

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122121\  
 Data File : VL038217.D  
 Acq On : 21 Dec 2021 16:28  
 Operator : SY/AP  
 Sample : VSTDICC0.03  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICC0.03

Manual Integrations  
 APPROVED

Reviewed By :Amit Patel 12/22/2021  
 Supervised By :Mahesh Dadoda 12/29/2021

Quant Time: Dec 21 17:09:04 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL122121A  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:  
 QLast Update : Tue Dec 21 17:05:23 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.67  | 49   | 749280   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 2254232  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.09 | 117  | 1902768  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.41  | 95    | 1531767  | 10.72    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 107.20% |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Ovalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 5) Vinyl Chloride             | 3.26  | 62   | 1880m    | 0.035 | ppbv  |        |
| 32) 1,1,1-Trichloroethane     | 6.52  | 97   | 4990m    | 0.033 | ppbv  |        |
| 35) Carbon Tetrachloride      | 7.02  | 117  | 4305m    | 0.030 | ppbv  |        |
| 38) Trichloroethene           | 7.84  | 130  | 3177m    | 0.041 | ppbv  |        |
| 52) Tetrachloroethene         | 11.22 | 164  | 3050m    | 0.039 | ppbv  |        |
| 63) 1,1,2,2-Tetrachloroethane | 13.68 | 83   | 7179m    | 0.042 | ppbv  |        |

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

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MSVOA\_L  
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VSTDICC0.03

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Quant Time: Dec 21 17:09:04 2021

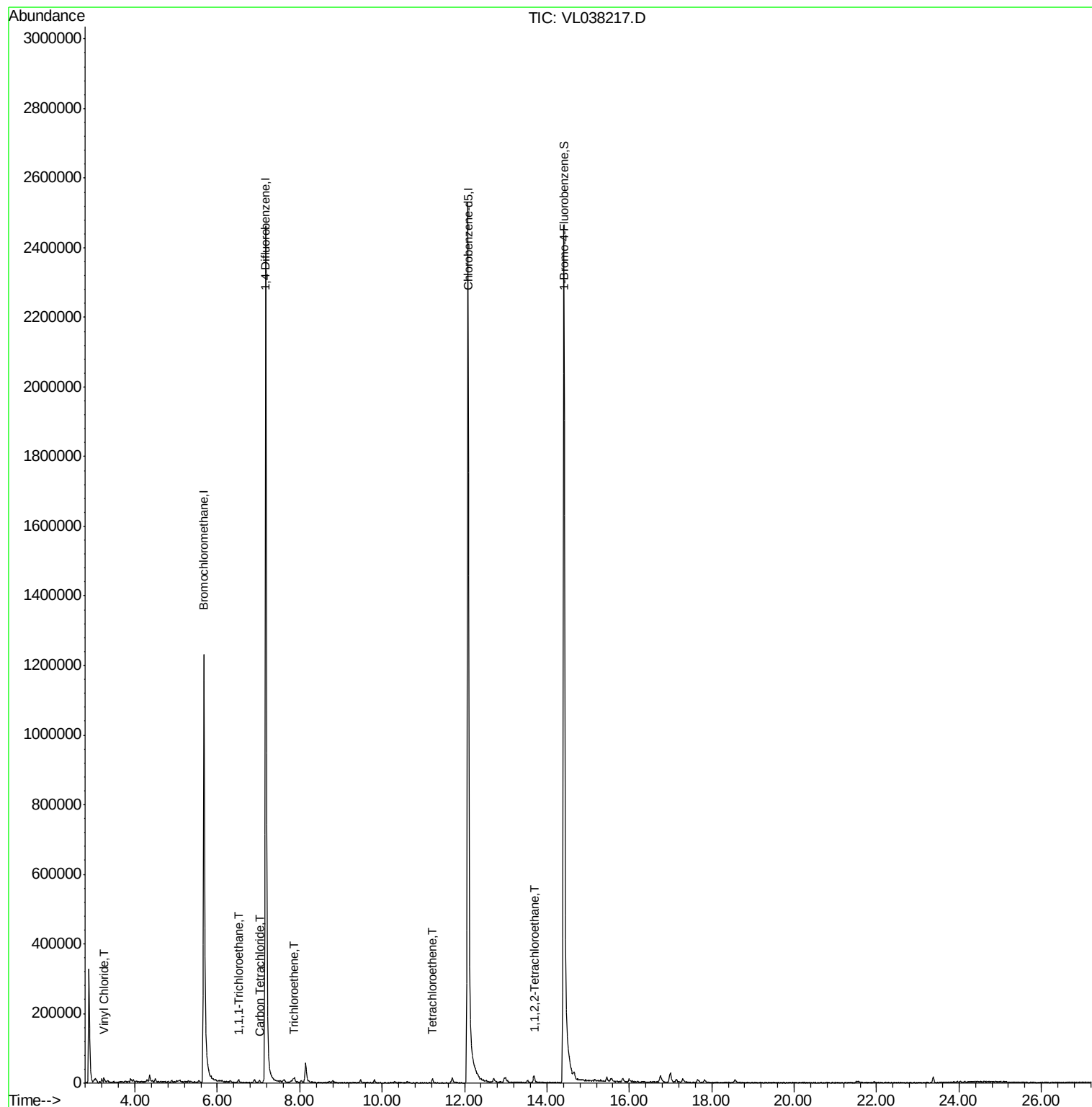
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL122121

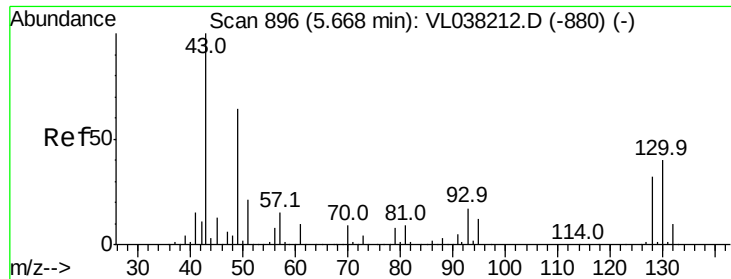
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:

QLast Update : Tue Dec 21 17:05:23 2021

Response via : Initial Calibration

Reviewed By :Amit Patel 12/22/2021  
Supervised By :Mahesh Dadoda 12/29/2021





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument :

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 21 Dec 2021 16:28 VSTDIC0.03

Tot Ion:

Ion Ratio

49 100

128 52.

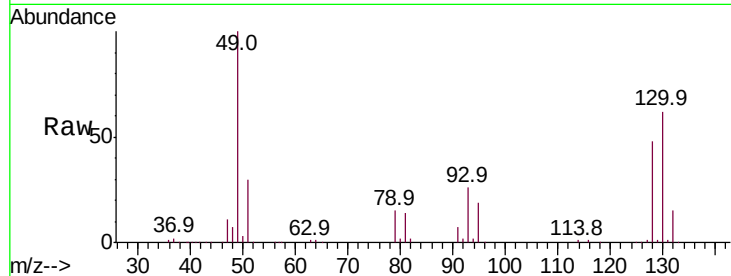
130 66.

Manual Integrations

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Reviewed By :Amit Patel 12/22/2021

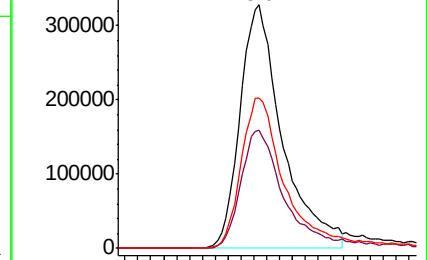
Supervised By :Mahesh Dadoda 12/29/2021



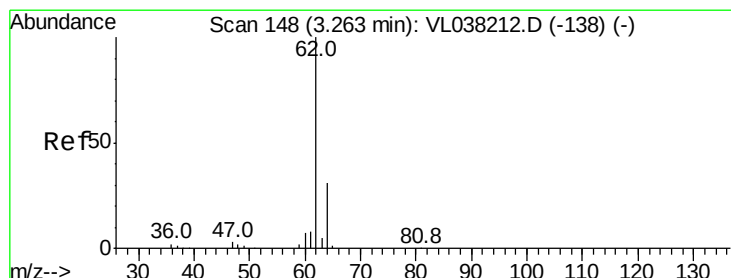
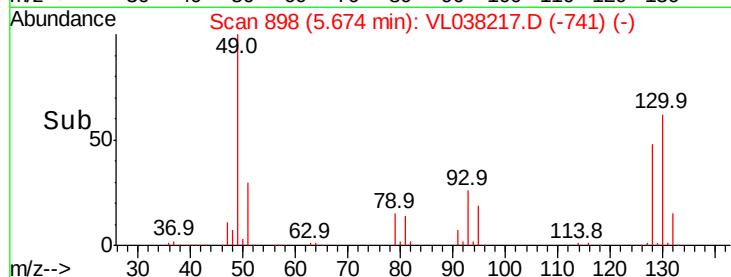
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



Time-->



#5

Vinyl Chloride

Concen: 0.035 ppbv m

RT: 3.26 min Scan# 148

Delta R.T. -0.00 min

Lab File: VL038217.D

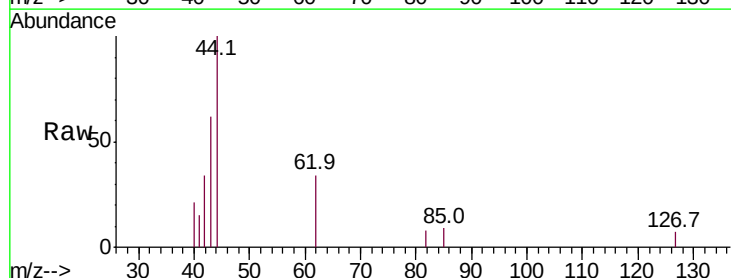
Acq: 21 Dec 2021 16:28

Tgt Ion: 62 Resp: 1880

Ion Ratio Lower Upper

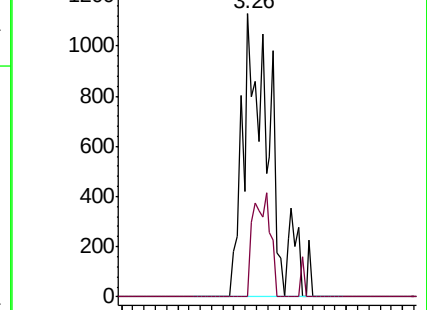
62 100

64 0.0 25.1 37.7#

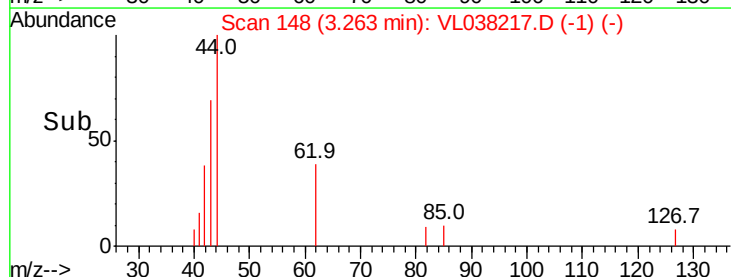


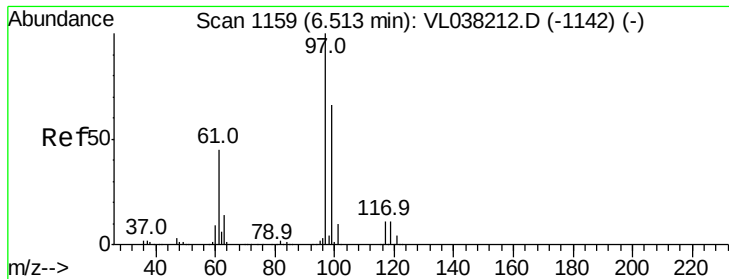
Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



Time-->



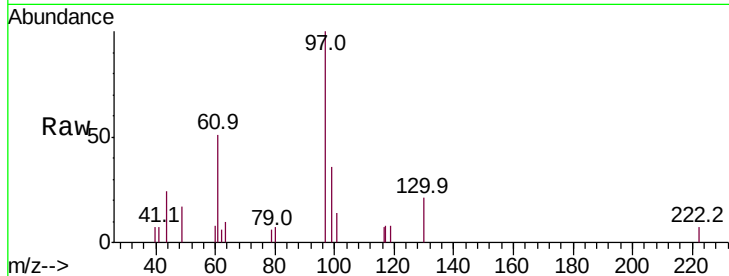


#32  
 1,1,1-Trichloroethane  
 Concen: 0.033 ppbv m  
 RT: 6.52 Instrument : MSVOA\_1  
 Delta R.T. ClientSampleId :  
 Lab File: VSTDIC0.03  
 Acq: 21 Dec 2021 16:28

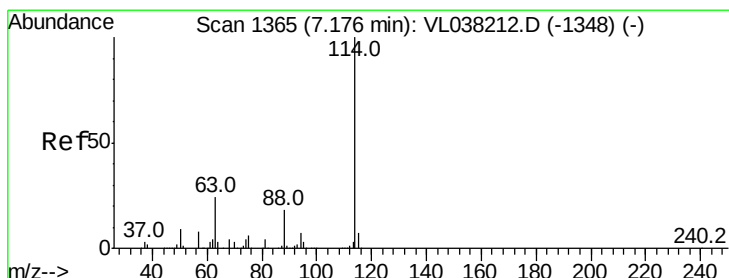
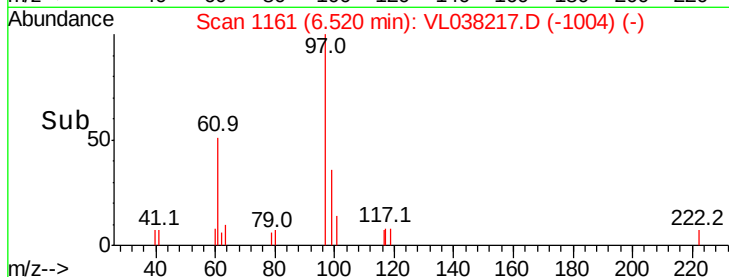
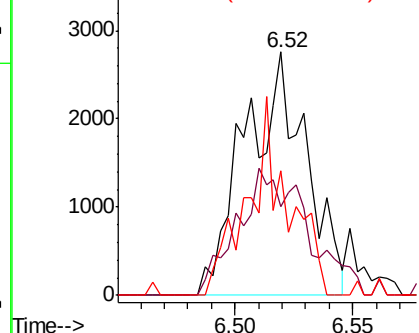
Tot Ion:  
 Ion Ratio  
 97 100  
 99 0.  
 61 0.

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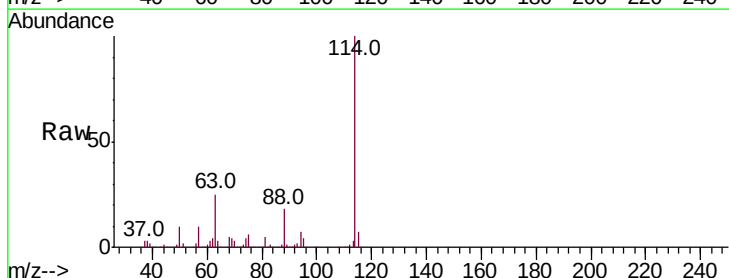


Abundance Ion 97.00 (96.70 to 97.70): VL0  
 Ion 99.00 (98.70 to 99.70): VL0  
 Ion 61.10 (60.80 to 61.80): VL0

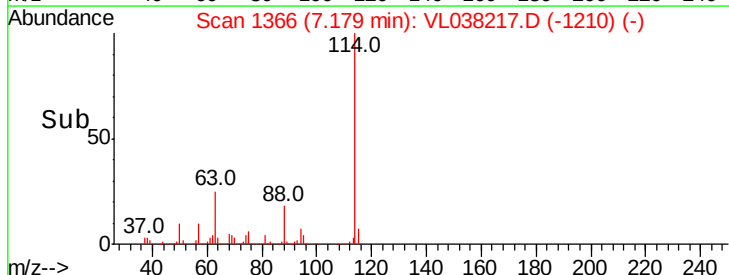
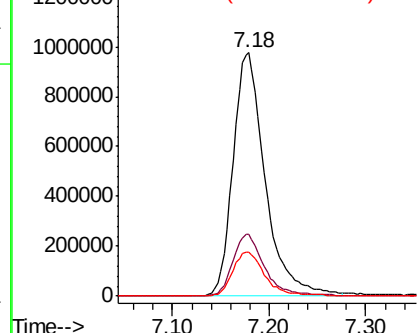


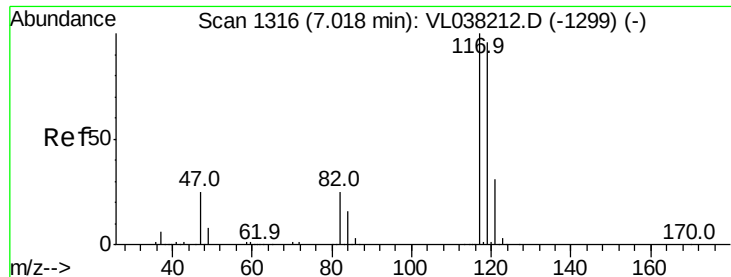
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.18 min Scan# 1366  
 Delta R.T. 0.00 min  
 Lab File: VL038217.D  
 Acq: 21 Dec 2021 16:28

Tgt Ion:114 Resp: 2254232  
 Ion Ratio Lower Upper  
 114 100  
 63 25.5 19.7 29.5  
 88 18.5 14.3 21.5



Abundance Ion 114.10 (113.80 to 114.80): V  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0





#35

Carbon Tetrachloride

Concen: 0.030 ppbv m

RT: 7.02 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 21 Dec 2021 16:28 VSTDIC0.03

Tot Ion:1

Ion Rati

117 100

119 54.

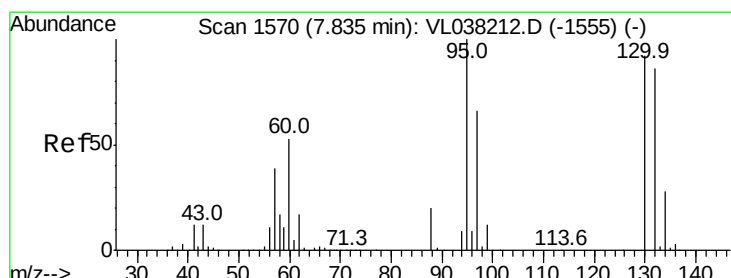
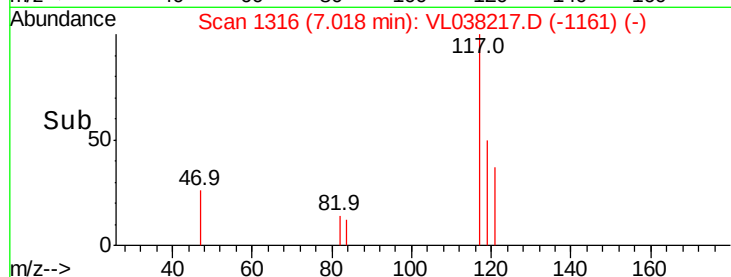
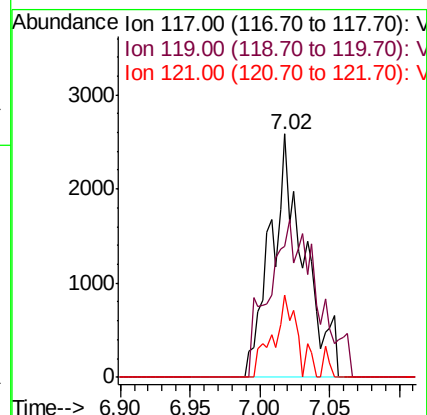
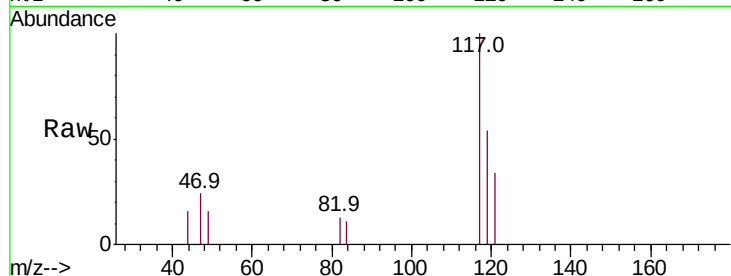
121 33.

Manual Integrations

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#38

Trichloroethene

Concen: 0.041 ppbv m

RT: 7.84 min Scan# 1573

Delta R.T. 0.01 min

Lab File: VL038217.D

Acq: 21 Dec 2021 16:28

Tgt Ion:130 Resp: 3177

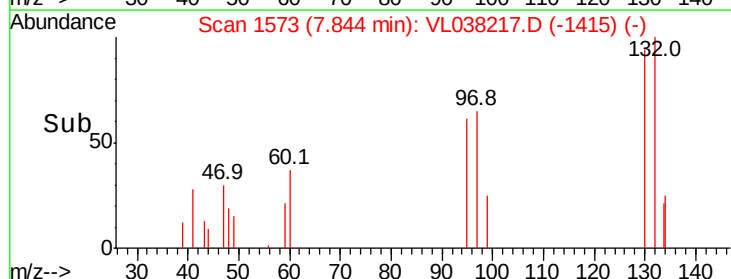
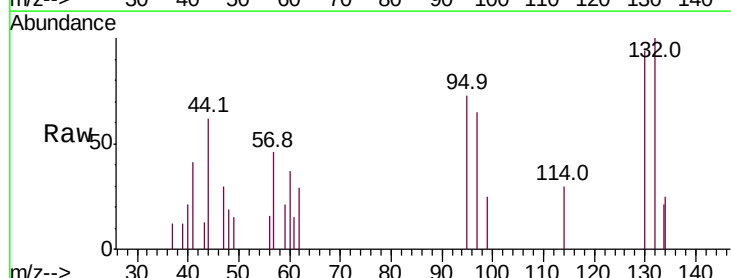
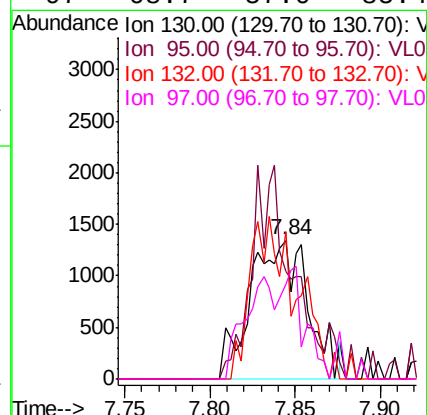
Ion Ratio Lower Upper

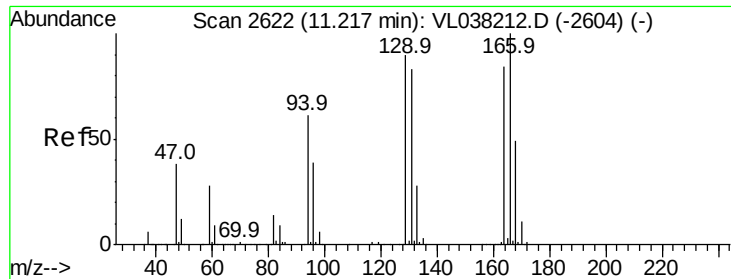
130 100

95 77.6 87.0 130.4#

132 106.5 75.1 112.7

97 68.7 57.0 85.4





#52

Tetrachloroethene

Concen: 0.039 ppbv m

RT: 11.22

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 21 Dec 2021 16:28 VSTDIC0.03

Tot Ion:1

Ion Rati

164 100

166 74.

129 59.

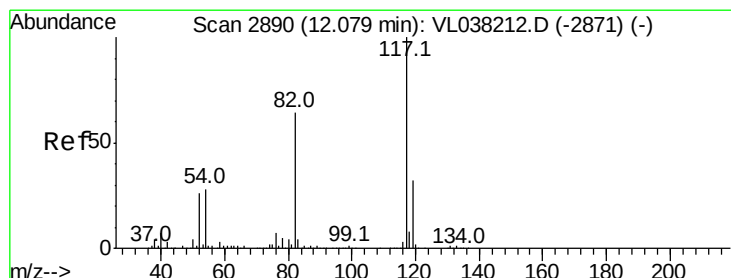
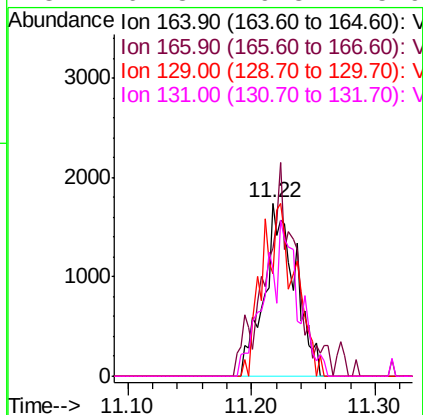
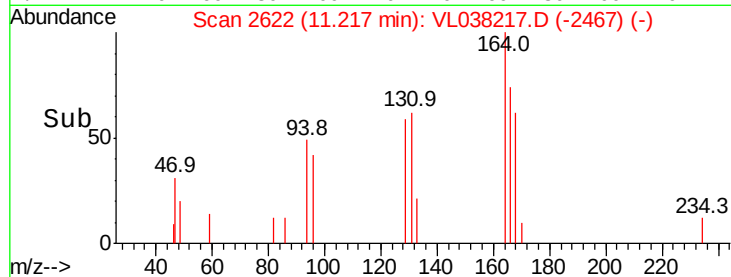
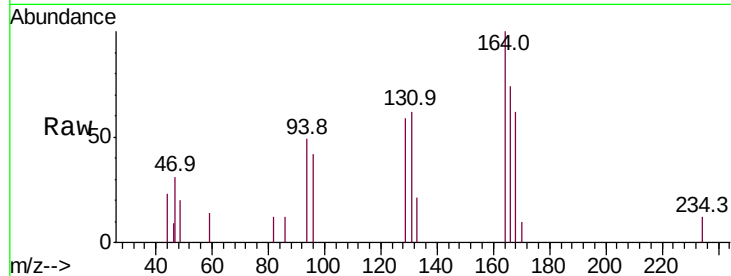
131 61.8 79.3 118.9#

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2892

Delta R.T. 0.01 min

Lab File: VL038217.D

Acq: 21 Dec 2021 16:28

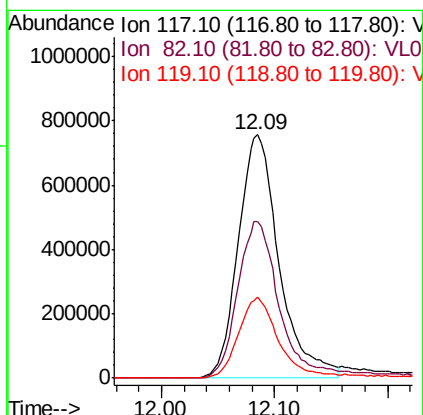
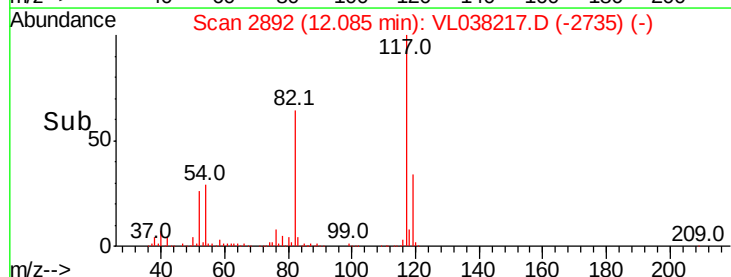
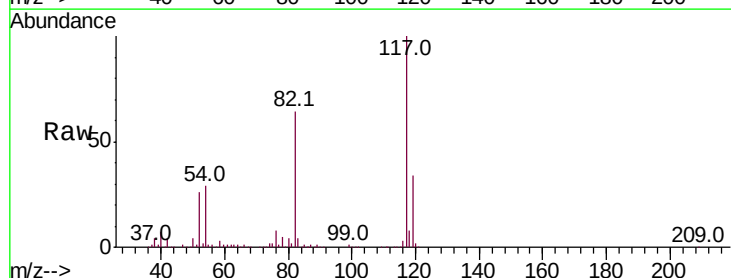
Tgt Ion:117 Resp: 1902768

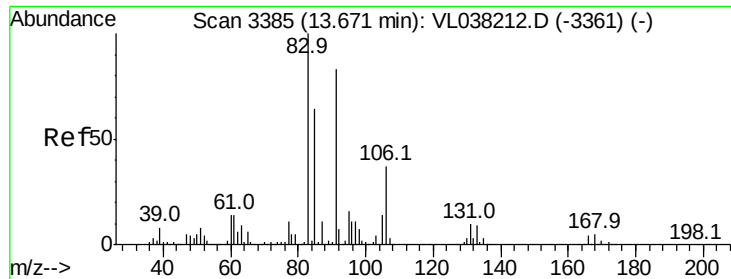
Ion Ratio Lower Upper

117 100

82 71.0 53.3 79.9

119 35.2 25.5 38.3



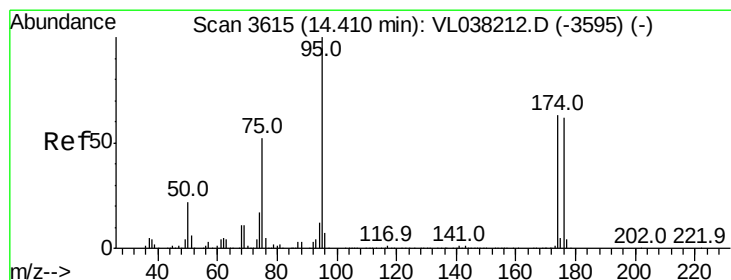
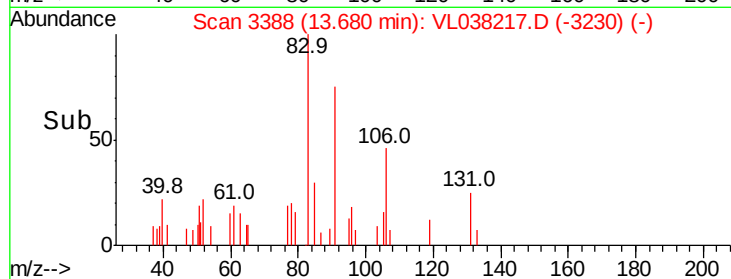
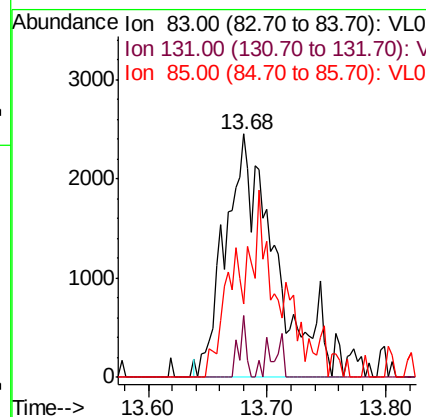
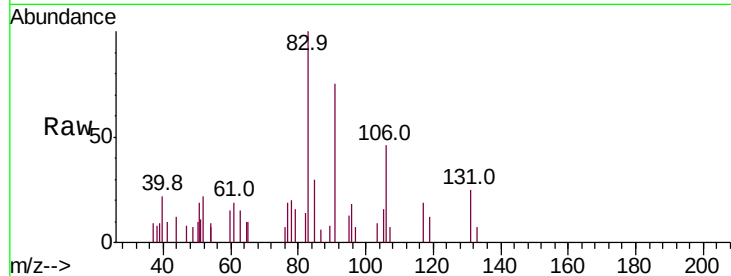


#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.042 ppbv m  
 RT: 13.68  
 Instrument: MSVOA\_1  
 Delta R.T.:  
 Lab File: ClientSampleId :  
 VSTDIC0.03  
 Acq: 21 Dec 2021 16:28

Tot Ion:  
 Ion Ratio  
 83 100  
 131 7.  
 85 0.

Manual Integrations  
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#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.724 ppbv  
 RT: 14.41 min Scan# 3616  
 Delta R.T. 0.00 min  
 Lab File: VL038217.D  
 Acq: 21 Dec 2021 16:28

Tgt Ion: 95 Resp: 1531767  
 Ion Ratio Lower Upper  
 95 100  
 174 63.8 54.6 81.8  
 175 4.5 4.1 6.1

