

Data Path : Z:\VOASRV\HPCHEM1\MSVOA R\DATA\VR101618\
 Data File : VR026107.D
 Acq On : 16 Oct 2018 18:47
 Operator : SY/MD
 Sample : J5464-02
 Misc : 25mL/MSVOA R/WATER
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 MSVOA_R
 ClientSampleId :

Quant Time: Oct 17 08:53:41 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_R\METHODS\SOMRTR101518WMA.M
 Quant Title : TRACE VOA SOM01.0
 QLast Update : Wed Oct 17 08:49:24 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	8.46	114	588300	5.00	ug/L	0.00
28) Chlorobenzene-d5	11.29	117	475767	5.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	13.22	152	168695	5.00	ug/L	0.00

System Monitoring Compounds

4) Vinyl Chloride-d3	2.17	65	933907	18.14	ug/L	0.01
Spiked Amount	5.000	Range	40 - 130	Recovery	=	362.80%#
7) Chloroethane-d5	2.63	69	223211	5.04	ug/L	0.00
Spiked Amount	5.000	Range	65 - 130	Recovery	=	100.80%
11) 1,1-Dichloroethene-d2	3.63	63	677683	5.36	ug/L	0.00
Spiked Amount	5.000	Range	60 - 125	Recovery	=	107.20%
20) 2-Butanone-d5	6.64	46	235778	55.78	ug/L	0.05
Spiked Amount	50.000	Range	40 - 130	Recovery	=	111.56%
24) Chloroform-d	7.20	84	388879	4.75	ug/L	0.00
Spiked Amount	5.000	Range	70 - 125	Recovery	=	95.00%
26) 1,2-Dichloroethane-d4	7.90	65	169602	4.98	ug/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	99.60%
32) Benzene-d6	7.85	84	793916	5.19	ug/L	0.00
Spiked Amount	5.000	Range	70 - 125	Recovery	=	103.80%
36) 1,2-Dichloropropane-d6	8.90	67	222493	5.64	ug/L	0.00
Spiked Amount	5.000	Range	60 - 140	Recovery	=	112.80%
41) Toluene-d8	9.97	98	731259	5.06	ug/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	101.20%
43) trans-1,3-Dichloropropene-	10.24	79	52961	5.12	ug/L	0.00
Spiked Amount	5.000	Range	55 - 130	Recovery	=	102.40%
46) 2-Hexanone-d5	10.59	63	176322	58.98	ug/L	0.00
Spiked Amount	50.000	Range	45 - 130	Recovery	=	117.96%
57) 1,1,2,2-Tetrachloroethane-	12.36	84	78209	5.05	ug/L	0.00
Spiked Amount	5.000	Range	65 - 120	Recovery	=	101.00%
64) 1,2-Dichlorobenzene-d4	13.51	152	134621	5.05	ug/L	0.00
Spiked Amount	5.000	Range	80 - 120	Recovery	=	101.00%

Target Compounds

					Ovalue
3) Chloromethane	2.18	50	756854	12.061 ug/L #	45
5) Vinyl chloride	2.17	62	54013597	864.021 ug/L #	42
8) Chloroethane	2.66	64	45574	1.177 ug/L #	82
12) 1,1-Dichloroethene	3.63	96	372061	6.504 ug/L	94
13) Acetone	3.70	43	19630	4.492 ug/L	65
14) Carbon disulfide	3.94	76	19514	0.130 ug/L	99
15) Methyl Acetate	4.25	43	15530	1.360 ug/L #	53
17) Methyl tert-butyl Ether	4.88	73	12644	0.243 ug/L #	1
18) trans-1,2-Dichloroethene	4.88	96	665381	15.380 ug/L	95
21) 2-Butanone	6.72	43	8187	1.624 ug/L #	51
22) cis-1,2-Dichloroethene	6.67	96	29433341	719.213 ug/L #	64
25) Chloroform	7.22	83	6316	0.080 ug/L	89
30) Cyclohexane	7.53	56	72169	1.106 ug/L #	91
33) Benzene	7.91	78	1670895	9.360 ug/L	100
34) Trichloroethene	8.71	95	7877070	172.393 ug/L	89
35) Methylcyclohexane	8.95	83	29883	0.439 ug/L #	78
37) 1,2-Dichloropropane	8.90	63	25836	0.686 ug/L #	92

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Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

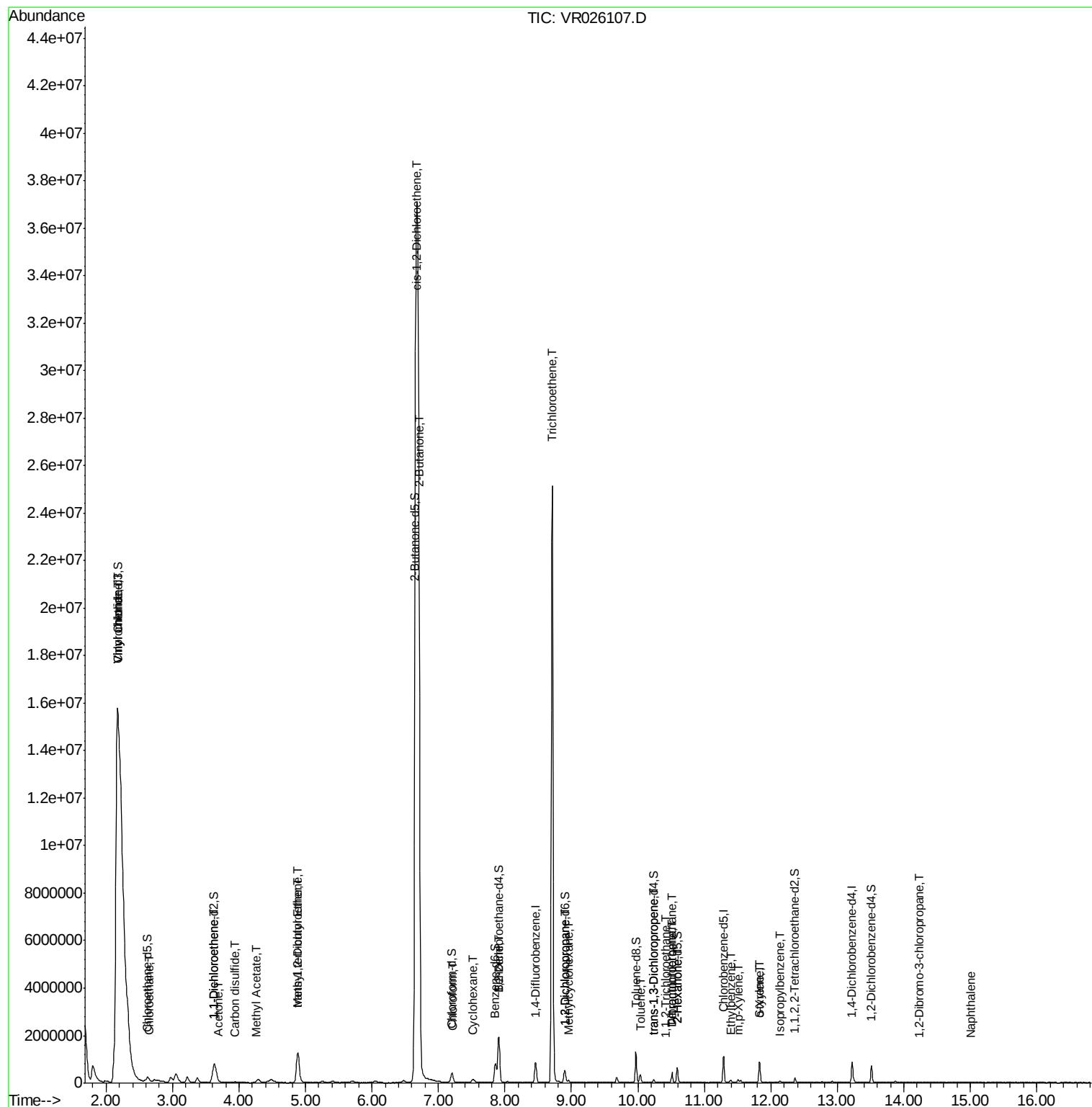
42) Toluene	10.04	91	208839	1.108	ug/L	94
44) trans-1,3-Dichloropropene	10.23	75	2966	0.098	ug/L	84
45) 1,1,2-Trichloroethane	10.41	97	4775	0.301	ug/L #	24
47) Tetrachloroethene	10.51	164	76572	2.347	ug/L	95
48) 2-Hexanone	10.59	43	28352	3.774	ug/L #	70
49) Dibromochloromethane	10.51	129	66194	3.702	ug/L #	10
52) Ethylbenzene	11.39	91	56377	0.260	ug/L	97
53) m,p-Xylene	11.51	106	36771	0.466	ug/L	100
54) o-Xylene	11.83	106	193133	2.669	ug/L	99
55) Styrene	11.83	104	10123	0.091	ug/L #	1
56) Isopropylbenzene	12.13	105	39307	0.196	ug/L	96
66) 1,2-Dibromo-3-chloropropan	14.23	75	320	0.175	ug/L	86
69) Naphthalene	15.00	128	2149	0.111	ug/L #	54

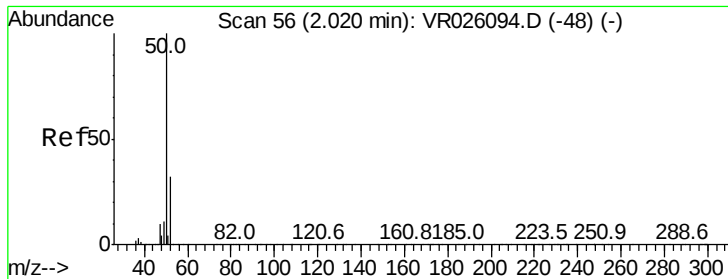
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#3

Chloromethane

Concen: 12.061 ug/L

RT: 2.18 min Scan# 82

Delta R.T. 0.16 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

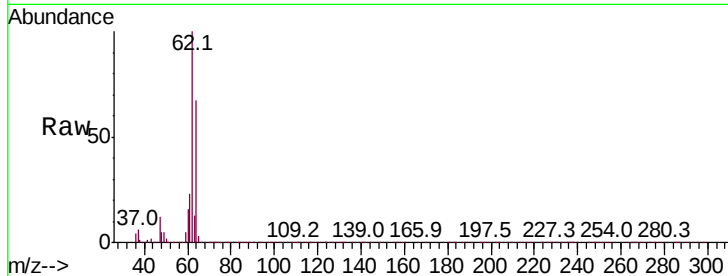
Instrument :
MSVOA_R
ClientSampled :

Tot Ion: 50 Resp: 756854

Ion Ratio Lower Upper

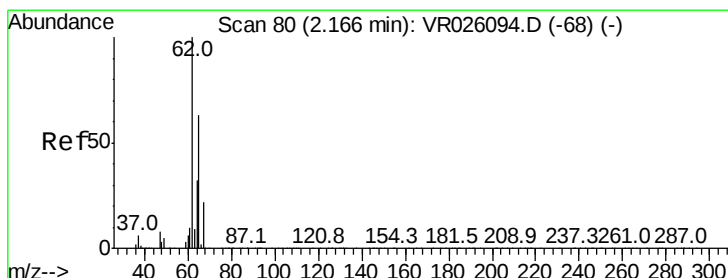
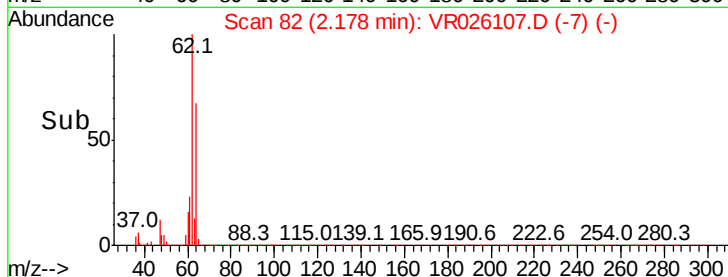
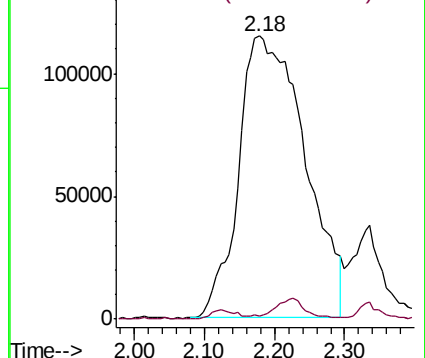
50 100

52 1.0 22.0 40.8#



Abundance Ion 50.05 (49.75 to 50.75): VR0

Ion 52.05 (51.75 to 52.75): VR0



#5

Vinyl chloride

Concen: 864.021 ug/L

RT: 2.17 min Scan# 81

Delta R.T. 0.01 min

Lab File: VR026107.D

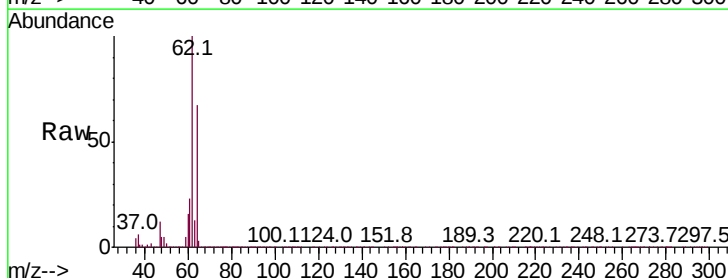
Acq: 16 Oct 2018 18:47

Tgt Ion: 62 Resp: 54013597

Ion Ratio Lower Upper

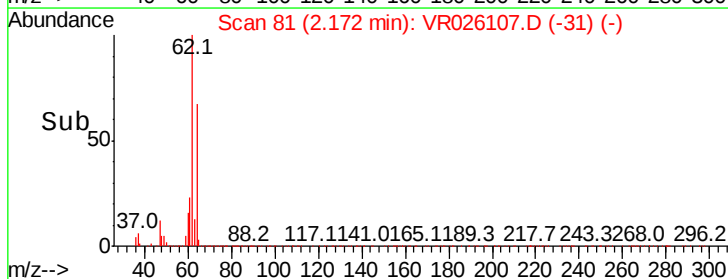
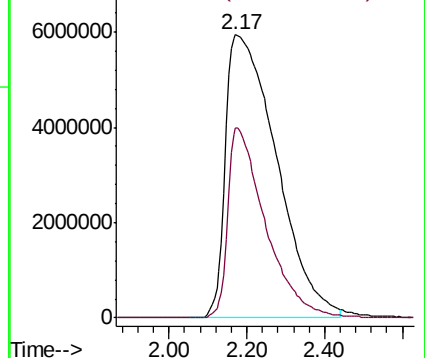
62 100

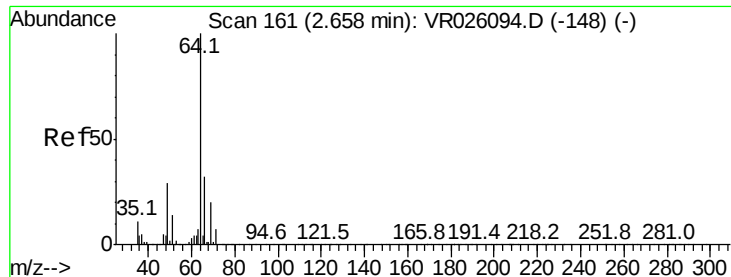
64 67.2 23.9 44.3#



Abundance Ion 62.00 (61.70 to 62.70): VR0

Ion 64.10 (63.80 to 64.80): VR0





#8

Chloroethane

Concen: 1.177 ug/L

RT: 2.66 min Scan# 161

Delta R.T. -0.00 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

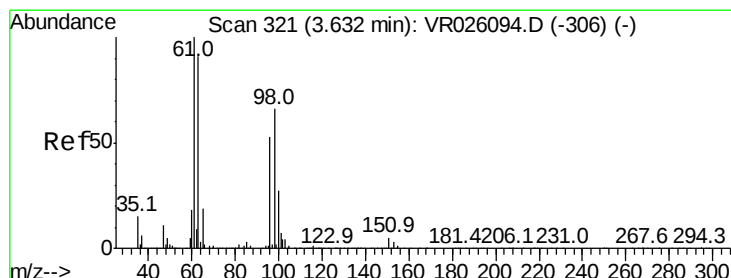
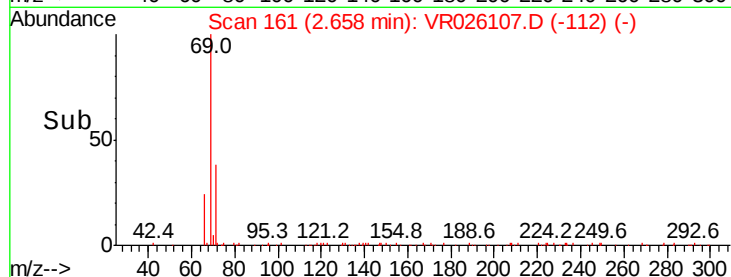
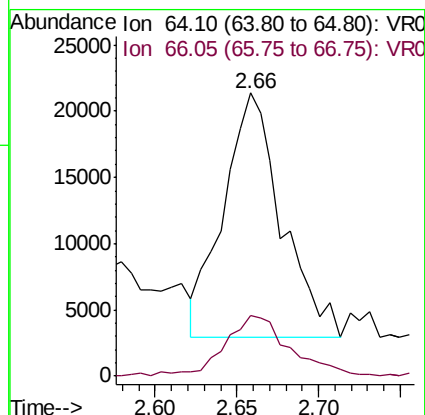
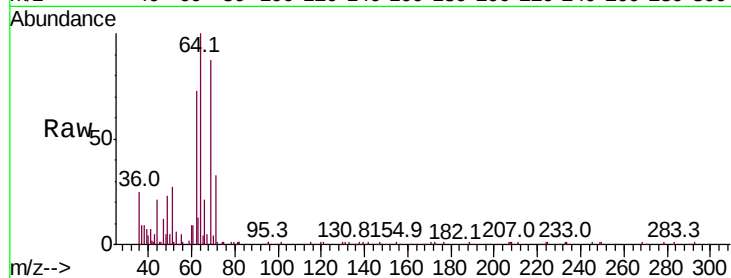
Instrument :
MSVOA_R
ClientSampled :

Tot Ion: 64 Resp: 45574

Ion Ratio Lower Upper

64 100

66 21.3 22.0 40.8#



#12

1,1-Dichloroethene

Concen: 6.504 ug/L

RT: 3.63 min Scan# 321

Delta R.T. -0.00 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

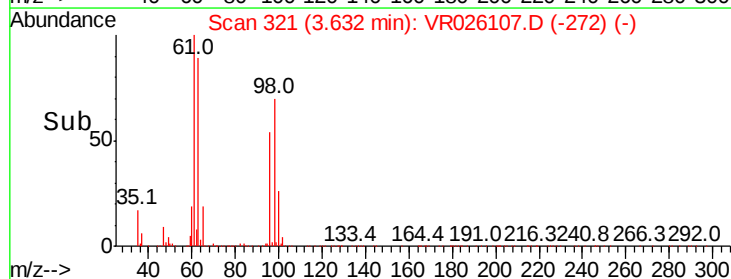
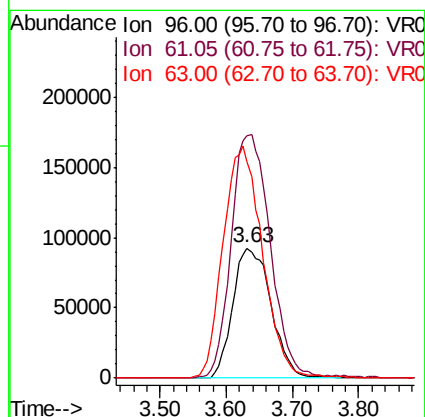
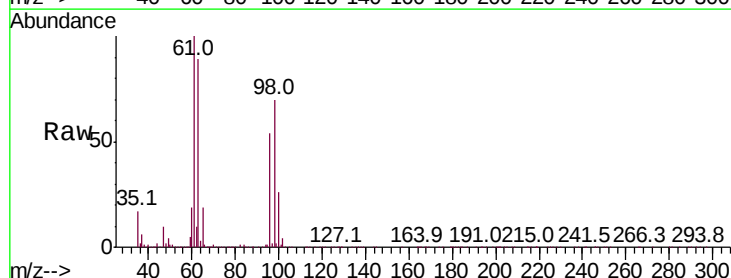
Tgt Ion: 96 Resp: 372061

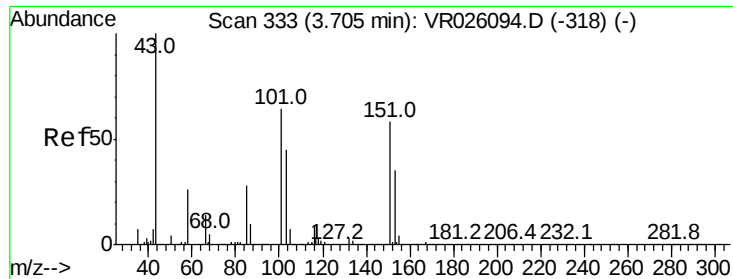
Ion Ratio Lower Upper

96 100

61 186.2 126.7 235.3

63 166.3 125.0 232.2





#13

Acetone

Concen: 4.492 ug/L

RT: 3.70 min Scan# 332

Delta R.T. -0.01 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

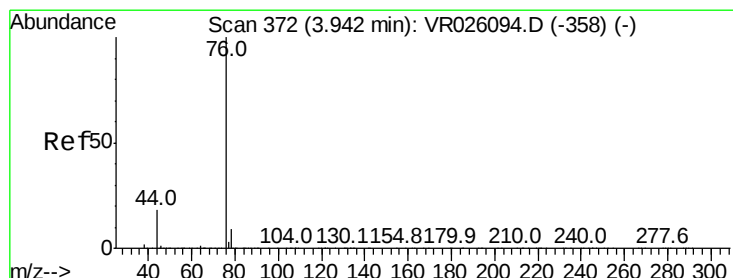
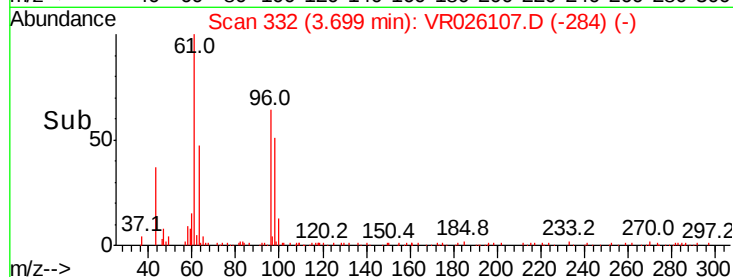
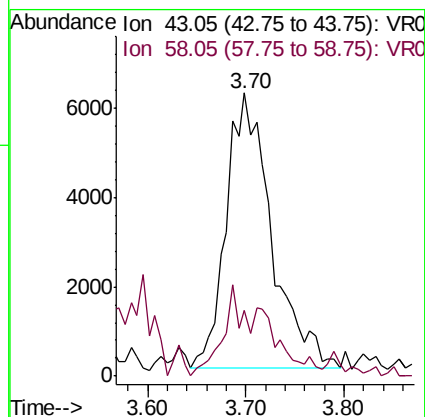
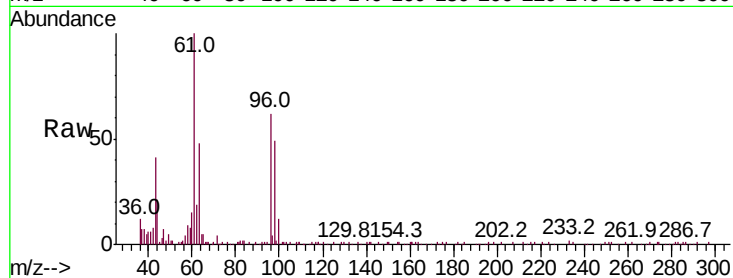
Instrument :
MSVOA_R
ClientSampleId :

Tot Ion: 43 Resp: 19630

Ion Ratio Lower Upper

43 100

58 9.3 0.0 55.4



#14

Carbon disulfide

Concen: 0.130 ug/L

RT: 3.94 min Scan# 372

Delta R.T. -0.00 min

Lab File: VR026107.D

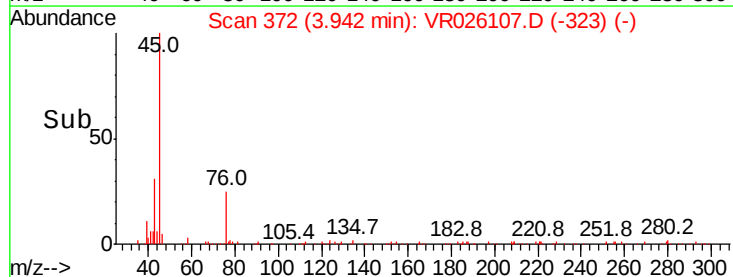
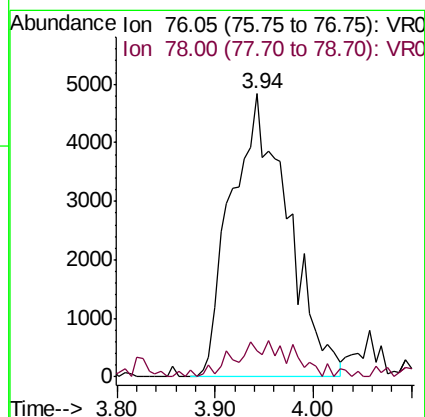
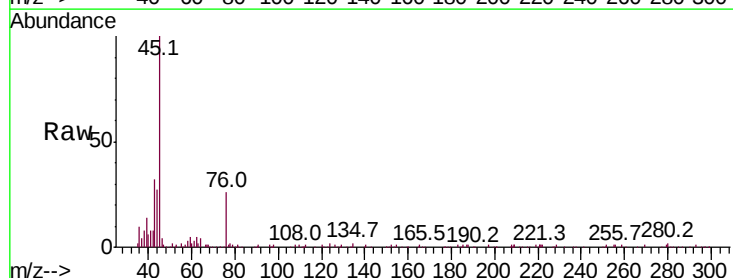
Acq: 16 Oct 2018 18:47

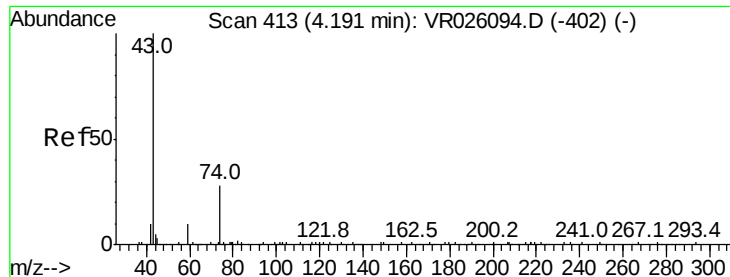
Tgt Ion: 76 Resp: 19514

Ion Ratio Lower Upper

76 100

78 9.2 7.6 11.4





#15

Methyl Acetate

Concen: 1.360 ug/L

RT: 4.25 min Scan# 423

Delta R.T. 0.06 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

Instrument :

MSVOA_R

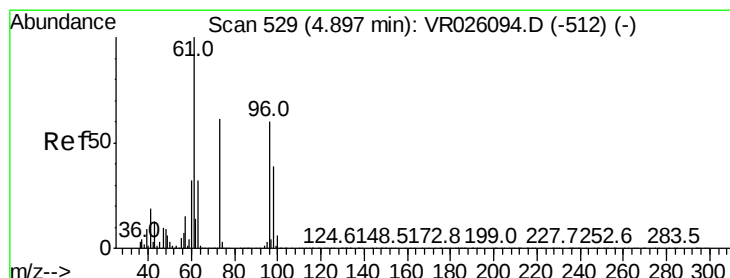
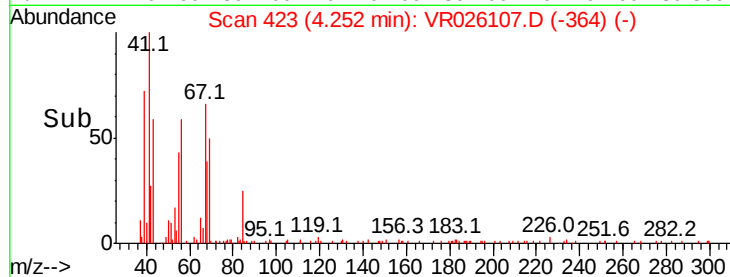
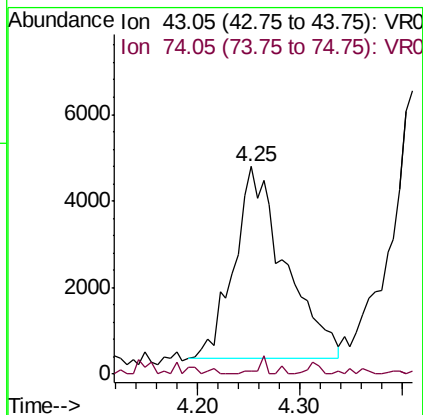
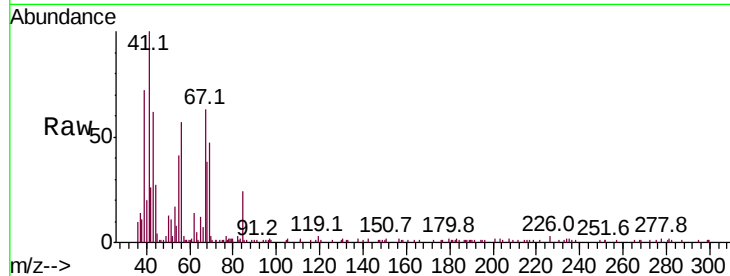
ClientSampleId :

Tot Ion: 43 Resp: 15530

Ion Ratio Lower Upper

43 100

74 1.4 19.8 29.8#



#17

Methyl tert-butyl Ether

Concen: 0.243 ug/L

RT: 4.88 min Scan# 527

Delta R.T. -0.01 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

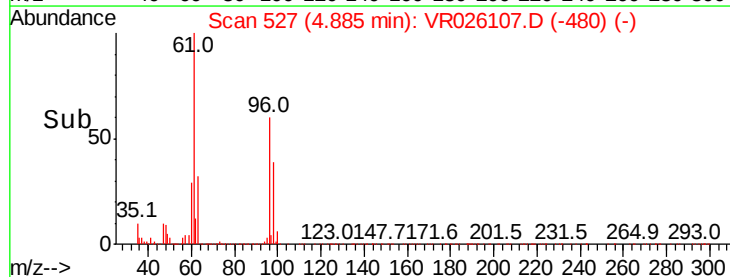
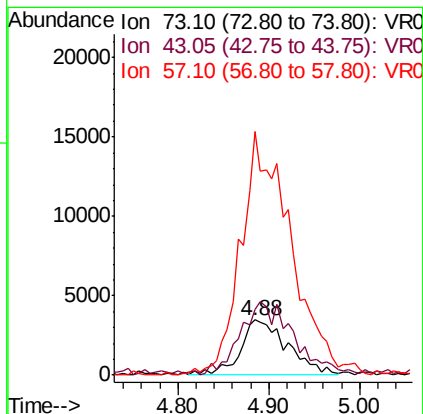
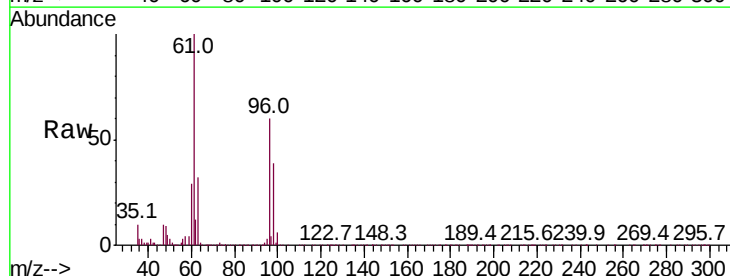
Tgt Ion: 73 Resp: 12644

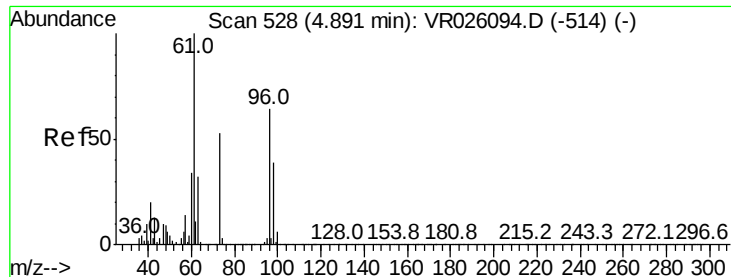
Ion Ratio Lower Upper

73 100

43 150.5 20.1 30.1#

57 459.0 19.0 28.4#

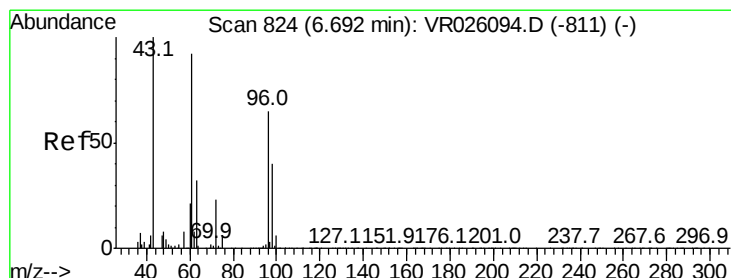
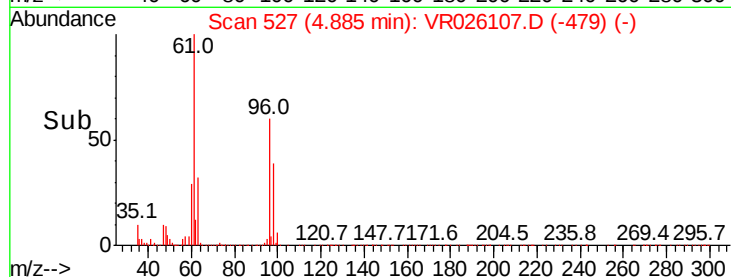
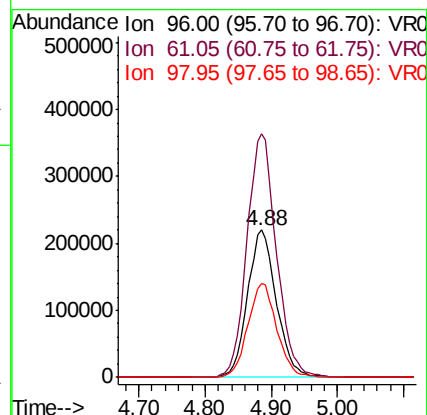
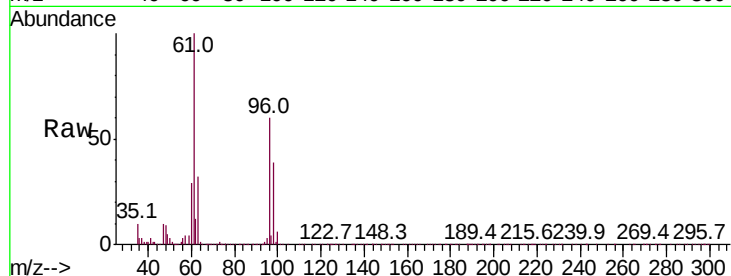




#18
trans-1,2-Dichloroethene
Concen: 15.380 ug/L
RT: 4.88 min Scan# 527
Delta R.T. -0.01 min
Lab File: VR026107.D
Acq: 16 Oct 2018 18:47

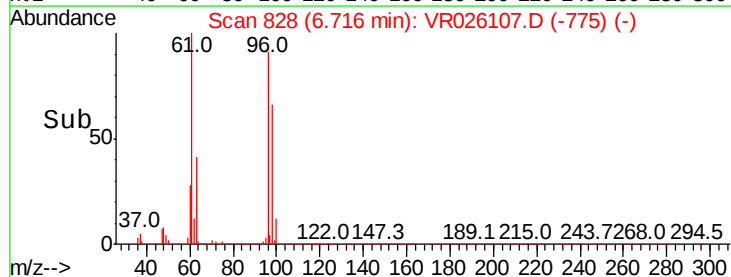
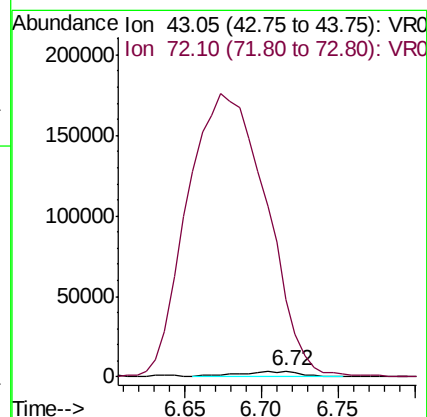
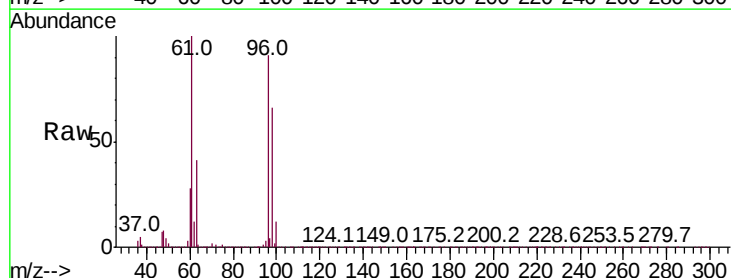
Instrument :
MSVOA_R
ClientSampled :

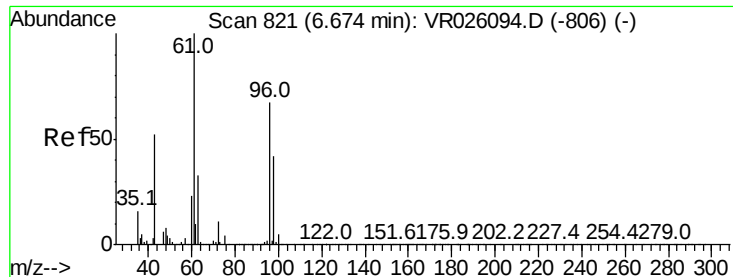
Tot Ion	Ratio	Lower	Upper
96	100		
61	165.5	111.4	206.8
98	64.1	41.4	77.0



#21
2-Butanone
Concen: 1.624 ug/L
RT: 6.72 min Scan# 828
Delta R.T. 0.02 min
Lab File: VR026107.D
Acq: 16 Oct 2018 18:47

Tgt Ion	Ratio	Lower	Upper
43	100		
72	0.0	12.3	36.8#



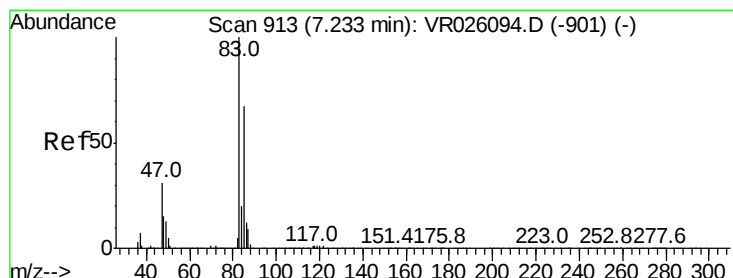
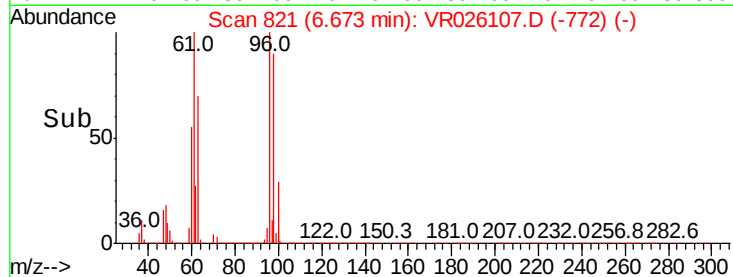
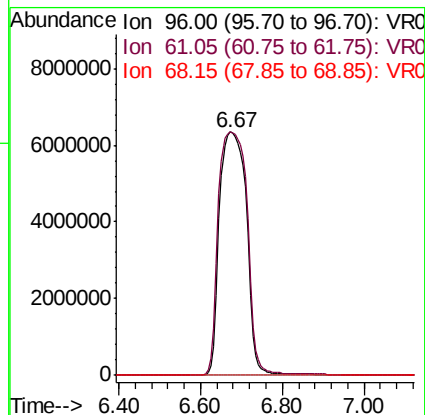
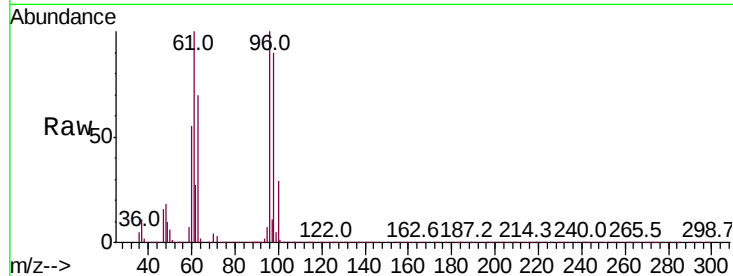


#22

cis-1,2-Dichloroethene
 Concen: 719.213 ug/L
 RT: 6.67 min Scan# 821
 Delta R.T. -0.00 min
 Lab File: VR026107.D
 Acq: 16 Oct 2018 18:47

Instrument :
 MSVOA_R
 ClientSampleId :

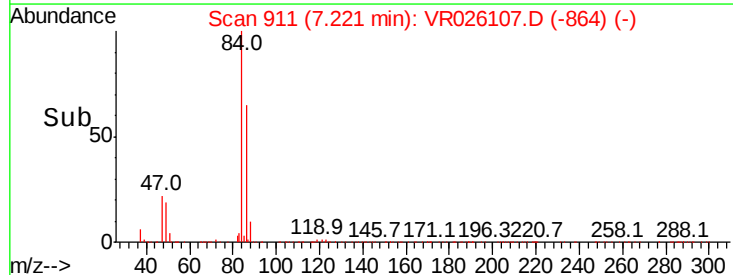
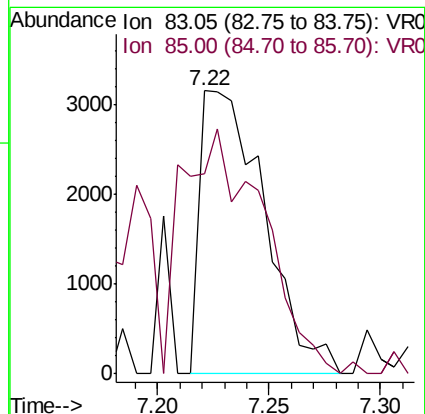
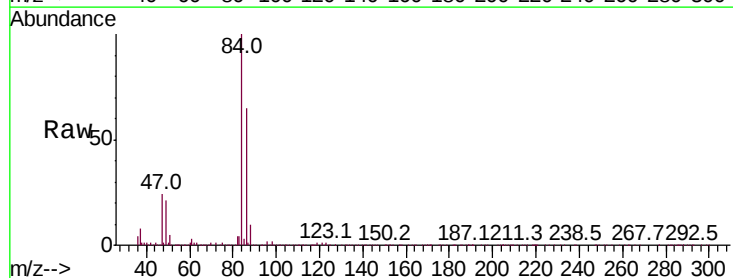
Tot Ion: 96 Resp: 29433341
 Ion Ratio Lower Upper
 96 100
 61 99.9 101.8 189.0#
 68 0.0 0.1 0.3#

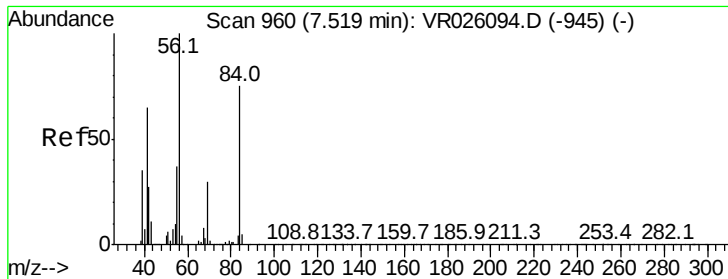


#25

Chloroform
 Concen: 0.080 ug/L
 RT: 7.22 min Scan# 911
 Delta R.T. -0.01 min
 Lab File: VR026107.D
 Acq: 16 Oct 2018 18:47

Tgt Ion: 83 Resp: 6316
 Ion Ratio Lower Upper
 83 100
 85 70.7 43.5 80.7

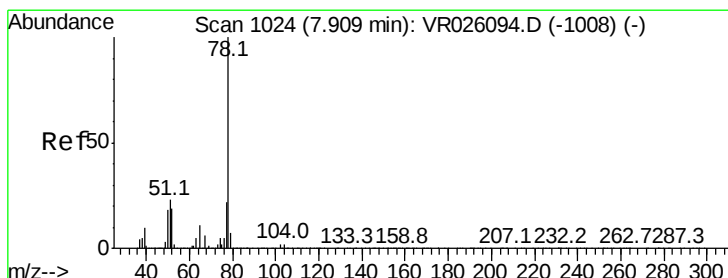
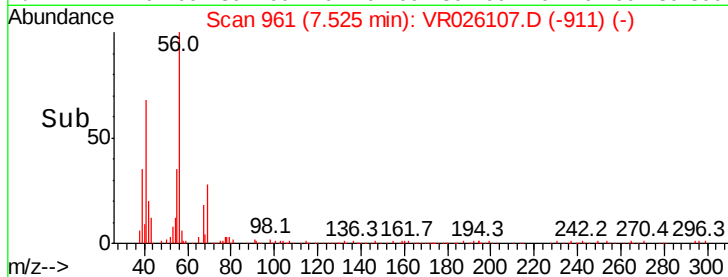
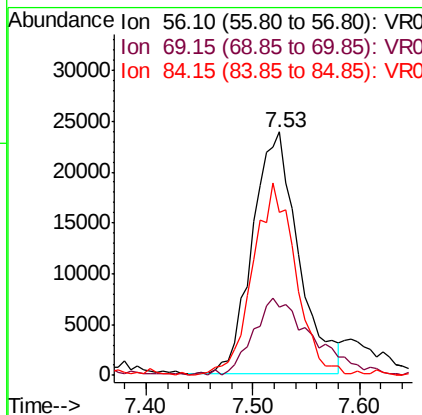
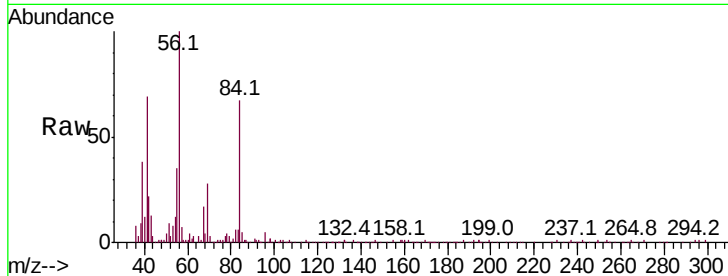




#30
Cyclohexane
Concen: 1.106 ug/L
RT: 7.53 min Scan# 961
Delta R.T. 0.01 min
Lab File: VR026107.D
Acq: 16 Oct 2018 18:47

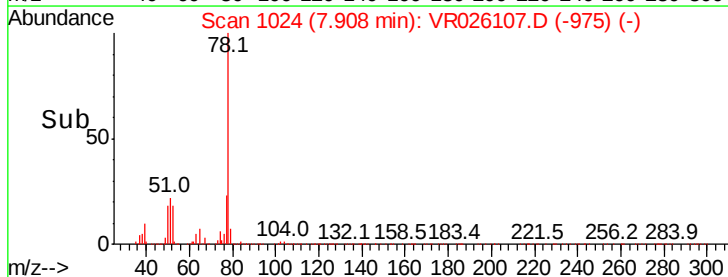
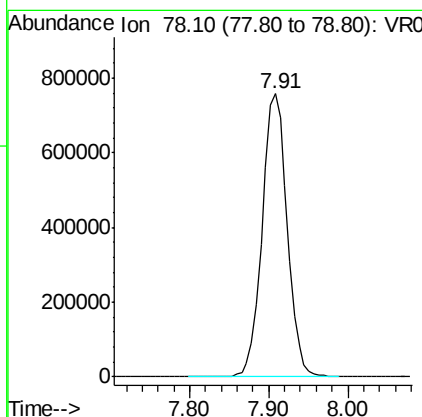
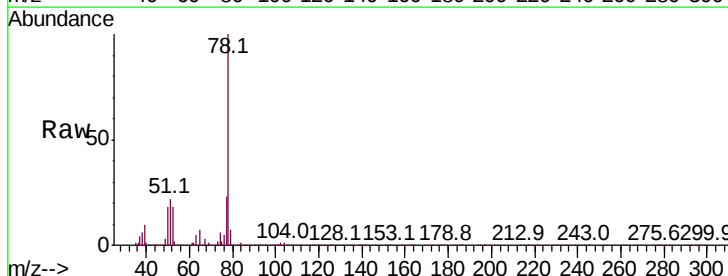
Instrument :
MSVOA_R
ClientSampleId :

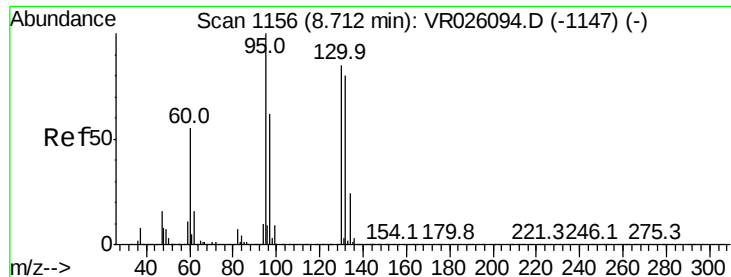
Tot Ion: 56 Resp: 72169
Ion Ratio Lower Upper
56 100
69 39.7 23.8 35.8#
84 73.0 62.2 93.4



#33
Benzene
Concen: 9.360 ug/L
RT: 7.91 min Scan# 1024
Delta R.T. -0.00 min
Lab File: VR026107.D
Acq: 16 Oct 2018 18:47

Tgt Ion: 78 Resp: 1670895





#34

Trichloroethene

Concen: 172.393 ug/L

RT: 8.71 min Scan# 1156

Delta R.T. -0.00 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

Instrument :

MSVOA_R

ClientSampleId :

Tot Ion: 95 Resp: 7877070

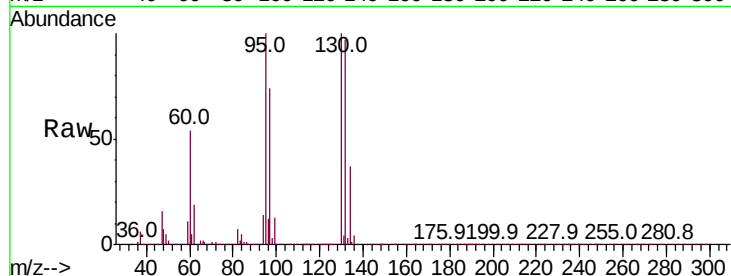
Ion Ratio Lower Upper

95 100

97 73.7 45.7 84.9

132 96.8 58.3 108.3

130 99.8 64.0 119.0

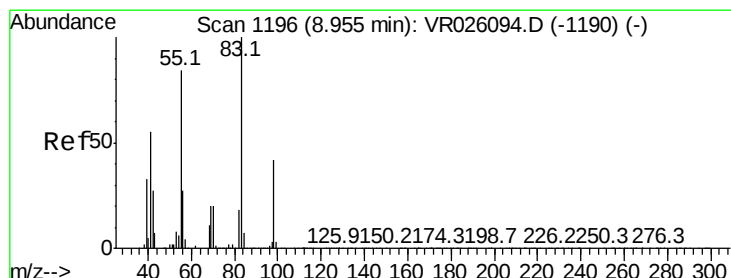
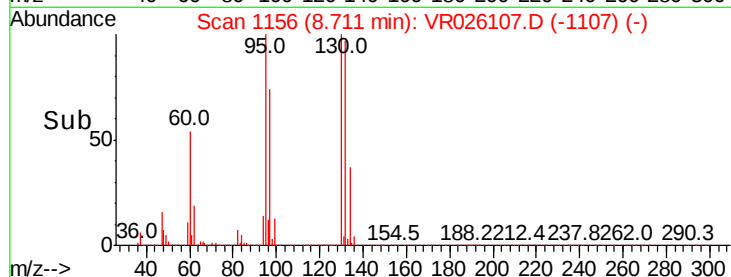
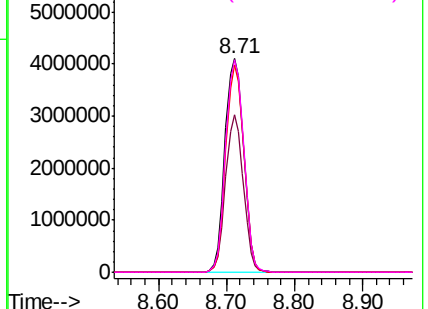


Abundance Ion 95.00 (94.70 to 95.70): VR0

Ion 96.95 (96.65 to 97.65): VR0

Ion 131.95 (131.65 to 132.65): V

Ion 129.95 (129.65 to 130.65): V



#35

Methylcyclohexane

Concen: 0.439 ug/L

RT: 8.95 min Scan# 1196

Delta R.T. -0.00 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

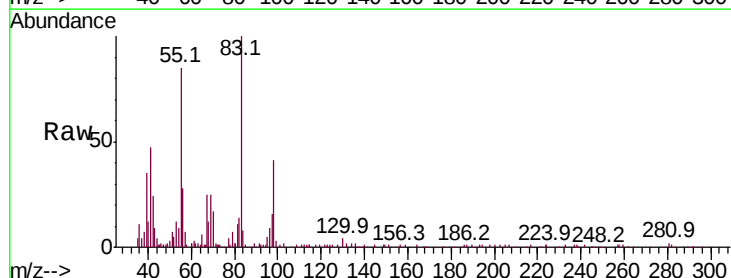
Tgt Ion: 83 Resp: 29883

Ion Ratio Lower Upper

83 100

55 111.3 66.8 100.2#

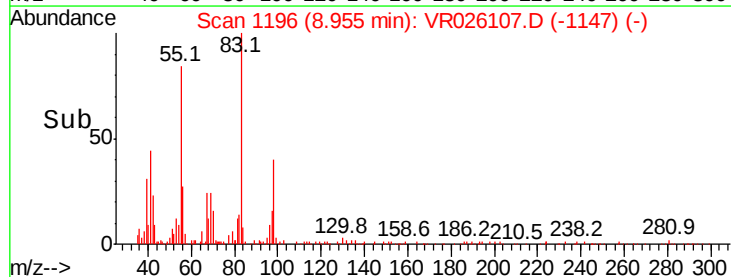
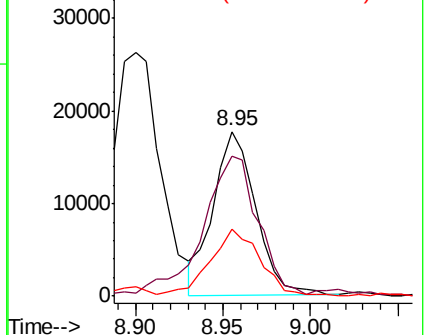
98 47.2 35.2 52.8

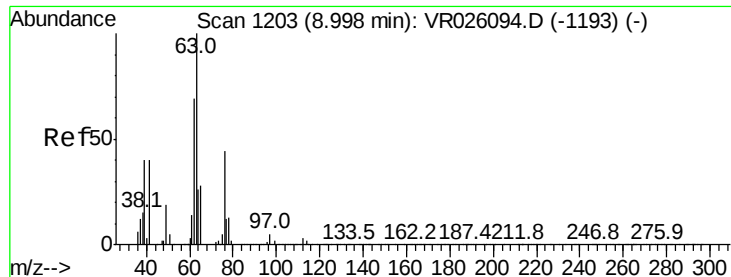


Abundance Ion 83.15 (82.85 to 83.85): VR0

Ion 55.10 (54.80 to 55.80): VR0

Ion 98.15 (97.85 to 98.85): VR0





#37

1,2-Dichloropropane

Concen: 0.686 ug/L

RT: 8.90 min Scan# 1187

Delta R.T. -0.10 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

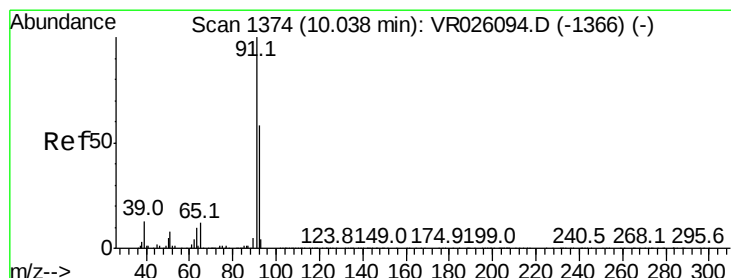
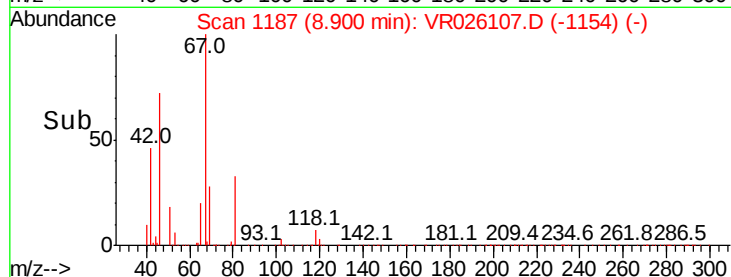
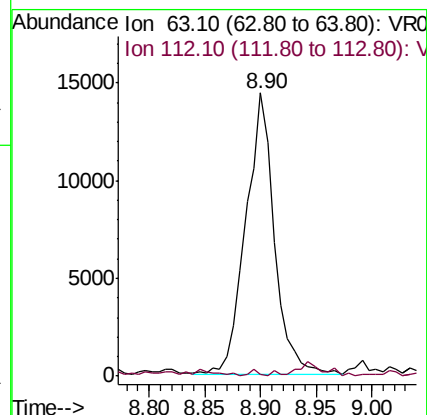
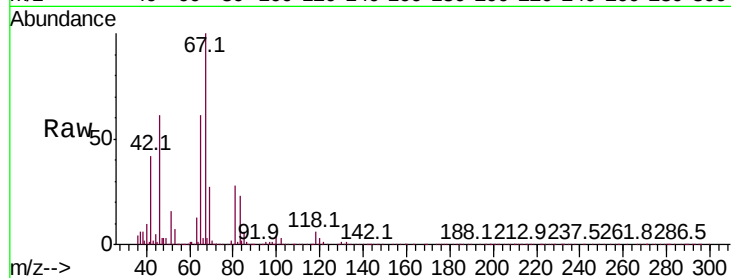
Instrument :
MSVOA_R
ClientSampleId :

Tot Ion: 63 Resp: 25836

Ion Ratio Lower Upper

63 100

112 0.8 2.7 4.1#



#42

Toluene

Concen: 1.108 ug/L

RT: 10.04 min Scan# 1374

Delta R.T. -0.00 min

Lab File: VR026107.D

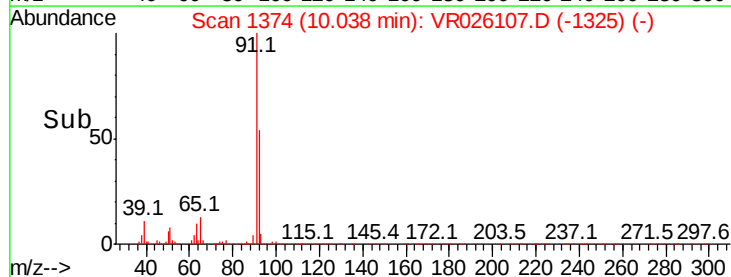
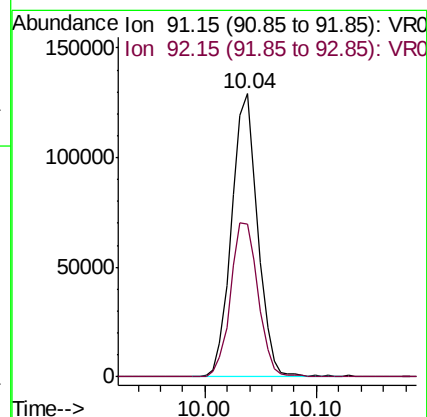
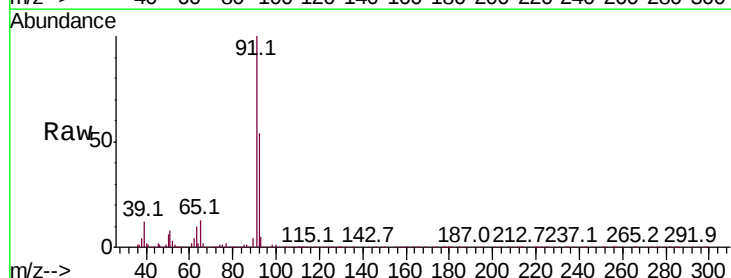
Acq: 16 Oct 2018 18:47

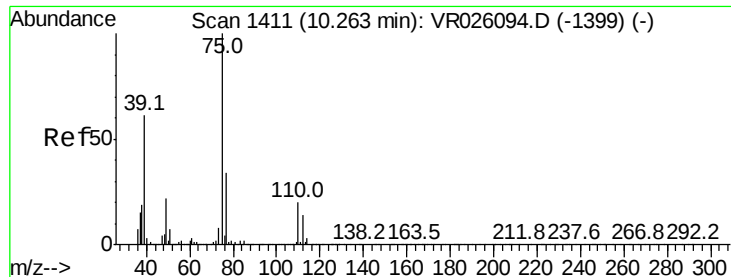
Tgt Ion: 91 Resp: 208839

Ion Ratio Lower Upper

91 100

92 54.0 40.8 75.8





#44

trans-1,3-Dichloropropene

Concen: 0.098 ug/L

RT: 10.23 min Scan# 1406

Delta R.T. -0.03 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

Instrument :

MSVOA_R

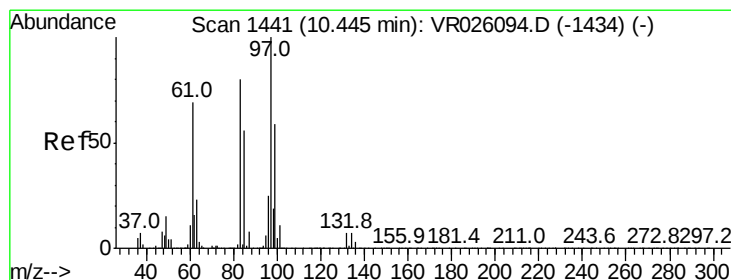
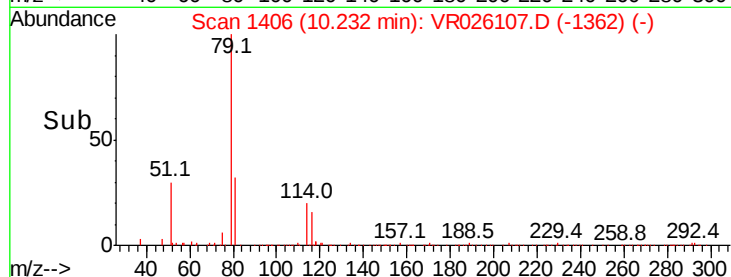
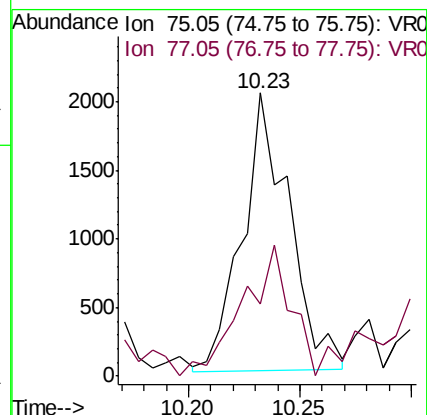
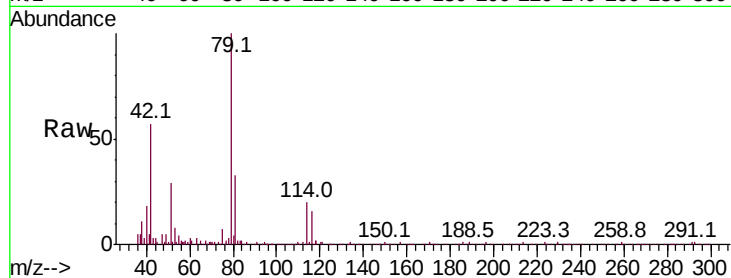
ClientSampleId :

Tot Ion: 75 Resp: 2966

Ion Ratio Lower Upper

75 100

77 25.4 24.1 44.7



#45

1,1,2-Trichloroethane

Concen: 0.301 ug/L

RT: 10.41 min Scan# 1435

Delta R.T. -0.04 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

Tgt Ion: 97 Resp: 4775

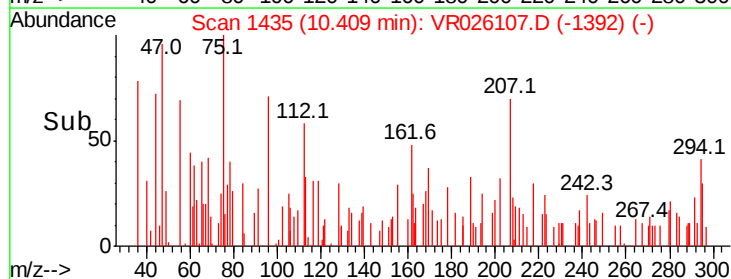
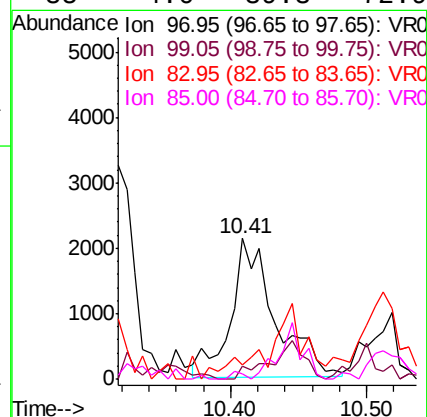
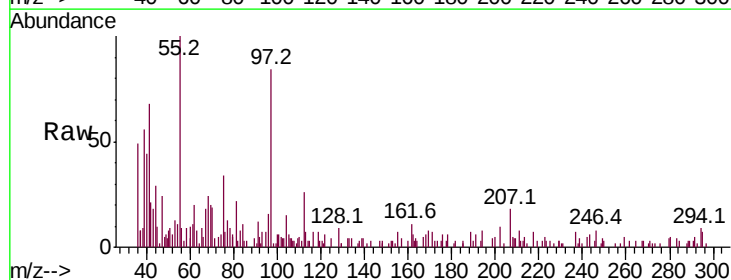
Ion Ratio Lower Upper

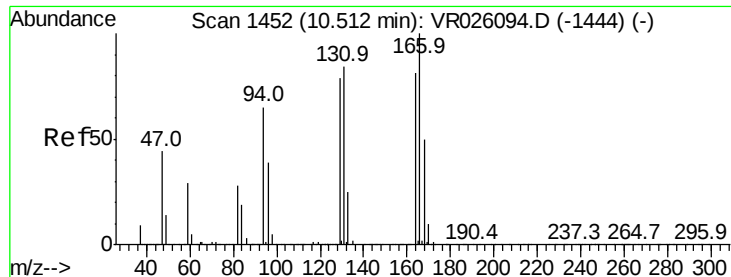
97 100

99 9.6 42.8 79.4#

83 10.1 61.9 114.9#

85 4.0 39.3 72.9#





#47

Tetrachloroethene

Concen: 2.347 ug/L

RT: 10.51 min Scan# 1452

Delta R.T. -0.00 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

Instrument :

MSVOA_R

ClientSampleId :

Tot Ion:164 Resp: 76572

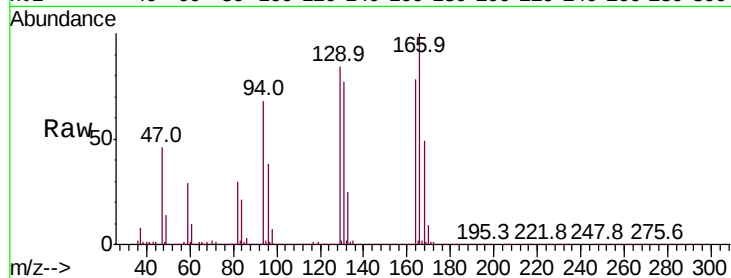
Ion Ratio Lower Upper

164 100

129 108.1 70.3 130.5

131 98.3 67.3 125.1

166 128.1 86.1 159.9

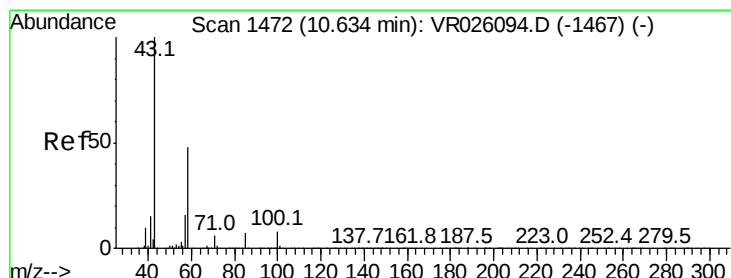
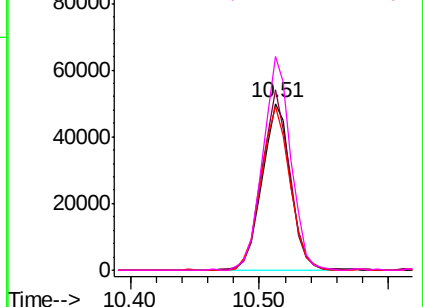
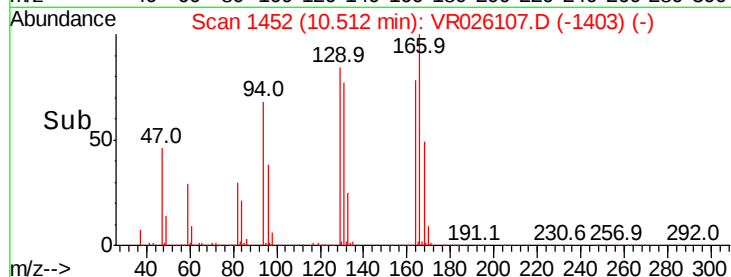


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 128.95 (128.65 to 129.65): V

Ion 130.95 (130.65 to 131.65): V

Ion 165.90 (165.60 to 166.60): V



#48

2-Hexanone

Concen: 3.774 ug/L

RT: 10.59 min Scan# 1465

Delta R.T. -0.04 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

Tgt Ion: 43 Resp: 28352

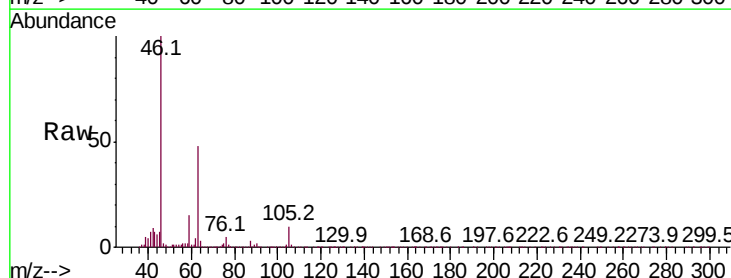
Ion Ratio Lower Upper

43 100

58 24.3 39.6 59.4#

57 24.0 14.0 21.0#

100 0.5 7.0 10.6#

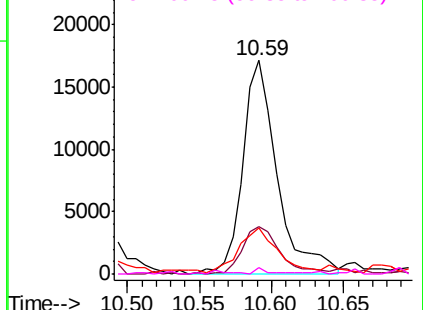
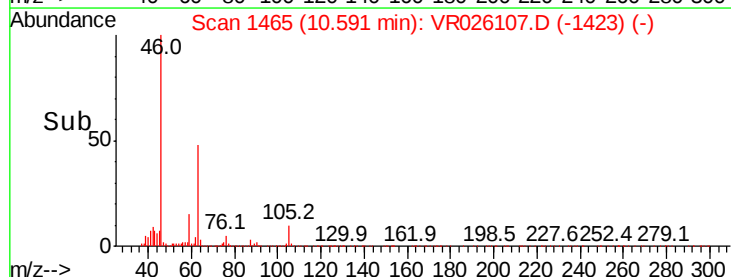


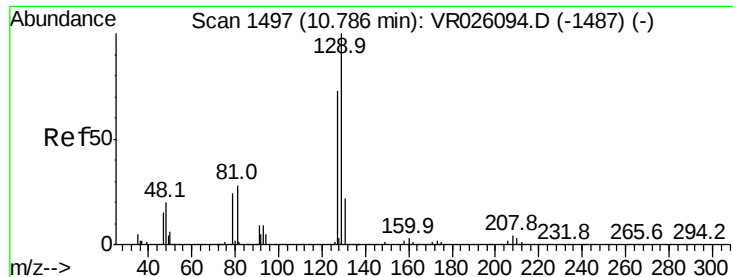
Abundance Ion 43.05 (42.75 to 43.75): VR0

Ion 58.05 (57.75 to 58.75): VR0

Ion 57.20 (56.90 to 57.90): VR0

Ion 100.15 (99.85 to 100.85): VR0





#49

Dibromochloromethane

Concen: 3.702 ug/L

RT: 10.51 min Scan# 1452

Delta R.T. -0.27 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

Instrument :

MSVOA_R

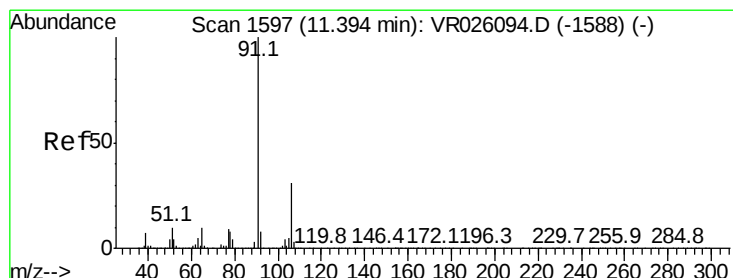
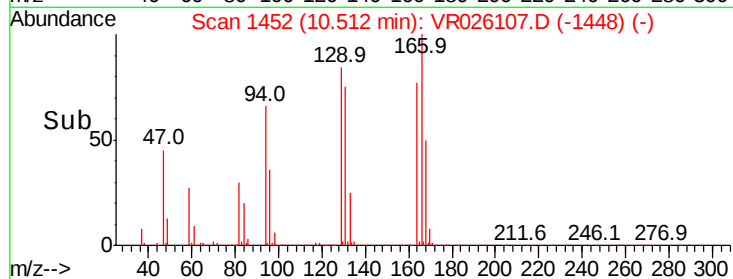
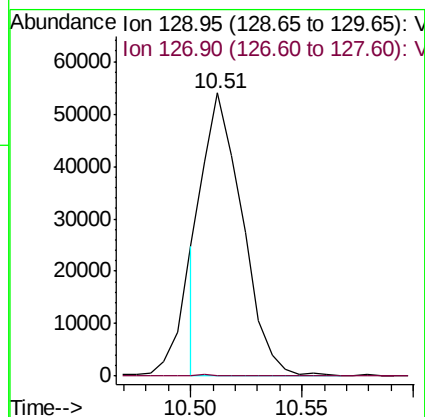
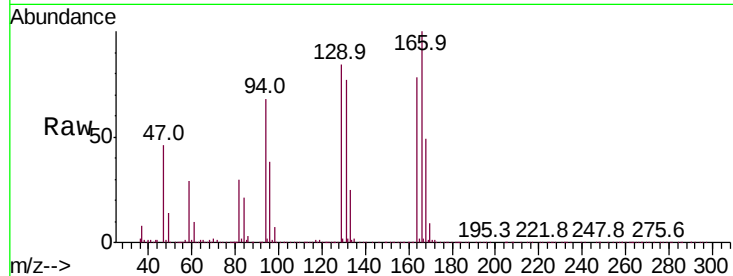
ClientSampleId :

Tot Ion:129 Resp: 66194

Ion Ratio Lower Upper

129 100

127 0.1 55.0 102.2#



#52

Ethylbenzene

Concen: 0.260 ug/L

RT: 11.39 min Scan# 1597

Delta R.T. -0.00 min

Lab File: VR026107.D

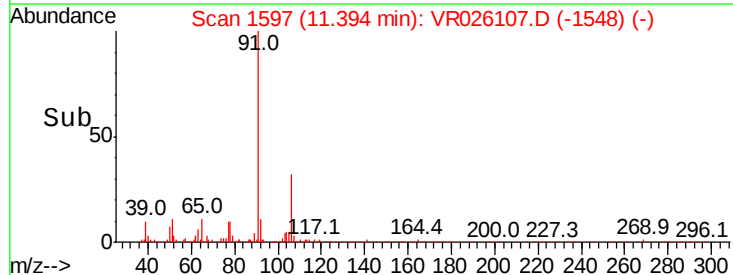
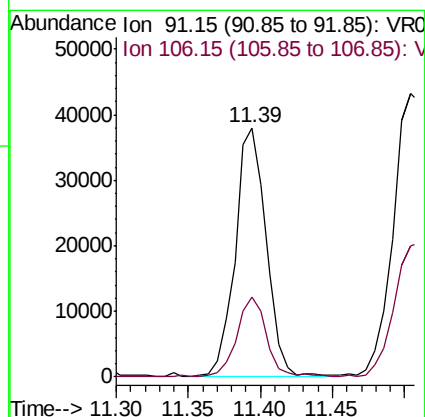
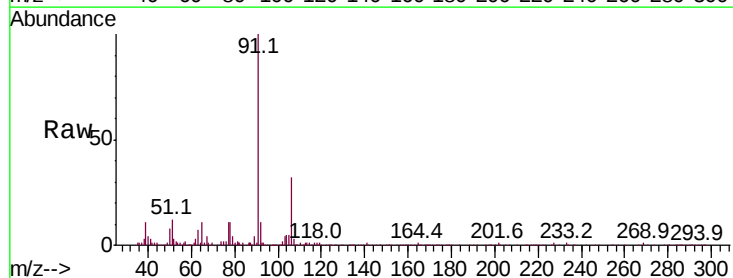
Acq: 16 Oct 2018 18:47

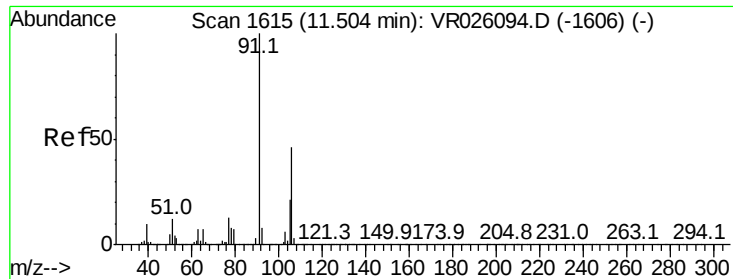
Tgt Ion: 91 Resp: 56377

Ion Ratio Lower Upper

91 100

106 32.1 21.2 39.4





#53

m,p-Xylene

Concen: 0.466 ug/L

RT: 11.51 min Scan# 1616

Delta R.T. 0.01 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

Instrument :

MSVOA_R

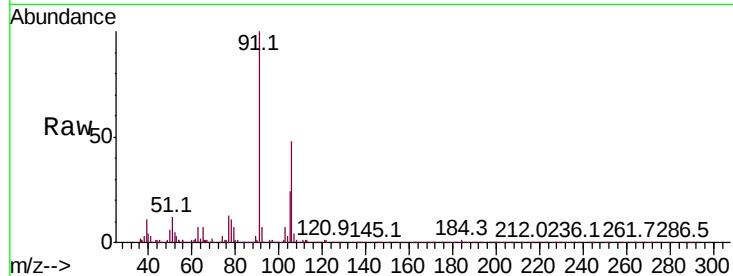
ClientSampleId :

Tot Ion:106 Resp: 36771

Ion Ratio Lower Upper

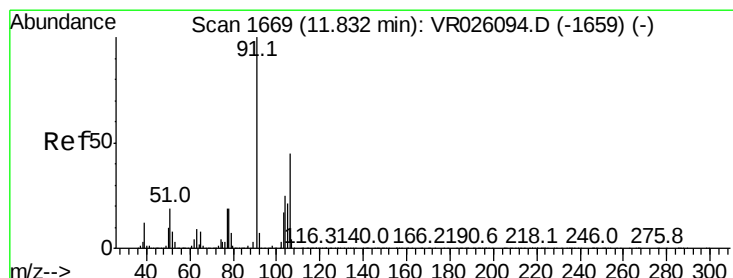
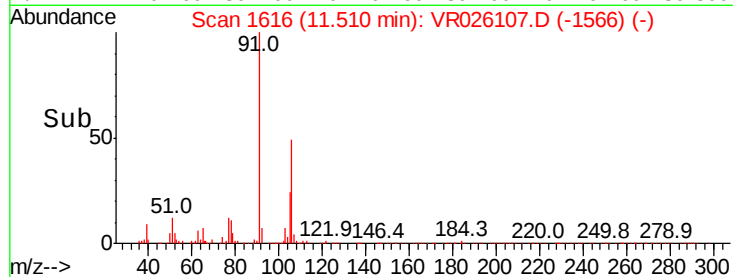
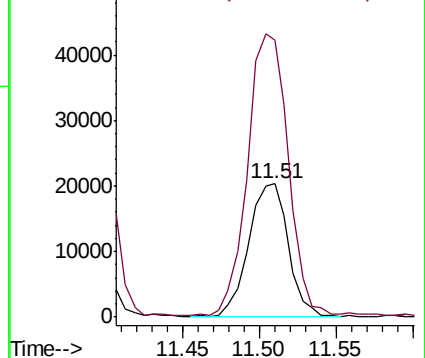
106 100

91 207.3 145.3 269.8



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VR0



#54

o-Xylene

Concen: 2.669 ug/L

RT: 11.83 min Scan# 1669

Delta R.T. -0.00 min

Lab File: VR026107.D

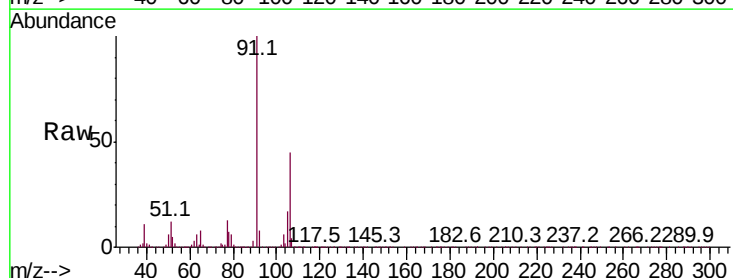
Acq: 16 Oct 2018 18:47

Tgt Ion:106 Resp: 193133

Ion Ratio Lower Upper

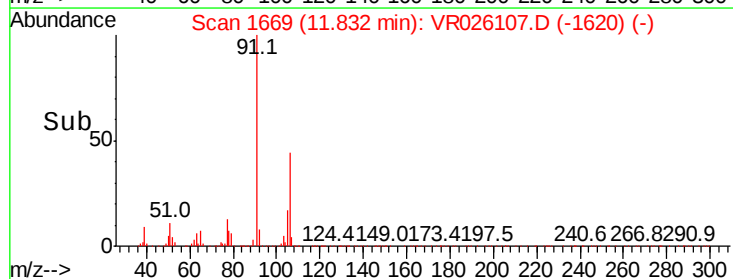
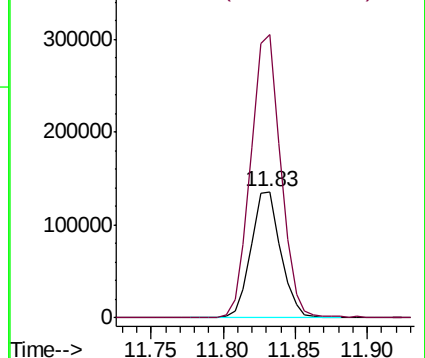
106 100

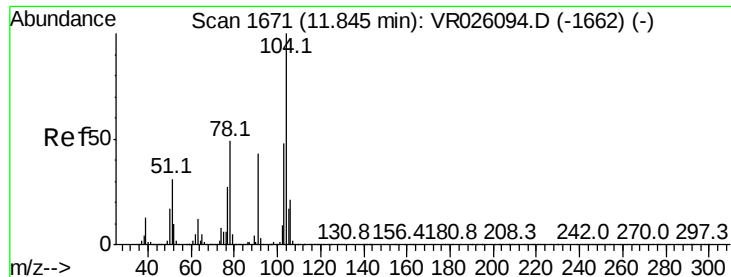
91 224.3 155.8 289.3



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VR0





#55

Stvrene

Concen: 0.091 ug/L

RT: 11.83 min Scan# 1668

Delta R.T. -0.02 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

Instrument :

MSVOA_R

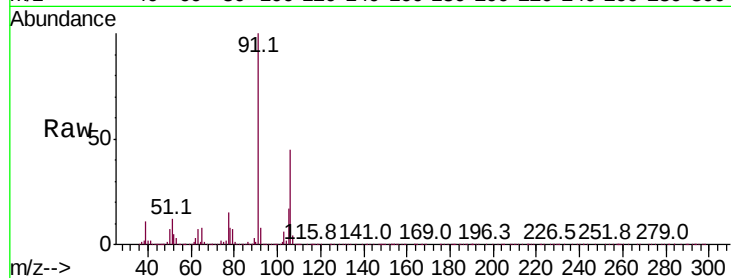
ClientSampled :

Tot Ion:104 Resp: 10123

Ion Ratio Lower Upper

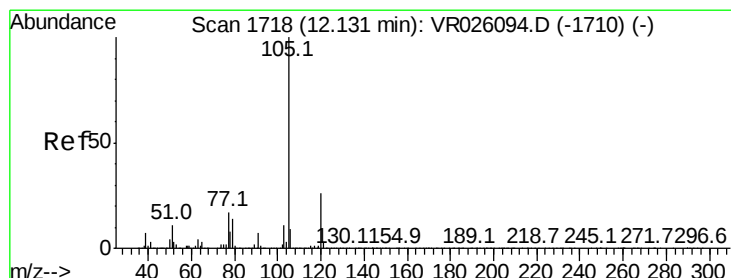
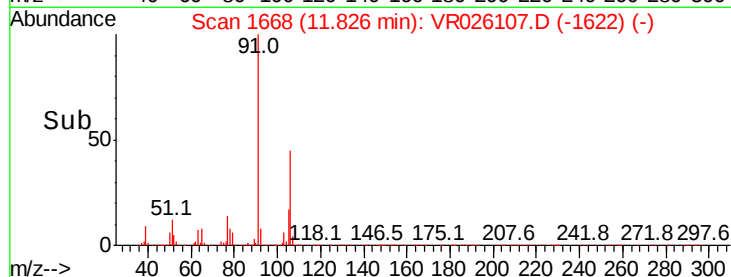
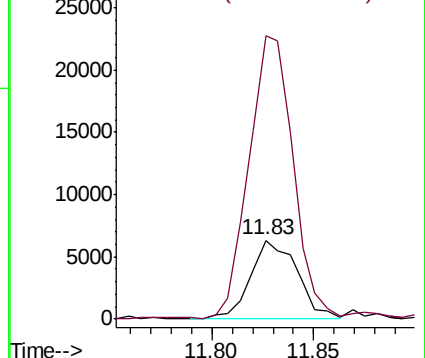
104 100

78 357.5 34.7 64.5#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VR0



#56

Isopropylbenzene

Concen: 0.196 ug/L

RT: 12.13 min Scan# 1718

Delta R.T. -0.00 min

Lab File: VR026107.D

Acq: 16 Oct 2018 18:47

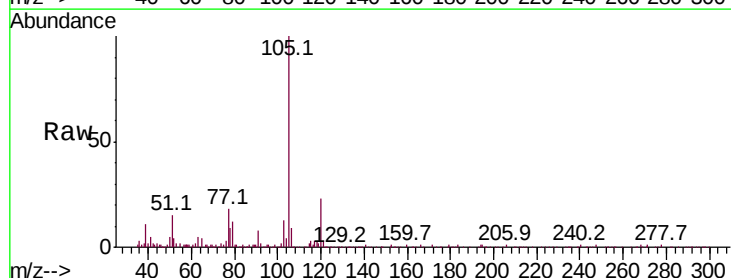
Tgt Ion:105 Resp: 39307

Ion Ratio Lower Upper

105 100

120 23.8 21.0 31.4

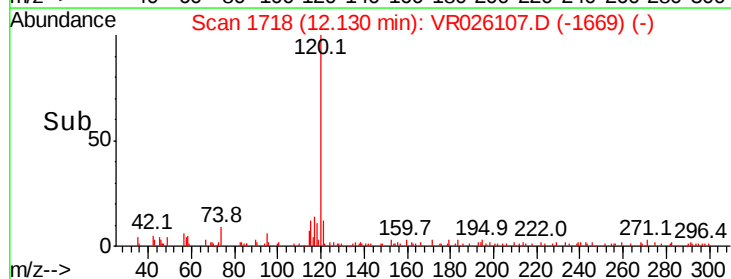
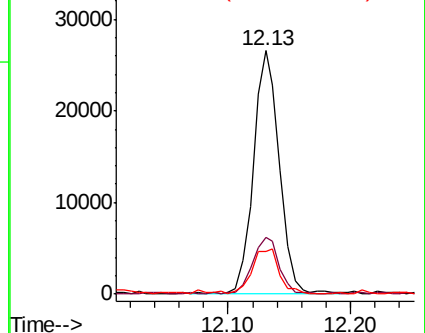
77 19.7 14.6 21.8

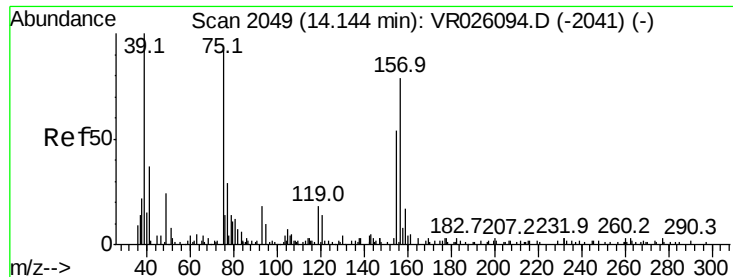


Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): VR0

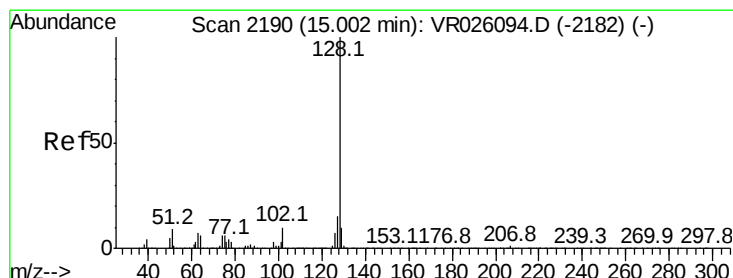
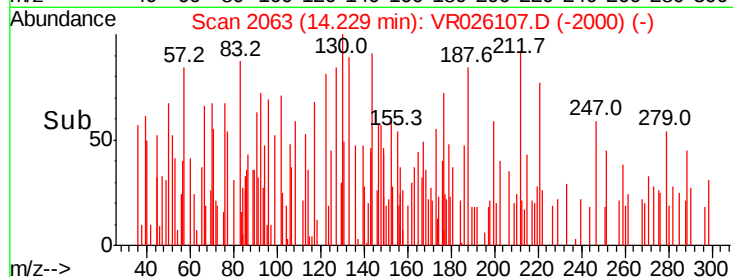
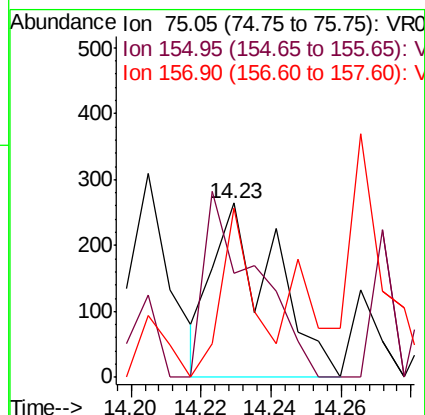
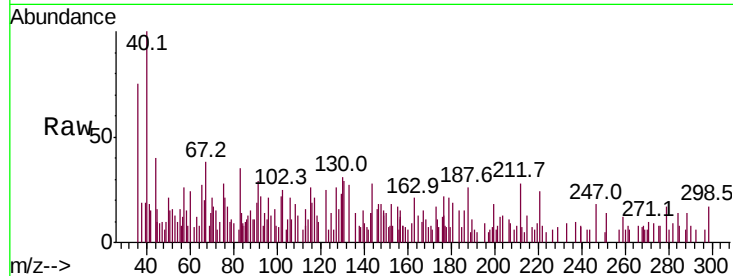




#66
 1,2-Dibromo-3-chloropropane
 Concen: 0.175 ug/L
 RT: 14.23 min Scan# 2063
 Delta R.T. 0.09 min
 Lab File: VR026107.D
 Acq: 16 Oct 2018 18:47

Instrument :
 MSVOA_R
 ClientSampleId :

Tot Ion: 75 Resp: 320
 Ion Ratio Lower Upper
 75 100
 155 59.8 40.9 61.3
 157 97.0 67.3 100.9



#69
 Naphthalene
 Concen: 0.111 ug/L
 RT: 15.00 min Scan# 2189
 Delta R.T. -0.01 min
 Lab File: VR026107.D
 Acq: 16 Oct 2018 18:47

Tgt Ion:128 Resp: 2149
 Ion Ratio Lower Upper
 128 100
 127 46.3 11.0 16.6#
 129 13.4 9.1 13.7

