

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121919\
 Data File : VX014119.D
 Acq On : 19 Dec 2019 14:28
 Operator : JC/SP
 Sample : K6373-01
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 391218757.2

Quant Time: Dec 20 11:46:11 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X121219W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Dec 13 01:35:34 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.00	128	83494	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	6.85	114	475110	30.00	ug/l	0.00
57) Chlorobenzene-d5	10.11	117	429802	30.00	ug/l	0.00

System Monitoring Compounds

27) 1,2-Dichloroethane-d4	6.05	65	180356	30.16	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	100.53%
60) 4-Bromofluorobenzene	11.13	95	200618	28.91	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	96.37%
63) Toluene-d8	8.71	98	582029	30.30	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	101.00%

Target Compounds

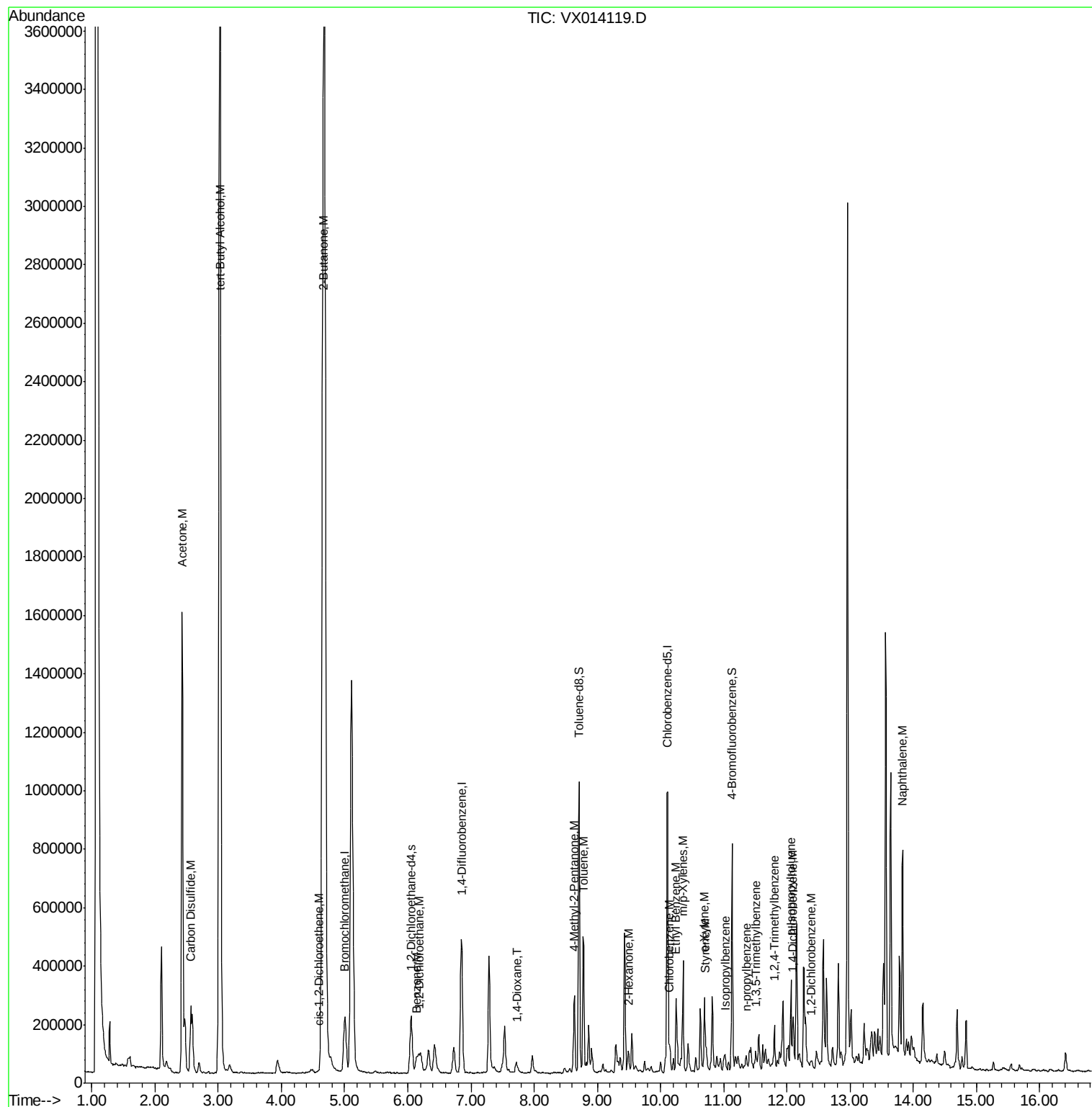
					Ovalue
15) Acetone	2.43	58	506087	608.846	ug/l 92
16) Carbon Disulfide	2.56	76	268767	21.220	ug/l 97
22) cis-1,2-Dichloroethene	4.59	96	6466	1.089	ug/l 88
23) tert-Butyl Alcohol	3.03	59	4663667	4202.109	ug/l 100
30) 2-Butanone	4.65	43	2853207	705.349	ug/l 99
34) Benzene	6.13	78	56535	2.642	ug/l # 92
36) 1,2-Dichloroethane	6.18	62	11339	1.525	ug/l # 83
45) 1,4-Dioxane	7.74	88	9032	74.191	ug/l # 80
58) 4-Methyl-2-Pentanone	8.64	43	154491	19.211	ug/l 98
59) 2-Hexanone	9.49	43	37440	6.135	ug/l 97
62) Toluene	8.78	91	267704	11.711	ug/l 99
64) Chlorobenzene	10.14	112	15735	1.099	ug/l 96
66) Ethyl Benzene	10.25	91	141991	5.676	ug/l 97
67) m/p-Xylenes	10.35	106	87872	9.189	ug/l 99
68) o-Xylene	10.70	106	51786	5.466	ug/l 99
69) Styrene	10.71	104	20981	1.302	ug/l # 70
70) Isopropylbenzene	11.01	105	20146	0.823	ug/l 98
74) n-propylbenzene	11.35	91	8003	0.288	ug/l 95
76) 1,3,5-Trimethylbenzene	11.50	105	18070	0.870	ug/l 99
80) 1,2,4-Trimethylbenzene	11.80	105	58935	2.838	ug/l 98
82) p-Isopropyltoluene	12.06	119	123065	5.727	ug/l 99
84) 1,4-Dichlorobenzene	12.09	146	46869	4.132	ug/l 99
87) 1,2-Dichlorobenzene	12.39	146	3503	0.303	ug/l 86
91) Naphthalene	13.83	128	411931	18.534	ug/l 99

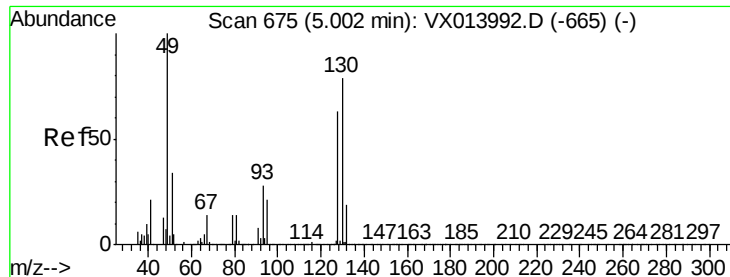
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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ClientSampleId :
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Quant Time: Dec 20 11:46:11 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA X\METHOD\624X121219W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Dec 13 01:35:34 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 5.00 min Scan# 675

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

Instrument :

MSVOA_X

ClientSampleId :

391218757.2

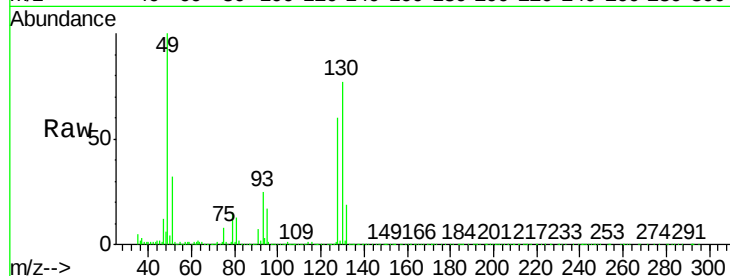
Tot Ion:128 Resp: 83494

Ion Ratio Lower Upper

128 100

49 167.1 0.0 405.0

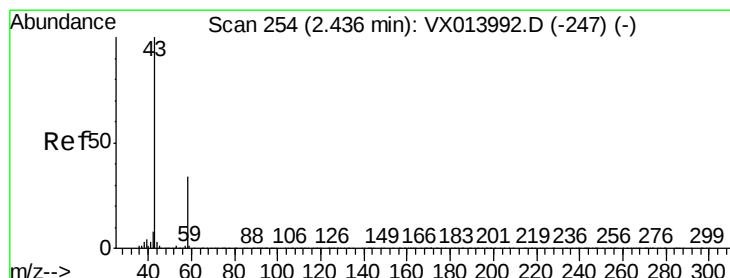
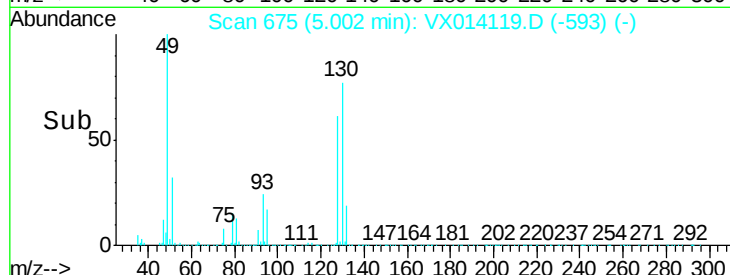
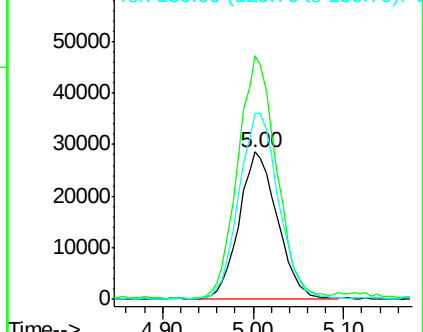
130 131.1 0.0 321.5



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): VX0

Ion 130.00 (129.70 to 130.70): V



#15

Acetone

Concen: 608.846 ug/l

RT: 2.43 min Scan# 253

Delta R.T. -0.01 min

Lab File: VX014119.D

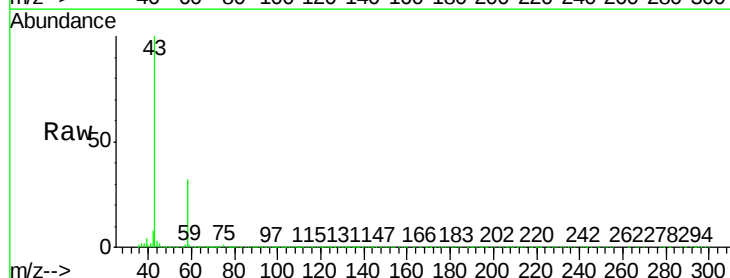
Acq: 19 Dec 2019 14:28

Tgt Ion: 58 Resp: 506087

Ion Ratio Lower Upper

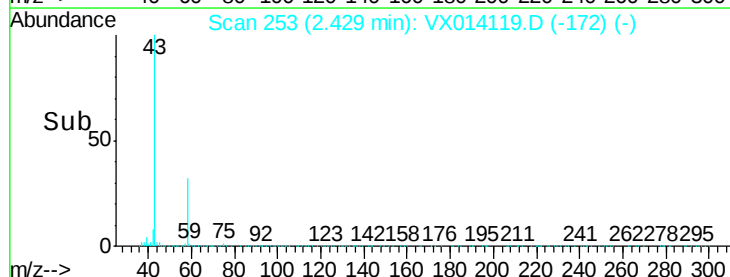
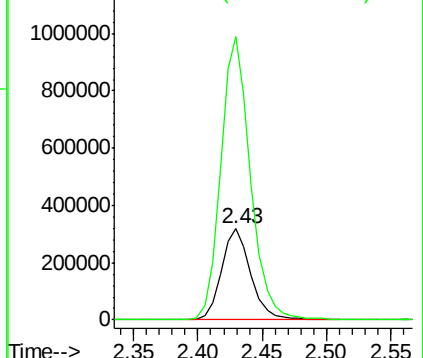
58 100

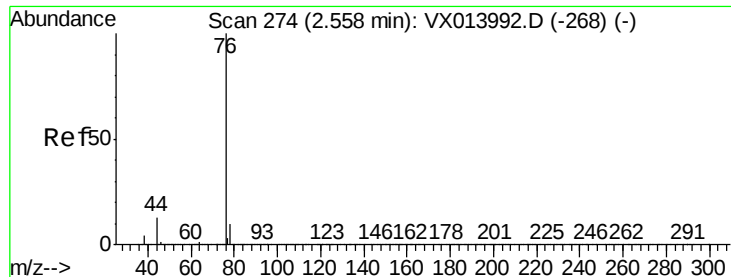
43 311.5 236.3 354.5



Abundance Ion 58.00 (57.70 to 58.70): VX0

Ion 43.00 (42.70 to 43.70): VX0





#16

Carbon Disulfide

Concen: 21.220 ug/l

RT: 2.56 min Scan# 275

Delta R.T. 0.01 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

Instrument :

MSVOA_X

ClientSampleId :

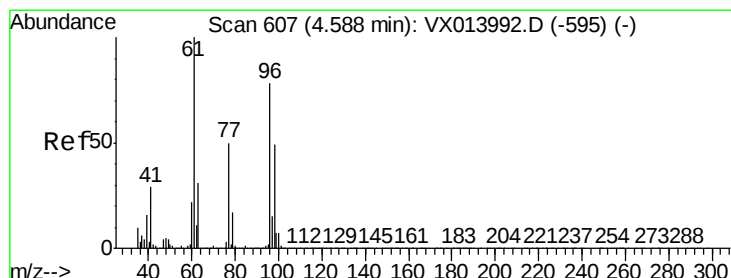
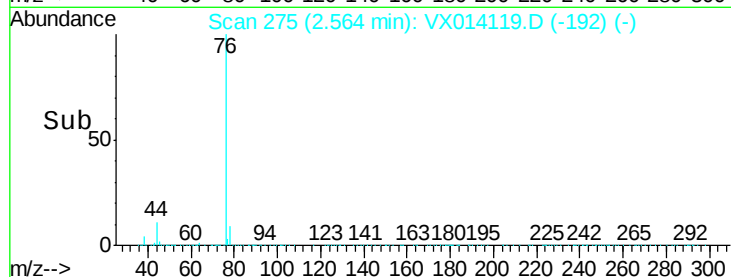
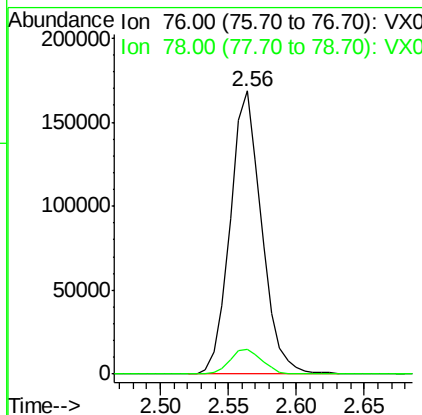
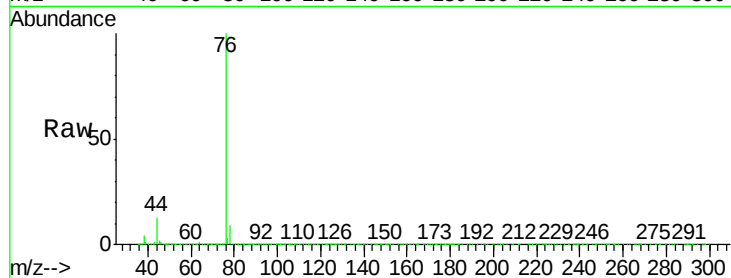
391218757.2

Tot Ion: 76 Resp: 268767

Ion Ratio Lower Upper

76 100

78 8.8 7.8 11.8



#22

cis-1,2-Dichloroethene

Concen: 1.089 ug/l

RT: 4.59 min Scan# 607

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

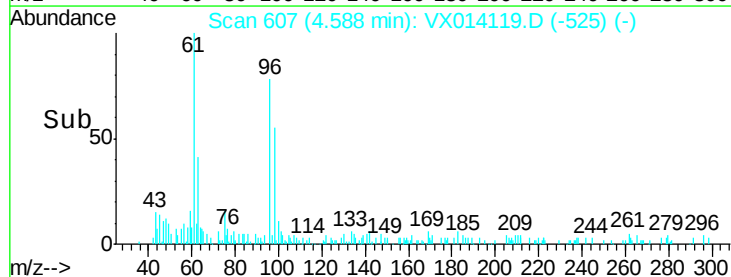
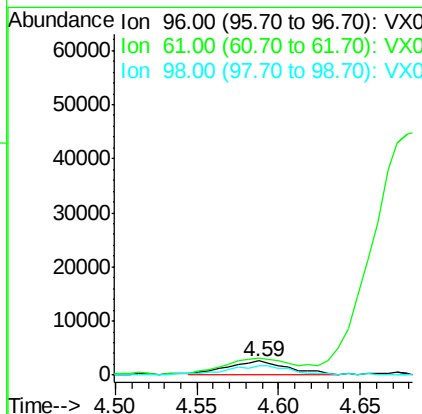
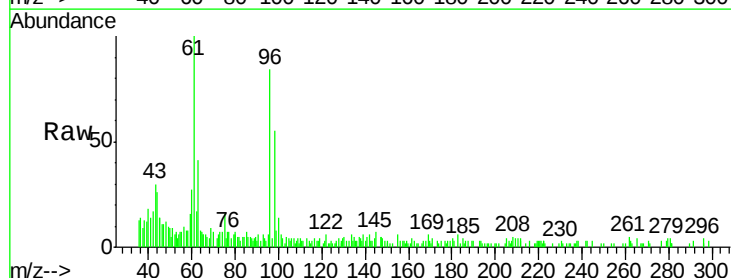
Tgt Ion: 96 Resp: 6466

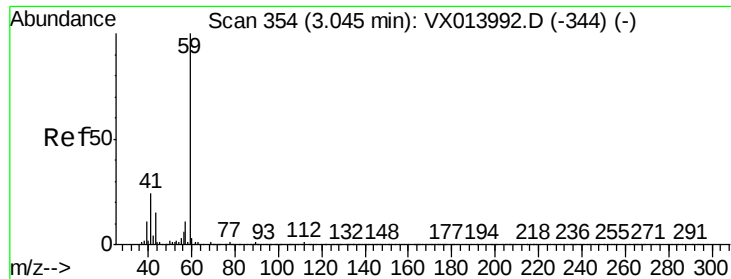
Ion Ratio Lower Upper

96 100

61 158.4 112.4 168.6

98 66.6 50.3 75.5



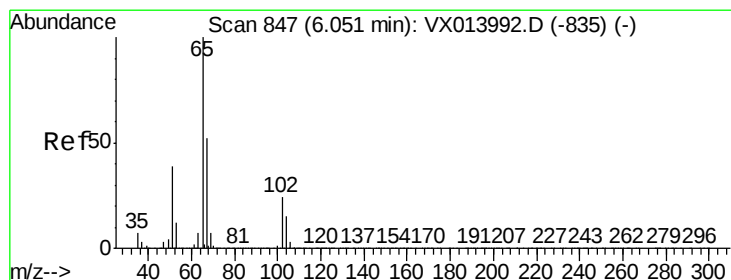
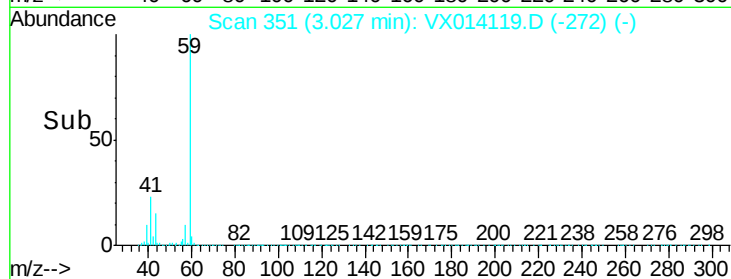
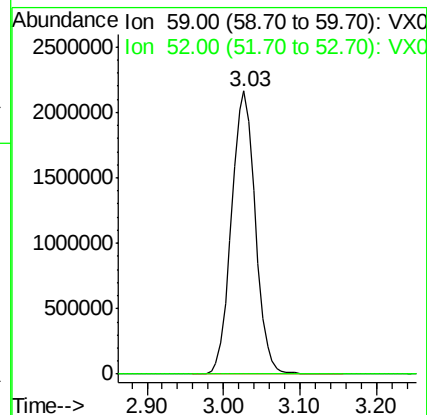
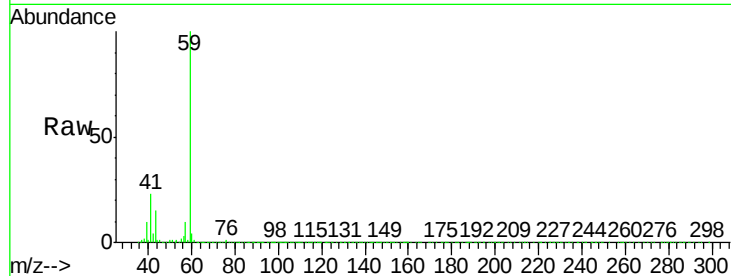


#23

tert-Butyl Alcohol
 Concen: 4202.109 ug/l
 RT: 3.03 min Scan# 351
 Delta R.T. -0.02 min
 Lab File: VX014119.D
 Acq: 19 Dec 2019 14:28

Instrument :
 MSVOA_X
 ClientSampleId :
 391218757.2

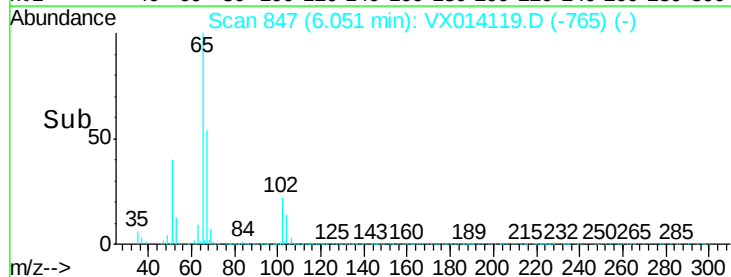
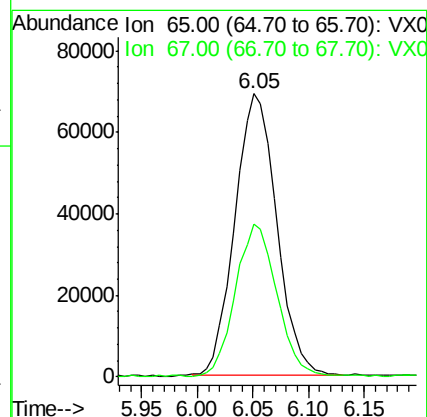
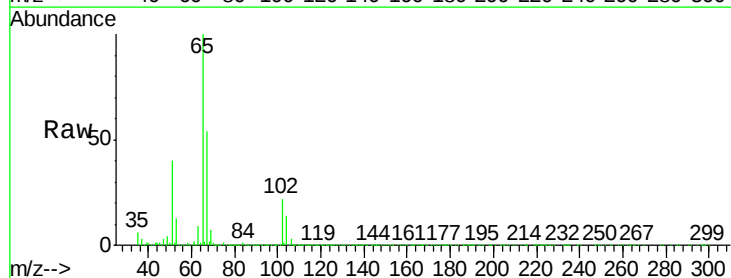
Tot Ion: 59 Resp: 4663667
 Ion Ratio Lower Upper
 59 100
 52 0.2 0.2 0.2

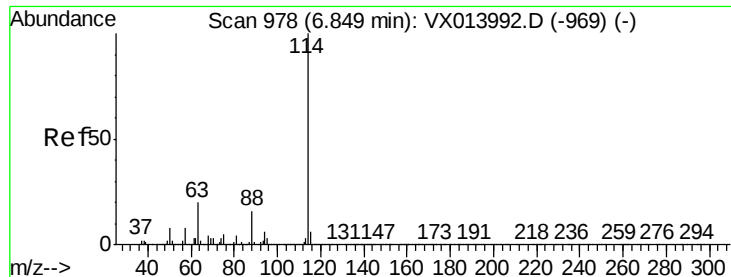


#27

1,2-Dichloroethane-d4
 Concen: 30.162 ug/l
 RT: 6.05 min Scan# 847
 Delta R.T. 0.00 min
 Lab File: VX014119.D
 Acq: 19 Dec 2019 14:28

Tgt Ion: 65 Resp: 180356
 Ion Ratio Lower Upper
 65 100
 67 53.5 43.1 64.7

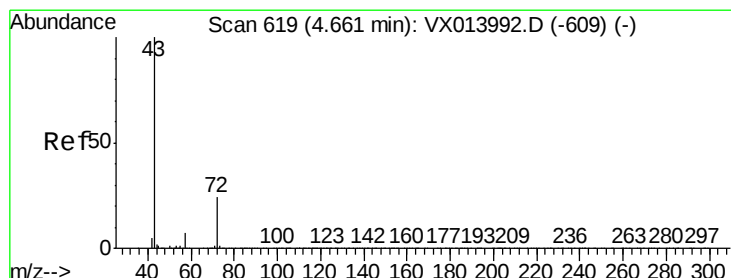
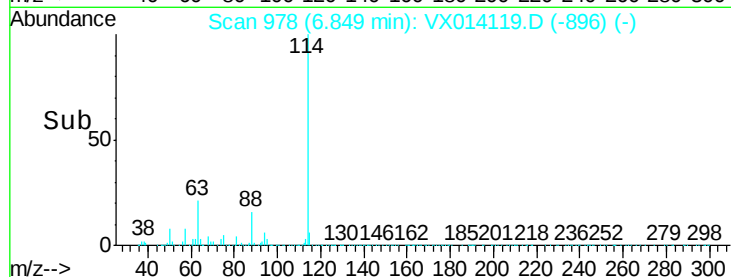
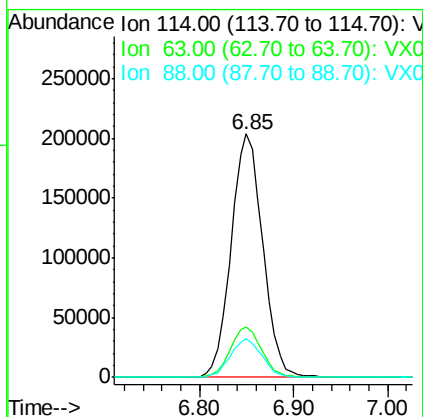
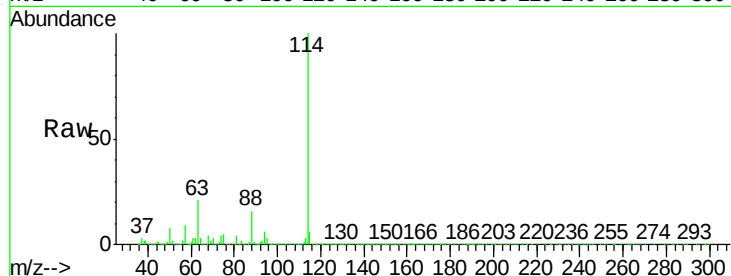




#28
 1,4-Difluorobenzene
 Concen: 30.000 ug/l
 RT: 6.85 min Scan# 978
 Delta R.T. 0.00 min
 Lab File: VX014119.D
 Acq: 19 Dec 2019 14:28

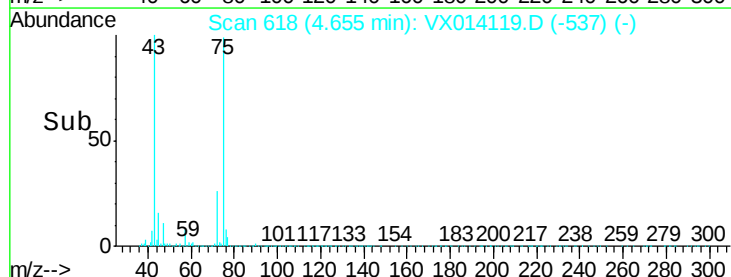
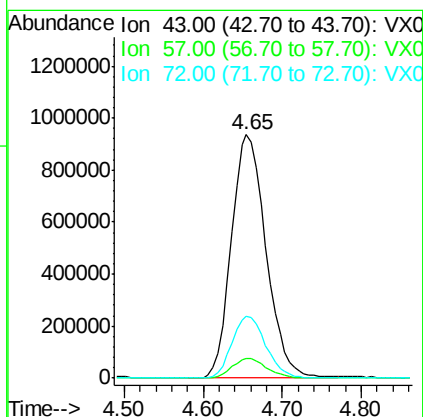
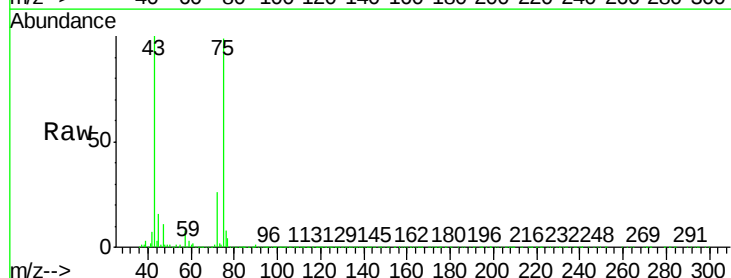
Instrument :
 MSVOA_X
 ClientSampleId :
 391218757.2

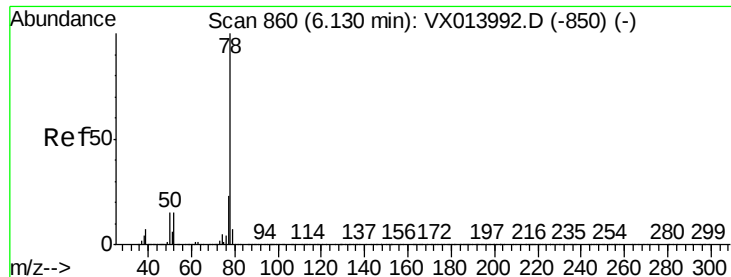
Tot Ion:114 Resp: 475110
 Ion Ratio Lower Upper
 114 100
 63 20.5 16.1 24.1
 88 15.8 12.5 18.7



#30
 2-Butanone
 Concen: 705.349 ug/l
 RT: 4.65 min Scan# 618
 Delta R.T. -0.01 min
 Lab File: VX014119.D
 Acq: 19 Dec 2019 14:28

Tgt Ion: 43 Resp: 2853207
 Ion Ratio Lower Upper
 43 100
 57 8.1 6.2 9.2
 72 25.0 20.3 30.5





#34

Benzene

Concen: 2.642 ug/l

RT: 6.13 min Scan# 860

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

Instrument :

MSVOA_X

ClientSampleId :

391218757.2

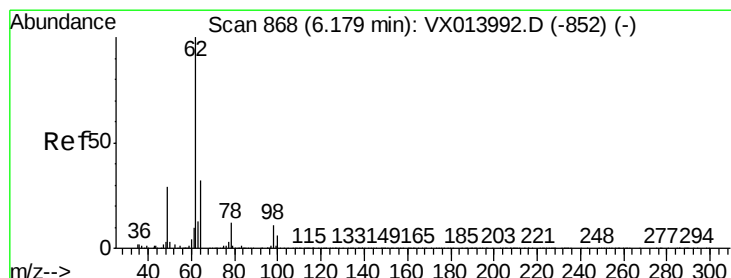
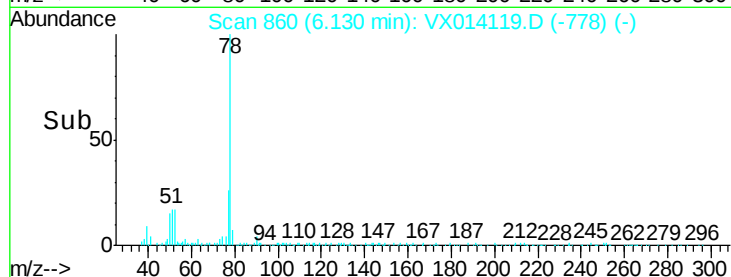
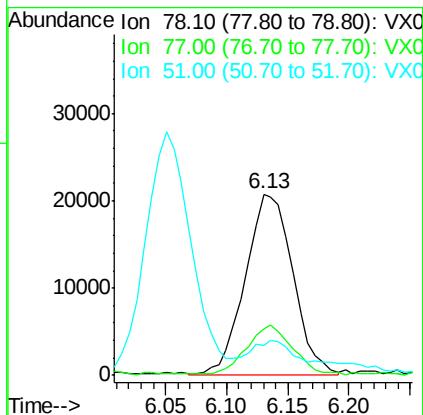
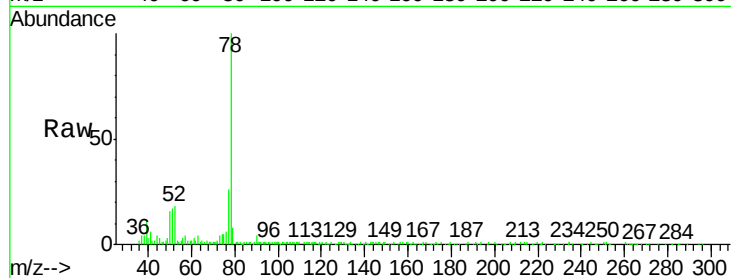
Tot Ion: 78 Resp: 56535

Ion Ratio Lower Upper

78 100

77 24.9 18.2 27.2

51 9.9 12.4 18.6#



#36

1,2-Dichloroethane

Concen: 1.525 ug/l

RT: 6.18 min Scan# 868

Delta R.T. 0.00 min

Lab File: VX014119.D

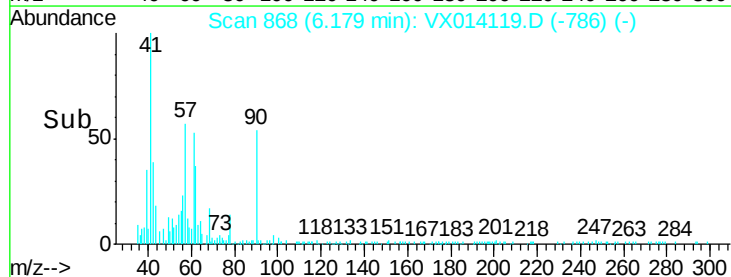
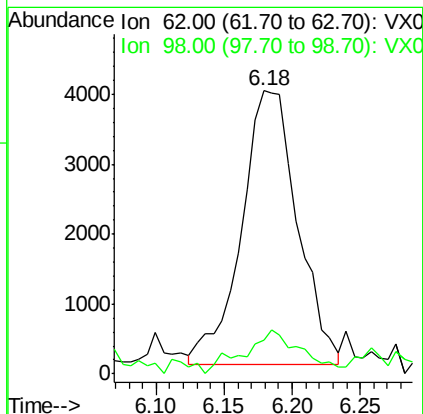
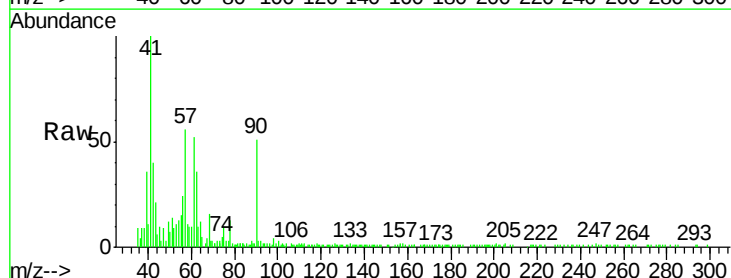
Acq: 19 Dec 2019 14:28

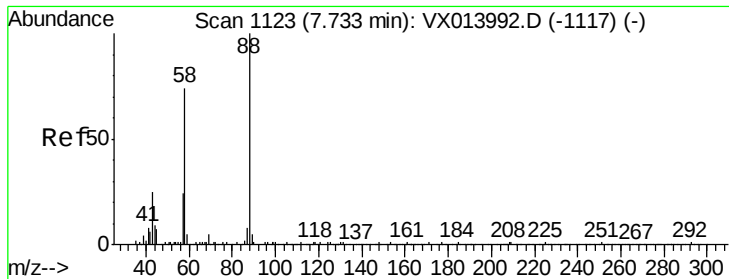
Tgt Ion: 62 Resp: 11339

Ion Ratio Lower Upper

62 100

98 4.0 8.4 12.6#





#45

1,4-Dioxane

Concen: 74.191 ug/l

RT: 7.74 min Scan# 1124

Delta R.T. 0.01 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

Instrument :

MSVOA_X

ClientSampleId :

391218757.2

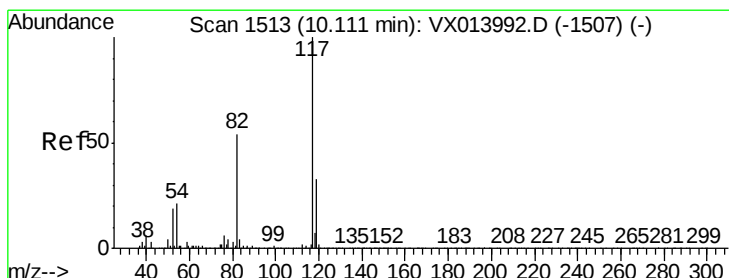
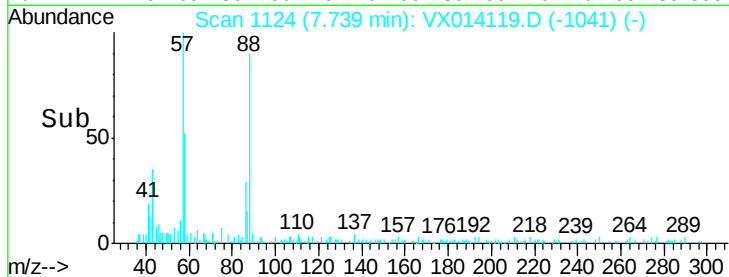
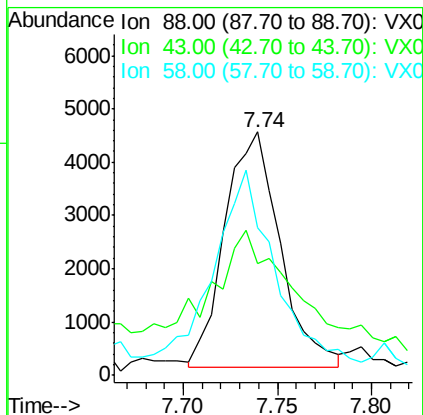
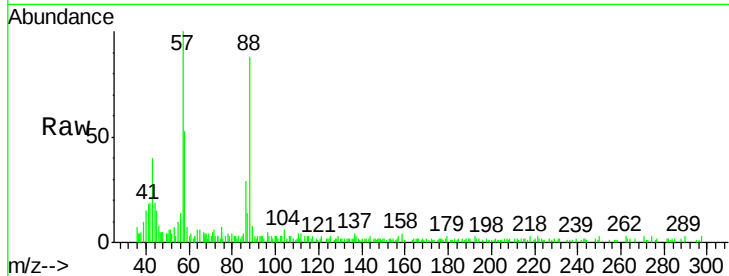
Tot Ion: 88 Resp: 9032

Ion Ratio Lower Upper

88 100

43 42.0 25.4 38.2#

58 87.6 56.5 84.7#



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 10.11 min Scan# 1513

Delta R.T. -0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

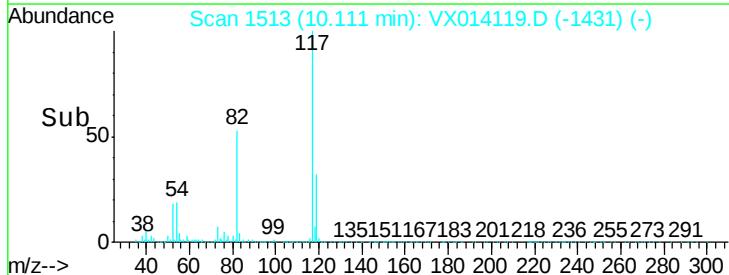
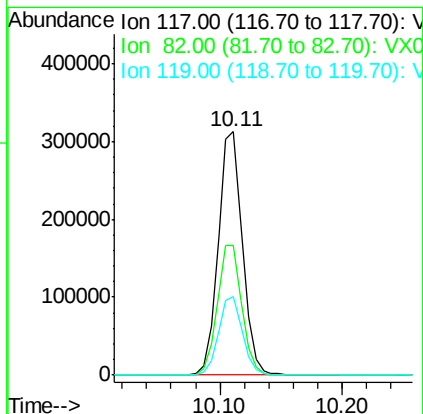
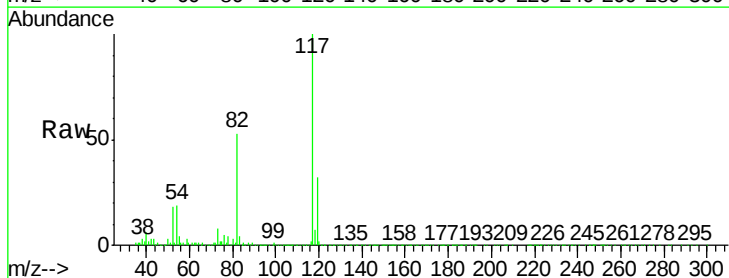
Tgt Ion: 117 Resp: 429802

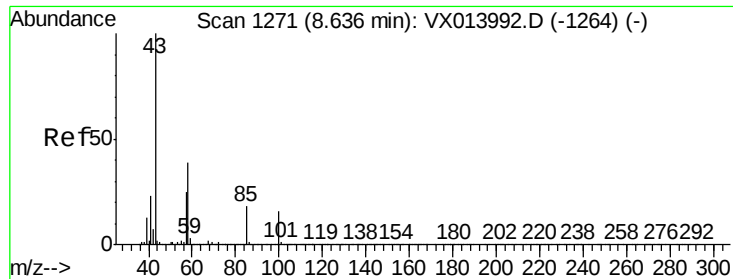
Ion Ratio Lower Upper

117 100

82 54.1 43.8 65.6

119 31.9 25.8 38.6

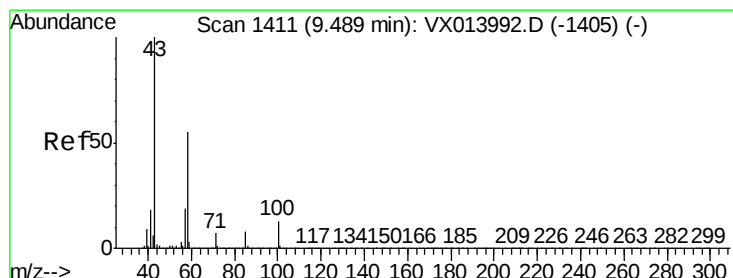
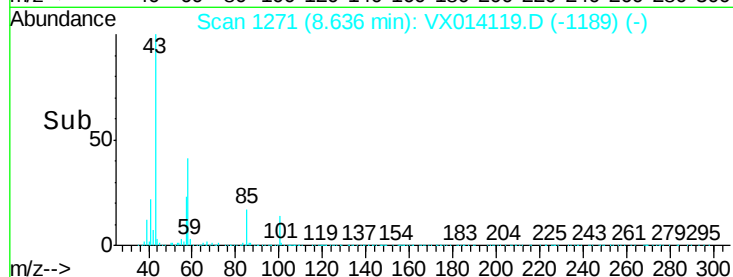
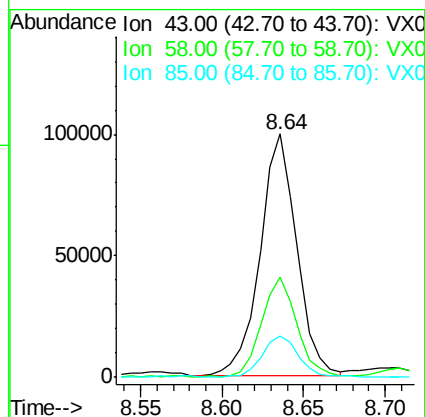
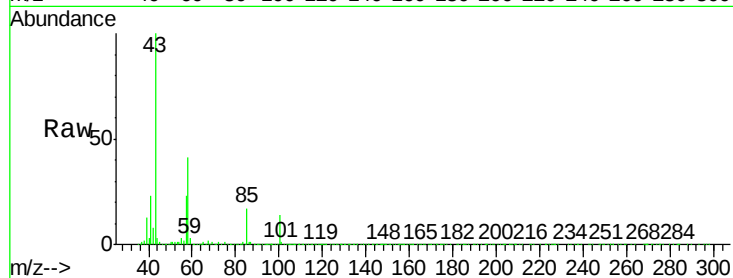




#58
4-Methyl-2-Pentanone
Concen: 19.211 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VX014119.D
Acq: 19 Dec 2019 14:28

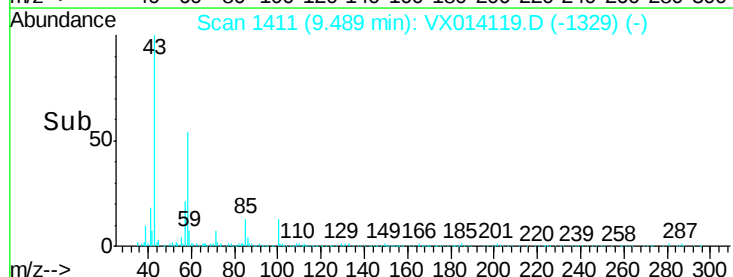
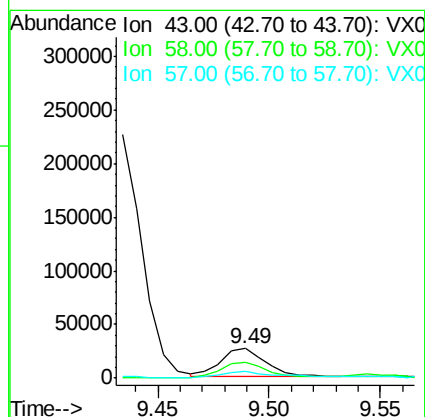
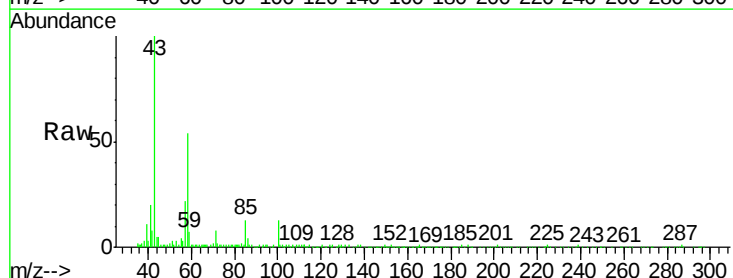
Instrument :
MSVOA_X
ClientSampleId :
391218757.2

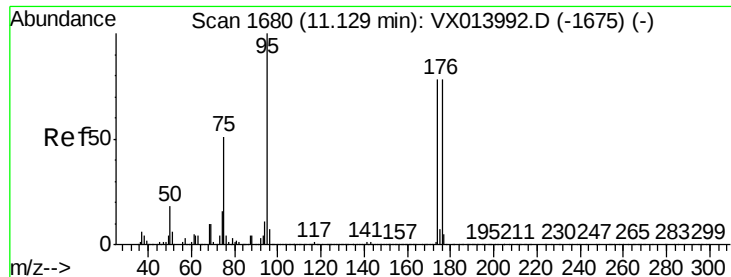
Tot Ion	Ratio	Lower	Upper
43	100		
58	40.2	31.2	46.8
85	16.9	14.2	21.2



#59
2-Hexanone
Concen: 6.135 ug/l
RT: 9.49 min Scan# 1411
Delta R.T. 0.00 min
Lab File: VX014119.D
Acq: 19 Dec 2019 14:28

Tgt Ion	Ratio	Lower	Upper
43	100		
58	57.8	43.8	65.6
57	18.9	15.4	23.0

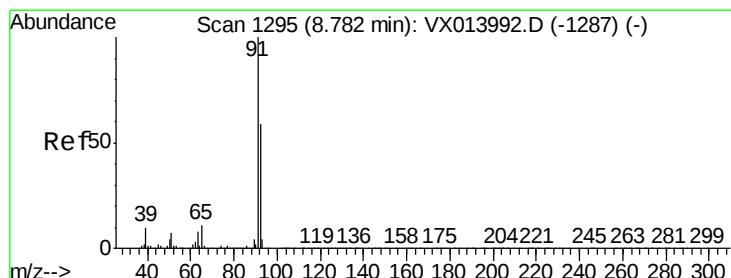
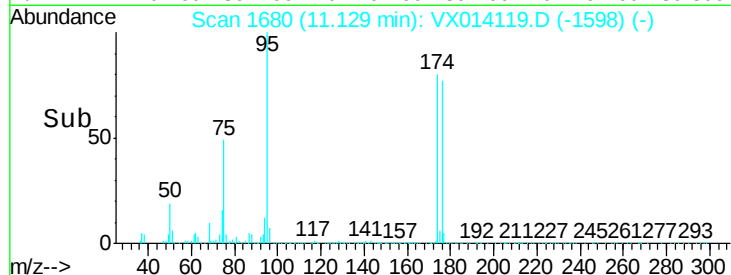
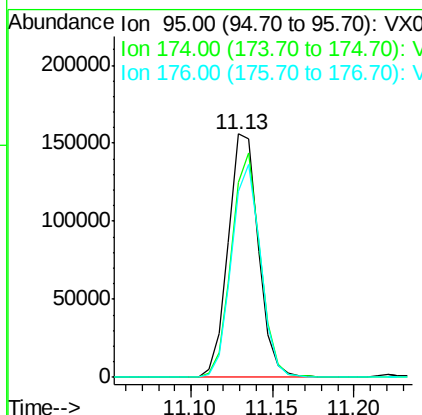
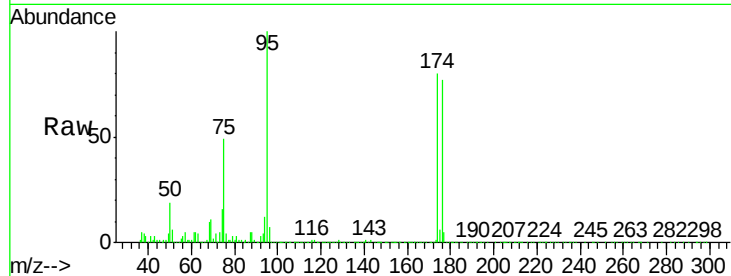




#60
4-Bromofluorobenzene
Concen: 28.906 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. 0.00 min
Lab File: VX014119.D
Acq: 19 Dec 2019 14:28

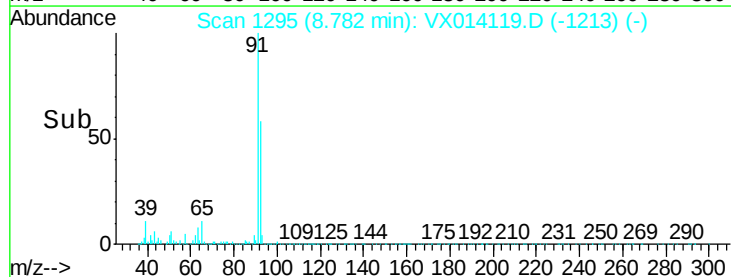
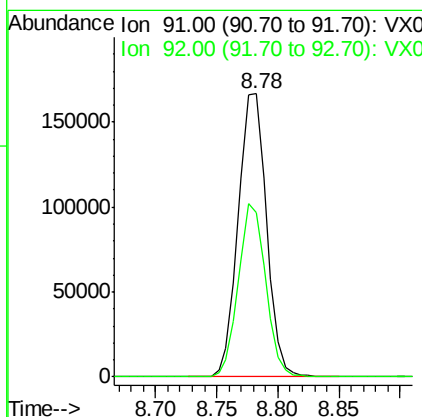
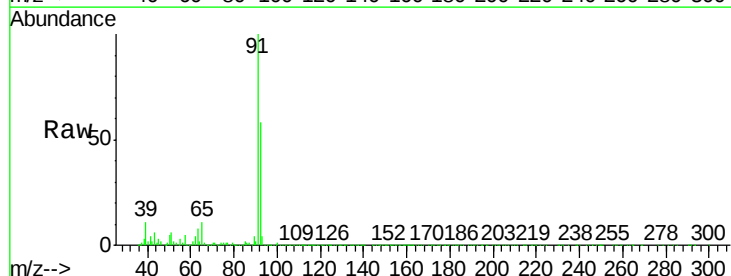
Instrument :
MSVOA_X
ClientSampleId :
391218757.2

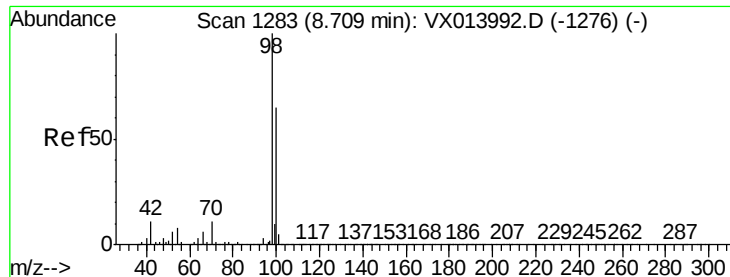
Tot Ion	Ratio	Lower	Upper
95	100		
174	88.0	70.2	105.2
176	84.2	68.3	102.5



#62
Toluene
Concen: 11.711 ug/l
RT: 8.78 min Scan# 1295
Delta R.T. 0.00 min
Lab File: VX014119.D
Acq: 19 Dec 2019 14:28

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.0	46.4	69.6





#63

Toluene-d8

Concen: 30.296 ug/l

RT: 8.71 min Scan# 1283

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

Instrument :

MSVOA_X

ClientSampleId :

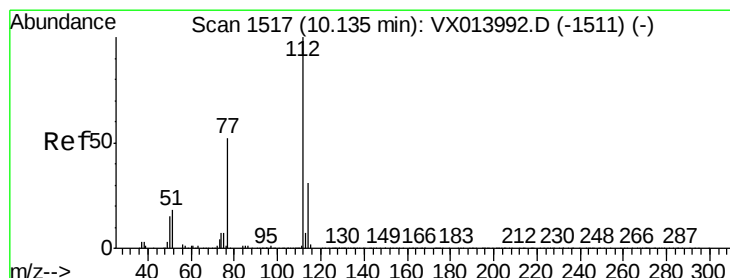
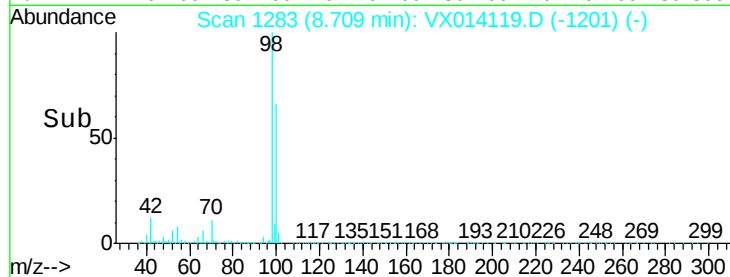
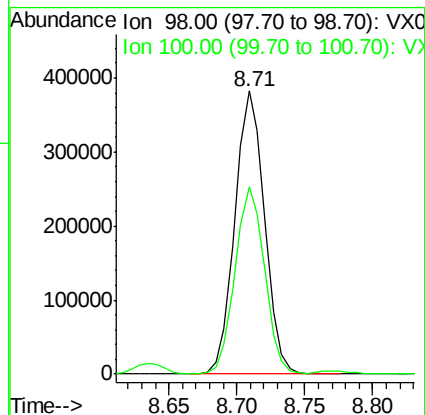
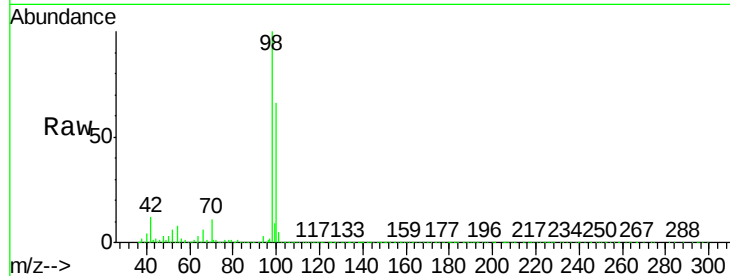
391218757.2

Tot Ion: 98 Resp: 582029

Ion Ratio Lower Upper

98 100

100 65.6 52.2 78.2



#64

Chlorobenzene

Concen: 1.099 ug/l

RT: 10.14 min Scan# 1517

Delta R.T. 0.00 min

Lab File: VX014119.D

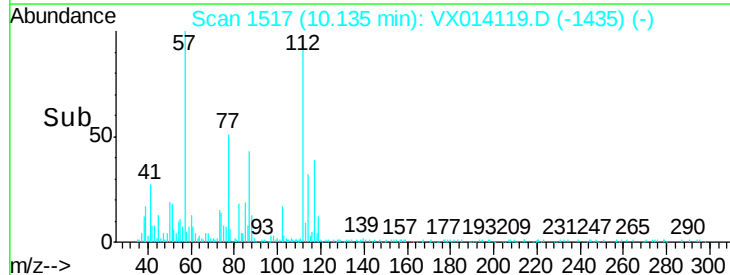
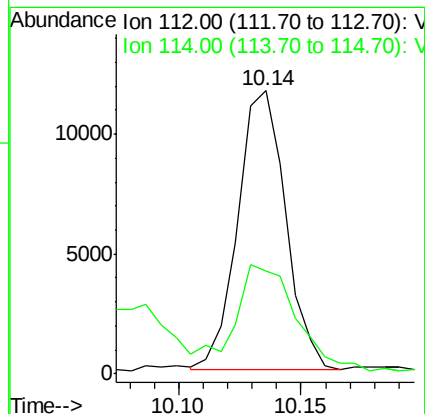
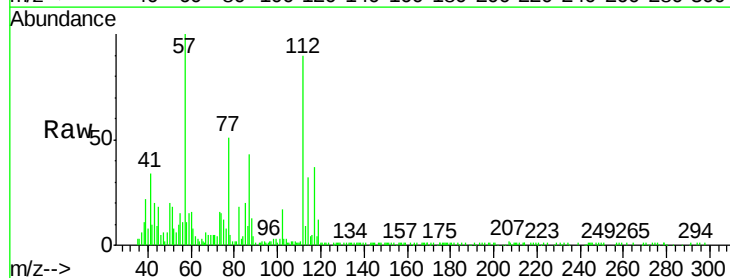
Acq: 19 Dec 2019 14:28

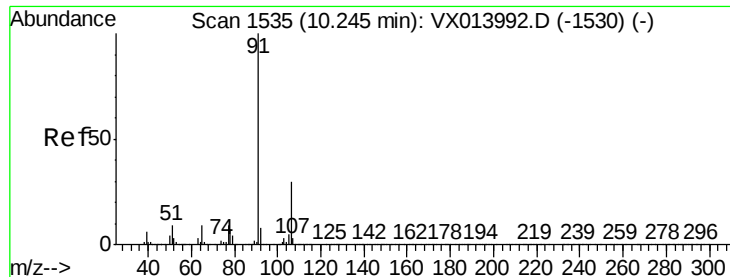
Tgt Ion: 112 Resp: 15735

Ion Ratio Lower Upper

112 100

114 32.8 24.4 36.6





#66

Ethyl Benzene

Concen: 5.676 ug/l

RT: 10.25 min Scan# 1535

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

Instrument :

MSVOA_X

ClientSampleId :

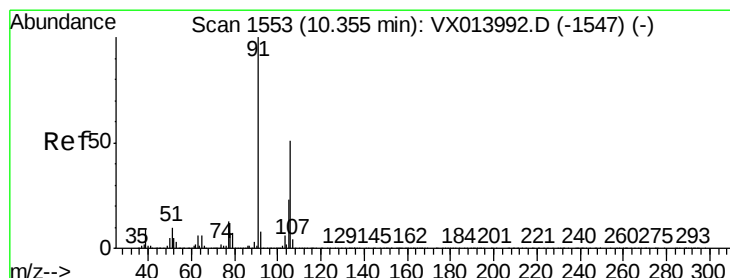
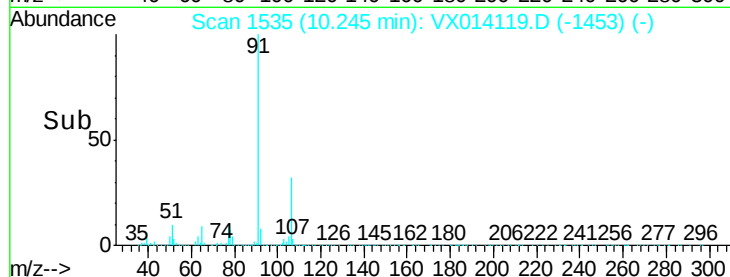
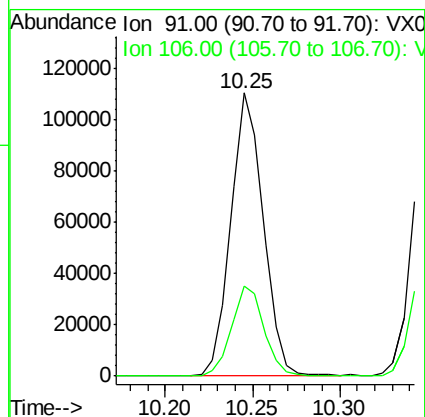
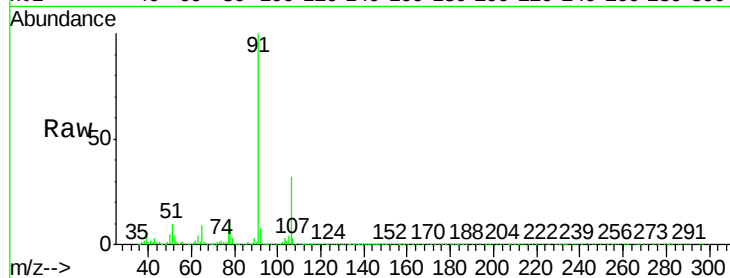
391218757.2

Tot Ion: 91 Resp: 141991

Ion Ratio Lower Upper

91 100

106 31.8 24.2 36.2



#67

m/p-Xylenes

Concen: 9.189 ug/l

RT: 10.35 min Scan# 1553

Delta R.T. 0.00 min

Lab File: VX014119.D

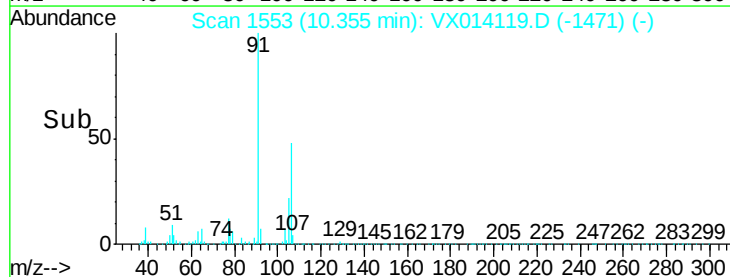
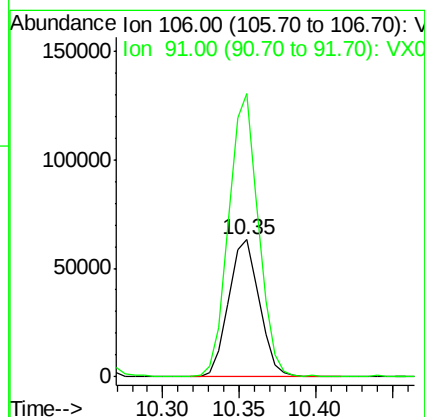
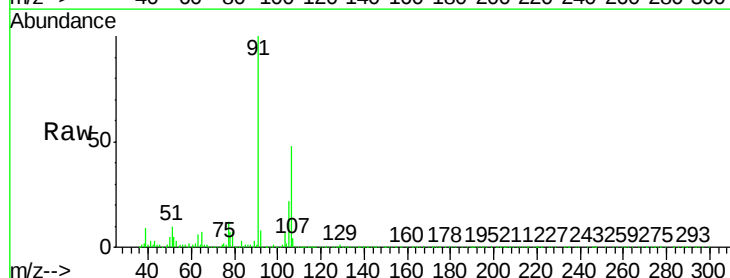
Acq: 19 Dec 2019 14:28

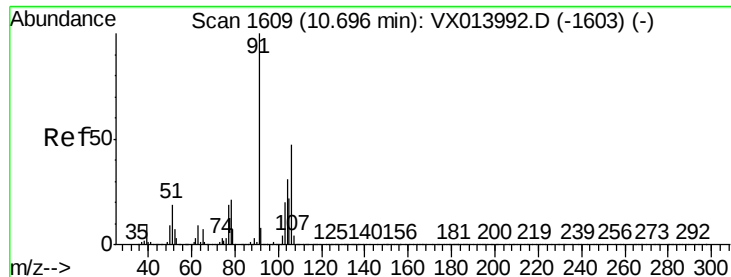
Tgt Ion: 106 Resp: 87872

Ion Ratio Lower Upper

106 100

91 198.3 159.3 238.9

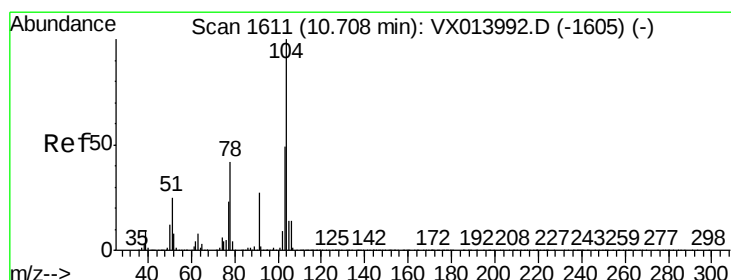
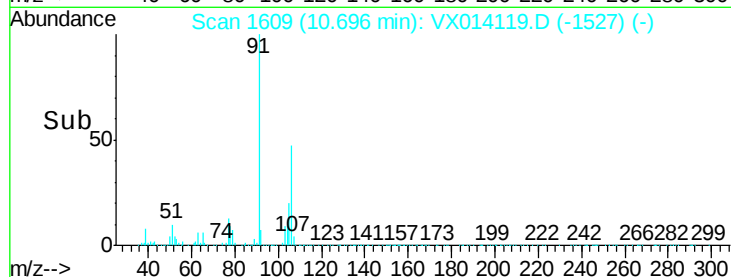
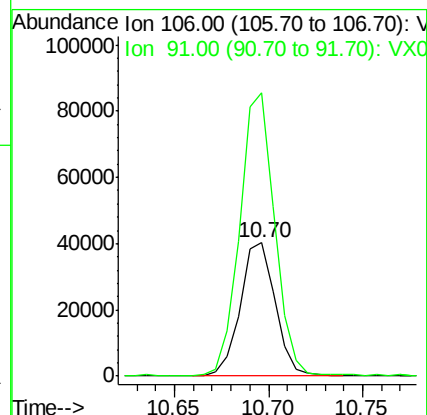
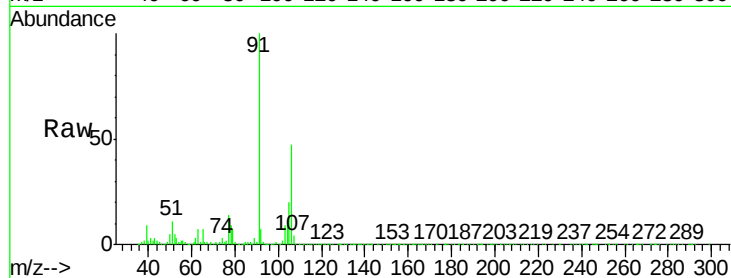




#68
o-Xylene
Concen: 5.466 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014119.D
Acq: 19 Dec 2019 14:28

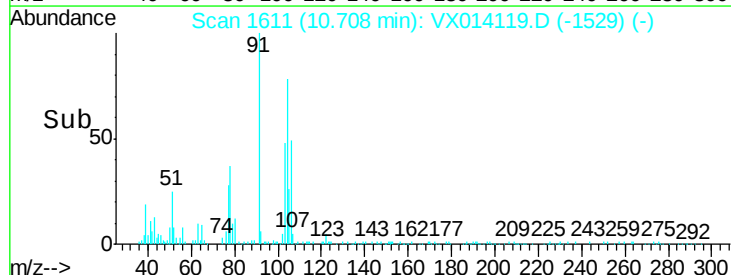
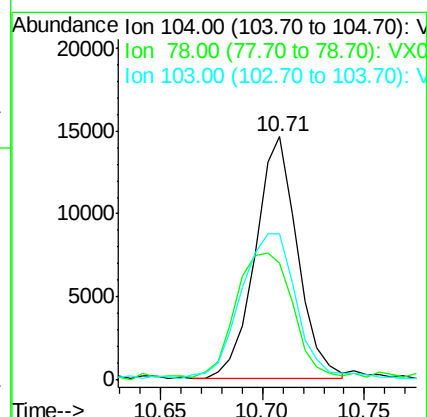
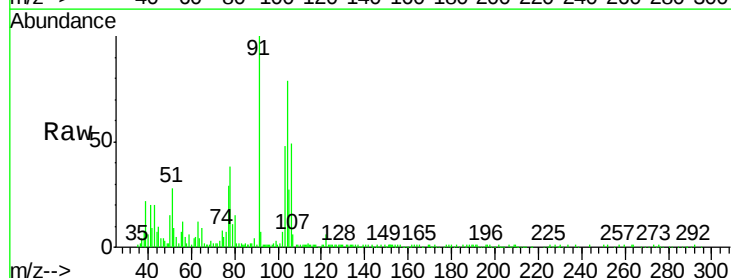
Instrument :
MSVOA_X
ClientSampleId :
391218757.2

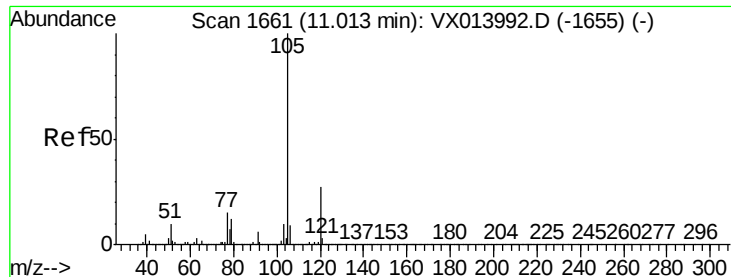
Tot Ion:106 Resp: 51786
Ion Ratio Lower Upper
106 100
91 207.7 104.8 314.6



#69
Styrene
Concen: 1.302 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014119.D
Acq: 19 Dec 2019 14:28

Tgt Ion:104 Resp: 20981
Ion Ratio Lower Upper
104 100
78 68.1 38.9 58.3#
103 77.2 44.2 66.2#





#70

Isopropylbenzene

Concen: 0.823 ug/l

RT: 11.01 min Scan# 1661

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

Instrument :

MSVOA_X

ClientSampleId :

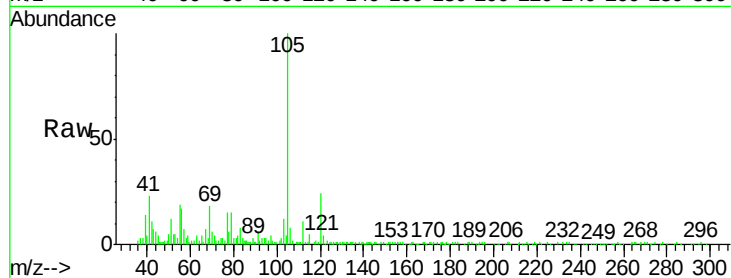
391218757.2

Tot Ion:105 Resp: 20146

Ion Ratio Lower Upper

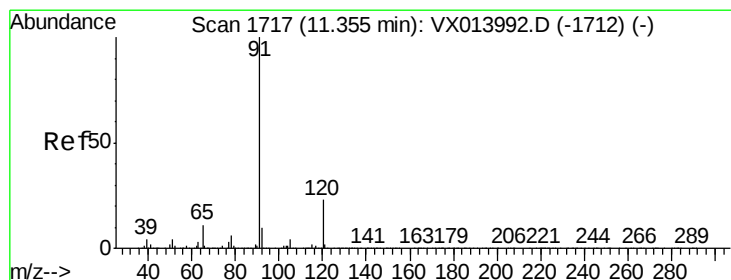
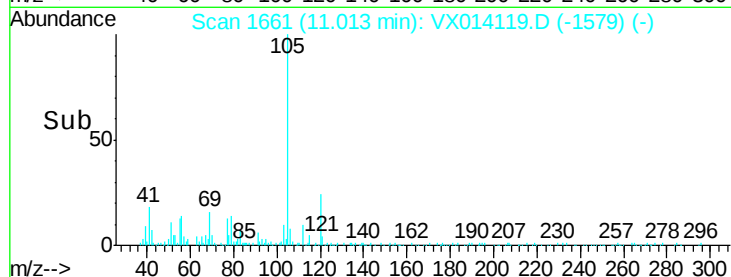
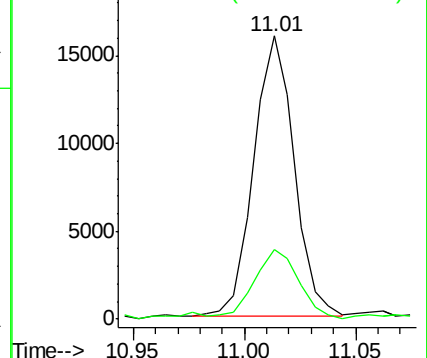
105 100

120 26.3 19.1 35.5



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#74

n-propylbenzene

Concen: 0.288 ug/l

RT: 11.35 min Scan# 1717

Delta R.T. 0.00 min

Lab File: VX014119.D

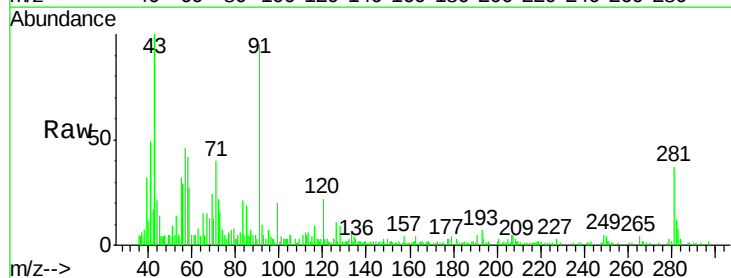
Acq: 19 Dec 2019 14:28

Tgt Ion: 91 Resp: 8003

Ion Ratio Lower Upper

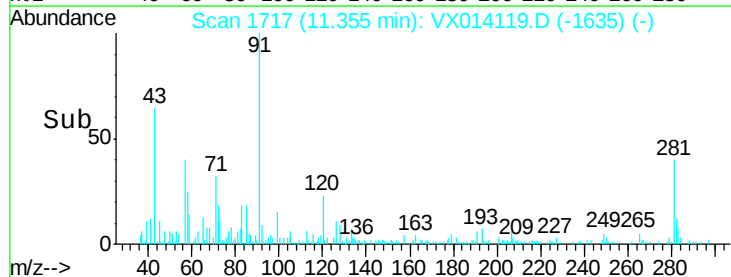
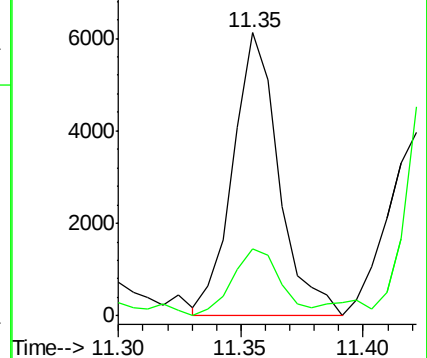
91 100

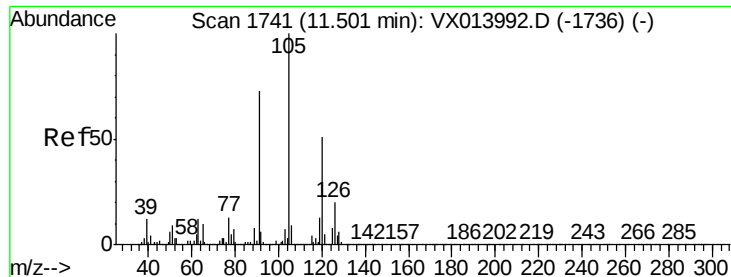
120 25.0 0.0 44.8



Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 120.00 (119.70 to 120.70): V





#76

1,3,5-Trimethylbenzene

Concen: 0.870 ug/l

RT: 11.50 min Scan# 1741

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

Instrument :

MSVOA_X

ClientSampleId :

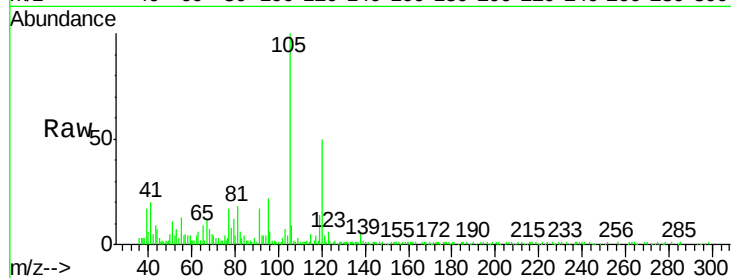
391218757.2

Tot Ion:105 Resp: 18070

Ion Ratio Lower Upper

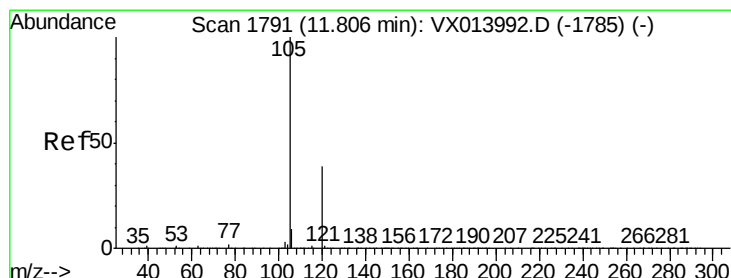
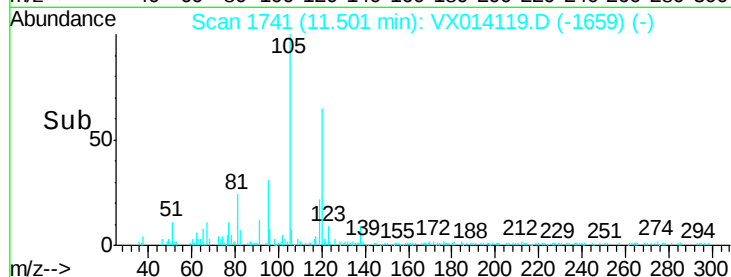
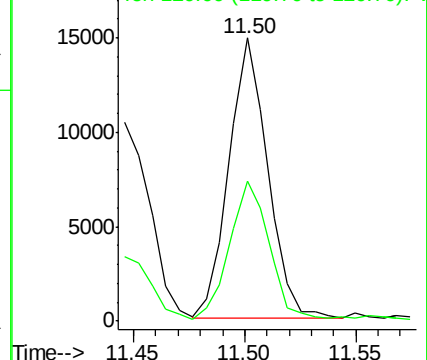
105 100

120 49.9 0.0 100.6



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#80

1,2,4-Trimethylbenzene

Concen: 2.838 ug/l

RT: 11.80 min Scan# 1790

Delta R.T. -0.01 min

Lab File: VX014119.D

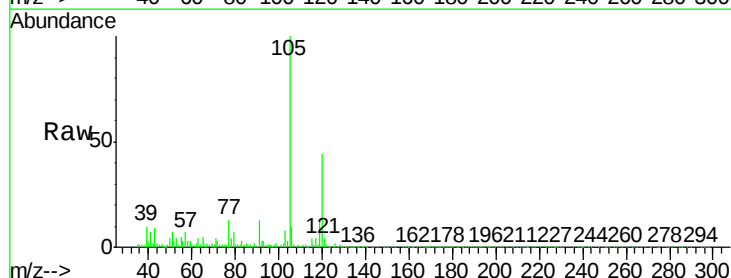
Acq: 19 Dec 2019 14:28

Tgt Ion:105 Resp: 58935

Ion Ratio Lower Upper

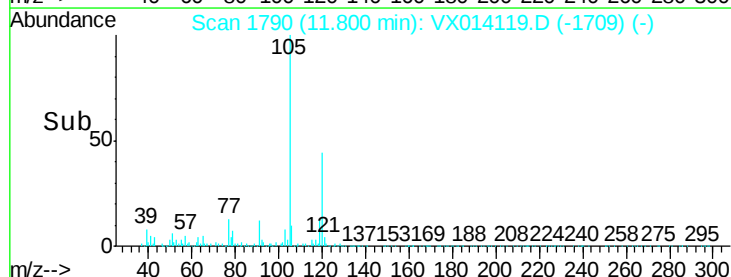
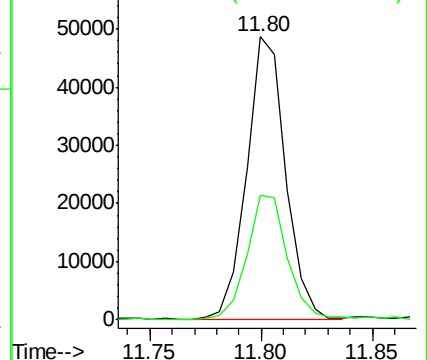
105 100

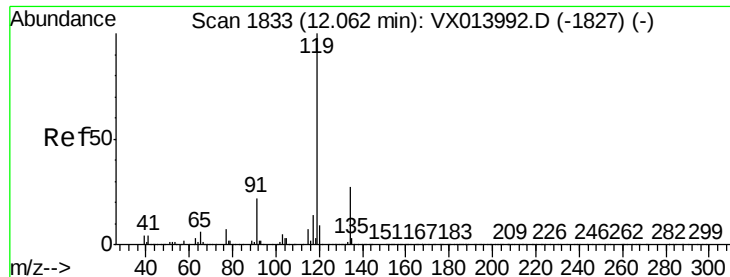
120 47.2 0.0 92.0



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V





#82

p-Isopropyltoluene

Concen: 5.727 ug/l

RT: 12.06 min Scan# 1833

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

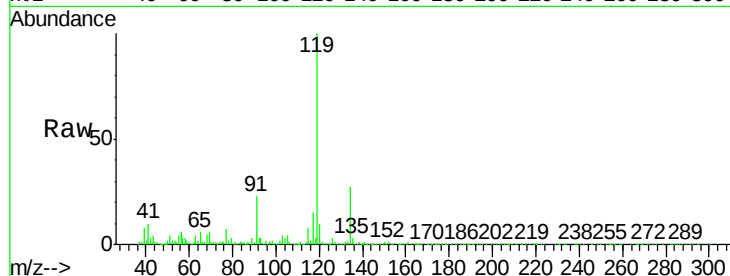
Instrument :

MSVOA_X

ClientSampleId :

391218757.2

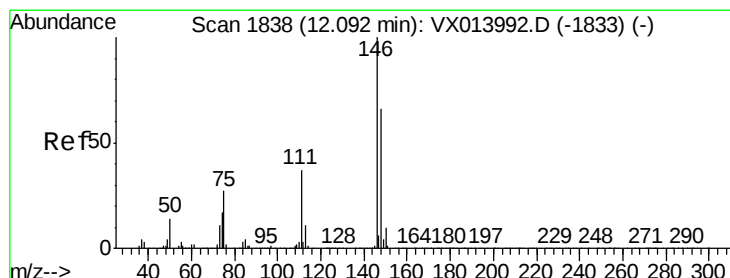
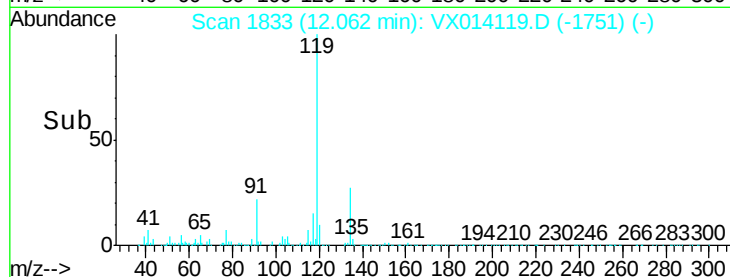
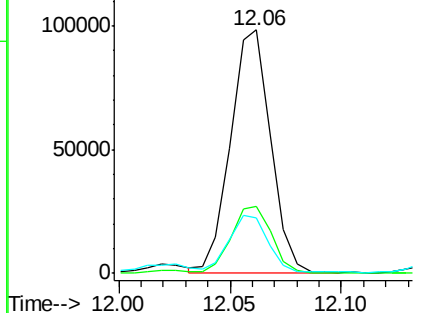
Tot Ion:	119	Resp:	123065
Ion Ratio	Lower	Upper	
119	100		
134	27.6	0.0	53.8
91	23.2	0.0	45.0



Abundance Ion 119.00 (118.70 to 119.70): V

Ion 134.00 (133.70 to 134.70): V

Ion 91.00 (90.70 to 91.70): V



#84

1,4-Dichlorobenzene

Concen: 4.132 ug/l

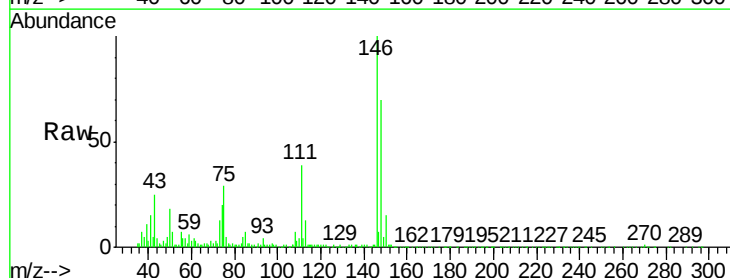
RT: 12.09 min Scan# 1838

Delta R.T. -0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

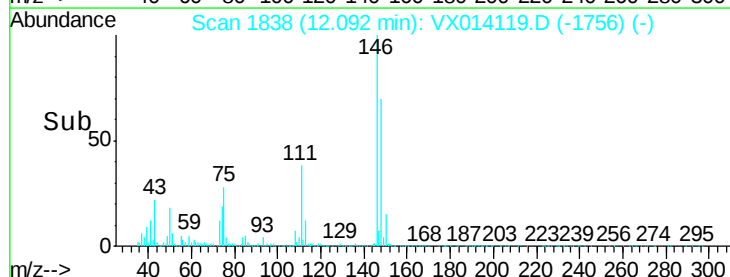
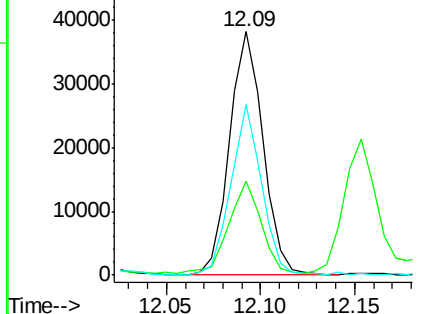
Tgt Ion:	146	Resp:	46869
Ion Ratio	Lower	Upper	
146	100		
111	35.8	18.4	55.4
148	63.7	32.0	96.0

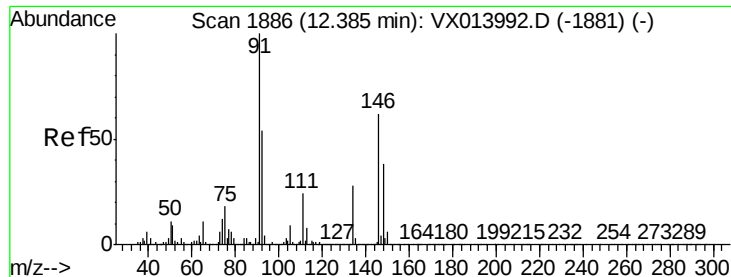


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#87

1,2-Dichlorobenzene

Concen: 0.303 ug/l

RT: 12.39 min Scan# 1886

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

Instrument :

MSVOA_X

ClientSampleId :

391218757.2

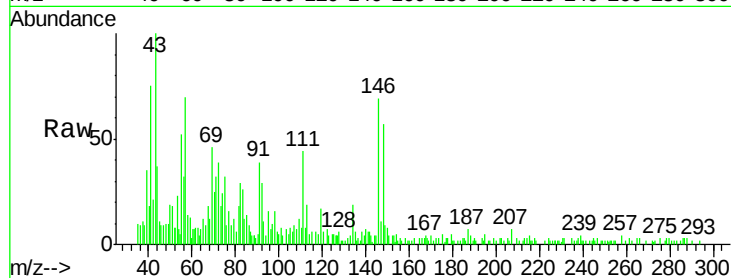
Tot Ion:146 Resp: 3503

Ion Ratio Lower Upper

146 100

111 45.2 20.1 60.2

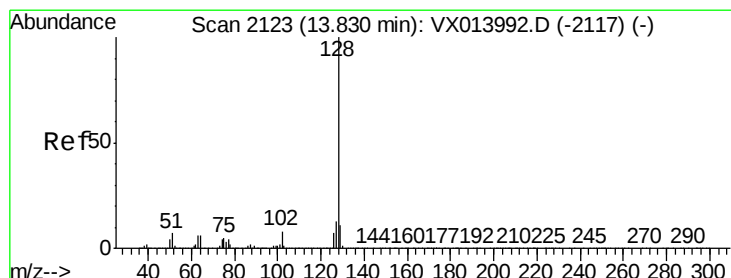
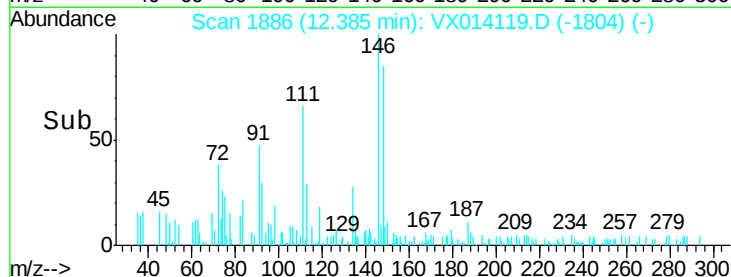
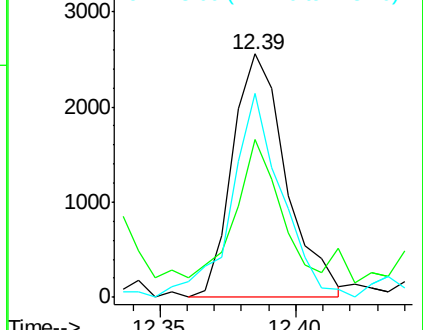
148 78.4 32.0 96.2



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#91

Naphthalene

Concen: 18.534 ug/l

RT: 13.83 min Scan# 2123

Delta R.T. 0.00 min

Lab File: VX014119.D

Acq: 19 Dec 2019 14:28

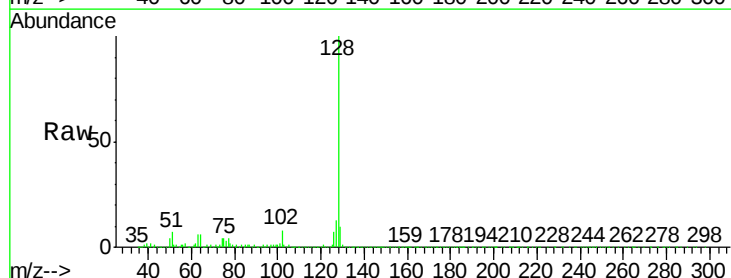
Tgt Ion:128 Resp: 411931

Ion Ratio Lower Upper

128 100

127 12.8 10.4 15.6

129 10.5 8.9 13.3



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

