

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL100820\  
 Data File : VL035747.D  
 Acq On : 8 Oct 2020 16:15  
 Operator : SY/AP  
 Sample : L4275-01DL 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 BFI-EFFLUENT-TANKDL

Manual Integrations  
 APPROVED

apatel  
 10/12/2020 10:29:51 AM

Quant Time: Oct 09 23:15:18 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Sep 2  
 QLast Update : Wed Sep 23 07:38:05 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1290661  | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 4998767  | 10.00 | ppbv  | -0.01    |
| 55) Chlorobenzene-d5    | 12.10 | 117  | 4864180  | 10.00 | ppbv  | -0.02    |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 14.43  | 95    | 3647000  | 10.01    | ppbv | -0.01   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.10% |

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 3) Chlorodifluoromethane   | 2.98  | 51   | 181045   | 1.304  | ppbv # | 90     |
| 5) Vinyl Chloride          | 3.25  | 62   | 46468    | 0.527  | ppbv   | 98     |
| 7) Chloroethane            | 3.55  | 64   | 166423   | 5.143  | ppbv   | 96     |
| 9) Propene                 | 3.01  | 41   | 8170     | 0.162  | ppbv   | 89     |
| 15) Acetone                | 3.86  | 43   | 81484    | 0.587  | ppbv # | 79     |
| 20) Methylene Chloride     | 4.34  | 84   | 67618    | 0.663  | ppbv   | 98     |
| 24) 1,1-Dichloroethane     | 5.01  | 63   | 387832   | 2.093  | ppbv   | 99     |
| 31) cis-1,2-Dichloroethene | 5.55  | 61   | 137198   | 1.038  | ppbv   | 98     |
| 36) Benzene                | 6.89  | 78   | 1103656  | 3.388  | ppbv   | 96     |
| 37) 1,2-Dichloroethane     | 6.31  | 62   | 29053    | 0.171  | ppbv   | 100    |
| 53) Toluene                | 9.82  | 91   | 4384717  | 11.416 | ppbv   | 99     |
| 57) Chlorobenzene          | 12.16 | 112  | 112603   | 0.306  | ppbv   | 94     |
| 58) Ethyl Benzene          | 12.73 | 91   | 208749m  | 0.428  | ppbv   |        |
| 59) m/p-Xylene             | 12.98 | 91   | 1696094  | 3.978  | ppbv   | 100    |
| 60) o-Xylene               | 13.71 | 91   | 1521439  | 3.528  | ppbv   | 99     |
| 62) Isopropylbenzene       | 14.69 | 105  | 228173   | 0.341  | ppbv   | 96     |
| 64) n-propylbenzene        | 15.58 | 120  | 91369    | 0.467  | ppbv   | 72     |
| 72) 4-Ethyltoluene         | 15.86 | 105  | 1479486  | 2.896  | ppbv   | 97     |
| 73) 1,3,5-Trimethylbenzene | 16.02 | 105  | 1691698  | 3.504  | ppbv   | 92     |
| 74) 1,2,4-Trimethylbenzene | 16.78 | 105  | 4060265  | 7.460  | ppbv # | 74     |

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

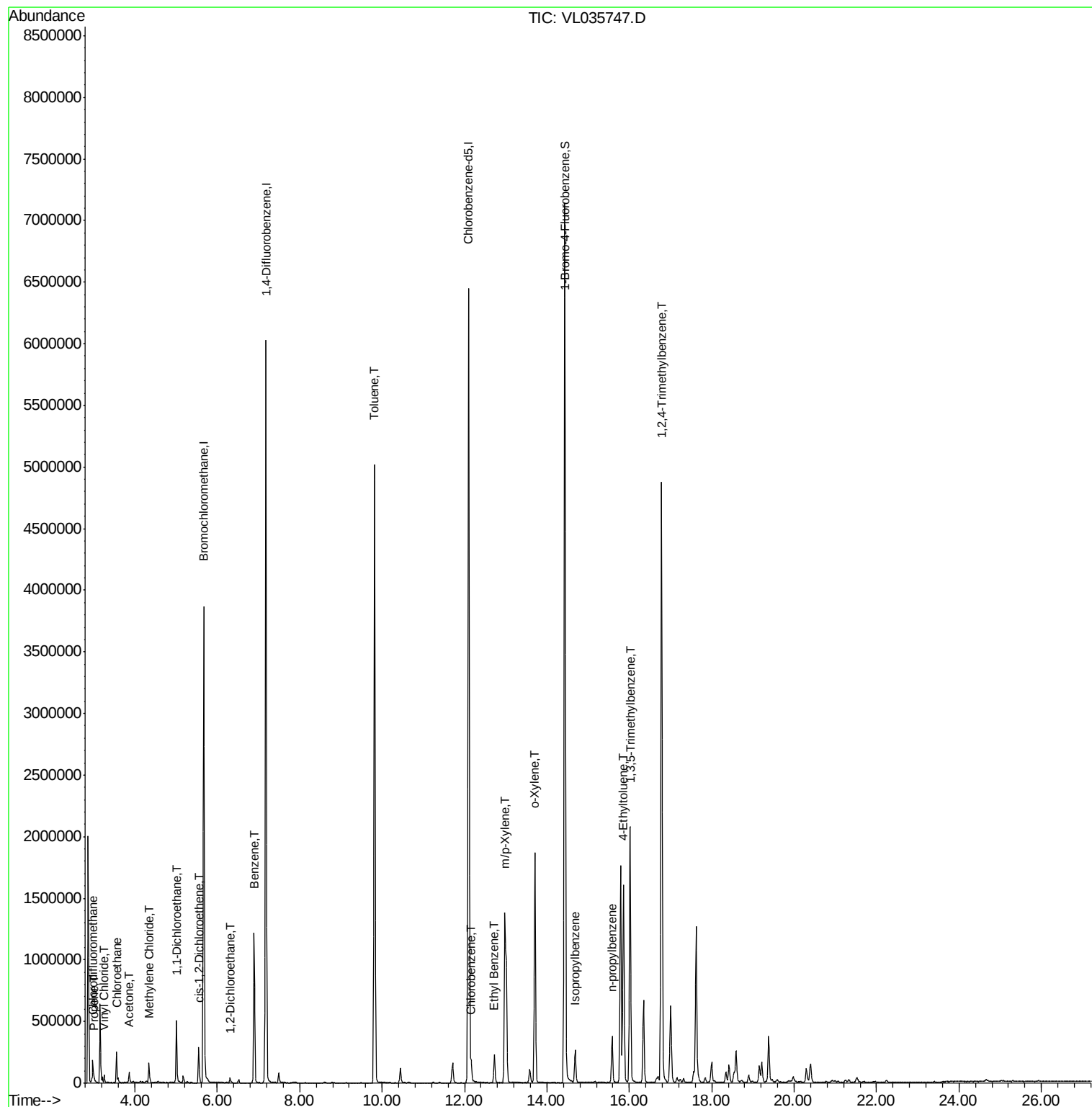
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL100820\  
Data File : VL035747.D  
Acq On : 8 Oct 2020 16:15  
Operator : SY/AP  
Sample : L4275-01DL 10X  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

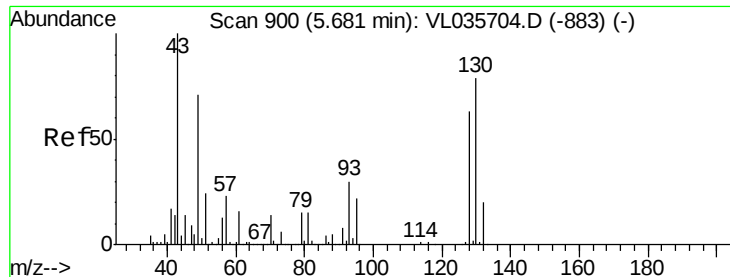
Instrument :  
MSVOA\_L  
ClientSampleId :  
BFI-EFFLUENT-TANKDL

Manual Integrations  
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apatel  
10/12/2020 10:29:51 AM

Quant Time: Oct 09 23:15:18 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Sep  
QLast Update : Wed Sep 23 07:38:05 2020  
Response via : Initial Calibration





#1

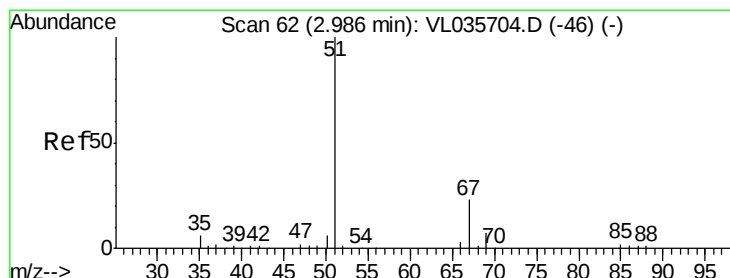
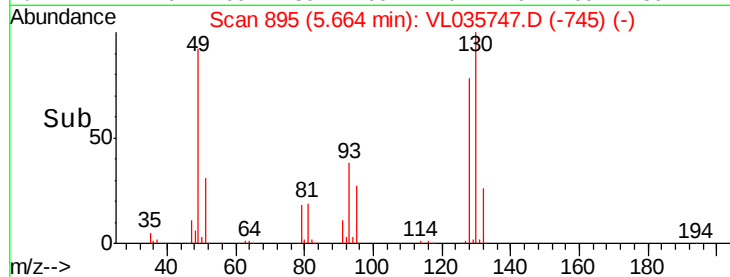
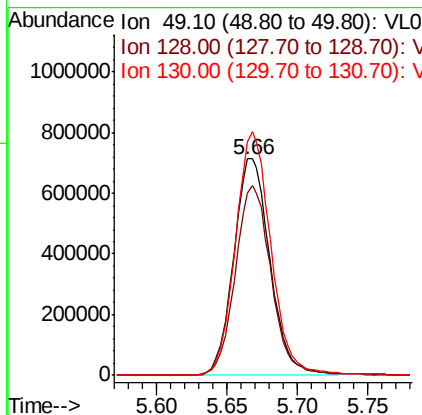
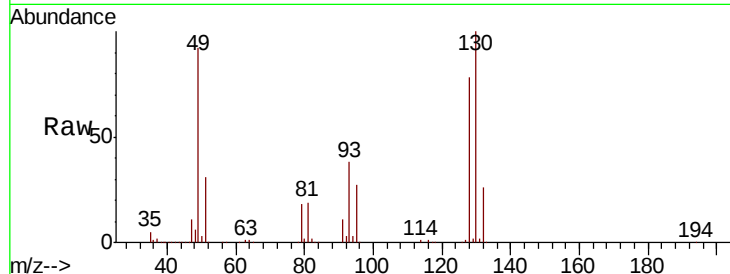
Bromochloromethane  
 Concen: 10.000 ppbv  
 RT: 5.66 min Scan# 895  
 Delta R.T. -0.02 min  
 Lab File: VL035747.D  
 Acq: 8 Oct 2020 16:15

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 BFI-EFFLUENT-TANKDL

Tot Ion: 49 Resp: 1290661  
 Ion Ratio Lower Upper  
 49 100  
 128 86.7 43.1 129.4  
 130 111.1 54.9 164.7

Manual Integrations  
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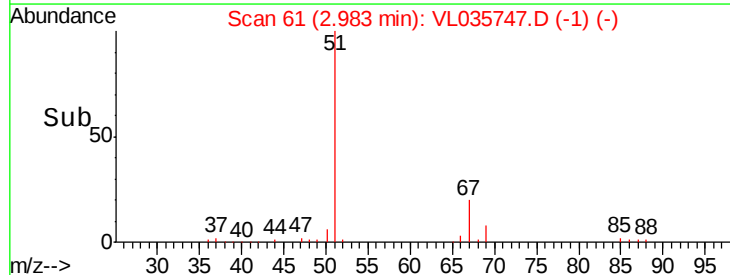
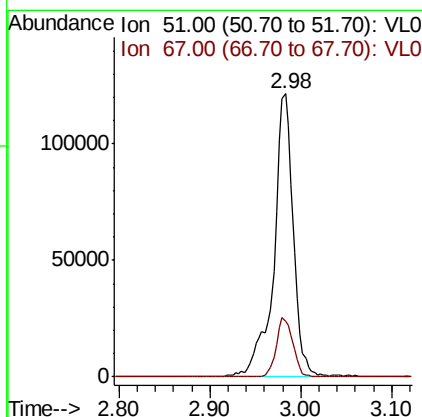
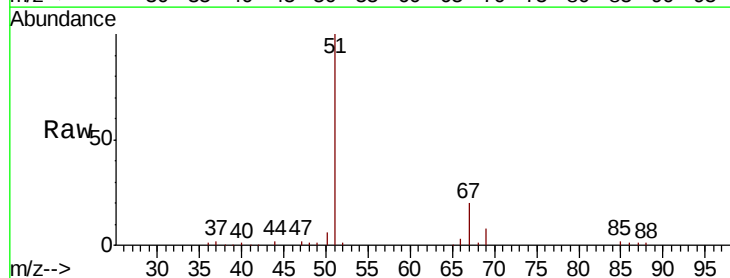
apatel  
 10/12/2020 10:29:51 AM

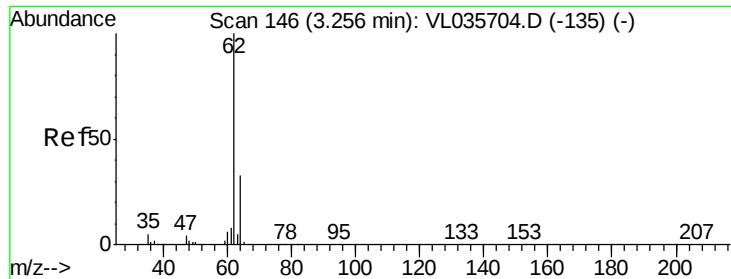


#3

Chlorodifluoromethane  
 Concen: 1.304 ppbv  
 RT: 2.98 min Scan# 61  
 Delta R.T. -0.00 min  
 Lab File: VL035747.D  
 Acq: 8 Oct 2020 16:15

Tgt Ion: 51 Resp: 181045  
 Ion Ratio Lower Upper  
 51 100  
 67 17.7 17.8 26.8#





#5

Vinyl Chloride

Concen: 0.527 ppbv

RT: 3.25 min Scan# 145

Delta R.T. -0.00 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

Instrument :

MSVOA\_L

ClientSampleId :

BFI-EFFLUENT-TANKDL

Tot Ion: 62 Resp: 46468

Ion Ratio Lower Upper

62 100

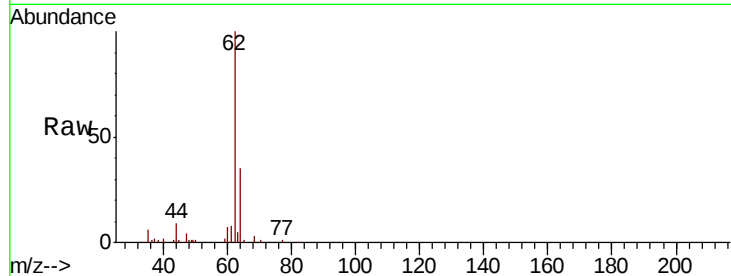
64 34.9 26.8 40.2

Manual Integrations

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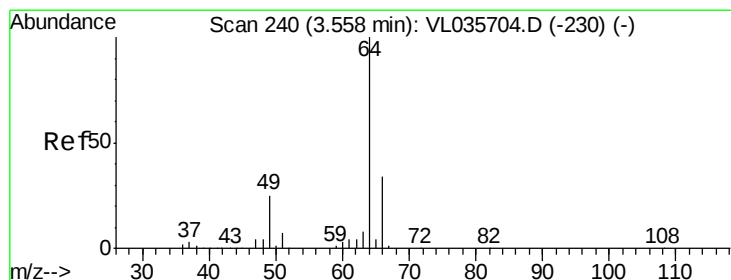
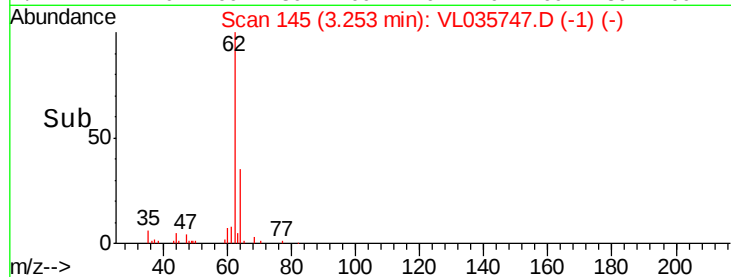
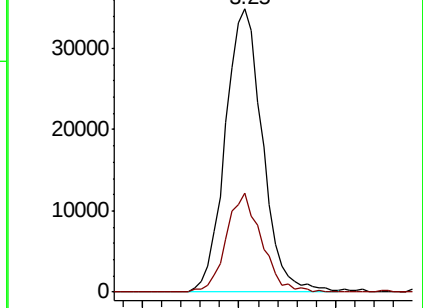
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Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#7

Chloroethane

Concen: 5.143 ppbv

RT: 3.55 min Scan# 238

Delta R.T. -0.01 min

Lab File: VL035747.D

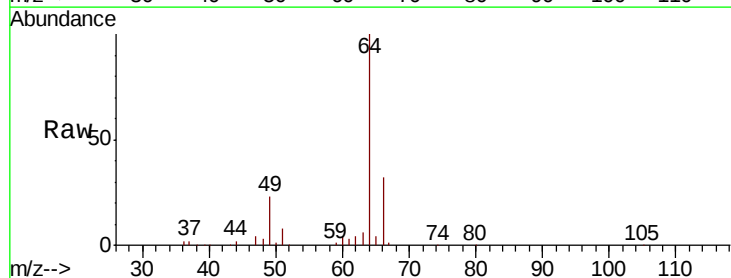
Acq: 8 Oct 2020 16:15

Tgt Ion: 64 Resp: 166423

Ion Ratio Lower Upper

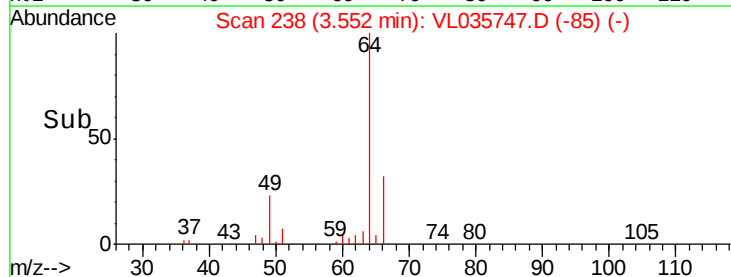
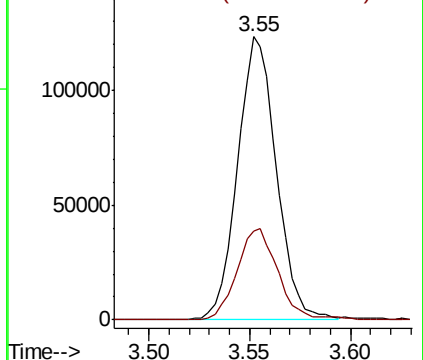
64 100

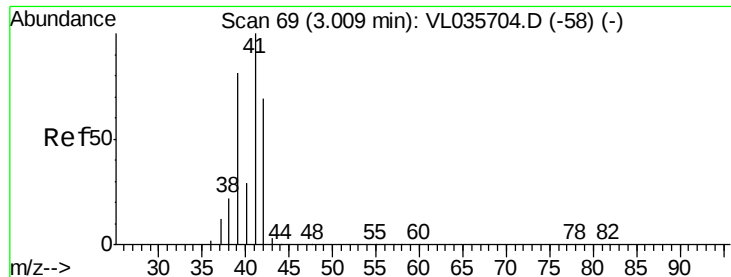
66 31.6 26.9 40.3



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 0.162 ppbv

RT: 3.01 min Scan# 68

Delta R.T. -0.00 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

Instrument :

MSVOA\_L

ClientSampleId :

BFI-EFFLUENT-TANKDL

Tot Ion: 41 Resp: 8170

Ion Ratio Lower Upper

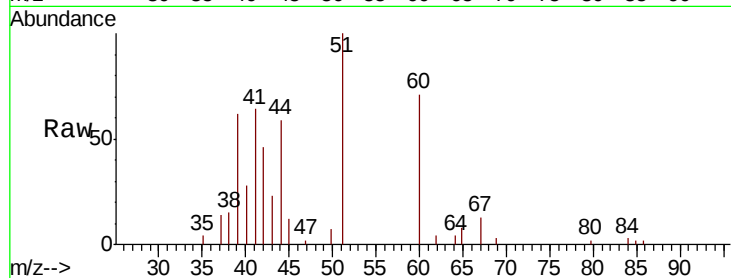
41 100

42 61.2 56.2 84.4

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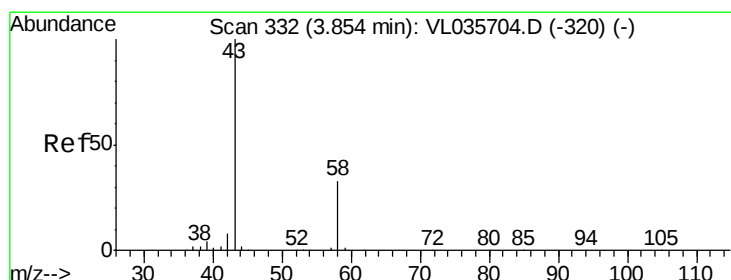
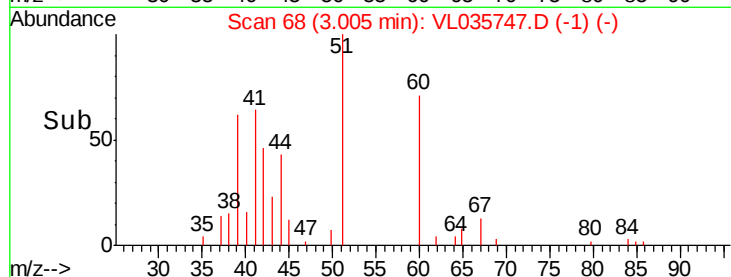
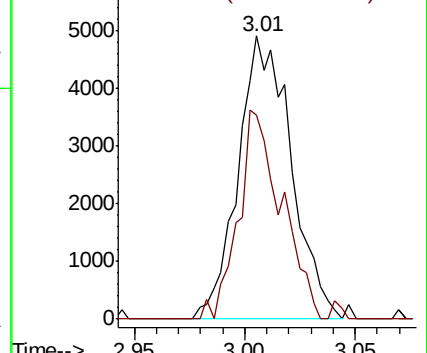
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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#15

Acetone

Concen: 0.587 ppbv

RT: 3.86 min Scan# 333

Delta R.T. 0.00 min

Lab File: VL035747.D

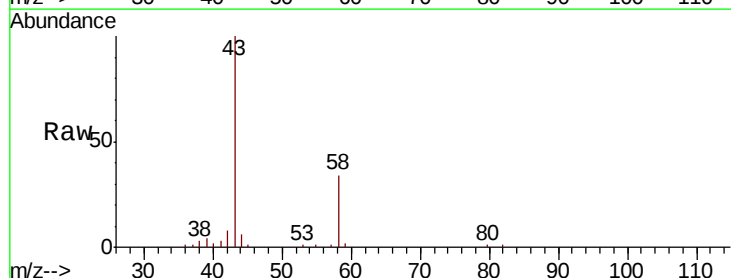
Acq: 8 Oct 2020 16:15

Tgt Ion: 43 Resp: 81484

Ion Ratio Lower Upper

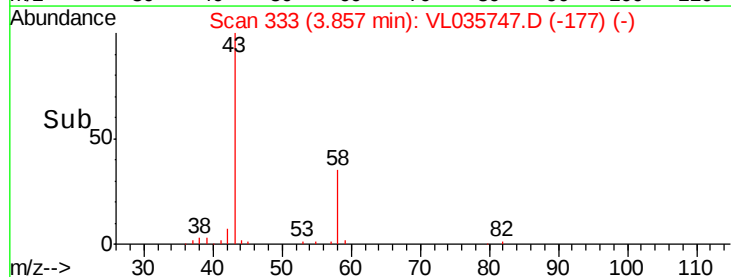
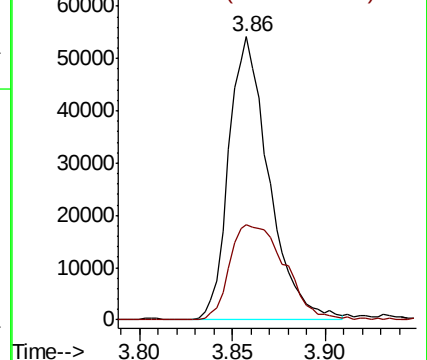
43 100

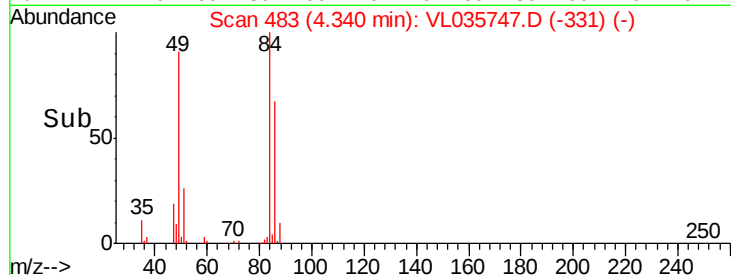
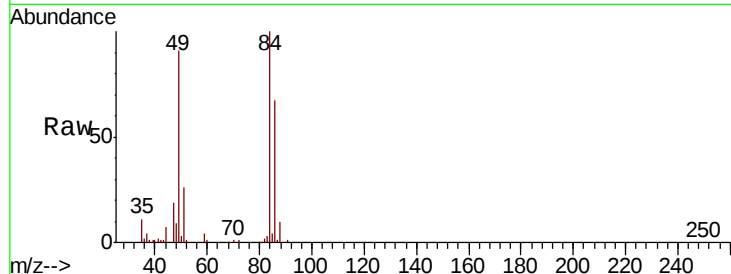
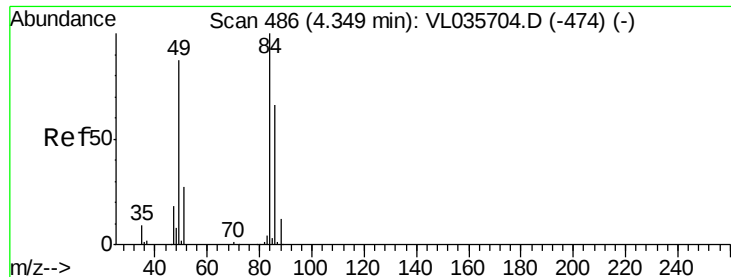
58 46.0 27.3 40.9#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





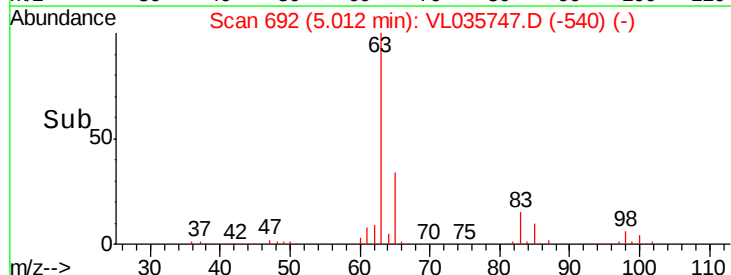
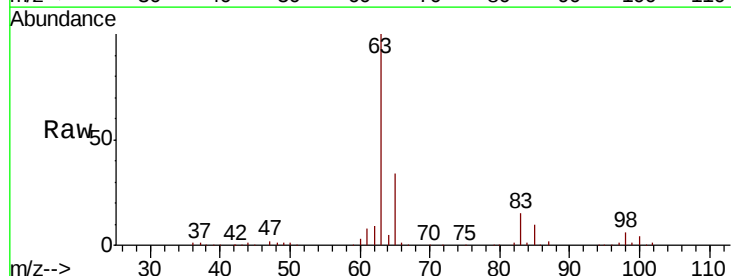
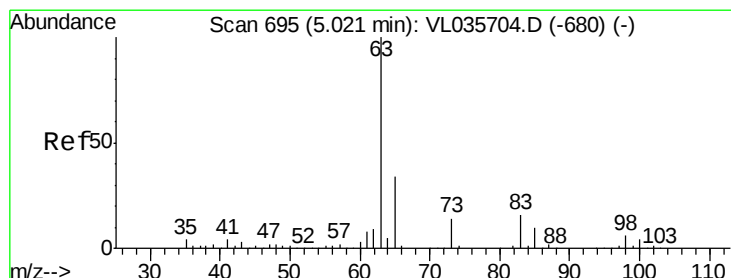
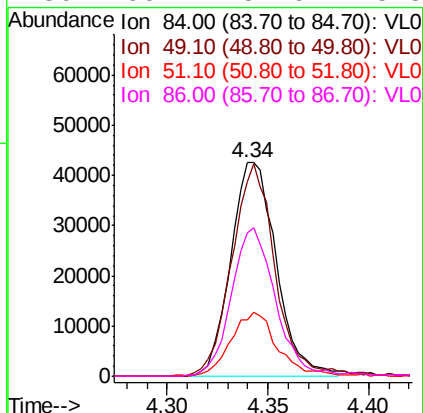
#20  
Methvlene Chloride  
Concen: 0.663 ppbv  
RT: 4.34 min Scan# 483  
Delta R.T. -0.01 min  
Lab File: VL035747.D  
Acq: 8 Oct 2020 16:15

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 67618 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 90.7  | 69.8  | 104.6 |
| 51       | 26.4  | 21.8  | 32.8  |
| 86       | 66.4  | 52.6  | 78.8  |

Instrument :  
MSVOA\_L  
ClientSampleId :  
BFI-EFFLUENT-TANKDL

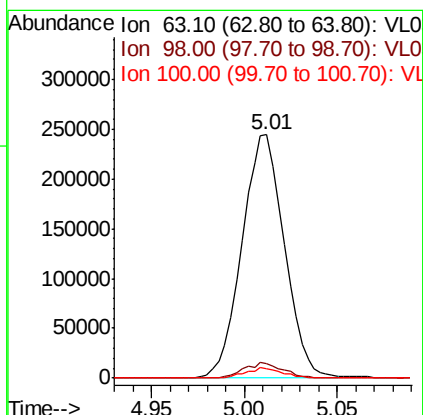
Manual Integrations  
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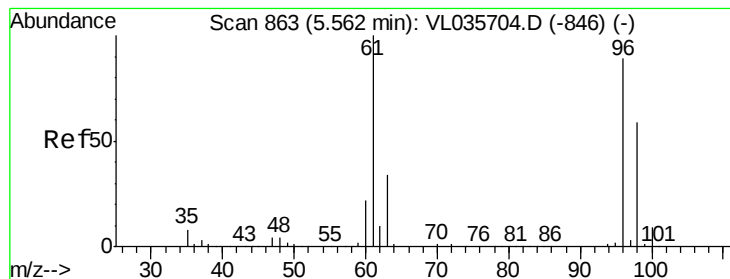
apatel  
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#24  
1,1-Dichloroethane  
Concen: 2.093 ppbv  
RT: 5.01 min Scan# 692  
Delta R.T. -0.01 min  
Lab File: VL035747.D  
Acq: 8 Oct 2020 16:15

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 63    | Resp: | 387832 |
| Ion      | Ratio | Lower | Upper  |
| 63       | 100   |       |        |
| 98       | 6.0   | 3.3   | 9.8    |
| 100      | 3.6   | 2.0   | 5.8    |





#31

cis-1,2-Dichloroethene

Concen: 1.038 ppbv

RT: 5.55 min Scan# 860

Delta R.T. -0.01 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

Instrument :

MSVOA\_L

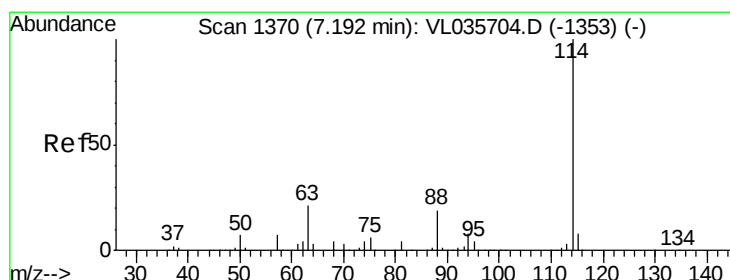
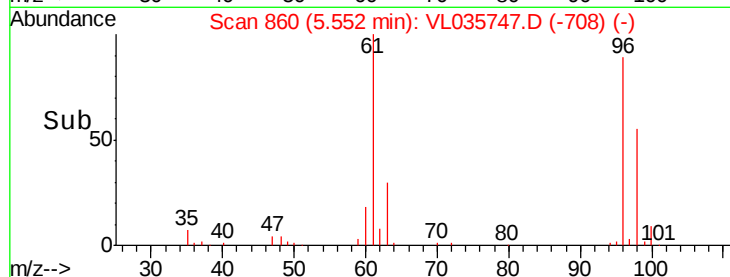
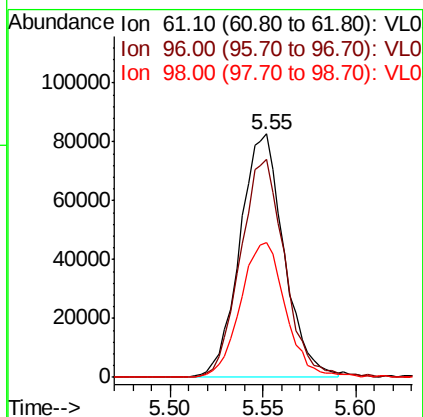
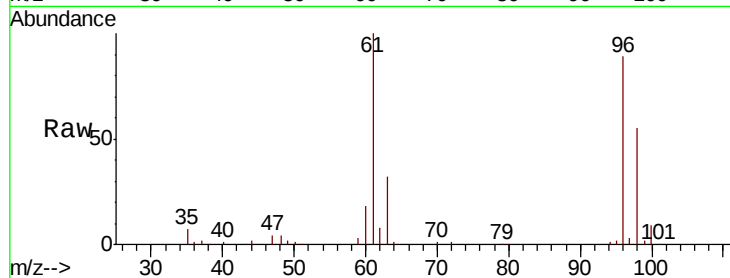
ClientSampleId :

BFI-EFFLUENT-TANKDL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 61    | Resp: | 137198 |
| Ion Ratio | Lower | Upper |        |
| 61        | 100   |       |        |
| 96        | 89.4  | 71.4  | 107.2  |
| 98        | 55.4  | 47.4  | 71.2   |

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10/12/2020 10:29:51 AM



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

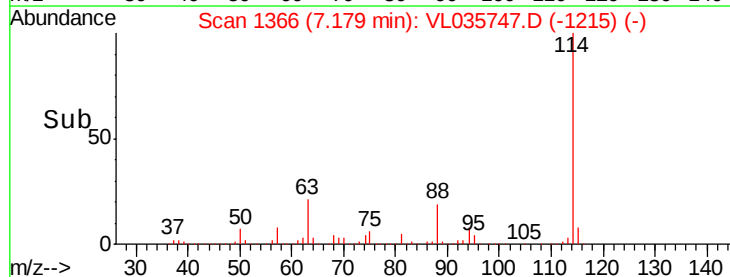
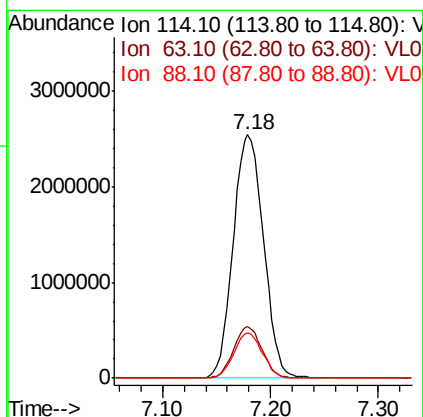
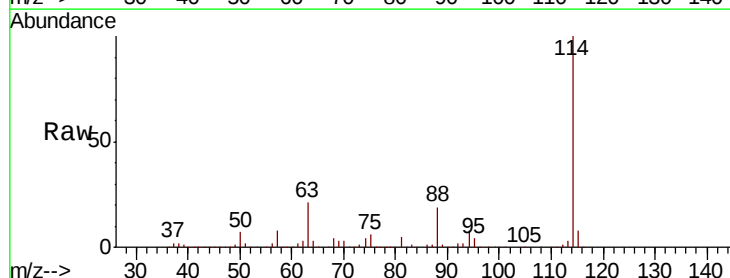
RT: 7.18 min Scan# 1366

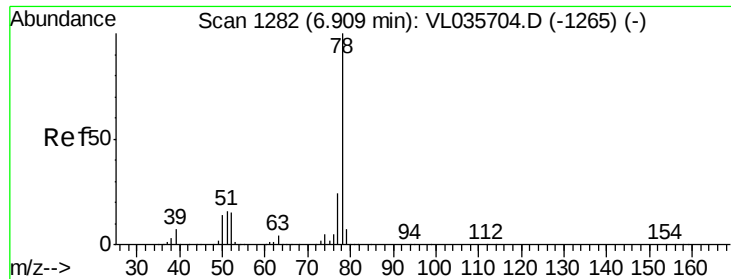
Delta R.T. -0.01 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 114   | Resp: | 4998767 |
| Ion Ratio | Lower | Upper |         |
| 114       | 100   |       |         |
| 63        | 19.8  | 16.1  | 24.1    |
| 88        | 17.6  | 14.1  | 21.1    |





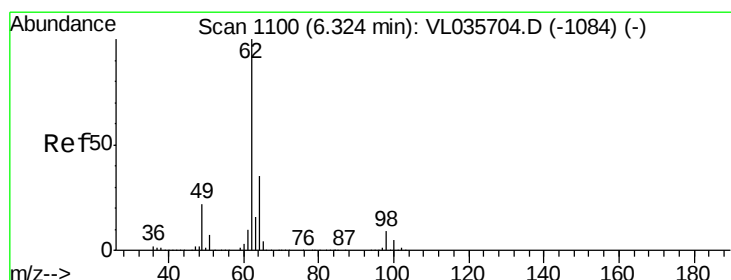
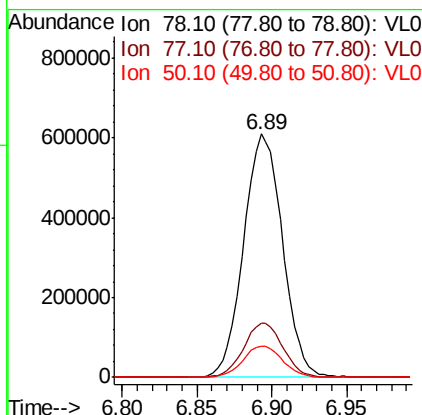
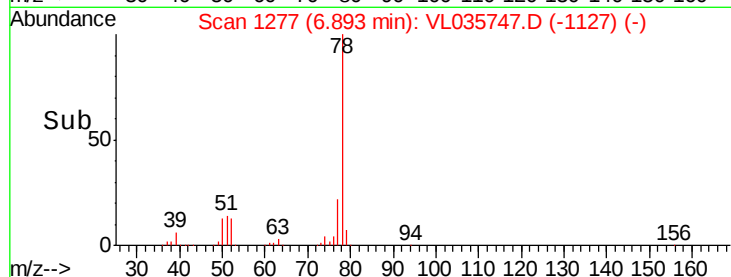
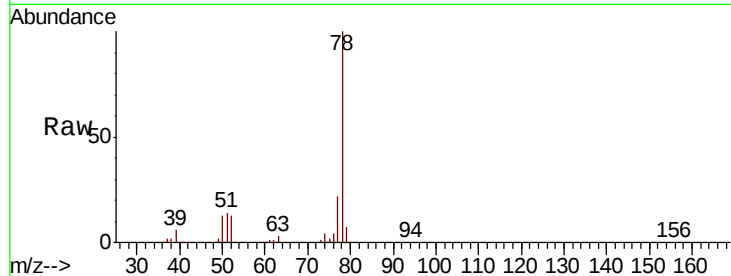
#36  
Benzene  
Concen: 3.388 ppbv  
RT: 6.89 min Scan# 1277  
Delta R.T. -0.02 min  
Lab File: VL035747.D  
Acq: 8 Oct 2020 16:15

Instrument :  
MSVOA\_L  
ClientSampleId :  
BFI-EFFLUENT-TANKDL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 22.3  | 19.3  | 28.9  |
| 50      | 12.8  | 11.6  | 17.4  |

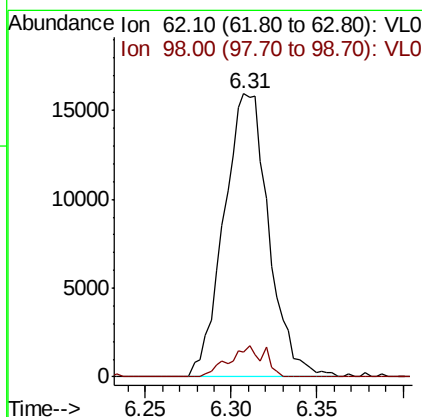
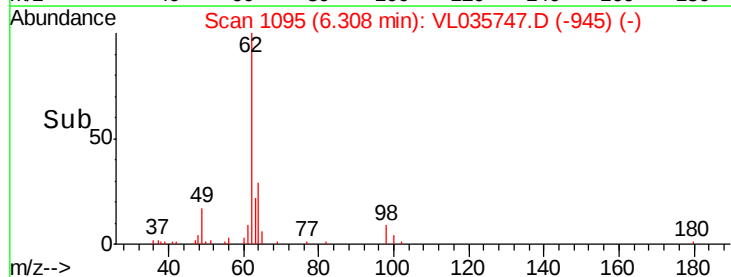
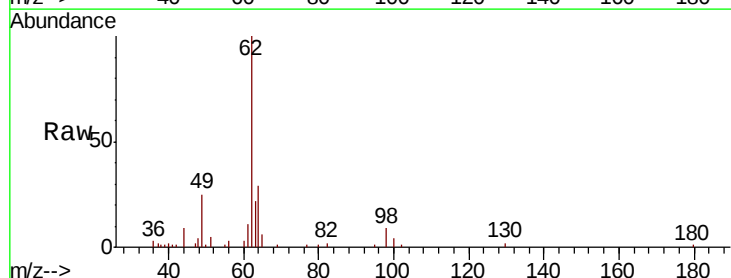
Manual Integrations  
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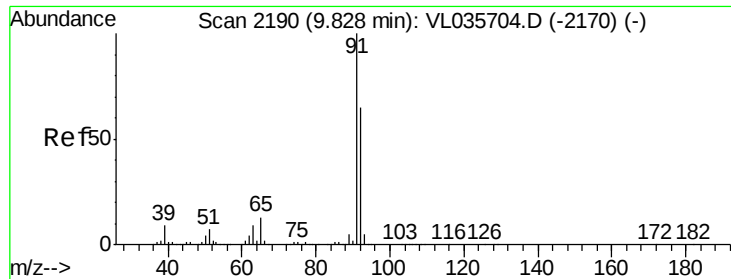
apatel  
10/12/2020 10:29:51 AM



#37  
1,2-Dichloroethane  
Concen: 0.171 ppbv  
RT: 6.31 min Scan# 1095  
Delta R.T. -0.02 min  
Lab File: VL035747.D  
Acq: 8 Oct 2020 16:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 8.7   | 6.9   | 10.3  |





#53

Toluene

Concen: 11.416 ppbv

RT: 9.82 min Scan# 2186

Delta R.T. -0.01 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

Instrument :

MSVOA\_L

ClientSampleId :

BFI-EFFLUENT-TANKDL

Tot Ion: 91 Resp: 4384717

Ion Ratio Lower Upper

91 100

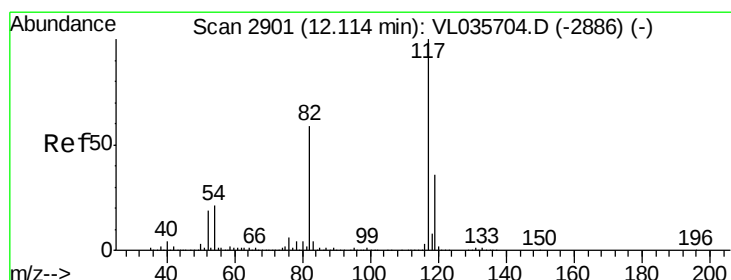
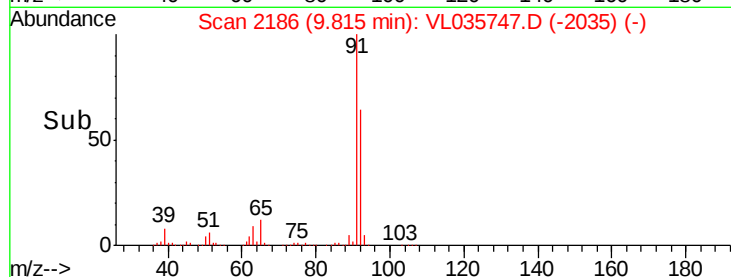
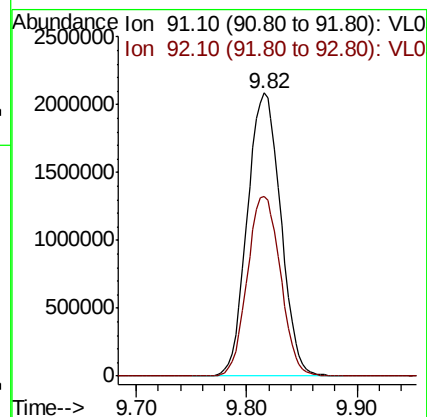
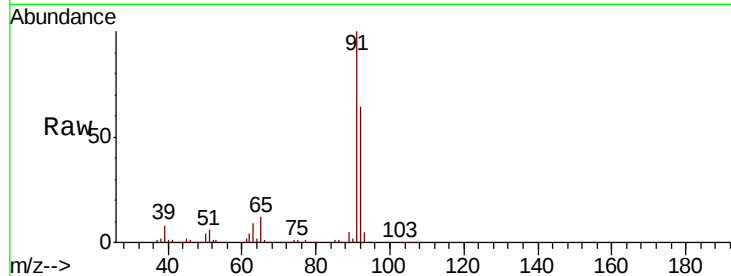
92 63.2 50.0 75.0

Manual Integrations

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2896

Delta R.T. -0.02 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

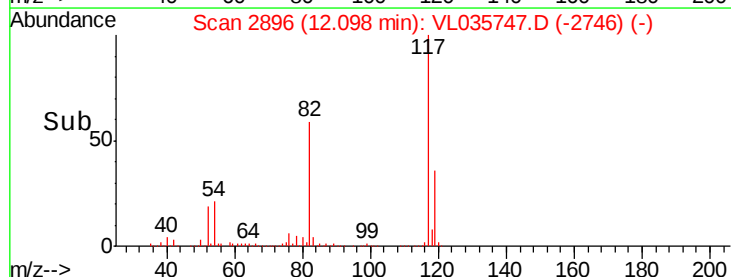
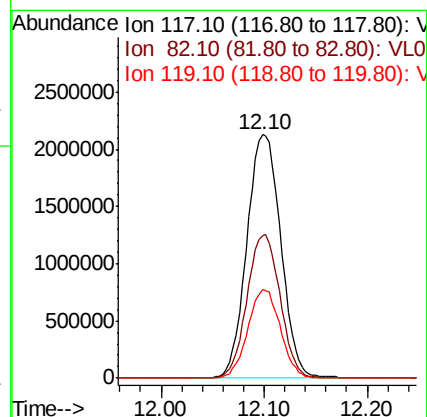
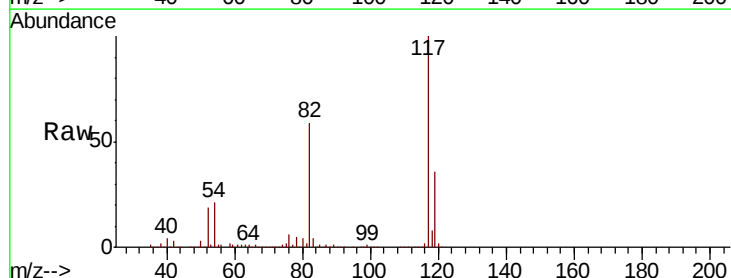
Tgt Ion: 117 Resp: 4864180

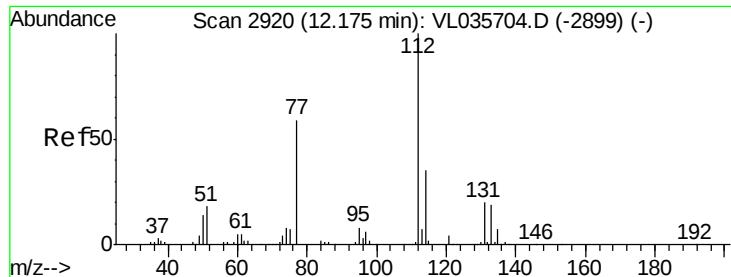
Ion Ratio Lower Upper

117 100

82 57.7 46.1 69.1

119 35.0 28.0 42.0





#57

Chlorobenzene

Concen: 0.306 ppbv

RT: 12.16 min Scan# 2916

Delta R.T. -0.01 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

Instrument :

MSVOA\_L

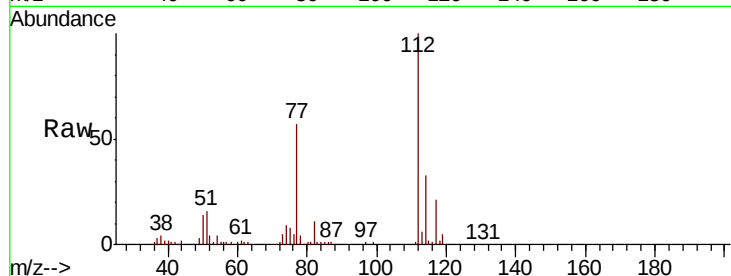
ClientSampleId :

BFI-EFFLUENT-TANKDL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 55.3  | 48.2  | 72.2  |
| 114     | 32.5  | 31.9  | 39.1  |

Manual Integrations  
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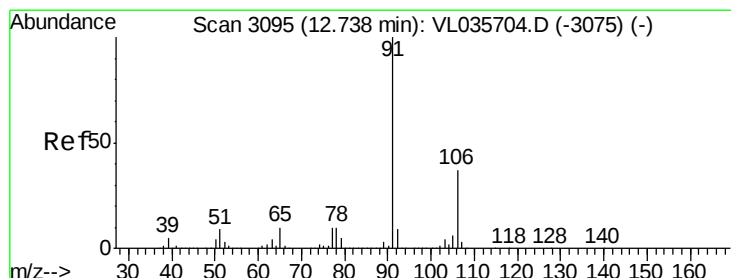
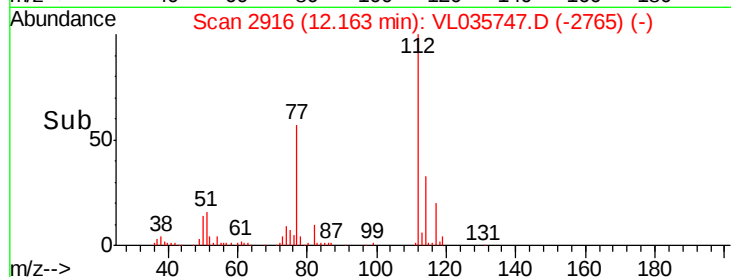
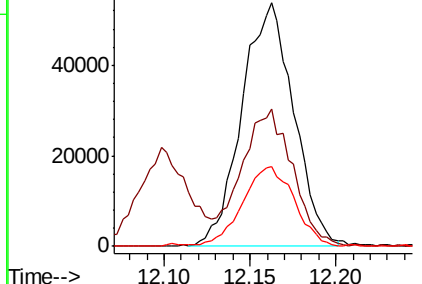
apatel  
10/12/2020 10:29:51 AM



Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V



#58

Ethyl Benzene

Concen: 0.428 ppbv m

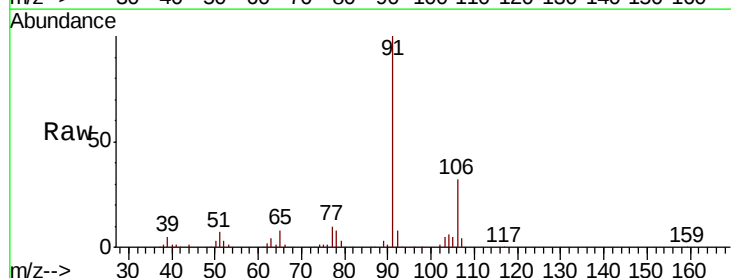
RT: 12.73 min Scan# 3091

Delta R.T. -0.01 min

Lab File: VL035747.D

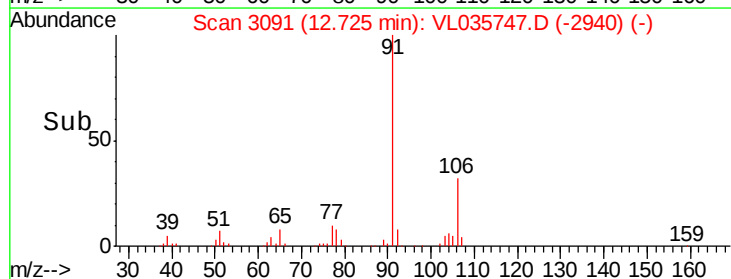
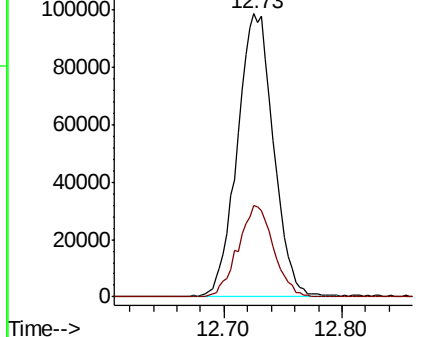
Acq: 8 Oct 2020 16:15

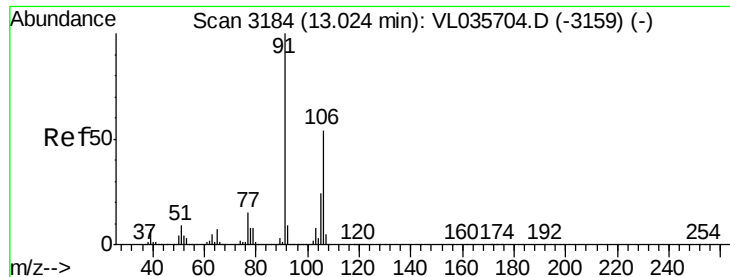
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 32.3  | 29.7  | 44.5  |



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





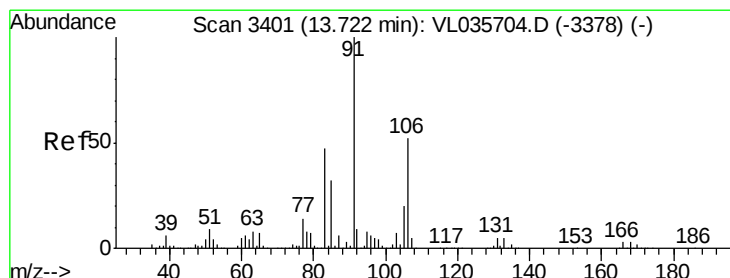
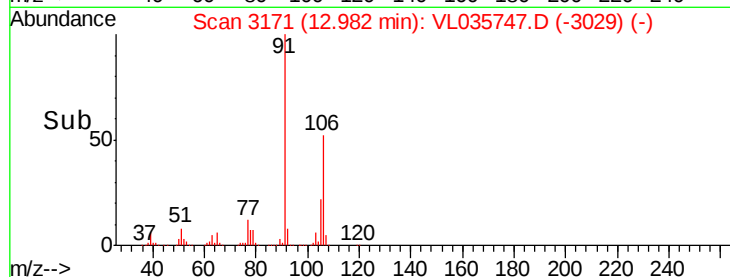
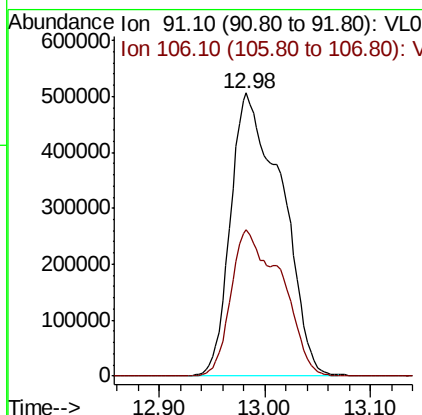
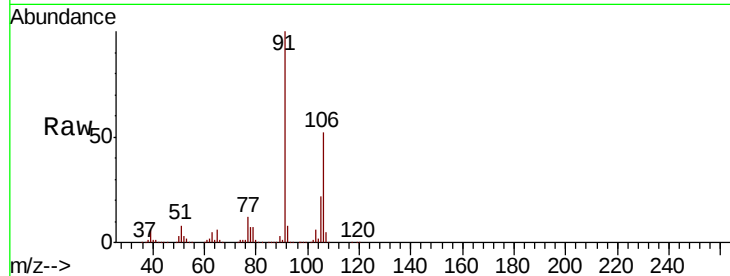
#59  
m/p-Xylene  
Concen: 3.978 ppbv  
RT: 12.98 min Scan# 3171  
Delta R.T. -0.04 min  
Lab File: VL035747.D  
Acq: 8 Oct 2020 16:15

Instrument :  
MSVOA\_L  
ClientSampleId :  
BFI-EFFLUENT-TANKDL

Tot Ion: 91 Resp: 1696094  
Ion Ratio Lower Upper  
91 100  
106 51.4 41.4 62.0

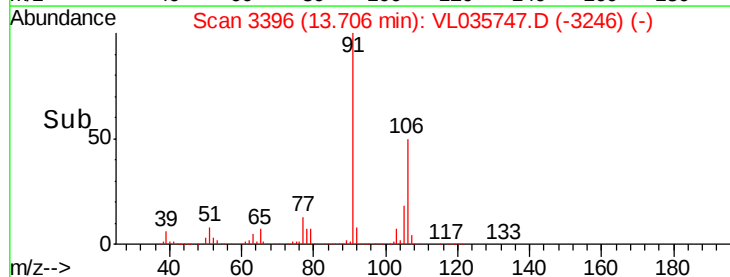
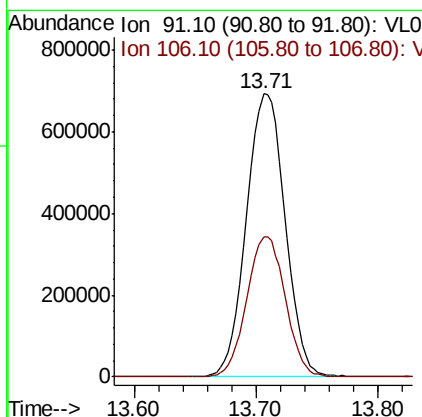
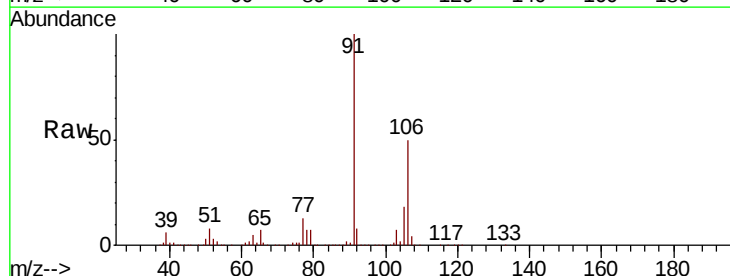
Manual Integrations  
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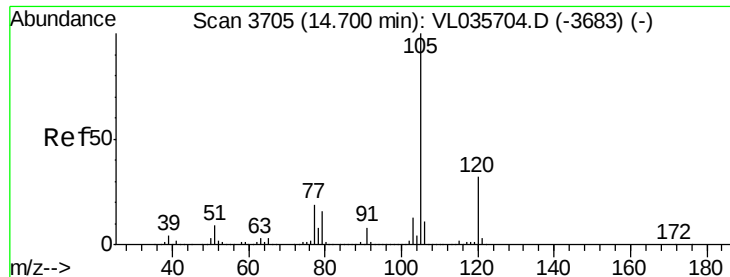
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#60  
o-Xylene  
Concen: 3.528 ppbv  
RT: 13.71 min Scan# 3396  
Delta R.T. -0.02 min  
Lab File: VL035747.D  
Acq: 8 Oct 2020 16:15

Tgt Ion: 91 Resp: 1521439  
Ion Ratio Lower Upper  
91 100  
106 49.4 25.0 75.0





#62

Isopropylbenzene

Concen: 0.341 ppbv

RT: 14.69 min Scan# 3702

Delta R.T. -0.01 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

Instrument :

MSVOA\_L

ClientSampleId :

BFI-EFFLUENT-TANKDL

Tot Ion:105 Resp: 228173

Ion Ratio Lower Upper

105 100

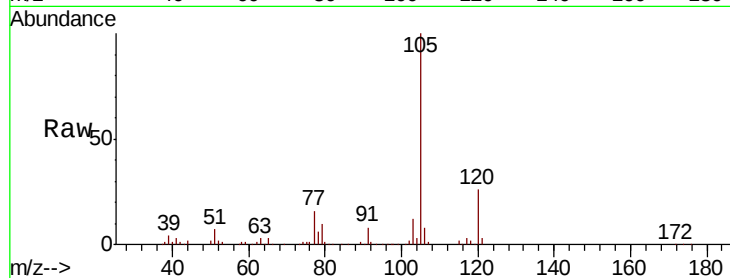
120 27.7 24.1 36.1

Manual Integrations

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

14.69

120000

100000

80000

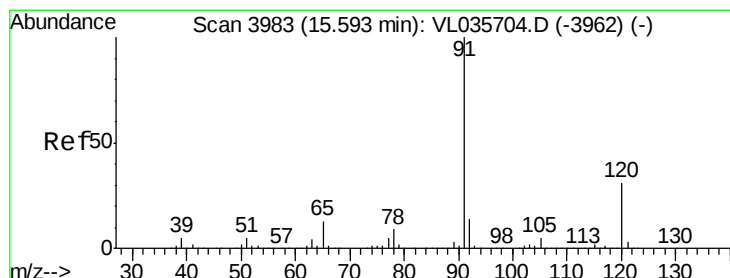
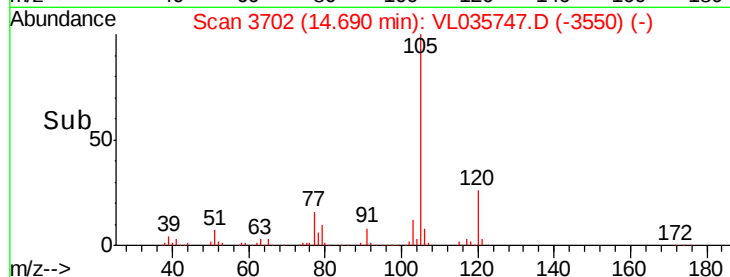
60000

40000

20000

0

Time--> 14.60 14.65 14.70 14.75



#64

n-propylbenzene

Concen: 0.467 ppbv

RT: 15.58 min Scan# 3979

Delta R.T. -0.01 min

Lab File: VL035747.D

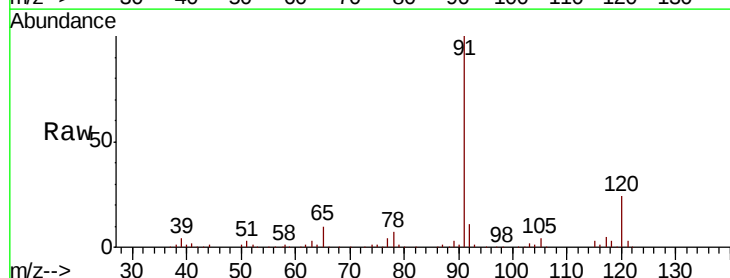
Acq: 8 Oct 2020 16:15

Tgt Ion:120 Resp: 91369

Ion Ratio Lower Upper

120 100

91 439.9 300.4 450.6



Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

200000

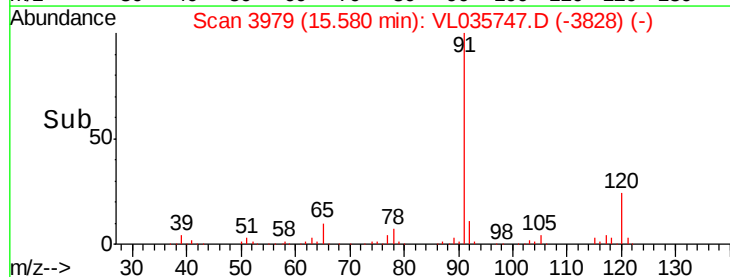
150000

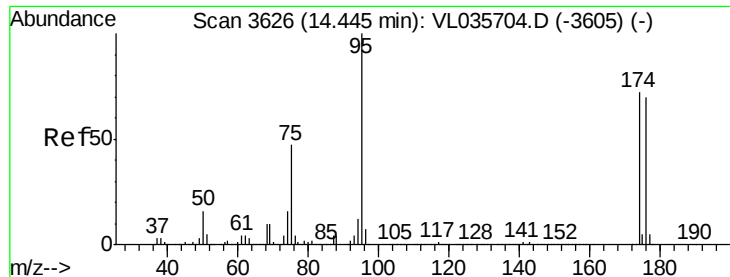
100000

50000

0

Time--> 15.50 15.55 15.60 15.65





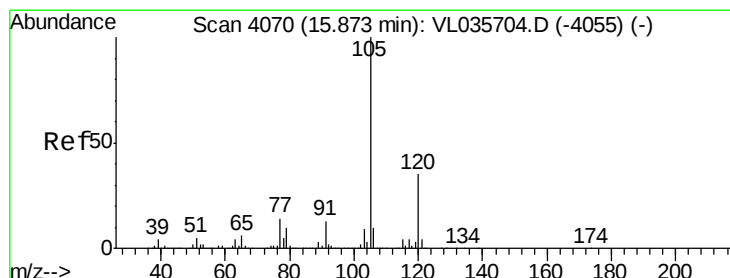
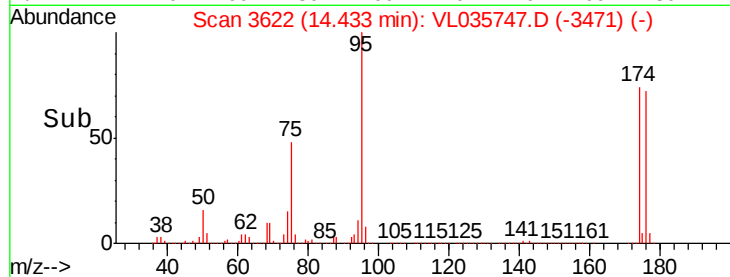
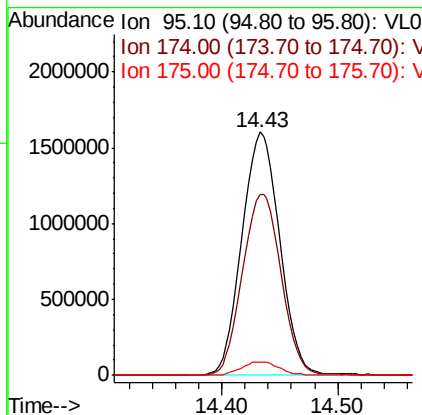
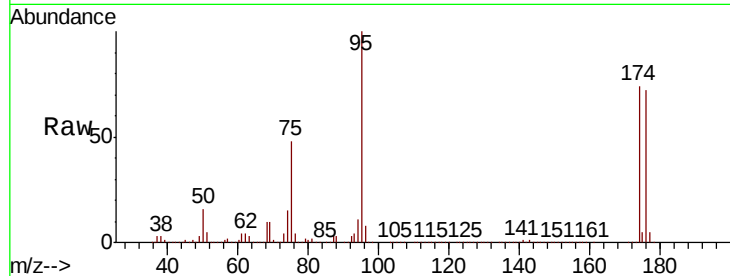
#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.006 ppbv  
 RT: 14.43 min Scan# 3622  
 Delta R.T. -0.01 min  
 Lab File: VL035747.D  
 Acq: 8 Oct 2020 16:15

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 BFI-EFFLUENT-TANKDL

Tot Ion: 95 Resp: 3647000  
 Ion Ratio Lower Upper  
 95 100  
 174 76.7 59.6 89.4  
 175 5.6 4.2 6.4

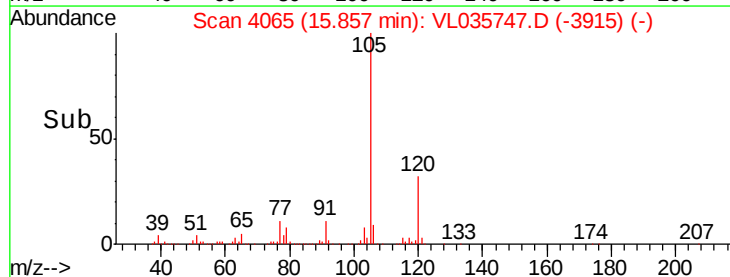
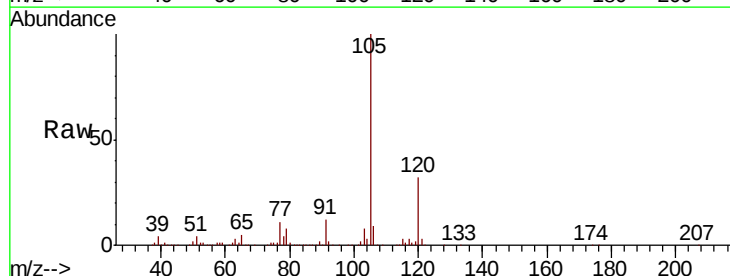
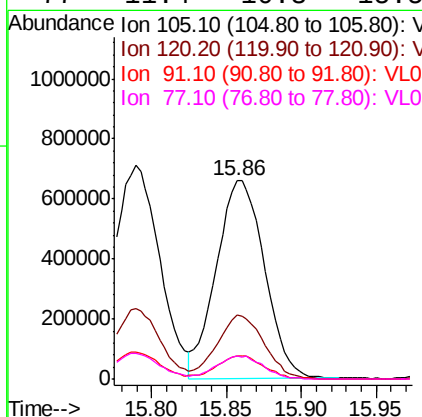
Manual Integrations  
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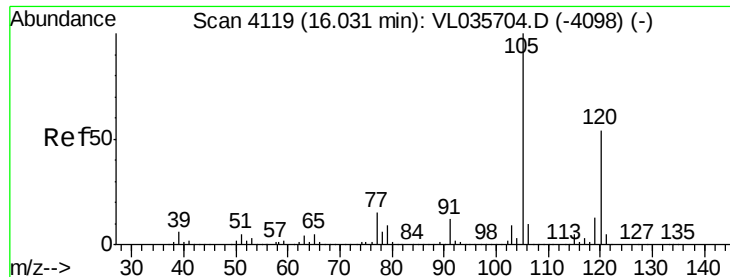
apatel  
 10/12/2020 10:29:51 AM



#72  
 4-Ethyltoluene  
 Concen: 2.896 ppbv  
 RT: 15.86 min Scan# 4065  
 Delta R.T. -0.02 min  
 Lab File: VL035747.D  
 Acq: 8 Oct 2020 16:15

Tgt Ion: 105 Resp: 1479486  
 Ion Ratio Lower Upper  
 105 100  
 120 31.5 26.5 39.7  
 91 11.4 10.2 15.2  
 77 11.4 10.3 15.5





#73

1,3,5-Trimethylbenzene

Concen: 3.504 ppbv

RT: 16.02 min Scan# 4115

Delta R.T. -0.01 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

Instrument :

MSVOA\_L

ClientSampleId :

BFI-EFFLUENT-TANKDL

Tot Ion:105 Resp: 1691698

Ion Ratio Lower Upper

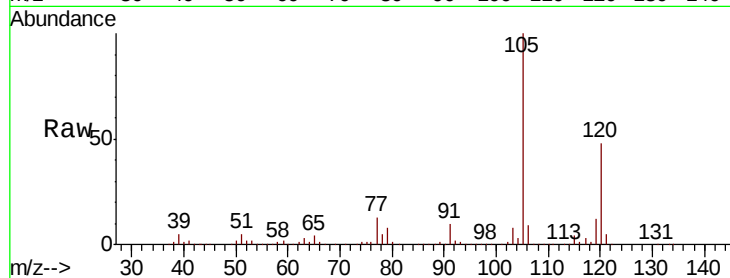
105 100

120 48.1 43.0 64.4

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.02

800000

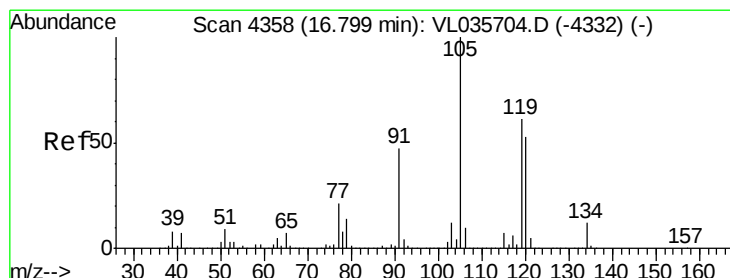
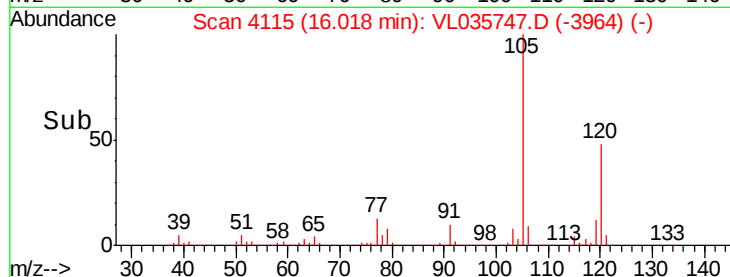
600000

400000

200000

0

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 7.460 ppbv

RT: 16.78 min Scan# 4353

Delta R.T. -0.02 min

Lab File: VL035747.D

Acq: 8 Oct 2020 16:15

Tgt Ion:105 Resp: 4060265

Ion Ratio Lower Upper

105 100

120 49.3 42.5 63.7

91 11.6 37.7 56.5#

77 13.1 16.7 25.1#

Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

2500000

2000000

1500000

1000000

500000

0

Time-->

