

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL100819\  
 Data File : VL034268.D  
 Acq On : 9 Oct 2019 3:51  
 Operator : SY/AP  
 Sample : K5243-01  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV1

Quant Time: Oct 09 05:23:00 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL091719AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Sep 18 12:53:31 2019  
 QLast Update : Wed Sep 18 12:53:31 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.70  | 49   | 968770   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.22  | 114  | 1845388  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.17 | 117  | 1860239  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.50  | 95    | 1719251  | 10.64    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 106.40% |

| Target Compounds               |       |     |          |         | Qvalue    |
|--------------------------------|-------|-----|----------|---------|-----------|
| 2) Dichlorodifluoromethane     | 3.03  | 85  | 957578   | 6.692   | ppbv 98   |
| 3) Chlorodifluoromethane       | 2.94  | 51  | 181891   | 1.601   | ppbv # 69 |
| 4) Chloromethane               | 3.12  | 50  | 25666    | 0.385   | ppbv 95   |
| 7) Chloroethane                | 3.56  | 64  | 1003     | 0.047   | ppbv # 80 |
| 8) Dichlorotetrafluoroethane   | 3.03  | 85  | 957578   | 7.582   | ppbv # 21 |
| 9) Propene                     | 2.99  | 41  | 667537   | 11.911  | ppbv 84   |
| 10) Heptane                    | 8.17  | 43  | 1987556  | 13.608  | ppbv 97   |
| 11) Trichlorofluoromethane     | 3.94  | 101 | 123124   | 0.945   | ppbv 92   |
| 12) 1,1,2-Trichlorotrifluoroet | 4.49  | 101 | 3484     | 0.041   | ppbv # 31 |
| 13) Ethanol                    | 3.61  | 45  | 314494   | 23.175  | ppbv 97   |
| 15) Acetone                    | 3.85  | 43  | 12441732 | 95.822  | ppbv # 27 |
| 16) 1,3-Butadiene              | 3.29  | 39  | 1852203  | 32.687  | ppbv # 19 |
| 17) tert-Butyl alcohol         | 4.33  | 59  | 539613   | 6.559   | ppbv 99   |
| 19) Isopropyl Alcohol          | 4.00  | 45  | 15298088 | 191.600 | ppbv 100  |
| 20) Methylene Chloride         | 4.36  | 84  | 52448    | 1.401   | ppbv 89   |
| 21) Allyl Chloride             | 4.33  | 41  | 118743   | 1.619   | ppbv # 51 |
| 23) Vinyl Acetate              | 5.09  | 43  | 216878   | 1.134   | ppbv # 90 |
| 25) Ethyl Acetate              | 5.71  | 43  | 2361455  | 9.618   | ppbv # 77 |
| 26) Hexane                     | 5.71  | 57  | 3141756  | 30.761  | ppbv # 41 |
| 27) Carbon Disulfide           | 4.56  | 76  | 151046   | 1.604   | ppbv 98   |
| 29) Chloroform                 | 5.79  | 83  | 328139   | 2.248   | ppbv 100  |
| 30) Cyclohexane                | 7.17  | 84  | 130980   | 1.776   | ppbv 97   |
| 34) 2-Butanone                 | 5.27  | 43  | 4124374  | 21.889  | ppbv 92   |
| 36) Benzene                    | 6.93  | 78  | 390810   | 1.918   | ppbv 95   |
| 37) 1,2-Dichloroethane         | 6.35  | 62  | 4381     | 0.030   | ppbv # 85 |
| 38) Trichloroethene            | 7.89  | 130 | 6538461  | 89.786  | ppbv 90   |
| 39) 1,2-Dichloropropane        | 7.88  | 63  | 11613    | 0.127   | ppbv # 1  |
| 40) 1,4-Dioxane                | 7.89  | 88  | 5159     | 0.174   | ppbv # 1  |
| 41) Tetrahydrofuran            | 6.07  | 42  | 29075    | 0.274   | ppbv # 65 |
| 42) Bromodichloromethane       | 7.84  | 83  | 6757     | 0.039   | ppbv # 24 |
| 43) Methyl Methacrylate        | 8.10  | 69  | 39020    | 0.463   | ppbv # 1  |
| 44) 2,2,4-Trimethylpentane     | 7.92  | 57  | 40638    | 0.104   | ppbv # 1  |
| 50) 4-Methyl-2-Pentanone       | 8.80  | 43  | 641351   | 2.339   | ppbv 97   |
| 51) 2-Hexanone                 | 10.20 | 43  | 1747190  | 7.592   | ppbv 100  |
| 52) Tetrachloroethene          | 11.38 | 164 | 23929188 | 355.366 | ppbv 90   |
| 53) Toluene                    | 9.87  | 91  | 2835968  | 12.732  | ppbv 100  |
| 58) Ethyl Benzene              | 12.80 | 91  | 1150978  | 3.835   | ppbv 93   |
| 59) m/p-Xylene                 | 13.05 | 91  | 4291218  | 17.261  | ppbv 99   |
| 60) o-Xylene                   | 13.78 | 91  | 1743766  | 7.015   | ppbv 98   |
| 61) Styrene                    | 13.62 | 104 | 44851    | 0.252   | ppbv # 1  |
| 62) Isopropylbenzene           | 14.76 | 105 | 47355    | 0.147   | ppbv # 58 |

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Quant Time: Oct 09 05:23:00 2019  
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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Sep 18 12:53:31 2019  
QLast Update : Wed Sep 18 12:53:31 2019  
Response via : Initial Calibration

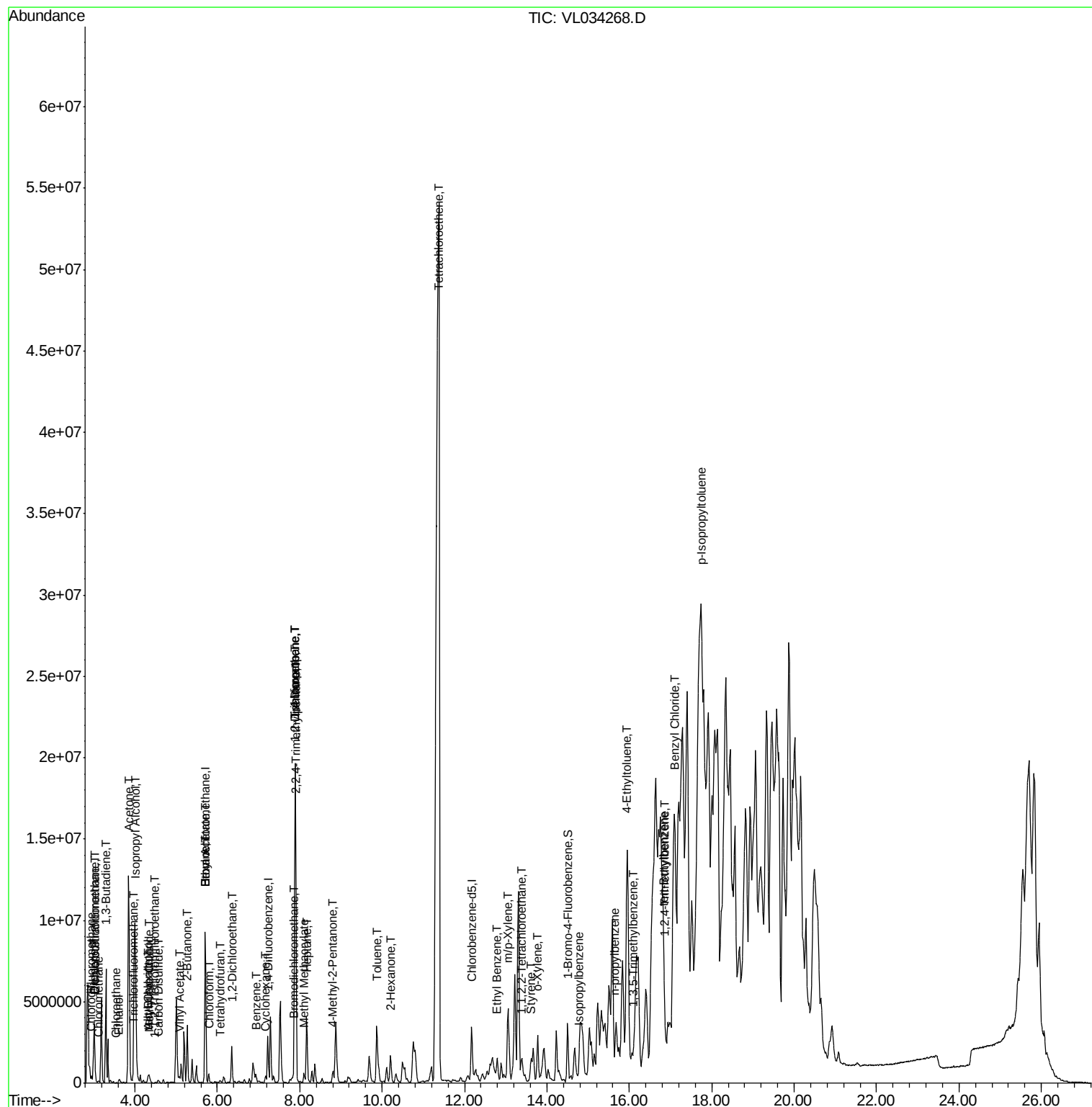
| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 63) 1,1,2,2-Tetrachloroethane | 13.38 | 83   | 19913    | 0.098 | ppbv   | 89       |
| 64) n-propylbenzene           | 15.65 | 120  | 20275    | 0.249 | ppbv # | 1        |
| 65) tert-Butylbenzene         | 16.85 | 119  | 13440    | 0.048 | ppbv # | 12       |
| 66) Benzyl Chloride           | 17.09 | 91   | 3920     | 0.039 | ppbv # | 1        |
| 69) p-Isopropyltoluene        | 17.76 | 119  | 92693    | 0.285 | ppbv # | 1        |
| 72) 4-Ethyltoluene            | 15.93 | 105  | 101087   | 0.360 | ppbv # | 30       |
| 73) 1,3,5-Trimethylbenzene    | 16.09 | 105  | 217394   | 0.801 | ppbv # | 84       |
| 74) 1,2,4-Trimethylbenzene    | 16.86 | 105  | 520280   | 1.806 | ppbv # | 69       |

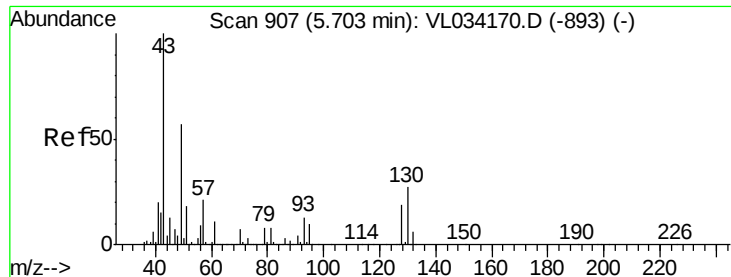
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.70 min Scan# 907

Delta R.T. 0.00 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

SV1

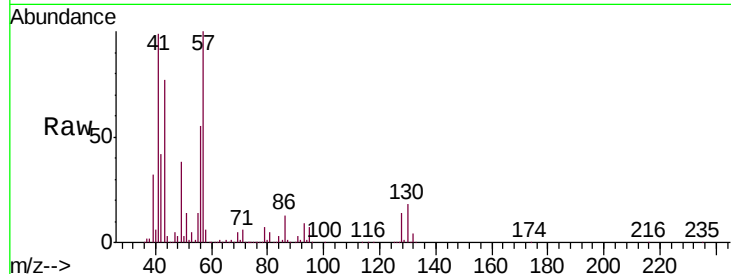
Tgt Ion: 49 Resp: 968770

Ion Ratio Lower Upper

49 100

128 35.6 17.6 52.9

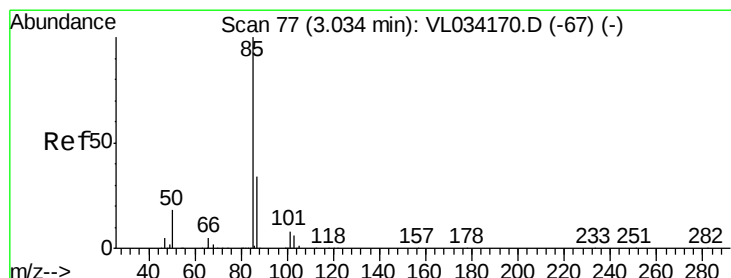
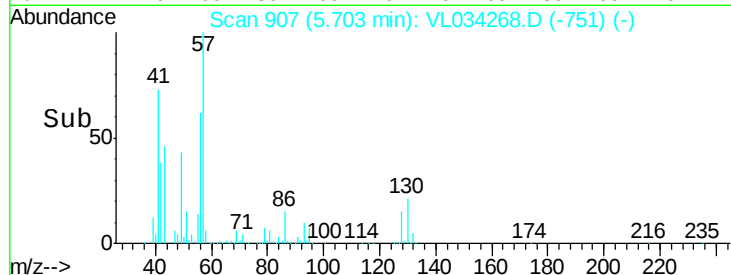
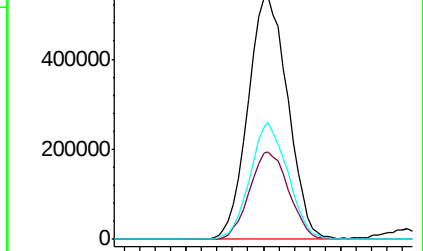
130 45.6 22.3 66.9



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 6.692 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.01 min

Lab File: VL034268.D

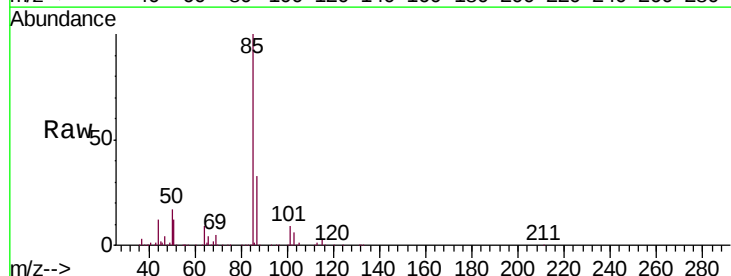
Acq: 9 Oct 2019 3:51

Tgt Ion: 85 Resp: 957578

Ion Ratio Lower Upper

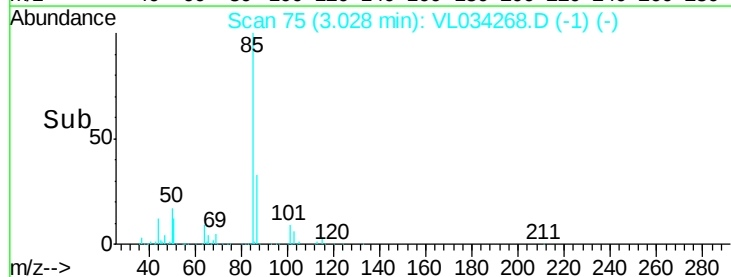
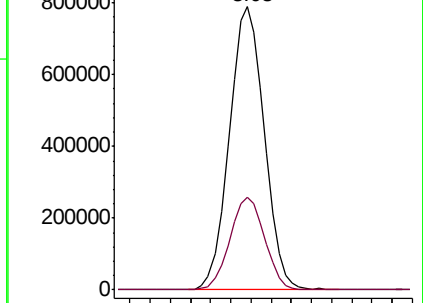
85 100

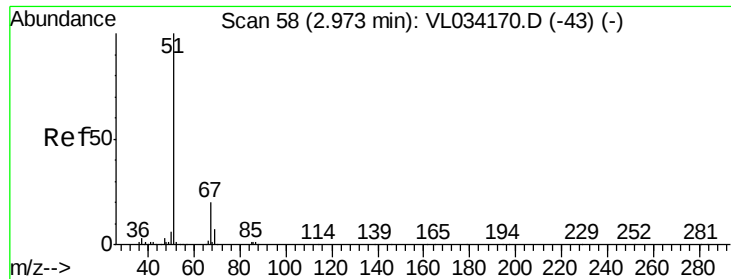
87 32.8 27.2 40.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.601 ppbv

RT: 2.94 min Scan# 47

Delta R.T. -0.04 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

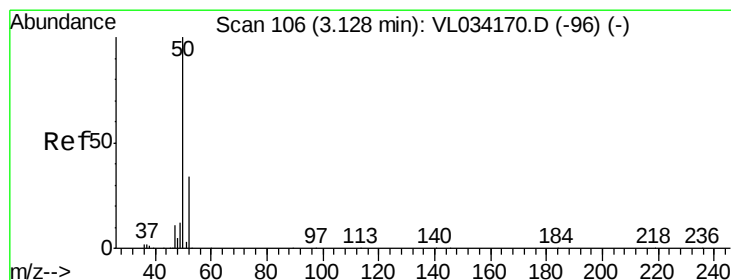
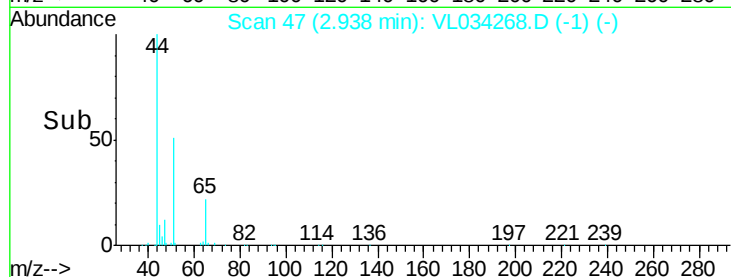
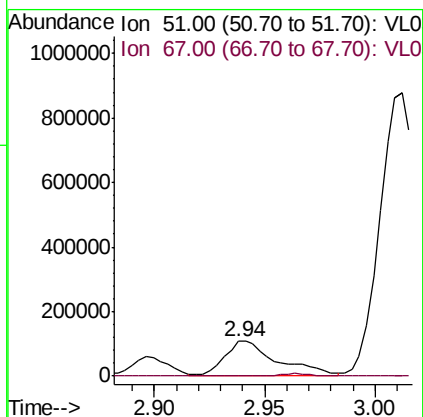
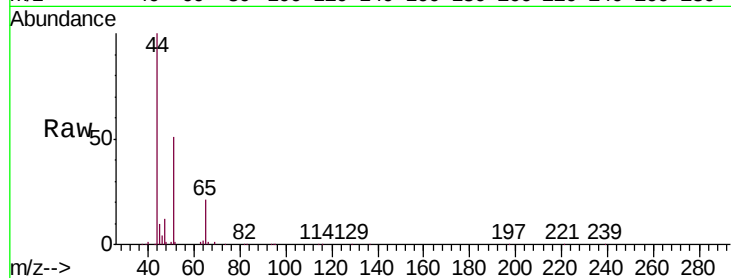
SV1

Tgt Ion: 51 Resp: 181891

Ion Ratio Lower Upper

51 100

67 4.5 14.8 22.2#



#4

Chloromethane

Concen: 0.385 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.01 min

Lab File: VL034268.D

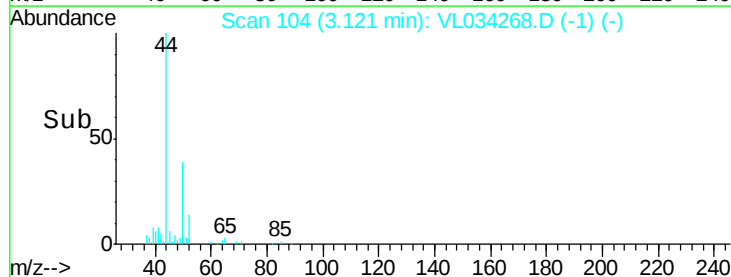
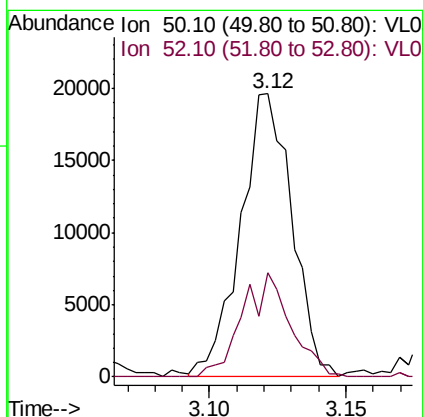
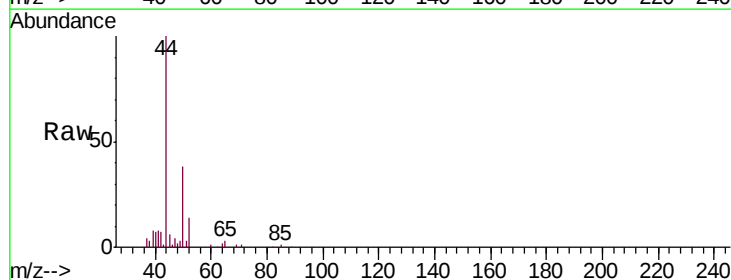
Acq: 9 Oct 2019 3:51

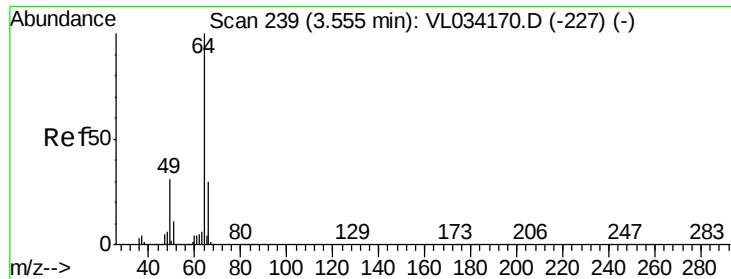
Tgt Ion: 50 Resp: 25666

Ion Ratio Lower Upper

50 100

52 36.6 27.1 40.7





#7

Chloroethane

Concen: 0.047 ppbv

RT: 3.56 min Scan# 239

Delta R.T. 0.00 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

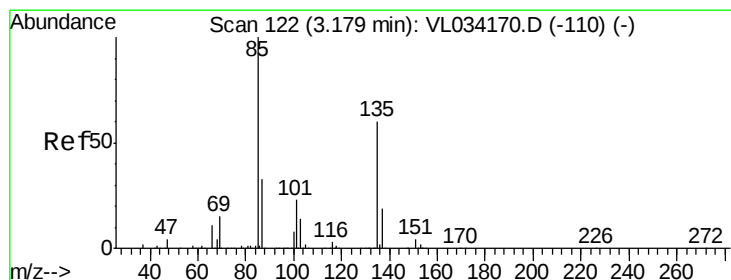
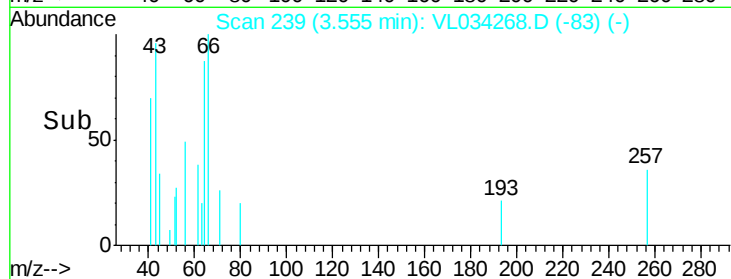
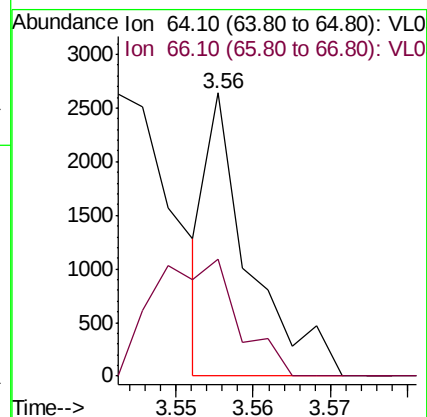
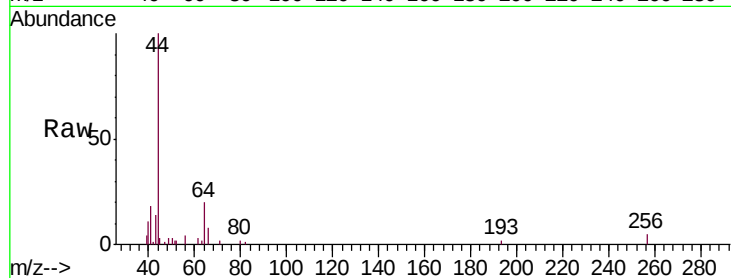
SV1

Tgt Ion: 64 Resp: 1003

Ion Ratio Lower Upper

64 100

66 41.1 24.2 36.4#



#8

Dichlorotetrafluoroethane

Concen: 7.582 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.15 min

Lab File: VL034268.D

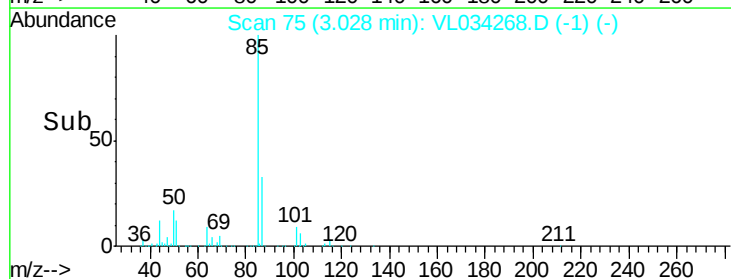
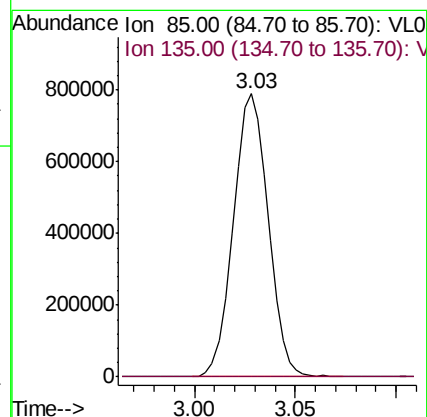
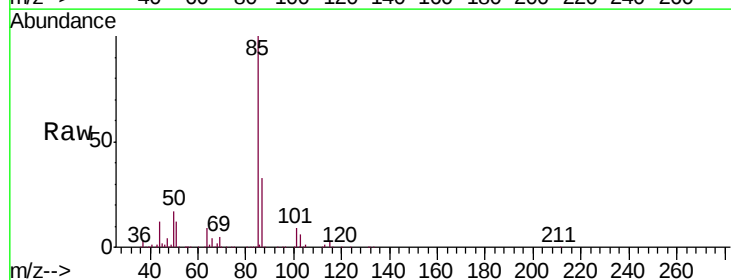
Acq: 9 Oct 2019 3:51

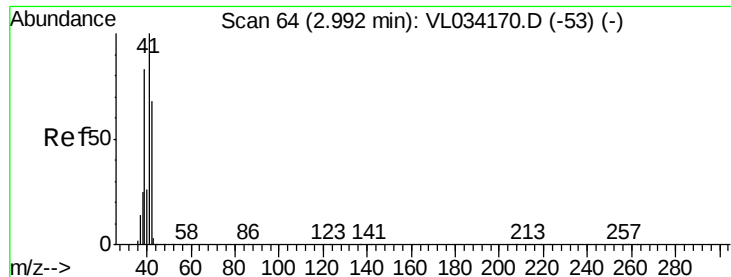
Tgt Ion: 85 Resp: 957578

Ion Ratio Lower Upper

85 100

135 0.0 47.3 70.9#





#9

Propene

Concen: 11.911 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.00 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

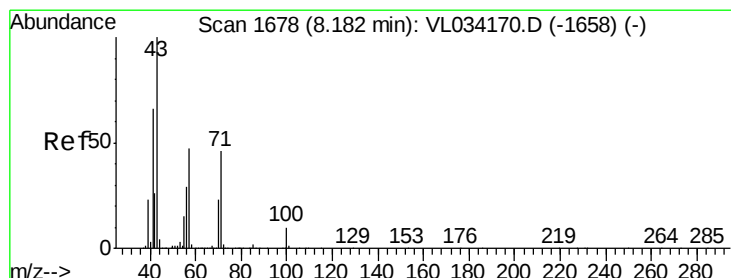
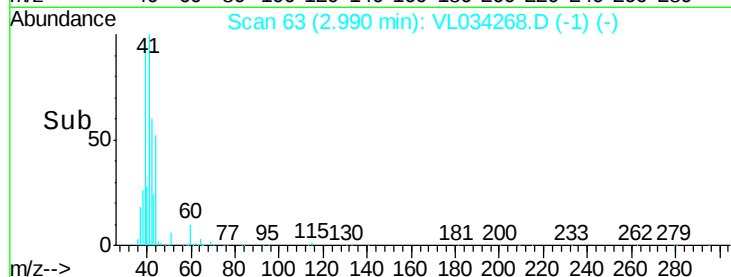
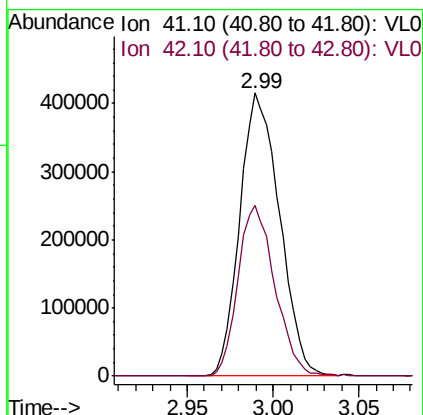
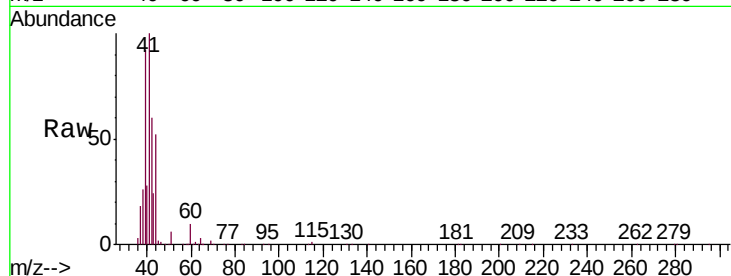
SV1

Tgt Ion: 41 Resp: 667537

Ion Ratio Lower Upper

41 100

42 56.4 55.8 83.6



#10

Heptane

Concen: 13.608 ppbv

RT: 8.17 min Scan# 1674

Delta R.T. -0.01 min

Lab File: VL034268.D

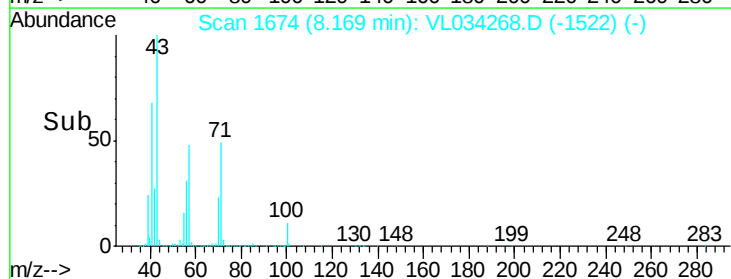
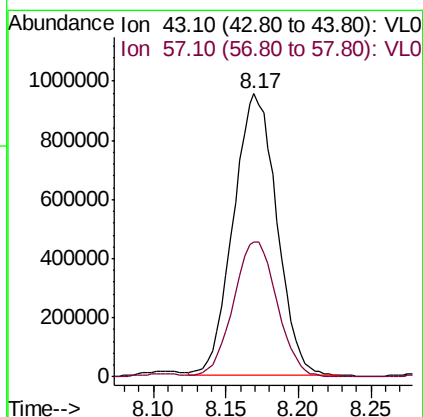
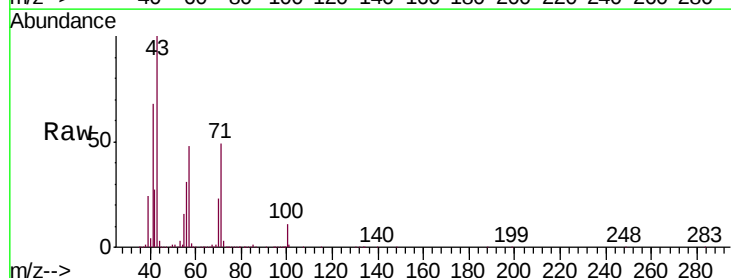
Acq: 9 Oct 2019 3:51

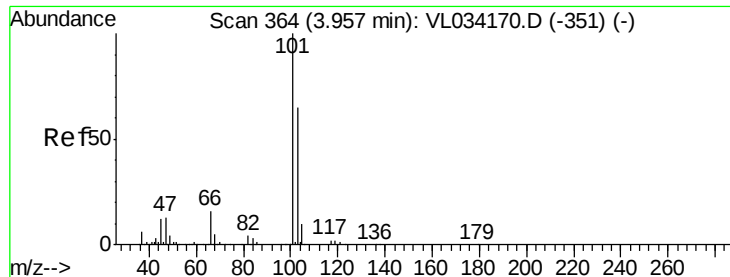
Tgt Ion: 43 Resp: 1987556

Ion Ratio Lower Upper

43 100

57 49.2 37.5 56.3

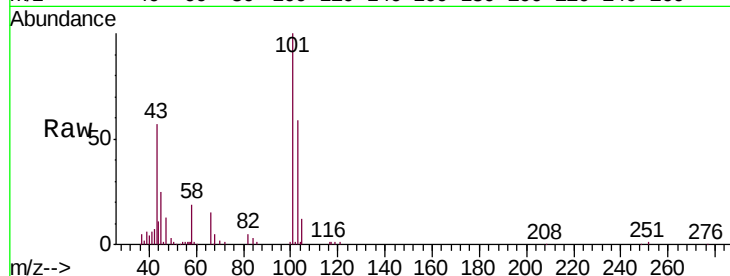




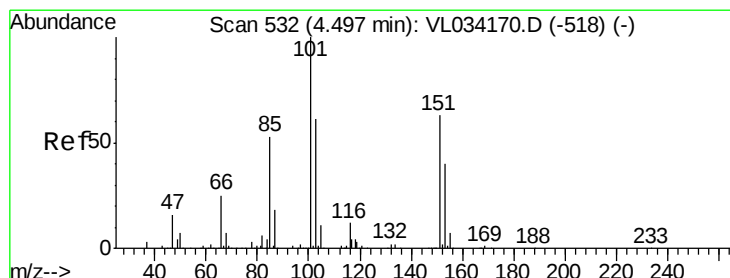
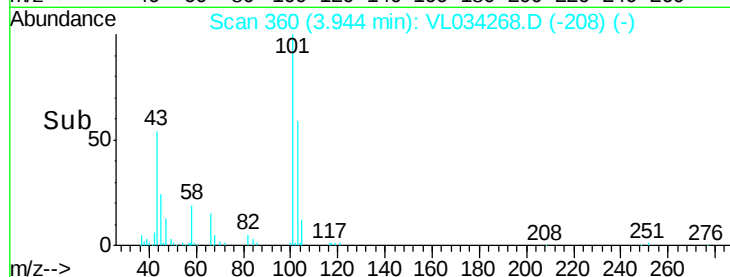
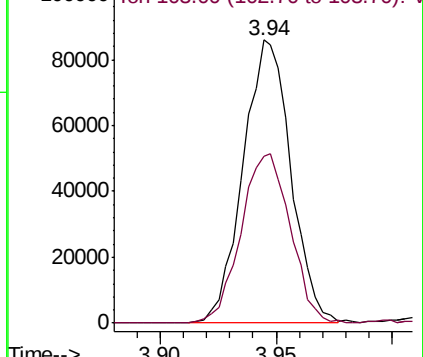
#11  
 Trichlorofluoromethane  
 Concen: 0.945 ppbv  
 RT: 3.94 min Scan# 360  
 Delta R.T. -0.01 min  
 Lab File: VL034268.D  
 Acq: 9 Oct 2019 3:51

Instrument :  
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 SV1

Tgt Ion:101 Resp: 123124  
 Ion Ratio Lower Upper  
 101 100  
 103 58.5 52.1 78.1

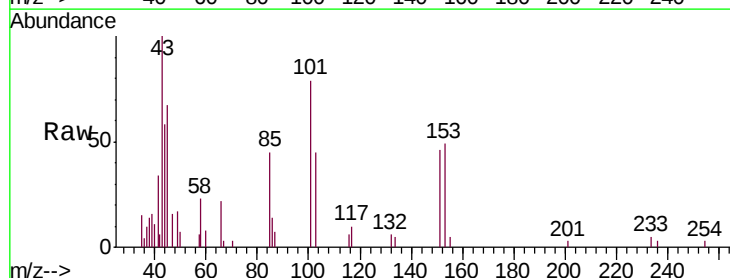


Abundance Ion 101.00 (100.70 to 101.70): V  
 Ion 103.00 (102.70 to 103.70): V

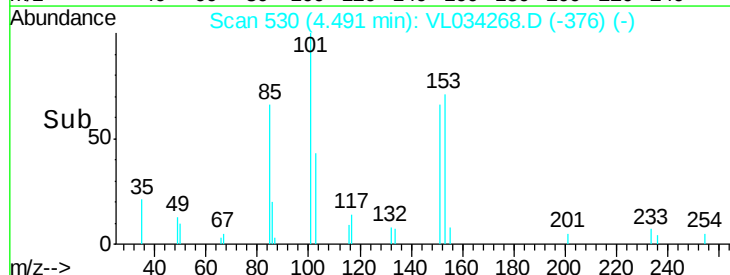
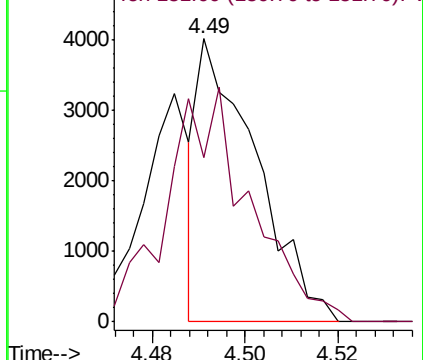


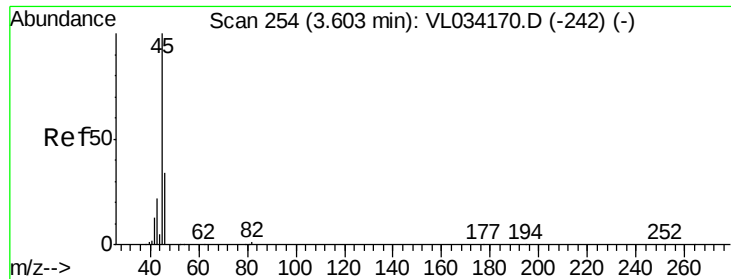
#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 0.041 ppbv  
 RT: 4.49 min Scan# 530  
 Delta R.T. -0.01 min  
 Lab File: VL034268.D  
 Acq: 9 Oct 2019 3:51

Tgt Ion:101 Resp: 3484  
 Ion Ratio Lower Upper  
 101 100  
 151 119.3 51.8 77.8#



Abundance Ion 101.00 (100.70 to 101.70): V  
 Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 23.175 ppbv

RT: 3.61 min Scan# 257

Delta R.T. 0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

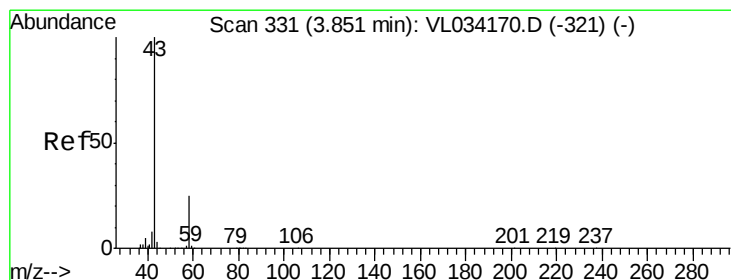
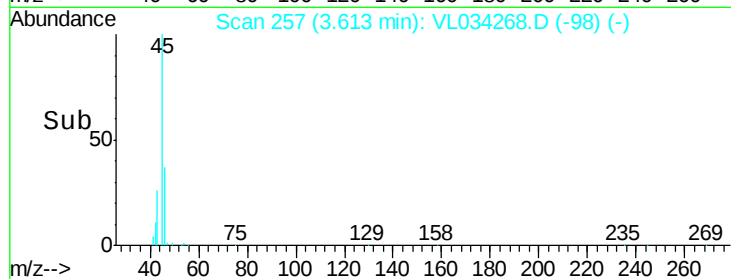
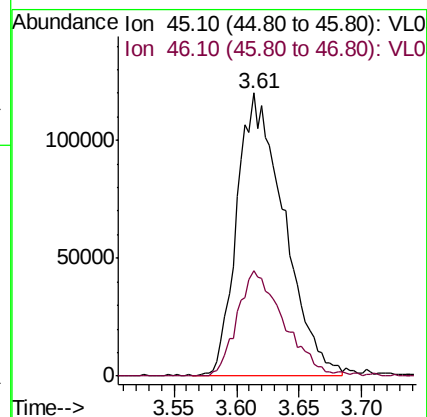
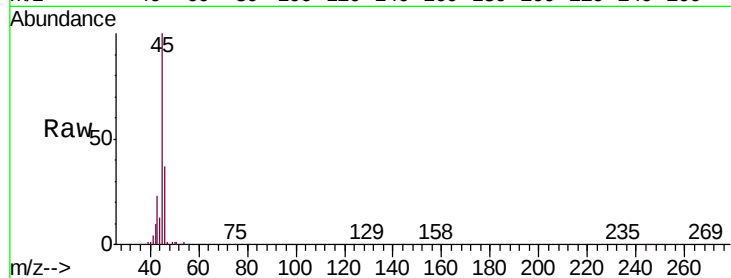
SV1

Tgt Ion: 45 Resp: 314494

Ion Ratio Lower Upper

45 100

46 37.1 15.5 61.9



#15

Acetone

Concen: 95.822 ppbv

RT: 3.85 min Scan# 330

Delta R.T. -0.00 min

Lab File: VL034268.D

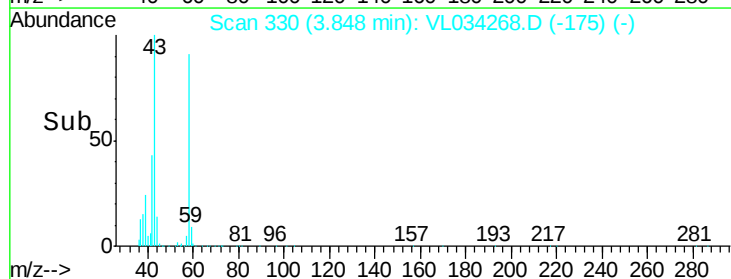
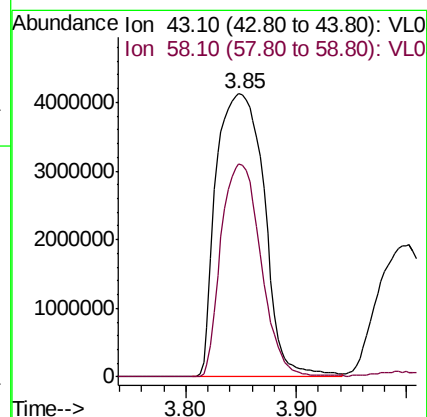
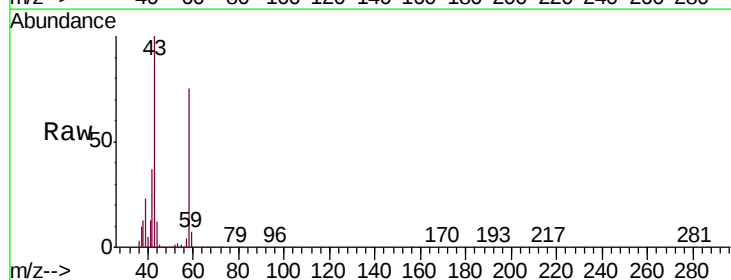
Acq: 9 Oct 2019 3:51

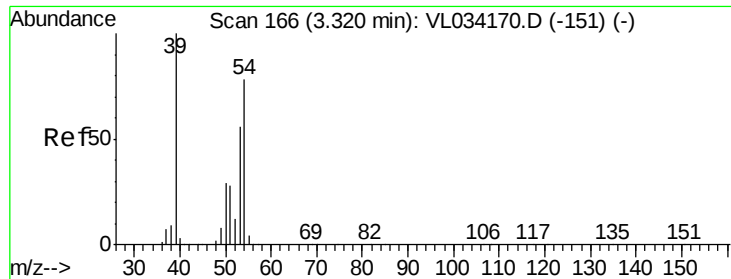
Tgt Ion: 43 Resp:12441732

Ion Ratio Lower Upper

43 100

58 62.6 20.5 30.7#

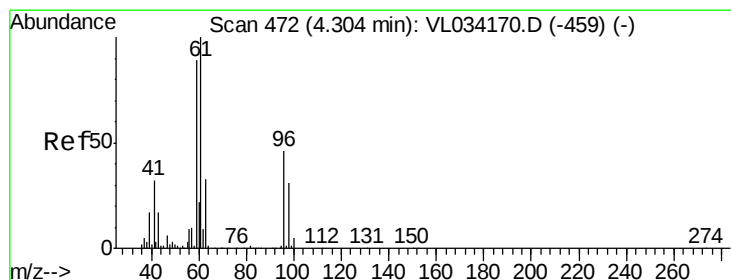
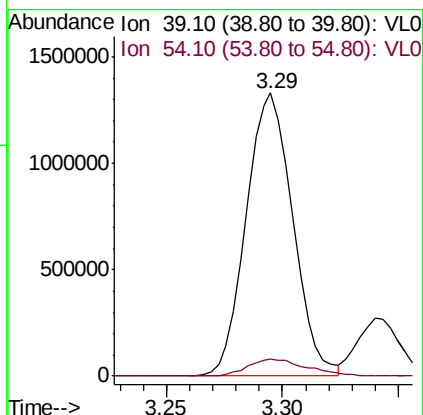
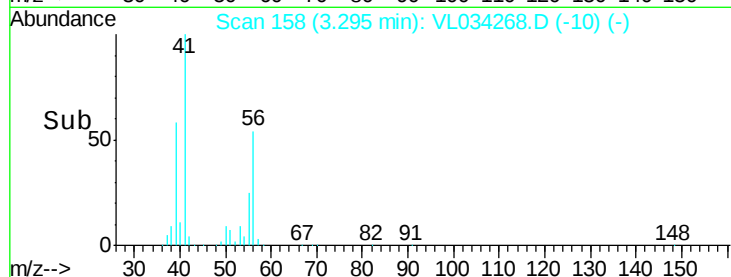
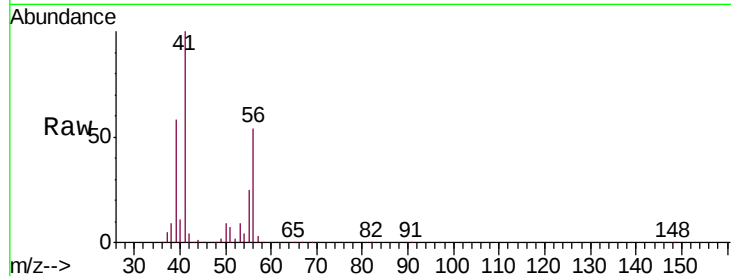




#16  
1,3-Butadiene  
Concen: 32.687 ppbv  
RT: 3.29 min Scan# 158  
Delta R.T. -0.03 min  
Lab File: VL034268.D  
Acq: 9 Oct 2019 3:51

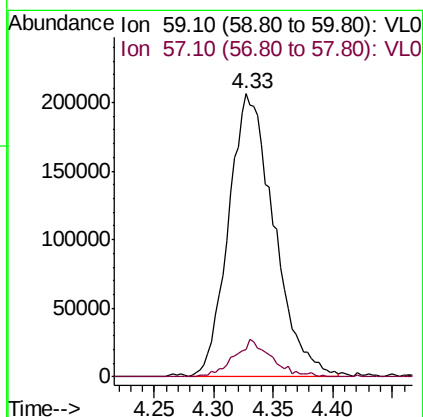
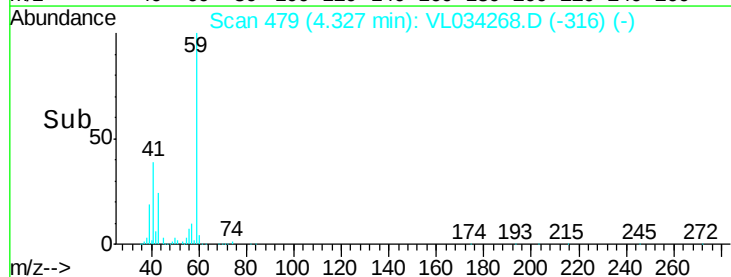
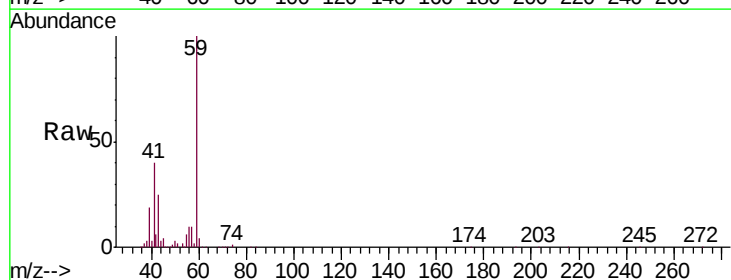
Instrument :  
MSVOA\_L  
ClientSampled :  
SV1

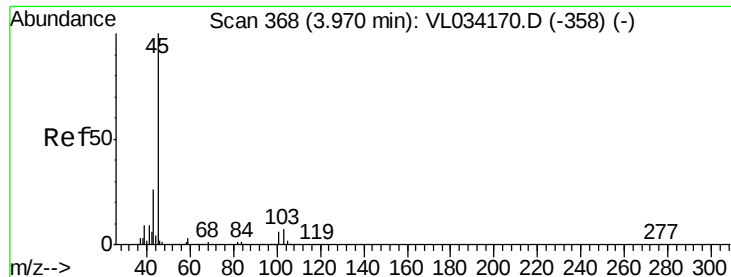
Tgt Ion: 39 Resp: 1852203  
Ion Ratio Lower Upper  
39 100  
54 7.8 63.4 95.0#



#17  
tert-Butyl alcohol  
Concen: 6.559 ppbv  
RT: 4.33 min Scan# 479  
Delta R.T. 0.02 min  
Lab File: VL034268.D  
Acq: 9 Oct 2019 3:51

Tgt Ion: 59 Resp: 539613  
Ion Ratio Lower Upper  
59 100  
57 11.3 8.7 13.1





#19

Isopropyl Alcohol

Concen: 191.600 ppbv

RT: 4.00 min Scan# 377

Delta R.T. 0.03 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

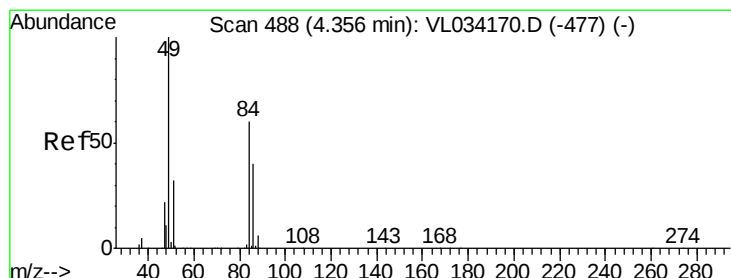
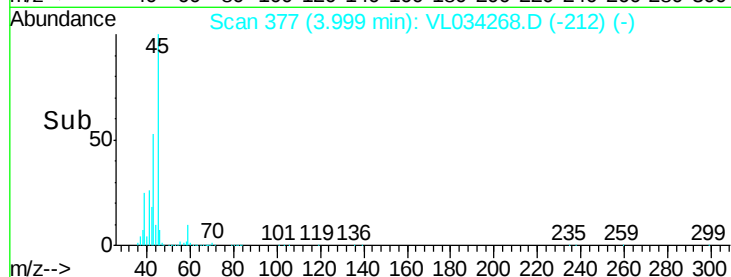
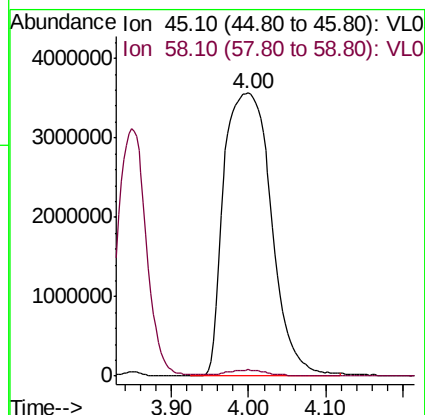
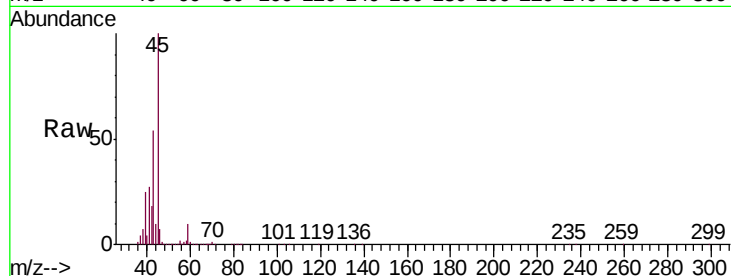
SV1

Tgt Ion: 45 Resp:15298088

Ion Ratio Lower Upper

45 100

58 1.8 1.4 2.0



#20

Methylene Chloride

Concen: 1.401 ppbv

RT: 4.36 min Scan# 489

Delta R.T. 0.00 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Tgt Ion: 84 Resp: 52448

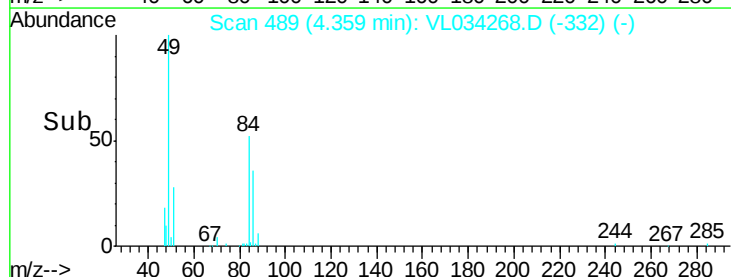
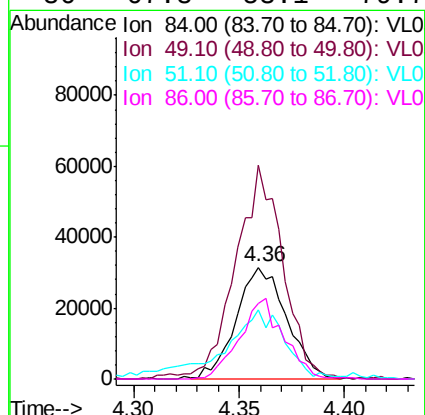
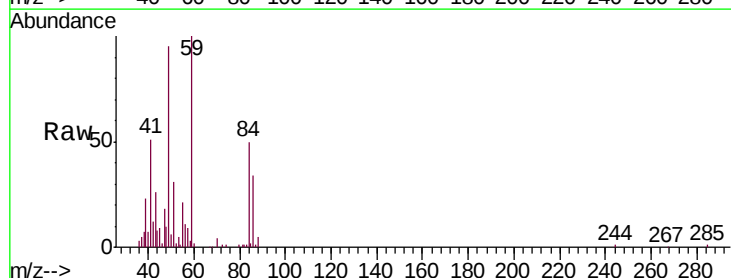
Ion Ratio Lower Upper

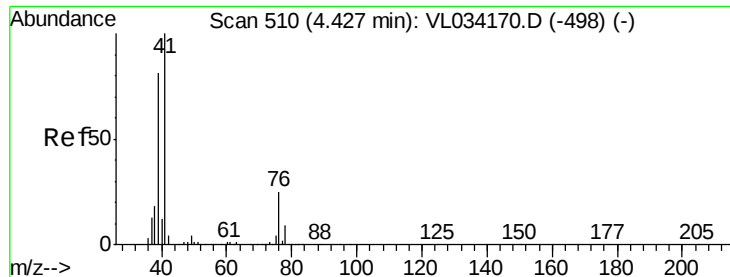
84 100

49 189.2 133.8 200.8

51 59.6 43.6 65.4

86 67.8 53.1 79.7





#21

Allyl Chloride

Concen: 1.619 ppbv

RT: 4.33 min Scan# 480

Delta R.T. -0.10 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

SV1

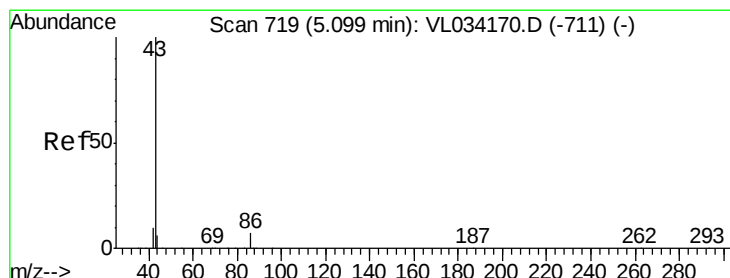
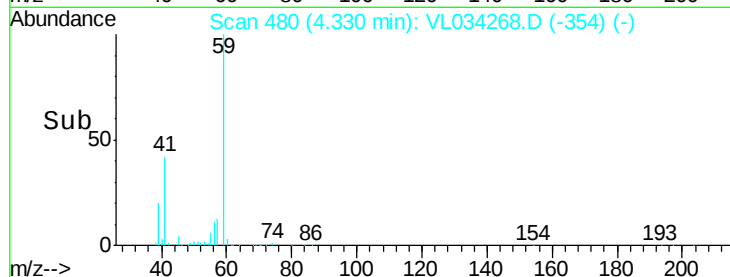
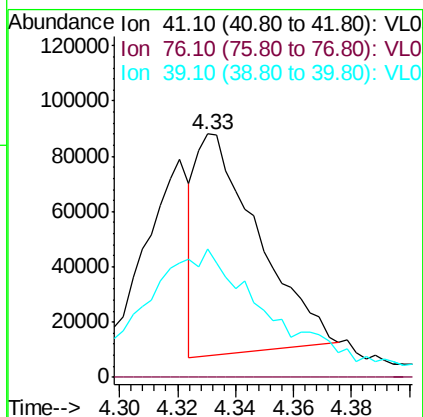
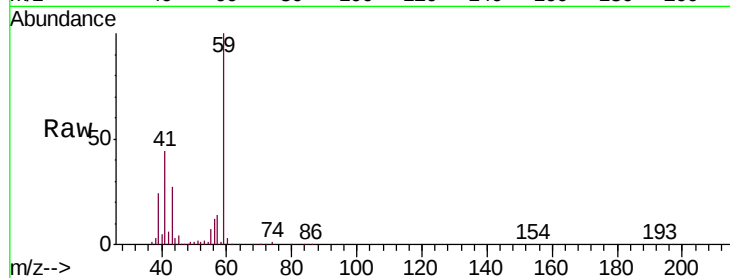
Tgt Ion: 41 Resp: 118743

Ion Ratio Lower Upper

41 100

76 0.0 21.8 32.6#

39 123.2 64.8 97.2#



#23

Vinyl Acetate

Concen: 1.134 ppbv

RT: 5.09 min Scan# 716

Delta R.T. -0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Tgt Ion: 43 Resp: 216878

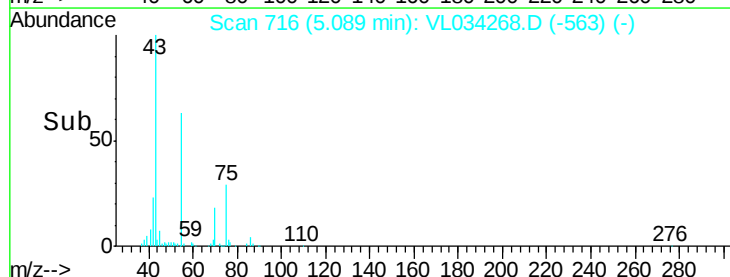
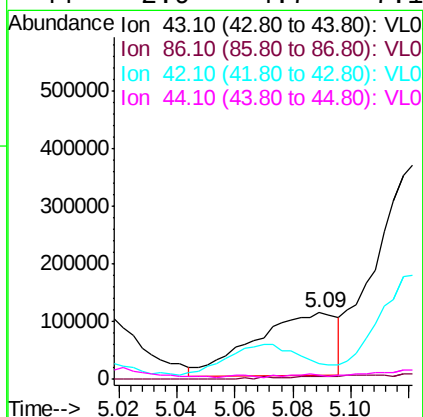
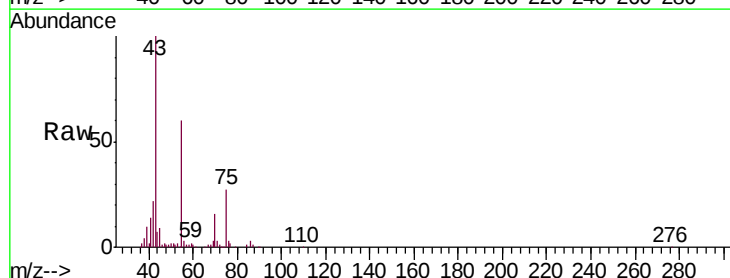
Ion Ratio Lower Upper

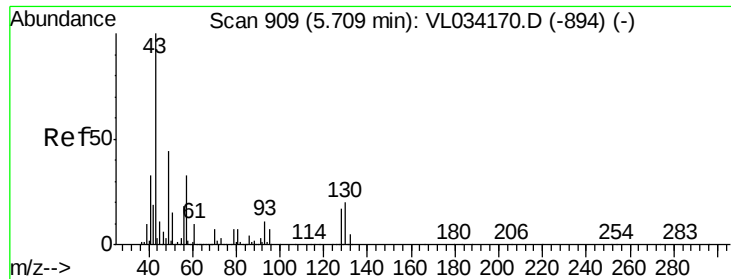
43 100

86 4.1 5.1 7.7#

42 15.6 8.6 12.8#

44 2.9 4.7 7.1#



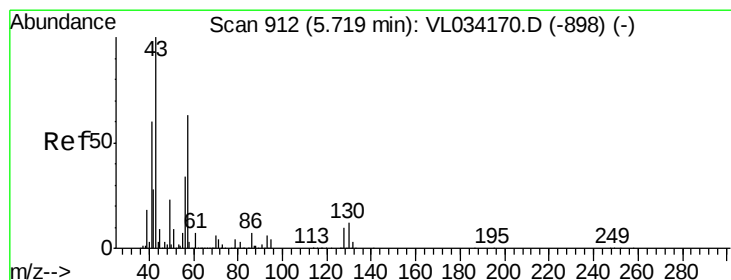
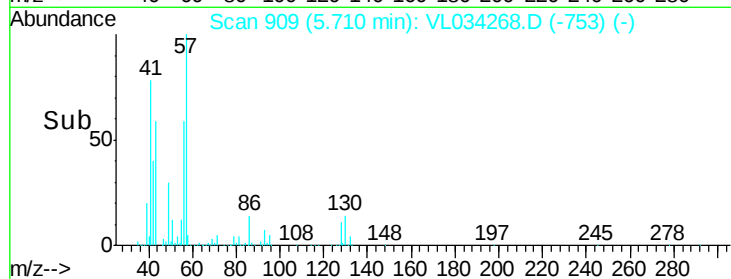
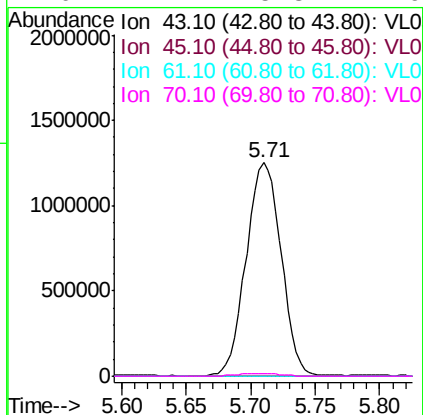
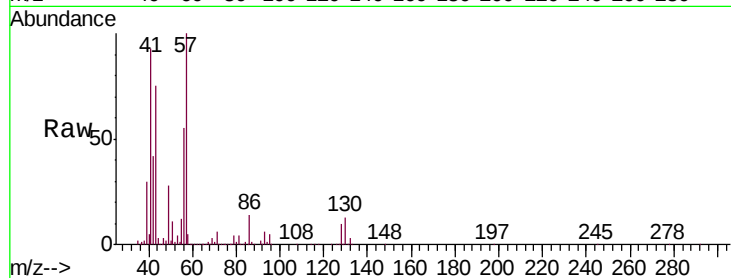


#25  
Ethyl Acetate  
Concen: 9.618 ppbv  
RT: 5.71 min Scan# 909  
Delta R.T. 0.00 min  
Lab File: VL034268.D  
Acq: 9 Oct 2019 3:51

Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1

Tgt Ion: 43 Resp: 2361455

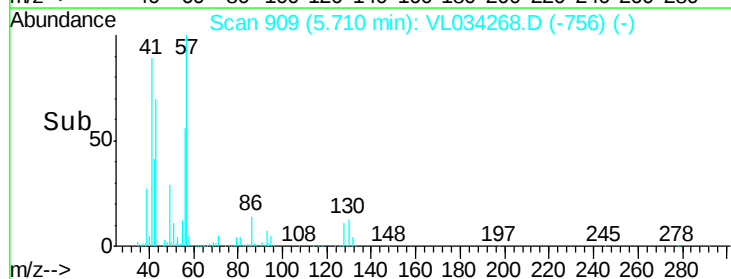
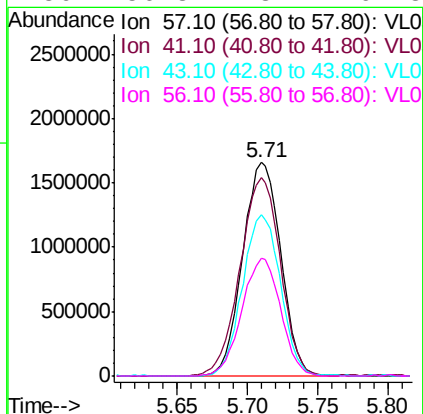
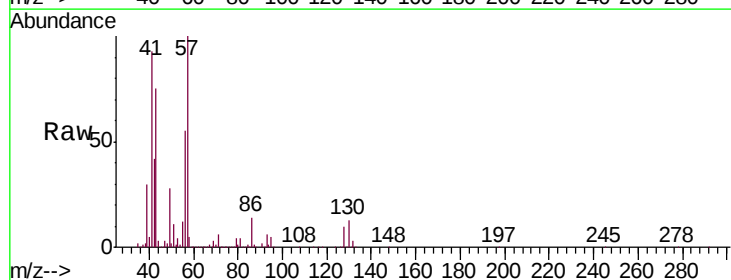
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 45  | 0.3   | 8.4   | 12.6# |
| 61  | 0.3   | 7.2   | 10.8# |
| 70  | 1.7   | 5.3   | 7.9#  |

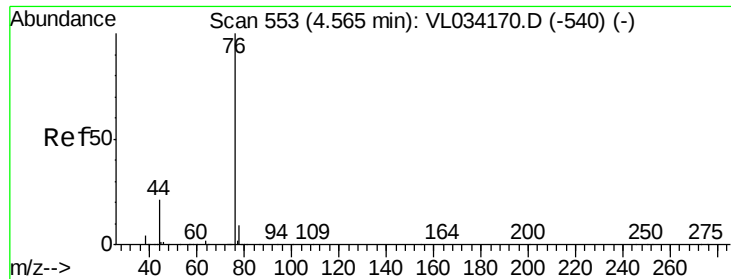


#26  
Hexane  
Concen: 30.761 ppbv  
RT: 5.71 min Scan# 909  
Delta R.T. -0.01 min  
Lab File: VL034268.D  
Acq: 9 Oct 2019 3:51

Tgt Ion: 57 Resp: 3141756

| Ion | Ratio | Lower | Upper  |
|-----|-------|-------|--------|
| 57  | 100   |       |        |
| 41  | 98.7  | 78.5  | 117.7  |
| 43  | 75.2  | 189.5 | 284.3# |
| 56  | 56.3  | 43.2  | 64.8   |





#27

Carbon Disulfide

Concen: 1.604 ppbv

RT: 4.56 min Scan# 550

Delta R.T. -0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

SV1

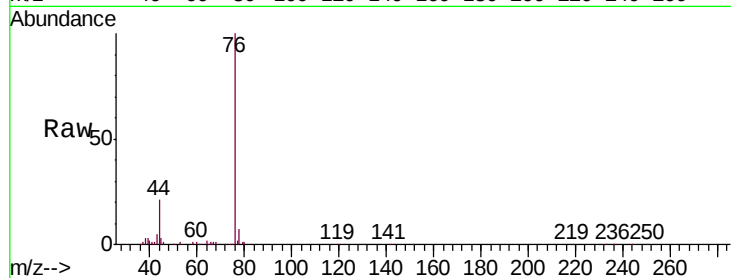
Tgt Ion: 76 Resp: 151046

Ion Ratio Lower Upper

76 100

44 23.0 17.6 26.4

78 9.2 7.6 11.4



Abundance Ion 76.00 (75.70 to 76.70): VL0  
150000  
Ion 44.10 (43.80 to 44.80): VL0  
Ion 78.00 (77.70 to 78.70): VL0

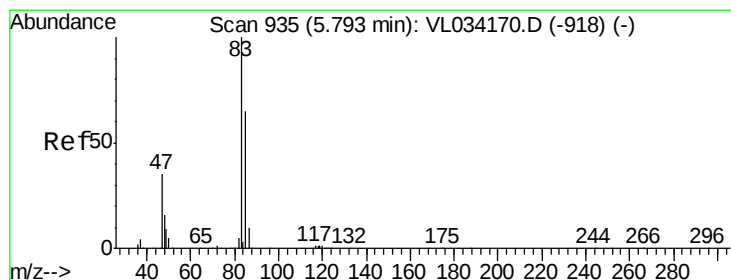
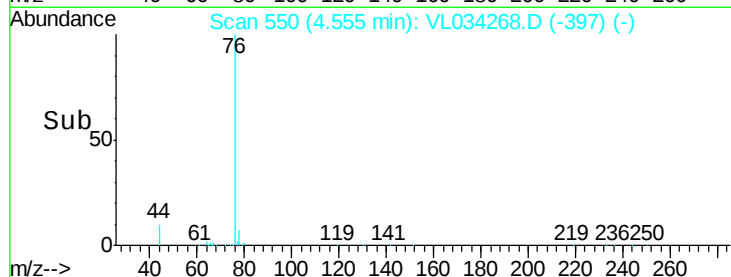
4.56

100000

50000

0

Time-->



#29

Chloroform

Concen: 2.248 ppbv

RT: 5.79 min Scan# 934

Delta R.T. -0.00 min

Lab File: VL034268.D

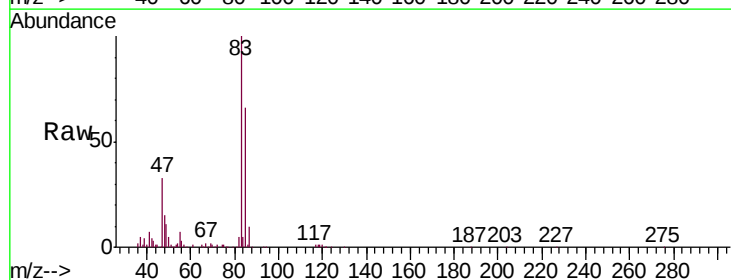
Acq: 9 Oct 2019 3:51

Tgt Ion: 83 Resp: 328139

Ion Ratio Lower Upper

83 100

85 65.4 52.3 78.5



Abundance Ion 83.00 (82.70 to 83.70): VL0  
200000  
Ion 85.00 (84.70 to 85.70): VL0

5.79

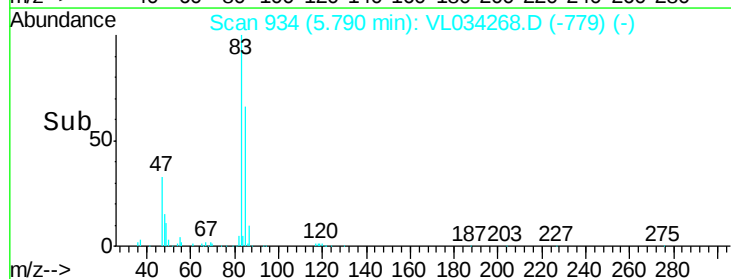
150000

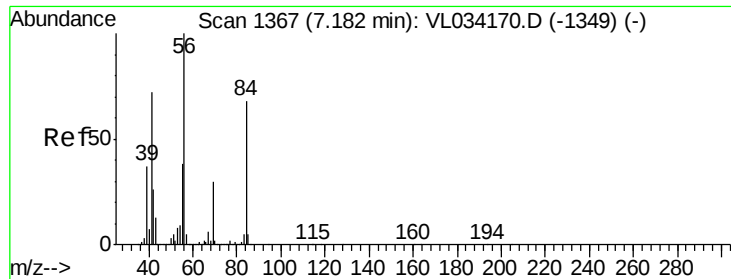
100000

50000

0

Time-->

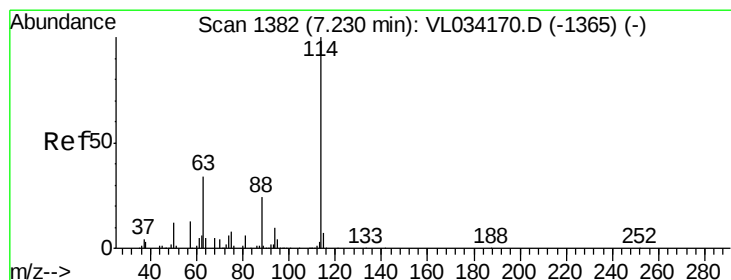
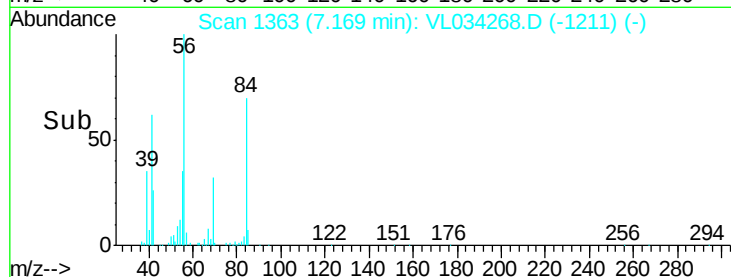
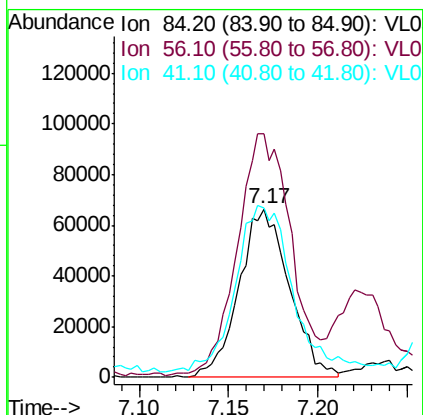
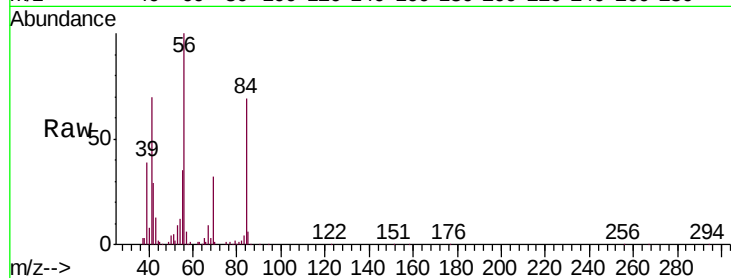




#30  
Cyclohexane  
Concen: 1.776 ppbv  
RT: 7.17 min Scan# 1363  
Delta R.T. -0.01 min  
Lab File: VL034268.D  
Acq: 9 Oct 2019 3:51

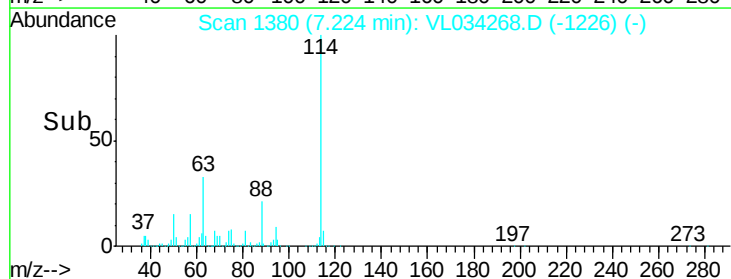
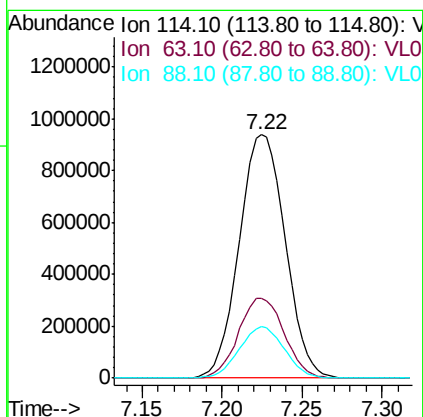
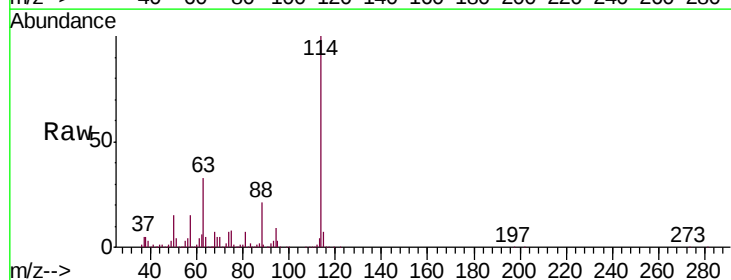
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1

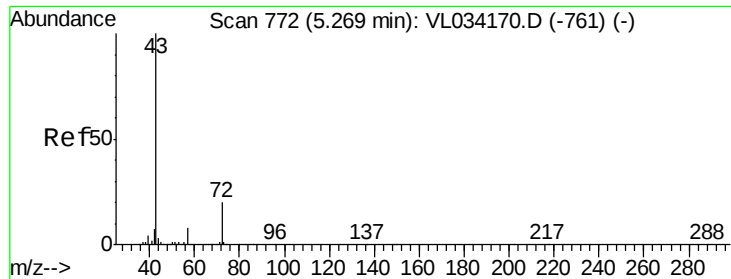
Tgt Ion: 84 Resp: 130980  
Ion Ratio Lower Upper  
84 100  
56 152.8 126.2 189.2  
41 108.7 85.8 128.8



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.22 min Scan# 1380  
Delta R.T. -0.01 min  
Lab File: VL034268.D  
Acq: 9 Oct 2019 3:51

Tgt Ion: 114 Resp: 1845388  
Ion Ratio Lower Upper  
114 100  
63 33.2 27.8 41.6  
88 20.7 17.1 25.7

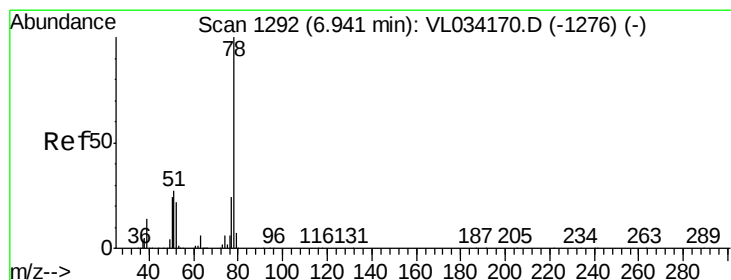
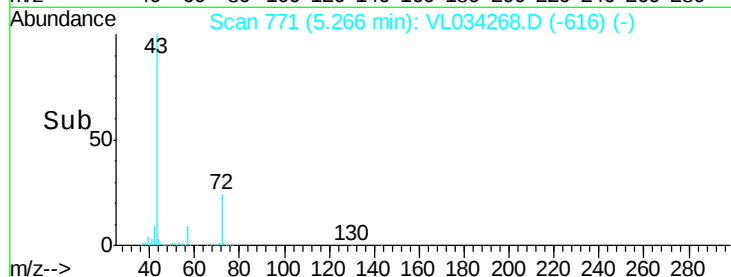
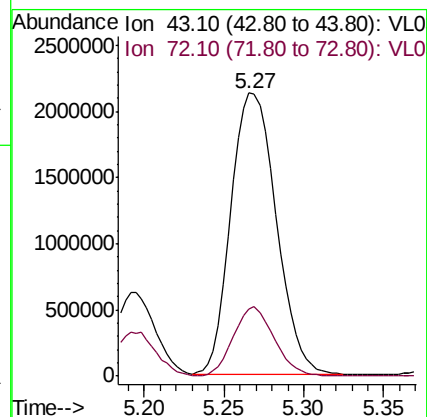
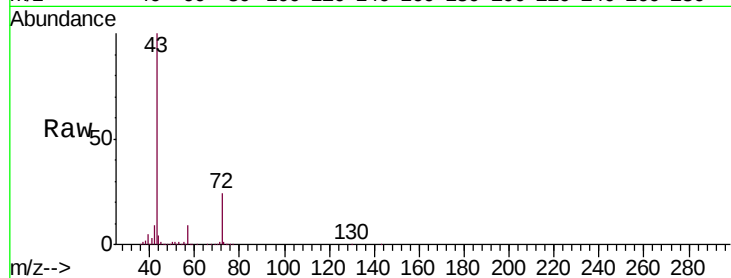




#34  
2-Butanone  
Concen: 21.889 ppbv  
RT: 5.27 min Scan# 771  
Delta R.T. -0.00 min  
Lab File: VL034268.D  
Acq: 9 Oct 2019 3:51

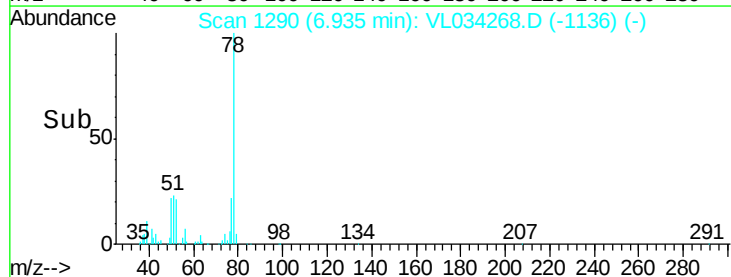
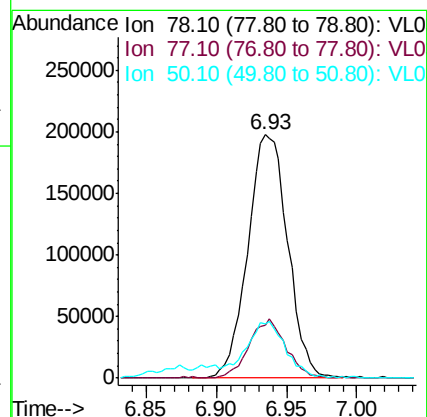
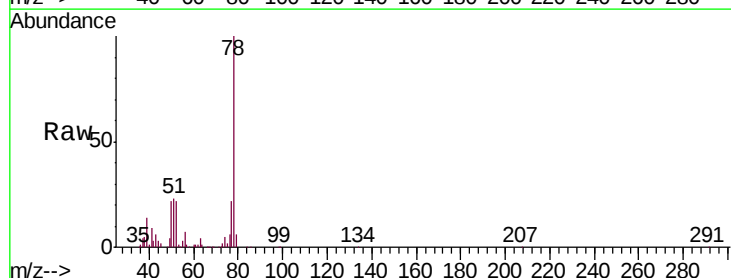
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1

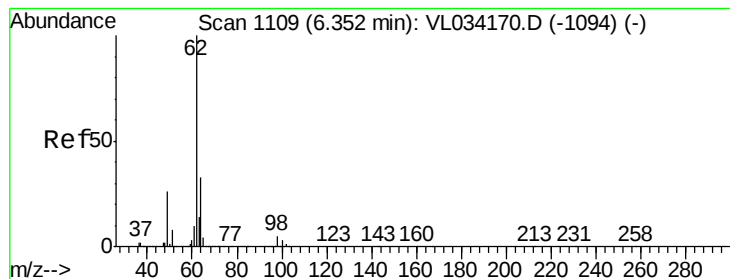
Tgt Ion: 43 Resp: 4124374  
Ion Ratio Lower Upper  
43 100  
72 22.2 15.0 22.6



#36  
Benzene  
Concen: 1.918 ppbv  
RT: 6.93 min Scan# 1290  
Delta R.T. -0.01 min  
Lab File: VL034268.D  
Acq: 9 Oct 2019 3:51

Tgt Ion: 78 Resp: 390810  
Ion Ratio Lower Upper  
78 100  
77 21.5 19.0 28.4  
50 21.2 18.9 28.3





#37

1,2-Dichloroethane

Concen: 0.030 ppbv

RT: 6.35 min Scan# 1107

Delta R.T. -0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

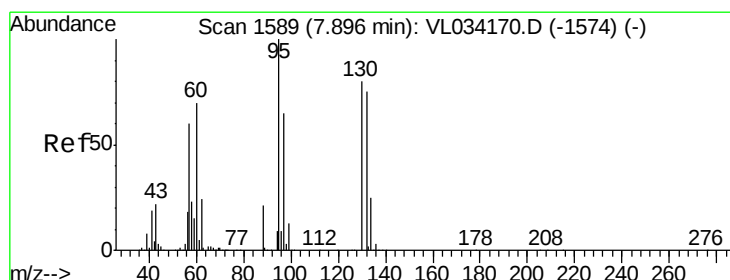
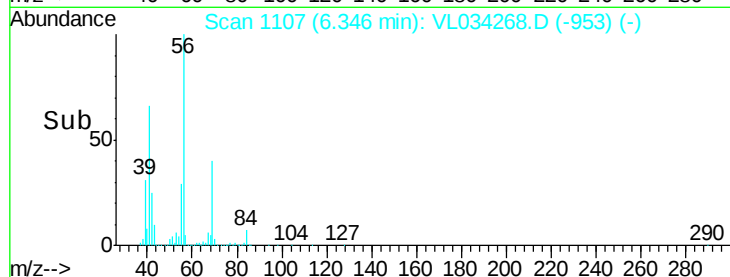
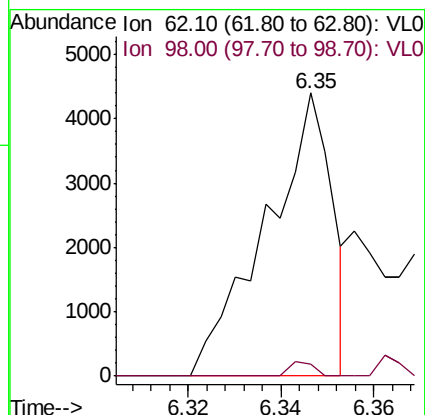
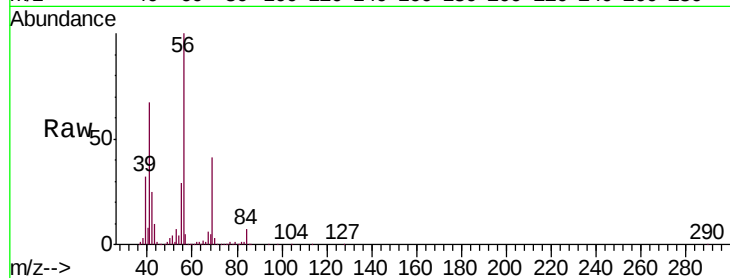
SV1

Tgt Ion: 62 Resp: 4381

Ion Ratio Lower Upper

62 100

98 0.0 3.8 5.8#



#38

Trichloroethene

Concen: 89.786 ppbv

RT: 7.89 min Scan# 1588

Delta R.T. -0.00 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Tgt Ion: 130 Resp: 6538461

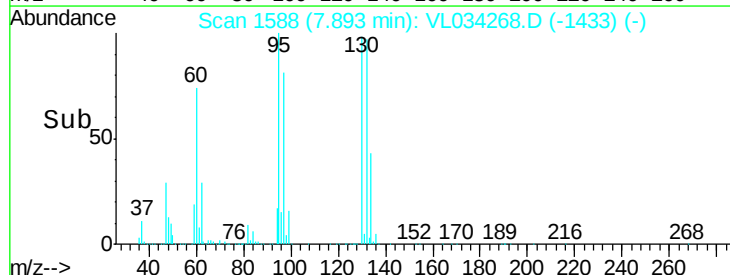
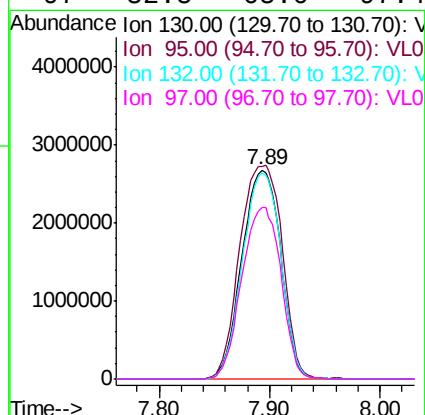
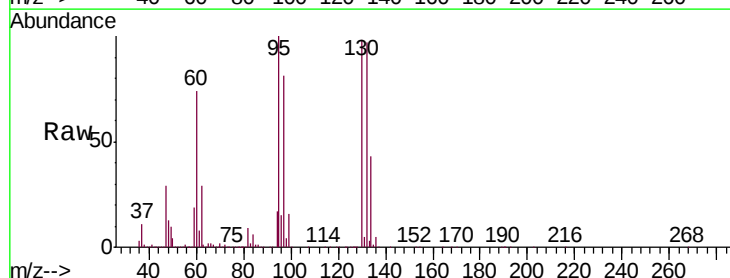
Ion Ratio Lower Upper

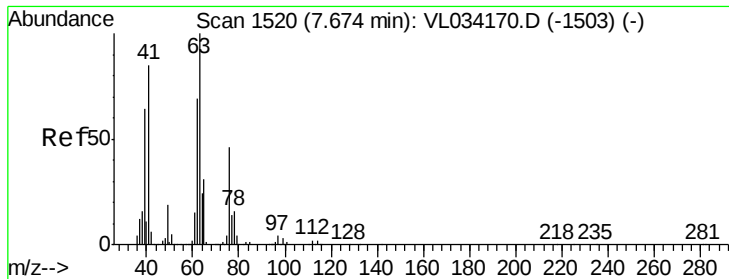
130 100

95 102.1 99.8 149.6

132 98.8 75.2 112.8

97 82.5 65.0 97.4

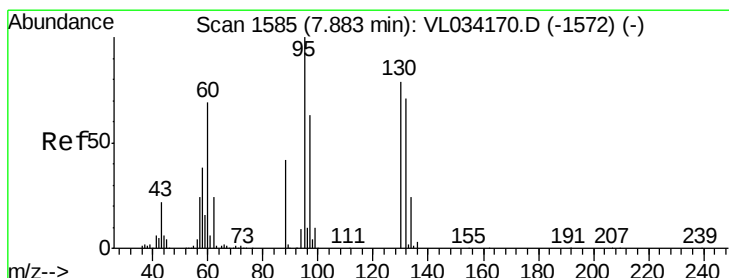
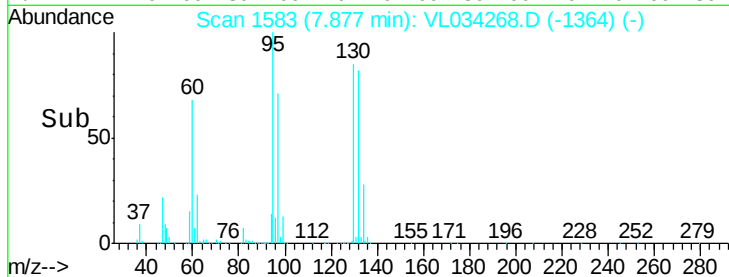
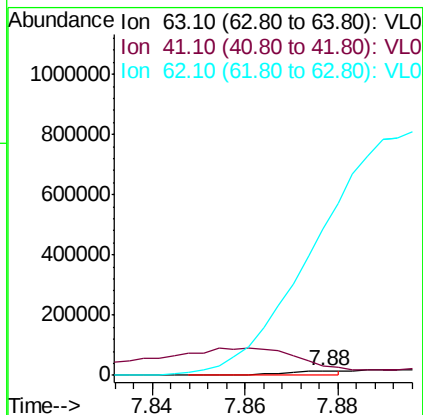
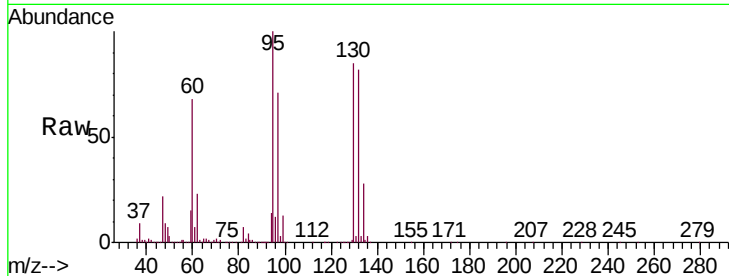




#39  
 1,2-Dichloropropane  
 Concen: 0.127 ppbv  
 RT: 7.88 min Scan# 1583  
 Delta R.T. 0.20 min  
 Lab File: VL034268.D  
 Acq: 9 Oct 2019 3:51

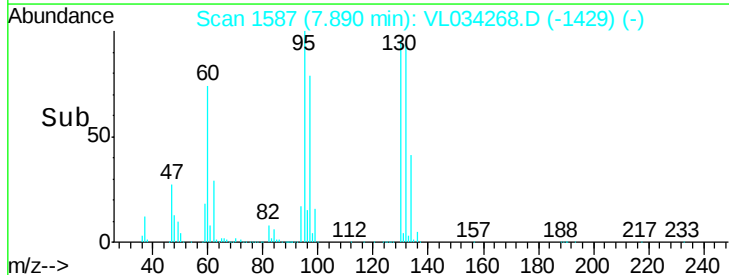
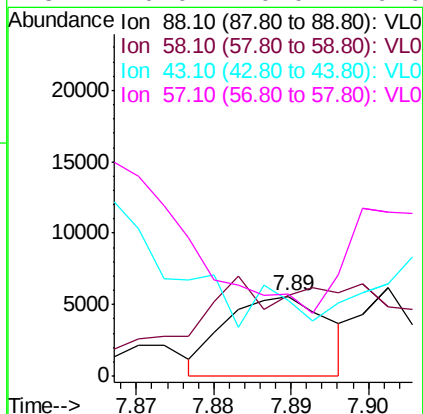
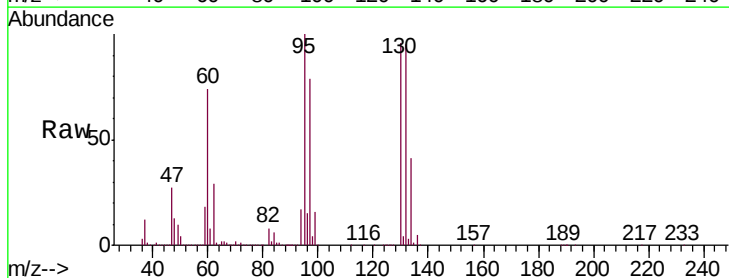
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV1

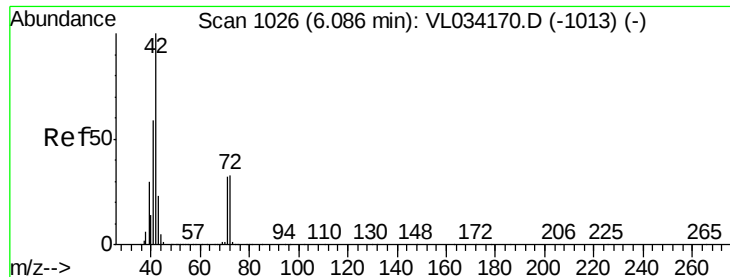
Tgt Ion: 63 Resp: 11613  
 Ion Ratio Lower Upper  
 63 100  
 41 27.4 68.4 102.6#  
 62 3312.5 55.4 83.2#



#40  
 1,4-Dioxane  
 Concen: 0.174 ppbv  
 RT: 7.89 min Scan# 1587  
 Delta R.T. 0.01 min  
 Lab File: VL034268.D  
 Acq: 9 Oct 2019 3:51

Tgt Ion: 88 Resp: 5159  
 Ion Ratio Lower Upper  
 88 100  
 58 0.0 131.8 197.6#  
 43 0.0 0.0 0.0  
 57 0.0 0.0 0.0





#41

Tetrahydrofuran

Concen: 0.274 ppbv

RT: 6.07 min Scan# 1020

Delta R.T. -0.02 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

SV1

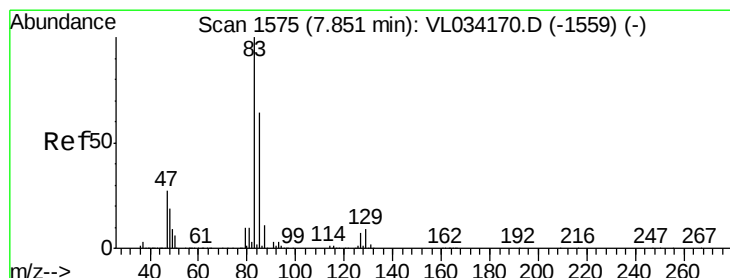
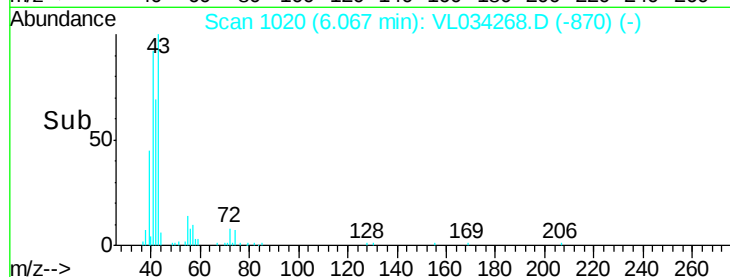
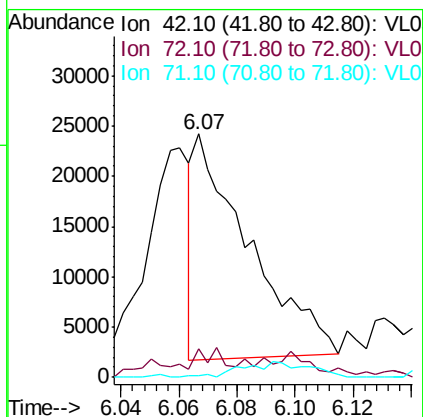
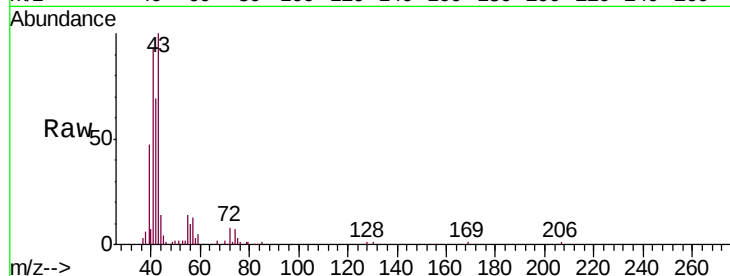
Tgt Ion: 42 Resp: 29075

Ion Ratio Lower Upper

42 100

72 24.9 26.6 40.0#

71 0.0 25.1 37.7#



#42

Bromodichloromethane

Concen: 0.039 ppbv

RT: 7.84 min Scan# 1573

Delta R.T. -0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

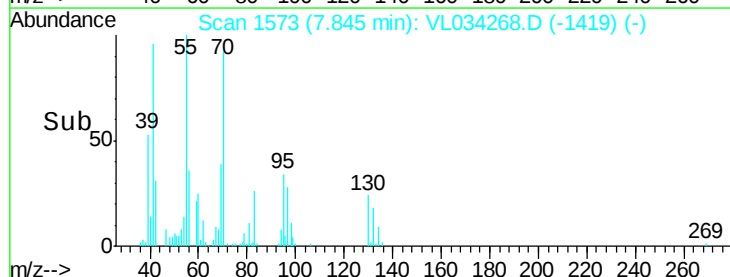
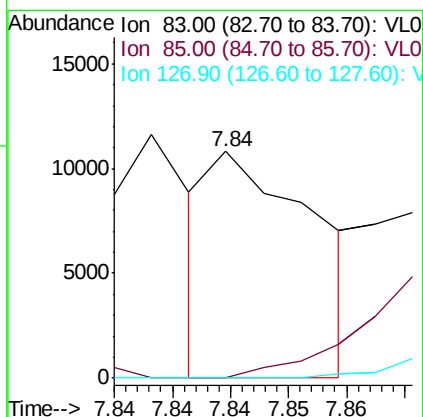
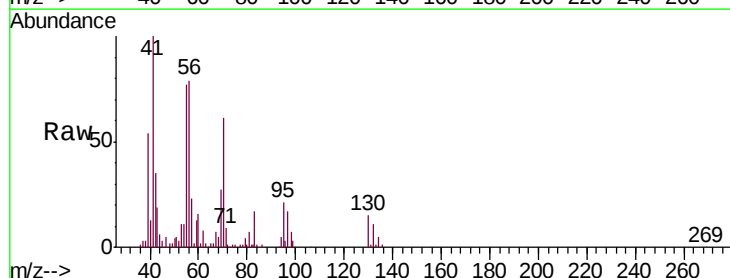
Tgt Ion: 83 Resp: 6757

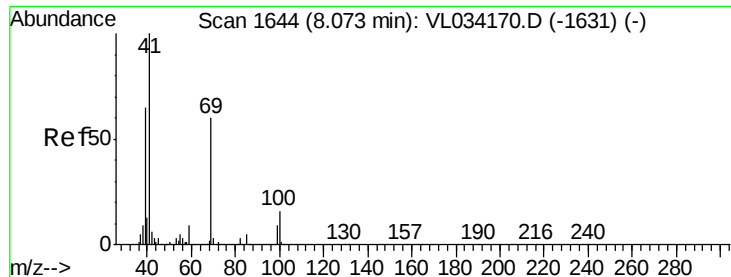
Ion Ratio Lower Upper

83 100

85 0.0 51.4 77.0#

127 0.0 5.5 8.3#





#43

Methyl Methacrylate

Concen: 0.463 ppbv

RT: 8.10 min Scan# 1651

Delta R.T. 0.02 min

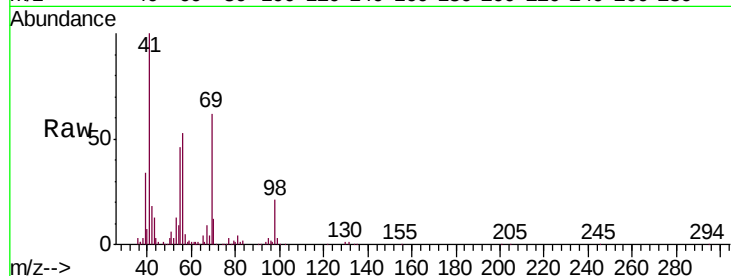
Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :  
MSVOA\_L  
ClientSampleID :  
SV1

Tgt Ion: 69 Resp: 39020

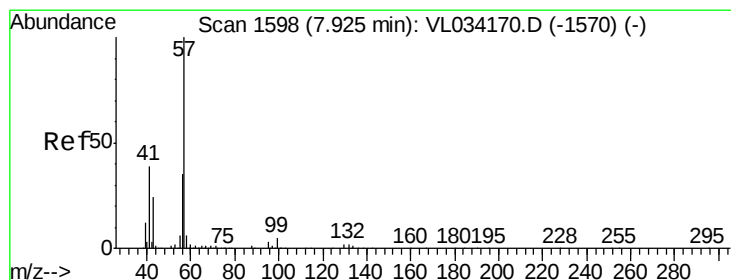
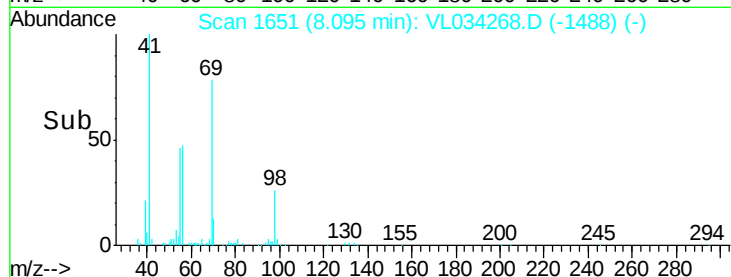
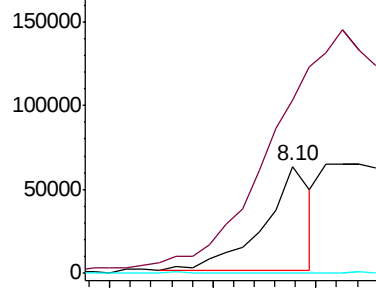
| Ion | Ratio | Lower | Upper  |
|-----|-------|-------|--------|
| 69  | 100   |       |        |
| 41  | 0.0   | 140.4 | 210.6# |
| 100 | 15.9  | 21.9  | 32.9#  |



Abundance Ion 69.10 (68.80 to 69.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 100.10 (99.80 to 100.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.104 ppbv

RT: 7.92 min Scan# 1595

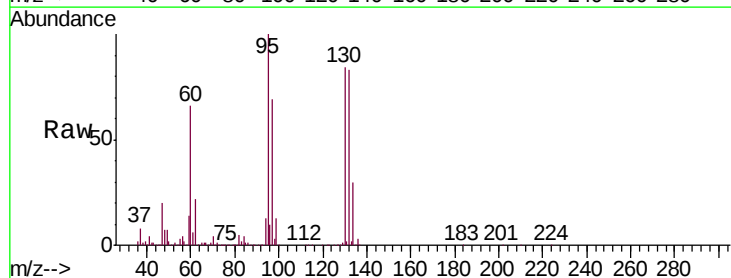
Delta R.T. -0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Tgt Ion: 57 Resp: 40638

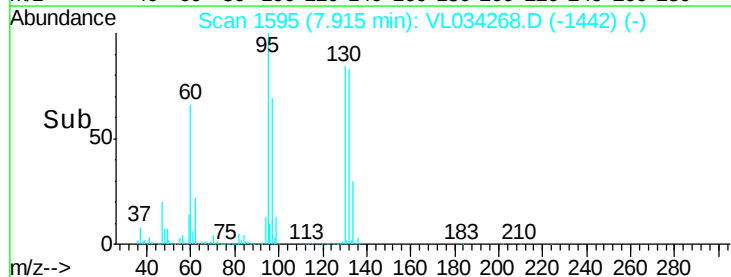
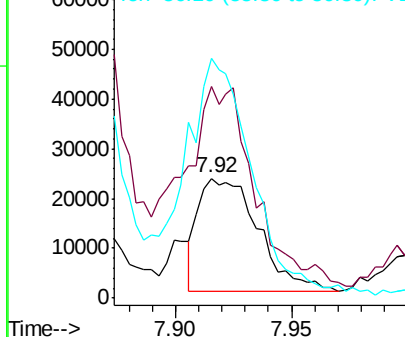
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 57  | 100   |       |       |
| 41  | 212.4 | 29.8  | 44.6# |
| 56  | 239.5 | 25.9  | 38.9# |

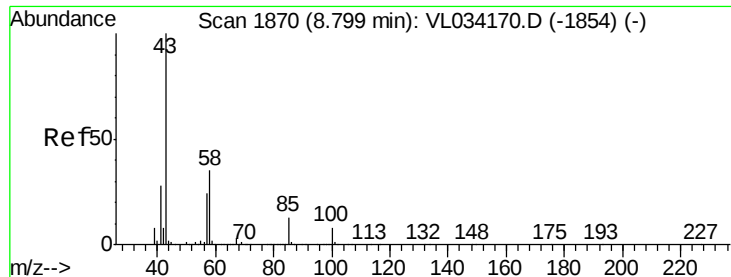


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

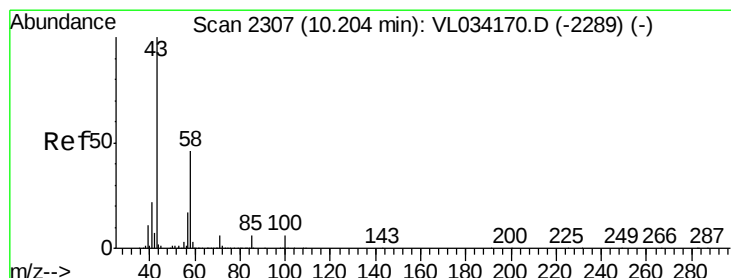
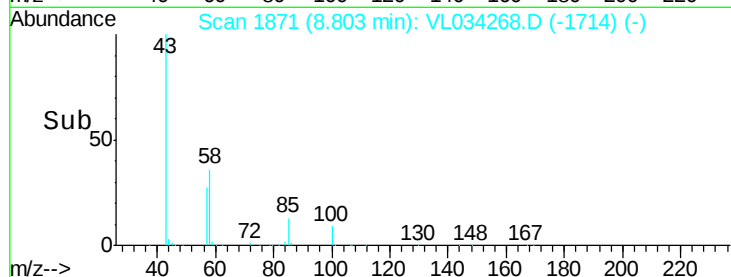
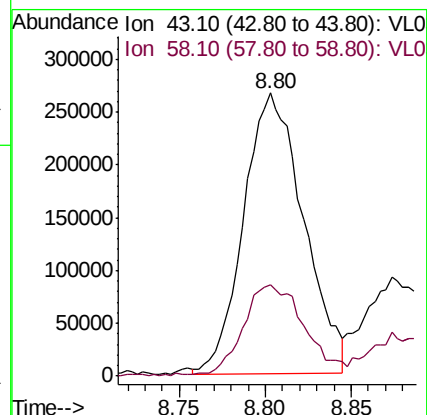
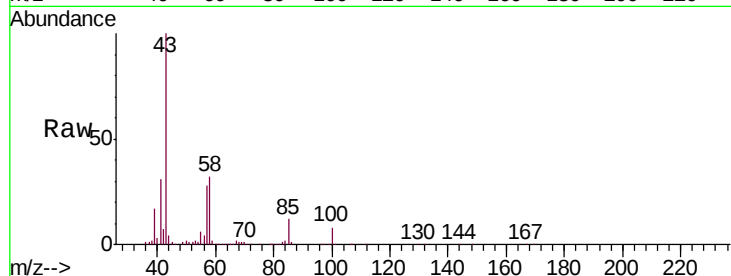




#50  
 4-Methyl-2-Pentanone  
 Concen: 2.339 ppbv  
 RT: 8.80 min Scan# 1871  
 Delta R.T. 0.00 min  
 Lab File: VL034268.D  
 Acq: 9 Oct 2019 3:51

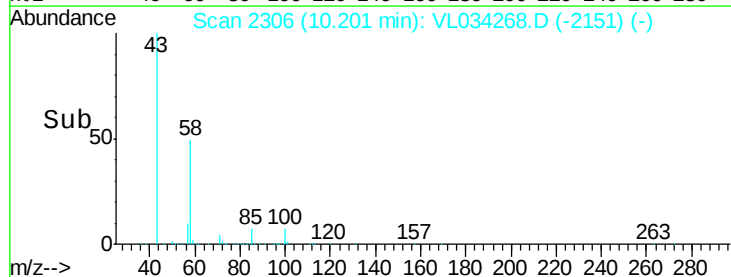
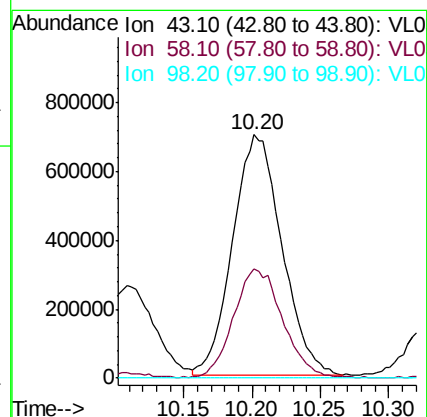
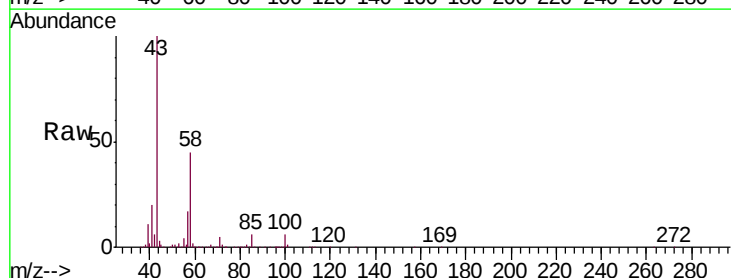
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV1

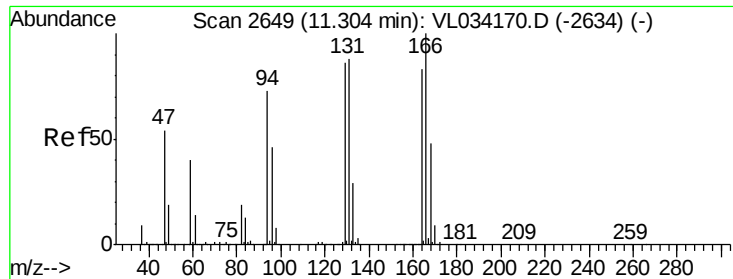
Tgt Ion: 43 Resp: 641351  
 Ion Ratio Lower Upper  
 43 100  
 58 33.0 27.6 41.4



#51  
 2-Hexanone  
 Concen: 7.592 ppbv  
 RT: 10.20 min Scan# 2306  
 Delta R.T. -0.00 min  
 Lab File: VL034268.D  
 Acq: 9 Oct 2019 3:51

Tgt Ion: 43 Resp: 1747190  
 Ion Ratio Lower Upper  
 43 100  
 58 45.1 36.2 54.4  
 98 0.2 0.2 0.2





#52

Tetrachloroethene

Concen: 355.366 ppbv

RT: 11.38 min Scan# 2671

Delta R.T. 0.07 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

SV1

Tgt Ion:164 Resp:23929188

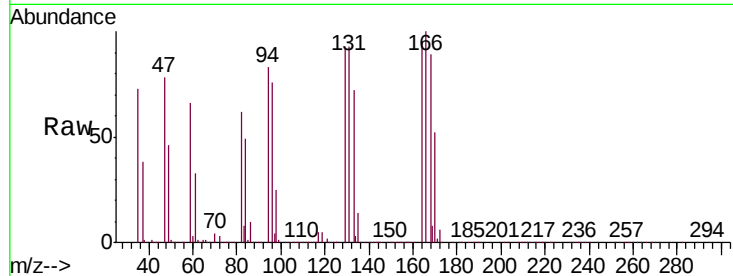
Ion Ratio Lower Upper

164 100

166 105.1 96.7 145.1

129 97.2 82.8 124.2

131 97.6 85.0 127.6



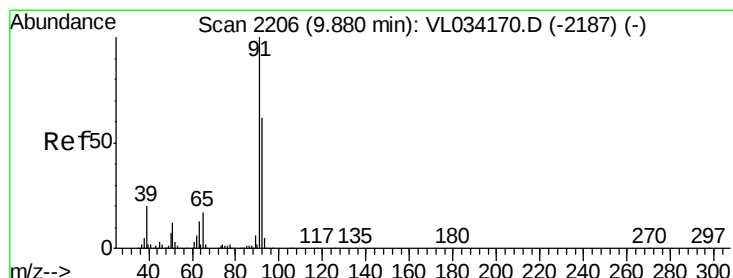
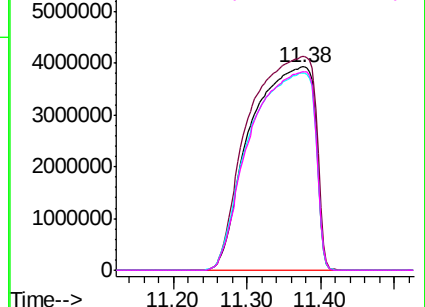
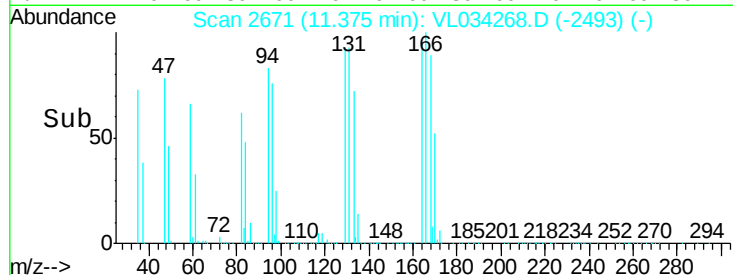
Abundance

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: 12.732 ppbv

RT: 9.87 min Scan# 2203

Delta R.T. -0.01 min

Lab File: VL034268.D

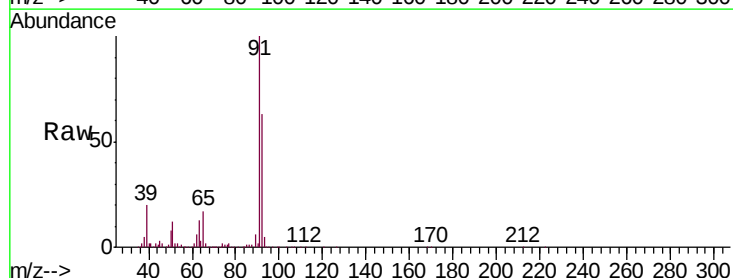
Acq: 9 Oct 2019 3:51

Tgt Ion: 91 Resp: 2835968

Ion Ratio Lower Upper

91 100

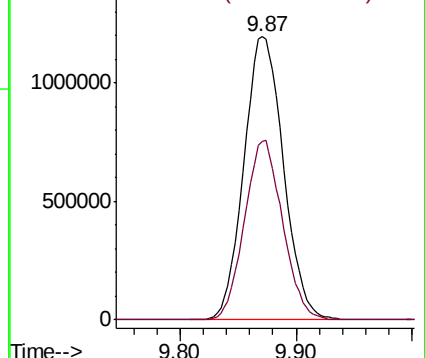
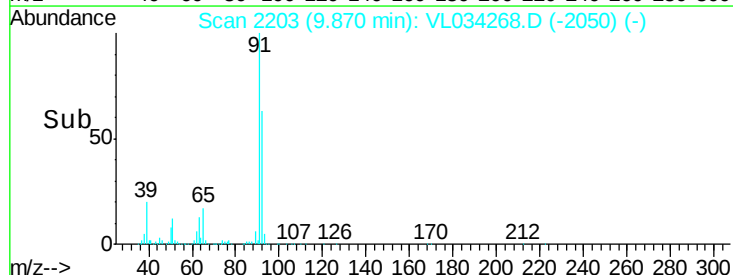
92 61.0 49.0 73.6

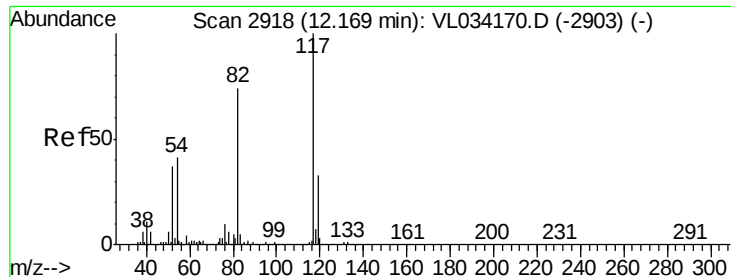


Abundance

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: 12.17 min Scan# 2919

Delta R.T. 0.00 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampled :

SV1

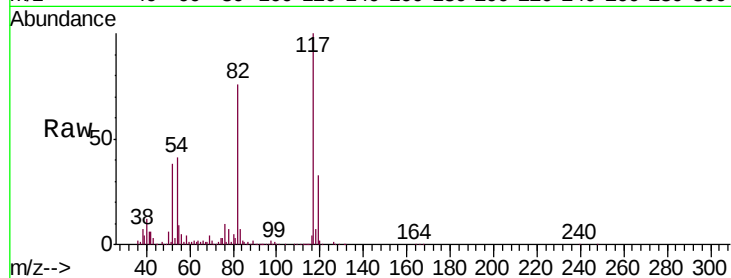
Tgt Ion:117 Resp: 1860239

Ion Ratio Lower Upper

117 100

82 76.9 58.2 87.4

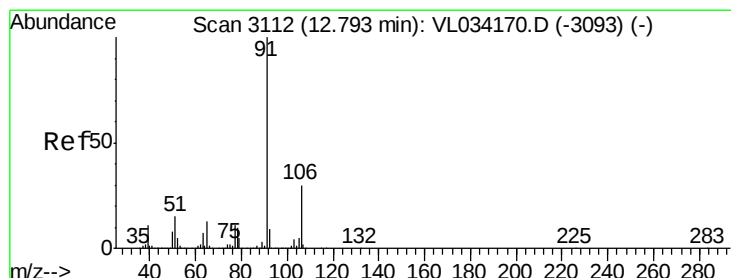
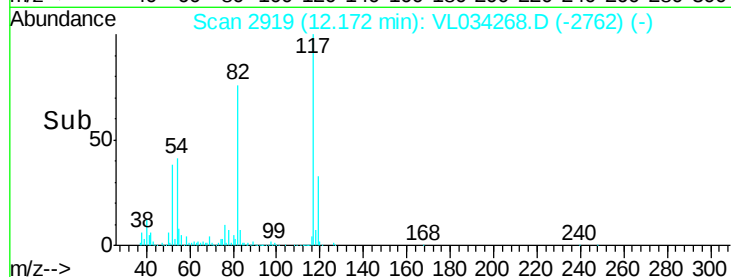
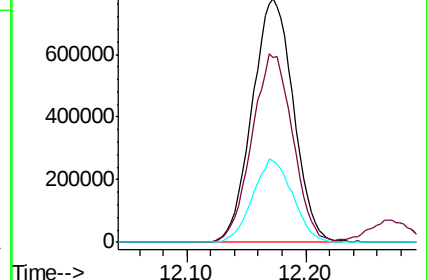
119 33.3 23.7 35.5



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



#58

Ethyl Benzene

Concen: 3.835 ppbv

RT: 12.80 min Scan# 3113

Delta R.T. 0.00 min

Lab File: VL034268.D

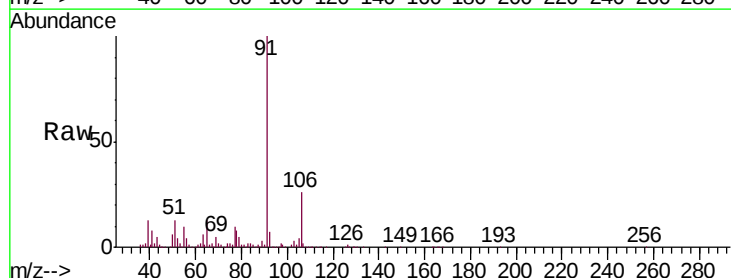
Acq: 9 Oct 2019 3:51

Tgt Ion: 91 Resp: 1150978

Ion Ratio Lower Upper

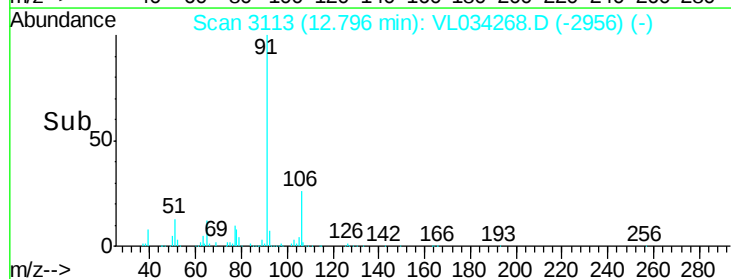
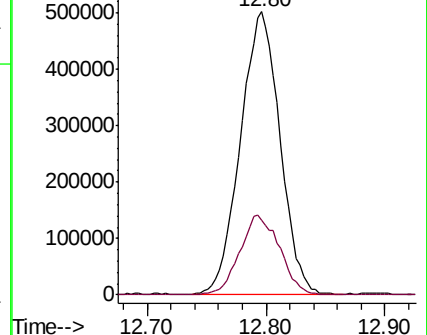
91 100

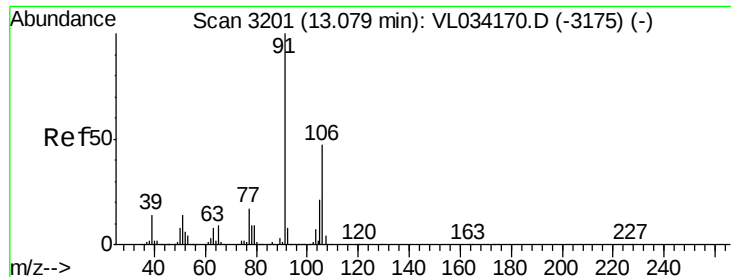
106 26.4 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#59

m/p-Xylene

Concen: 17.261 ppbv

RT: 13.05 min Scan# 3192

Delta R.T. -0.03 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

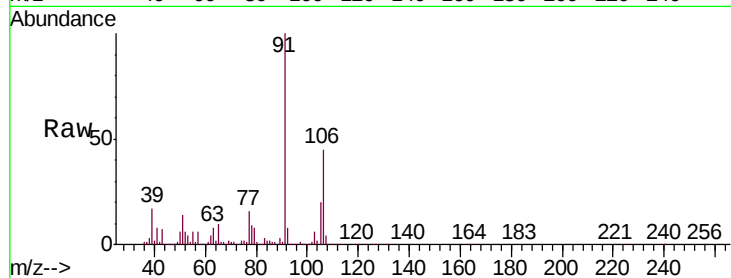
SV1

Tgt Ion: 91 Resp: 4291218

Ion Ratio Lower Upper

91 100

106 44.0 35.5 53.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

13.05

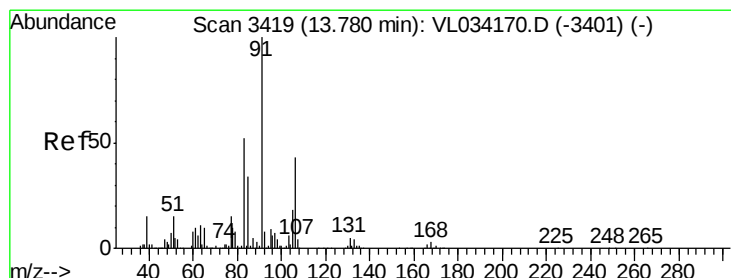
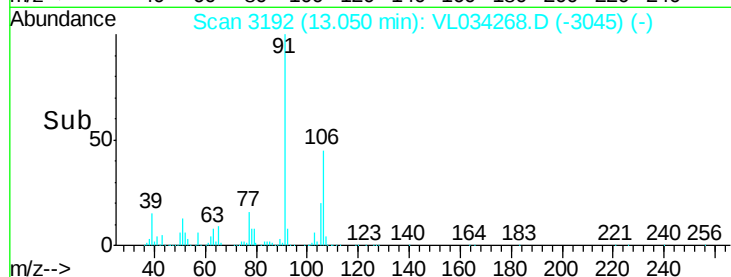
1000000

500000

0

Time-->

13.00 13.10



#60

o-Xylene

Concen: 7.015 ppbv

RT: 13.78 min Scan# 3418

Delta R.T. -0.00 min

Lab File: VL034268.D

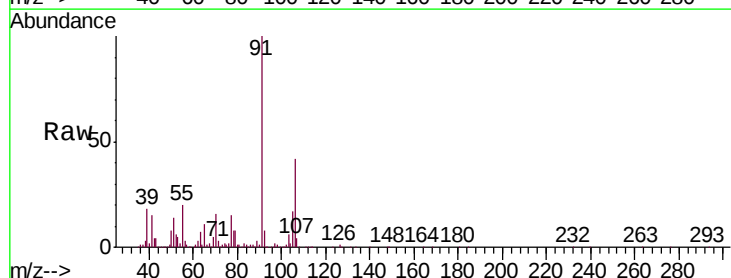
Acq: 9 Oct 2019 3:51

Tgt Ion: 91 Resp: 1743766

Ion Ratio Lower Upper

91 100

106 41.1 21.2 63.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

13.78

800000

600000

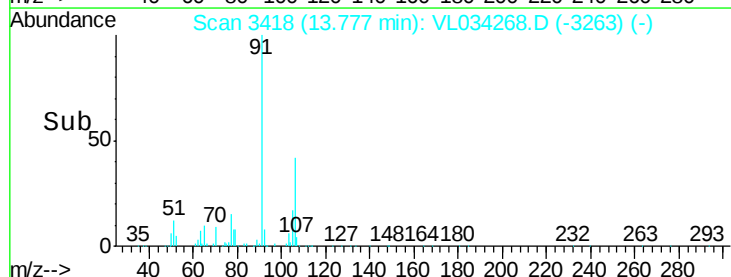
400000

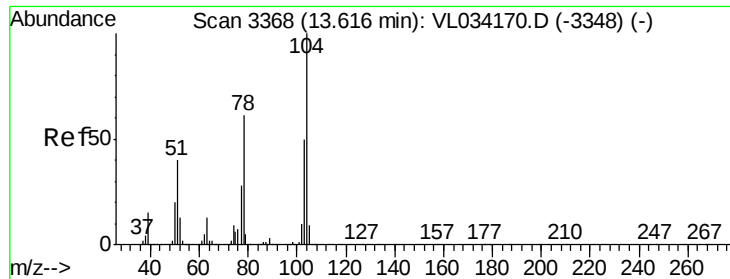
200000

0

Time-->

13.70 13.80





#61

Styrene

Concen: 0.252 ppbv

RT: 13.62 min Scan# 3370

Delta R.T. 0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

SV1

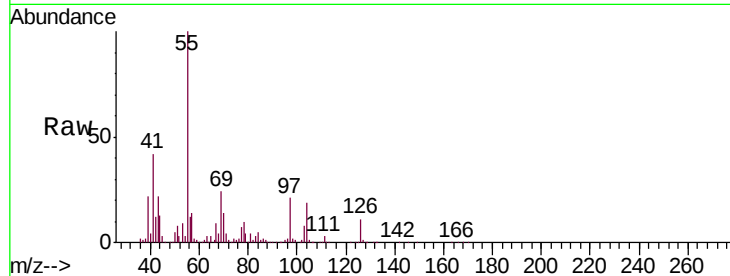
Tgt Ion:104 Resp: 44851

Ion Ratio Lower Upper

104 100

78 205.7 49.7 74.5#

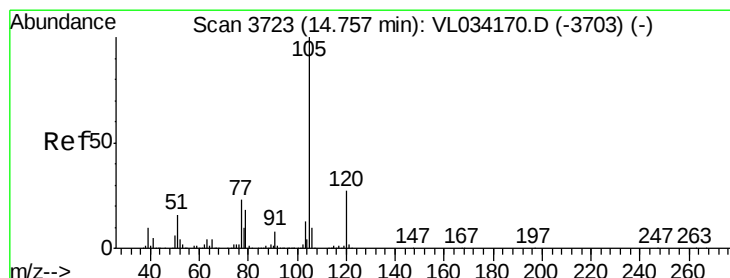
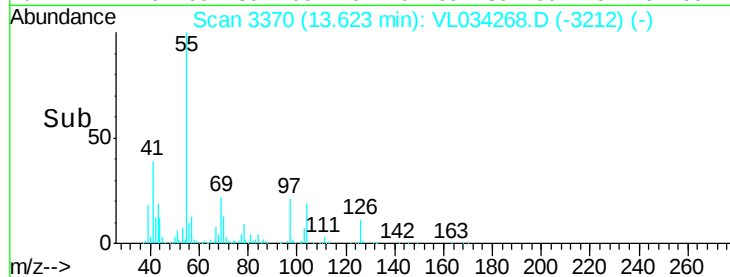
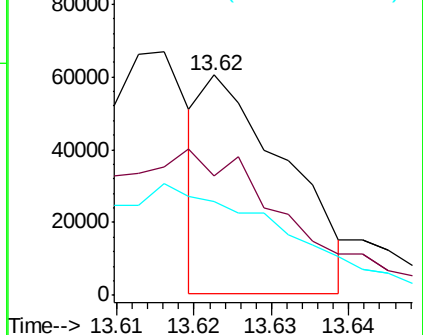
103 0.0 38.4 57.6#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 0.147 ppbv

RT: 14.76 min Scan# 3723

Delta R.T. 0.00 min

Lab File: VL034268.D

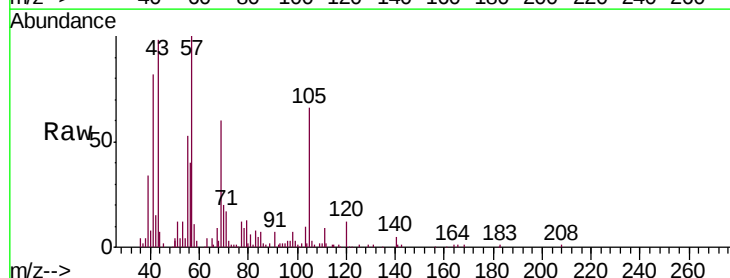
Acq: 9 Oct 2019 3:51

Tgt Ion:105 Resp: 47355

Ion Ratio Lower Upper

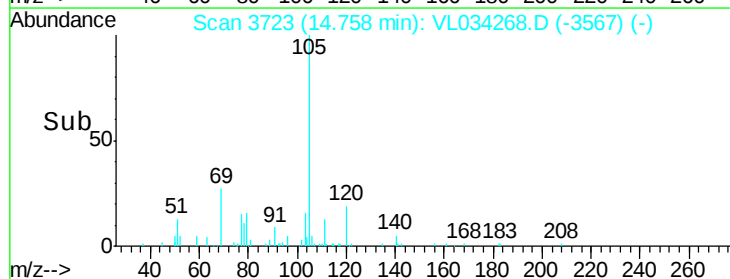
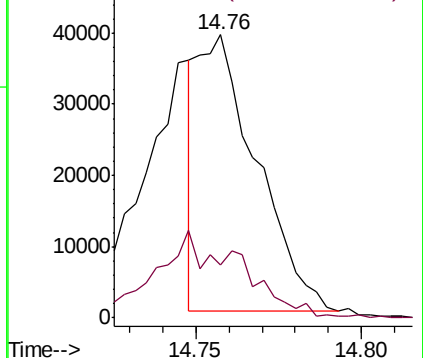
105 100

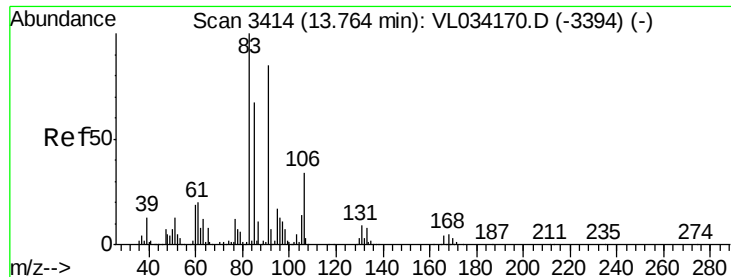
120 47.1 20.7 31.1#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

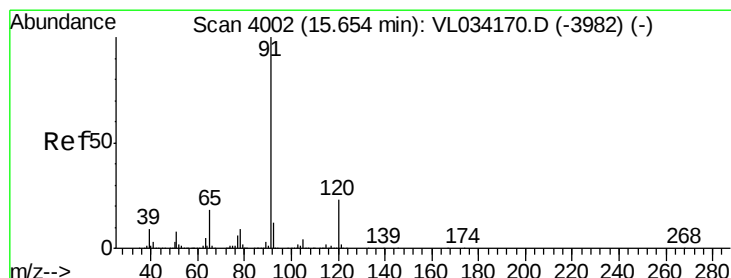
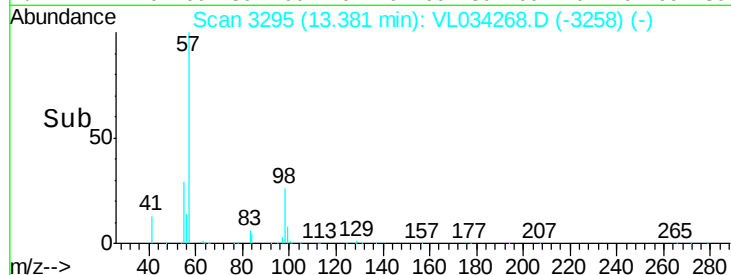
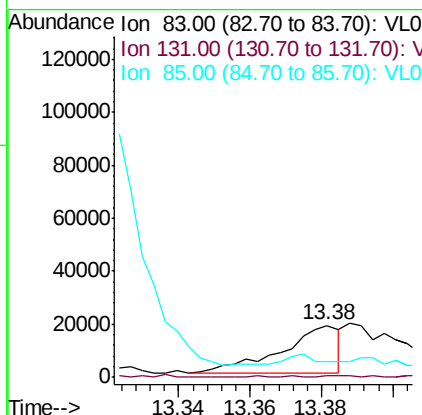
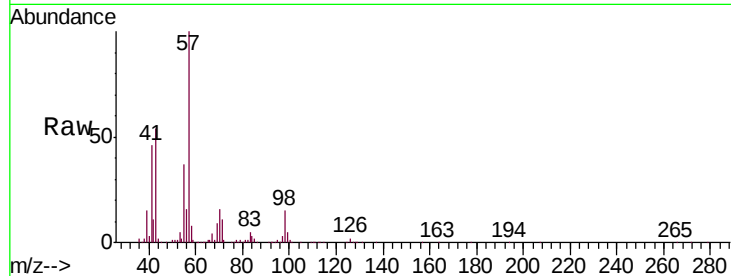




#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.098 ppbv  
 RT: 13.38 min Scan# 3295  
 Delta R.T. -0.38 min  
 Lab File: VL034268.D  
 Acq: 9 Oct 2019 3:51

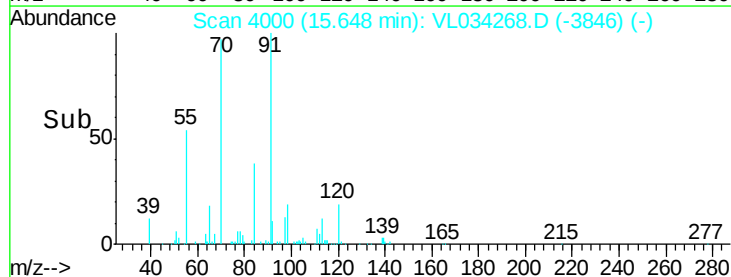
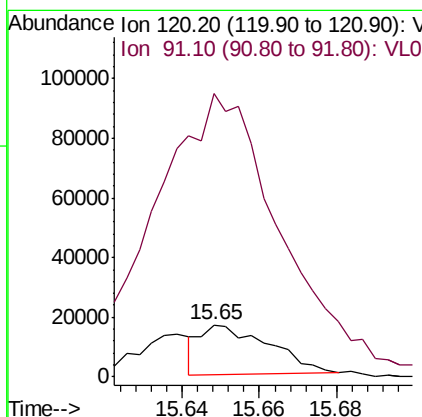
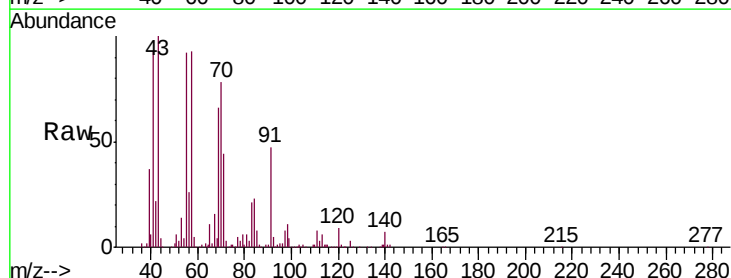
Instrument :  
 MSVOA\_L  
 ClientSampled :  
 SV1

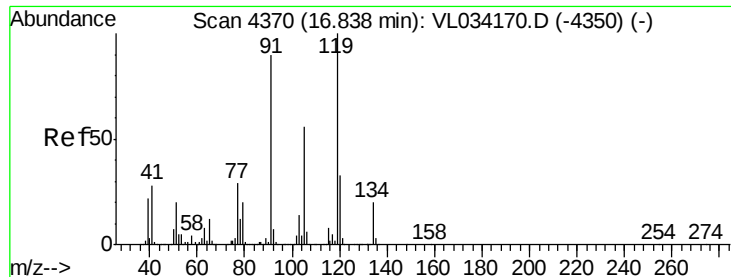
Tgt Ion: 83 Resp: 19913  
 Ion Ratio Lower Upper  
 83 100  
 131 7.1 4.3 12.8  
 85 56.5 32.8 98.4



#64  
 n-propylbenzene  
 Concen: 0.249 ppbv  
 RT: 15.65 min Scan# 4000  
 Delta R.T. -0.01 min  
 Lab File: VL034268.D  
 Acq: 9 Oct 2019 3:51

Tgt Ion: 120 Resp: 20275  
 Ion Ratio Lower Upper  
 120 100  
 91 1210.7 378.2 567.2#





#65

tert-Butylbenzene

Concen: 0.048 ppbv

RT: 16.85 min Scan# 4373

Delta R.T. 0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

SV1

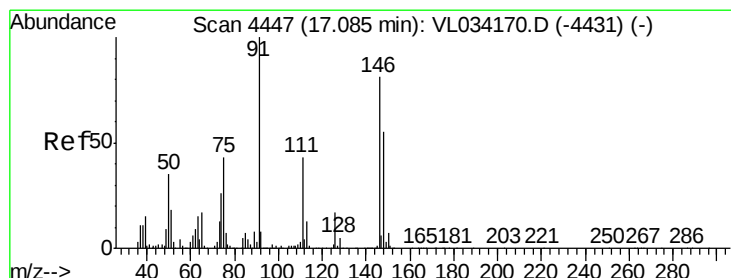
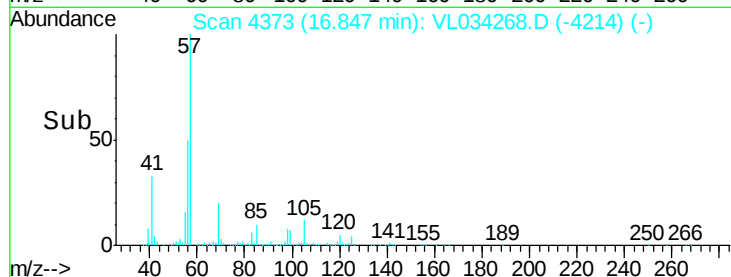
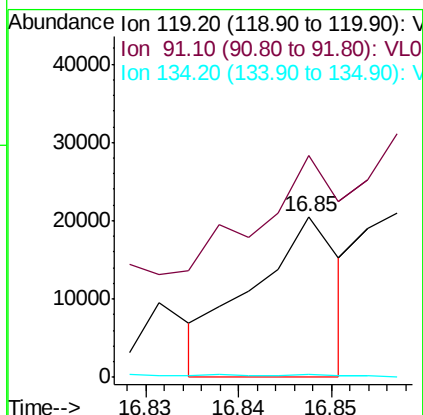
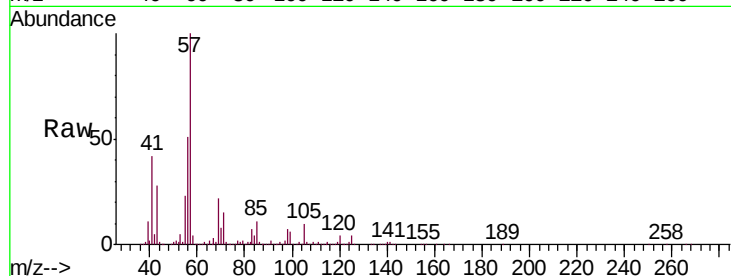
Tgt Ion: 119 Resp: 13440

Ion Ratio Lower Upper

119 100

91 0.0 74.9 112.3#

134 0.0 15.8 23.6#



#66

Benzyl Chloride

Concen: 0.039 ppbv

RT: 17.09 min Scan# 4448

Delta R.T. 0.00 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

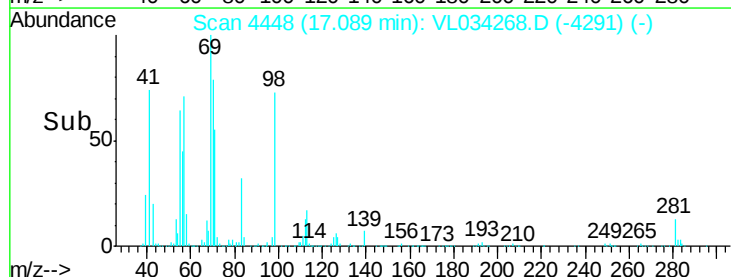
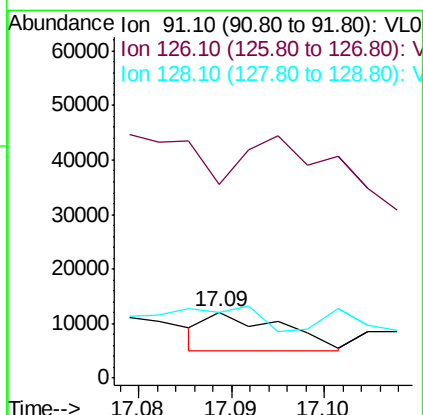
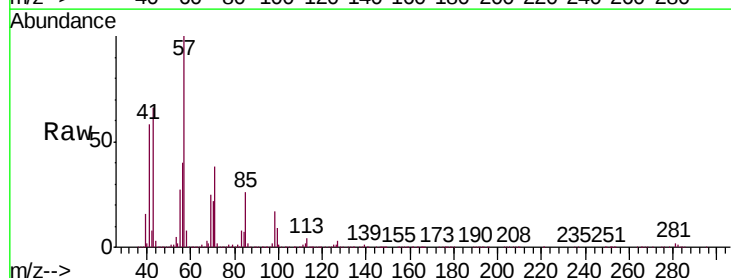
Tgt Ion: 91 Resp: 3920

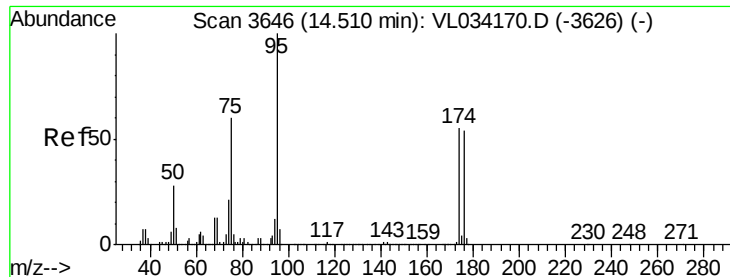
Ion Ratio Lower Upper

91 100

126 0.0 12.6 19.0#

128 1298.9 4.0 6.0#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.636 ppbv

RT: 14.50 min Scan# 3644

Delta R.T. -0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

Instrument :

MSVOA\_L

ClientSampleId :

SV1

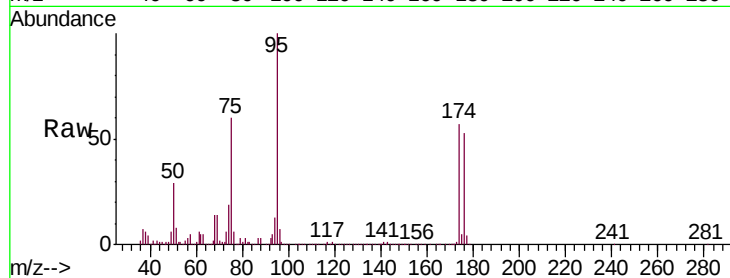
Tgt Ion: 95 Resp: 1719251

Ion Ratio Lower Upper

95 100

174 57.3 45.1 67.7

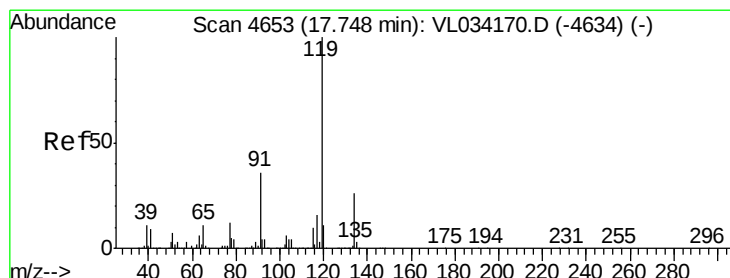
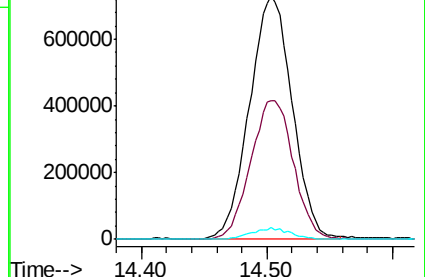
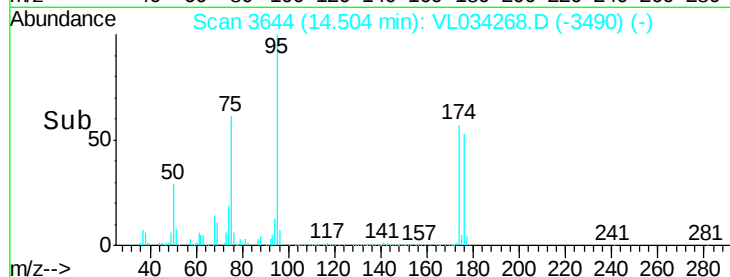
175 4.3 3.3 4.9



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#69

p-Isopropyltoluene

Concen: 0.285 ppbv

RT: 17.76 min Scan# 4656

Delta R.T. 0.01 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

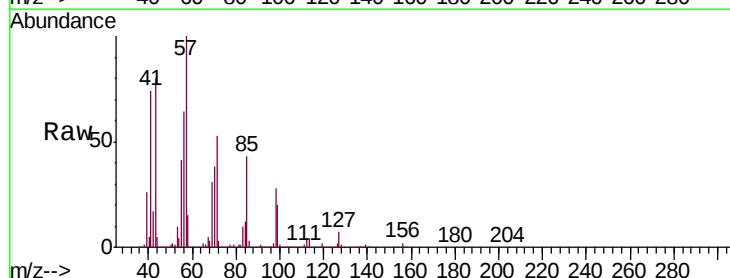
Tgt Ion: 119 Resp: 92693

Ion Ratio Lower Upper

119 100

134 0.0 20.6 30.8#

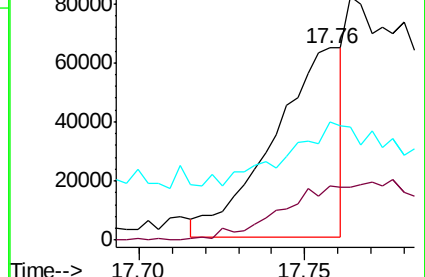
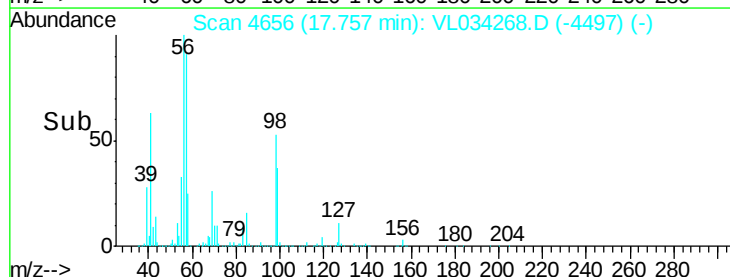
91 148.6 27.6 41.4#

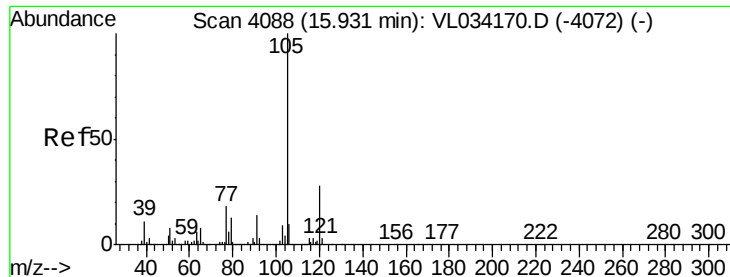


Abundance Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): VL0





#72

4-Ethyltoluene

Concen: 0.360 ppbv

RT: 15.93 min Scan# 4088

Delta R.T. 0.00 min

Lab File: VL034268.D

Acq: 9 Oct 2019 3:51

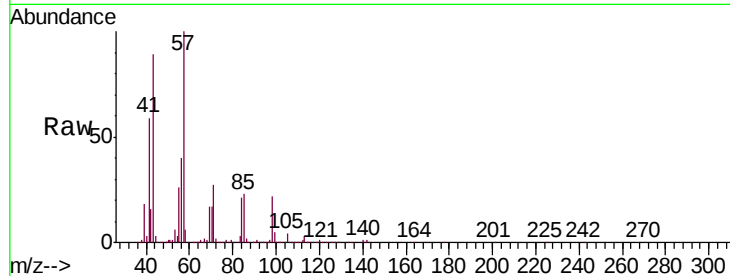
Instrument :

MSVOA\_L

ClientSampleId :

SV1

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 105   | Resp: | 101087 |
| Ion      | Ratio | Lower | Upper  |
| 105      | 100   |       |        |
| 120      | 58.9  | 23.3  | 34.9#  |
| 91       | 0.0   | 11.4  | 17.2#  |
| 77       | 70.7  | 13.3  | 19.9#  |

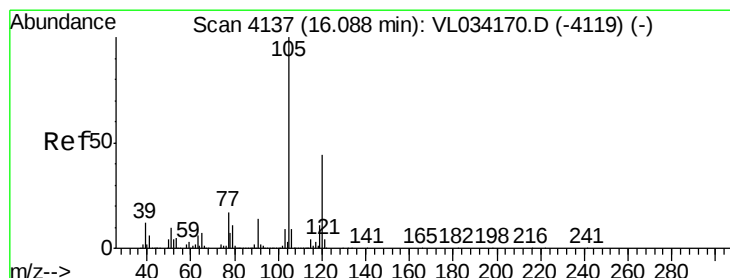
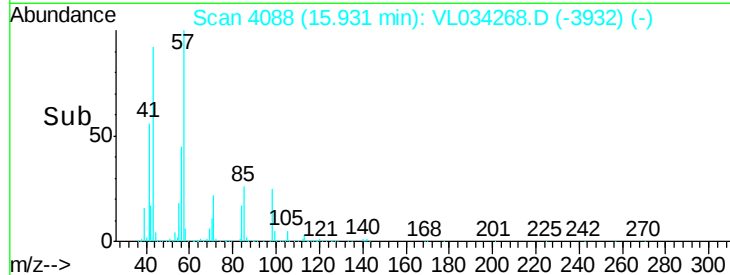
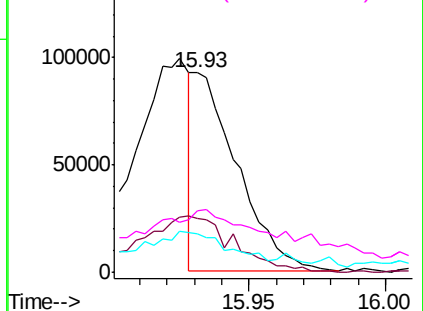


Abundance Ion 105.10 (104.80 to 105.80): V

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



#73

1,3,5-Trimethylbenzene

Concen: 0.801 ppbv

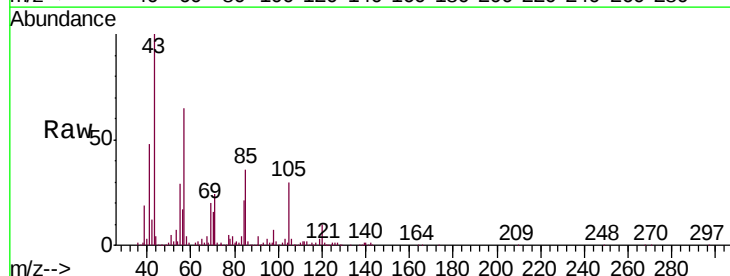
RT: 16.09 min Scan# 4137

Delta R.T. 0.00 min

Lab File: VL034268.D

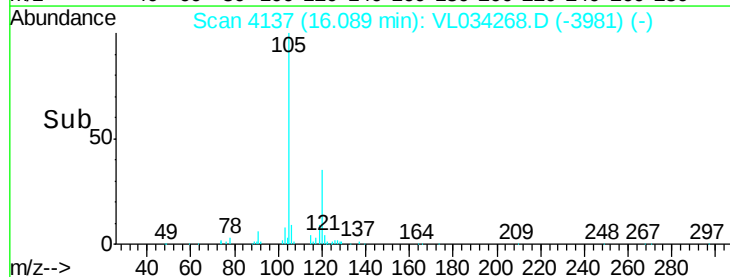
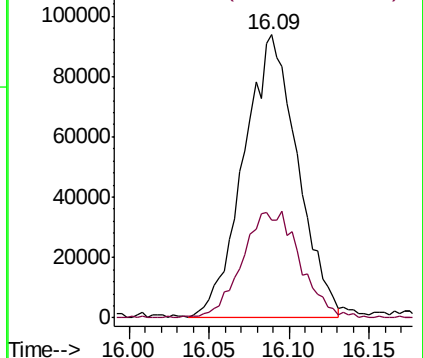
Acq: 9 Oct 2019 3:51

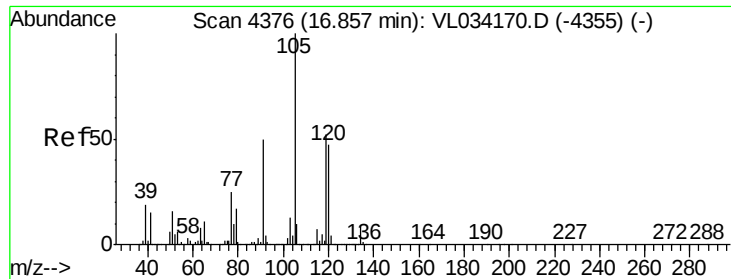
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 105   | Resp: | 217394 |
| Ion      | Ratio | Lower | Upper  |
| 105      | 100   |       |        |
| 120      | 33.9  | 35.6  | 53.4#  |



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#74  
 1,2,4-Trimethylbenzene  
 Concen: 1.806 ppbv  
 RT: 16.86 min Scan# 4376  
 Delta R.T. 0.00 min  
 Lab File: VL034268.D  
 Acq: 9 Oct 2019 3:51

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV1

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 105   | Resp: | 520280 |
| Ion      | Ratio | Lower | Upper  |
| 105      | 100   |       |        |
| 120      | 36.3  | 37.5  | 56.3#  |
| 91       | 14.4  | 41.1  | 61.7#  |
| 77       | 16.9  | 19.9  | 29.9#  |

