

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032521\  
 Data File : VL036482.D  
 Acq On : 25 Mar 2021 12:16  
 Operator : SY/AP  
 Sample : M1801-05  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA L  
 ClientSampleId :  
 IA2

Manual Integrations  
 APPROVED

Reviewed By :Semsettin Yesilyurt 03/28/2021  
 Supervised By :Mahesh Dadoda 03/29/2021

Quant Time: Mar 28 23:09:06 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521A  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:  
 QLast Update : Thu Mar 25 09:42:40 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1412314  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 3253273  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.08 | 117  | 2921813  | 10.00 | ppbv  | -0.01    |

## System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.41  | 95    | 2230386  | 9.58     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 95.80% |

## Target Compounds

|                            | R.T.  | QIon | Response | Conc    | Units  | Ovalue |
|----------------------------|-------|------|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane | 3.04  | 85   | 36487    | 0.158   | ppbv   | 93     |
| 3) Chlorodifluoromethane   | 2.98  | 51   | 244507m  | 0.927   | ppbv   |        |
| 4) Chloromethane           | 3.13  | 50   | 49767    | 0.534   | ppbv   | 93     |
| 9) Propene                 | 3.02  | 41   | 221563m  | 2.634   | ppbv   |        |
| 11) Trichlorofluoromethane | 3.94  | 101  | 49948    | 0.213   | ppbv   | 99     |
| 13) Ethanol                | 3.61  | 45   | 3694676  | 368.824 | ppbv   | 92     |
| 15) Acetone                | 3.84  | 43   | 763105   | 5.490   | ppbv   | 95     |
| 19) Isopropyl Alcohol      | 3.97  | 45   | 511838   | 6.694   | ppbv   | 98     |
| 20) Methylene Chloride     | 4.34  | 84   | 1348291  | 20.717  | ppbv   | 96     |
| 26) Hexane                 | 5.68  | 57   | 989197   | 6.450   | ppbv # | 50     |
| 30) Cyclohexane            | 7.16  | 84   | 18454m   | 0.148   | ppbv   |        |
| 35) Carbon Tetrachloride   | 7.01  | 117  | 15004m   | 0.060   | ppbv   |        |
| 36) Benzene                | 6.88  | 78   | 67332    | 0.224   | ppbv # | 89     |
| 44) 2,2,4-Trimethylpentane | 7.87  | 57   | 57442m   | 0.109   | ppbv   |        |
| 52) Tetrachloroethene      | 11.22 | 164  | 30002m   | 0.272   | ppbv   |        |
| 53) Toluene                | 9.80  | 91   | 987629   | 3.091   | ppbv   | 98     |
| 59) m/p-Xylene             | 12.96 | 91   | 98819m   | 0.267   | ppbv   |        |
| 60) o-Xylene               | 13.68 | 91   | 38296m   | 0.107   | ppbv   |        |
| 74) 1,2,4-Trimethylbenzene | 16.76 | 105  | 43565m   | 0.111   | ppbv   |        |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument: MSVOA\_1

Delta R.T. ClientSampleId:

Lab File: IA2

Acq: 25 Mar 2021 12:16

Tot Ion:

Ion Ratio

49 100

128 43.

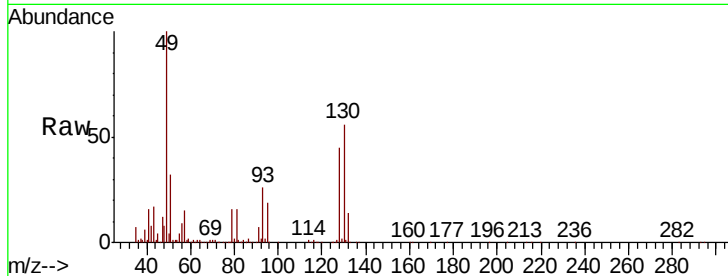
130 57.

Manual Integrations

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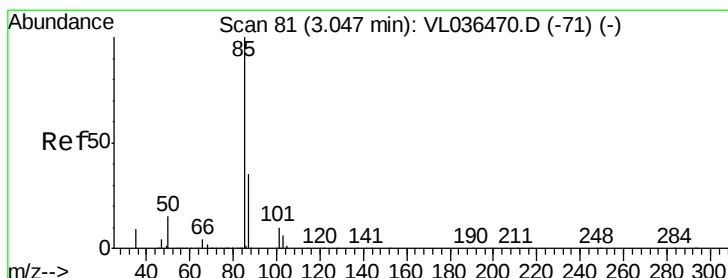
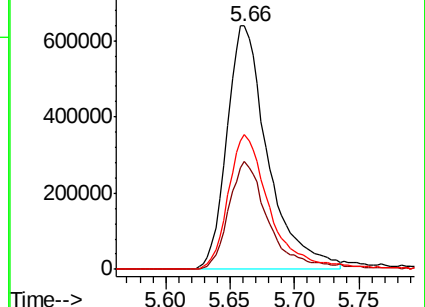
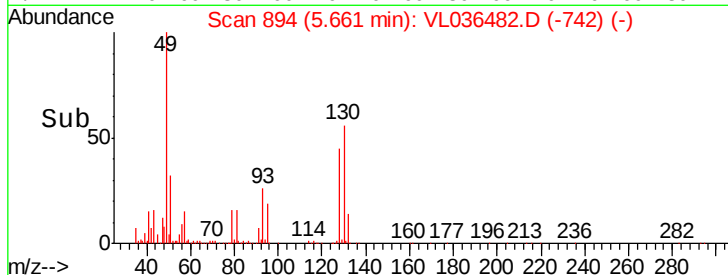


Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

5.66



#2

Dichlorodifluoromethane

Concen: 0.158 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL036482.D

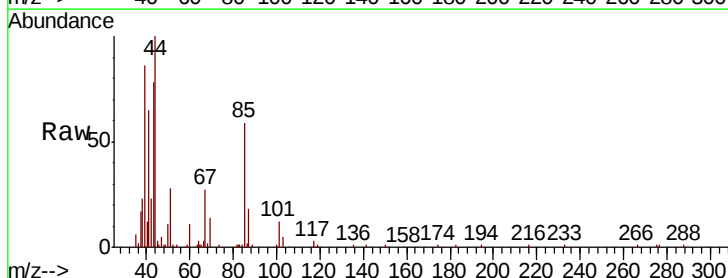
Acq: 25 Mar 2021 12:16

Tgt Ion: 85 Resp: 36487

Ion Ratio Lower Upper

85 100

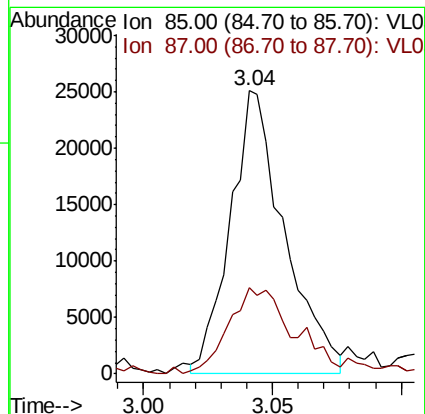
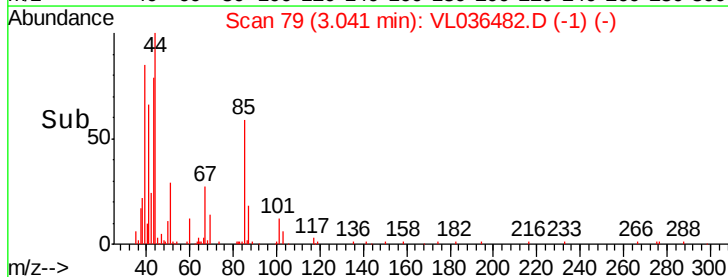
87 30.5 27.8 41.8

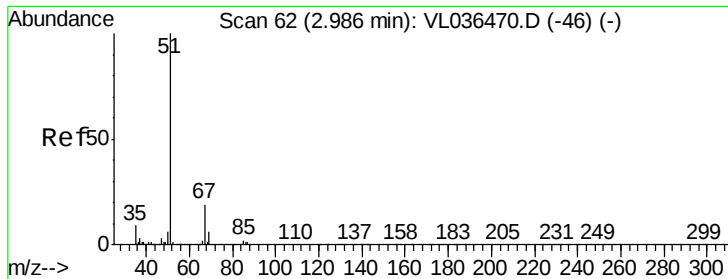


Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.04





#3

Chlorodifluoromethane

Concen: 0.927 ppbv m

RT: 2.98 Instrument: MSVOA\_1

Delta R.T. -0.01 min

Lab File: ClientSampleId : IA2

Acq: 25 Mar 2021 12:16

Tot Ion:

Ion Ratio

51 100

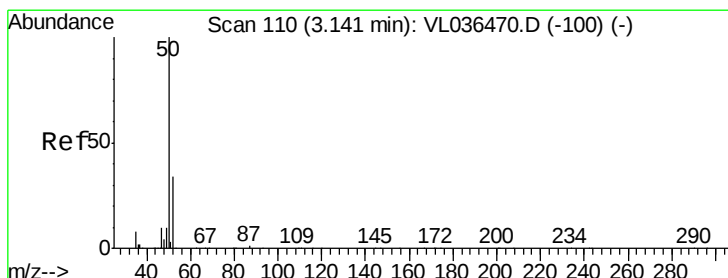
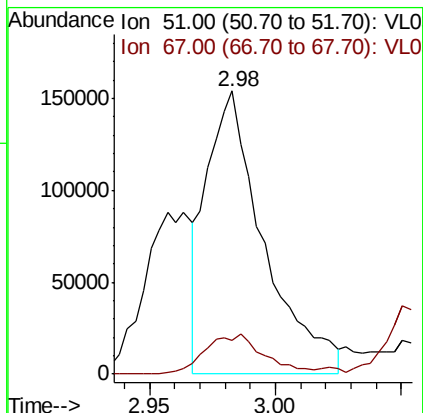
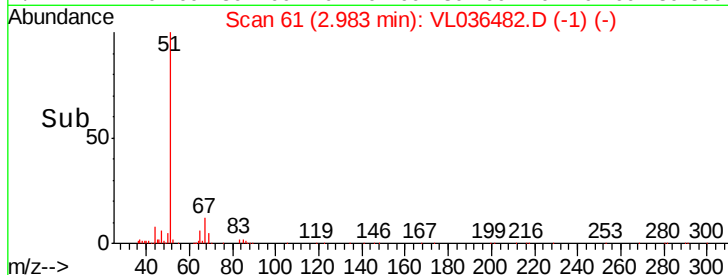
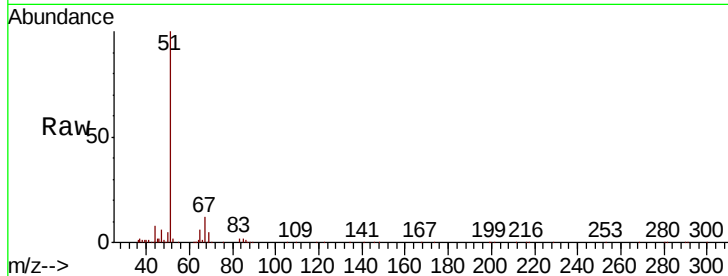
67 14.

Manual Integrations

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#4

Chloromethane

Concen: 0.534 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL036482.D

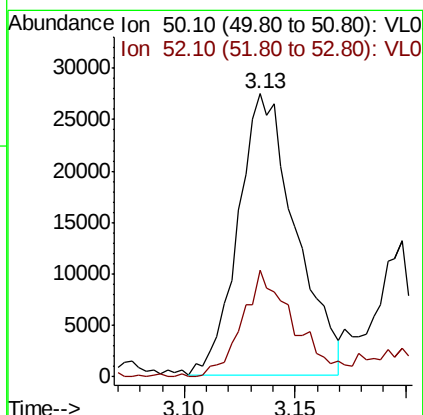
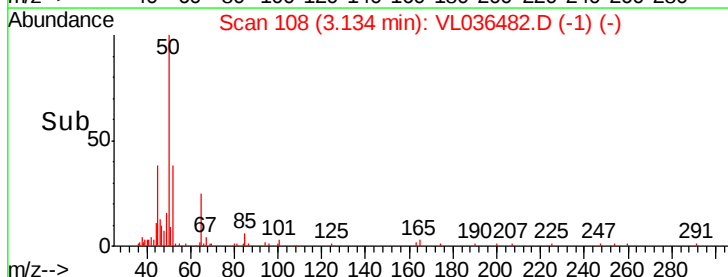
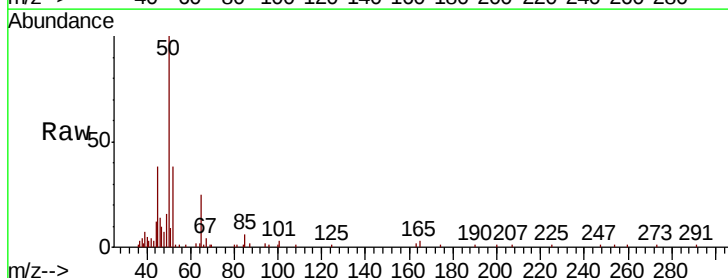
Acq: 25 Mar 2021 12:16

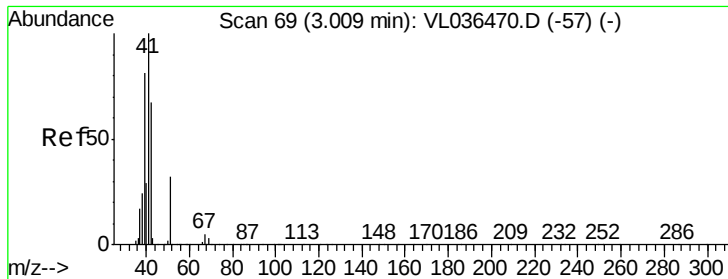
Tgt Ion: 50 Resp: 49767

Ion Ratio Lower Upper

50 100

52 38.0 27.0 40.6





#9

Propene

Concen: 2.634 ppbv m

RT: 3.02 Instrument :

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 25 Mar 2021 12:16

Tot Ion:

Ion Ratio

41 100

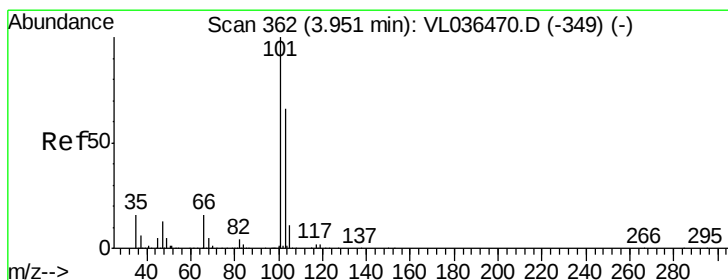
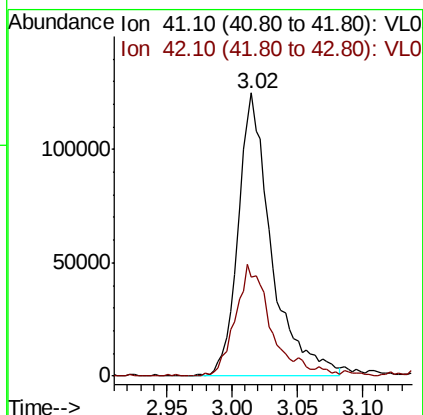
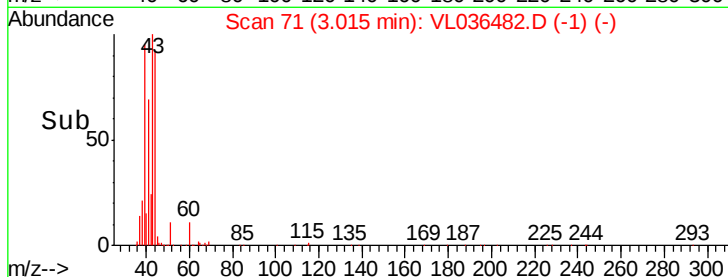
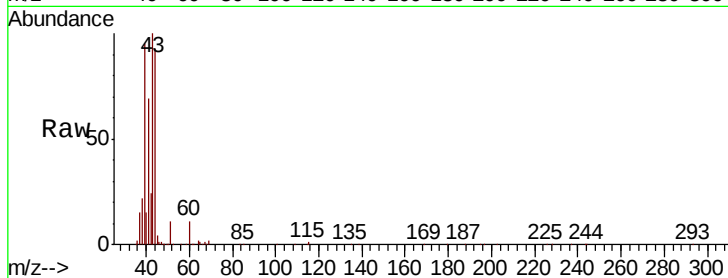
42 232.

Manual Integrations

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#11

Trichlorofluoromethane

Concen: 0.213 ppbv

RT: 3.94 min Scan# 360

Delta R.T. -0.01 min

Lab File: VL036482.D

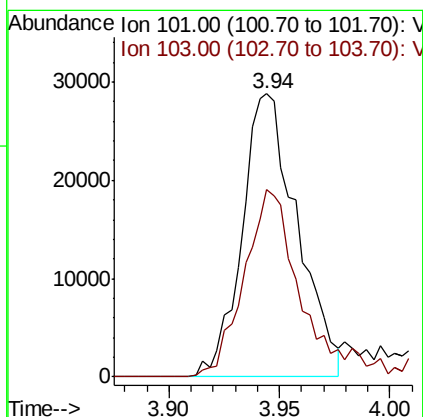
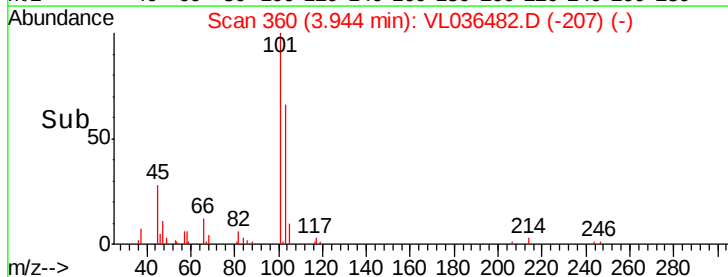
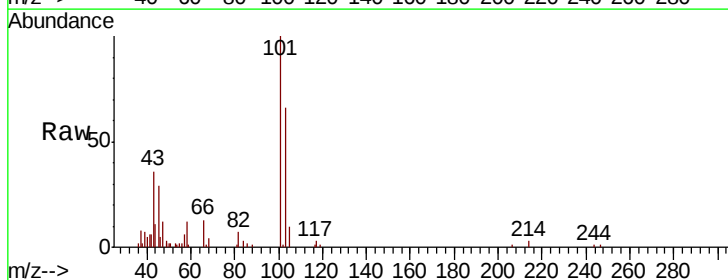
Acq: 25 Mar 2021 12:16

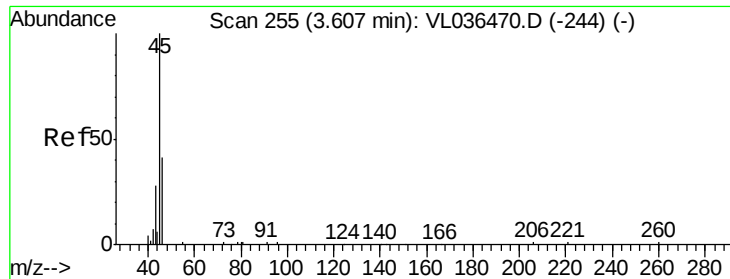
Tgt Ion:101 Resp: 49948

Ion Ratio Lower Upper

101 100

103 66.4 52.5 78.7



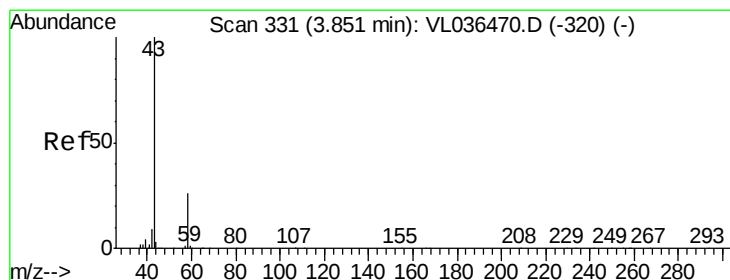
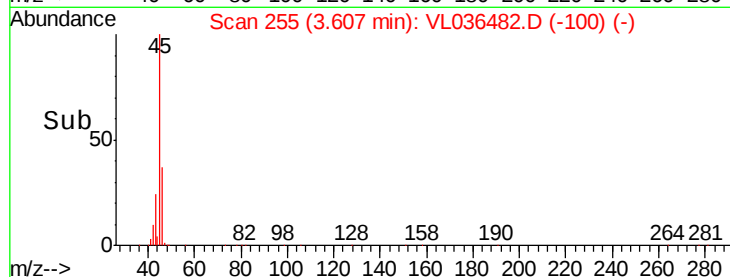
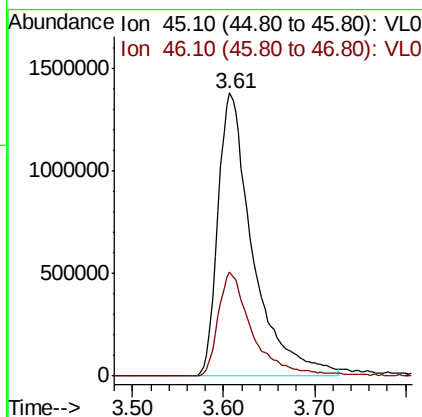
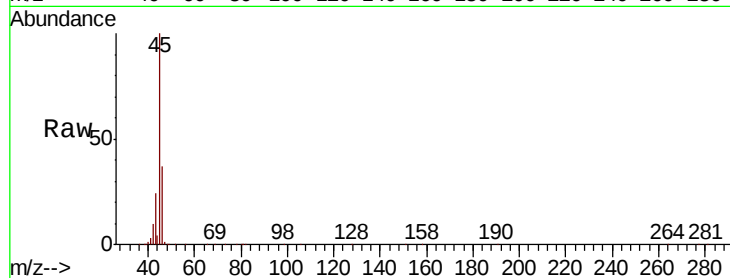


#13  
Ethanol  
Concen: 368.824 ppbv  
RT: 3.61  
Instrument : MSVOA\_1  
Delta R.T. :  
Lab File: ClientSampleId :  
Acq: 25 Mar 2021 12:16

Tot Ion:  
Ion Ratio  
45 100  
46 36.

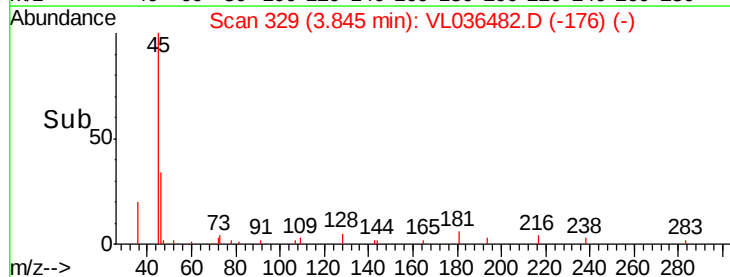
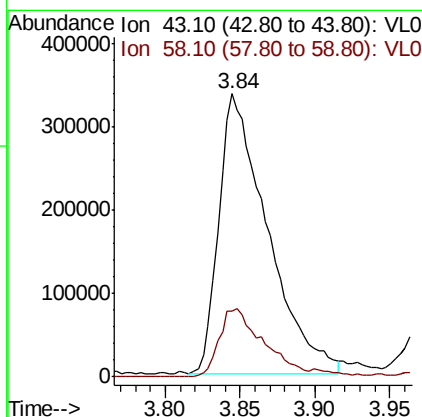
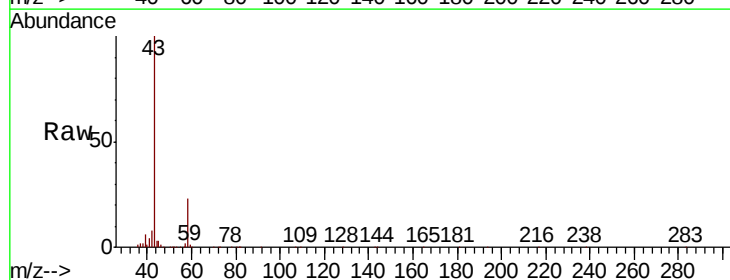
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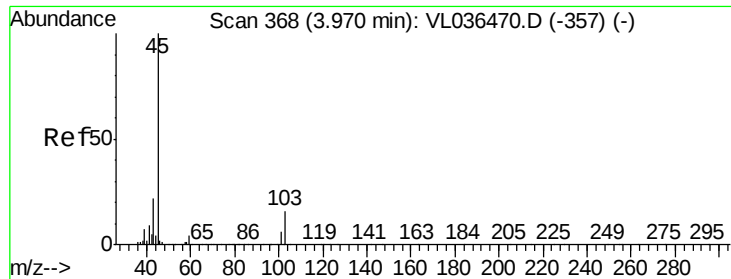
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Supervised By :Mahesh Dadoda 03/29/2021



#15  
Acetone  
Concen: 5.490 ppbv  
RT: 3.84 min Scan# 329  
Delta R.T. -0.01 min  
Lab File: VL036482.D  
Acq: 25 Mar 2021 12:16

Tgt Ion: 43 Resp: 763105  
Ion Ratio Lower Upper  
43 100  
58 23.7 21.2 31.8



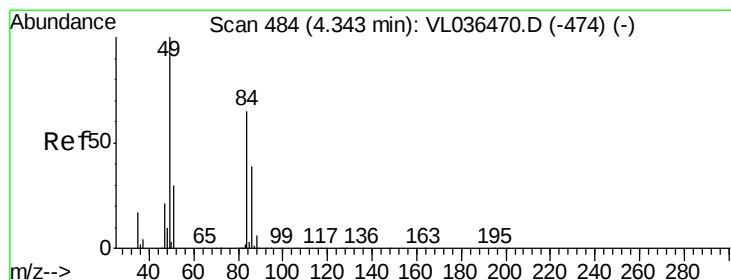
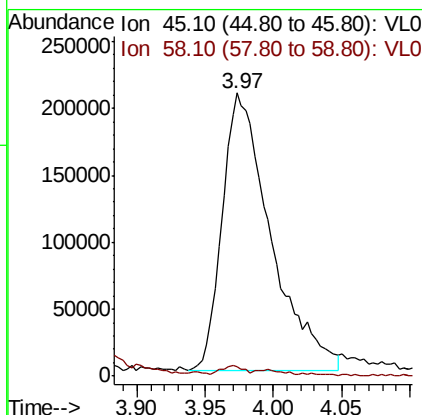
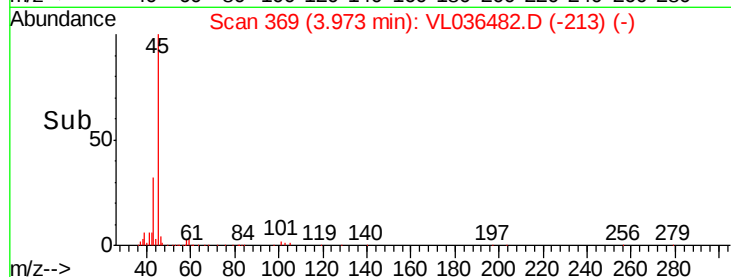
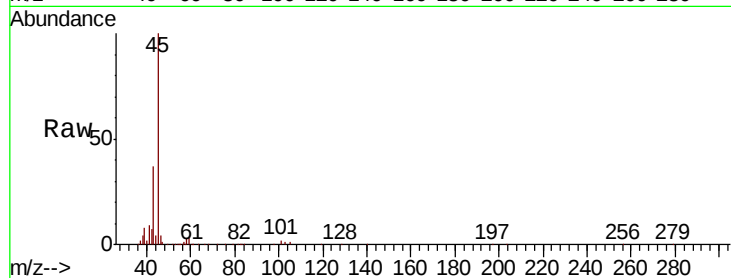


#19  
Isopropyl Alcohol  
Concen: 6.694 ppbv  
RT: 3.97  
Delta R.T.: MSVOA.L  
Lab File: ClientSampleId :  
Acq: 25 Mar 2021 12:16

Tot Ion:  
Ion Ratio  
45 100  
58 3.

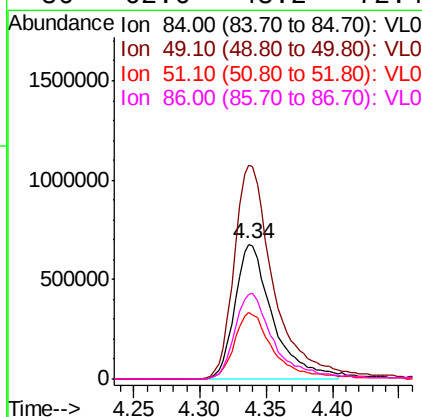
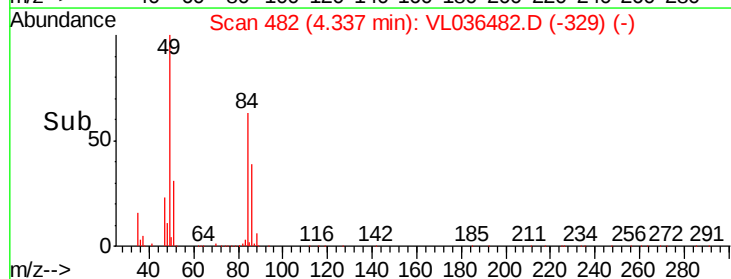
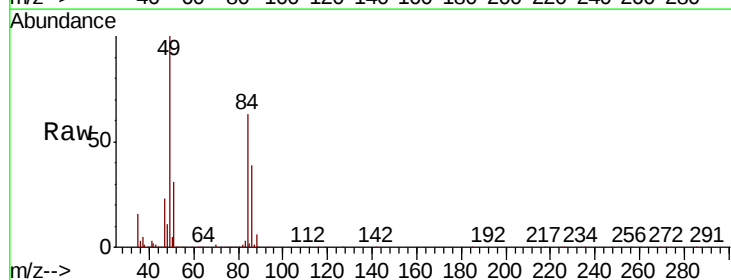
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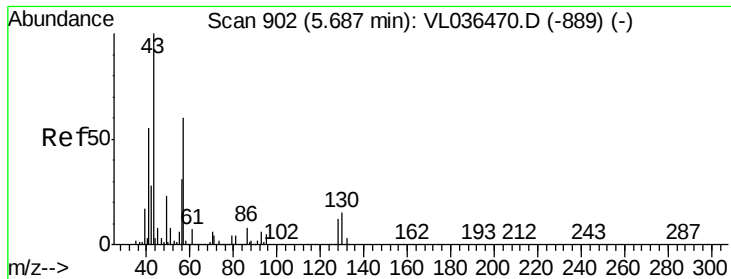
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Supervised By :Mahesh Dadoda 03/29/2021



#20  
Methylene Chloride  
Concen: 20.717 ppbv  
RT: 4.34 min Scan# 482  
Delta R.T.: -0.01 min  
Lab File: VL036482.D  
Acq: 25 Mar 2021 12:16

Tgt Ion: 84 Resp: 1348291  
Ion Ratio Lower Upper  
84 100  
49 158.9 122.9 184.3  
51 49.8 36.9 55.3  
86 62.6 48.2 72.4



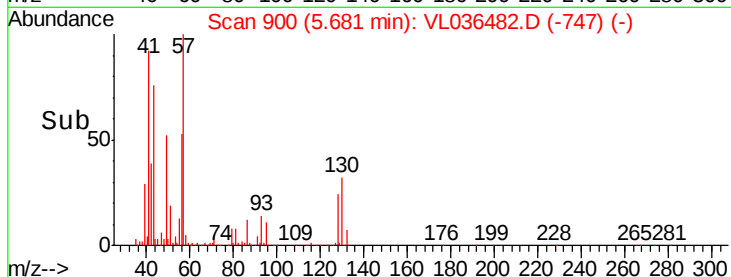
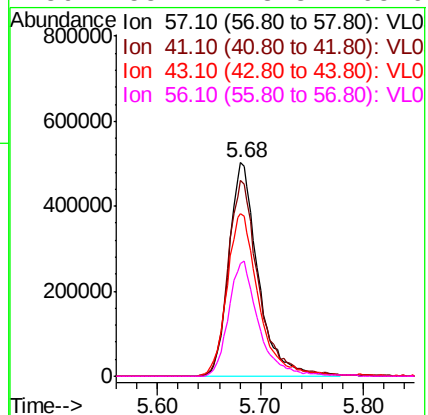
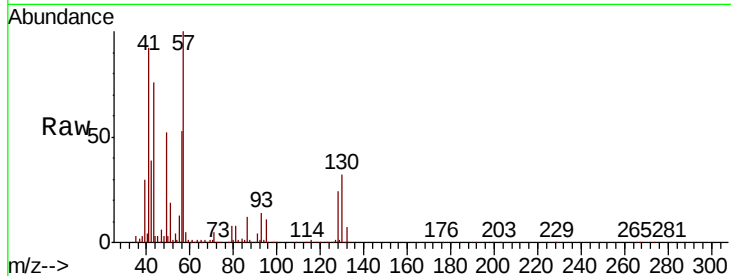


#26  
Hexane  
Concen: 6.450 ppbv  
RT: 5.68  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 25 Mar 2021 12:16

Tot Ion:  
Ion Ratio  
57 100  
41 97.  
43 82.  
56 55.7 43.8 65.6

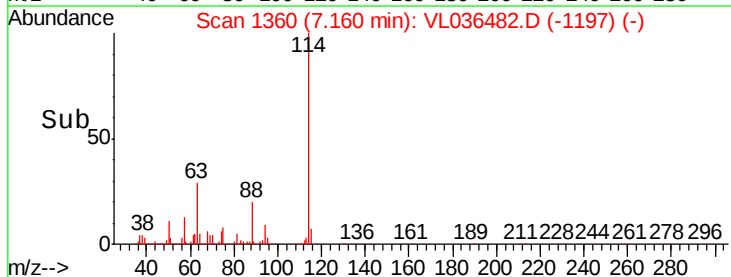
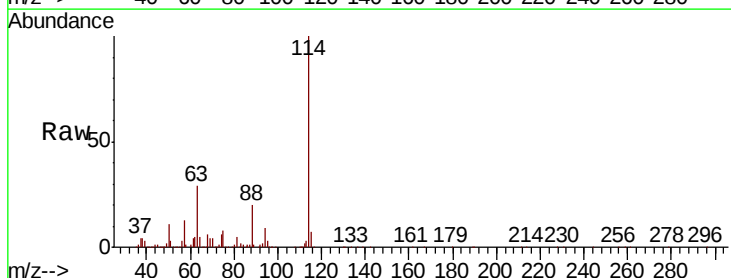
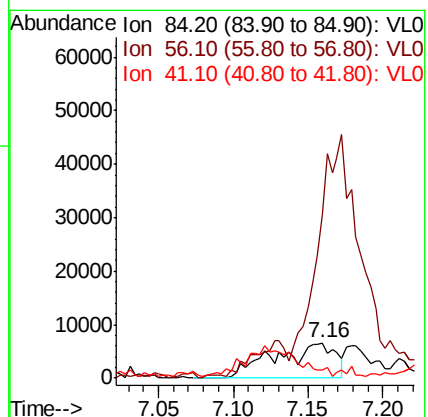
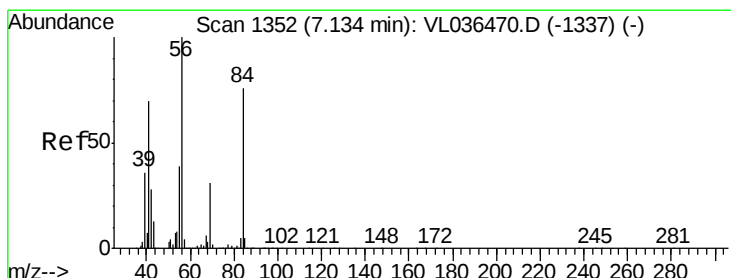
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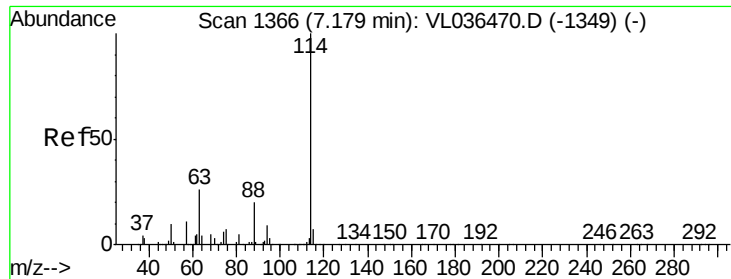
Reviewed By :Semsettin Yesilyurt 03/28/2021  
Supervised By :Mahesh Dadoda 03/29/2021



#30  
Cyclohexane  
Concen: 0.148 ppbv m  
RT: 7.16 min Scan# 1360  
Delta R.T. 0.03 min  
Lab File: VL036482.D  
Acq: 25 Mar 2021 12:16

Tgt Ion: 84 Resp: 18454  
Ion Ratio Lower Upper  
84 100  
56 0.0 114.6 171.8#  
41 85.8 75.3 112.9



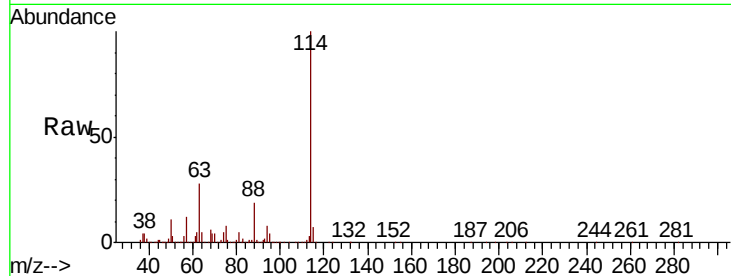


#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.17  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 Acq: 25 Mar 2021 12:16

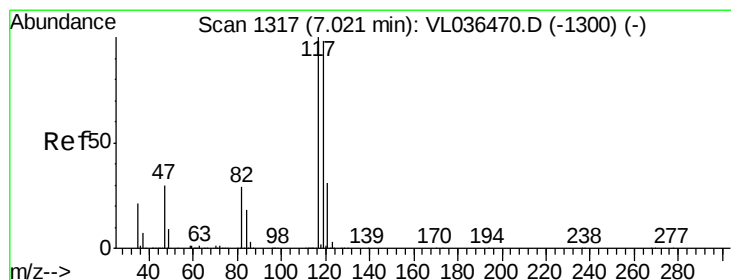
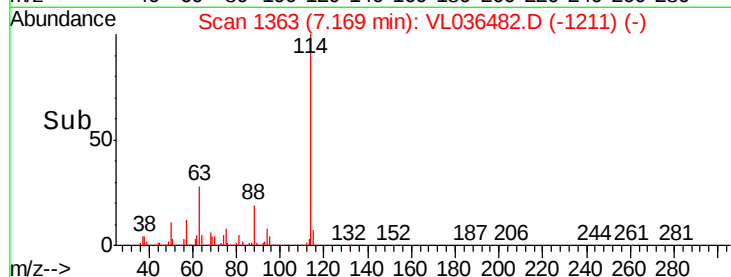
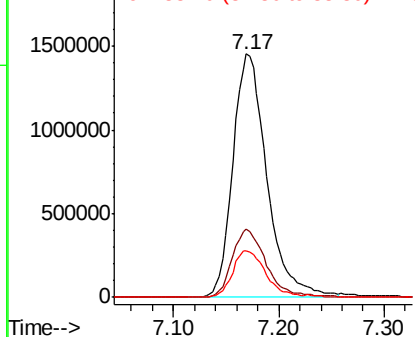
Tot Ion:1  
 Ion Rati  
 114 100  
 63 28.  
 88 19.

Manual Integrations  
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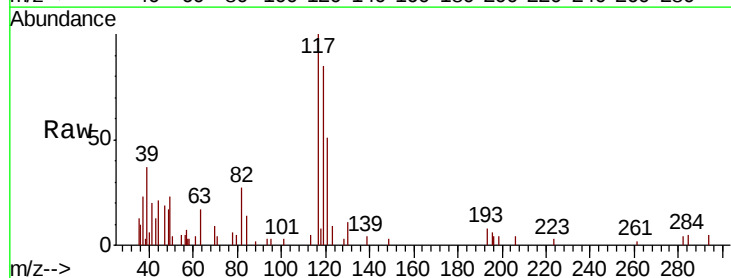


Abundance Ion 114.10 (113.80 to 114.80): V  
 2000000  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

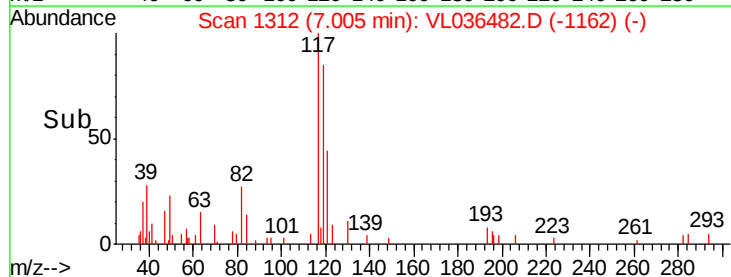
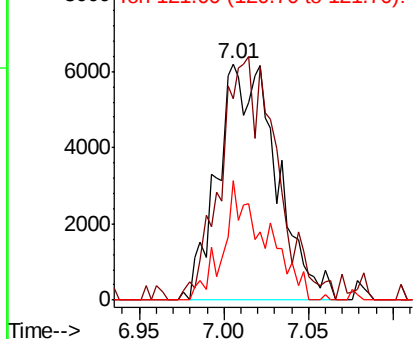


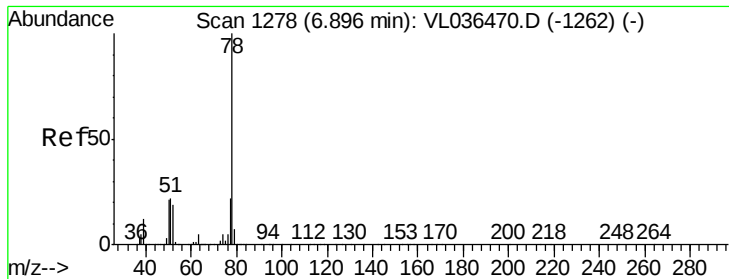
#35  
 Carbon Tetrachloride  
 Concen: 0.060 ppbv m  
 RT: 7.01 min Scan# 1312  
 Delta R.T. -0.02 min  
 Lab File: VL036482.D  
 Acq: 25 Mar 2021 12:16

Tgt Ion:117 Resp: 15004  
 Ion Ratio Lower Upper  
 117 100  
 119 85.3 78.2 117.2  
 121 50.7 24.5 36.7#



Abundance Ion 117.00 (116.70 to 117.70): V  
 8000  
 Ion 119.00 (118.70 to 119.70): V  
 Ion 121.00 (120.70 to 121.70): V





#36

Benzene

Concen: 0.224 ppbv

RT: 6.88 Instrument:

Delta R.T. MSVOA\_1

Lab File: ClientSampleId:

Acq: 25 Mar 2021 12:16

Tot Ion:

Ion Ratio

78 100

77 16.

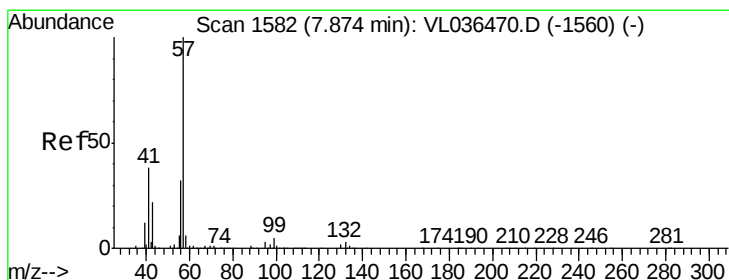
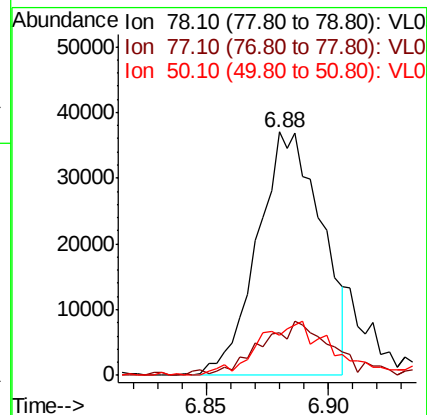
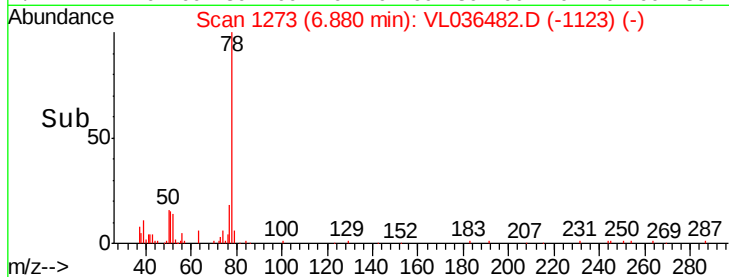
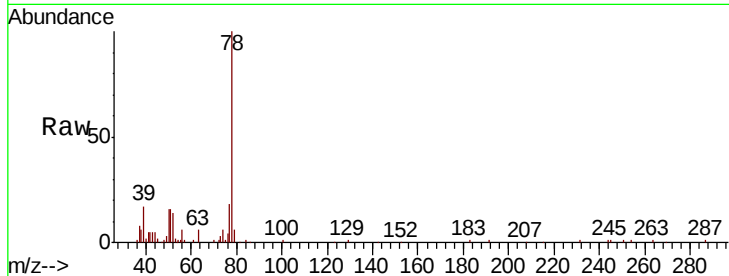
50 16.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 03/28/2021

Supervised By :Mahesh Dadoda 03/29/2021



#44

2,2,4-Trimethylpentane

Concen: 0.109 ppbv m

RT: 7.87 min Scan# 1580

Delta R.T. -0.01 min

Lab File: VL036482.D

Acq: 25 Mar 2021 12:16

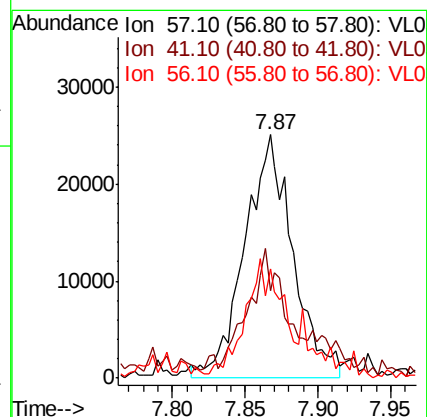
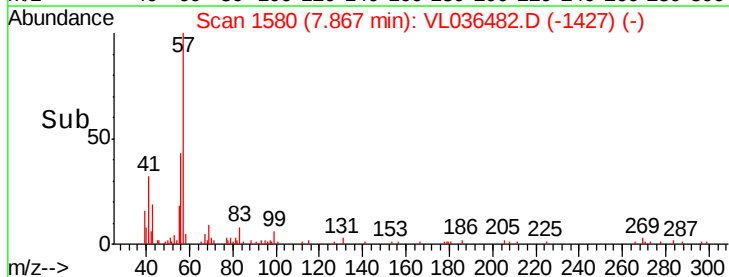
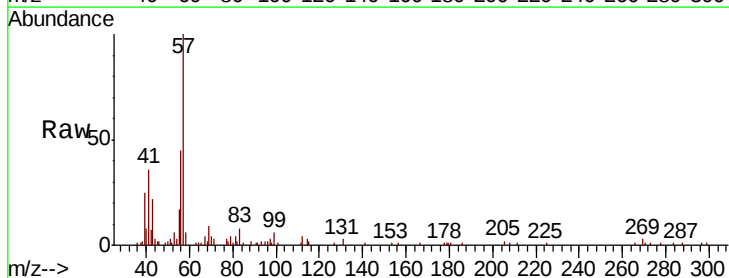
Tgt Ion: 57 Resp: 57442

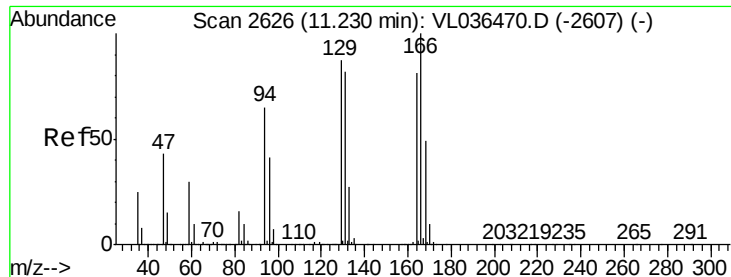
Ion Ratio Lower Upper

57 100

41 57.8 28.8 43.2#

56 50.4 26.1 39.1#





#52

Tetrachloroethene

Concen: 0.272 ppbv m

RT: 11.22

Delta R.T. MSVOA\_L

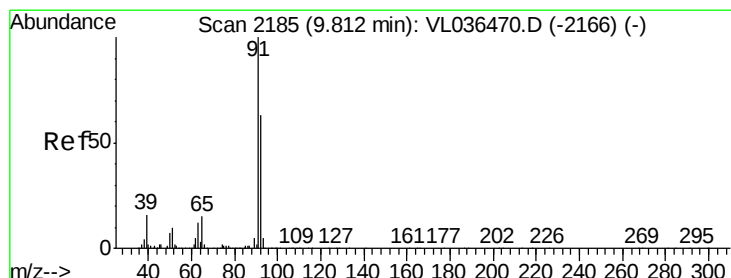
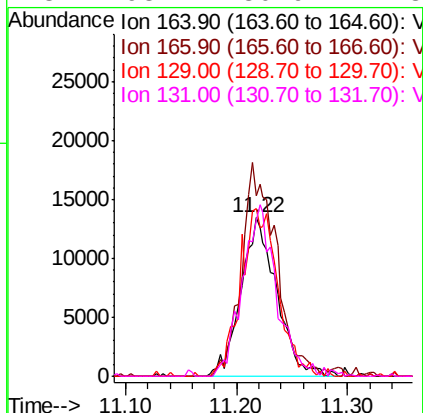
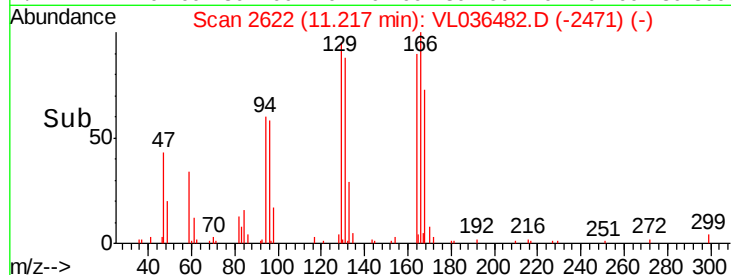
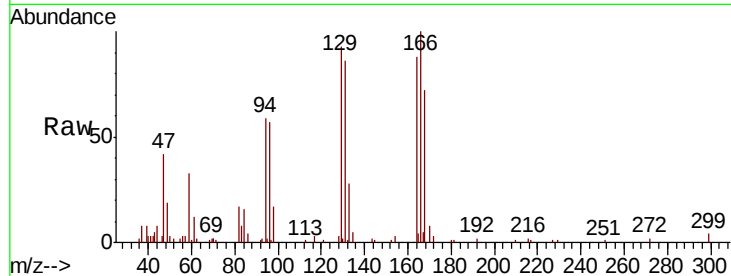
Lab File: ClientSampleId :

Acq: 25 Mar 2021 12:16

Tot Ion: 1  
Ion Ratio  
164 100  
166 113.  
129 106.  
131 98.4 80.9 121.3

Manual Integrations  
APPROVED

Reviewed By :Semsettin Yesilyurt 03/28/2021  
Supervised By :Mahesh Dadoda 03/29/2021



#53

Toluene

Concen: 3.091 ppbv

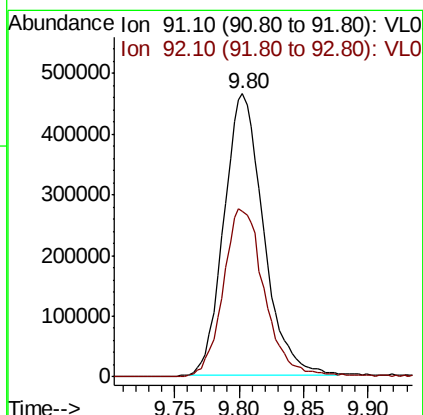
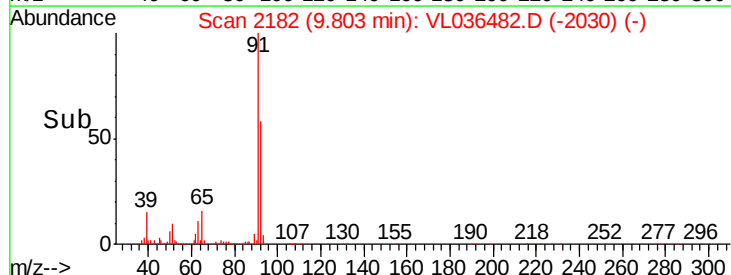
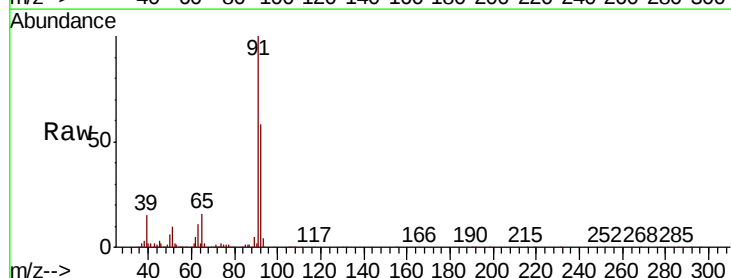
RT: 9.80 min Scan# 2182

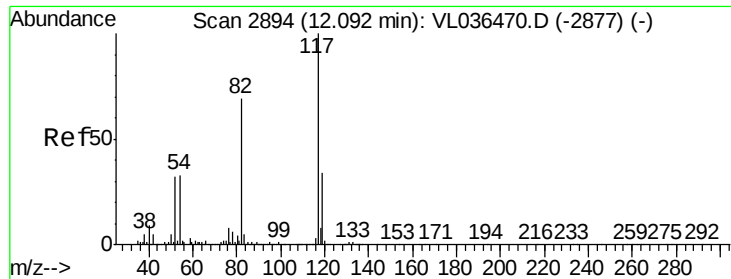
Delta R.T. -0.01 min

Lab File: VL036482.D

Acq: 25 Mar 2021 12:16

Tgt Ion: 91 Resp: 987629  
Ion Ratio Lower Upper  
91 100  
92 62.7 48.8 73.2





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 25 Mar 2021 12:10

Tot Ion:1

Ion Rati

117 100

82 71.

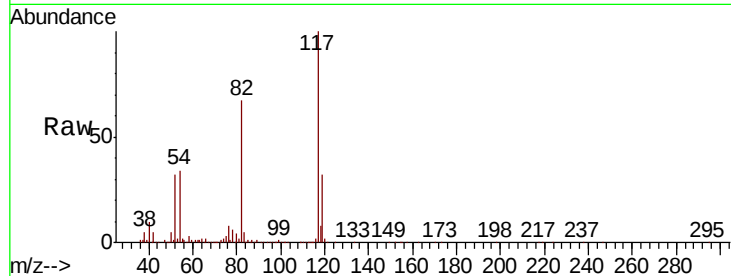
119 33.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 03/28/2021

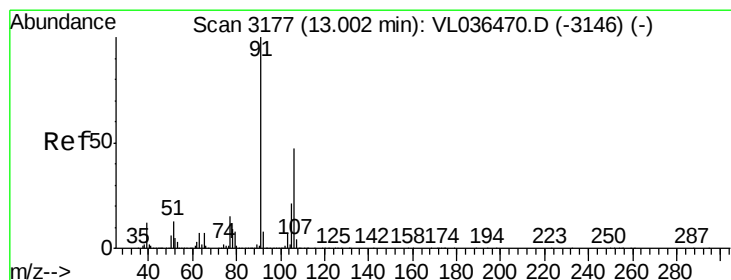
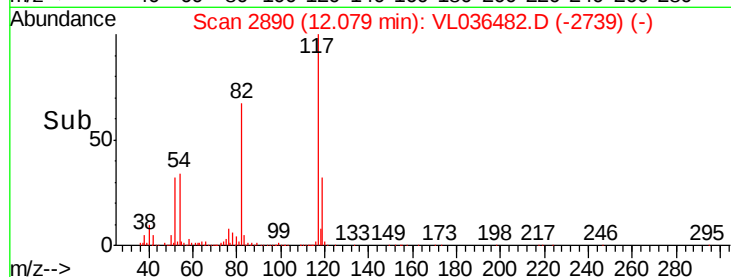
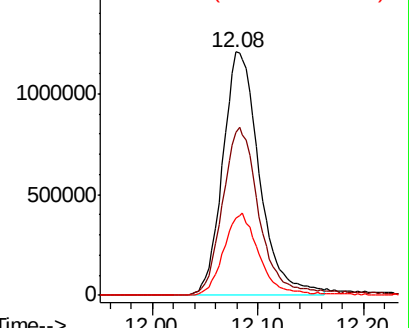
Supervised By :Mahesh Dadoda 03/29/2021



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#59

m/p-Xylene

Concen: 0.267 ppbv m

RT: 12.96 min Scan# 3165

Delta R.T. -0.04 min

Lab File: VL036482.D

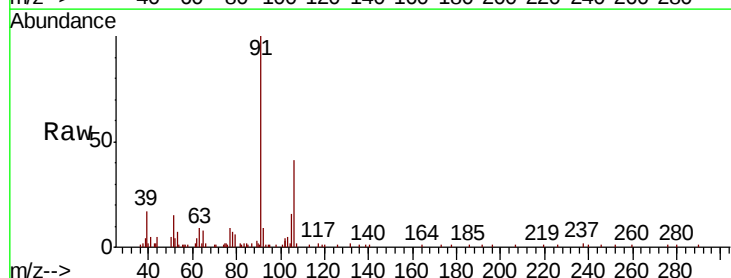
Acq: 25 Mar 2021 12:16

Tgt Ion: 91 Resp: 98819

Ion Ratio Lower Upper

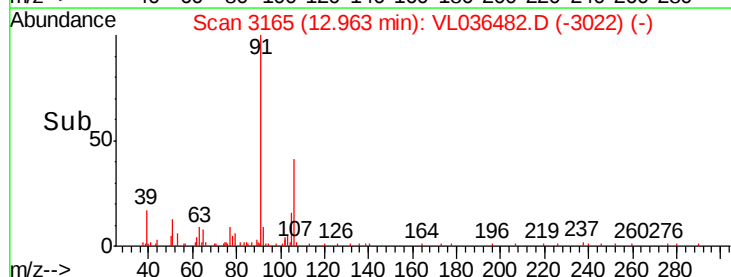
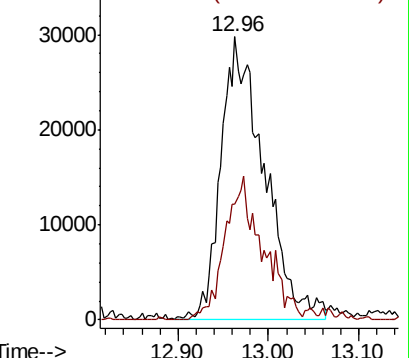
91 100

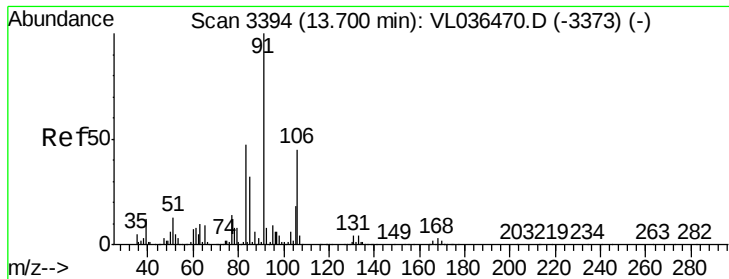
106 0.0 35.3 52.9#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#60

o-Xylene

Concen: 0.107 ppbv m

RT: 13.68

Delta R.T. MSVOA\_L

Lab File: ClientSampled :

Acq: 25 Mar 2021 12:10

Tot Ion:

Ion Ratio

91 100

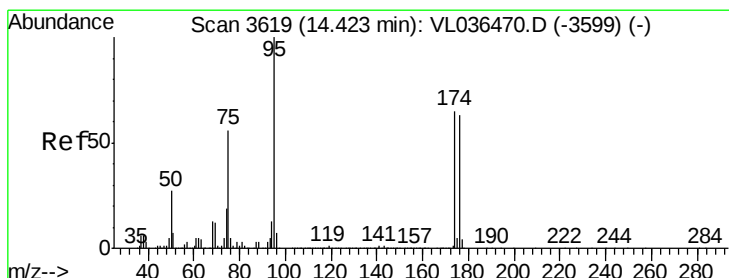
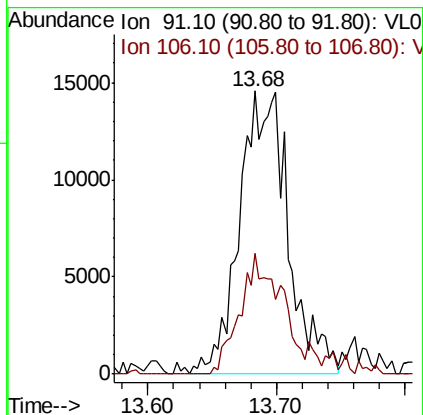
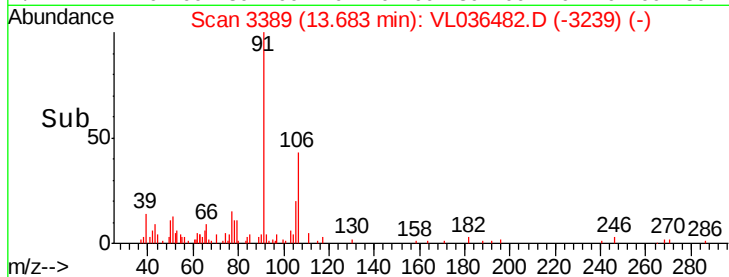
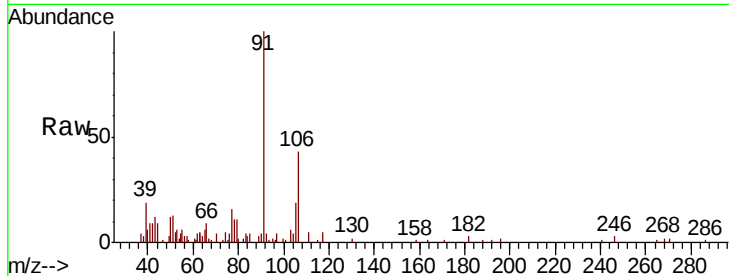
106 38.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 03/28/2021

Supervised By :Mahesh Dadoda 03/29/2021



#68

1-Bromo-4-Fluorobenzene

Concen: 9.578 ppbv

RT: 14.41 min Scan# 3616

Delta R.T. -0.01 min

Lab File: VL036482.D

Acq: 25 Mar 2021 12:16

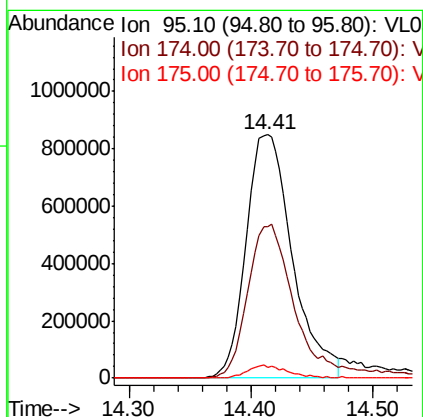
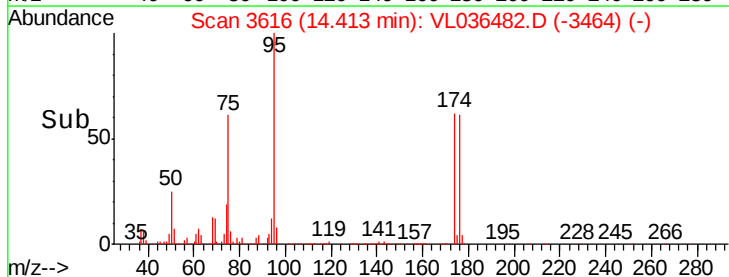
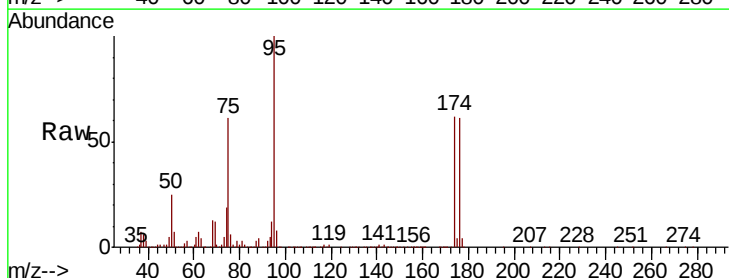
Tgt Ion: 95 Resp: 2230386

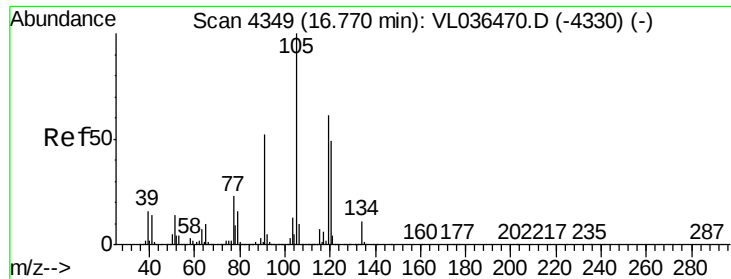
Ion Ratio Lower Upper

95 100

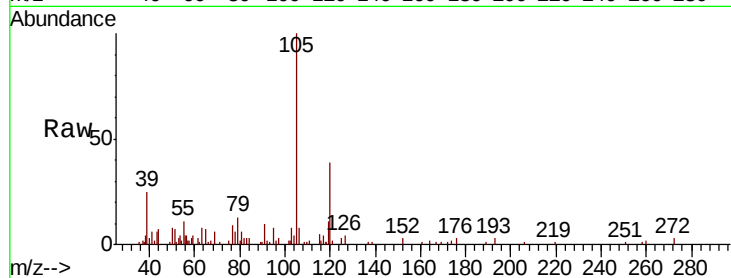
174 67.9 51.0 76.6

175 4.8 3.9 5.9





#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.111 ppbv m  
 RT: 16.76  
 Delta R.T: MSVOA\_L  
 Lab File: ClientSampleId :  
 Acq: 25 Mar 2021 12:10



Tot Ion:1  
 Ion Rati  
 105 100  
 120 38.  
 91 10.  
 77 8.6 18.6 28.0#

Manual Integrations  
 APPROVED

Reviewed By :Semsettin Yesilyurt 03/28/2021  
 Supervised By :Mahesh Dadoda 03/29/2021

