

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052819\  
 Data File : VL033805.D  
 Acq On : 28 May 2019 15:03  
 Operator : SY/AP  
 Sample : K2929-19DL 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 BPS1-SG-3007-55DL

Manual Integrations  
 APPROVED

apatel  
 5/29/2019 12:40:12 PM

Quant Time: May 29 05:11:45 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051719AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri May 1  
 QLast Update : Fri May 17 08:15:41 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.75  | 49   | 1054848  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.28  | 114  | 2776892  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.23 | 117  | 2517501  | 10.00 | ppbv  | -0.01    |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 2078294  | 10.18    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.80% |

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 3) Chlorodifluoromethane   | 3.01  | 51   | 31207m   | 0.258  | ppbv   |        |
| 9) Propene                 | 3.03  | 41   | 300887   | 5.855  | ppbv   | 94     |
| 10) Heptane                | 8.24  | 43   | 22414    | 0.154  | ppbv   | 100    |
| 13) Ethanol                | 3.65  | 45   | 40054    | 2.411  | ppbv   | 94     |
| 15) Acetone                | 3.89  | 43   | 2969377  | 20.289 | ppbv   | 94     |
| 17) tert-Butyl alcohol     | 4.37  | 59   | 38470    | 0.325  | ppbv # | 91     |
| 26) Hexane                 | 5.77  | 57   | 75773    | 0.686  | ppbv # | 42     |
| 27) Carbon Disulfide       | 4.62  | 76   | 23199    | 0.153  | ppbv # | 89     |
| 29) Chloroform             | 5.84  | 83   | 21006m   | 0.103  | ppbv   |        |
| 34) 2-Butanone             | 5.33  | 43   | 270650   | 1.572  | ppbv   | 98     |
| 36) Benzene                | 6.99  | 78   | 35492    | 0.141  | ppbv # | 89     |
| 51) 2-Hexanone             | 10.28 | 43   | 27759    | 0.134  | ppbv # | 100    |
| 52) Tetrachloroethene      | 11.36 | 164  | 3539m    | 0.040  | ppbv   |        |
| 53) Toluene                | 9.94  | 91   | 242610   | 0.890  | ppbv   | 98     |
| 58) Ethyl Benzene          | 12.86 | 91   | 52723m   | 0.158  | ppbv   |        |
| 59) m/p-Xylene             | 13.11 | 91   | 168973m  | 0.580  | ppbv   |        |
| 60) o-Xylene               | 13.84 | 91   | 59545    | 0.203  | ppbv   | 96     |
| 74) 1,2,4-Trimethylbenzene | 16.92 | 105  | 58804m   | 0.165  | ppbv   |        |

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

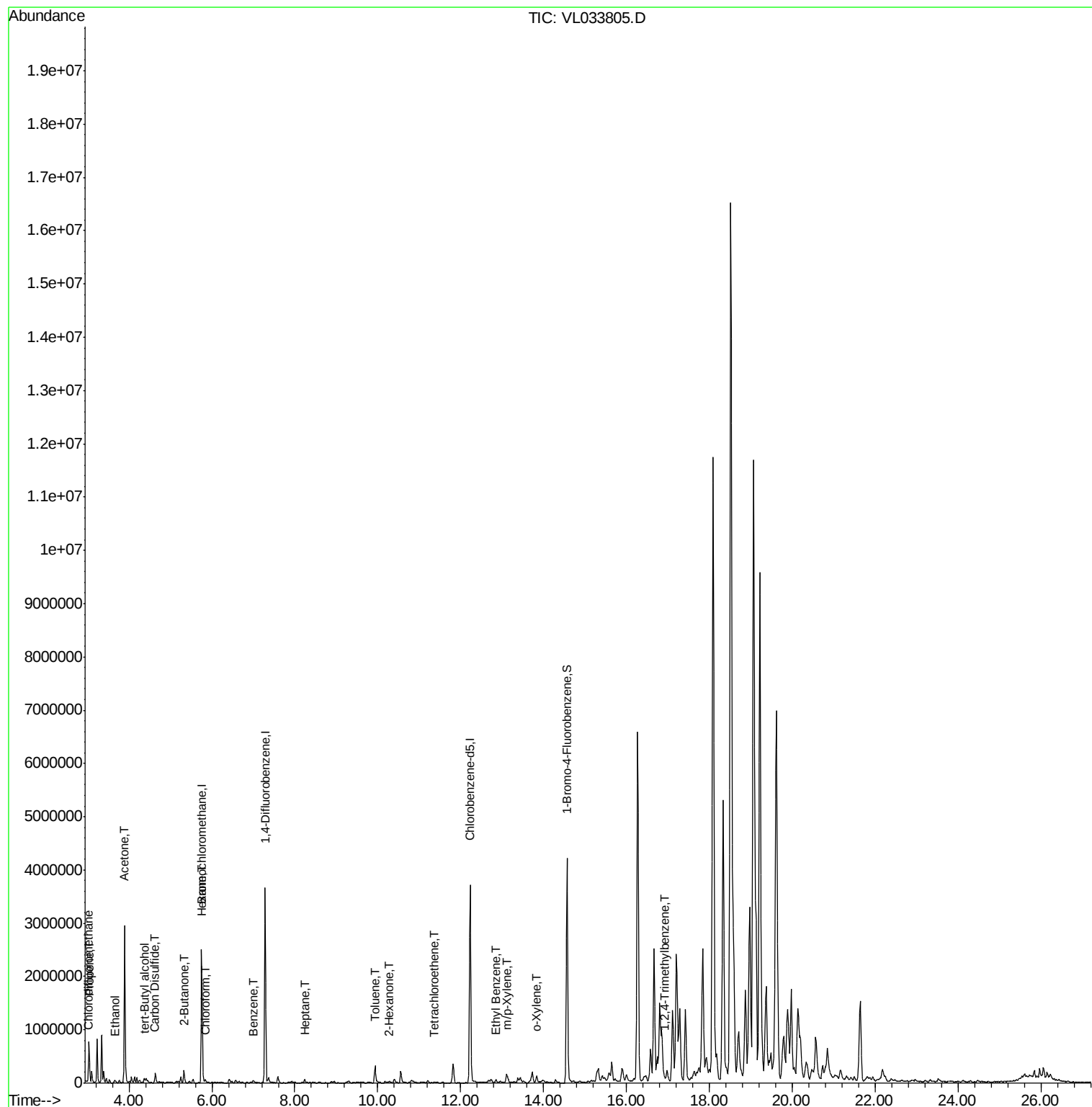
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL052819\  
Data File : VL033805.D  
Acq On : 28 May 2019 15:03  
Operator : SY/AP  
Sample : K2929-19DL 10X  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

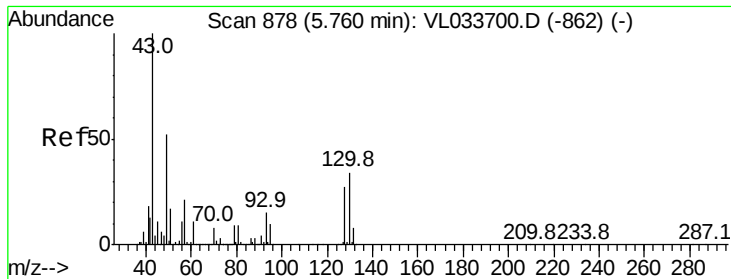
Instrument :  
MSVOA\_L  
ClientSampleId :  
BPS1-SG-3007-55DL

Manual Integrations  
APPROVED

apatel  
5/29/2019 12:40:12 PM

Quant Time: May 29 05:11:45 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL051719AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri May  
QLast Update : Fri May 17 08:15:41 2019  
Response via : Initial Calibration





#1

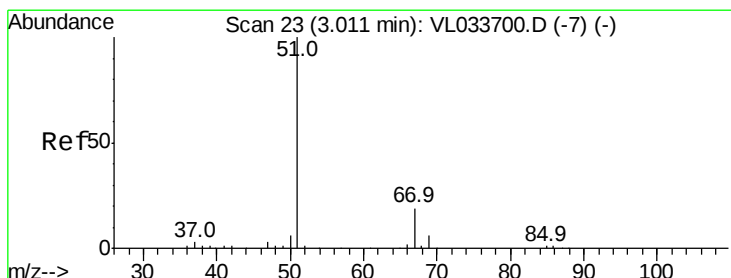
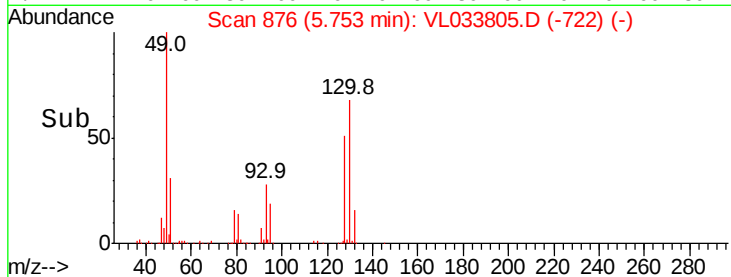
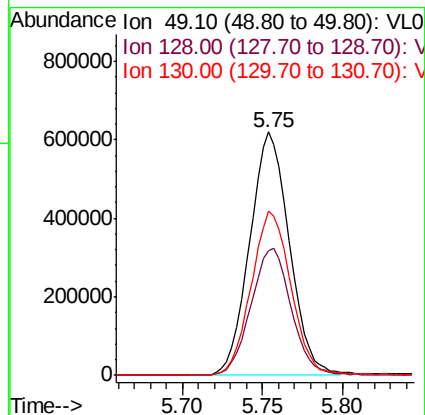
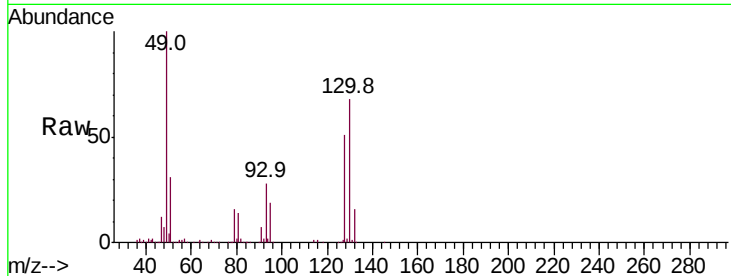
Bromochloromethane  
 Concen: 10.000 ppbv  
 RT: 5.75 min Scan# 876  
 Delta R.T. -0.01 min  
 Lab File: VL033805.D  
 Acq: 28 May 2019 15:03

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 BPS1-SG-3007-55DL

Tot Ion: 49 Resp: 1054848  
 Ion Ratio Lower Upper  
 49 100  
 128 53.5 25.2 75.6  
 130 68.7 32.5 97.5

Manual Integrations  
 APPROVED

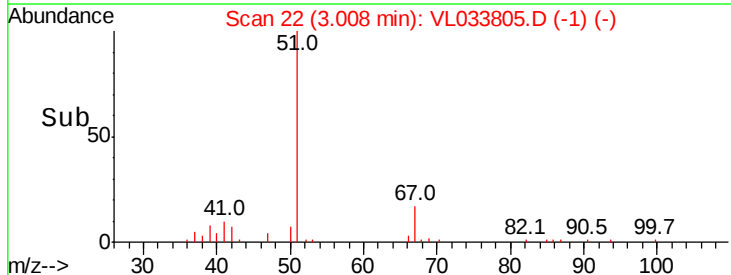
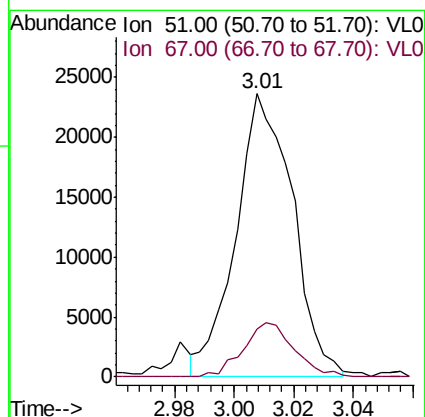
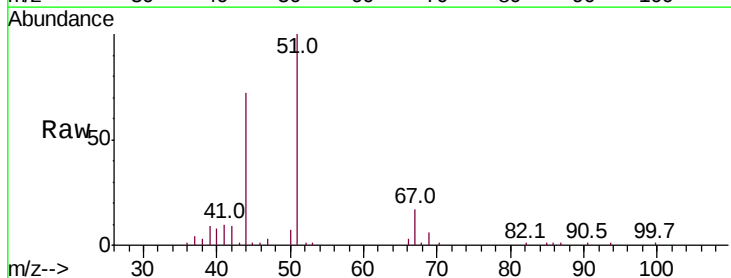
apatel  
 5/29/2019 12:40:12 PM

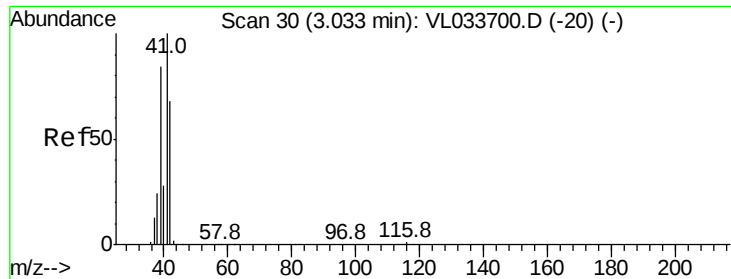


#3

Chlorodifluoromethane  
 Concen: 0.258 ppbv m  
 RT: 3.01 min Scan# 22  
 Delta R.T. -0.00 min  
 Lab File: VL033805.D  
 Acq: 28 May 2019 15:03

Tgt Ion: 51 Resp: 31207  
 Ion Ratio Lower Upper  
 51 100  
 67 17.3 15.6 23.4





#9

Propene

Concen: 5.855 ppbv

RT: 3.03 min Scan# 30

Delta R.T. 0.00 min

Lab File: VL033805.D

Acq: 28 May 2019 15:03

Instrument :

MSVOA\_L

ClientSampleId :

BPS1-SG-3007-55DL

Tot Ion: 41 Resp: 300887

Ion Ratio Lower Upper

41 100

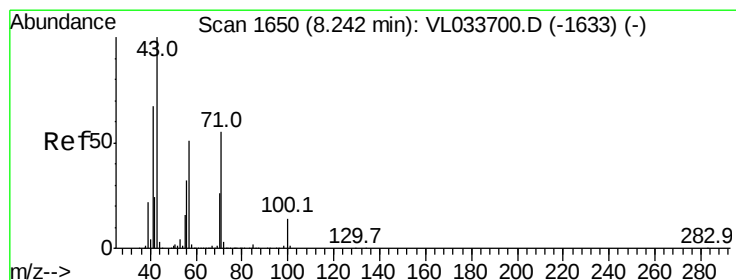
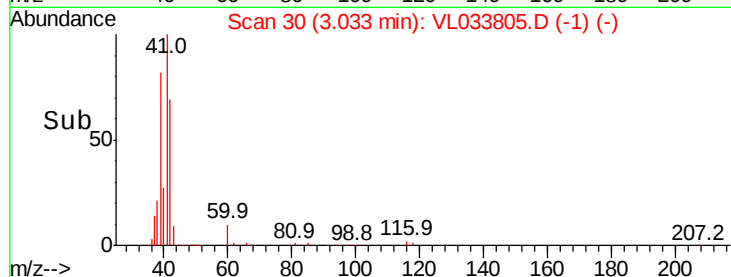
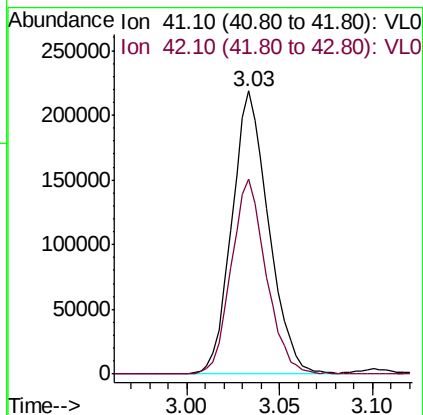
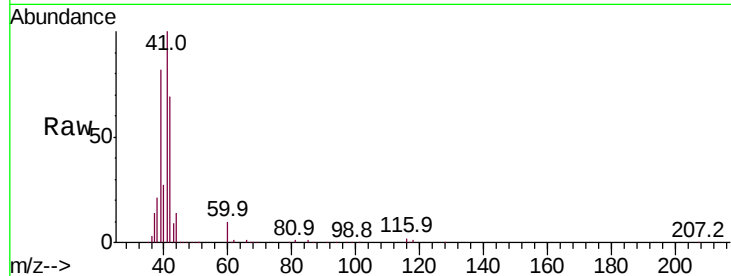
42 65.5 56.1 84.1

Manual Integrations

APPROVED

apatel

5/29/2019 12:40:12 PM



#10

Heptane

Concen: 0.154 ppbv

RT: 8.24 min Scan# 1648

Delta R.T. -0.01 min

Lab File: VL033805.D

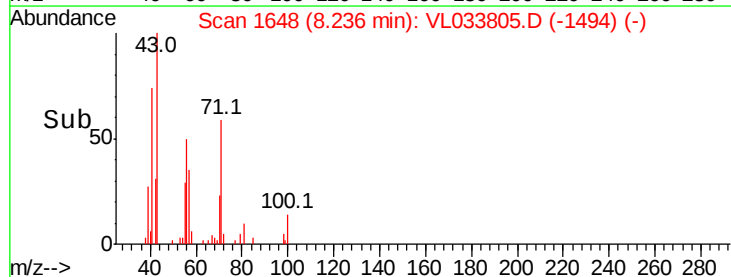
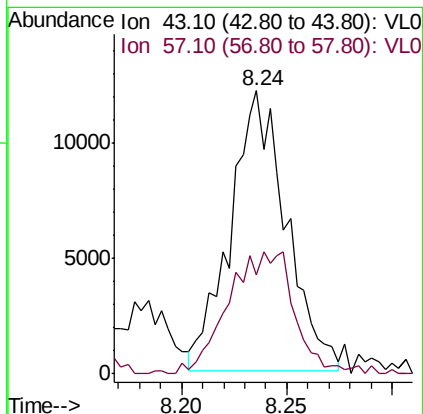
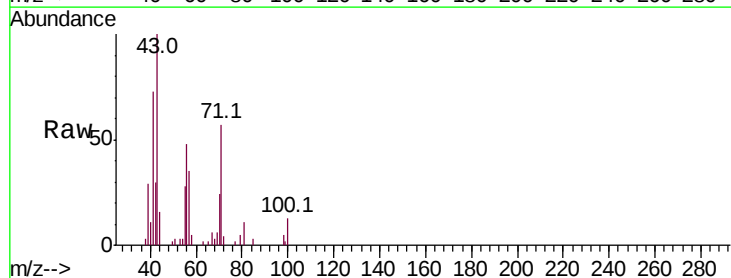
Acq: 28 May 2019 15:03

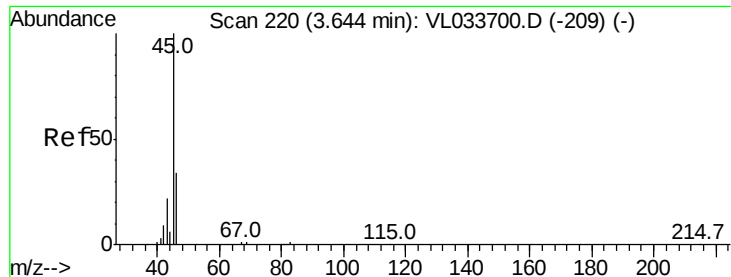
Tgt Ion: 43 Resp: 22414

Ion Ratio Lower Upper

43 100

57 52.0 41.4 62.0





#13

Ethanol

Concen: 2.411 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.01 min

Lab File: VL033805.D

Acq: 28 May 2019 15:03

Instrument :

MSVOA\_L

ClientSampleId :

BPS1-SG-3007-55DL

Tot Ion: 45 Resp: 40054

Ion Ratio Lower Upper

45 100

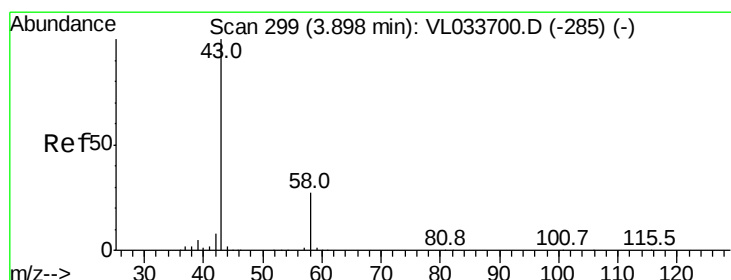
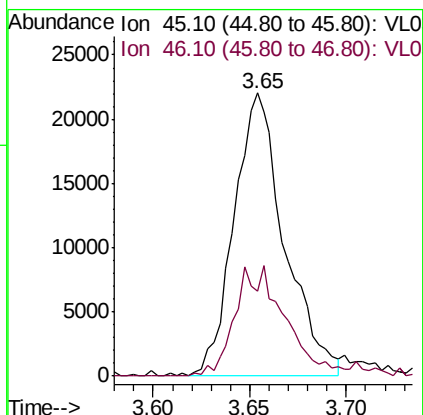
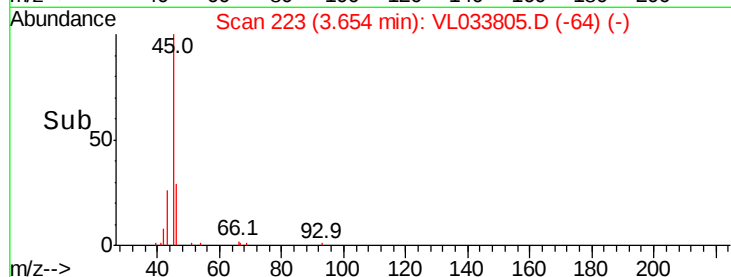
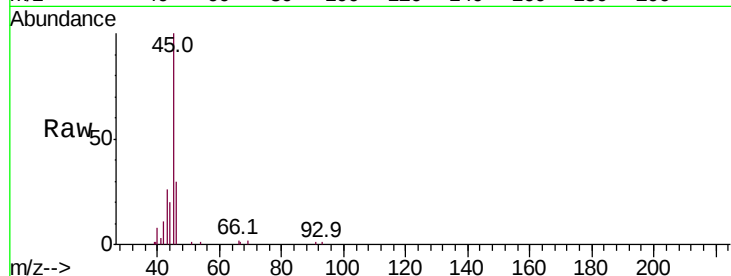
46 40.5 14.8 59.0

Manual Integrations

APPROVED

apatel

5/29/2019 12:40:12 PM



#15

Acetone

Concen: 20.289 ppbv

RT: 3.89 min Scan# 297

Delta R.T. -0.01 min

Lab File: VL033805.D

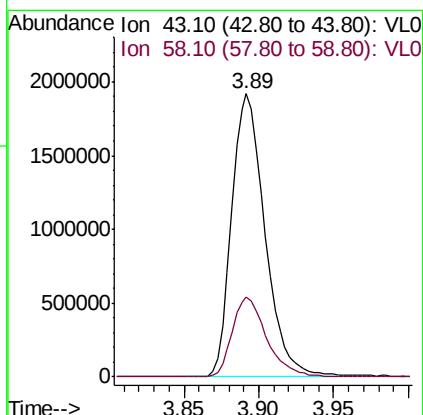
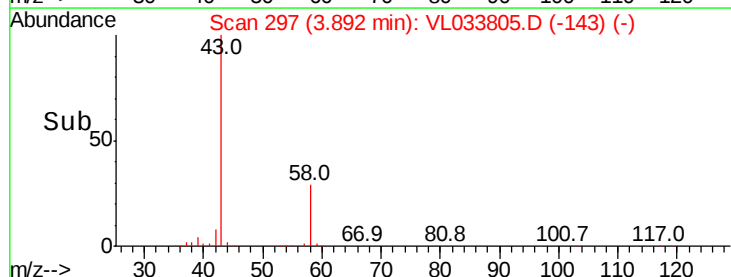
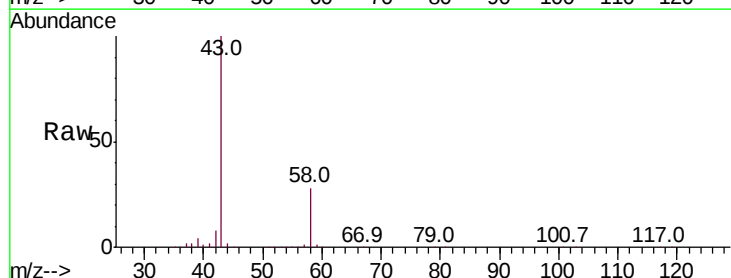
Acq: 28 May 2019 15:03

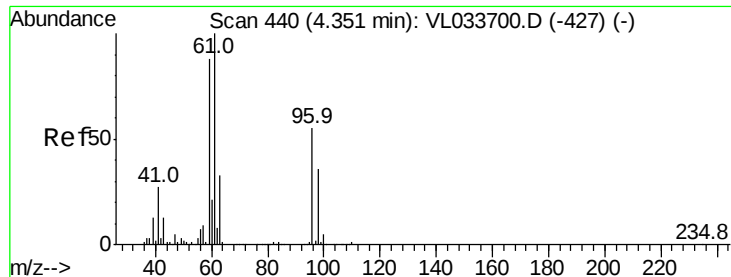
Tgt Ion: 43 Resp: 2969377

Ion Ratio Lower Upper

43 100

58 29.7 21.3 31.9





#17

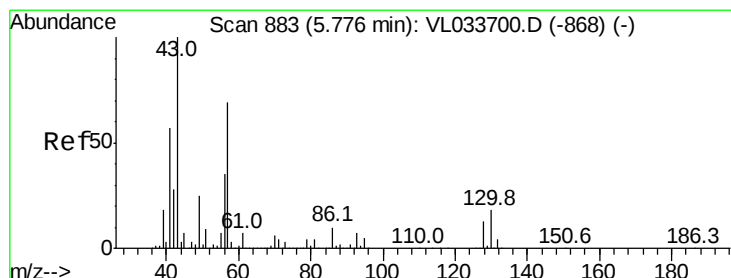
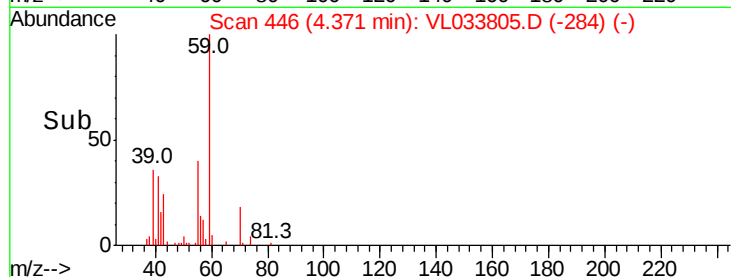
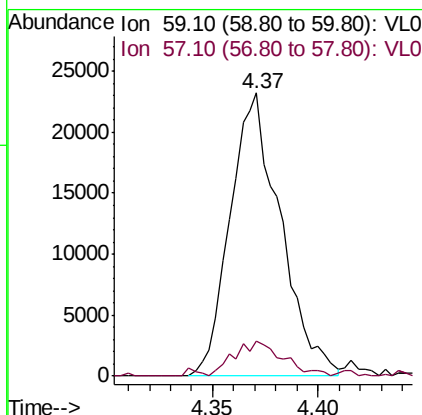
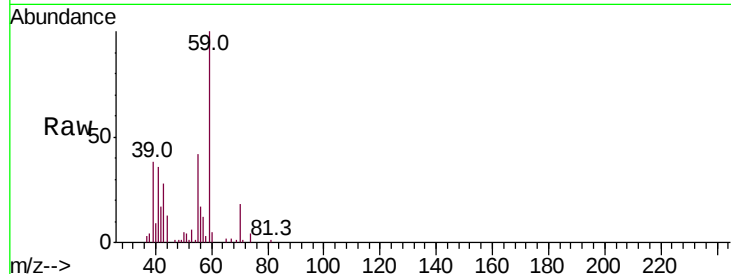
tert-Butyl alcohol  
 Concen: 0.325 ppbv  
 RT: 4.37 min Scan# 446  
 Delta R.T. 0.02 min  
 Lab File: VL033805.D  
 Acq: 28 May 2019 15:03

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 BPS1-SG-3007-55DL

Tot Ion: 59 Resp: 38470  
 Ion Ratio Lower Upper  
 59 100  
 57 13.9 8.4 12.6#

Manual Integrations  
 APPROVED

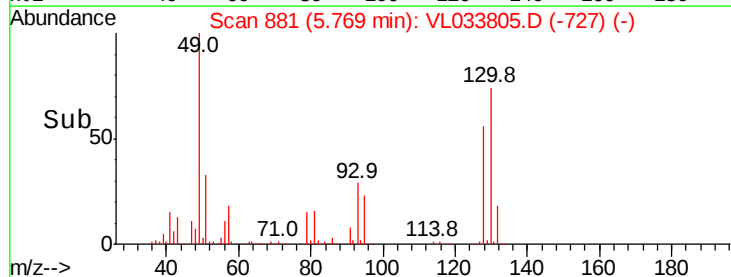
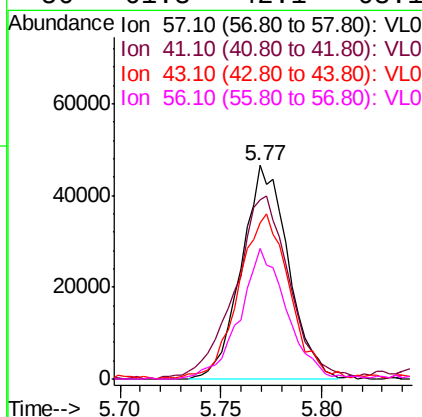
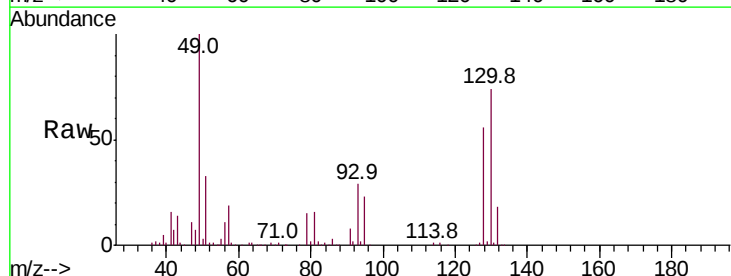
apatel  
 5/29/2019 12:40:12 PM

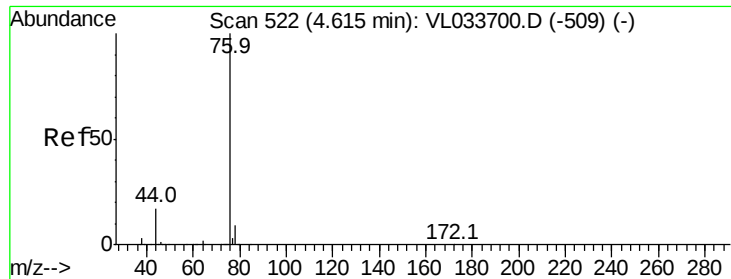


#26

Hexane  
 Concen: 0.686 ppbv  
 RT: 5.77 min Scan# 881  
 Delta R.T. -0.01 min  
 Lab File: VL033805.D  
 Acq: 28 May 2019 15:03

Tgt Ion: 57 Resp: 75773  
 Ion Ratio Lower Upper  
 57 100  
 41 98.8 69.8 104.6  
 43 86.2 181.8 272.6#  
 56 61.3 42.1 63.1





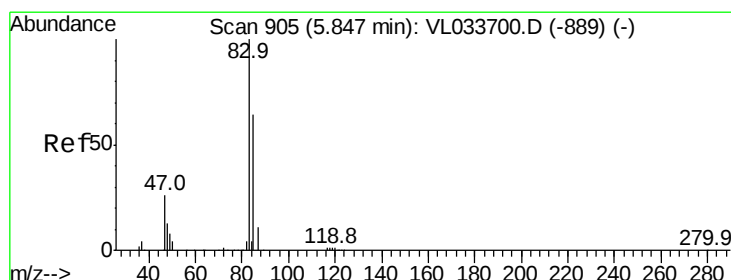
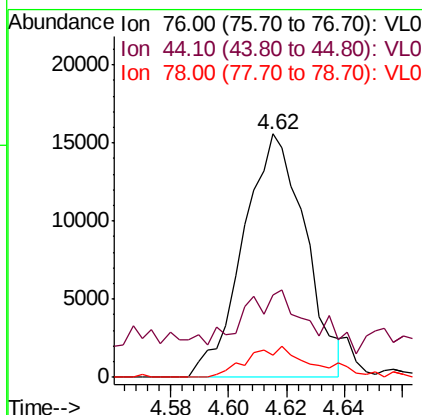
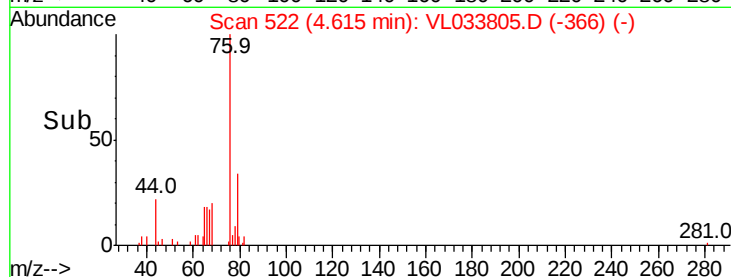
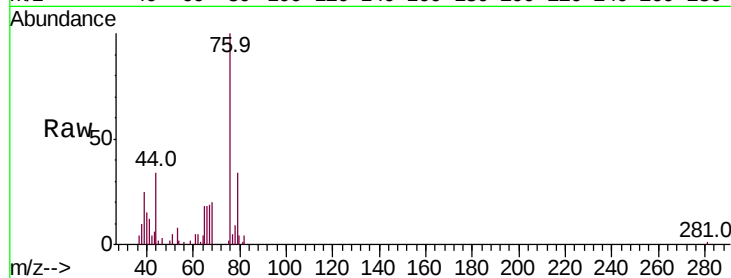
#27  
Carbon Disulfide  
Concen: 0.153 ppbv  
RT: 4.62 min Scan# 522  
Delta R.T. 0.00 min  
Lab File: VL033805.D  
Acq: 28 May 2019 15:03

Instrument :  
MSVOA\_L  
ClientSampleId :  
BPS1-SG-3007-55DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76      | 100   |       |       |
| 44      | 21.5  | 13.8  | 20.8# |
| 78      | 14.2  | 7.4   | 11.0# |

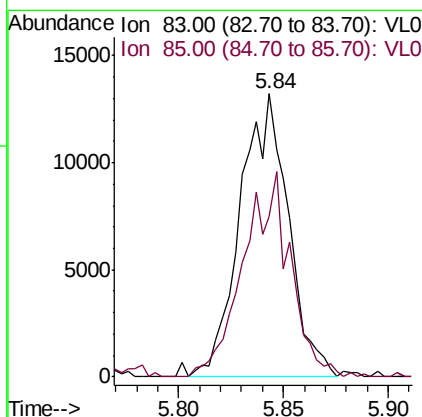
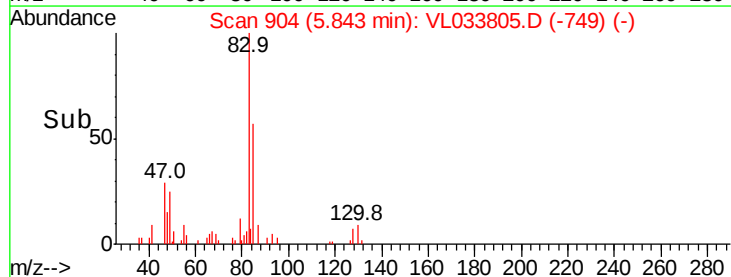
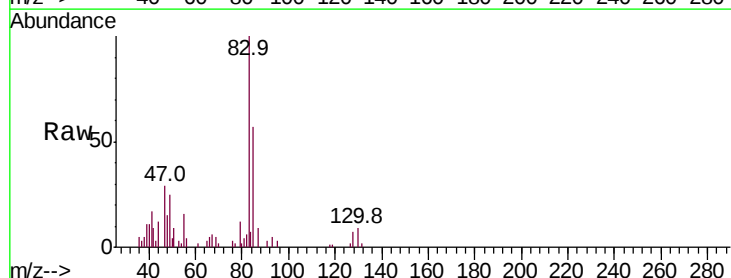
Manual Integrations  
APPROVED

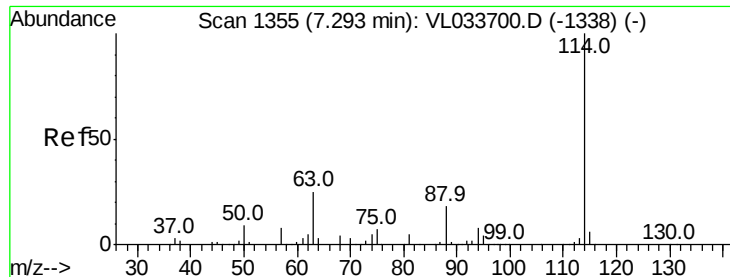
apatel  
5/29/2019 12:40:12 PM



#29  
Chloroform  
Concen: 0.103 ppbv m  
RT: 5.84 min Scan# 904  
Delta R.T. -0.00 min  
Lab File: VL033805.D  
Acq: 28 May 2019 15:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 56.9  | 51.5  | 77.3  |





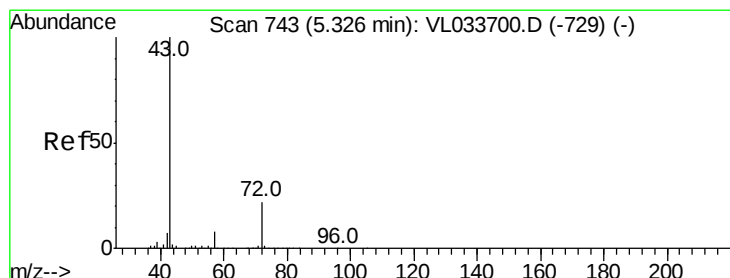
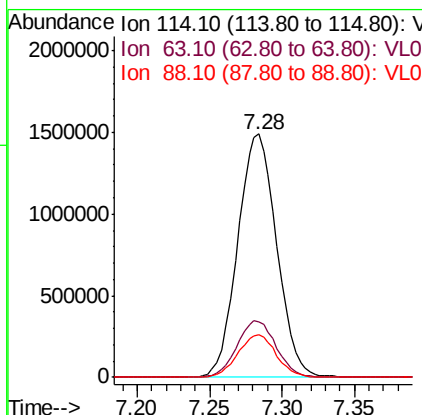
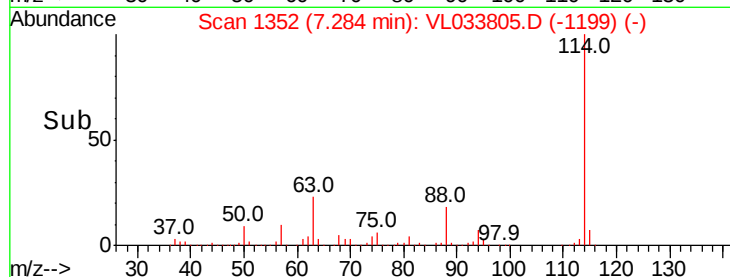
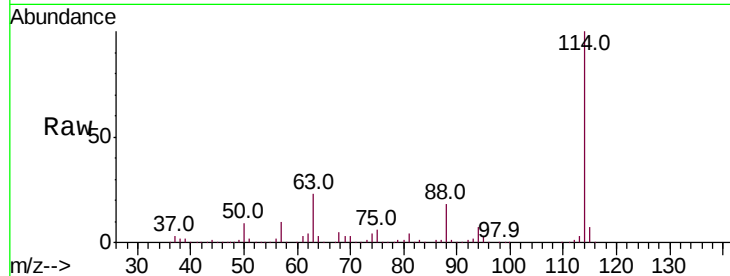
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.28 min Scan# 1352  
 Delta R.T. -0.01 min  
 Lab File: VL033805.D  
 Acq: 28 May 2019 15:03

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 BPS1-SG-3007-55DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 23.5  | 20.9  | 31.3  |
| 88      | 17.3  | 14.3  | 21.5  |

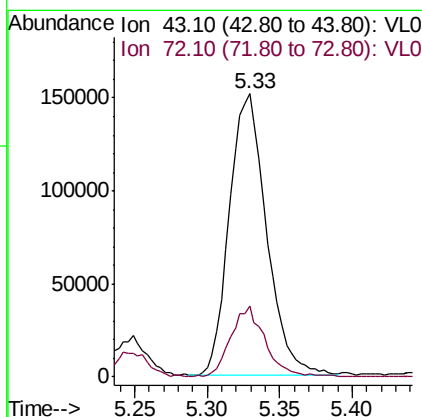
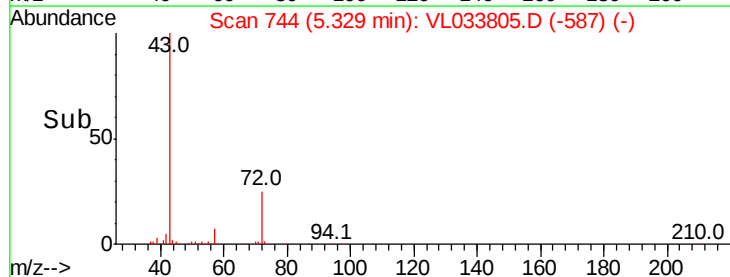
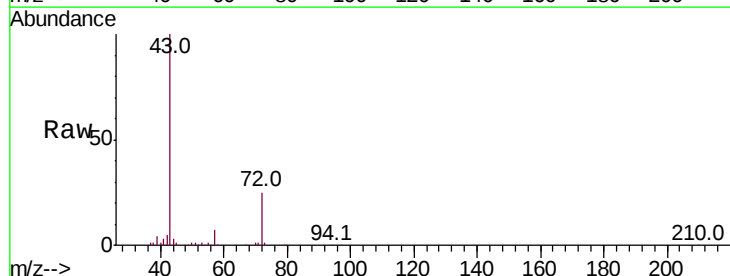
Manual Integrations  
 APPROVED

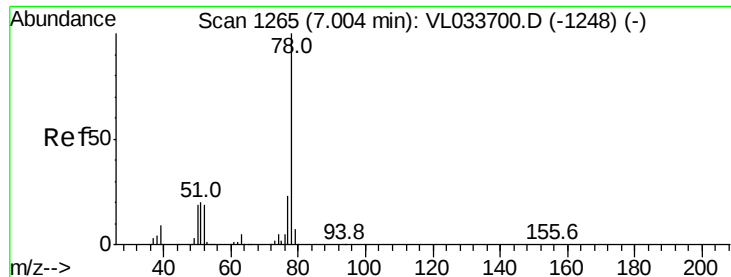
apatel  
 5/29/2019 12:40:12 PM



#34  
 2-Butanone  
 Concen: 1.572 ppbv  
 RT: 5.33 min Scan# 744  
 Delta R.T. 0.00 min  
 Lab File: VL033805.D  
 Acq: 28 May 2019 15:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 23.2  | 17.8  | 26.6  |





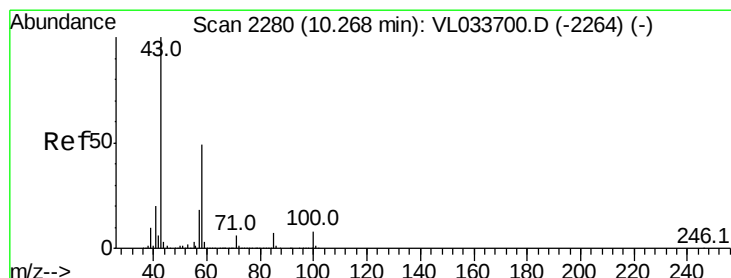
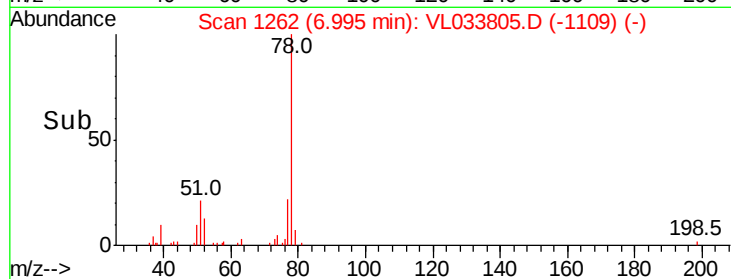
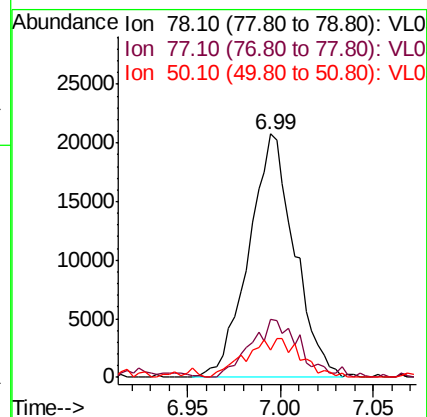
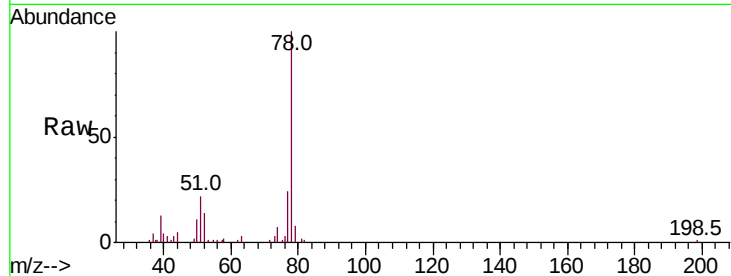
#36  
Benzene  
Concen: 0.141 ppbv  
RT: 6.99 min Scan# 1262  
Delta R.T. -0.01 min  
Lab File: VL033805.D  
Acq: 28 May 2019 15:03

Instrument :  
MSVOA\_L  
ClientSampleId :  
BPS1-SG-3007-55DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 22.7  | 18.4  | 27.6  |
| 50      | 8.4   | 15.5  | 23.3# |

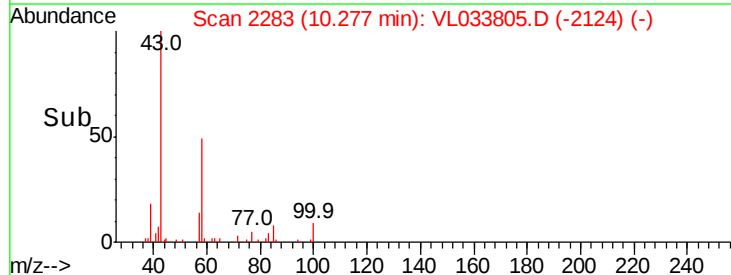
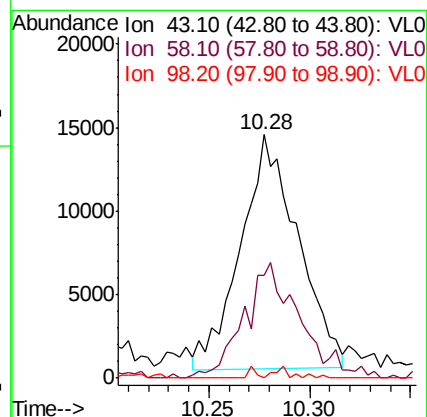
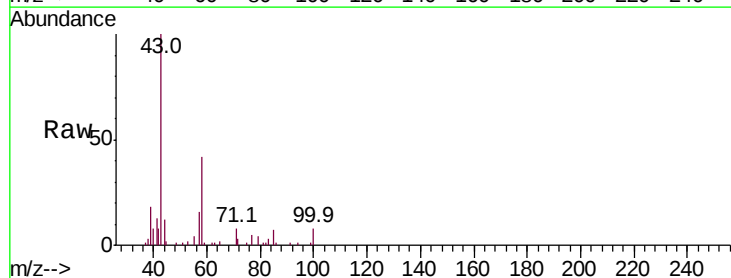
Manual Integrations  
APPROVED

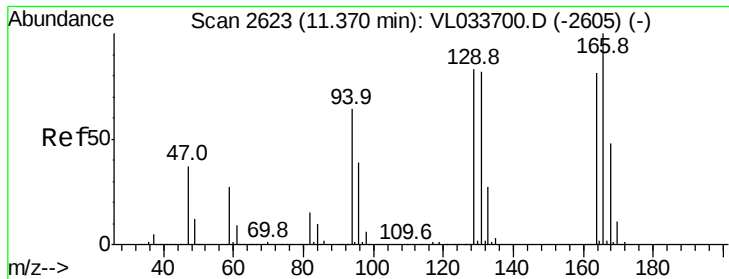
apatel  
5/29/2019 12:40:12 PM



#51  
2-Hexanone  
Concen: 0.134 ppbv  
RT: 10.28 min Scan# 2283  
Delta R.T. 0.01 min  
Lab File: VL033805.D  
Acq: 28 May 2019 15:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 48.4  | 38.7  | 58.1  |
| 98      | 2.1   | 0.2   | 0.4#  |





#52

Tetrachloroethene

Concen: 0.040 ppbv m

RT: 11.36 min Scan# 2621

Delta R.T. -0.01 min

Lab File: VL033805.D

Acq: 28 May 2019 15:03

Instrument :

MSVOA\_L

ClientSampleId :

BPS1-SG-3007-55DL

Tot Ion:164 Resp: 3539

Ion Ratio Lower Upper

164 100

166 105.6 98.9 148.3

129 76.8 81.8 122.6#

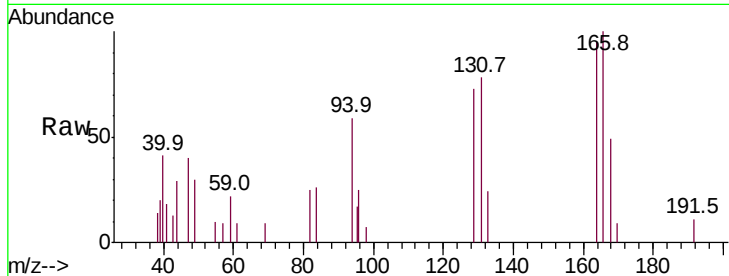
131 82.3 81.1 121.7

Manual Integrations

APPROVED

apatel

5/29/2019 12:40:12 PM



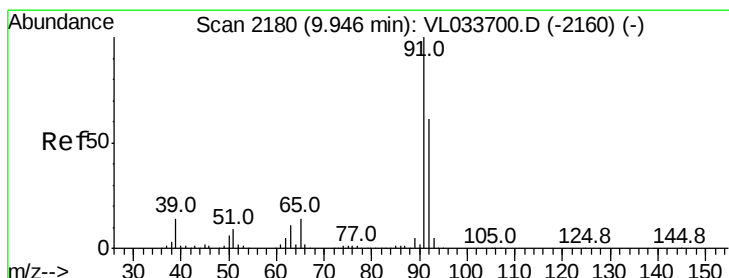
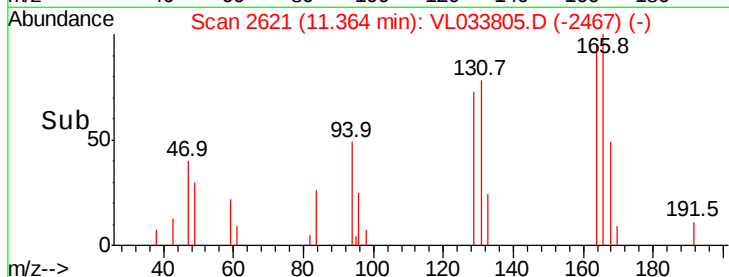
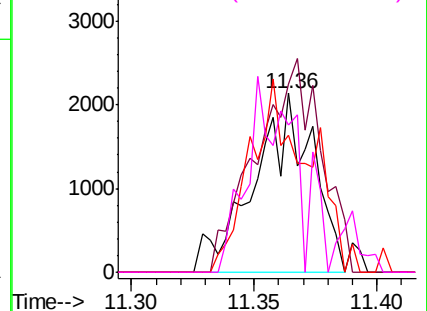
Abundance

Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.890 ppbv

RT: 9.94 min Scan# 2177

Delta R.T. -0.01 min

Lab File: VL033805.D

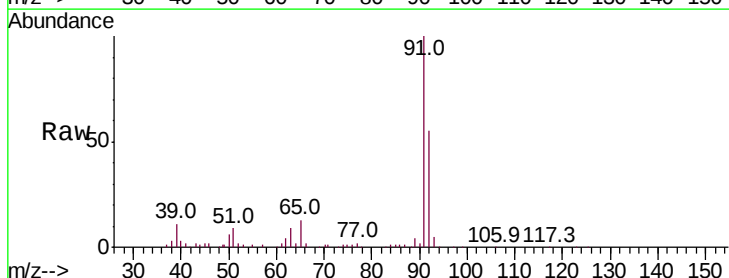
Acq: 28 May 2019 15:03

Tgt Ion: 91 Resp: 242610

Ion Ratio Lower Upper

91 100

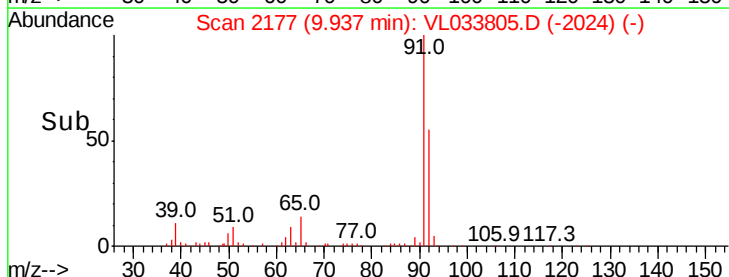
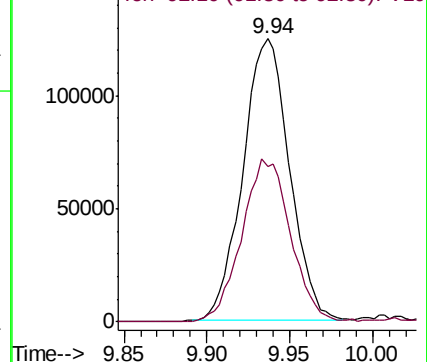
92 60.9 47.6 71.4

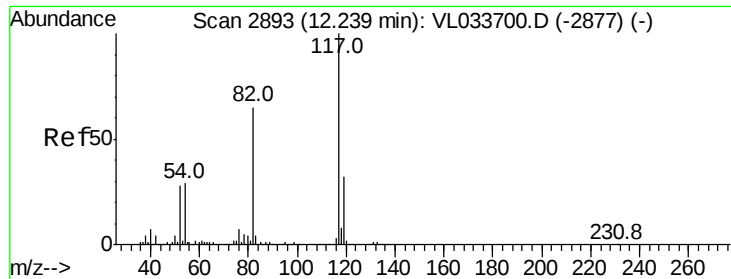


Abundance

Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





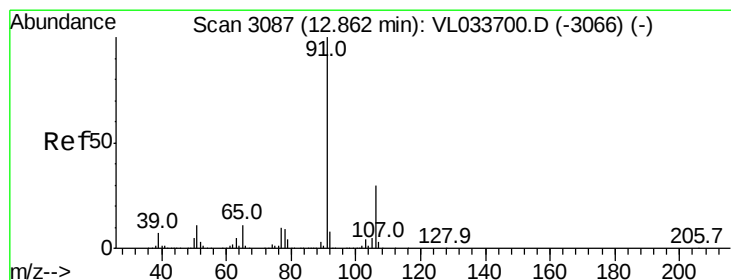
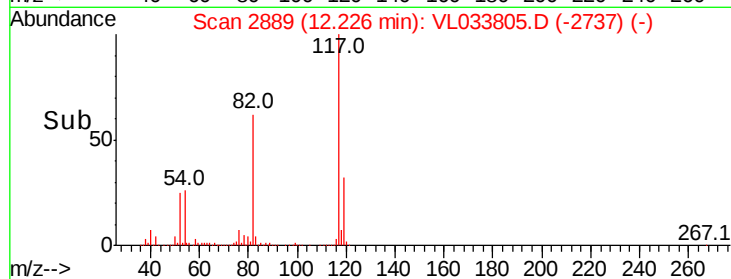
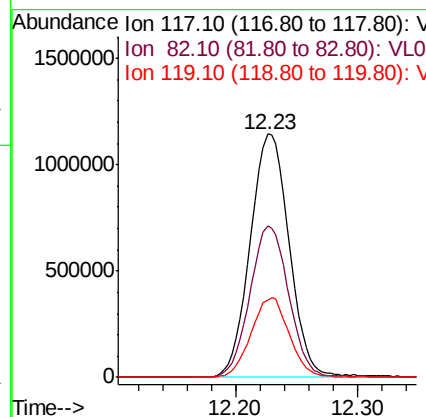
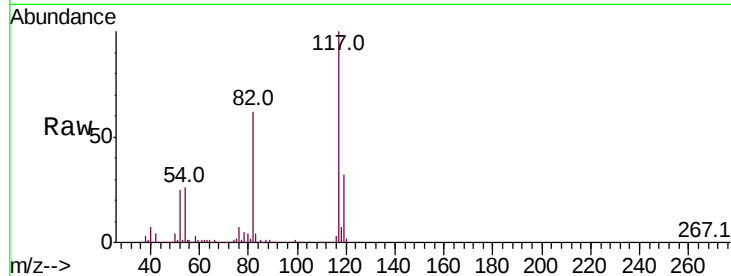
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.23 min Scan# 2889  
Delta R.T. -0.01 min  
Lab File: VL033805.D  
Acq: 28 May 2019 15:03

Instrument :  
MSVOA\_L  
ClientSampleId :  
BPS1-SG-3007-55DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 62.9  | 49.4  | 74.0  |
| 119     | 32.5  | 24.9  | 37.3  |

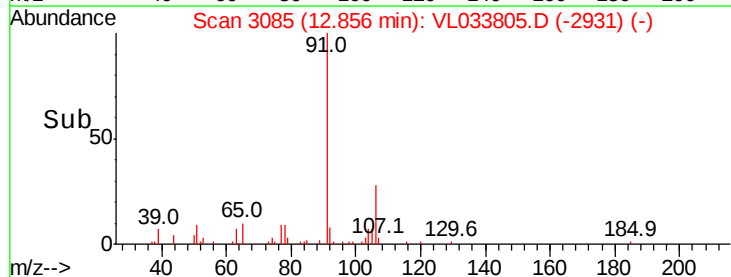
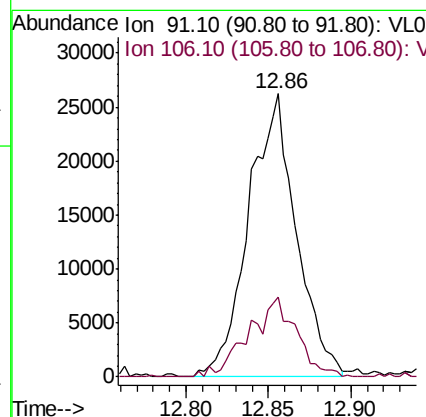
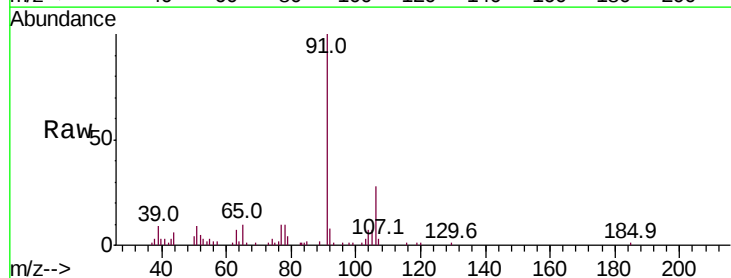
Manual Integrations  
APPROVED

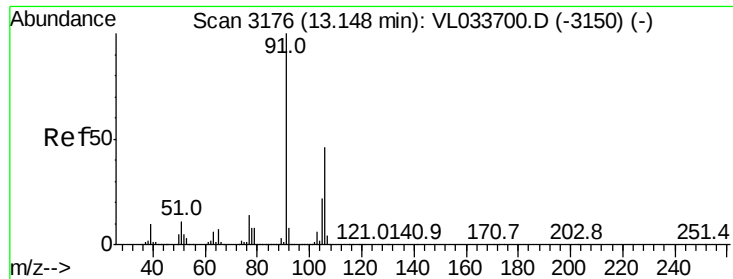
apatel  
5/29/2019 12:40:12 PM



#58  
Ethyl Benzene  
Concen: 0.158 ppbv m  
RT: 12.86 min Scan# 3085  
Delta R.T. -0.01 min  
Lab File: VL033805.D  
Acq: 28 May 2019 15:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 28.4  | 23.9  | 35.9  |





#59

m/p-Xylene

Concen: 0.580 ppbv m

RT: 13.11 min Scan# 3163

Delta R.T. -0.04 min

Lab File: VL033805.D

Acq: 28 May 2019 15:03

Instrument :

MSVOA\_L

ClientSampleId :

BPS1-SG-3007-55DL

Tot Ion: 91 Resp: 168973

Ion Ratio Lower Upper

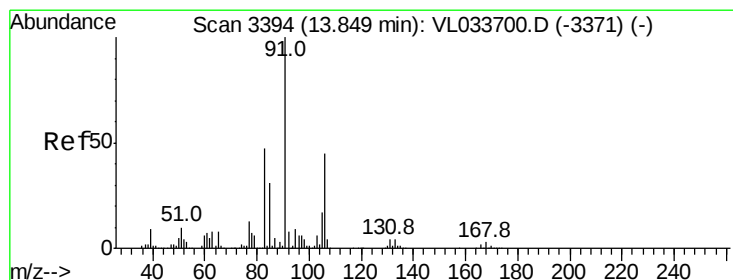
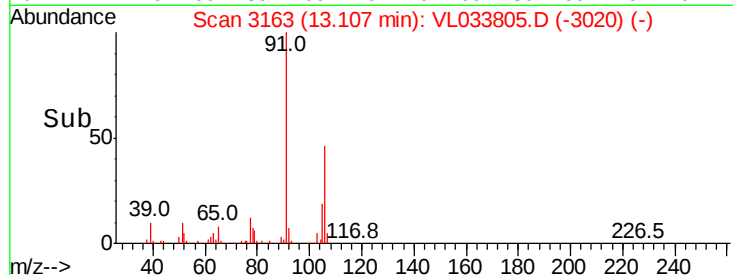
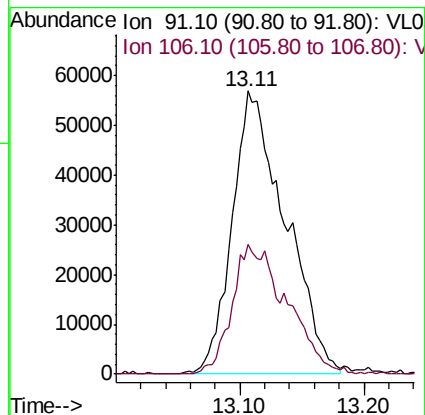
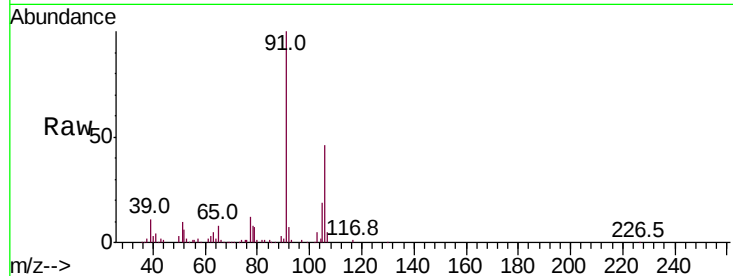
91 100

106 0.0 35.8 53.6#

Manual Integrations  
APPROVED

apatel

5/29/2019 12:40:12 PM



#60

o-Xylene

Concen: 0.203 ppbv

RT: 13.84 min Scan# 3390

Delta R.T. -0.01 min

Lab File: VL033805.D

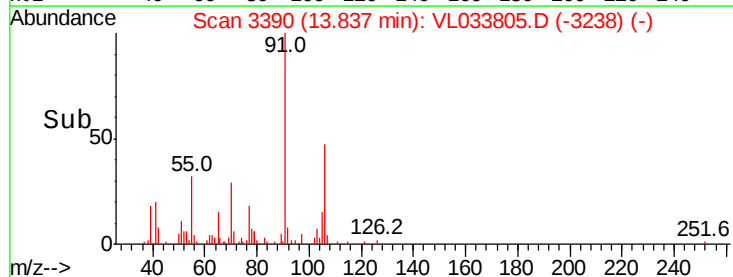
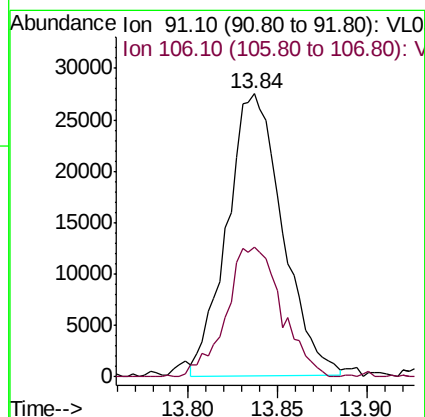
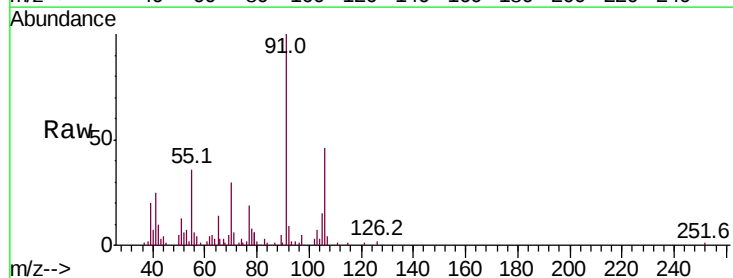
Acq: 28 May 2019 15:03

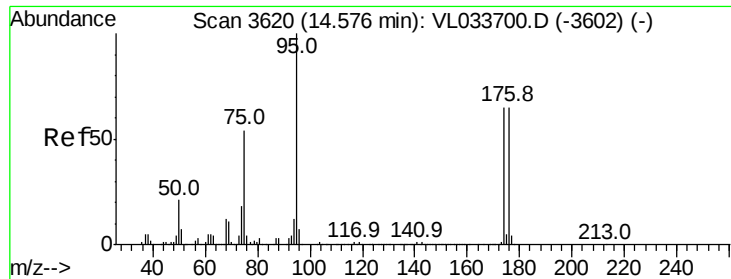
Tgt Ion: 91 Resp: 59545

Ion Ratio Lower Upper

91 100

106 45.7 21.6 64.8





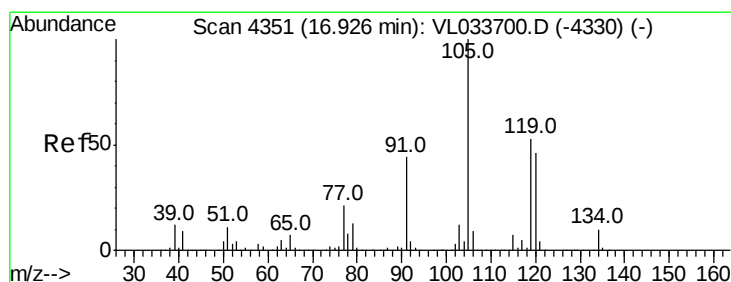
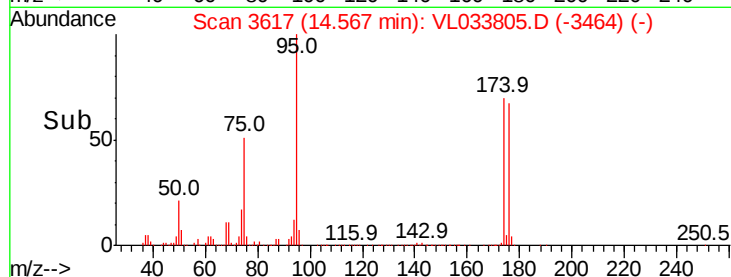
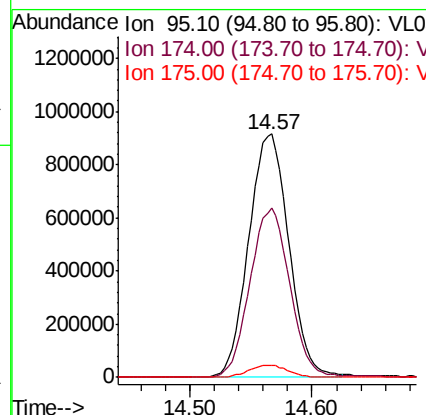
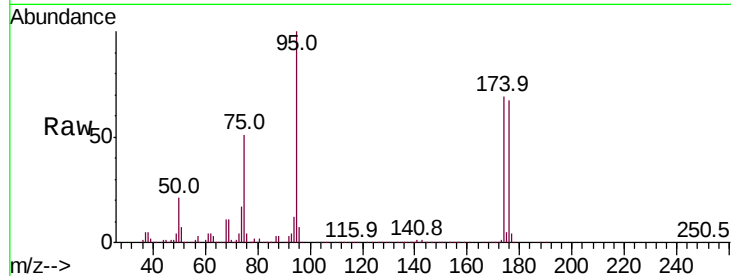
#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.183 ppbv  
 RT: 14.57 min Scan# 3617  
 Delta R.T. -0.01 min  
 Lab File: VL033805.D  
 Acq: 28 May 2019 15:03

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 BPS1-SG-3007-55DL

Tot Ion: 95 Resp: 2078294  
 Ion Ratio Lower Upper  
 95 100  
 174 69.8 53.9 80.9  
 175 5.1 3.8 5.8

Manual Integrations  
 APPROVED

apatel  
 5/29/2019 12:40:12 PM



#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.165 ppbv m  
 RT: 16.92 min Scan# 4349  
 Delta R.T. -0.01 min  
 Lab File: VL033805.D  
 Acq: 28 May 2019 15:03

Tgt Ion: 105 Resp: 58804  
 Ion Ratio Lower Upper  
 105 100  
 120 39.4 36.8 55.2  
 91 12.4 35.4 53.0#  
 77 14.2 16.8 25.2#

