

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU031020\
 Data File : VU037145.D
 Acq On : 10 Mar 2020 11:15
 Operator : JC/MD
 Sample : L1161-09 0.25 ppb
 Misc : 25.0mL/MSVOA U/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_U
 ClientSampleId :
 MDL-WATER-03-QT1-2020

Manual Integrations
 APPROVED

sam
 3/11/2020 3:32:12 PM

Quant Time: Mar 10 11:45:13 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA U\METHOD\524U030920DW.M
 Quant Title : METHOD 524.2 VOLATILES DRINKING WATER
 QLast Update : Mon Mar 09 15:46:40 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.15	96	14222	1.00	ug/l	0.00
System Monitoring Compounds						
57) 4-Bromofluorobenzene	10.65	95	4515	0.82	ug/l	0.00
Spiked Amount 1.000			Recovery	=	82.00%	
68) 1,2-Dichlorobenzene-d4	12.22	152	5020	0.89	ug/l	0.00
Spiked Amount 1.000			Recovery	=	89.00%	
Target Compounds						
					Ovalue	
2) Dichlorodifluoromethane	1.40	85	1497	0.216	ug/l	93
3) Chloromethane	1.54	50	1535	0.222	ug/l	90
4) Vinyl Chloride	1.62	62	1243	0.205	ug/l	94
5) Bromomethane	1.87	94	425	0.201	ug/l	90
6) Chloroethane	1.95	64	900	0.310	ug/l	92
7) Trichlorofluoromethane	2.16	101	1475	0.200	ug/l	98
9) 1,1-Dichloroethene	2.60	96	704	0.214	ug/l	84
11) Allyl Chloride	2.95	41	1516	0.238	ug/l #	61
12) Acrylonitrile	3.35	53	289m	0.372	ug/l	
13) Acetone	2.67	43	1168	1.351	ug/l #	78
14) Carbon Disulfide	2.82	76	2271	0.207	ug/l #	75
15) Methylene Chloride	3.08	84	938	0.227	ug/l #	66
18) 2-Butanone	4.77	43	1406	1.064	ug/l	75
21) 2,2-Dichloropropane	4.71	77	1700	0.230	ug/l #	57
24) tert-Butyl Alcohol	3.28	59	650m	2.134	ug/l	
25) Methyl tert-Butyl Ether	3.41	73	1963	0.204	ug/l #	86
27) Chloroform	5.13	83	2023	0.232	ug/l	96
31) Isopropyl Ether	4.05	45	2665	0.206	ug/l	89
41) Tetrahydrofuran	5.12	42	186	0.222	ug/l #	27
45) 4-Methyl-2-Pentanone	7.83	43	3207	0.991	ug/l #	77
46) t-1,4-Dichloro-2-butene	10.84	75	854	0.964	ug/l #	40
47) Methyl methacrylate	7.00	69	555	0.278	ug/l #	50
54) 2-Hexanone	8.72	43	1952	0.875	ug/l #	75
61) Pentachloroethane	11.45	117	664	0.206	ug/l #	42
64) m/p-Xylenes	9.72	106	2100	0.281	ug/l	87
71) 1,2,3-Trichloropropane	10.84	75	854	0.247	ug/l #	44
89) Naphthalene	14.13	128	800	0.358	ug/l #	72

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

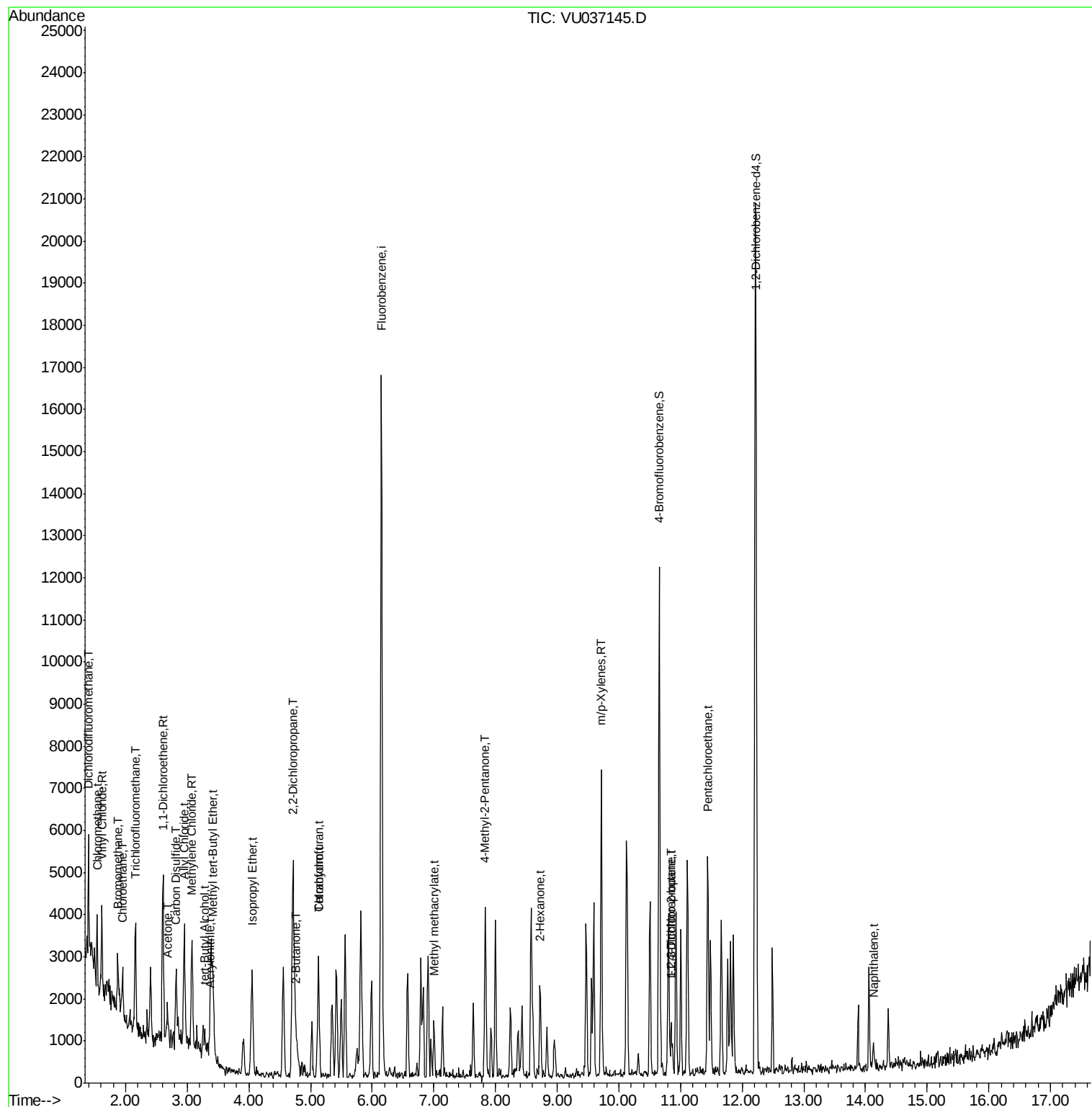
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU031020\
Data File : VU037145.D
Acq On : 10 Mar 2020 11:15
Operator : JC/MD
Sample : L1161-09 0.25 ppb
Misc : 25.0mL/MSVOA U/WATER
ALS Vial : 5 Sample Multiplier: 1

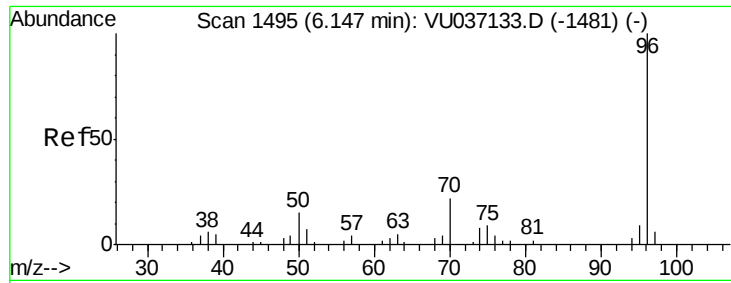
Instrument :
MSVOA_U
ClientSampleId :
MDL-WATER-03-QT1-2020

Manual Integrations
APPROVED

sam
3/11/2020 3:32:12 PM

Quant Time: Mar 10 11:45:13 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA U\METHOD\524U030920DW.M
Quant Title : METHOD 524.2 VOLATILES DRINKING WATER
QLast Update : Mon Mar 09 15:46:40 2020
Response via : Initial Calibration





#1

Fluorobenzene

Concen: 1.000 ug/l

RT: 6.15 min Scan# 1496

Delta R.T. 0.00 min

Lab File: VU037145.D

Acq: 10 Mar 2020 11:15

Instrument :

MSVOA_U

ClientSampleId :

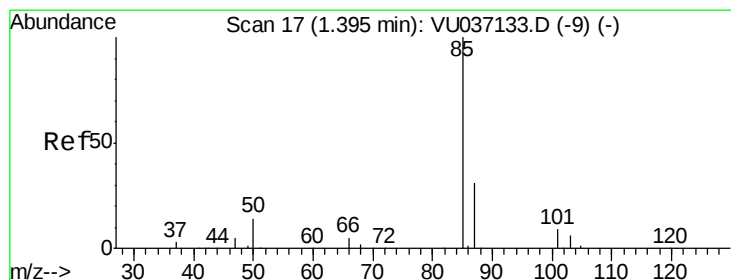
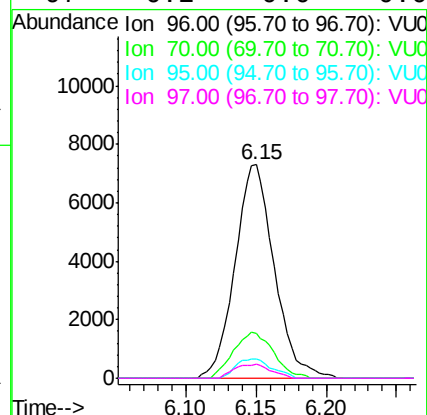
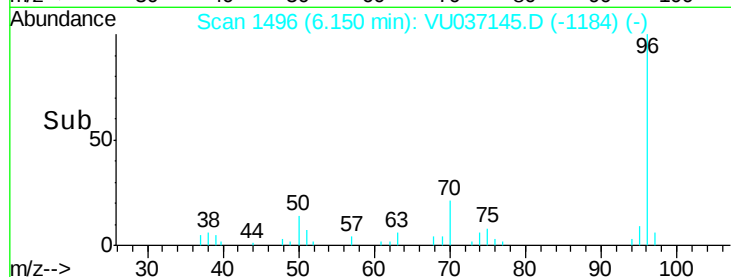
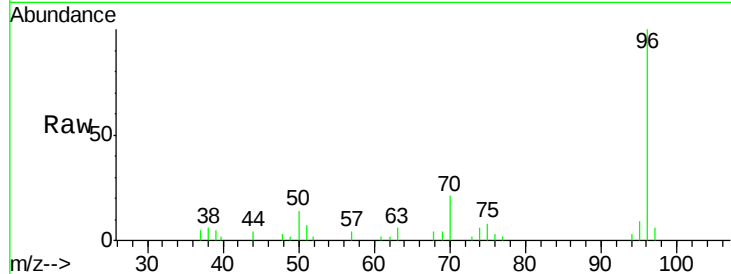
MDL-WATER-03-QT1-2020

Tot Ion: 96 Resp: 14222

Ion	Ratio	Lower	Upper
96	100		
70	22.0	15.6	23.4
95	8.5	7.0	10.6
97	6.2	0.0	0.0#

Manual Integrations
APPROVED

sam
3/11/2020 3:32:12 PM



#2

Dichlorodifluoromethane

Concen: 0.216 ug/l

RT: 1.40 min Scan# 18

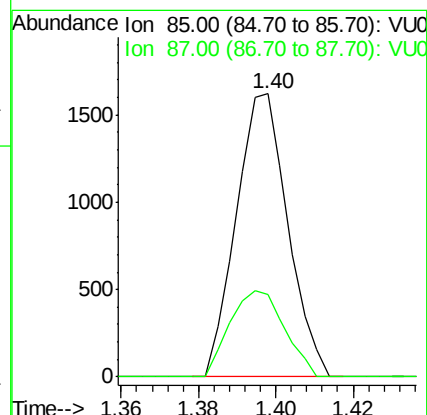
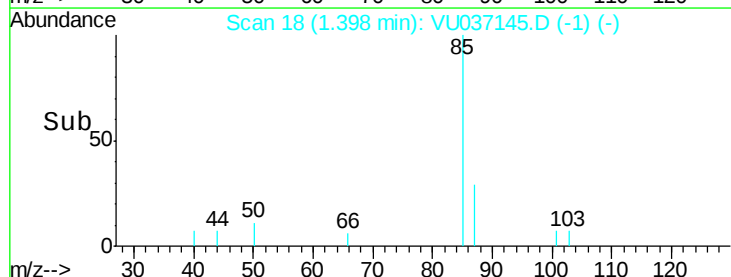
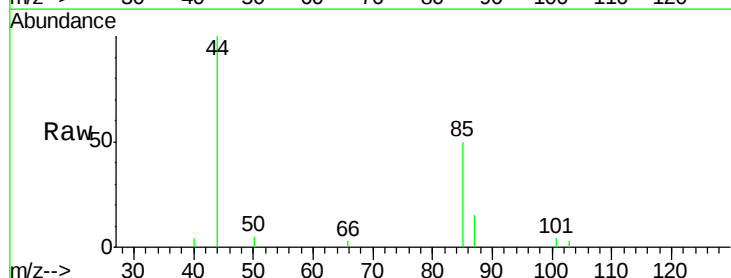
Delta R.T. 0.00 min

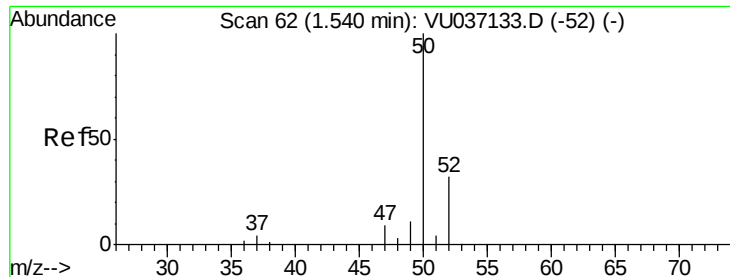
Lab File: VU037145.D

Acq: 10 Mar 2020 11:15

Tgt Ion: 85 Resp: 1497

Ion	Ratio	Lower	Upper
85	100		
87	29.0	16.4	49.2





#3

Chloromethane

Concen: 0.222 ug/l

RT: 1.54 min Scan# 62

Delta R.T. -0.00 min

Lab File: VU037145.D

Acq: 10 Mar 2020 11:15

Instrument :

MSVOA_U

ClientSampleId :

MDL-WATER-03-QT1-2020

Tot Ion: 50 Resp: 1535

Ion Ratio Lower Upper

50 100

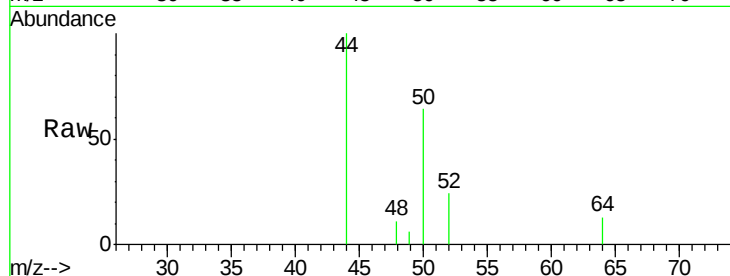
52 38.0 26.0 39.0

Manual Integrations

APPROVED

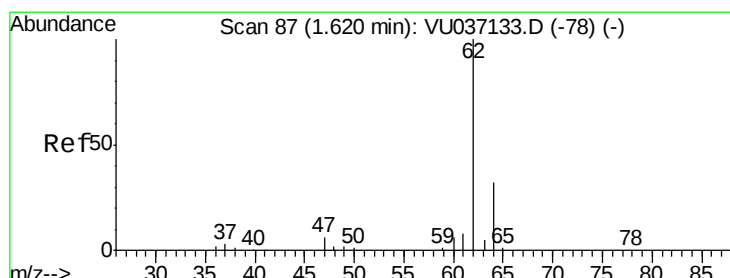
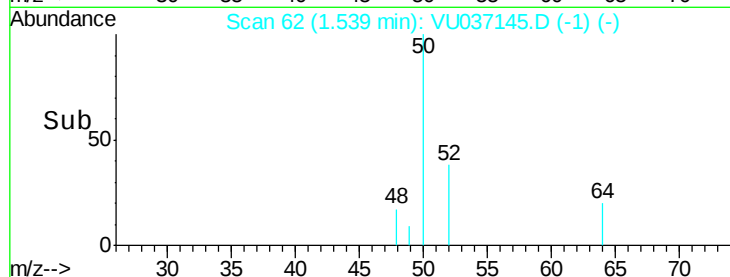
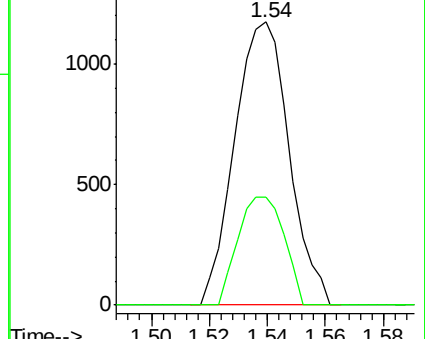
sam

3/11/2020 3:32:12 PM



Abundance Ion 50.00 (49.70 to 50.70): VU037133.D (-52) (-)

Ion 52.00 (51.70 to 52.70): VU037133.D (-52) (-)



#4

Vinyl Chloride

Concen: 0.205 ug/l

RT: 1.62 min Scan# 86

Delta R.T. -0.00 min

Lab File: VU037145.D

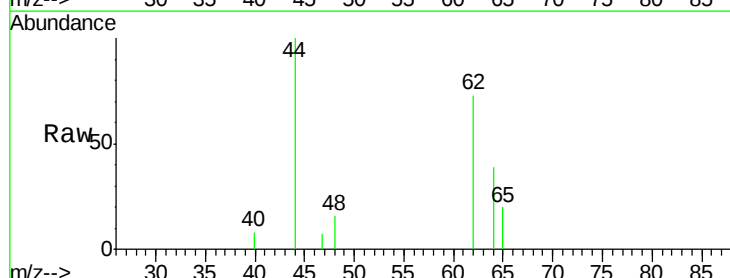
Acq: 10 Mar 2020 11:15

Tgt Ion: 62 Resp: 1243

Ion Ratio Lower Upper

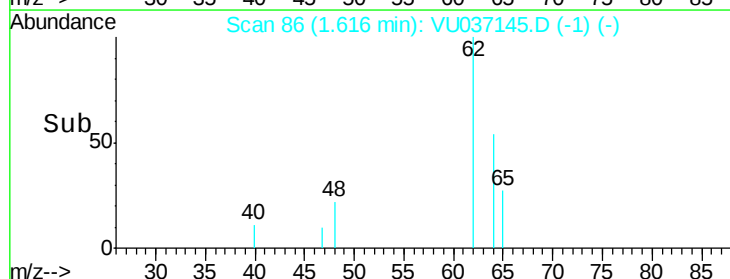
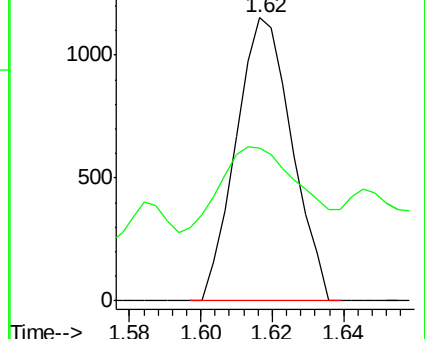
62 100

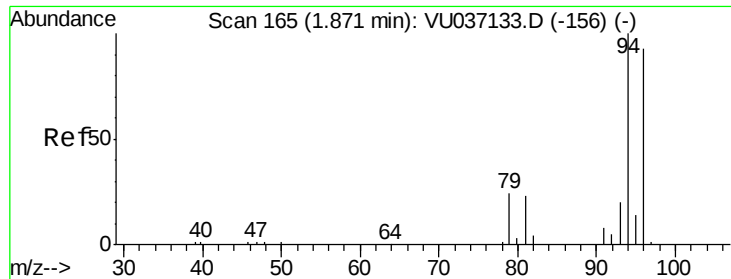
64 28.2 25.4 38.2



Abundance Ion 62.00 (61.70 to 62.70): VU037133.D (-78) (-)

Ion 64.00 (63.70 to 64.70): VU037133.D (-78) (-)





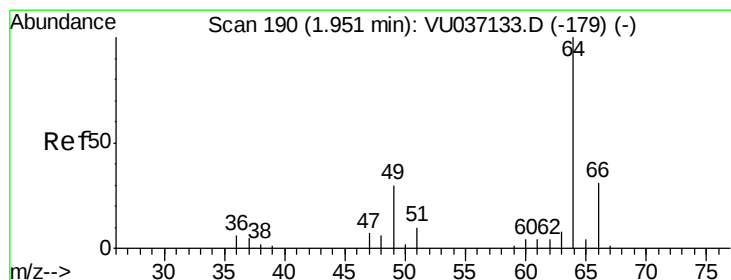
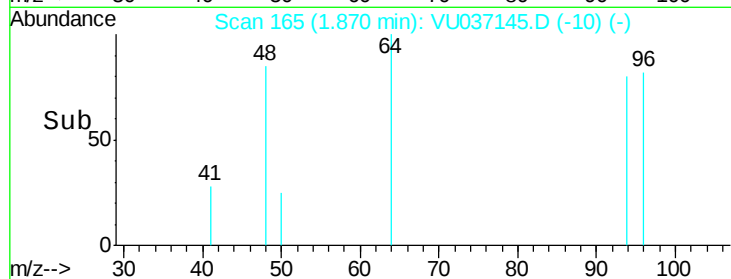
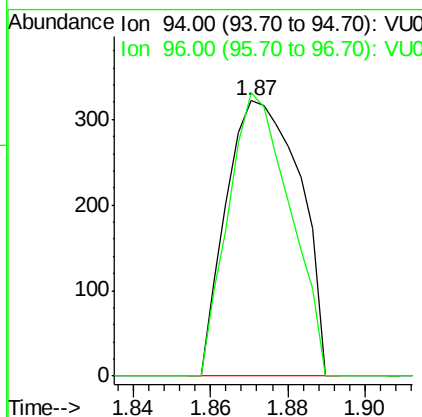
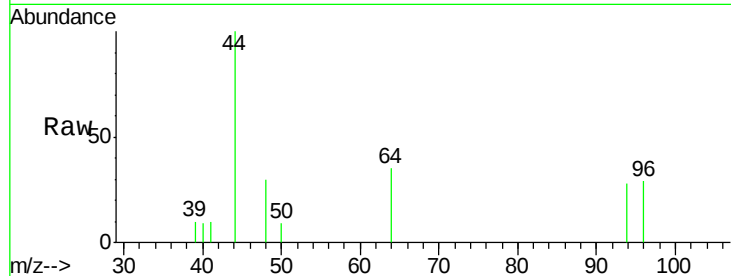
#5
 Bromomethane
 Concen: 0.201 ug/l
 RT: 1.87 min Scan# 165
 Delta R.T. -0.00 min
 Lab File: VU037145.D
 Acq: 10 Mar 2020 11:15

Instrument :
 MSVOA_U
 ClientSampleId :
 MDL-WATER-03-QT1-2020

Tot Ion: 94 Resp: 425
 Ion Ratio Lower Upper
 94 100
 96 102.8 74.6 112.0

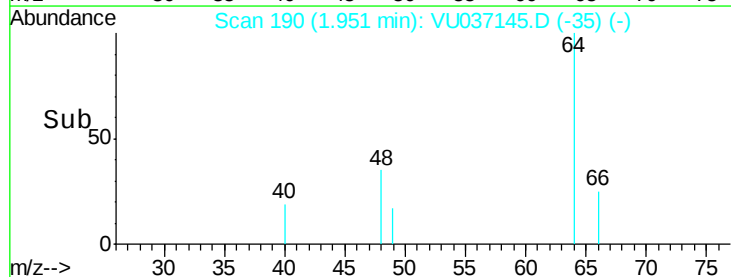
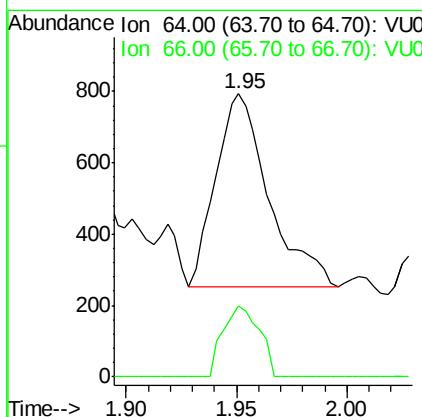
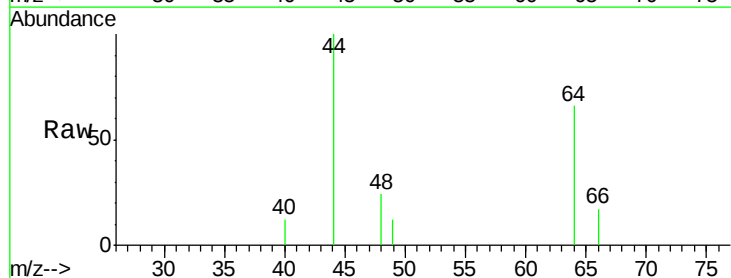
Manual Integrations
 APPROVED

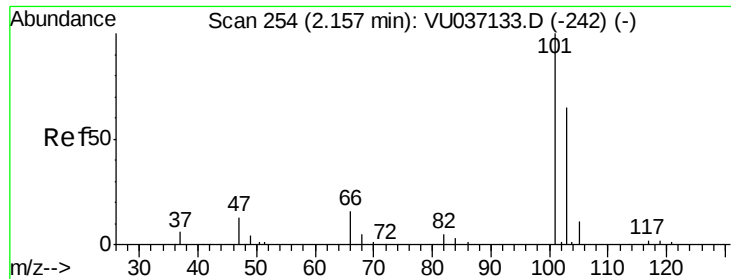
sam
 3/11/2020 3:32:12 PM



#6
 Chloroethane
 Concen: 0.310 ug/l
 RT: 1.95 min Scan# 190
 Delta R.T. -0.00 min
 Lab File: VU037145.D
 Acq: 10 Mar 2020 11:15

Tgt Ion: 64 Resp: 900
 Ion Ratio Lower Upper
 64 100
 66 36.4 25.5 38.3





#7

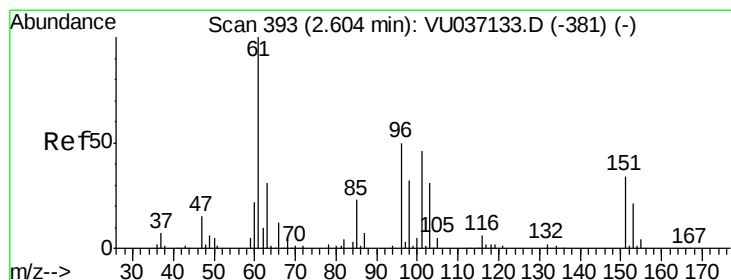
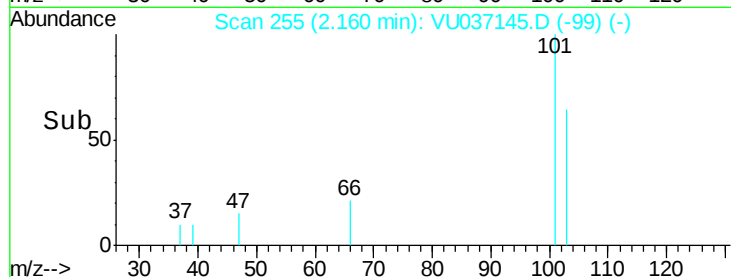
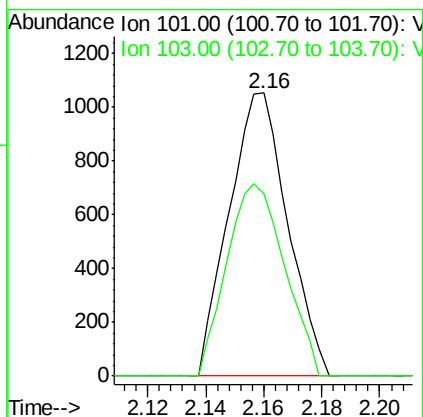
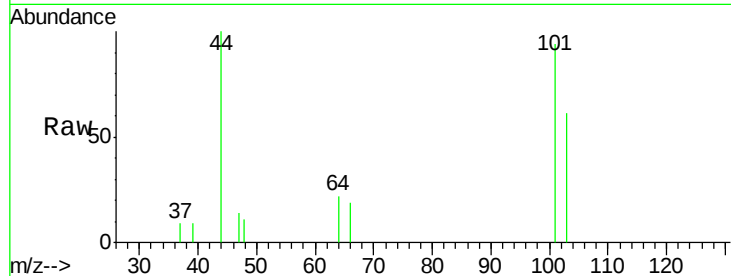
Trichlorofluoromethane
Concen: 0.200 ug/l
RT: 2.16 min Scan# 255
Delta R.T. 0.00 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Instrument :
MSVOA_U
ClientSampleId :
MDL-WATER-03-QT1-2020

Tot Ion:101 Resp: 1475
Ion Ratio Lower Upper
101 100
103 64.5 53.0 79.6

Manual Integrations
APPROVED

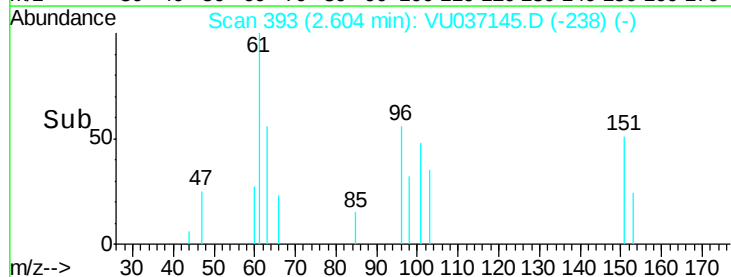
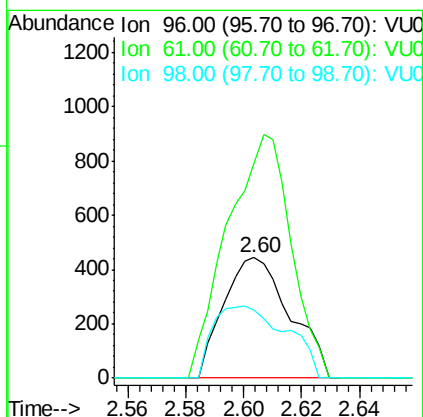
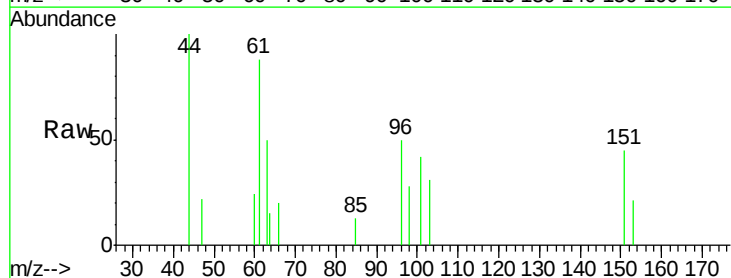
sam
3/11/2020 3:32:12 PM

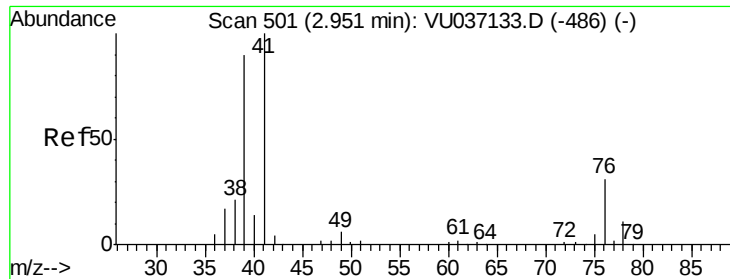


#9

1,1-Dichloroethene
Concen: 0.214 ug/l
RT: 2.60 min Scan# 393
Delta R.T. -0.00 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Tgt Ion: 96 Resp: 704
Ion Ratio Lower Upper
96 100
61 177.9 0.0 463.2
98 56.4 0.0 130.0





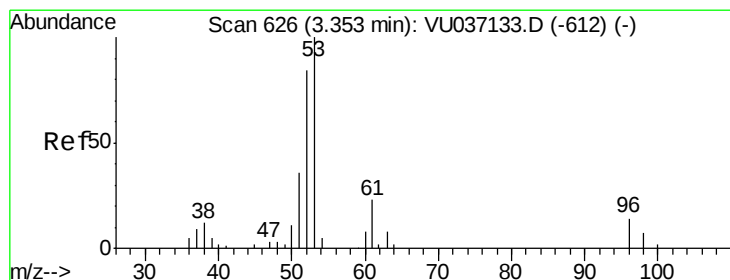
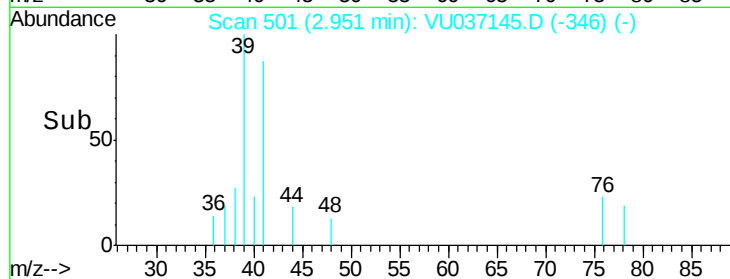
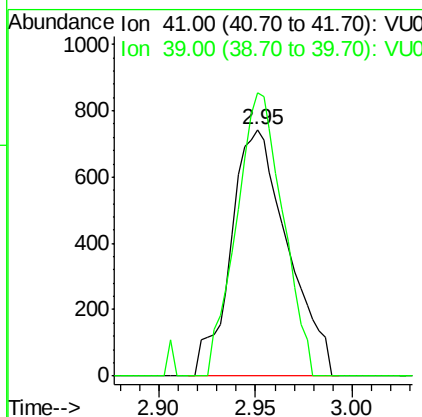
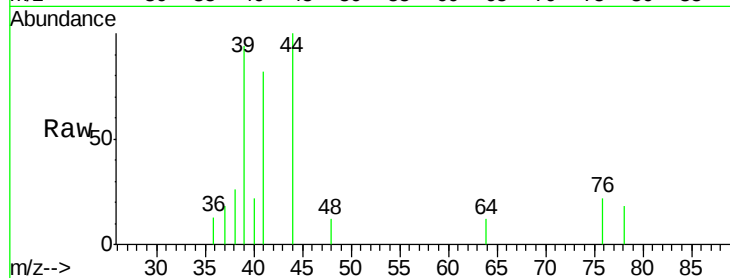
#11
Allvl Chloride
Concen: 0.238 ug/l
RT: 2.95 min Scan# 501
Delta R.T. -0.00 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Instrument :
MSVOA_U
ClientSampleId :
MDL-WATER-03-QT1-2020

Tot Ion: 41 Resp: 1516
Ion Ratio Lower Upper
41 100
39 94.1 50.7 76.1#

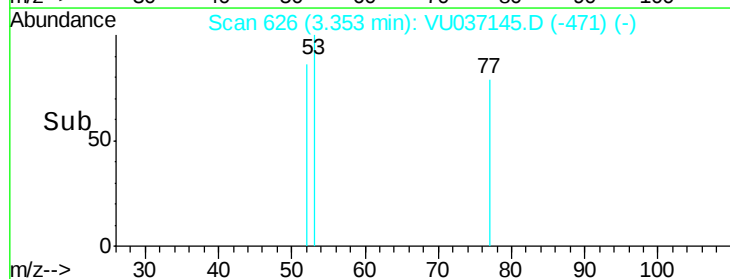
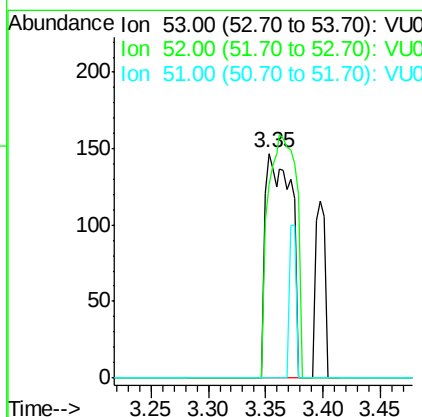
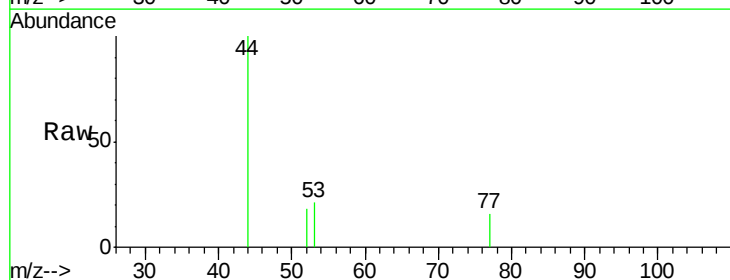
Manual Integrations
APPROVED

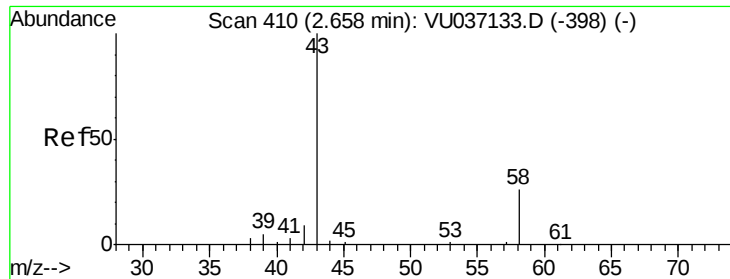
sam
3/11/2020 3:32:12 PM



#12
Acrylonitrile
Concen: 0.372 ug/l m
RT: 3.35 min Scan# 626
Delta R.T. -0.00 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Tgt Ion: 53 Resp: 289
Ion Ratio Lower Upper
53 100
52 92.7 64.6 97.0
51 13.5 27.2 40.8#





#13

Acetone

Concen: 1.351 ug/l

RT: 2.67 min Scan# 415

Delta R.T. 0.02 min

Lab File: VU037145.D

Acq: 10 Mar 2020 11:15

Instrument :

MSVOA_U

ClientSampleId :

MDL-WATER-03-QT1-2020

Tot Ion: 43 Resp: 1168

Ion Ratio Lower Upper

43 100

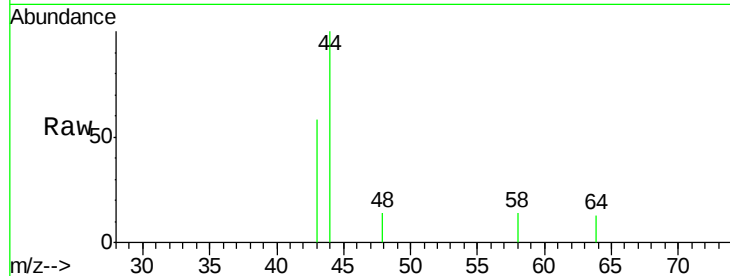
58 25.0 30.8 46.2#

Manual Integrations

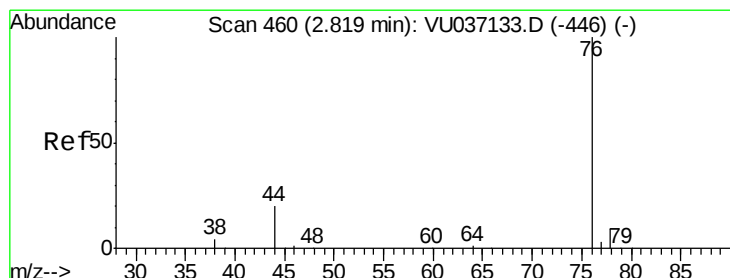
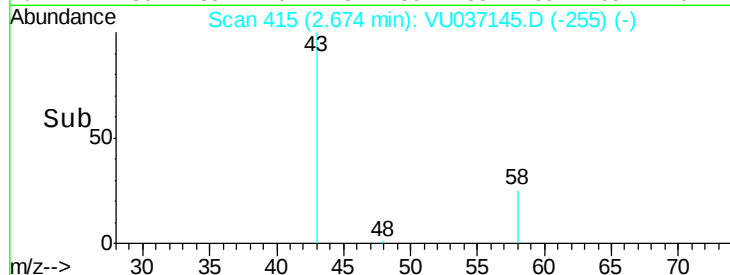
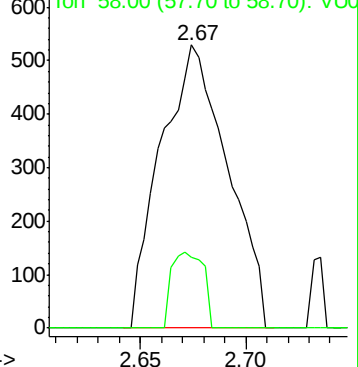
APPROVED

sam

3/11/2020 3:32:12 PM



Abundance Ion 43.00 (42.70 to 43.70): VU037145.D (-255) (-)



#14

Carbon Disulfide

Concen: 0.207 ug/l

RT: 2.82 min Scan# 460

Delta R.T. -0.00 min

Lab File: VU037145.D

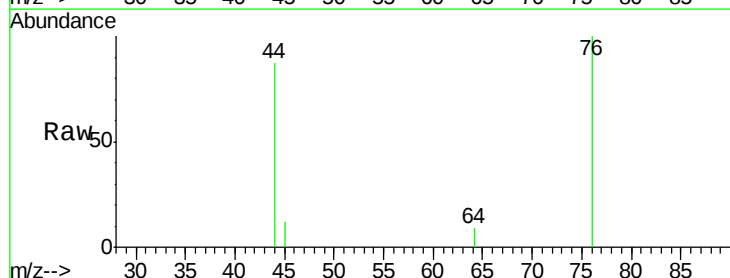
Acq: 10 Mar 2020 11:15

Tgt Ion: 76 Resp: 2271

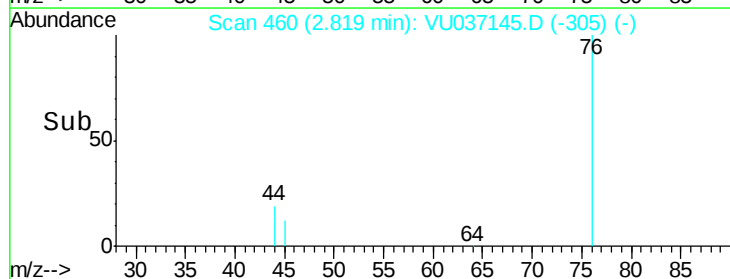
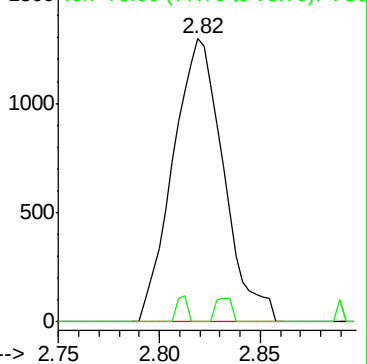
Ion Ratio Lower Upper

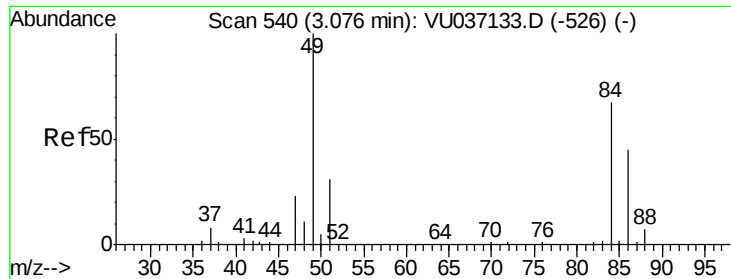
76 100

78 0.0 7.4 11.0#



Abundance Ion 76.00 (75.70 to 76.70): VU037145.D (-305) (-)





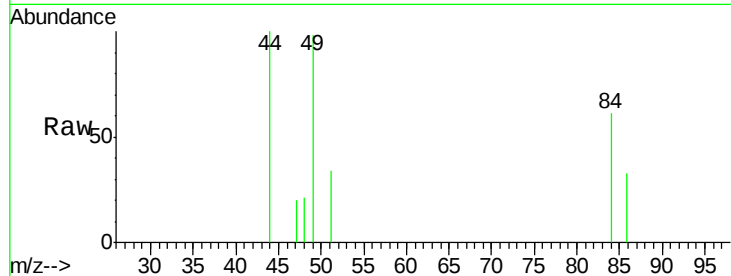
#15
Methvlene Chloride
Concen: 0.227 ug/l
RT: 3.08 min Scan# 542
Delta R.T. 0.01 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Instrument :
MSVOA_U
ClientSampleId :
MDL-WATER-03-QT1-2020

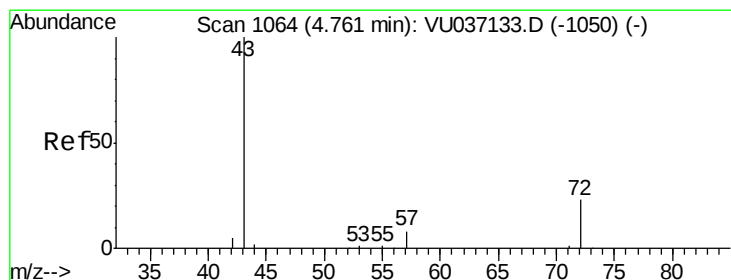
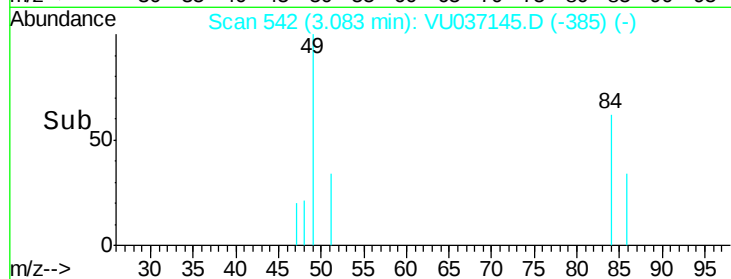
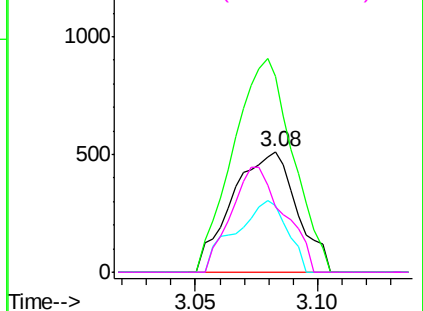
Tot Ion: 84 Resp: 938
Ion Ratio Lower Upper
84 100
49 162.2 89.7 134.5#
51 55.4 0.0 71.6
86 54.8 51.4 77.2

Manual Integrations
APPROVED

sam
3/11/2020 3:32:12 PM

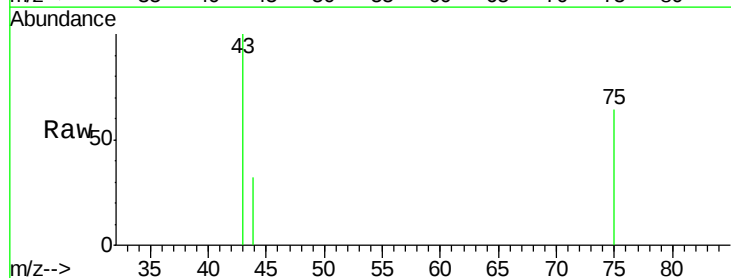


Abundance Ion 84.00 (83.70 to 84.70): VU0
Ion 49.00 (48.70 to 49.70): VU0
Ion 51.00 (50.70 to 51.70): VU0
Ion 86.00 (85.70 to 86.70): VU0

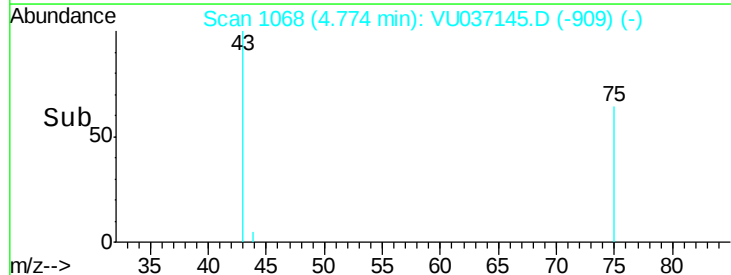
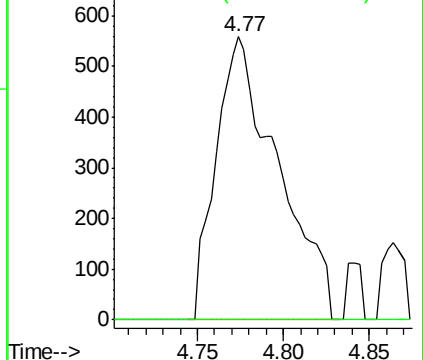


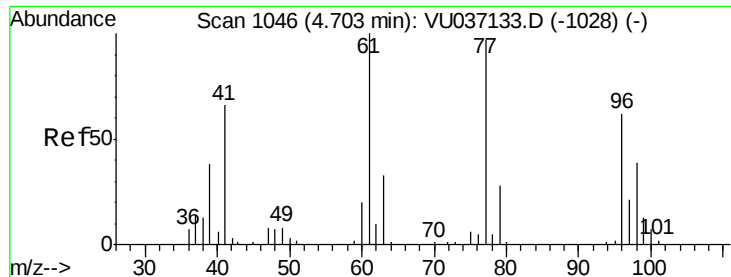
#18
2-Butanone
Concen: 1.064 ug/l
RT: 4.77 min Scan# 1068
Delta R.T. 0.01 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Tgt Ion: 43 Resp: 1406
Ion Ratio Lower Upper
43 100
57 0.0 0.0 17.8



Abundance Ion 43.00 (42.70 to 43.70): VU0
Ion 57.00 (56.70 to 57.70): VU0





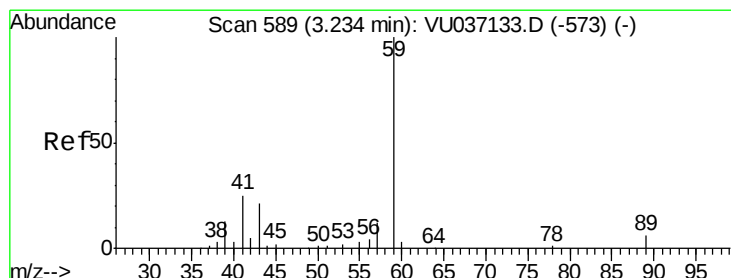
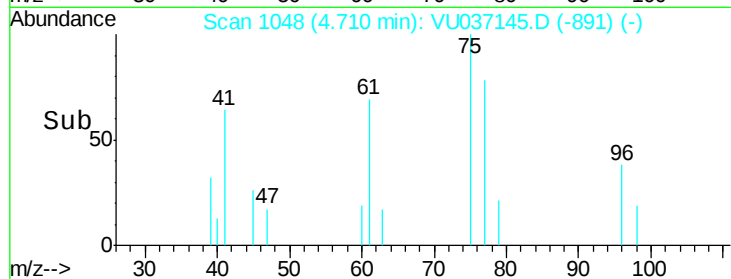
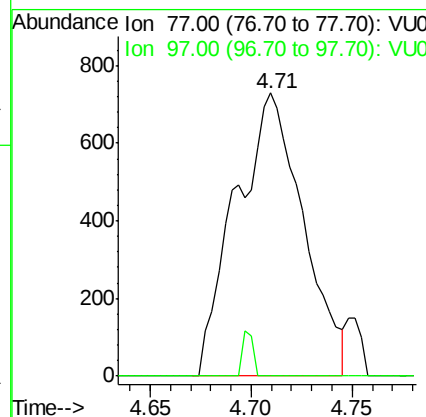
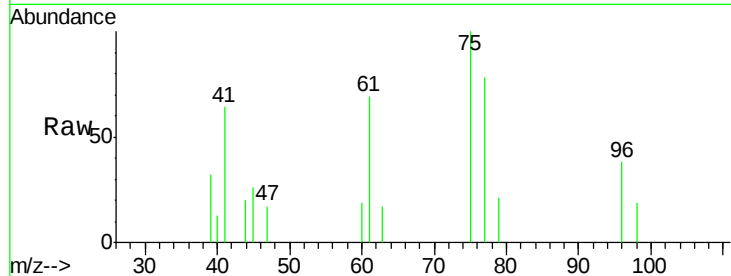
#21
 2,2-Dichloropropane
 Concen: 0.230 ug/l
 RT: 4.71 min Scan# 1048
 Delta R.T. 0.01 min
 Lab File: VU037145.D
 Acq: 10 Mar 2020 11:15

Instrument :
 MSVOA_U
 ClientSampleId :
 MDL-WATER-03-QT1-2020

Tot Ion: 77 Resp: 1700
 Ion Ratio Lower Upper
 77 100
 97 2.5 19.0 28.4#

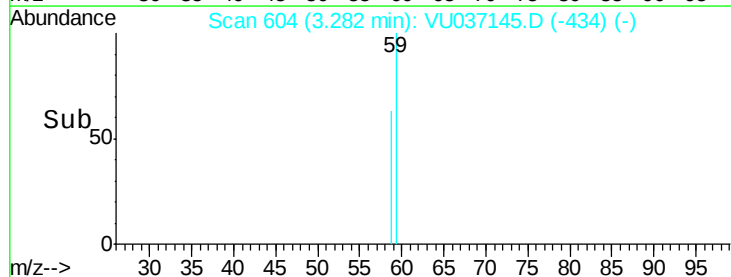
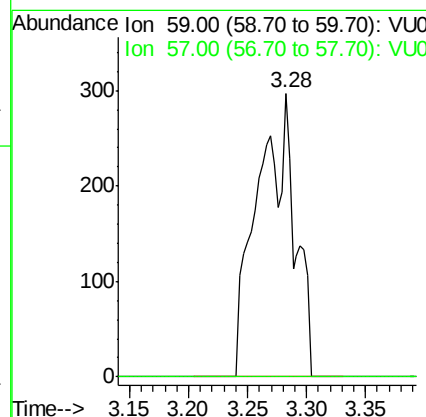
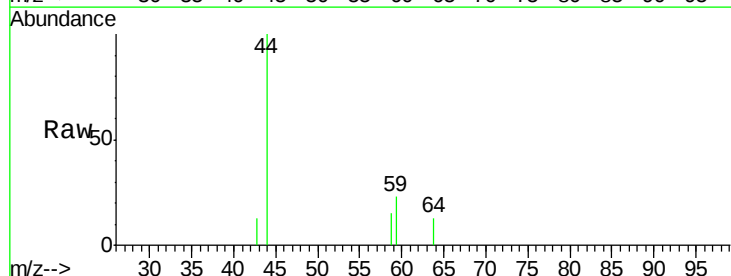
Manual Integrations
 APPROVED

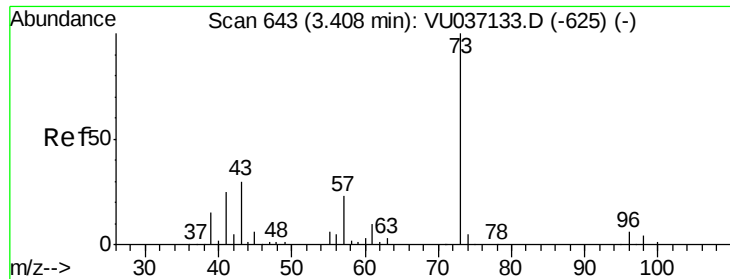
sam
 3/11/2020 3:32:12 PM



#24
 tert-Butyl Alcohol
 Concen: 2.134 ug/l m
 RT: 3.28 min Scan# 604
 Delta R.T. 0.05 min
 Lab File: VU037145.D
 Acq: 10 Mar 2020 11:15

Tgt Ion: 59 Resp: 650
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.4 12.6#





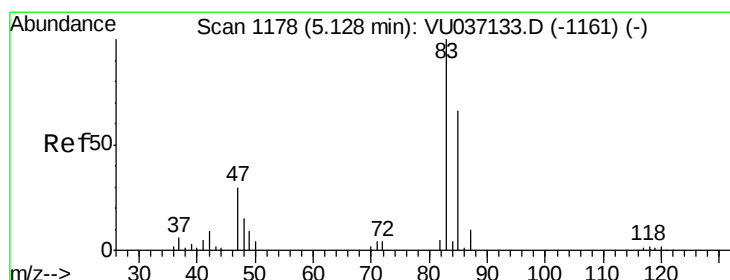
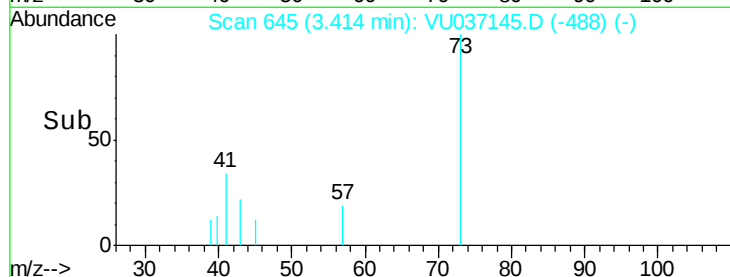
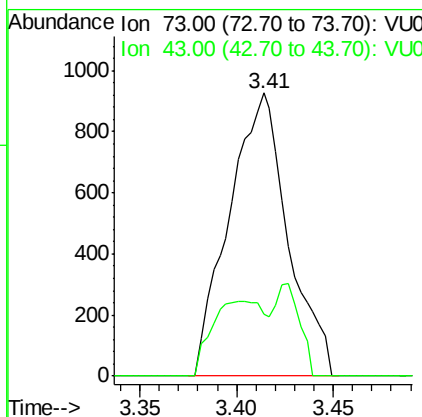
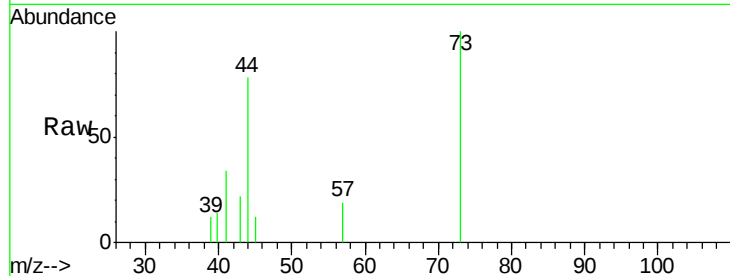
#25
Methvl tert-Butvl Ether
Concen: 0.204 ug/l
RT: 3.41 min Scan# 645
Delta R.T. 0.01 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Instrument :
MSVOA_U
ClientSampleId :
MDL-WATER-03-QT1-2020

Tot Ion: 73 Resp: 1963
Ion Ratio Lower Upper
73 100
43 24.3 14.5 21.7#

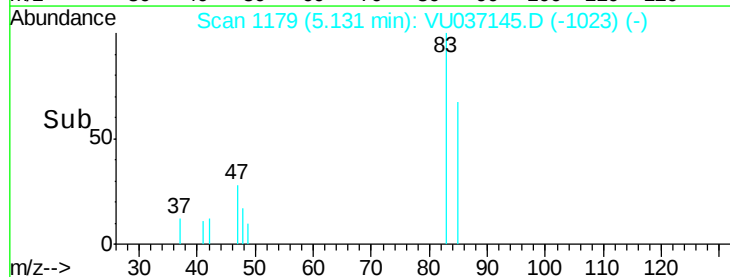
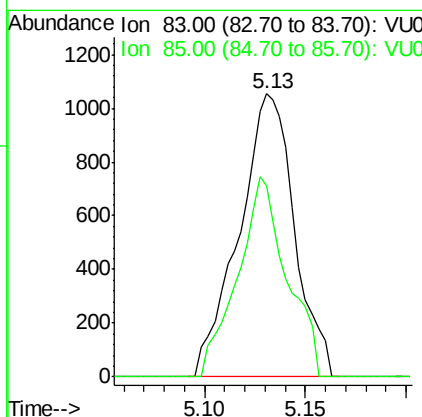
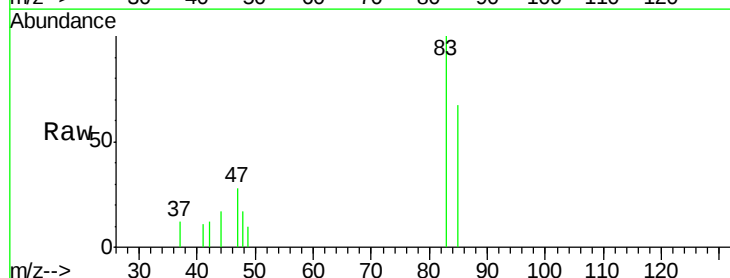
Manual Integrations
APPROVED

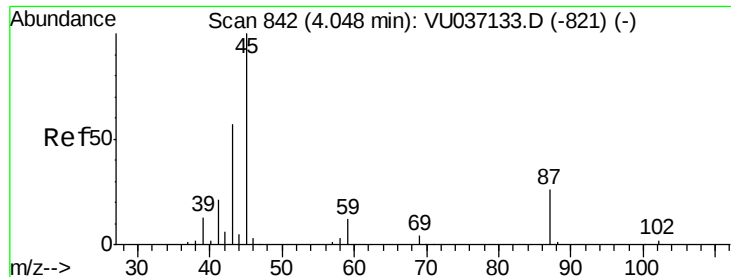
sam
3/11/2020 3:32:12 PM



#27
Chloroform
Concen: 0.232 ug/l
RT: 5.13 min Scan# 1179
Delta R.T. 0.00 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Tgt Ion: 83 Resp: 2023
Ion Ratio Lower Upper
83 100
85 67.4 0.0 129.0





#31

Isopropyl Ether

Concen: 0.206 ug/l

RT: 4.05 min Scan# 844

Delta R.T. 0.01 min

Lab File: VU037145.D

Acq: 10 Mar 2020 11:15

Instrument :

MSVOA_U

ClientSampleId :

MDL-WATER-03-QT1-2020

Tot Ion: 45 Resp: 2665

Ion Ratio Lower Upper

45 100

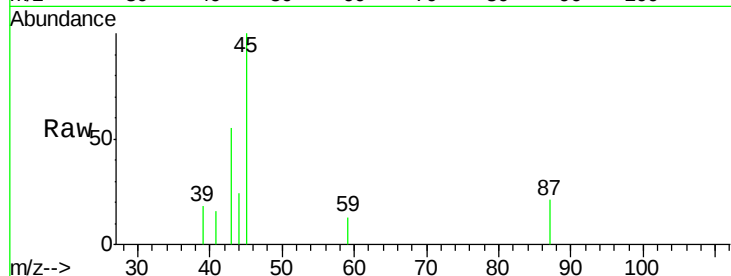
43 55.8 24.0 72.0

Manual Integrations

APPROVED

Sam

3/11/2020 3:32:12 PM



Abundance Ion 45.00 (44.70 to 45.70): VU037133.D (-821) (-)

Ion 43.00 (42.70 to 43.70): VU037133.D (-821) (-)

4.05

1000

800

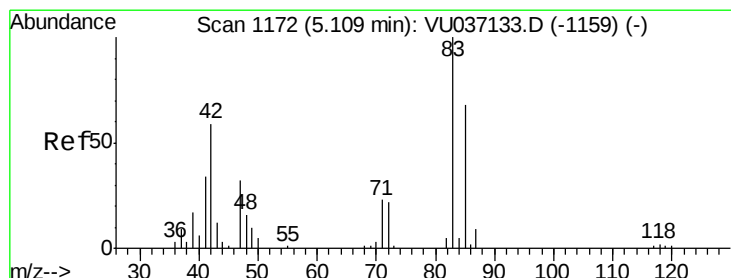
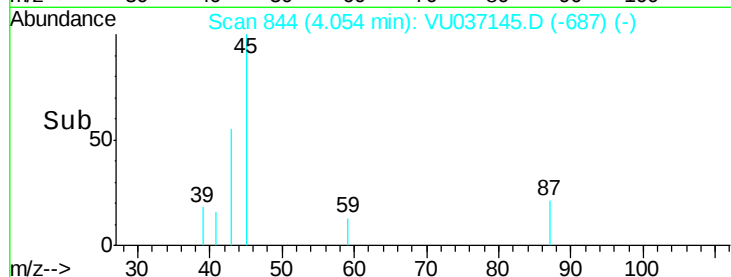
600

400

200

0

Time-->



#41

Tetrahydrofuran

Concen: 0.222 ug/l

RT: 5.12 min Scan# 1177

Delta R.T. 0.02 min

Lab File: VU037145.D

Acq: 10 Mar 2020 11:15

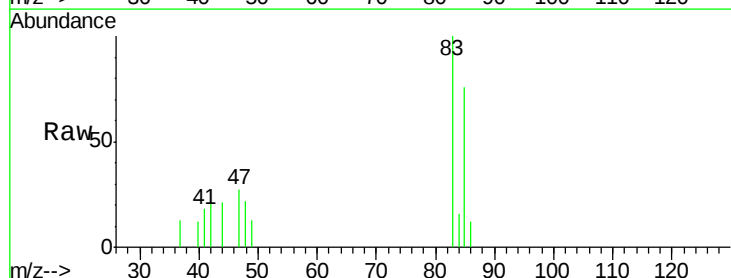
Tgt Ion: 42 Resp: 186

Ion Ratio Lower Upper

42 100

72 0.0 42.5 63.7#

71 0.0 37.3 55.9#



Abundance Ion 42.00 (41.70 to 42.70): VU037133.D (-1159) (-)

Ion 72.00 (71.70 to 72.70): VU037133.D (-1159) (-)

Ion 71.00 (70.70 to 71.70): VU037133.D (-1159) (-)

250

200

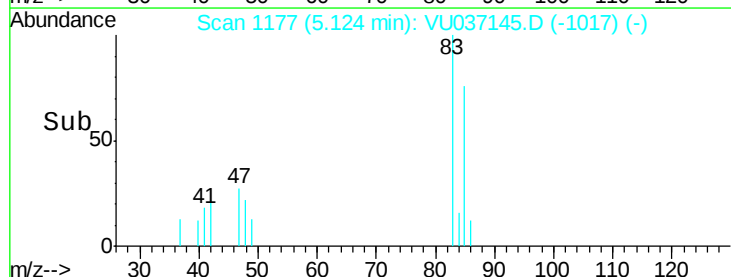
150

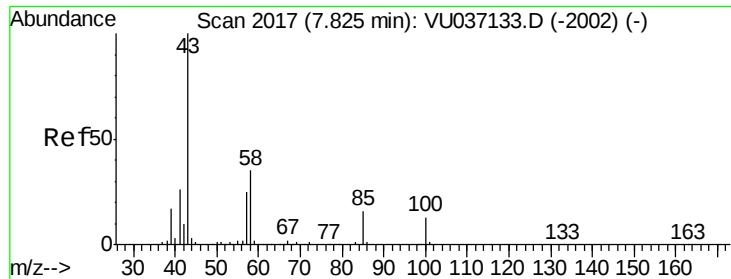
100

50

0

Time-->





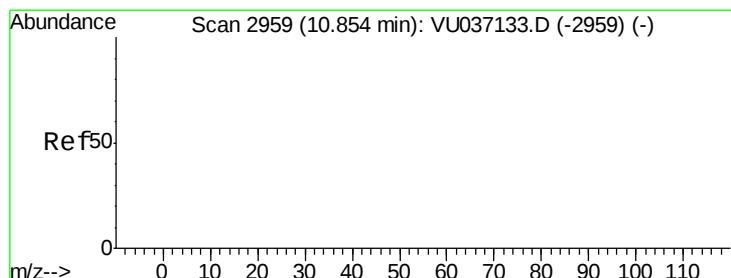
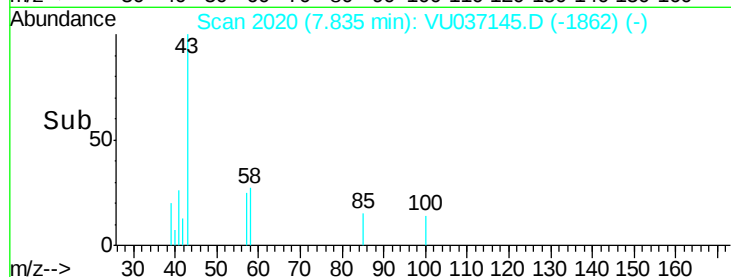
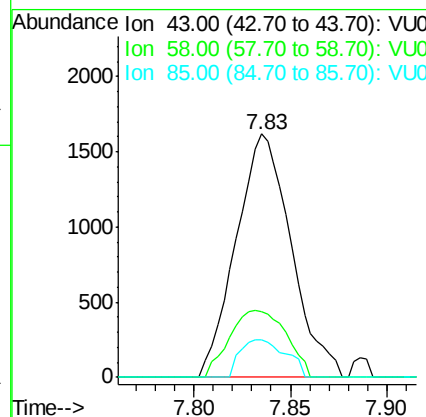
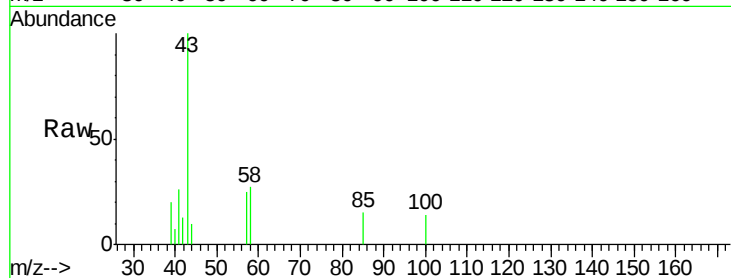
#45
4-Methyl-2-Pentanone
Concen: 0.991 ug/l
RT: 7.83 min Scan# 2020
Delta R.T. 0.01 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Instrument :
MSVOA_U
ClientSampleId :
MDL-WATER-03-QT1-2020

Tot Ion	Ratio	Lower	Upper
43	100		
58	28.3	22.1	66.1
85	12.7	17.4	26.0#

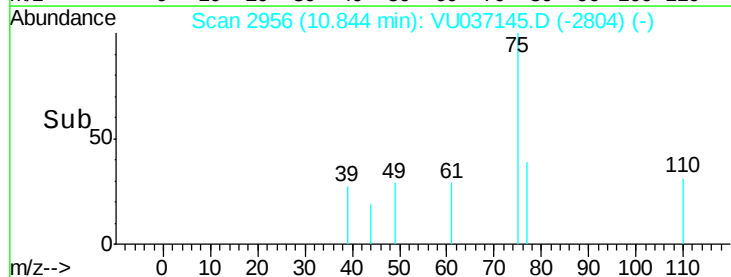
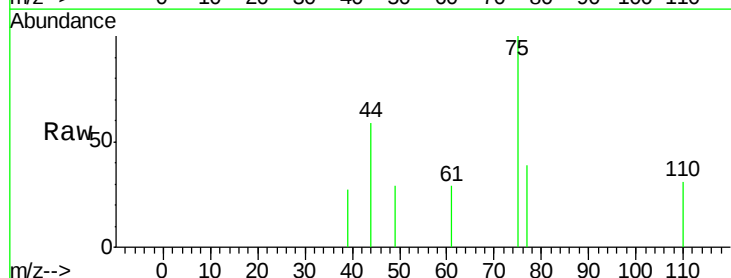
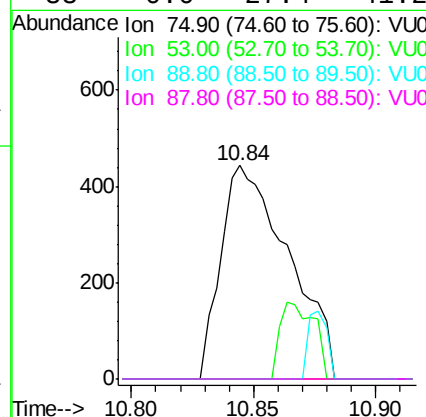
Manual Integrations
APPROVED

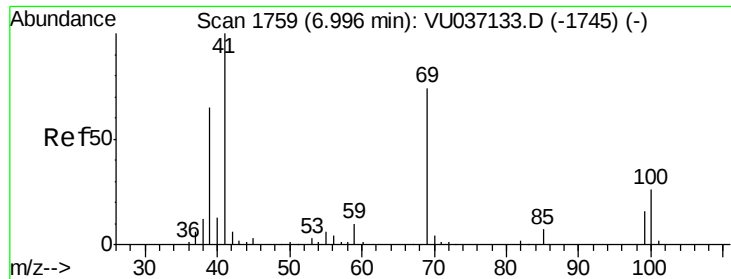
sam
3/11/2020 3:32:12 PM



#46
t-1,4-Dichloro-2-butene
Concen: 0.964 ug/l
RT: 10.84 min Scan# 2956
Delta R.T. -0.01 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Tgt Ion	Ratio	Lower	Upper
75	100		
53	18.1	52.2	78.2#
89	8.5	39.8	59.6#
88	0.0	27.4	41.2#





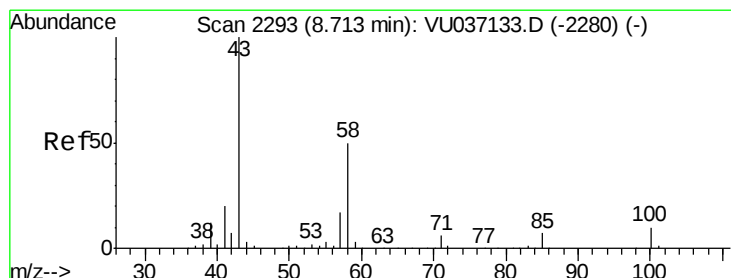
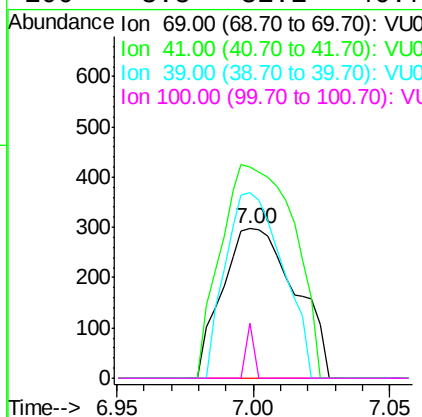
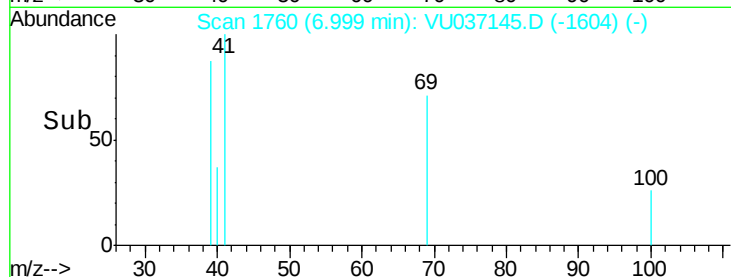
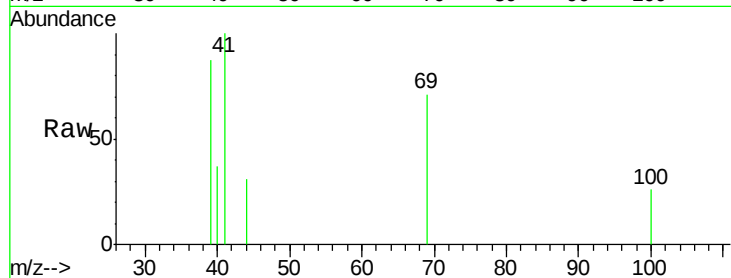
#47
Methvl methacrylate
Concen: 0.278 ug/l
RT: 7.00 min Scan# 1760
Delta R.T. 0.00 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Instrument :
MSVOA_U
ClientSampleId :
MDL-WATER-03-QT1-2020

Tot Ion: 69 Resp: 555
Ion Ratio Lower Upper
69 100
41 143.1 0.0 200.8
39 97.5 43.5 65.3#
100 3.8 31.1 46.7#

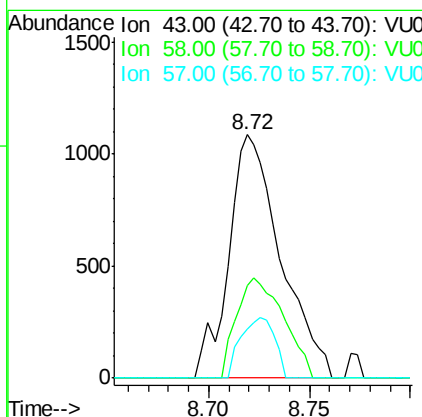
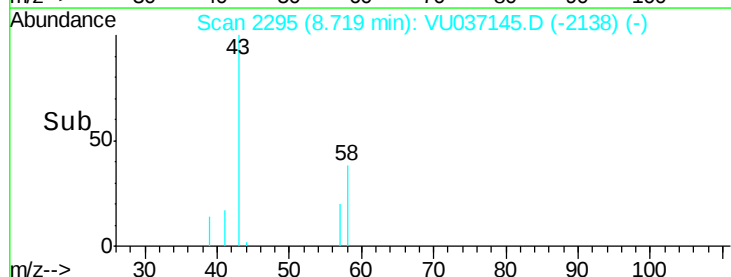
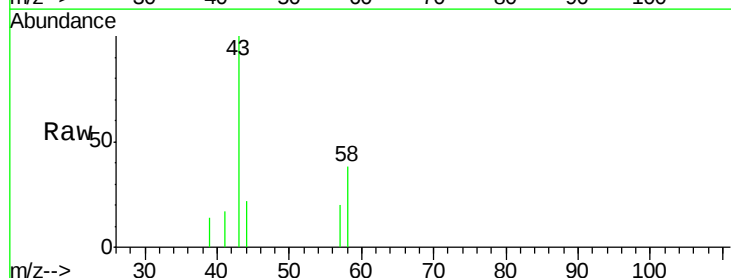
Manual Integrations
APPROVED

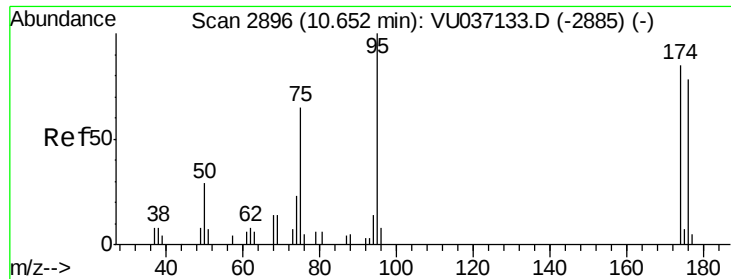
sam
3/11/2020 3:32:12 PM



#54
2-Hexanone
Concen: 0.875 ug/l
RT: 8.72 min Scan# 2295
Delta R.T. 0.01 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Tgt Ion: 43 Resp: 1952
Ion Ratio Lower Upper
43 100
58 37.4 40.6 80.6#
57 16.3 1.2 41.2





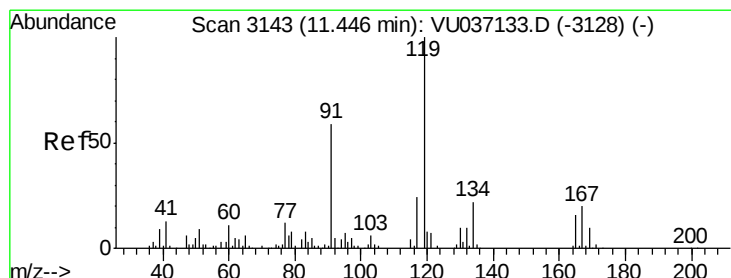
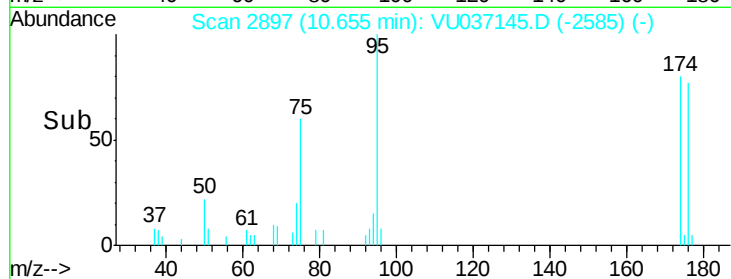
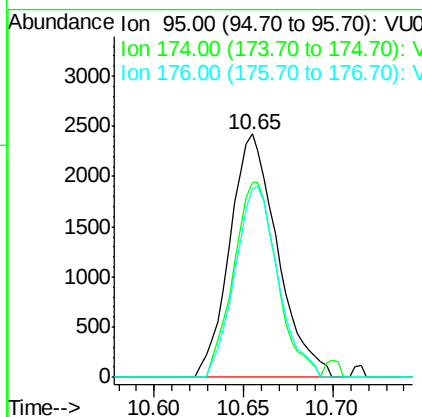
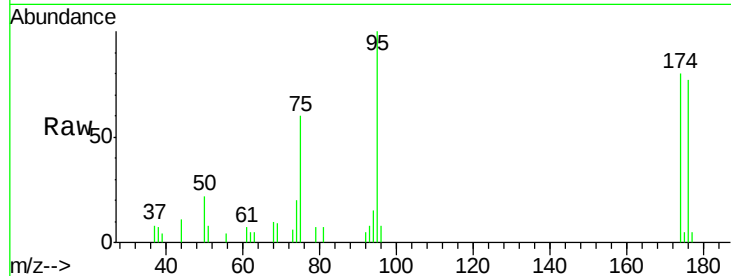
#57
4-Bromofluorobenzene
Concen: 0.821 ug/l
RT: 10.65 min Scan# 2897
Delta R.T. 0.00 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Instrument :
MSVOA_U
ClientSampleId :
MDL-WATER-03-QT1-2020

Tot Ion	Ratio	Lower	Upper
95	100		
174	72.8	64.7	97.1
176	70.6	60.6	91.0

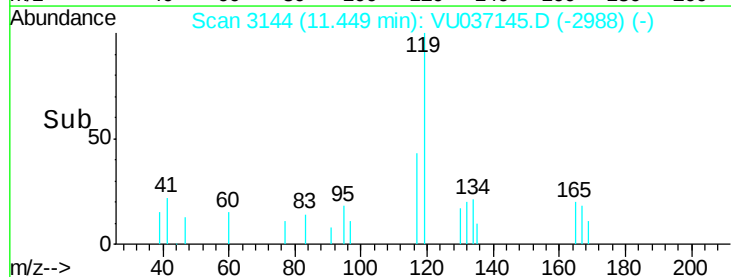
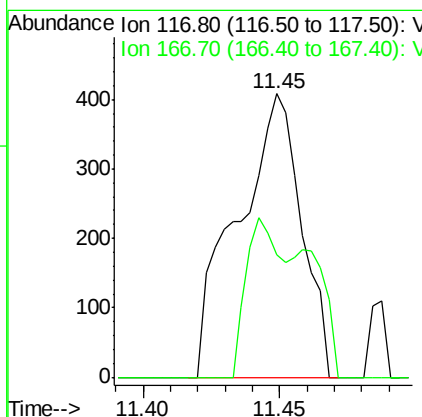
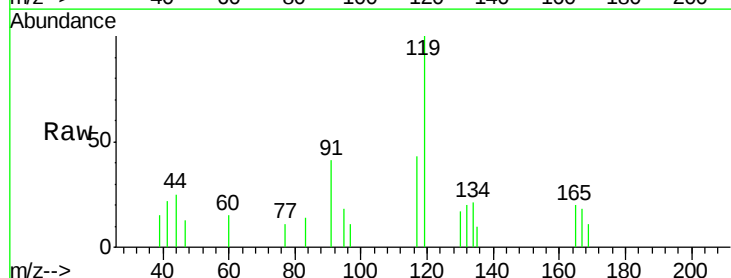
Manual Integrations
APPROVED

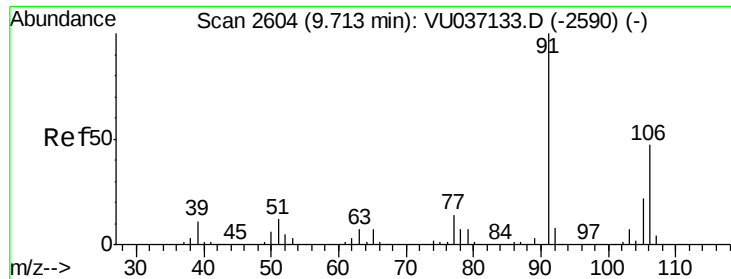
sam
3/11/2020 3:32:12 PM



#61
Pentachloroethane
Concen: 0.206 ug/l
RT: 11.45 min Scan# 3144
Delta R.T. 0.00 min
Lab File: VU037145.D
Acq: 10 Mar 2020 11:15

Tgt Ion	Ratio	Lower	Upper
117	100		
167	31.0	66.7	100.1





#64

m/p-Xvlenes

Concen: 0.281 ug/l

RT: 9.72 min Scan# 2605

Delta R.T. 0.00 min

Lab File: VU037145.D

Acq: 10 Mar 2020 11:15

Instrument :

MSVOA_U

ClientSampleId :

MDL-WATER-03-QT1-2020

Tot Ion:106 Resp: 2100

Ion Ratio Lower Upper

106 100

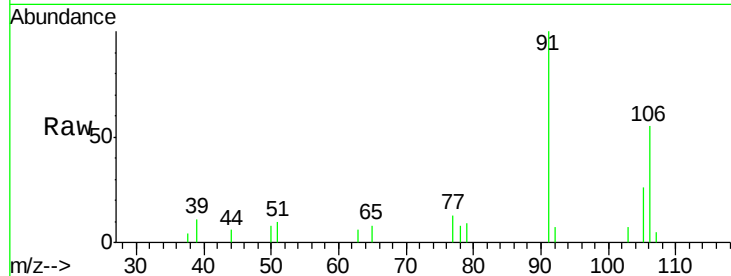
91 217.0 158.2 237.4

Manual Integrations

APPROVED

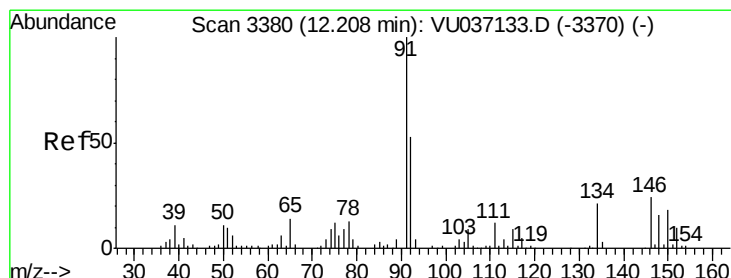
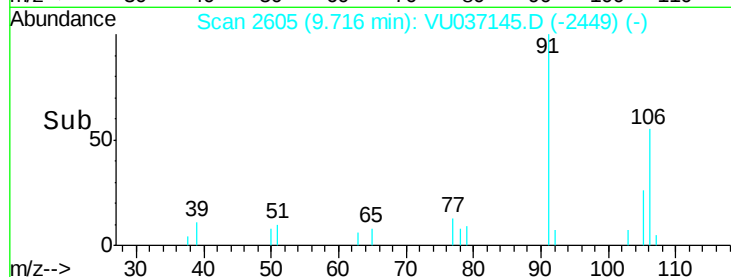
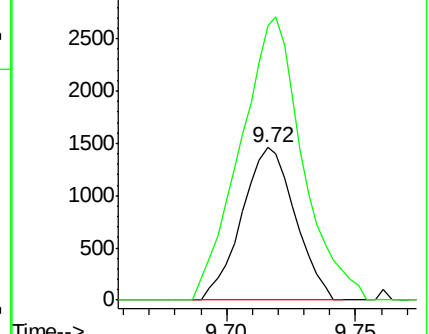
sam

3/11/2020 3:32:12 PM



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#68

1,2-Dichlorobenzene-d4

Concen: 0.895 ug/l

RT: 12.22 min Scan# 3383

Delta R.T. 0.01 min

Lab File: VU037145.D

Acq: 10 Mar 2020 11:15

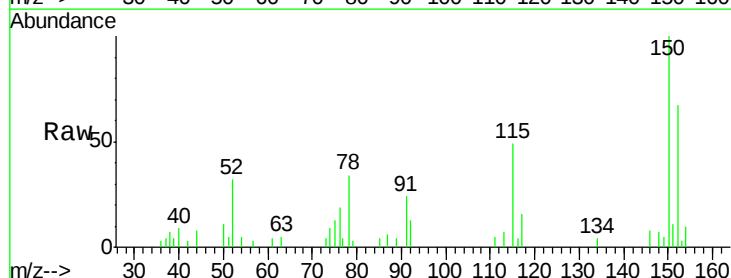
Tgt Ion:152 Resp: 5020

Ion Ratio Lower Upper

152 100

115 71.4 0.0 241.8

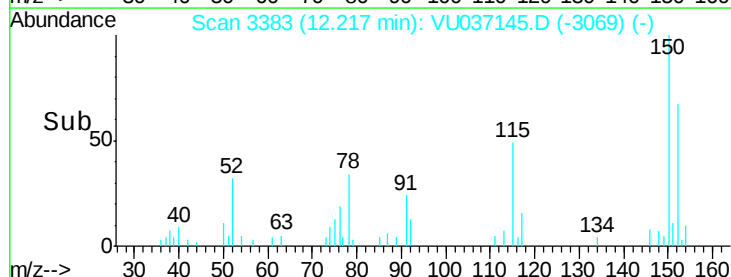
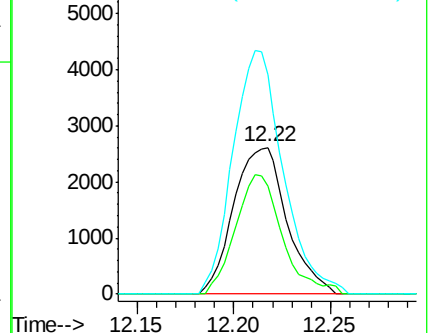
150 156.0 0.0 652.4

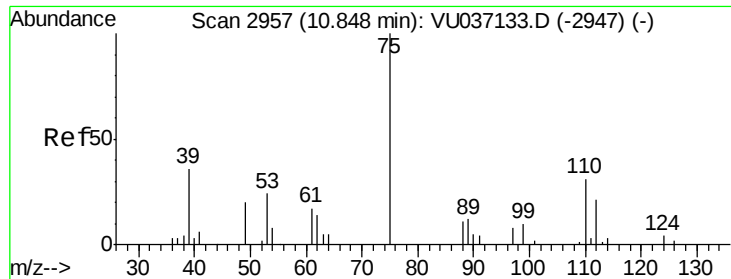


Abundance Ion 152.00 (151.70 to 152.70): V

Ion 115.00 (114.70 to 115.70): V

Ion 150.00 (149.70 to 150.70): V





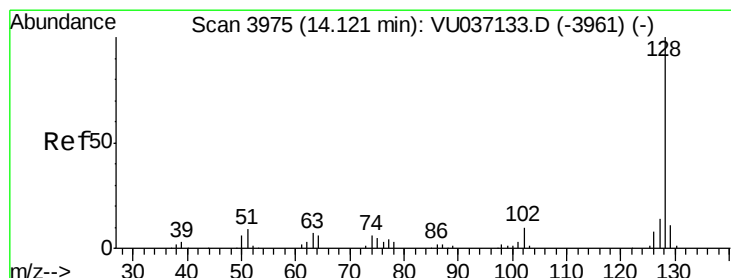
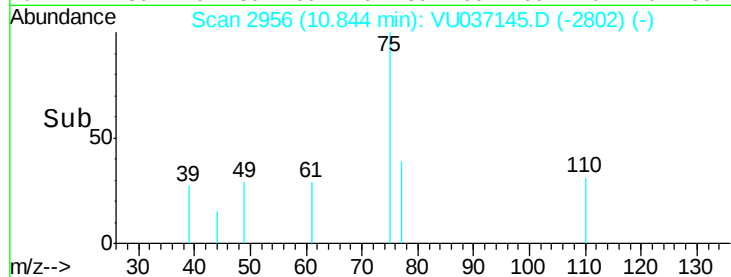
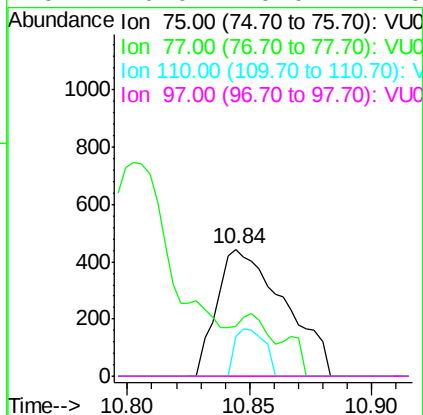
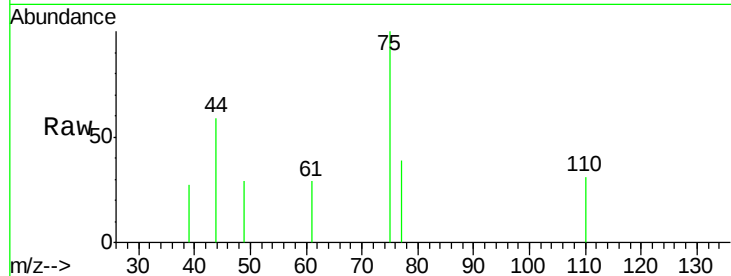
#71
 1,2,3-Trichloropropane
 Concen: 0.247 ug/l
 RT: 10.84 min Scan# 2956
 Delta R.T. -0.00 min
 Lab File: VU037145.D
 Acq: 10 Mar 2020 11:15

Instrument :
 MSVOA_U
 ClientSampleId :
 MDL-WATER-03-QT1-2020

Tot Ion:	75	Resp:	854
Ion	Ratio	Lower	Upper
75	100		
77	8.4	0.0	129.6
110	16.2	0.0	77.4
97	0.0	0.0	42.0

Manual Integrations
 APPROVED

sam
 3/11/2020 3:32:12 PM



#89
 Naphthalene
 Concen: 0.358 ug/l
 RT: 14.13 min Scan# 3978
 Delta R.T. 0.01 min
 Lab File: VU037145.D
 Acq: 10 Mar 2020 11:15

Tgt Ion:	128	Resp:	800
Ion	Ratio	Lower	Upper
128	100		
127	0.0	10.5	15.7#
129	2.5	8.7	13.1#

