

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX022219\
 Data File : VX007657.D
 Acq On : 22 Feb 2019 14:03
 Operator : JC/SP
 Sample : K1570-03
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 25-25

Quant Time: Feb 23 00:31:31 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X021319W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Feb 13 07:51:18 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.03	128	64377	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	6.86	114	330788	30.00	ug/l	0.00
57) Chlorobenzene-d5	10.12	117	298186	30.00	ug/l	0.00

System Monitoring Compounds

27) 1,2-Dichloroethane-d4	6.07	65	129432	31.08	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	103.60%
60) 4-Bromofluorobenzene	11.13	95	127760	27.92	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	93.07%
63) Toluene-d8	8.71	98	393815	29.22	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	97.40%

Target Compounds

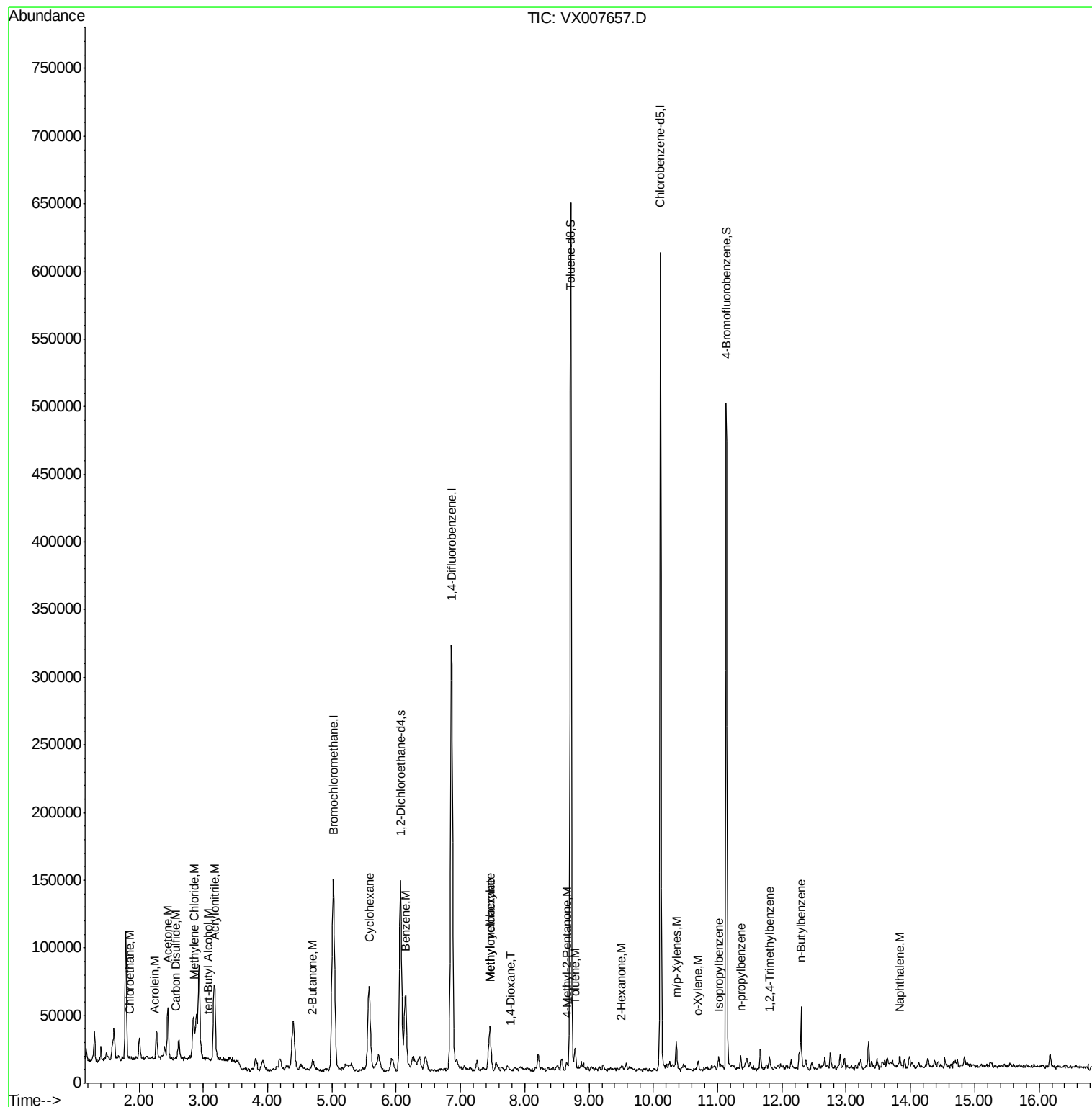
					Ovalue	
6) Chloroethane	1.86	64	663	0.242	ug/l	94
13) Acrolein	2.23	56	205	0.241	ug/l	98
14) Acrylonitrile	3.17	53	1729	0.769	ug/l #	38
15) Acetone	2.45	58	12468	20.443	ug/l	86
16) Carbon Disulfide	2.57	76	2646	0.282	ug/l #	93
18) Methylene Chloride	2.86	84	1752	0.440	ug/l	92
23) tert-Butyl Alcohol	3.07	59	723	0.765	ug/l #	100
26) Cyclohexane	5.58	56	40313	7.488	ug/l #	98
30) 2-Butanone	4.70	43	12793	4.685	ug/l #	58
34) Benzene	6.14	78	70275	4.831	ug/l	97
38) Methylcyclohexane	7.46	83	14471	2.709	ug/l	90
45) 1,4-Dioxane	7.79	88	43	0.451	ug/l #	1
46) Methyl methacrylate	7.45	41	7522	1.840	ug/l	71
58) 4-Methyl-2-Pentanone	8.65	43	3003	0.560	ug/l #	86
59) 2-Hexanone	9.50	43	1267	0.311	ug/l #	87
62) Toluene	8.79	91	8582	0.528	ug/l	91
67) m/p-Xylenes	10.36	106	5291	0.783	ug/l	95
68) o-Xylene	10.69	106	1609	0.244	ug/l	95
70) Isopropylbenzene	11.02	105	3605	0.207	ug/l	86
74) n-propylbenzene	11.36	91	5271	0.273	ug/l	95
80) 1,2,4-Trimethylbenzene	11.80	105	3627	0.252	ug/l	96
85) n-Butylbenzene	12.30	91	2765	0.221	ug/l	60
91) Naphthalene	13.83	128	4954	0.282	ug/l #	87

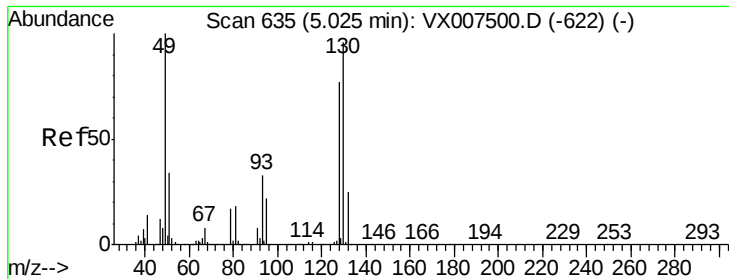
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA X\METHOD\624X021319W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Feb 13 07:51:18 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 5.03 min Scan# 635

Delta R.T. 0.00 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

Instrument :

MSVOA_X

ClientSampleId :

25-25

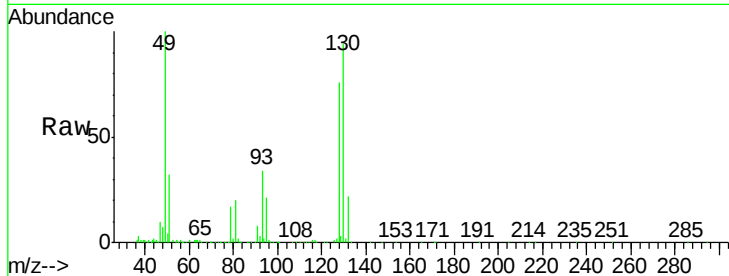
Tot Ion:128 Resp: 64377

Ion Ratio Lower Upper

128 100

49 141.3 0.0 350.8

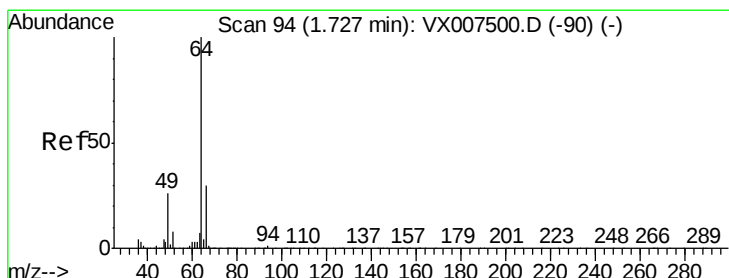
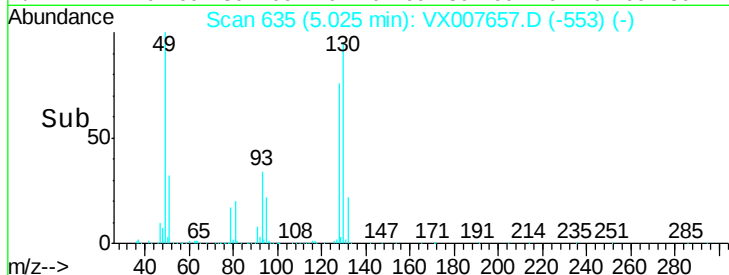
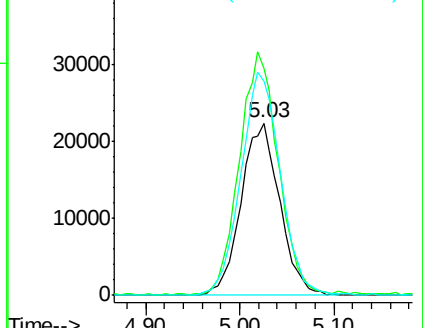
130 132.2 0.0 325.8



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



#6

Chloroethane

Concen: 0.242 ug/l

RT: 1.86 min Scan# 116

Delta R.T. 0.13 min

Lab File: VX007657.D

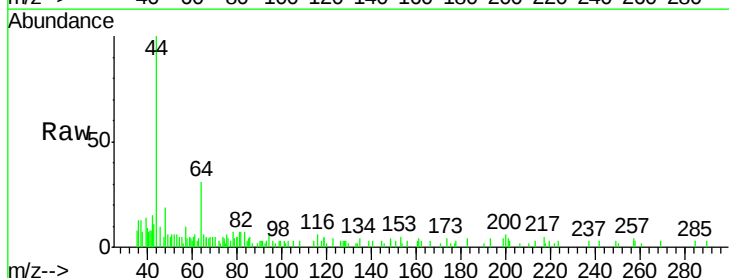
Acq: 22 Feb 2019 14:03

Tgt Ion: 64 Resp: 663

Ion Ratio Lower Upper

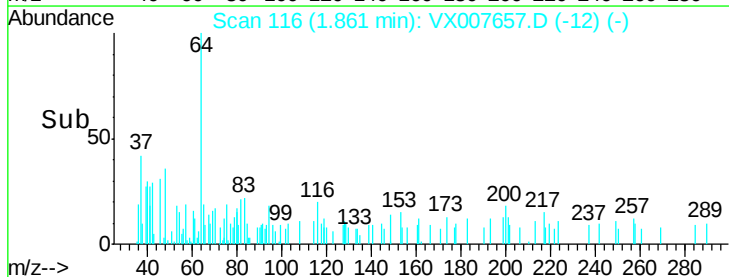
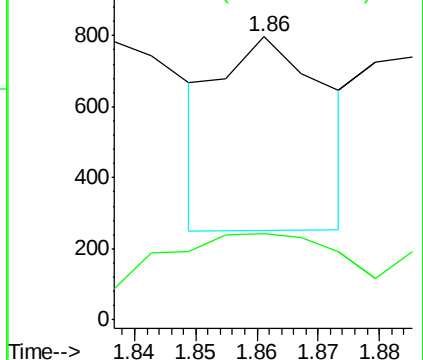
64 100

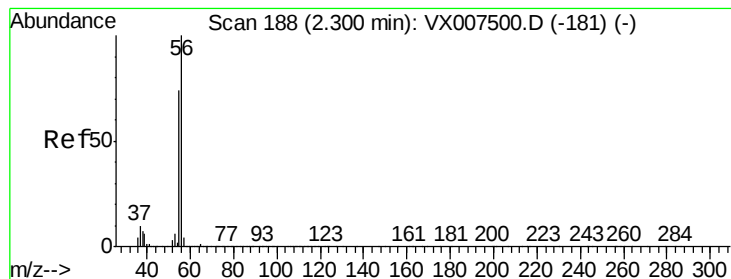
66 33.3 23.9 35.9



Abundance Ion 64.00 (63.70 to 64.70): VX0

Ion 66.00 (65.70 to 66.70): VX0





#13

Acrolein

Concen: 0.241 ug/l

RT: 2.23 min Scan# 177

Delta R.T. -0.07 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

Instrument :

MSVOA_X

ClientSampled :

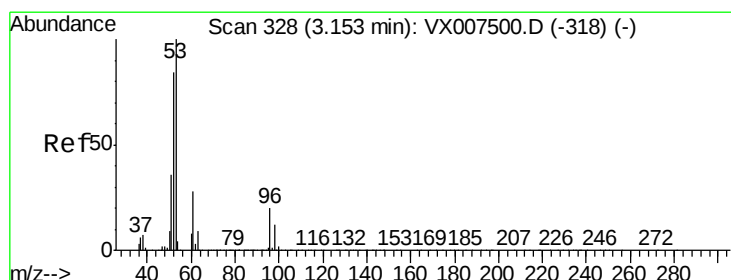
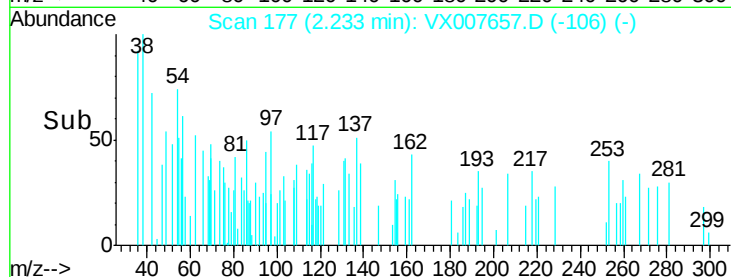
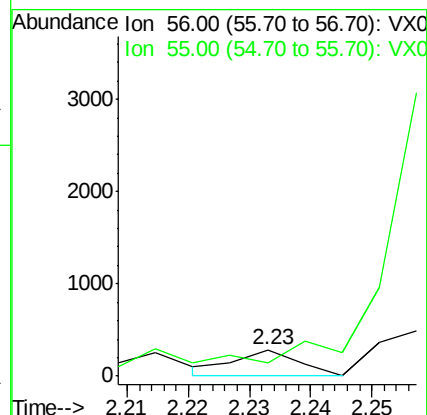
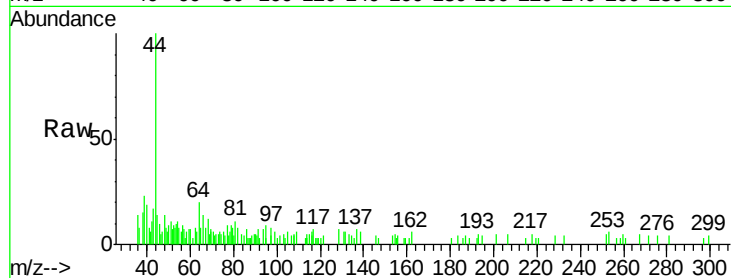
25-25

Tot Ion: 56 Resp: 205

Ion Ratio Lower Upper

56 100

55 75.1 58.6 87.8



#14

Acrylonitrile

Concen: 0.769 ug/l

RT: 3.17 min Scan# 330

Delta R.T. 0.01 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

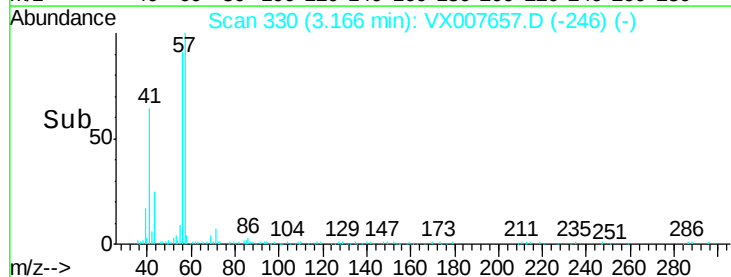
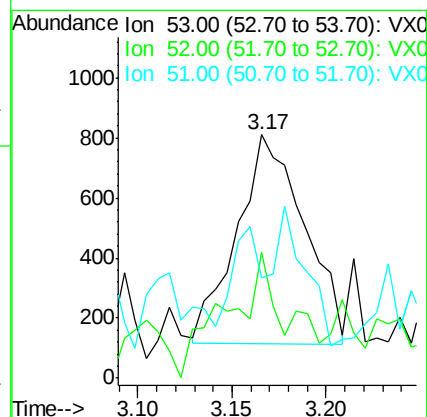
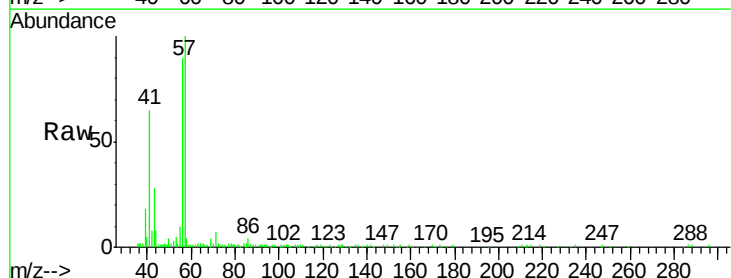
Tgt Ion: 53 Resp: 1729

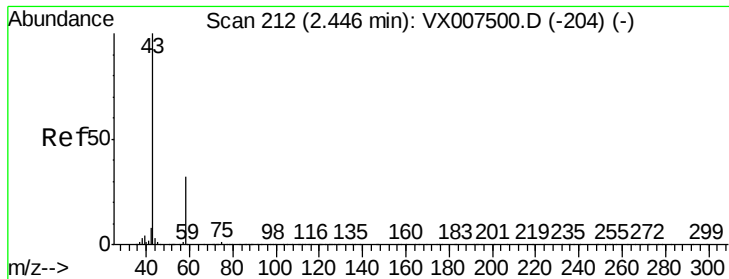
Ion Ratio Lower Upper

53 100

52 10.1 41.3 124.1#

51 24.3 17.5 52.6





#15

Acetone

Concen: 20.443 ug/l

RT: 2.45 min Scan# 212

Delta R.T. 0.00 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

Instrument :

MSVOA_X

ClientSampled :

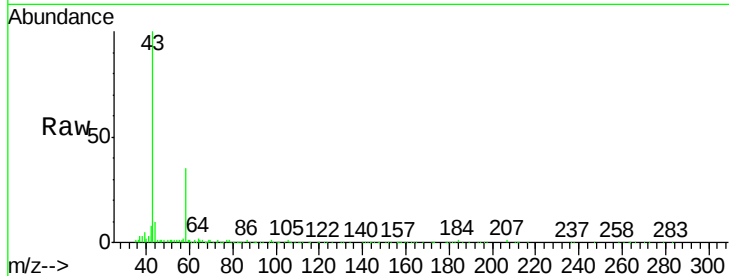
25-25

Tot Ion: 58 Resp: 12468

Ion Ratio Lower Upper

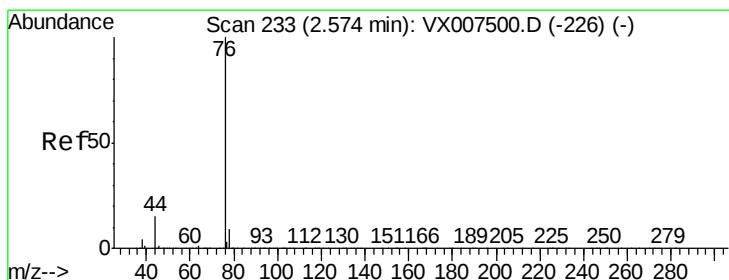
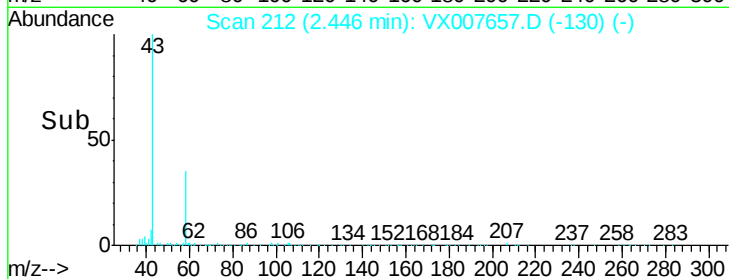
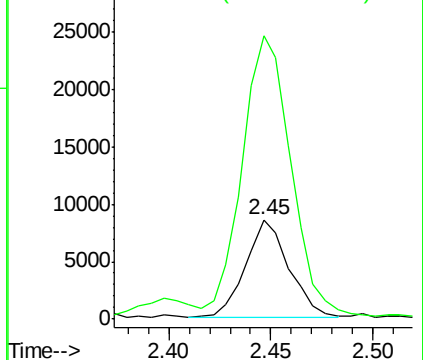
58 100

43 283.3 249.8 374.6



Abundance Ion 58.00 (57.70 to 58.70): VX0

Ion 43.00 (42.70 to 43.70): VX0



#16

Carbon Disulfide

Concen: 0.282 ug/l

RT: 2.57 min Scan# 233

Delta R.T. 0.00 min

Lab File: VX007657.D

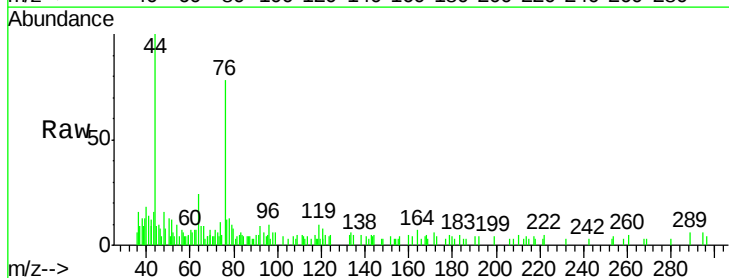
Acq: 22 Feb 2019 14:03

Tgt Ion: 76 Resp: 2646

Ion Ratio Lower Upper

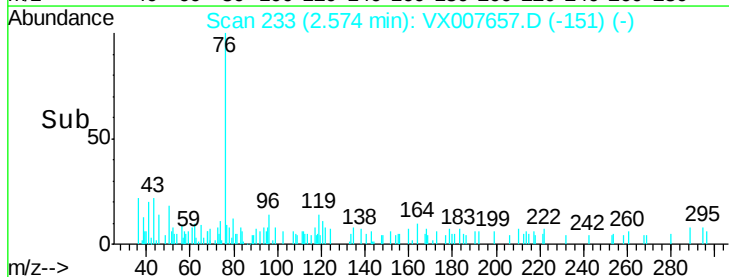
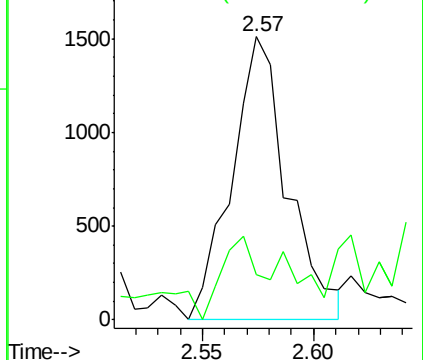
76 100

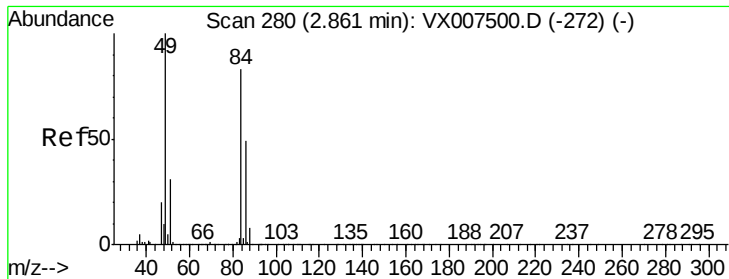
78 6.8 7.5 11.3#



Abundance Ion 76.00 (75.70 to 76.70): VX0

Ion 78.00 (77.70 to 78.70): VX0

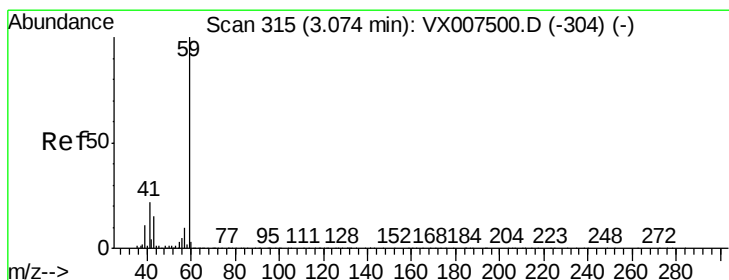
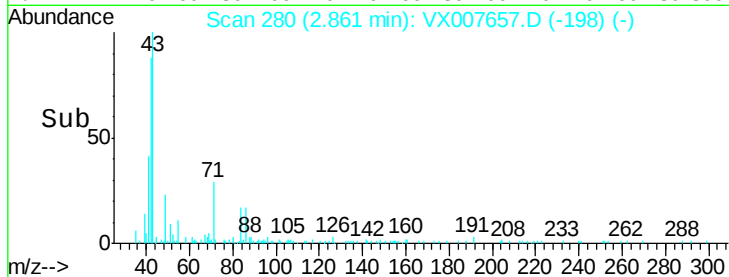
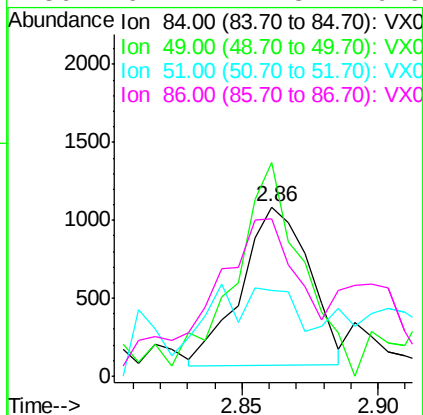
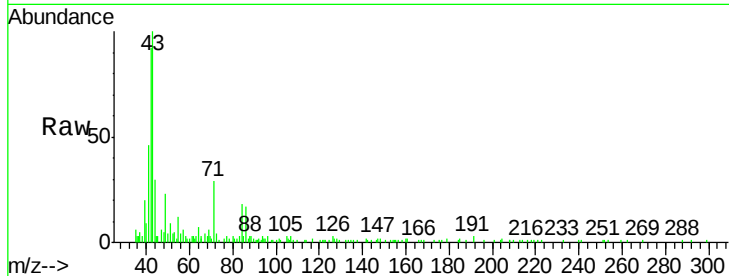




#18
Methvlene Chloride
Concen: 0.440 ug/l
RT: 2.86 min Scan# 280
Delta R.T. 0.00 min
Lab File: VX007657.D
Acq: 22 Feb 2019 14:03

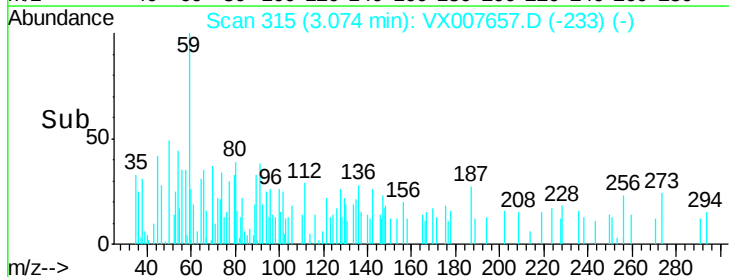
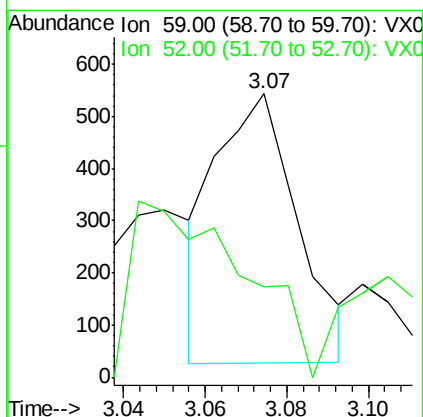
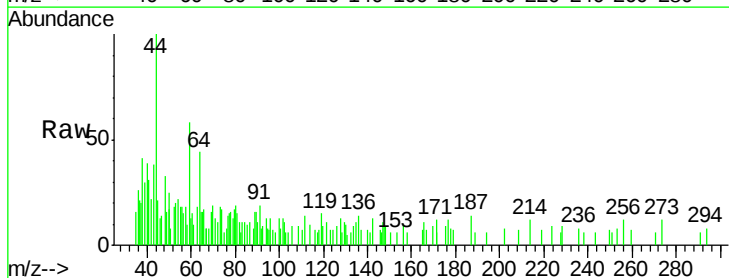
Instrument :
MSVOA_X
ClientSampled :
25-25

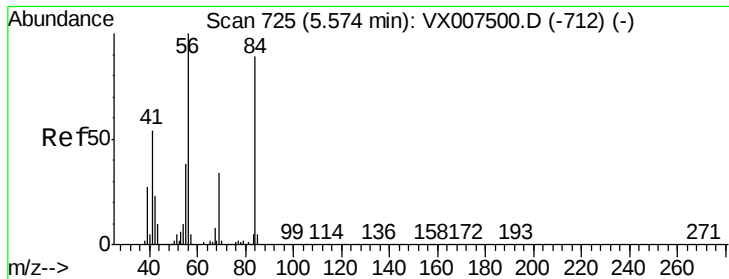
Tot Ion:	84.00	Resp:	1752
Ion	Ratio	Lower	Upper
84	100		
49	111.9	96.1	144.1
51	31.7	29.1	43.7
86	67.1	47.3	70.9



#23
tert-Butyl Alcohol
Concen: 0.765 ug/l
RT: 3.07 min Scan# 315
Delta R.T. 0.00 min
Lab File: VX007657.D
Acq: 22 Feb 2019 14:03

Tgt Ion:	59.00	Resp:	723
Ion	Ratio	Lower	Upper
59	100		
52	0.0	0.2	0.2#

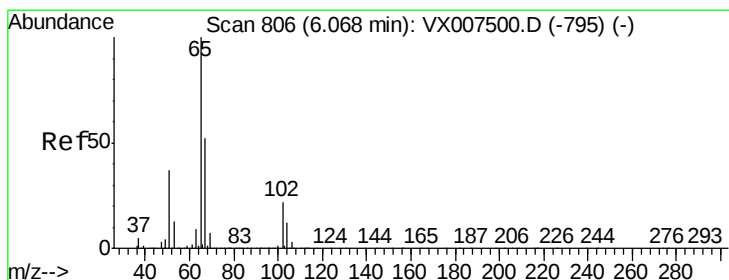
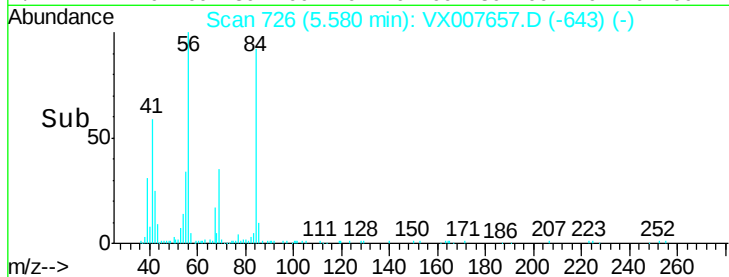
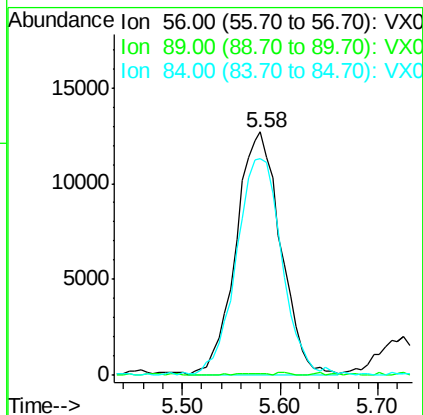
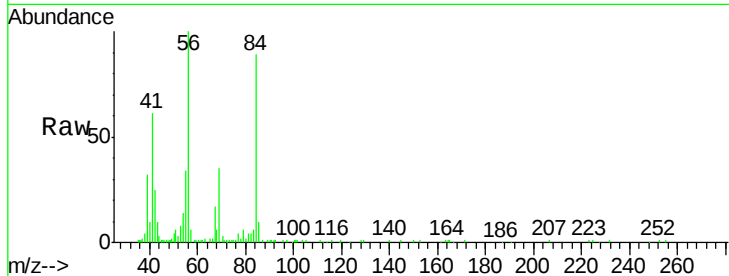




#26
Cyclohexane
Concen: 7.488 ug/l
RT: 5.58 min Scan# 726
Delta R.T. 0.01 min
Lab File: VX007657.D
Acq: 22 Feb 2019 14:03

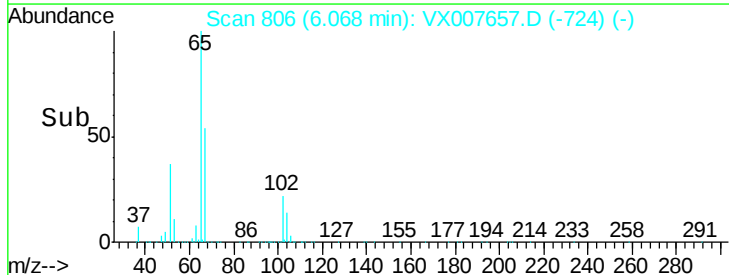
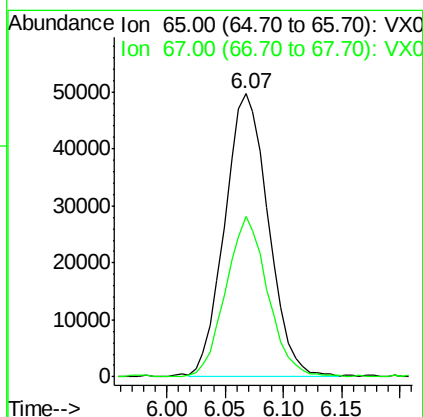
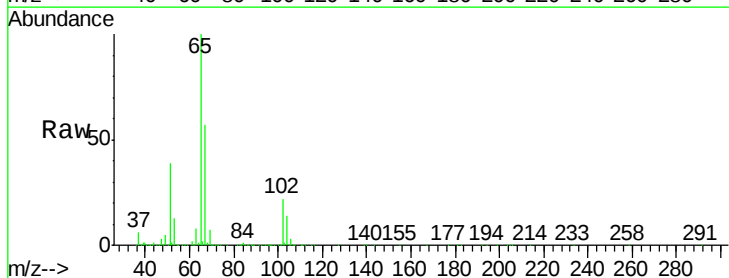
Instrument :
MSVOA_X
ClientSampleId :
25-25

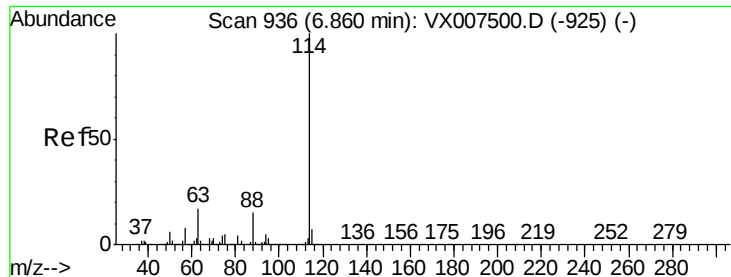
Tot Ion: 56 Resp: 40313
Ion Ratio Lower Upper
56 100
89 0.1 0.0 0.0#
84 90.2 73.9 110.9



#27
1,2-Dichloroethane-d4
Concen: 31.081 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.00 min
Lab File: VX007657.D
Acq: 22 Feb 2019 14:03

Tgt Ion: 65 Resp: 129432
Ion Ratio Lower Upper
65 100
67 54.2 42.9 64.3





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. 0.00 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

Instrument :

MSVOA_X

ClientSampleId :

25-25

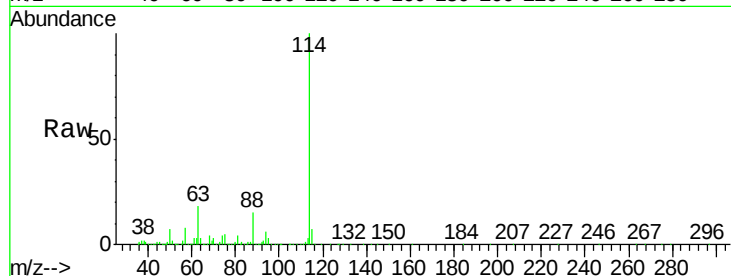
Tot Ion:114 Resp: 330788

Ion Ratio Lower Upper

114 100

63 18.7 14.2 21.4

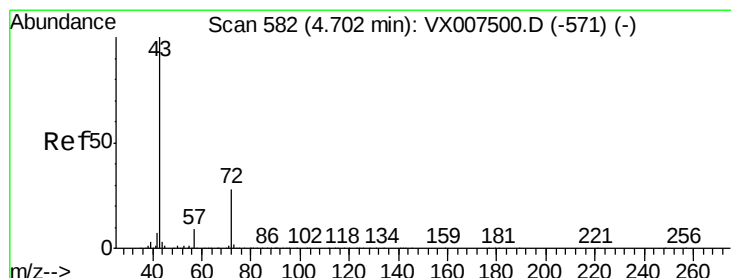
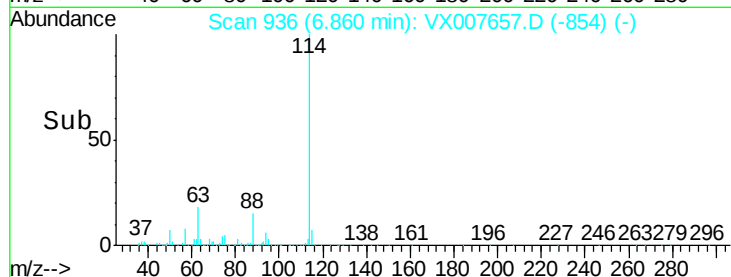
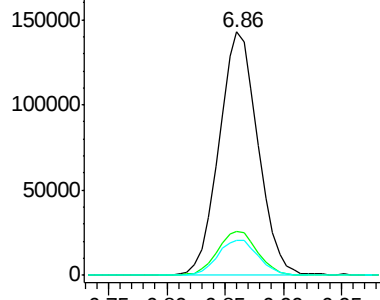
88 15.2 11.9 17.9



Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 88.00 (87.70 to 88.70): VX0



#30

2-Butanone

Concen: 4.685 ug/l

RT: 4.70 min Scan# 582

Delta R.T. 0.00 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

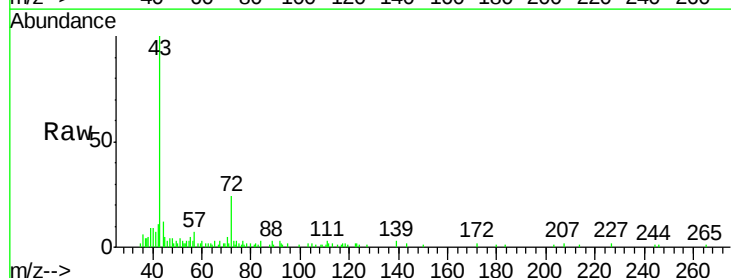
Tgt Ion: 43 Resp: 12793

Ion Ratio Lower Upper

43 100

57 4.2 7.0 10.6#

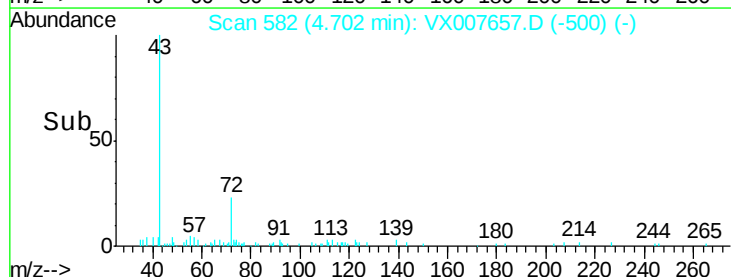
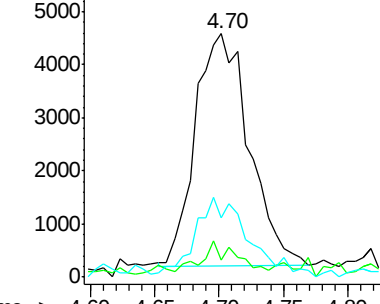
72 0.0 21.5 32.3#

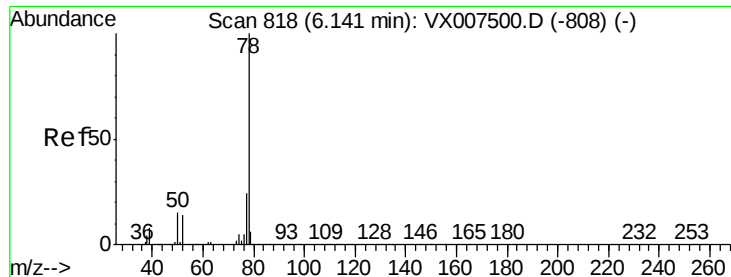


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 57.00 (56.70 to 57.70): VX0

Ion 72.00 (71.70 to 72.70): VX0





#34

Benzene

Concen: 4.831 ug/l

RT: 6.14 min Scan# 818

Delta R.T. 0.00 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

Instrument :

MSVOA_X

ClientSampleId :

25-25

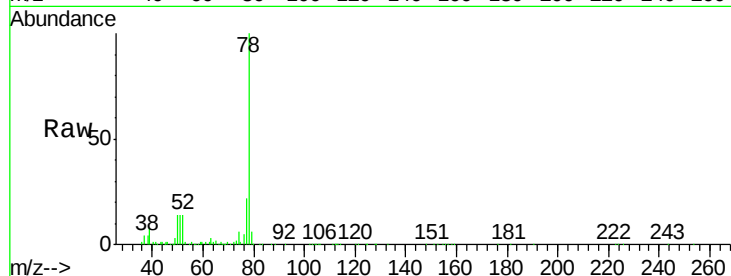
Tot Ion: 78 Resp: 70275

Ion Ratio Lower Upper

78 100

77 21.6 19.1 28.7

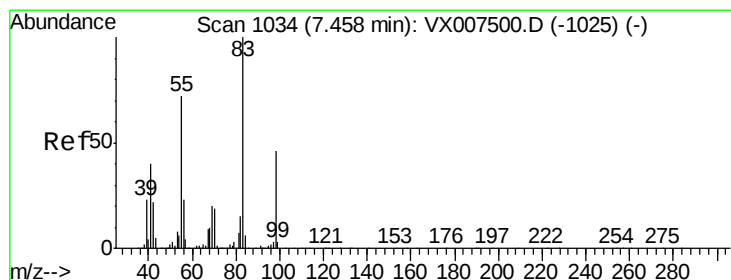
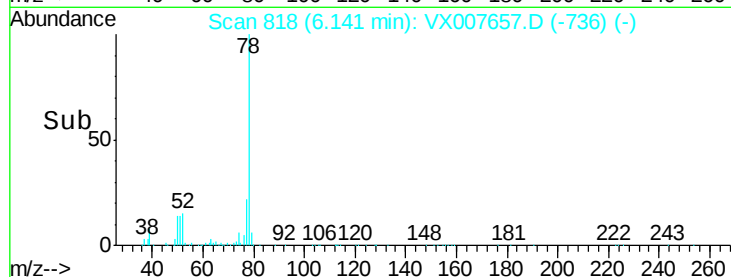
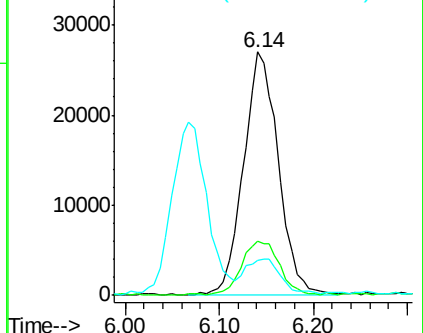
51 12.9 10.8 16.2



Abundance Ion 78.10 (77.80 to 78.80): VX0

Ion 77.00 (76.70 to 77.70): VX0

Ion 51.00 (50.70 to 51.70): VX0



#38

Methylcyclohexane

Concen: 2.709 ug/l

RT: 7.46 min Scan# 1035

Delta R.T. 0.01 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

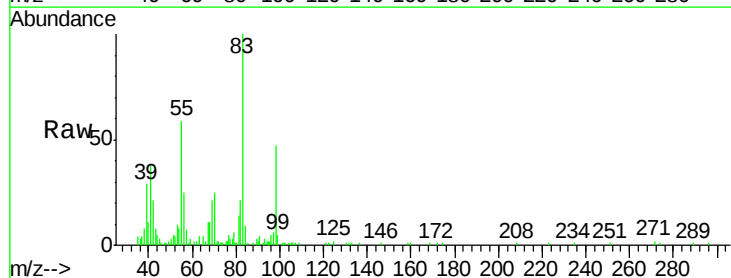
Tgt Ion: 83 Resp: 14471

Ion Ratio Lower Upper

83 100

55 84.9 36.0 108.0

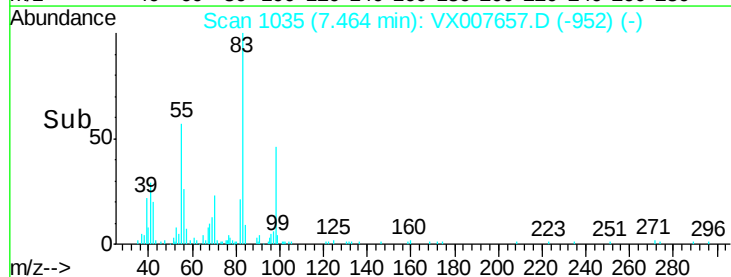
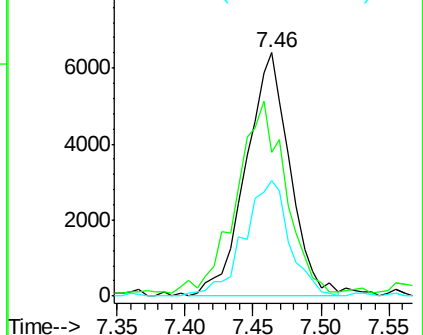
98 46.3 23.8 71.4

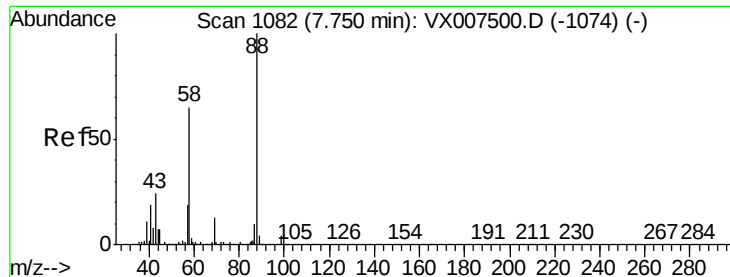


Abundance Ion 83.00 (82.70 to 83.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

Ion 98.00 (97.70 to 98.70): VX0

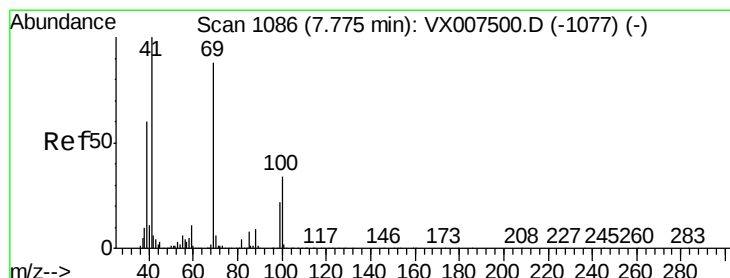
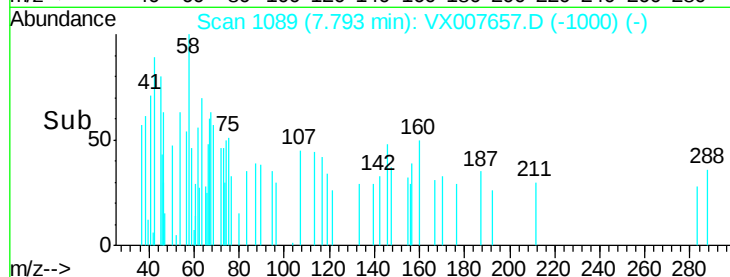
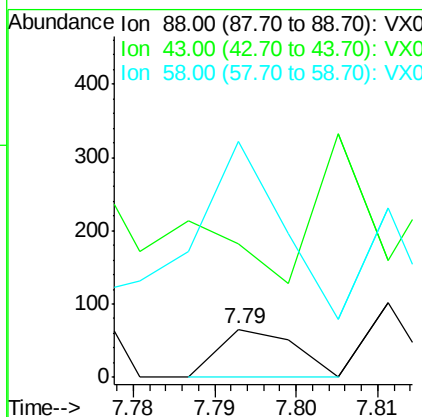
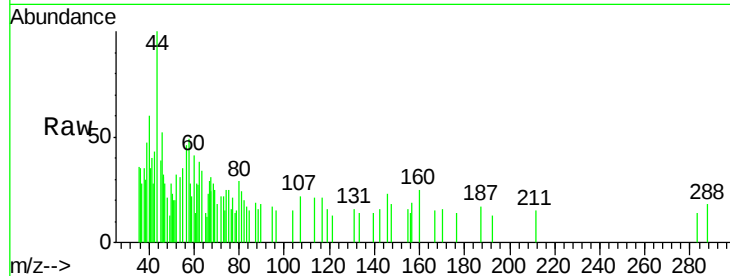




#45
 1,4-Dioxane
 Concen: 0.451 ug/l
 RT: 7.79 min Scan# 1089
 Delta R.T. 0.04 min
 Lab File: VX007657.D
 Acq: 22 Feb 2019 14:03

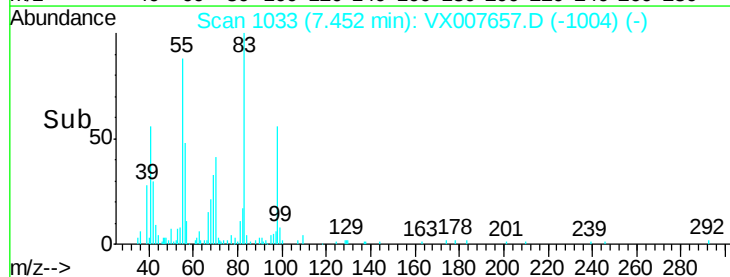
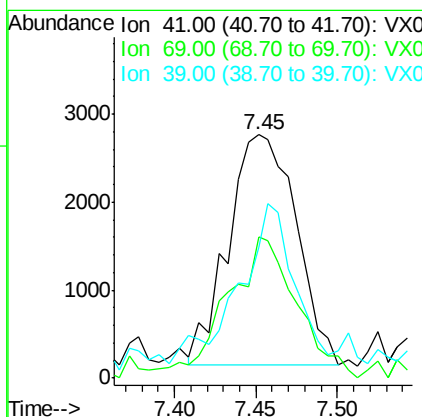
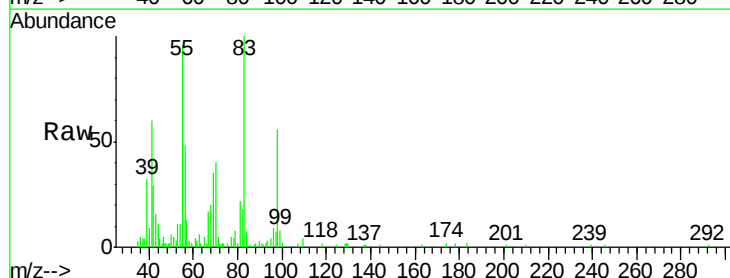
Instrument :
 MSVOA_X
 ClientSampled :
 25-25

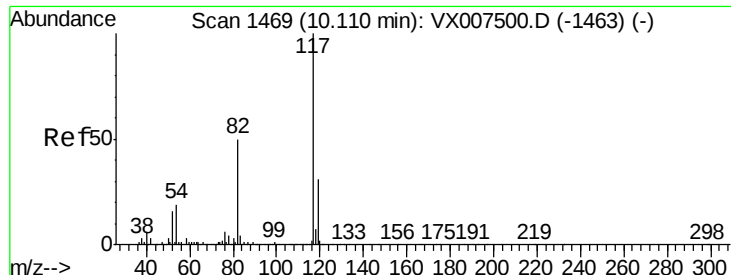
Tot Ion	Ratio	Lower	Upper
88	100		
43	118.6	23.6	35.4#
58	620.9	51.6	77.4#



#46
 Methyl methacrylate
 Concen: 1.840 ug/l
 RT: 7.45 min Scan# 1033
 Delta R.T. -0.32 min
 Lab File: VX007657.D
 Acq: 22 Feb 2019 14:03

Tgt Ion	Ratio	Lower	Upper
41	100		
69	55.7	44.2	132.6
39	45.1	29.9	89.8

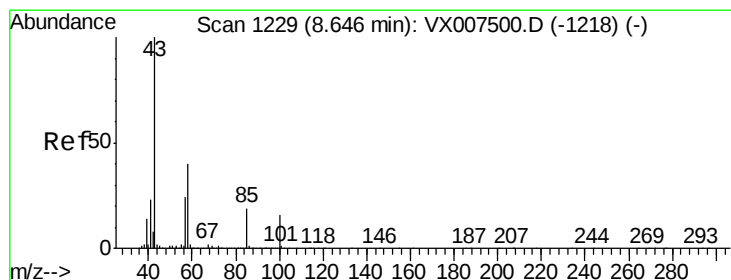
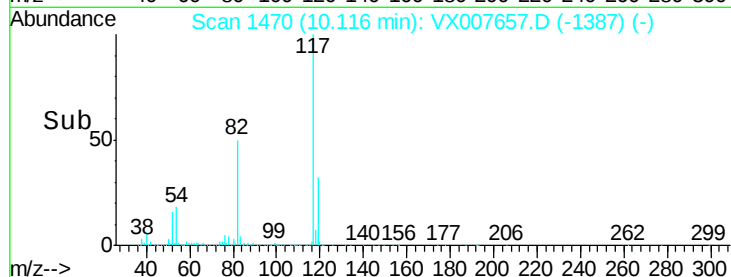
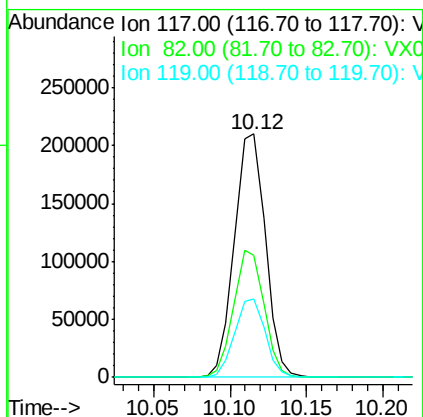
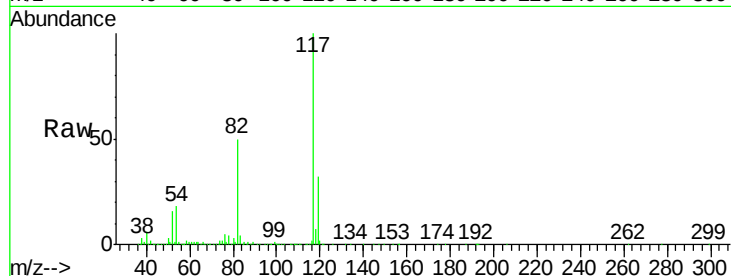




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX007657.D
Acq: 22 Feb 2019 14:03

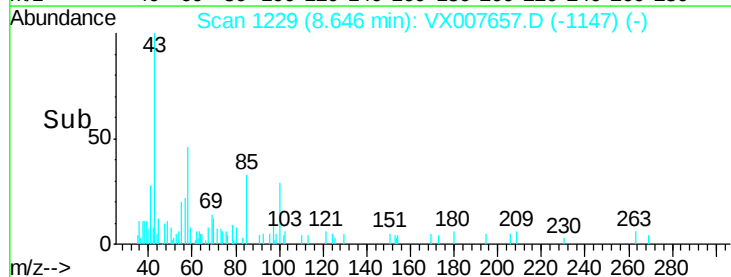
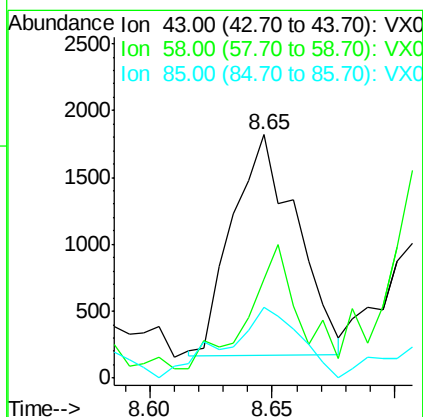
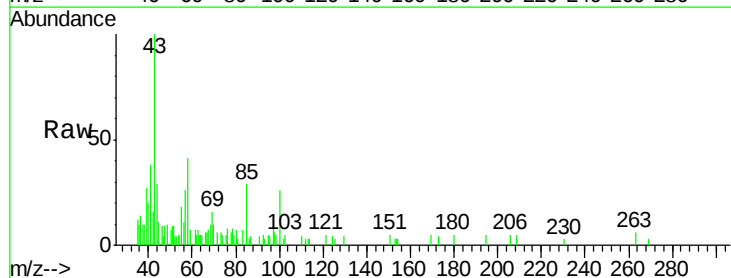
Instrument :
MSVOA_X
ClientSampled :
25-25

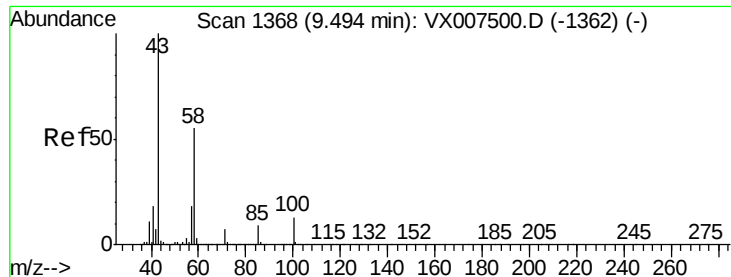
Tot Ion	Ratio	Lower	Upper
117	100		
82	50.8	40.4	60.6
119	31.6	25.8	38.6



#58
4-Methyl-2-Pentanone
Concen: 0.560 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. 0.00 min
Lab File: VX007657.D
Acq: 22 Feb 2019 14:03

Tgt Ion	Ratio	Lower	Upper
43	100		
58	33.0	31.4	47.0
85	28.1	15.0	22.6

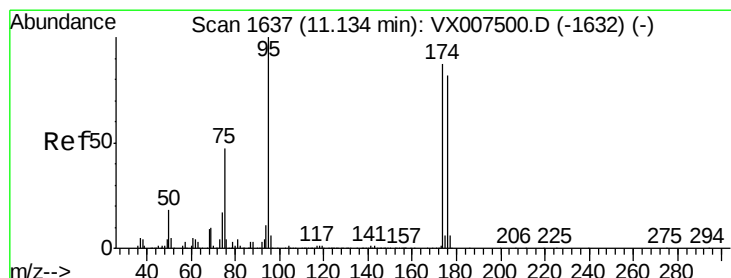
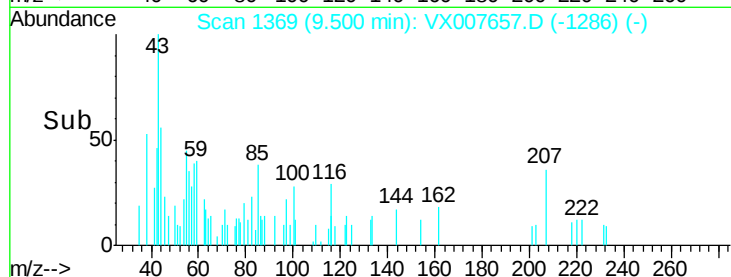
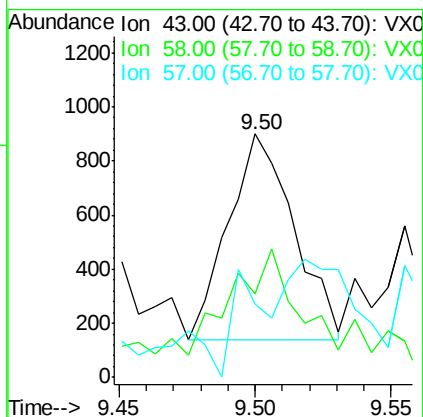
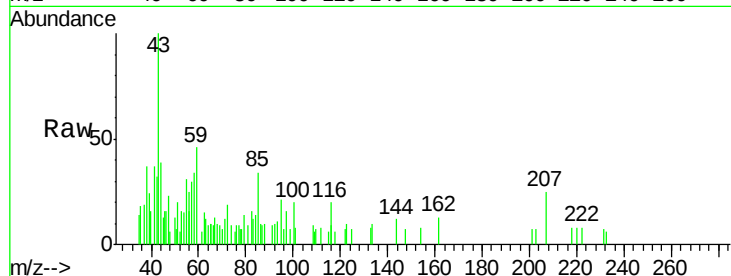




#59
2-Hexanone
Concen: 0.311 ug/l
RT: 9.50 min Scan# 1369
Delta R.T. 0.01 min
Lab File: VX007657.D
Acq: 22 Feb 2019 14:03

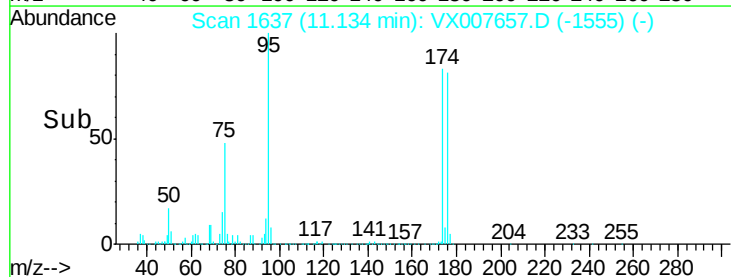
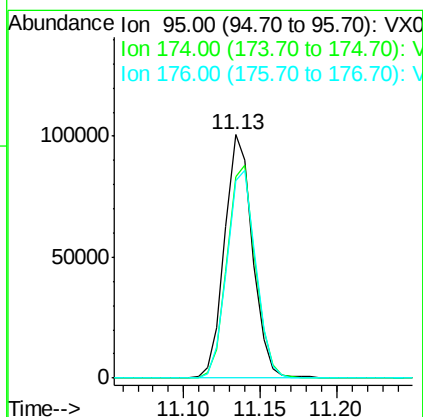
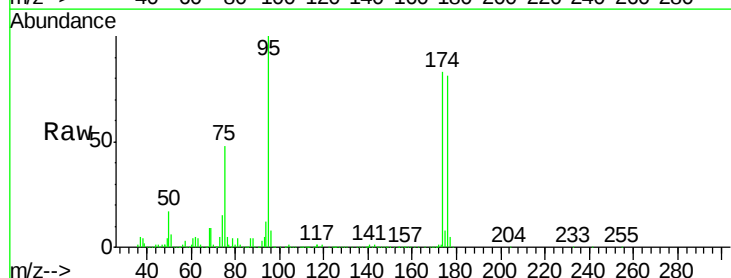
Instrument :
MSVOA_X
ClientSampled :
25-25

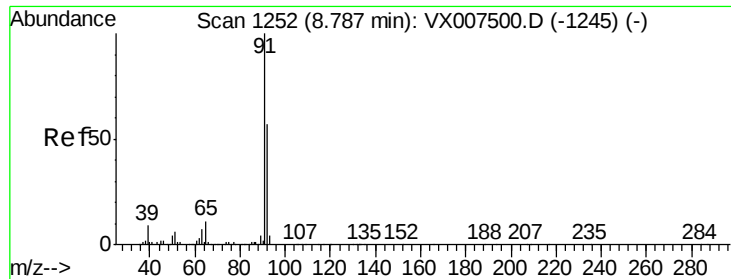
Tot Ion	Ratio	Lower	Upper
43	100		
58	63.9	43.9	65.9
57	25.7	14.9	22.3



#60
4-Bromofluorobenzene
Concen: 27.916 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX007657.D
Acq: 22 Feb 2019 14:03

Tgt Ion	Ratio	Lower	Upper
95	100		
174	88.3	74.9	112.3
176	87.8	70.7	106.1





#62

Toluene

Concen: 0.528 ug/l

RT: 8.79 min Scan# 1252

Delta R.T. 0.00 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

Instrument :

MSVOA_X

ClientSampleId :

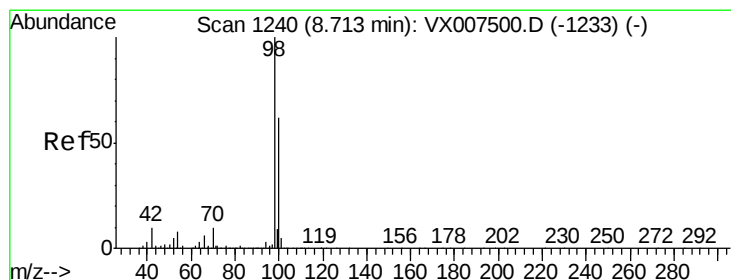
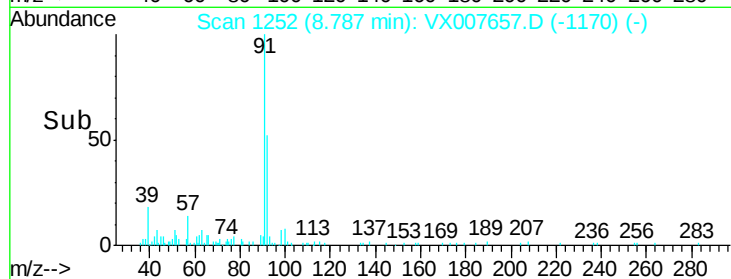
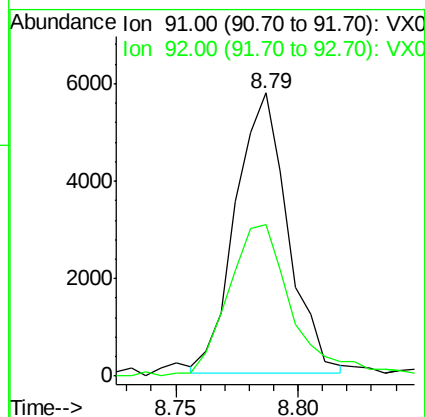
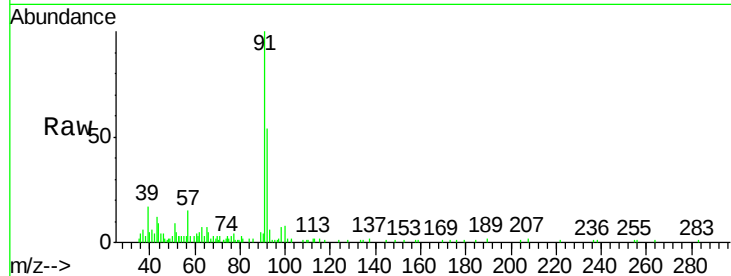
25-25

Tot Ion: 91 Resp: 8582

Ion Ratio Lower Upper

91 100

92 64.9 46.4 69.6



#63

Toluene-d8

Concen: 29.220 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.00 min

Lab File: VX007657.D

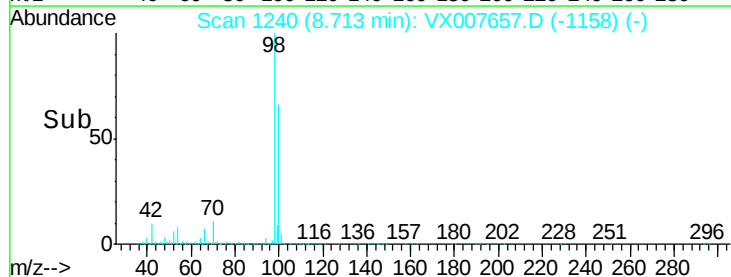
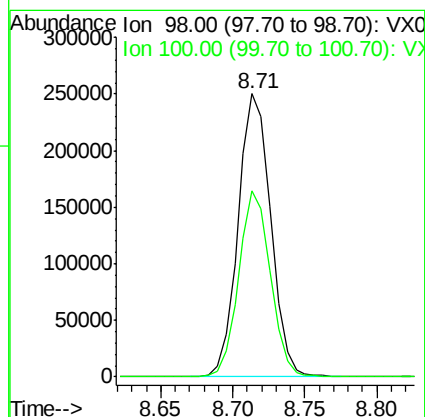
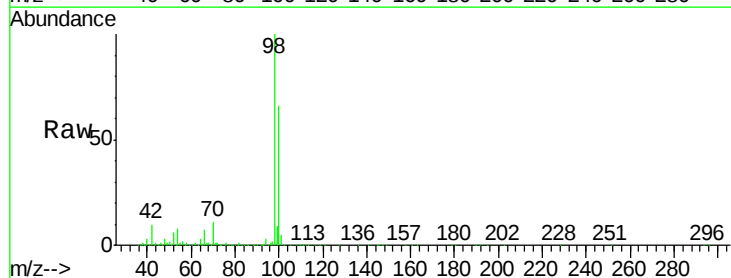
Acq: 22 Feb 2019 14:03

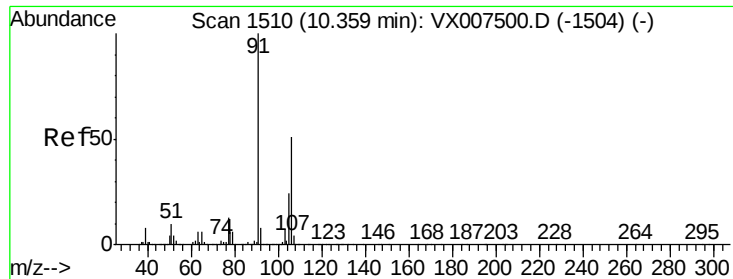
Tgt Ion: 98 Resp: 393815

Ion Ratio Lower Upper

98 100

100 63.6 50.9 76.3





#67

m/p-Xylenes

Concen: 0.783 ug/l

RT: 10.36 min Scan# 1510

Delta R.T. 0.00 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

Instrument :

MSVOA_X

ClientSampleId :

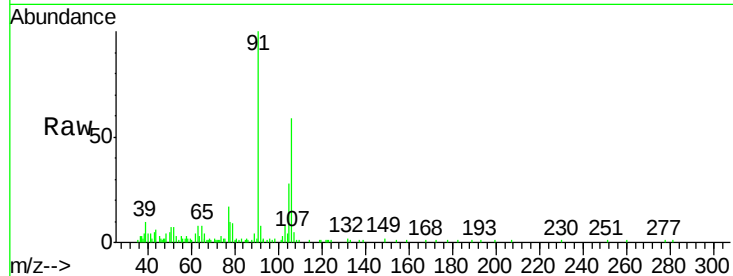
25-25

Tot Ion:106 Resp: 5291

Ion Ratio Lower Upper

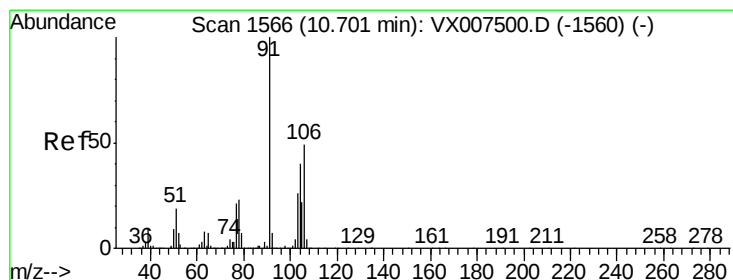
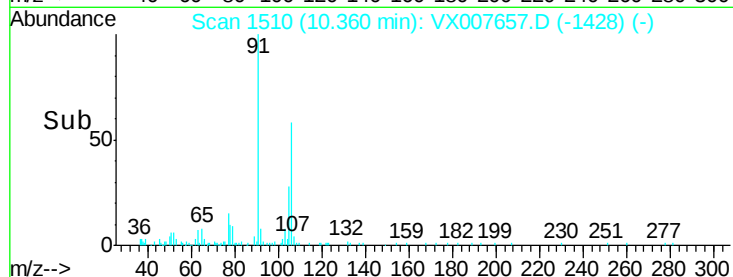
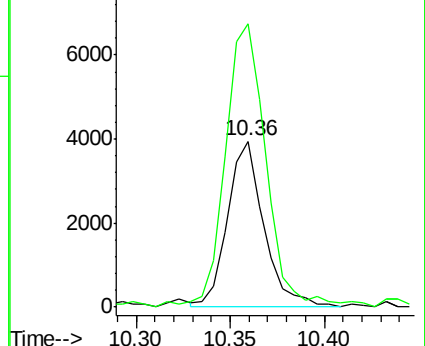
106 100

91 188.6 157.0 235.4



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VX0



#68

o-Xylene

Concen: 0.244 ug/l

RT: 10.69 min Scan# 1565

Delta R.T. -0.01 min

Lab File: VX007657.D

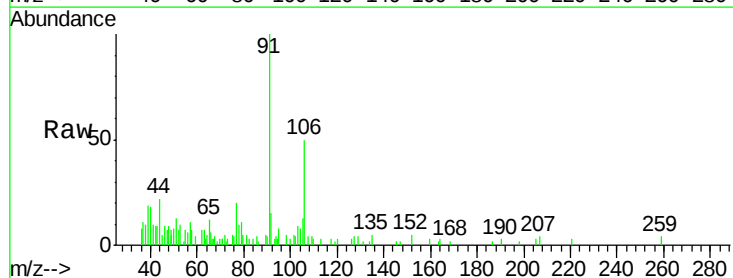
Acq: 22 Feb 2019 14:03

Tgt Ion:106 Resp: 1609

Ion Ratio Lower Upper

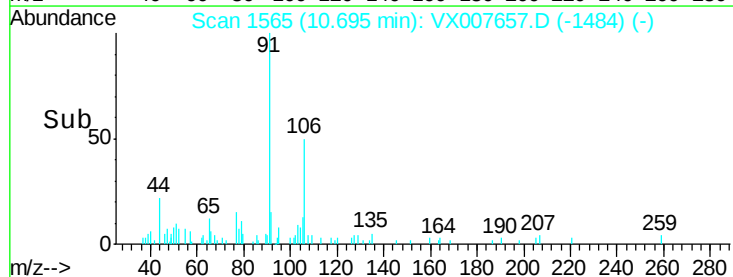
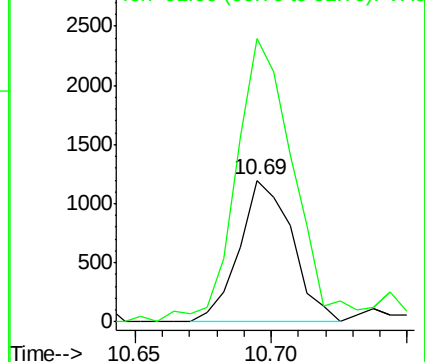
106 100

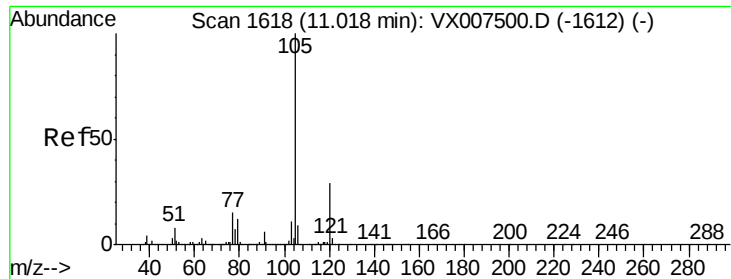
91 200.4 104.4 313.2



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VX0





#70

Isopropylbenzene

Concen: 0.207 ug/l

RT: 11.02 min Scan# 1618

Delta R.T. 0.00 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

Instrument :

MSVOA_X

ClientSampled :

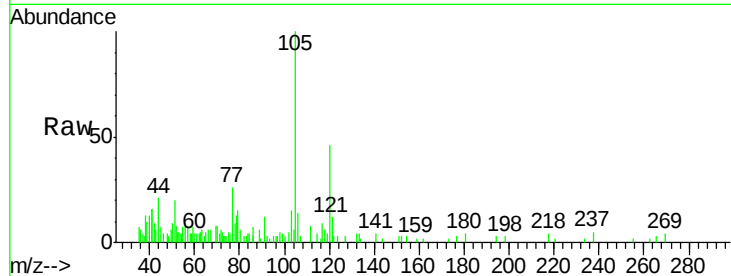
25-25

Tot Ion:105 Resp: 3605

Ion Ratio Lower Upper

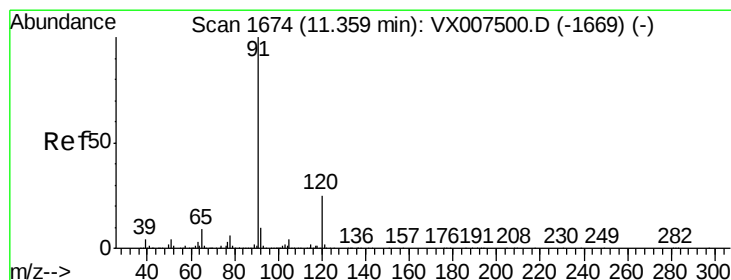
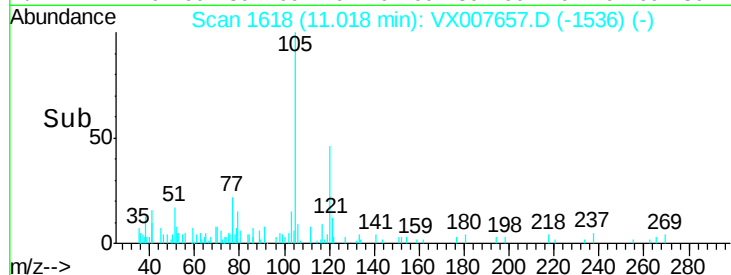
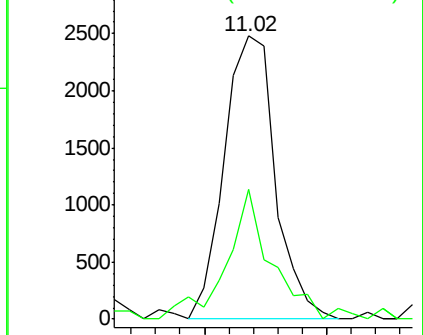
105 100

120 35.5 19.8 36.8



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#74

n-propylbenzene

Concen: 0.273 ug/l

RT: 11.36 min Scan# 1674

Delta R.T. 0.00 min

Lab File: VX007657.D

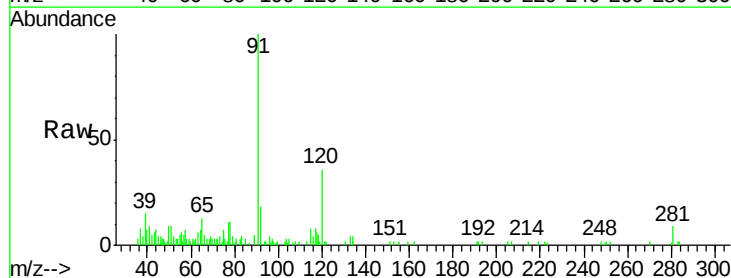
Acq: 22 Feb 2019 14:03

Tgt Ion: 91 Resp: 5271

Ion Ratio Lower Upper

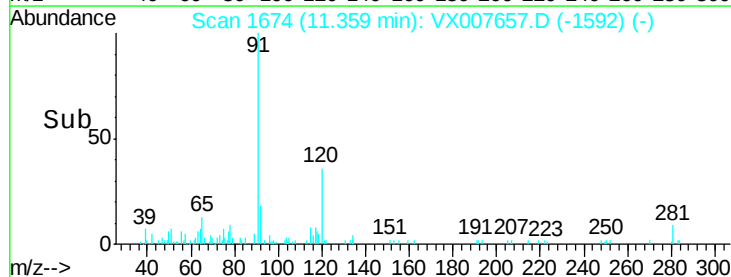
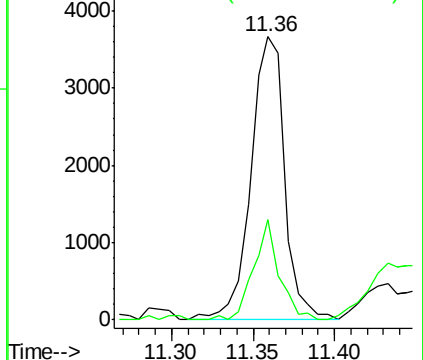
91 100

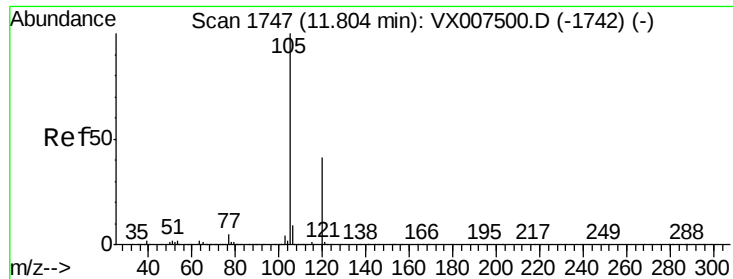
120 26.7 0.0 48.6



Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 120.00 (119.70 to 120.70): V





#80

1,2,4-Trimethylbenzene

Concen: 0.252 ug/l

RT: 11.80 min Scan# 1747

Delta R.T. 0.00 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

Instrument :

MSVOA_X

ClientSampleId :

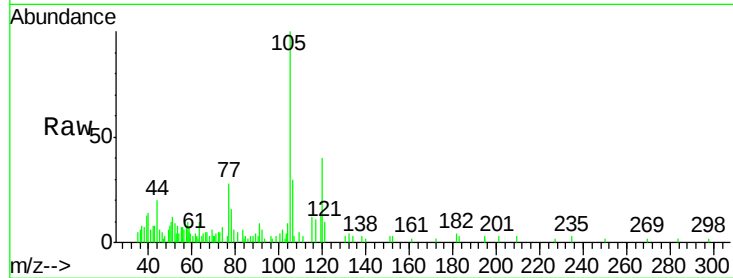
25-25

Tot Ion:105 Resp: 3627

Ion Ratio Lower Upper

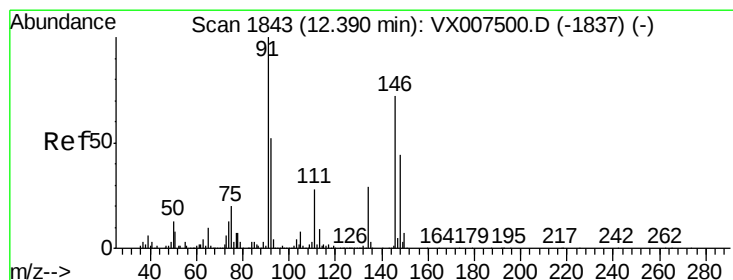
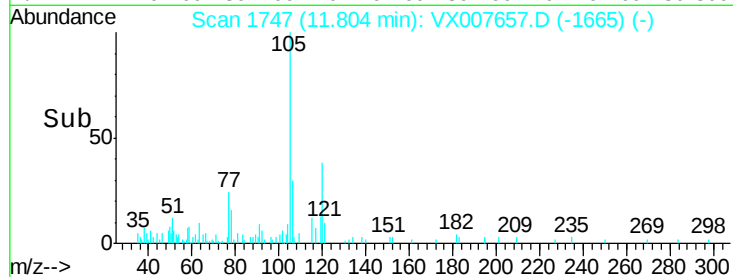
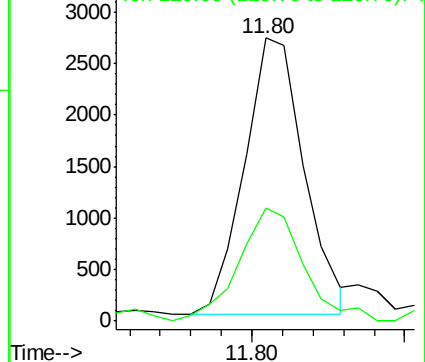
105 100

120 44.3 0.0 94.0



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#85

n-Butylbenzene

Concen: 0.221 ug/l

RT: 12.30 min Scan# 1828

Delta R.T. -0.09 min

Lab File: VX007657.D

Acq: 22 Feb 2019 14:03

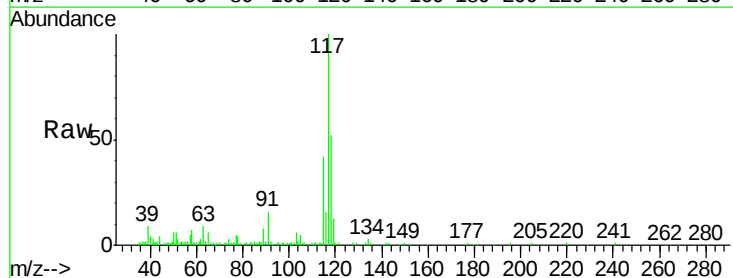
Tgt Ion: 91 Resp: 2765

Ion Ratio Lower Upper

91 100

92 10.1 0.0 105.2

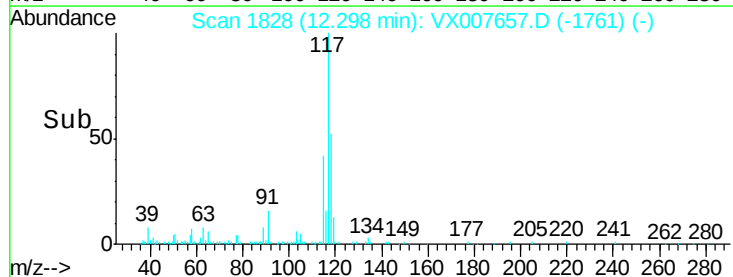
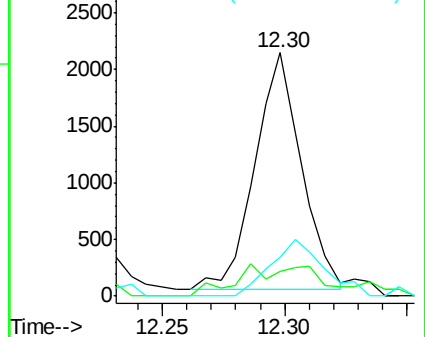
134 27.3 0.0 56.4

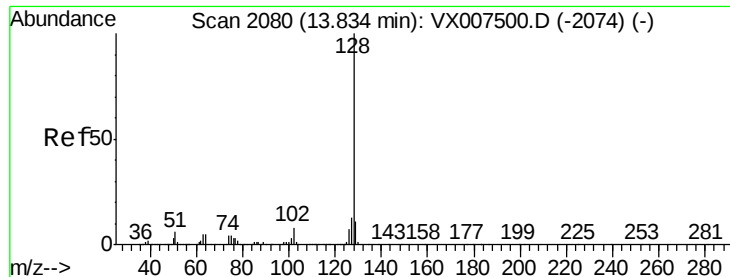


Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 92.00 (91.70 to 92.70): VX0

Ion 134.00 (133.70 to 134.70): V

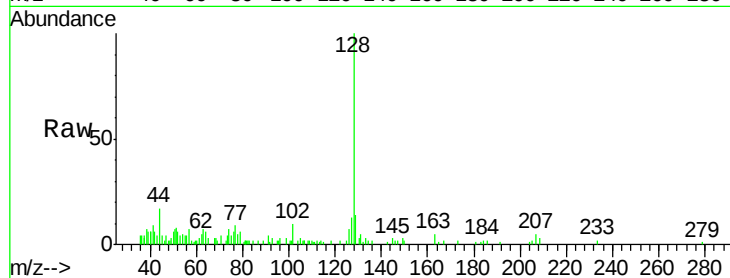




#91
Naphthalene
Concen: 0.282 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX007657.D
Acq: 22 Feb 2019 14:03

Instrument :
MSVOA_X
ClientSampleId :
25-25

Tot Ion	Ratio	Lower	Upper
128	100		
127	18.1	10.5	15.7#
129	16.6	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

