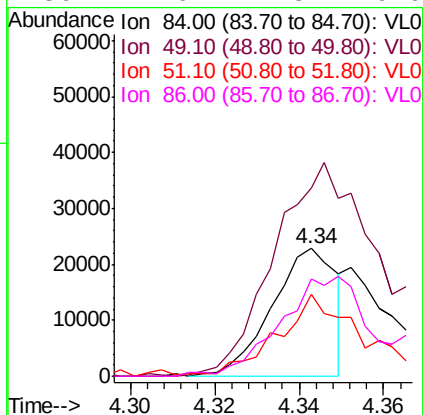
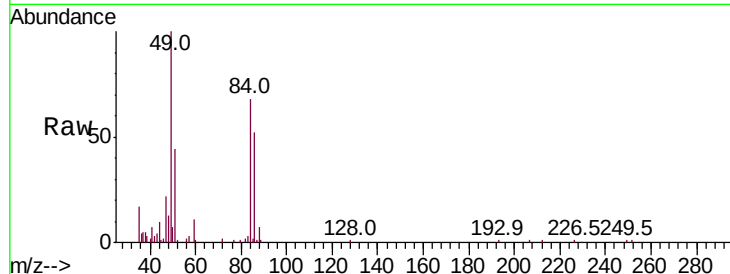
RT: 4.34 Instrument: MSVOA\_1

Delta R.T. ClientSampleId:

Lab File:

Acq: 9 Nov 2021 21:26

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 24290 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 145.7 | 117.5 | 176.3 |
| 51       | 61.9  | 35.9  | 53.9# |
| 86       | 72.6  | 47.3  | 70.9# |



#26

Hexane

Concen: 0.036 ppbv

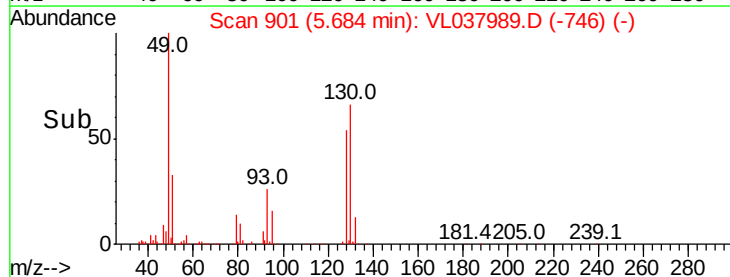
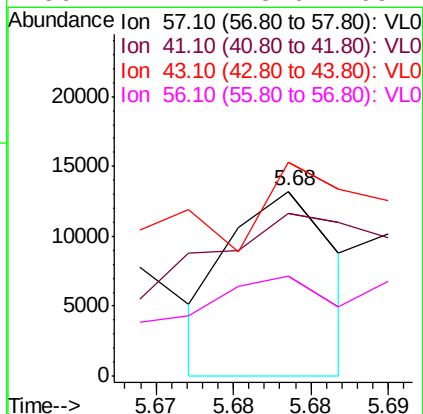
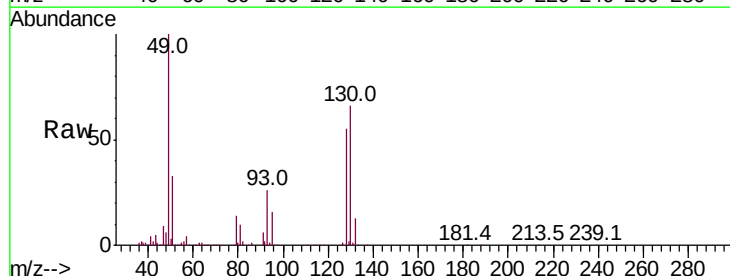
RT: 5.68 min Scan# 901

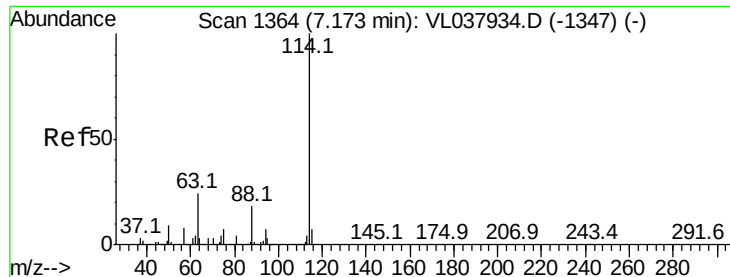
Delta R.T. -0.00 min

Lab File: VL037989.D

Acq: 9 Nov 2021 21:26

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 6288   |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 372.0 | 71.0  | 106.6# |
| 43       | 463.1 | 173.0 | 259.6# |
| 56       | 222.1 | 43.6  | 65.4#  |





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 Instrument: MSVOA\_1

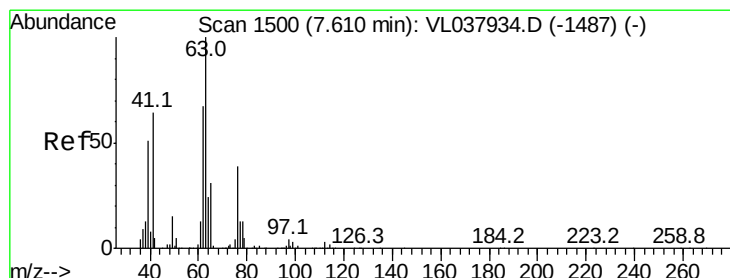
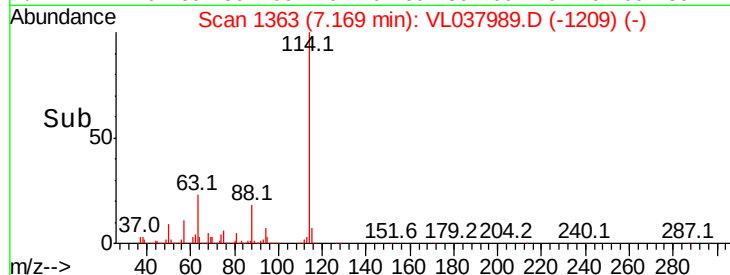
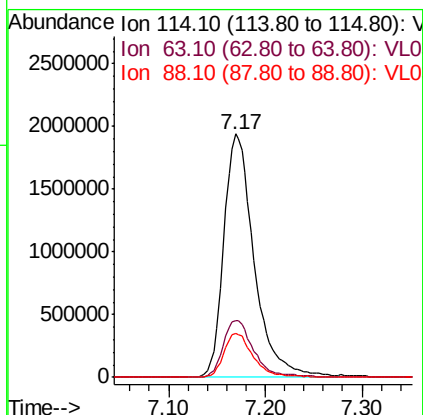
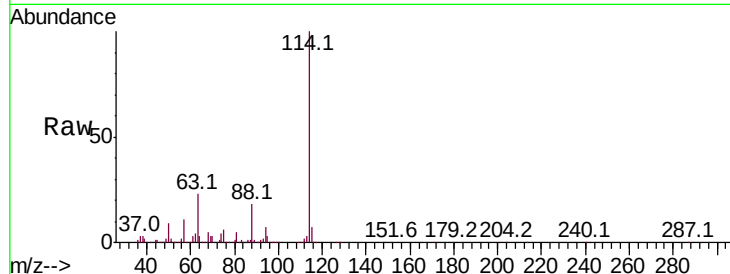
Delta R.T. ClientSampleId:

Lab File:

Acq: 9 Nov 2021 21:20

Tot Ion:114 Resp: 4237026

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 114 | 100   |       |       |
| 63  | 24.0  | 19.4  | 29.0  |
| 88  | 17.4  | 14.2  | 21.4  |



#39

1,2-Dichloropropane

Concen: 7.562 ppbv

RT: 7.17 min Scan# 1364

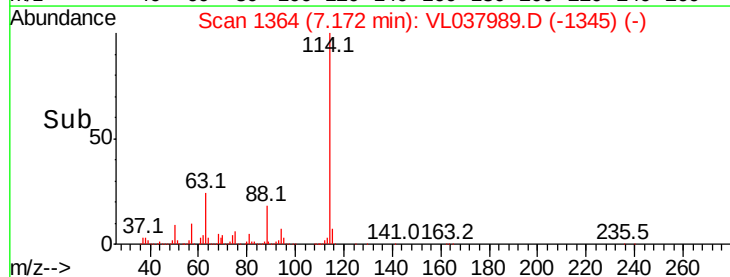
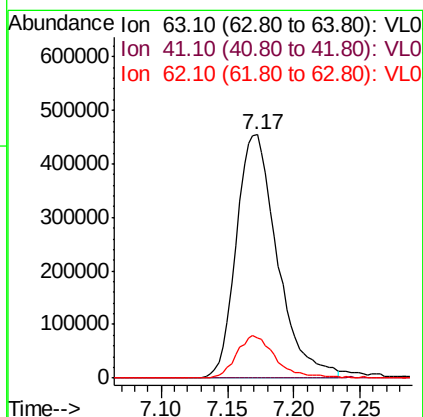
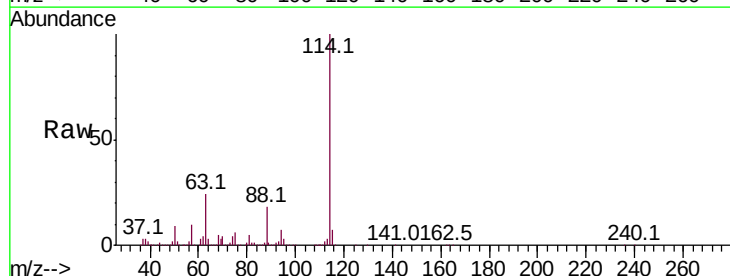
Delta R.T. -0.44 min

Lab File: VL037989.D

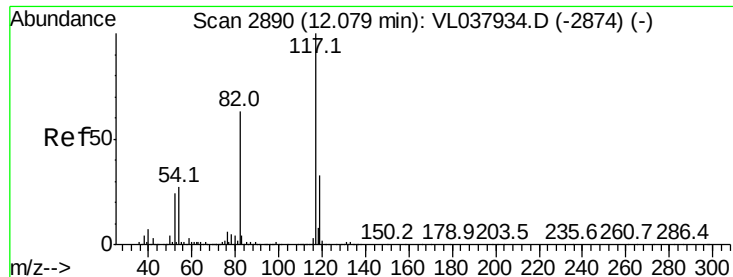
Acq: 9 Nov 2021 21:26

Tgt Ion: 63 Resp: 981790

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 63  | 100   |       |       |
| 41  | 0.1   | 51.6  | 77.4# |
| 62  | 16.5  | 53.5  | 80.3# |



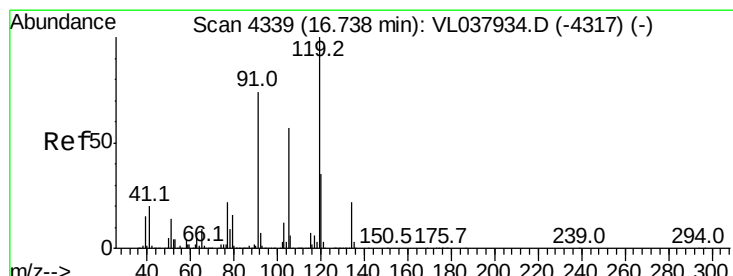
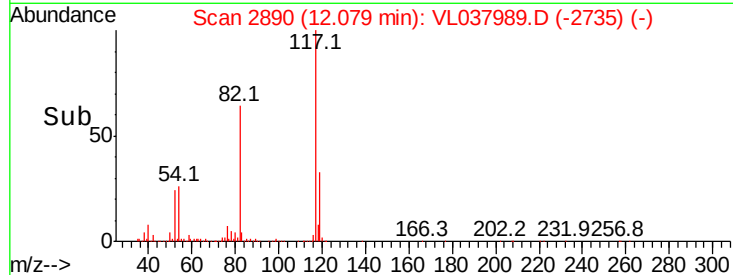
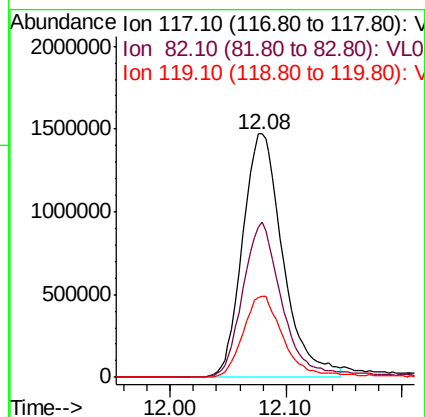
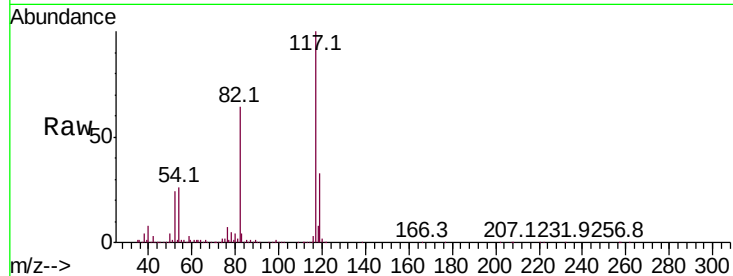




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.08 min  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId:  
Acq: 9 Nov 2021 21:20

Tot Ion:117 Resp: 3563228

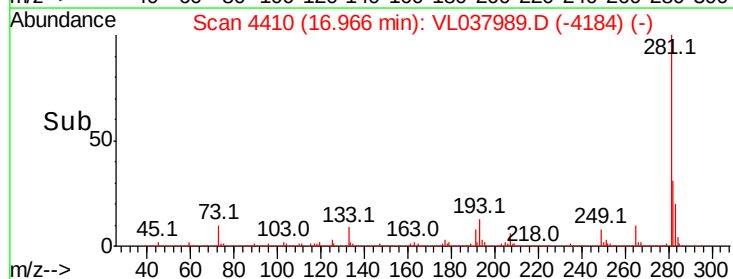
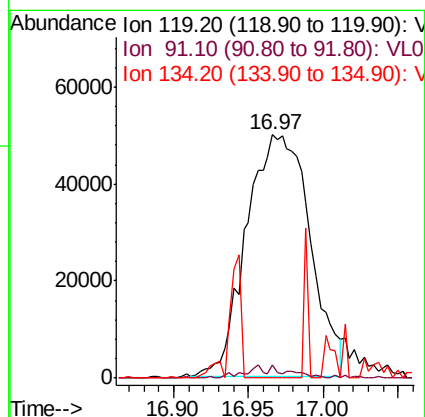
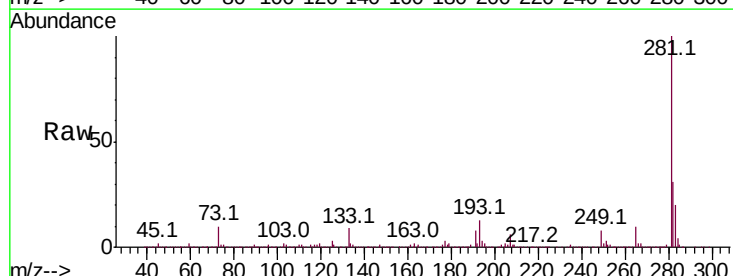
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 117 | 100   |       |       |
| 82  | 64.2  | 51.0  | 76.6  |
| 119 | 34.2  | 26.9  | 40.3  |

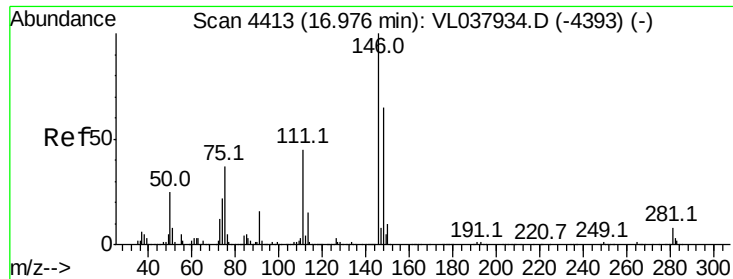


#65  
tert-Butylbenzene  
Concen: 0.319 ppbv  
RT: 16.97 min Scan# 4410  
Delta R.T. 0.23 min  
Lab File: VL037989.D  
Acq: 9 Nov 2021 21:26

Tgt Ion:119 Resp: 145806

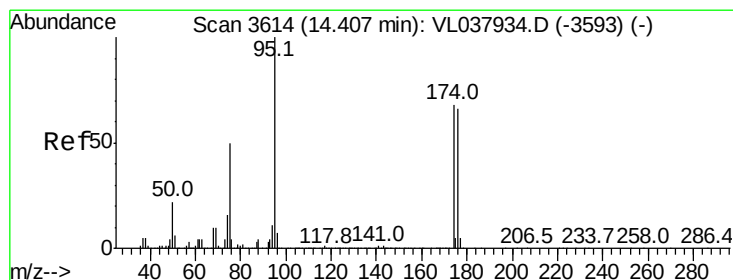
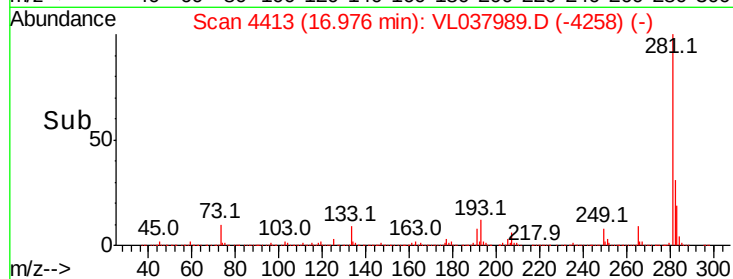
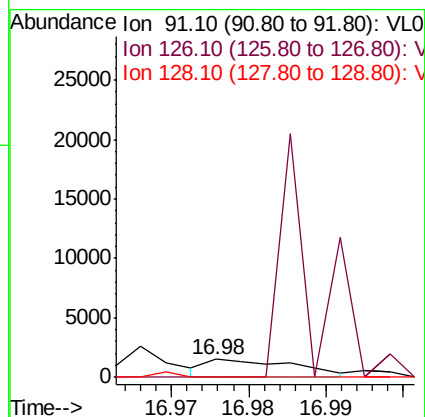
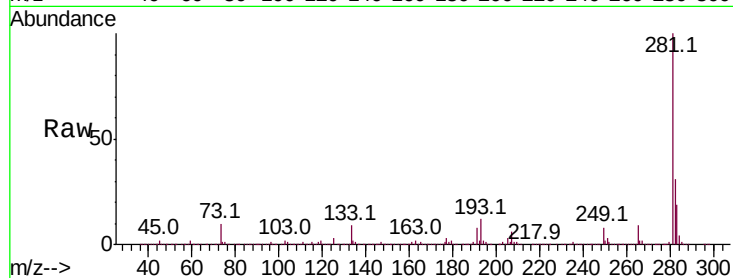
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 119 | 100   |       |       |
| 91  | 3.5   | 61.8  | 92.6# |
| 134 | 9.3   | 16.6  | 25.0# |





#66  
Benzvl Chloride  
Concen: 0.051 ppbv  
RT: 16.98  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId:  
Acq: 9 Nov 2021 21:20

| Tot Ion | 91    | Resp  | 1209  |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 91      | 100   |       |       |
| 126     | 0.0   | 13.8  | 20.6# |
| 128     | 0.0   | 5.1   | 7.7#  |



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.121 ppbv  
RT: 14.41 min Scan# 3614  
Delta R.T. -0.00 min  
Lab File: VL037989.D  
Acq: 9 Nov 2021 21:26

| Tgt Ion | 95    | Resp  | 2362360 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 95      | 100   |       |         |
| 174     | 76.5  | 58.3  | 87.5    |
| 175     | 5.4   | 4.6   | 6.8     |

