

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081820\  
 Data File : VL035455.D  
 Acq On : 18 Aug 2020 23:43  
 Operator : SY/AP  
 Sample : L3725-01DL 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SS-02DL

Manual Integrations  
 APPROVED

MMDadoda  
 8/20/2020 11:07:31 AM

Quant Time: Aug 19 11:31:35 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081720AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Aug 18 2020  
 QLast Update : Mon Aug 17 19:28:30 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.68  | 49   | 1106357  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.19  | 114  | 5189679  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.11 | 117  | 5159916  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.44  | 95    | 3764917  | 10.42    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 104.20% |

| Target Compounds           | R.T.  | QIon | Response | Conc  | Units  | Ovalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 3) Chlorodifluoromethane   | 2.99  | 51   | 197498   | 1.424 | ppbv   | 93     |
| 9) Propene                 | 3.02  | 41   | 20617m   | 0.370 | ppbv   |        |
| 13) Ethanol                | 3.61  | 45   | 38696    | 1.894 | ppbv   | 93     |
| 15) Acetone                | 3.86  | 43   | 397514   | 3.122 | ppbv # | 79     |
| 17) tert-Butyl alcohol     | 4.32  | 59   | 39795    | 0.242 | ppbv   | 99     |
| 19) Isopropyl Alcohol      | 3.99  | 45   | 19597    | 0.223 | ppbv # | 97     |
| 26) Hexane                 | 5.70  | 57   | 38003    | 0.272 | ppbv # | 32     |
| 29) Chloroform             | 5.76  | 83   | 715474   | 2.546 | ppbv   | 98     |
| 34) 2-Butanone             | 5.27  | 43   | 101730   | 0.587 | ppbv # | 68     |
| 35) Carbon Tetrachloride   | 7.02  | 117  | 11366m   | 0.041 | ppbv   |        |
| 40) 1,4-Dioxane            | 7.90  | 88   | 8984m    | 0.131 | ppbv   |        |
| 41) Tetrahydrofuran        | 6.08  | 42   | 34984m   | 0.366 | ppbv   |        |
| 50) 4-Methyl-2-Pentanone   | 8.79  | 43   | 43826m   | 0.176 | ppbv   |        |
| 52) Tetrachloroethene      | 11.24 | 164  | 45615    | 0.196 | ppbv # | 72     |
| 53) Toluene                | 9.83  | 91   | 275929   | 0.562 | ppbv   | 99     |
| 58) Ethyl Benzene          | 12.73 | 91   | 86377    | 0.139 | ppbv   | 94     |
| 59) m/p-Xylene             | 12.99 | 91   | 220207   | 0.418 | ppbv # | 82     |
| 60) o-Xylene               | 13.72 | 91   | 120558m  | 0.236 | ppbv   |        |
| 62) Isopropylbenzene       | 14.70 | 105  | 99081    | 0.118 | ppbv   | 95     |
| 64) n-propylbenzene        | 15.59 | 120  | 66702m   | 0.258 | ppbv   |        |
| 69) p-Isopropyltoluene     | 17.68 | 119  | 220753   | 0.232 | ppbv # | 90     |
| 72) 4-Ethyltoluene         | 15.87 | 105  | 336731   | 0.501 | ppbv # | 92     |
| 73) 1,3,5-Trimethylbenzene | 16.02 | 105  | 222079   | 0.355 | ppbv   | 89     |
| 74) 1,2,4-Trimethylbenzene | 16.79 | 105  | 505919   | 0.745 | ppbv # | 69     |
| 79) Naphthalene            | 22.25 | 128  | 94623    | 0.099 | ppbv   | 96     |

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

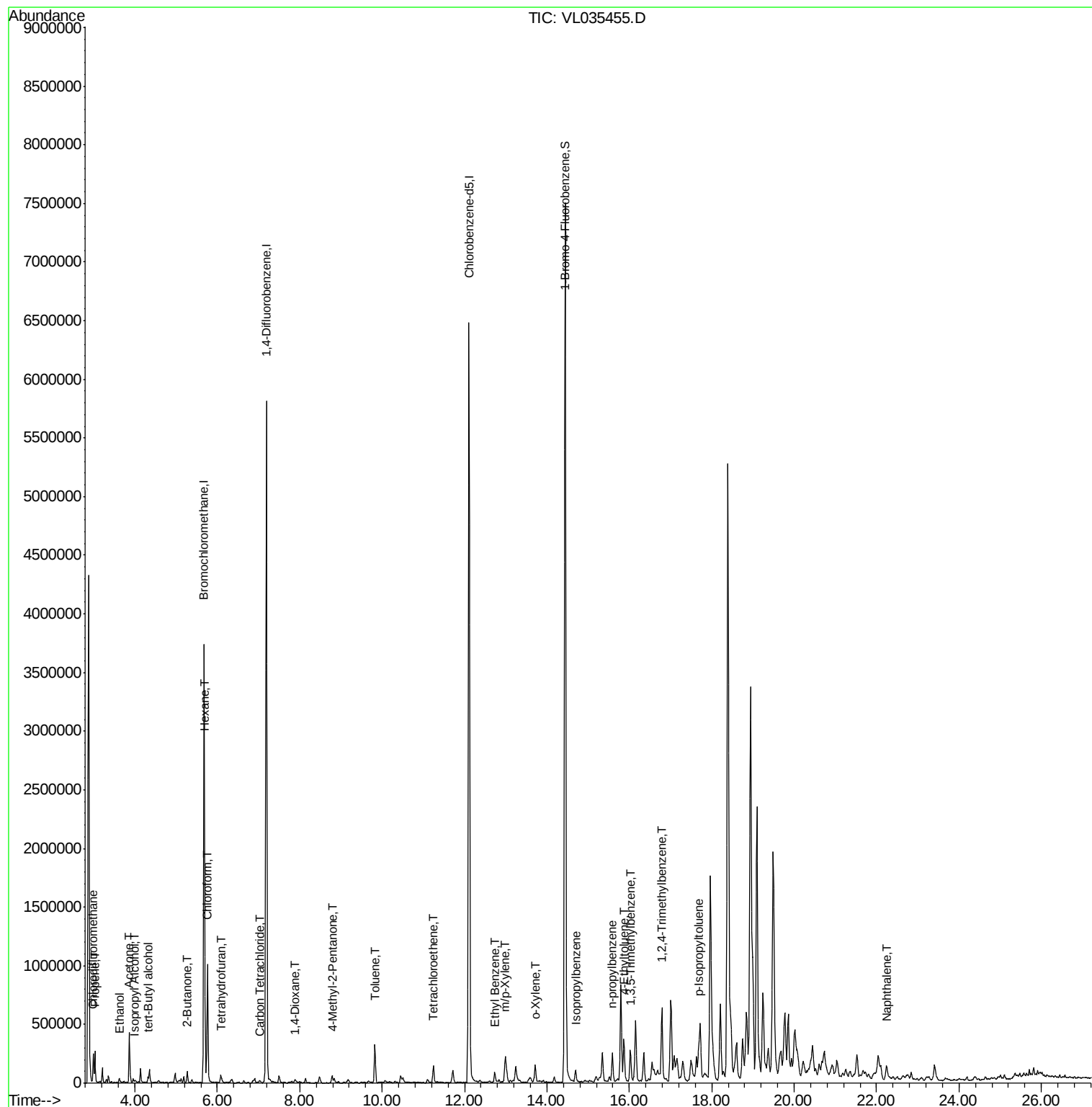
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL081820\  
Data File : VL035455.D  
Acq On : 18 Aug 2020 23:43  
Operator : SY/AP  
Sample : L3725-01DL 10X  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
SS-02DL

Manual Integrations  
APPROVED

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8/20/2020 11:07:31 AM

Quant Time: Aug 19 11:31:35 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL081720AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Aug  
QLast Update : Mon Aug 17 19:28:30 2020  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 899

Delta R.T. 0.00 min

Lab File: VL035455.D

Acq: 18 Aug 2020 23:43

Instrument :

MSVOA\_L

ClientSampleId :

SS-02DL

Tot Ion: 49 Resp: 1106357

Ion Ratio Lower Upper

49 100

128 106.8 20.9 62.7#

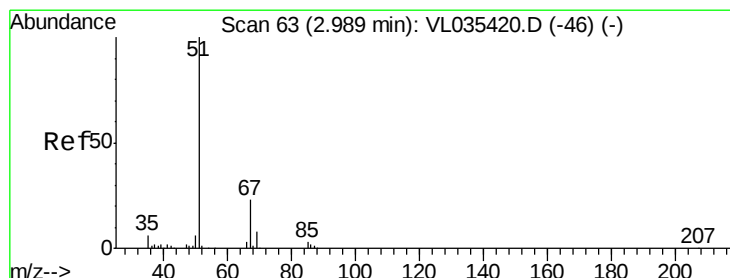
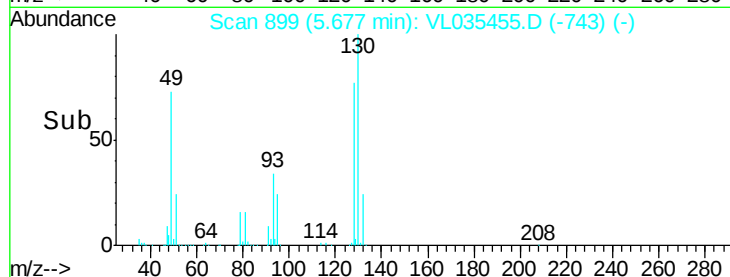
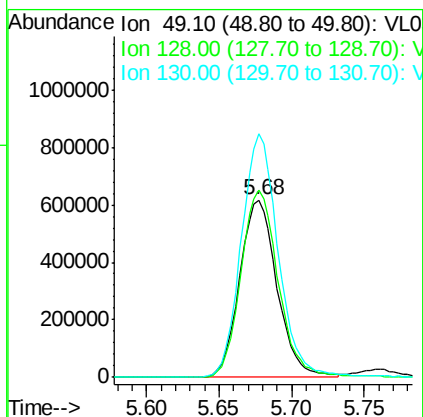
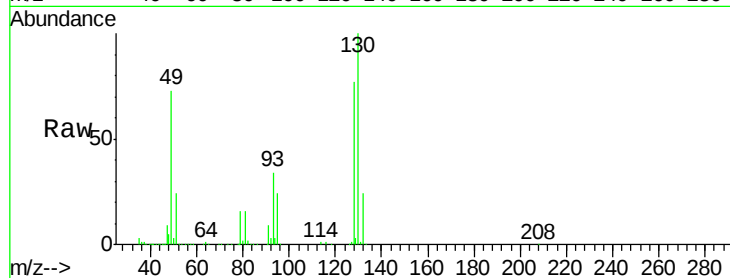
130 137.3 26.7 80.1#

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#3

Chlorodifluoromethane

Concen: 1.424 ppbv

RT: 2.99 min Scan# 63

Delta R.T. 0.01 min

Lab File: VL035455.D

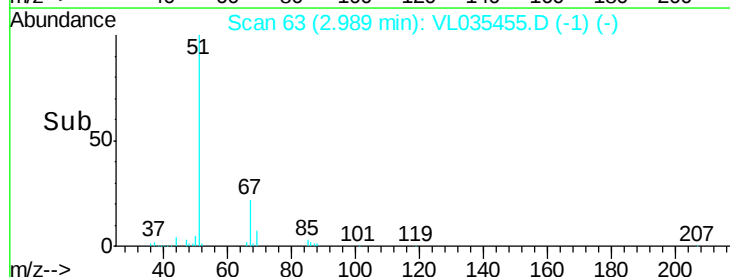
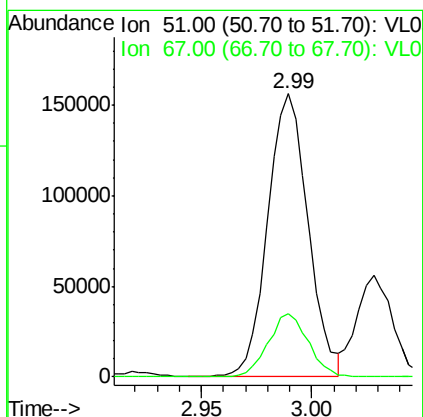
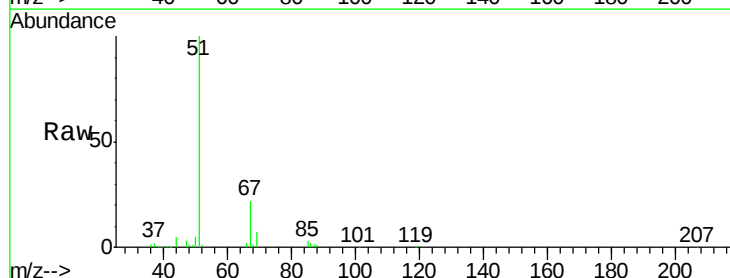
Acq: 18 Aug 2020 23:43

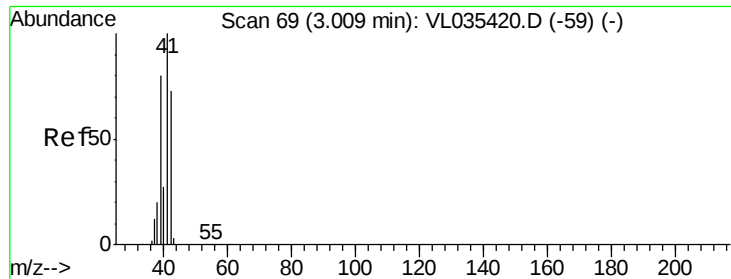
Tgt Ion: 51 Resp: 197498

Ion Ratio Lower Upper

51 100

67 22.1 15.0 22.6





#9

Propene

Concen: 0.370 ppbv m

RT: 3.02 min Scan# 73

Delta R.T. 0.02 min

Lab File: VL035455.D

Acq: 18 Aug 2020 23:43

Instrument :

MSVOA\_L

ClientSampled :

SS-02DL

Tot Ion: 41 Resp: 20617

Ion Ratio Lower Upper

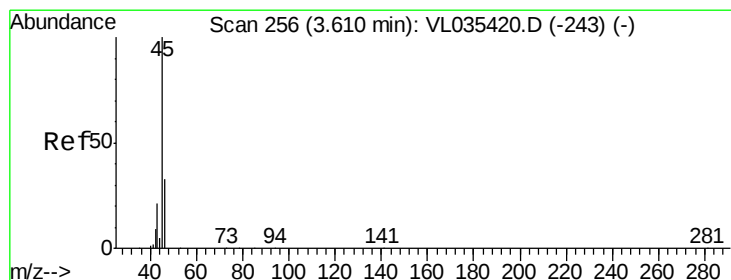
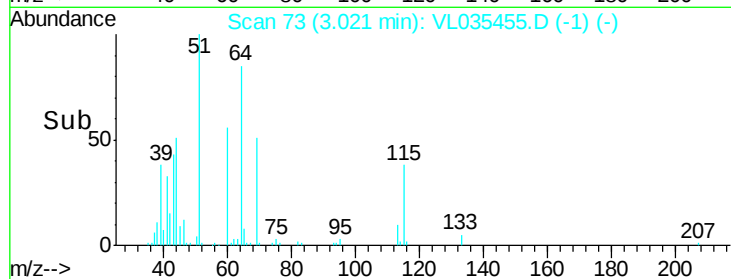
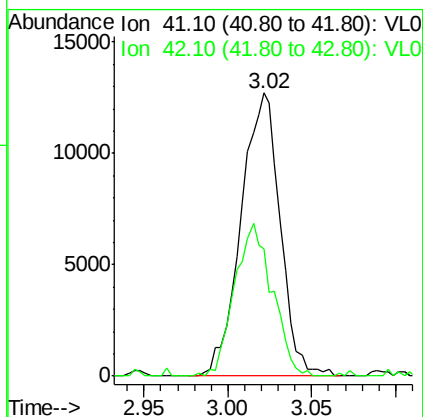
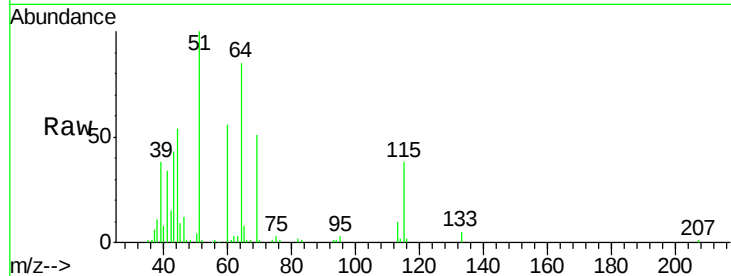
41 100

42 103.2 55.5 83.3#

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#13

Ethanol

Concen: 1.894 ppbv

RT: 3.61 min Scan# 257

Delta R.T. 0.01 min

Lab File: VL035455.D

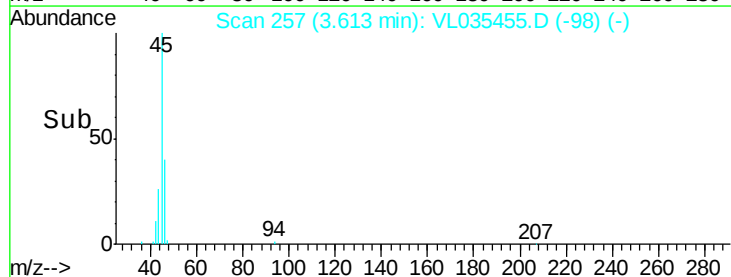
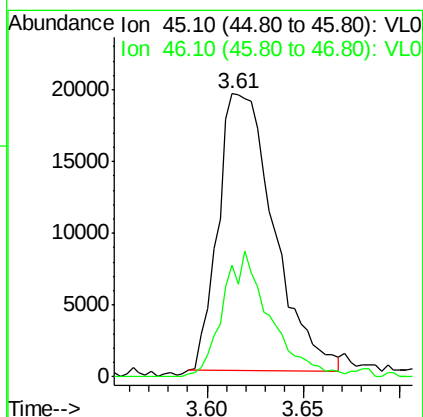
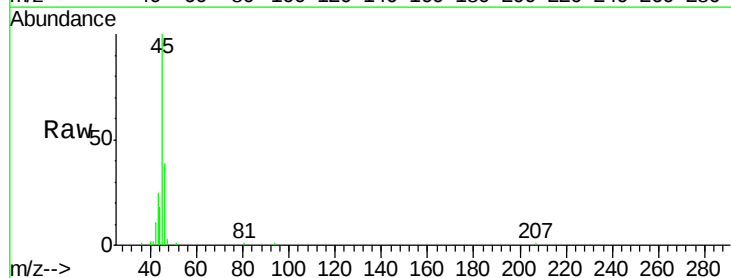
Acq: 18 Aug 2020 23:43

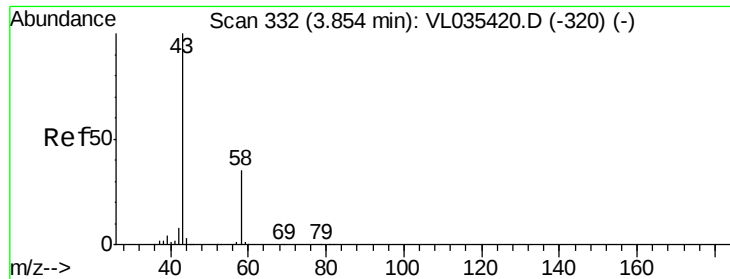
Tgt Ion: 45 Resp: 38696

Ion Ratio Lower Upper

45 100

46 39.2 14.2 56.6





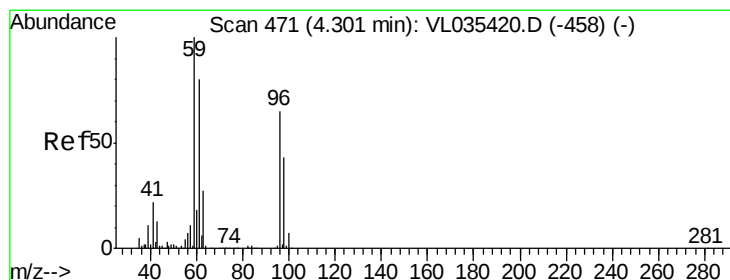
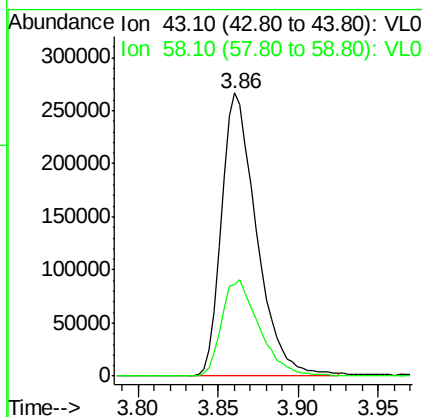
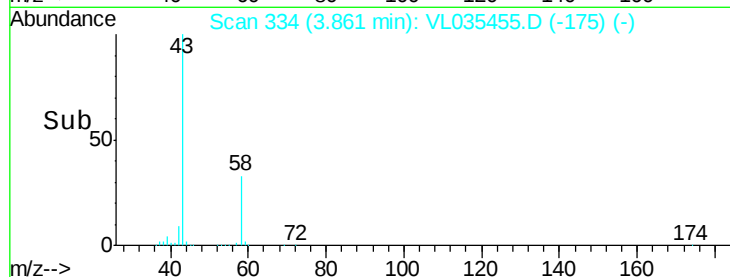
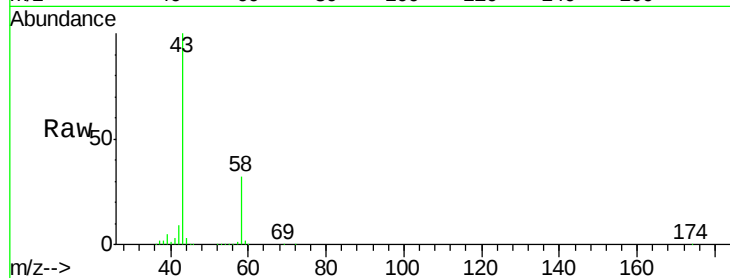
#15  
Acetone  
Concen: 3.122 ppbv  
RT: 3.86 min Scan# 334  
Delta R.T. 0.01 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

Instrument :  
MSVOA\_L  
ClientSampleId :  
SS-02DL

Tot Ion: 43 Resp: 397514  
Ion Ratio Lower Upper  
43 100  
58 37.0 21.0 31.6#

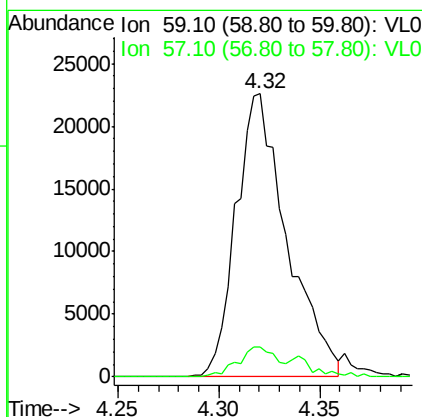
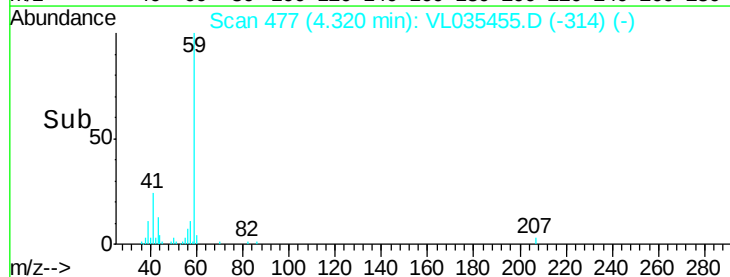
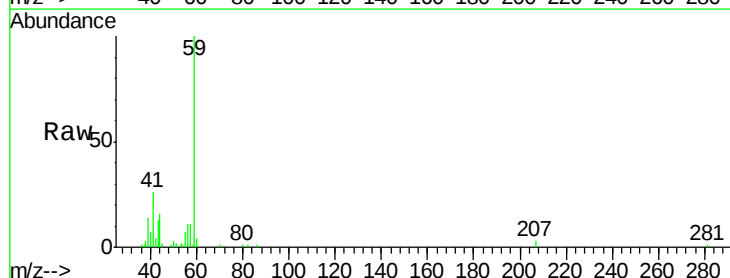
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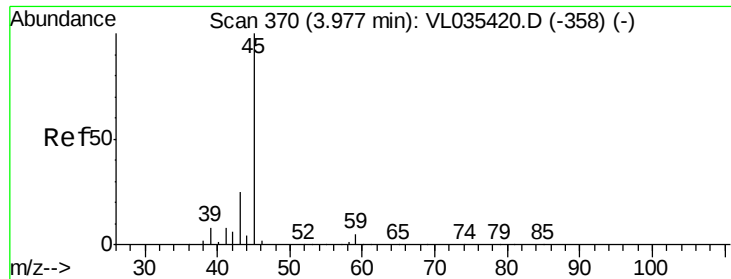
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#17  
tert-Butyl alcohol  
Concen: 0.242 ppbv  
RT: 4.32 min Scan# 477  
Delta R.T. 0.03 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

Tgt Ion: 59 Resp: 39795  
Ion Ratio Lower Upper  
59 100  
57 11.5 8.9 13.3





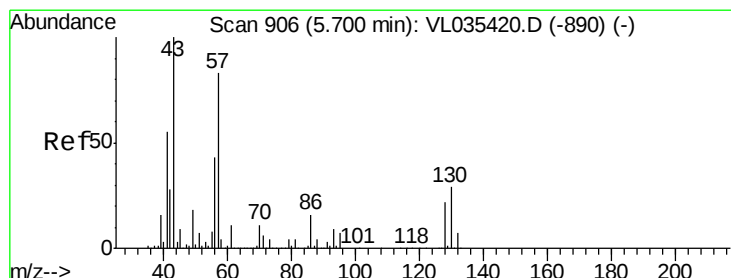
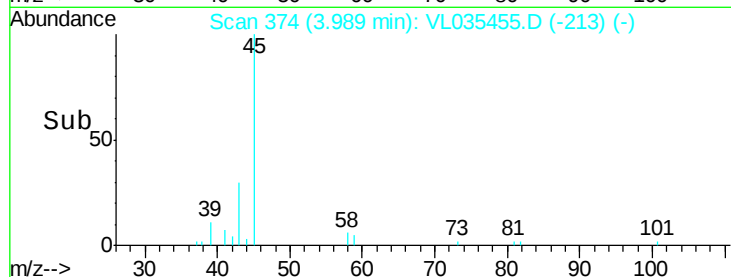
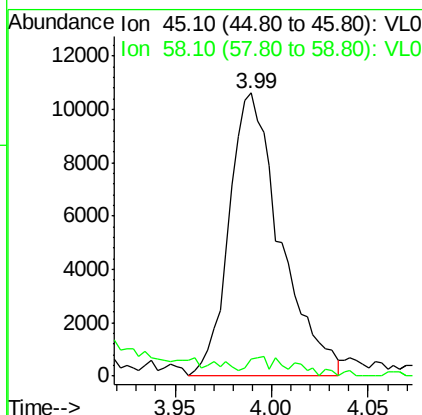
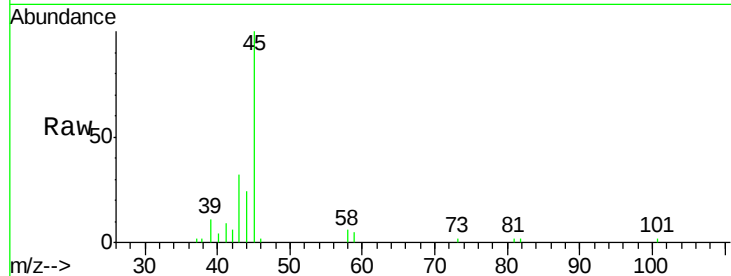
#19  
Isopropyl Alcohol  
Concen: 0.223 ppbv  
RT: 3.99 min Scan# 374  
Delta R.T. 0.02 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

Instrument :  
MSVOA\_L  
ClientSampleId :  
SS-02DL

Tot Ion: 45 Resp: 19597  
Ion Ratio Lower Upper  
45 100  
58 0.0 1.0 1.6#

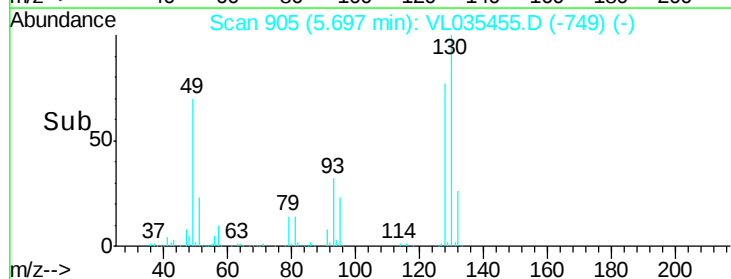
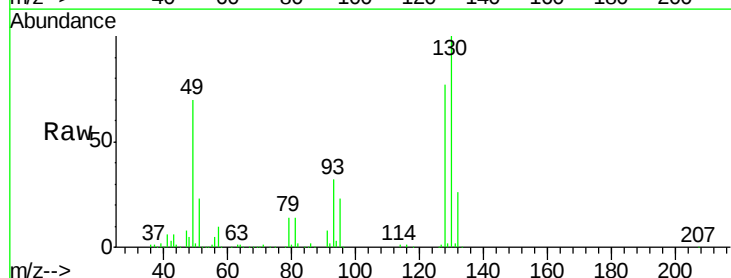
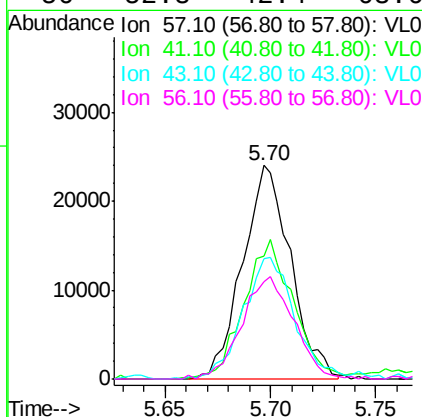
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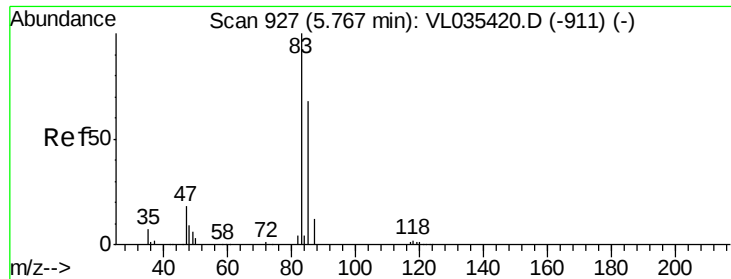
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#26  
Hexane  
Concen: 0.272 ppbv  
RT: 5.70 min Scan# 905  
Delta R.T. 0.00 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

Tgt Ion: 57 Resp: 38003  
Ion Ratio Lower Upper  
57 100  
41 67.1 75.5 113.3#  
43 62.1 181.7 272.5#  
56 52.8 42.4 63.6





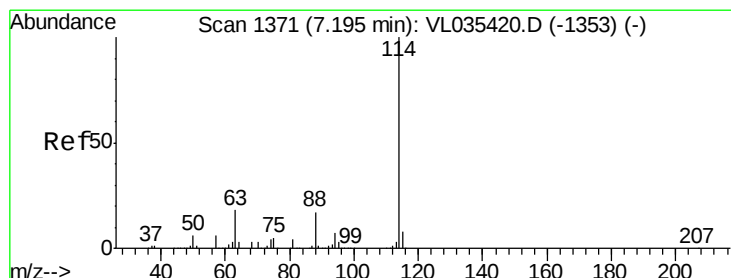
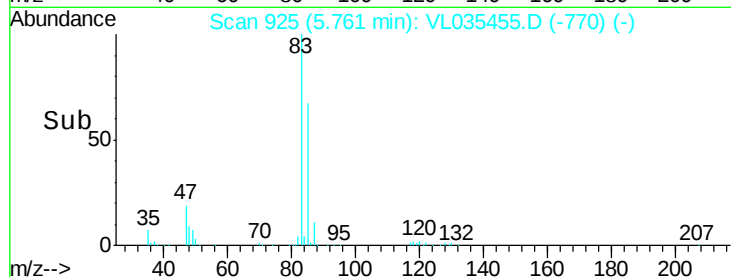
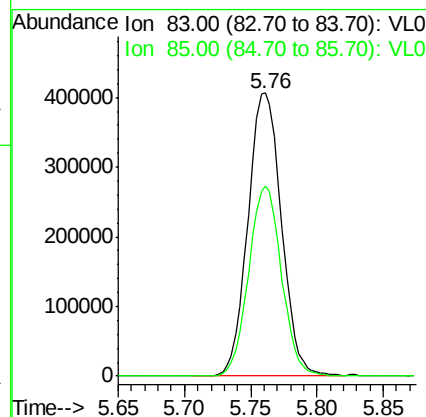
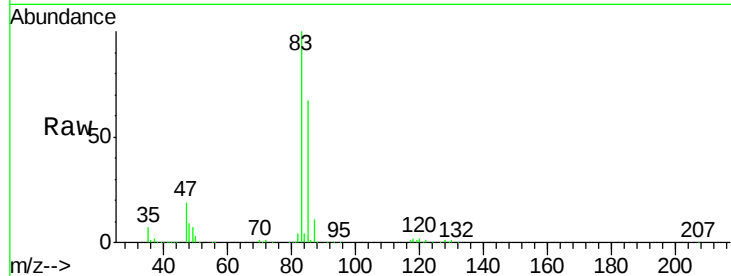
#29  
Chloroform  
Concen: 2.546 ppbv  
RT: 5.76 min Scan# 925  
Delta R.T. -0.00 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

Instrument :  
MSVOA\_L  
ClientSampleId :  
SS-02DL

| Tot Ion   | 83   | Resp  | 715474 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 83        | 100  |       |        |
| 85        | 67.1 | 52.7  | 79.1   |

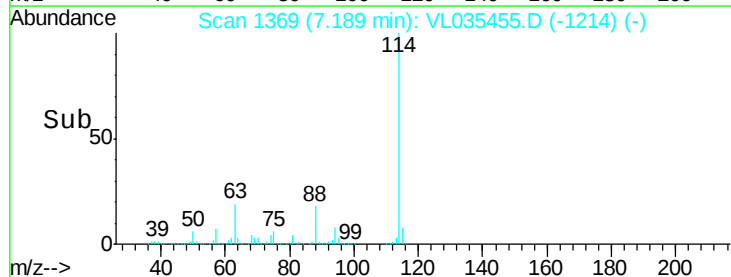
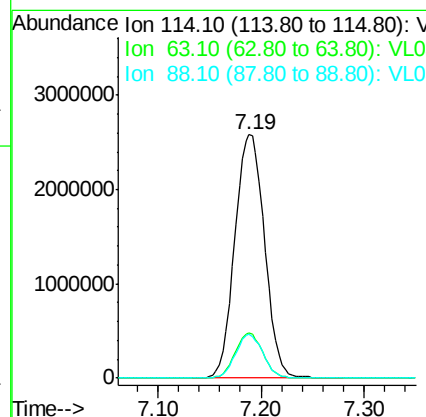
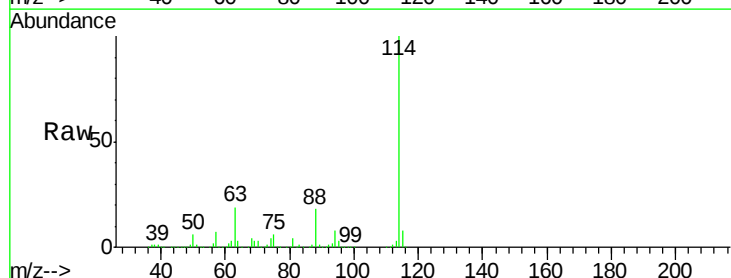
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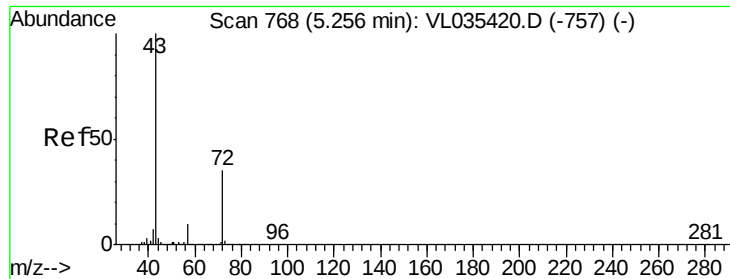
MMDadoda  
8/20/2020 11:07:31 AM



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.19 min Scan# 1369  
Delta R.T. -0.00 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

| Tgt Ion   | 114  | Resp  | 5189679 |
|-----------|------|-------|---------|
| Ion Ratio | 100  | Lower | Upper   |
| 114       | 100  |       |         |
| 63        | 17.4 | 23.1  | 34.7#   |
| 88        | 16.6 | 15.9  | 23.9    |





#34

2-Butanone

Concen: 0.587 ppbv

RT: 5.27 min Scan# 771

Delta R.T. 0.02 min

Lab File: VL035455.D

Acq: 18 Aug 2020 23:43

Instrument :

MSVOA\_L

ClientSampleId :

SS-02DL

Tot Ion: 43 Resp: 101730

Ion Ratio Lower Upper

43 100

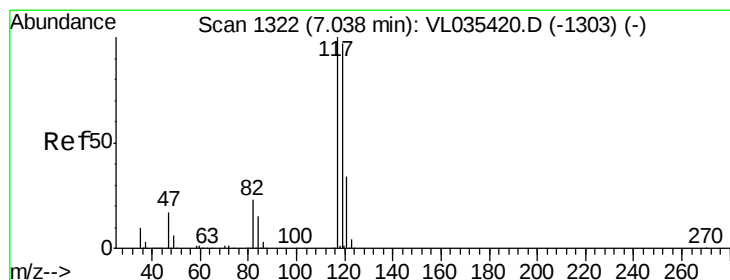
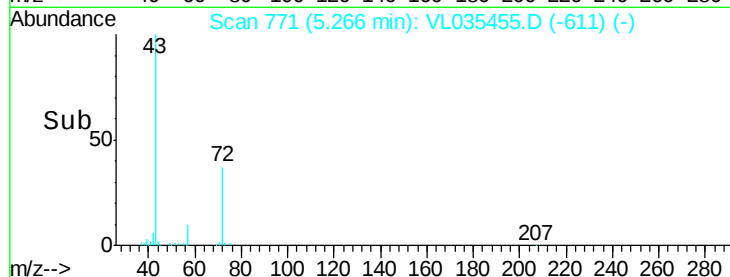
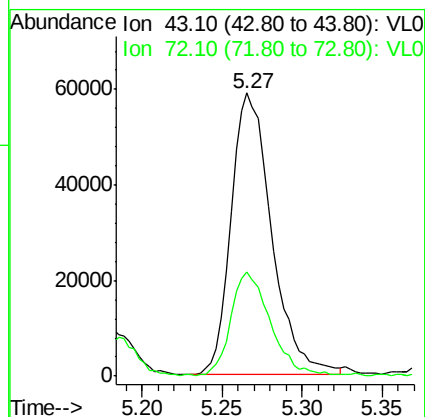
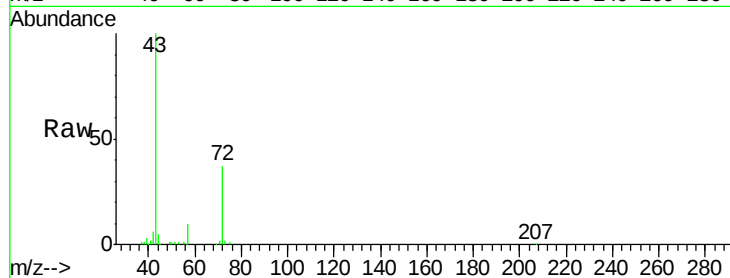
72 37.0 17.6 26.4#

Manual Integrations

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8/20/2020 11:07:31 AM



#35

Carbon Tetrachloride

Concen: 0.041 ppbv m

RT: 7.02 min Scan# 1318

Delta R.T. -0.00 min

Lab File: VL035455.D

Acq: 18 Aug 2020 23:43

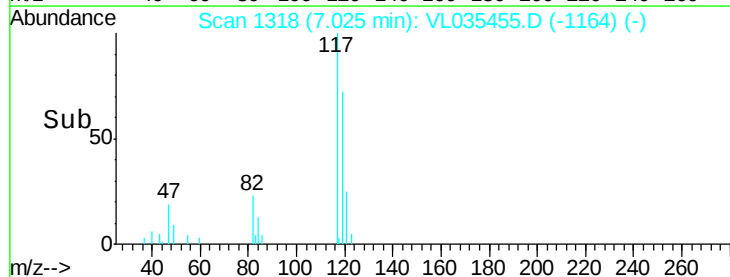
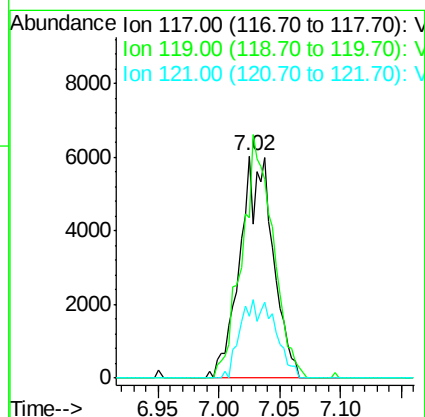
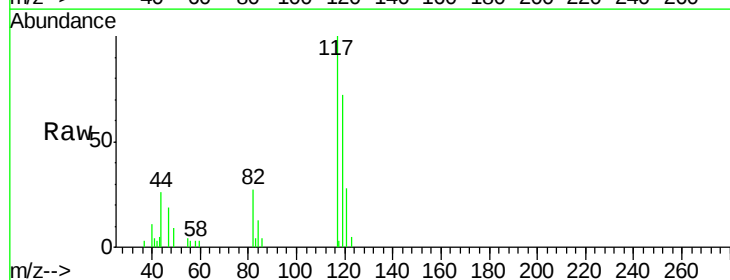
Tgt Ion: 117 Resp: 11366

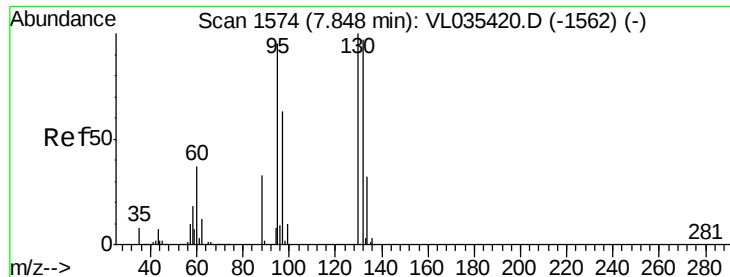
Ion Ratio Lower Upper

117 100

119 72.4 76.1 114.1#

121 27.9 25.5 38.3





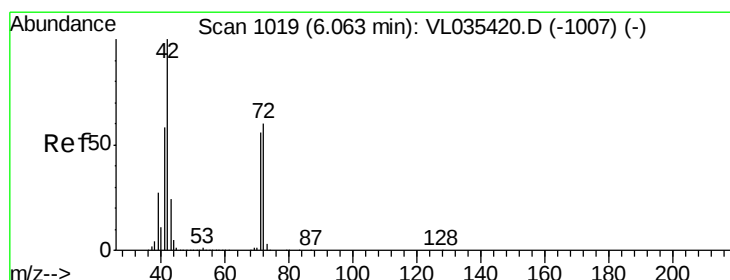
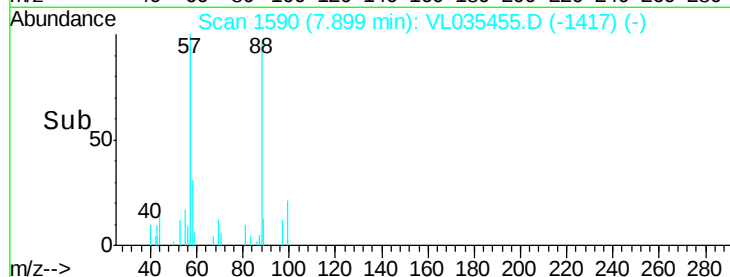
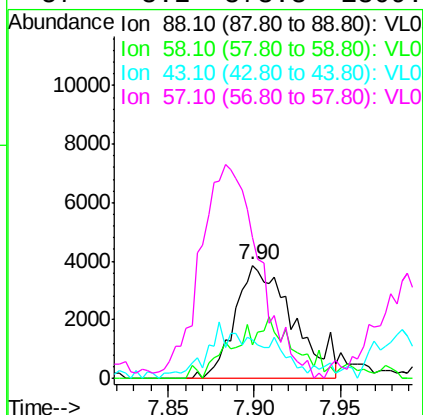
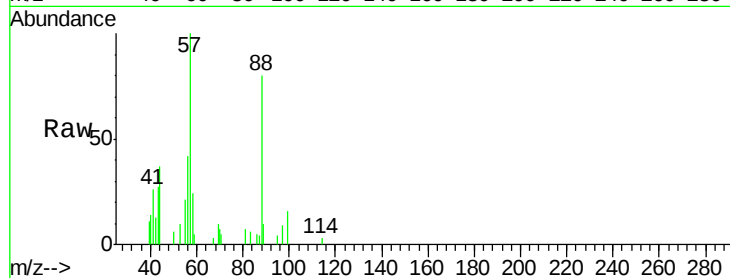
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 1,4-Dioxane  
 Concen: 0.131 ppbv m  
 RT: 7.90 min Scan# 1590  
 Delta R.T. 0.06 min  
 Lab File: VL035455.D  
 Acq: 18 Aug 2020 23:43

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 SS-02DL

| Tot Ion | Ratio | Lower | Upper   |
|---------|-------|-------|---------|
| 88      | 100   |       |         |
| 58      | 0.0   | 106.6 | 160.0#  |
| 43      | 0.0   | 209.7 | 314.5#  |
| 57      | 8.2   | 873.3 | 1309.9# |

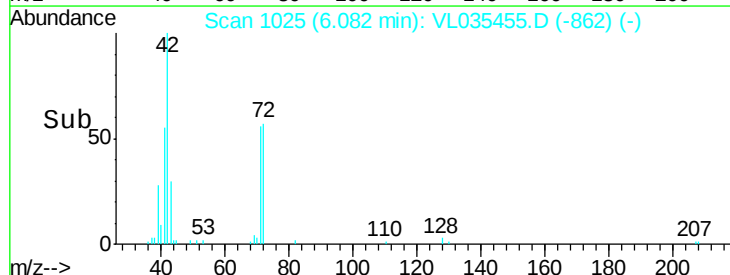
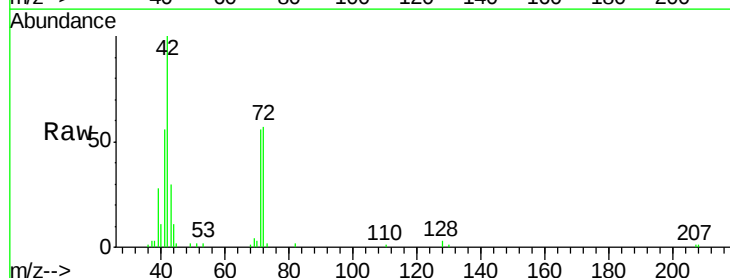
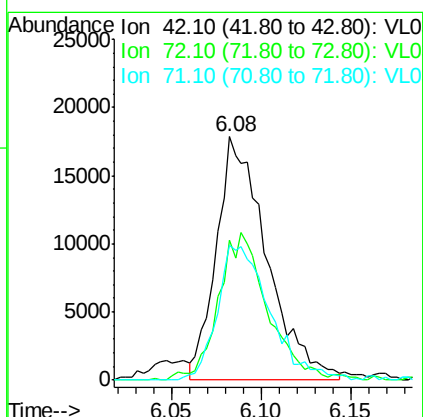
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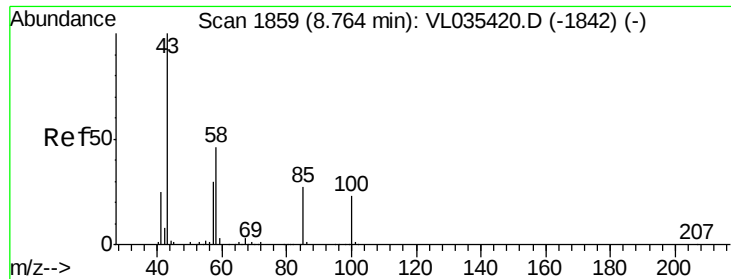
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#41  
 Tetrahydrofuran  
 Concen: 0.366 ppbv m  
 RT: 6.08 min Scan# 1025  
 Delta R.T. 0.03 min  
 Lab File: VL035455.D  
 Acq: 18 Aug 2020 23:43

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 0.0   | 29.4  | 44.2# |
| 71      | 0.0   | 28.9  | 43.3# |





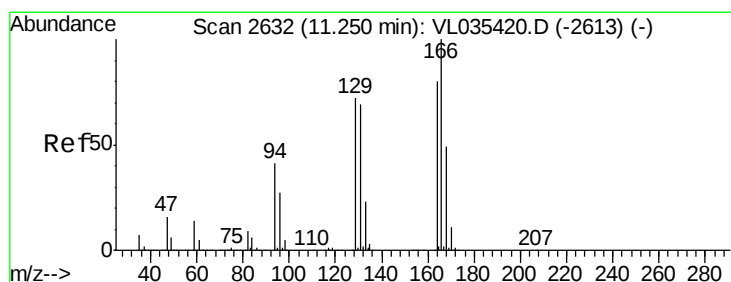
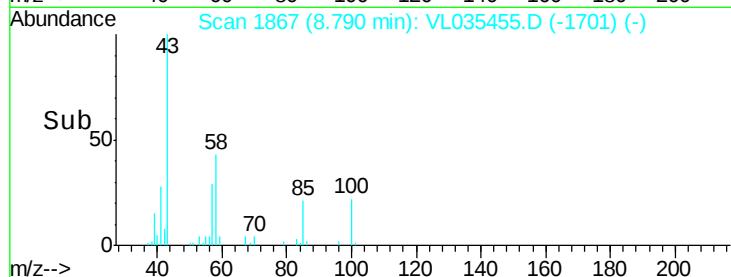
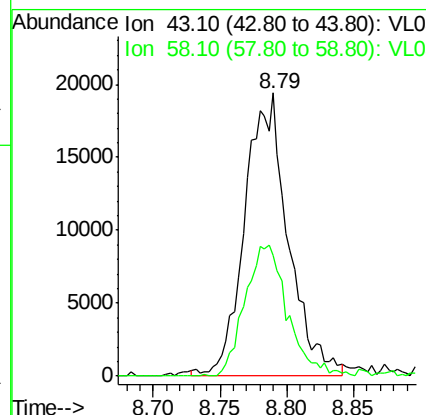
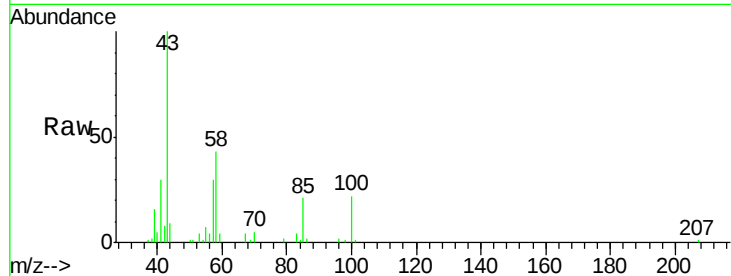
#50  
4-Methyl-2-Pentanone  
Concen: 0.176 ppbv  
RT: 8.79 min Scan# 1867  
Delta R.T. 0.04 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

Instrument :  
MSVOA\_L  
ClientSampleId :  
SS-02DL

Tot Ion: 43 Resp: 43826  
Ion Ratio Lower Upper  
43 100  
58 0.0 28.7 43.1#

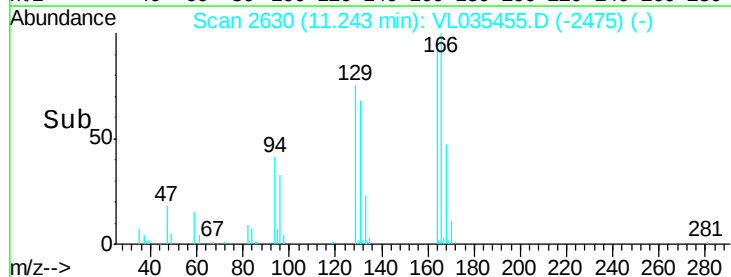
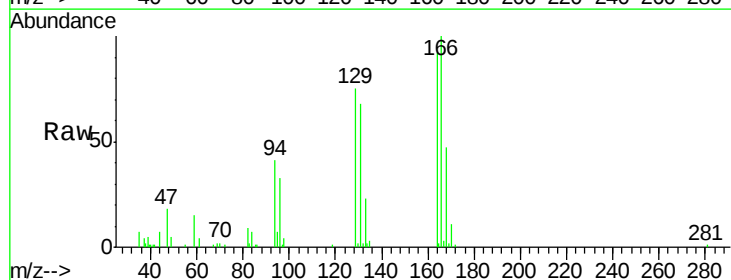
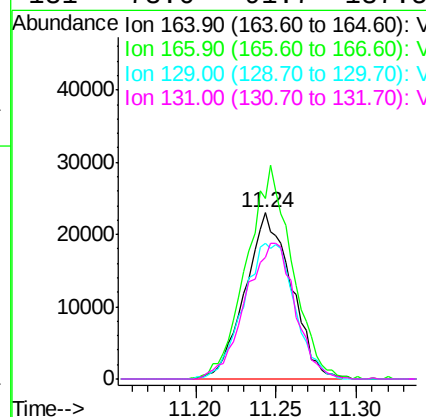
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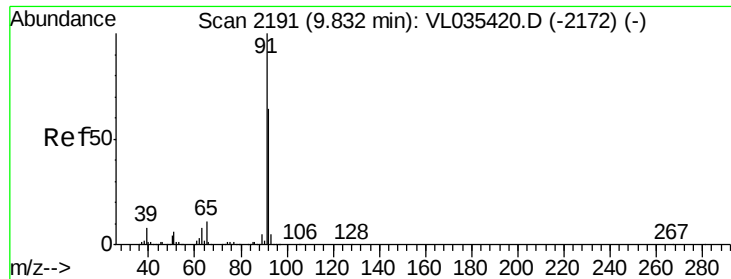
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#52  
Tetrachloroethene  
Concen: 0.196 ppbv  
RT: 11.24 min Scan# 2630  
Delta R.T. -0.00 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

Tgt Ion: 164 Resp: 45615  
Ion Ratio Lower Upper  
164 100  
166 107.7 103.4 155.0  
129 81.9 90.2 135.4#  
131 73.6 91.7 137.5#





#53

Toluene

Concen: 0.562 ppbv

RT: 9.83 min Scan# 2190

Delta R.T. 0.01 min

Lab File: VL035455.D

Acq: 18 Aug 2020 23:43

Instrument :

MSVOA\_L

ClientSampleId :

SS-02DL

Tot Ion: 91 Resp: 275929

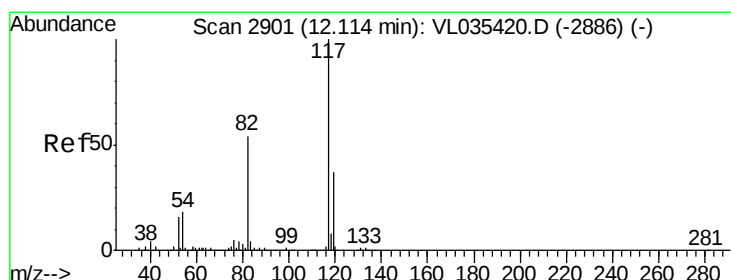
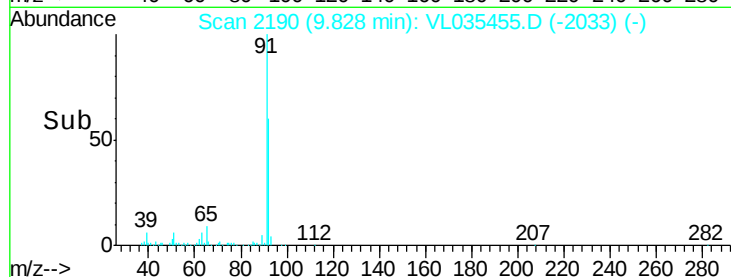
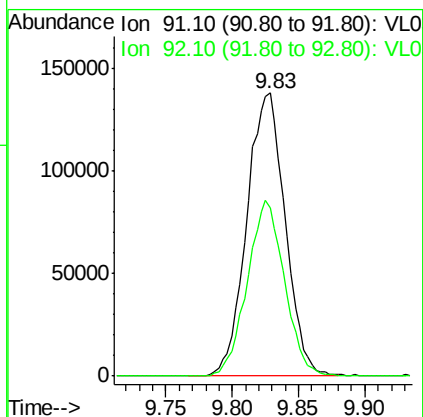
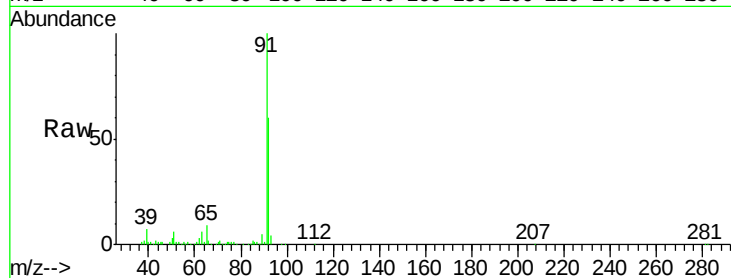
Ion Ratio Lower Upper

91 100

92 60.5 49.1 73.7

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.11 min Scan# 2899

Delta R.T. -0.00 min

Lab File: VL035455.D

Acq: 18 Aug 2020 23:43

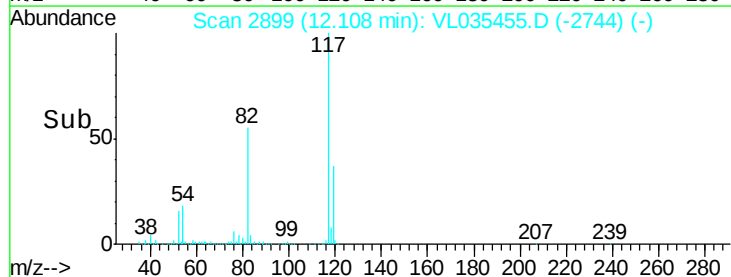
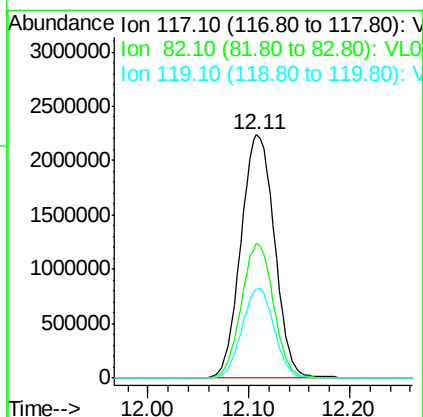
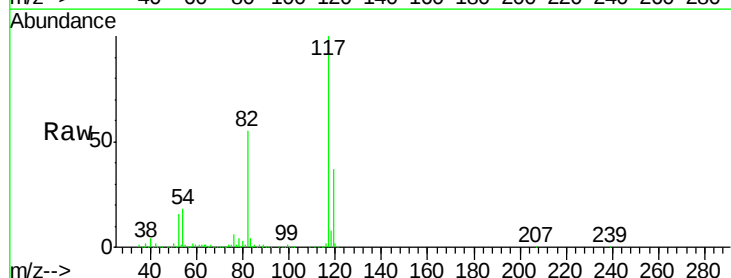
Tgt Ion: 117 Resp: 5159916

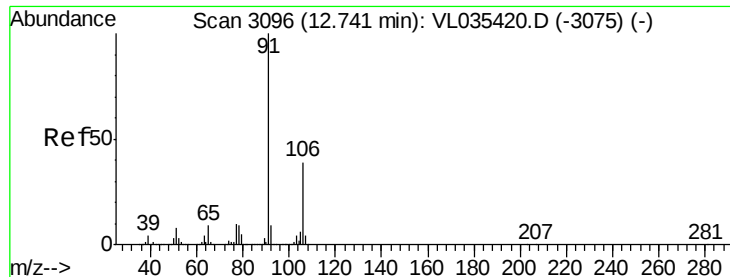
Ion Ratio Lower Upper

117 100

82 53.4 57.4 86.0#

119 35.7 28.4 42.6





#58

Ethyl Benzene

Concen: 0.139 ppbv

RT: 12.73 min Scan# 3094

Delta R.T. 0.00 min

Lab File: VL035455.D

Acq: 18 Aug 2020 23:43

Instrument :

MSVOA\_L

ClientSampled :

SS-02DL

Tot Ion: 91 Resp: 86377

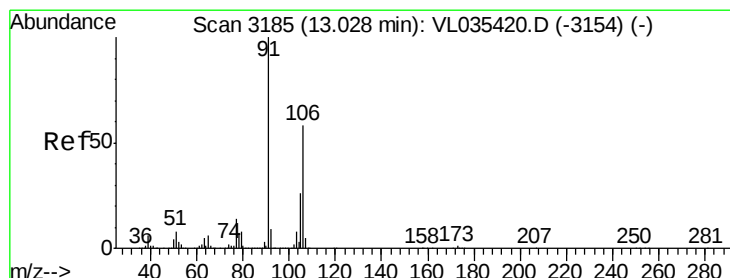
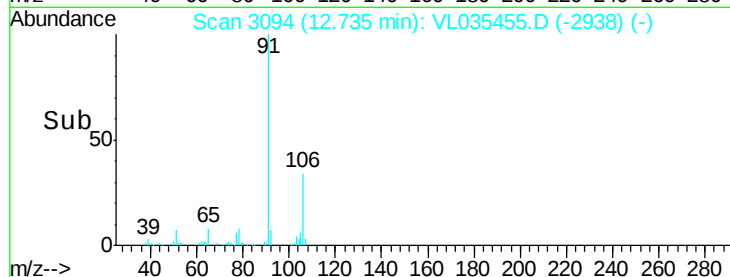
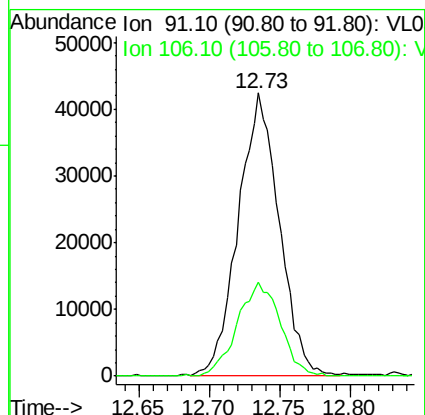
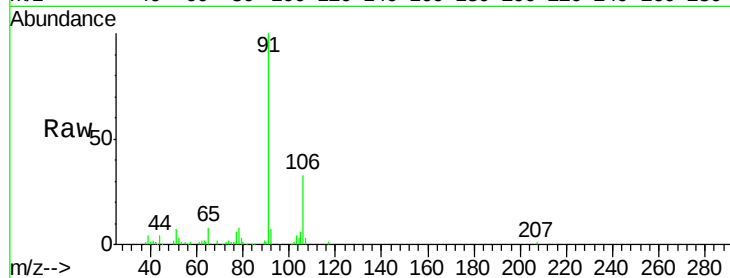
Ion Ratio Lower Upper

91 100

106 33.4 24.1 36.1

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#59

m/p-Xylene

Concen: 0.418 ppbv

RT: 12.99 min Scan# 3174

Delta R.T. -0.03 min

Lab File: VL035455.D

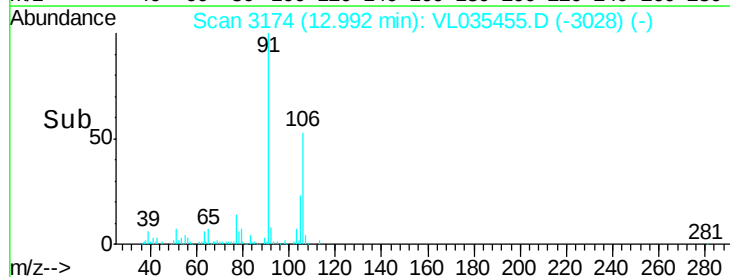
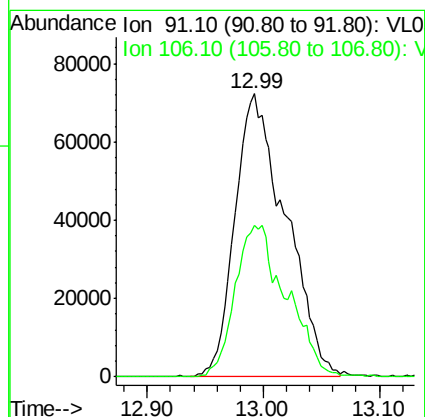
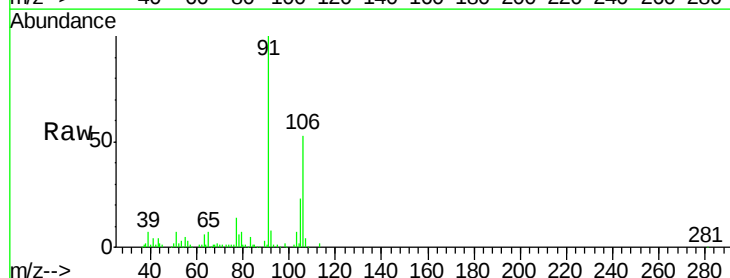
Acq: 18 Aug 2020 23:43

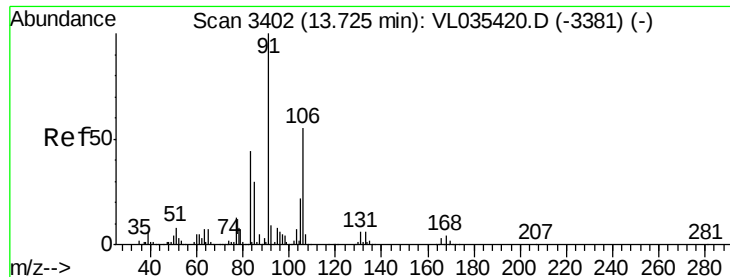
Tgt Ion: 91 Resp: 220207

Ion Ratio Lower Upper

91 100

106 54.0 34.0 51.0#





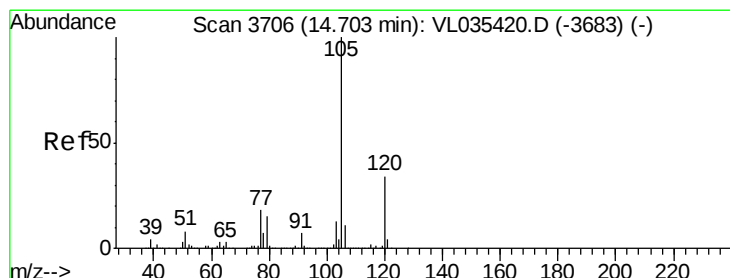
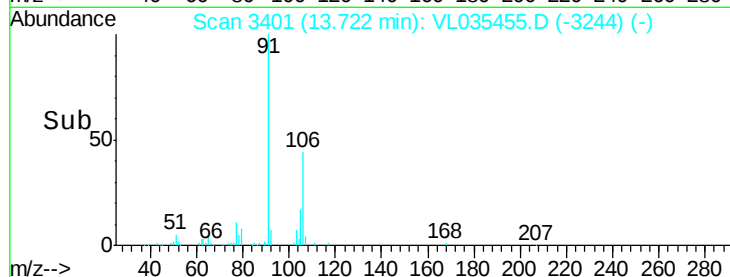
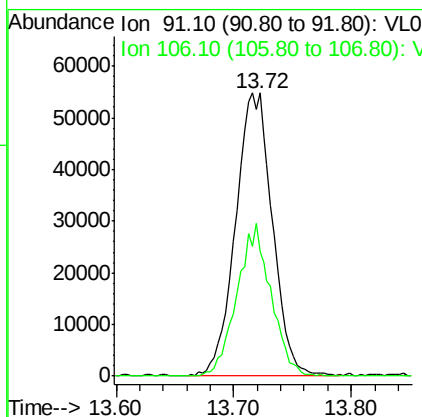
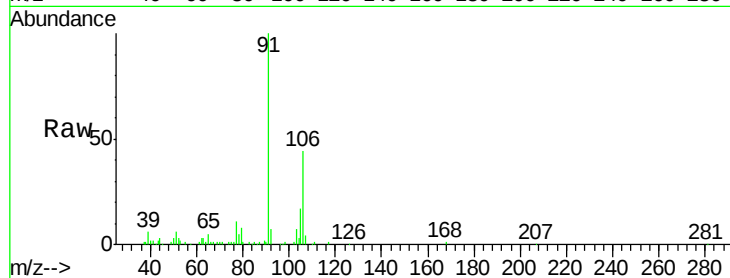
#60  
o-Xylene  
Concen: 0.236 ppbv m  
RT: 13.72 min Scan# 3401  
Delta R.T. 0.01 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

Instrument :  
MSVOA\_L  
ClientSampleId :  
SS-02DL

Tot Ion: 91 Resp: 120558  
Ion Ratio Lower Upper  
91 100  
106 0.0 21.8 65.3#

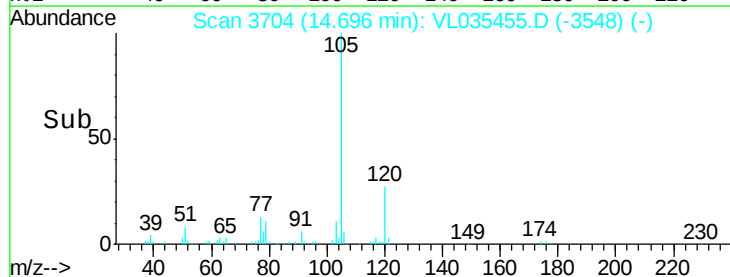
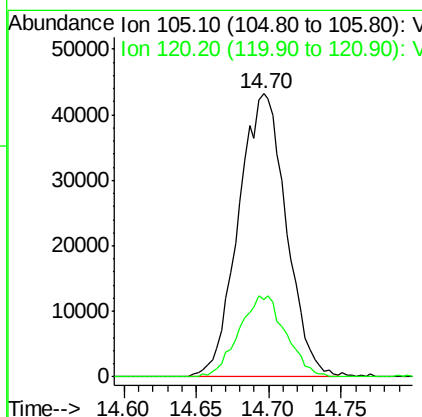
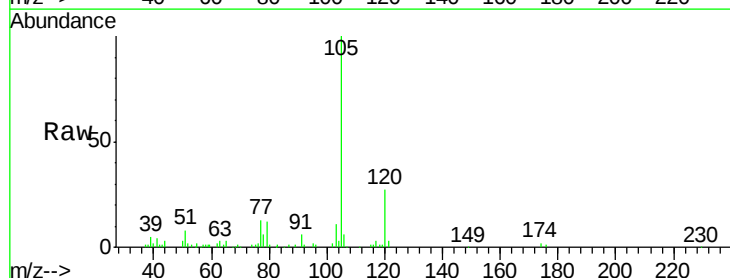
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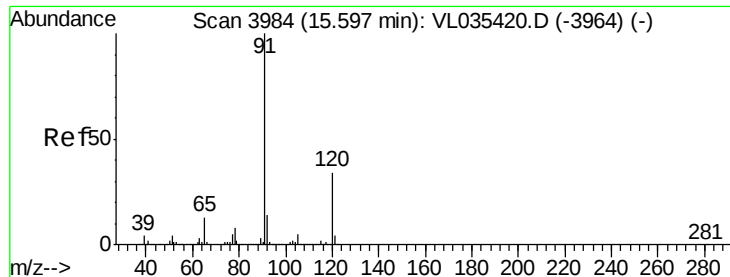
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#62  
Isopropylbenzene  
Concen: 0.118 ppbv  
RT: 14.70 min Scan# 3704  
Delta R.T. 0.00 min  
Lab File: VL035455.D  
Acq: 18 Aug 2020 23:43

Tgt Ion: 105 Resp: 99081  
Ion Ratio Lower Upper  
105 100  
120 27.9 20.3 30.5





#64

n-propylbenzene

Concen: 0.258 ppbv m

RT: 15.59 min Scan# 3982

Delta R.T. 0.00 min

Lab File: VL035455.D

Acq: 18 Aug 2020 23:43

Instrument :

MSVOA\_L

ClientSampleID :

SS-02DL

Tot Ion:120 Resp: 66702

Ion Ratio Lower Upper

120 100

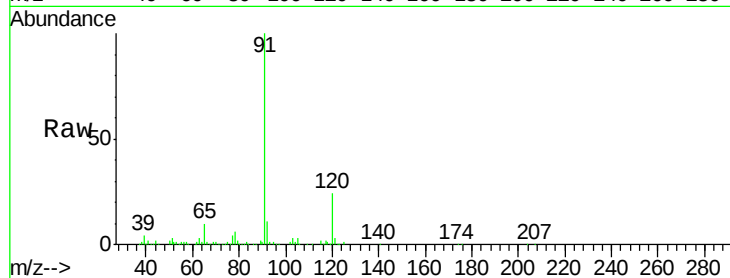
91 404.1 385.5 578.3

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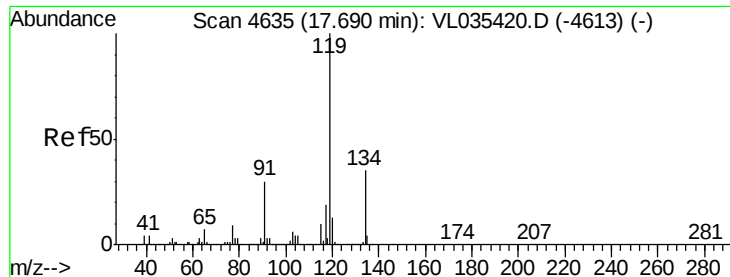


Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



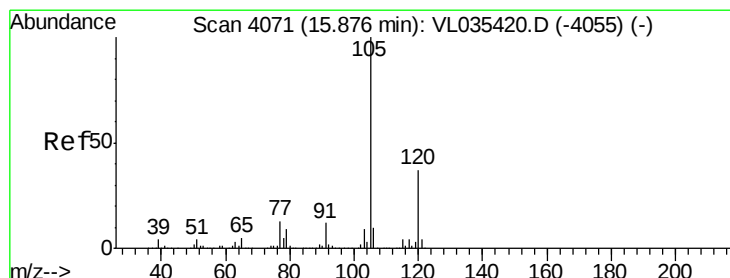
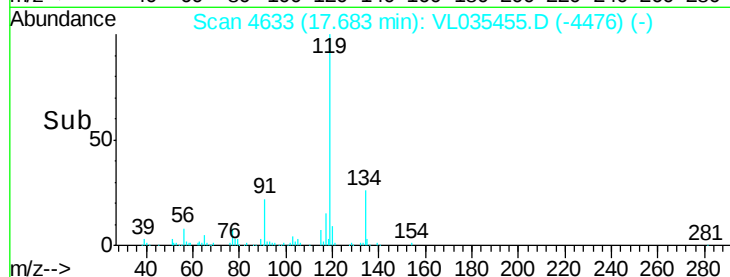
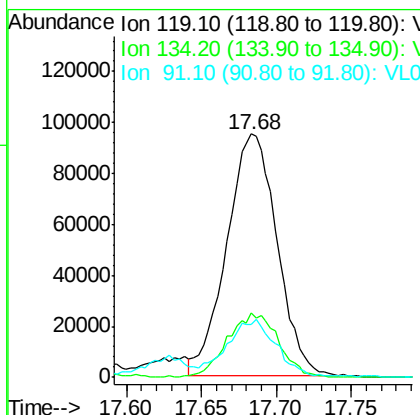
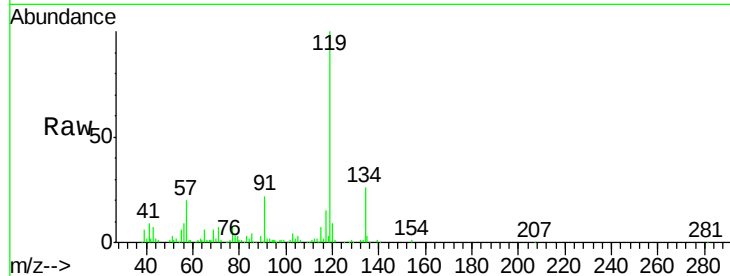
#69  
 p-Isopropyltoluene  
 Concen: 0.232 ppbv  
 RT: 17.68 min Scan# 4633  
 Delta R.T. 0.00 min  
 Lab File: VL035455.D  
 Acq: 18 Aug 2020 23:43

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SS-02DL

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 119     | 100   | 220753 |       |       |
| 134     | 27.4  |        | 20.6  | 30.8  |
| 91      | 24.2  |        | 26.6  | 39.8# |

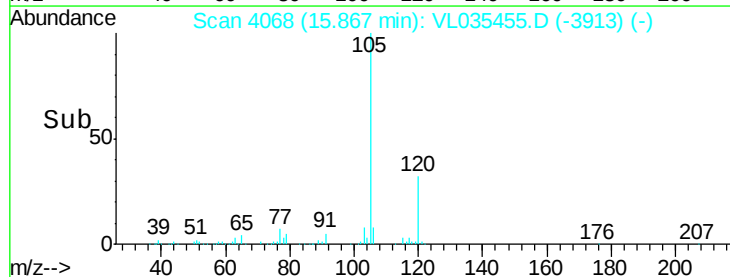
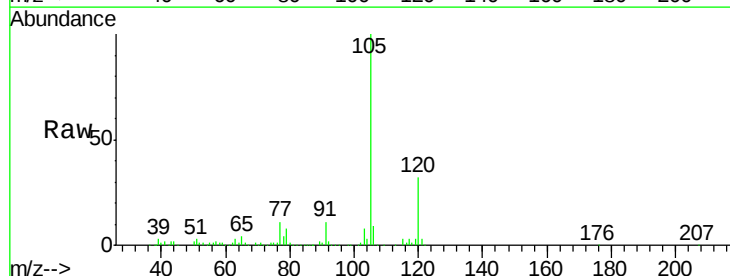
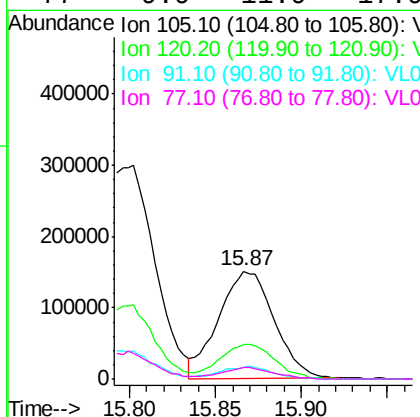
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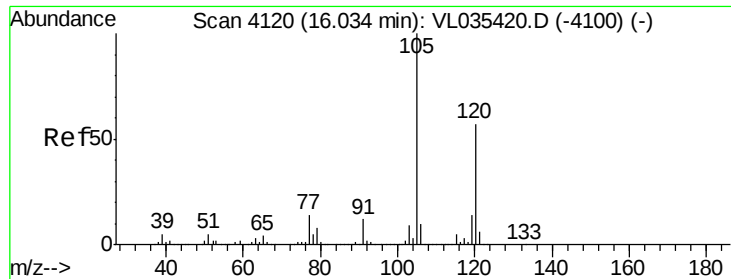
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#72  
 4-Ethyltoluene  
 Concen: 0.501 ppbv  
 RT: 15.87 min Scan# 4068  
 Delta R.T. -0.00 min  
 Lab File: VL035455.D  
 Acq: 18 Aug 2020 23:43

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 105     | 100   | 336731 |       |       |
| 120     | 32.5  |        | 22.7  | 34.1  |
| 91      | 11.0  |        | 10.8  | 16.2  |
| 77      | 9.9   |        | 11.9  | 17.9# |





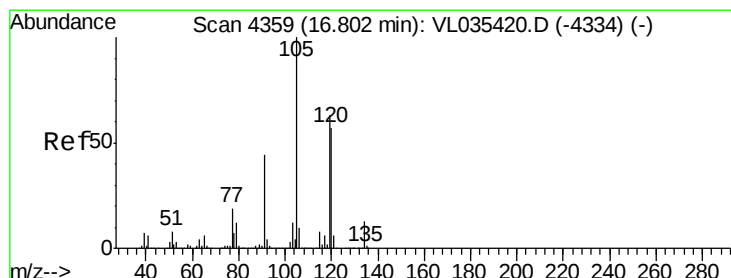
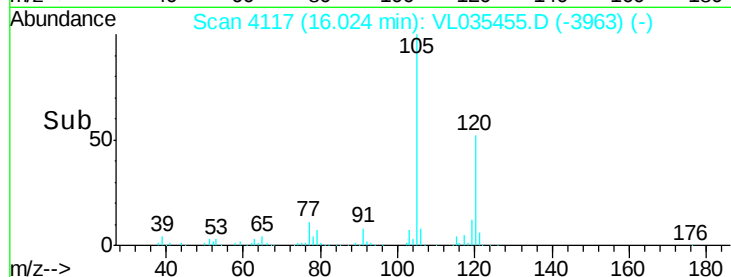
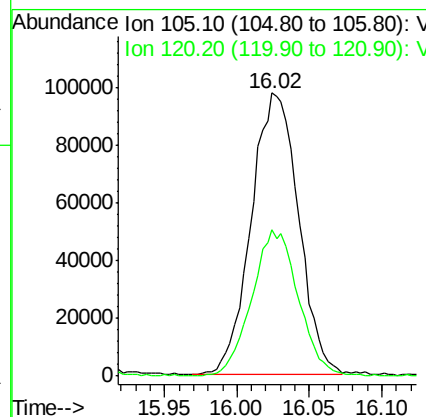
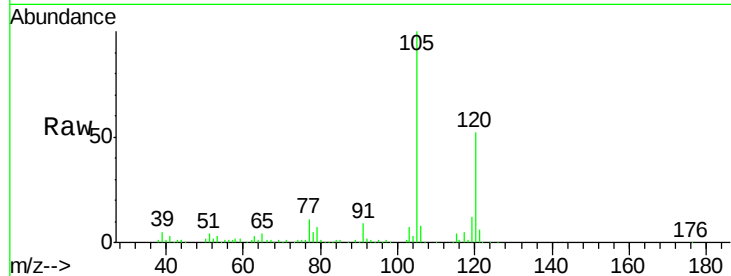
#73  
 1,3,5-Trimethylbenzene  
 Concen: 0.355 ppbv  
 RT: 16.02 min Scan# 4117  
 Delta R.T. -0.00 min  
 Lab File: VL035455.D  
 Acq: 18 Aug 2020 23:43

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 SS-02DL

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 105     | 100   | 222079 |       |       |
| 120     | 51.8  | 35.6   | 53.4  |       |

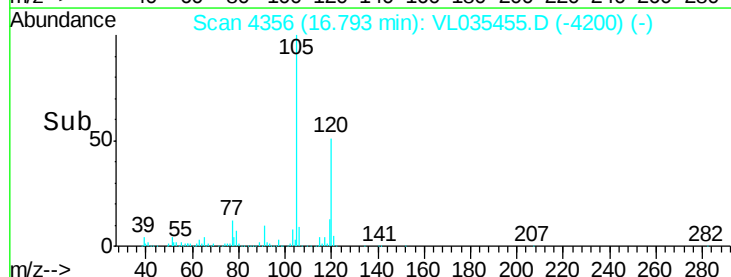
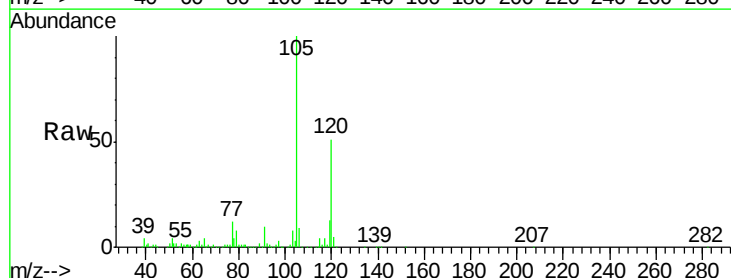
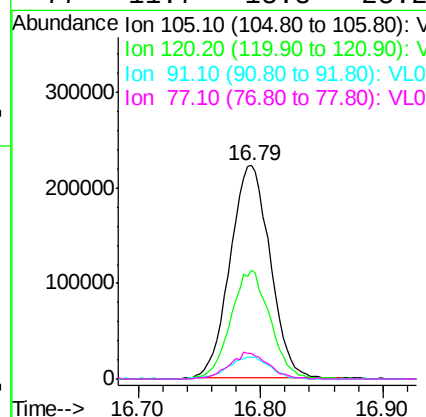
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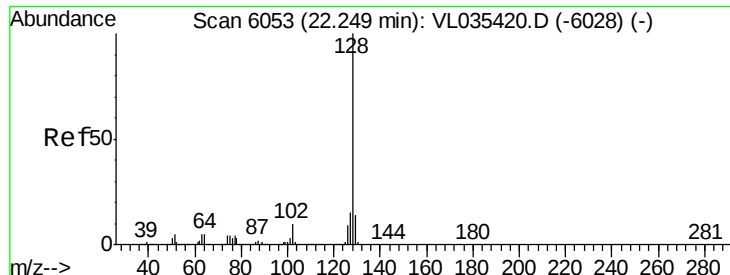
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#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.745 ppbv  
 RT: 16.79 min Scan# 4356  
 Delta R.T. -0.00 min  
 Lab File: VL035455.D  
 Acq: 18 Aug 2020 23:43

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 105     | 100   | 505919 |       |       |
| 120     | 50.8  | 37.8   | 56.8  |       |
| 91      | 9.9   | 40.0   | 60.0# |       |
| 77      | 11.7  | 18.8   | 28.2# |       |





#79

Naphthalene

Concen: 0.099 ppbv

RT: 22.25 min Scan# 6053

Delta R.T. 0.01 min

Lab File: VL035455.D

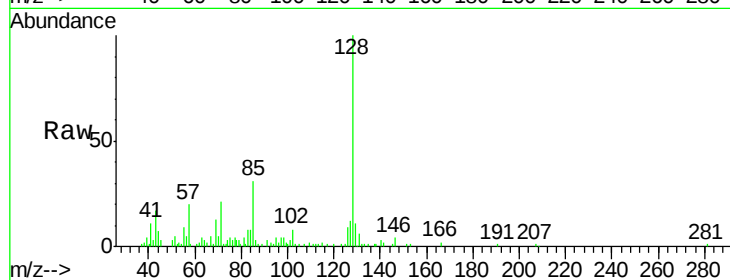
Acq: 18 Aug 2020 23:43

Instrument :

MSVOA\_L

ClientSampleId :

SS-02DL



Tot Ion:128 Resp: 94623

Ion Ratio Lower Upper

128 100

127 12.1 11.4 17.0

129 10.9 9.5 14.3

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