

Data Path : Z:\voasrv\HPCHEM1\MSVOA U\Data\2019\iu1\VU072519\
 Data File : VU033432.D
 Acq On : 26 Jul 2019 00:09
 Operator : JC/SP
 Sample : K3976-06
 Misc : 5.0mL/MSVOA U/WATER
 ALS Vial : 40 Sample Multiplier: 1

Instrument :
 BNA_N
 ClientSampleId :
 C0CC3

Quant Time: Jul 26 07:45:18 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM071219WMA.M
 Quant Title : VOC Analysis
 QLast Update : Fri Jul 26 05:48:12 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	5.86	114	269871	50.00	ug/L	0.00
28) Chlorobenzene-d5	9.07	117	280728	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	11.47	152	121598	50.00	ug/L	0.00

System Monitoring Compounds

4) Vinyl Chloride-d3	1.39	65	125705	61.53	ug/L	0.00
Spiked Amount	50.000	Range	60 - 135	Recovery	=	123.06%
7) Chloroethane-d5	1.67	69	108384	62.10	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	124.20%
11) 1,1-Dichloroethene-d2	2.26	63	155633	42.00	ug/L	0.00
Spiked Amount	50.000	Range	60 - 125	Recovery	=	84.00%
21) 2-Butanone-d5	4.15	46	137950	106.57	ug/L	0.00
Spiked Amount	100.000	Range	40 - 130	Recovery	=	106.57%
24) Chloroform-d	4.62	84	183201	53.51	ug/L	0.00
Spiked Amount	50.000	Range	70 - 125	Recovery	=	107.02%
26) 1,2-Dichloroethane-d4	5.29	65	130779	59.56	ug/L	0.00
Spiked Amount	50.000	Range	70 - 125	Recovery	=	119.12%
32) Benzene-d6	5.32	84	403336	58.57	ug/L	0.00
Spiked Amount	50.000	Range	70 - 125	Recovery	=	117.14%
36) 1,2-Dichloropropane-d6	6.31	67	128782	58.38	ug/L	0.00
Spiked Amount	50.000	Range	70 - 120	Recovery	=	116.76%
41) Toluene-d8	7.55	98	359155	55.30	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	110.60%
43) trans-1,3-Dichloropropene-	7.83	79	54971	50.82	ug/L	0.00
Spiked Amount	50.000	Range	60 - 125	Recovery	=	101.64%
47) 2-Hexanone-d5	8.30	63	105590	106.17	ug/L	0.00
Spiked Amount	100.000	Range	45 - 130	Recovery	=	106.17%
57) 1,1,2,2-Tetrachloroethane-	10.41	84	186539	55.87	ug/L	0.00
Spiked Amount	50.000	Range	65 - 120	Recovery	=	111.74%
64) 1,2-Dichlorobenzene-d4	11.85	152	135753	62.60	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	125.20%#

Target Compounds

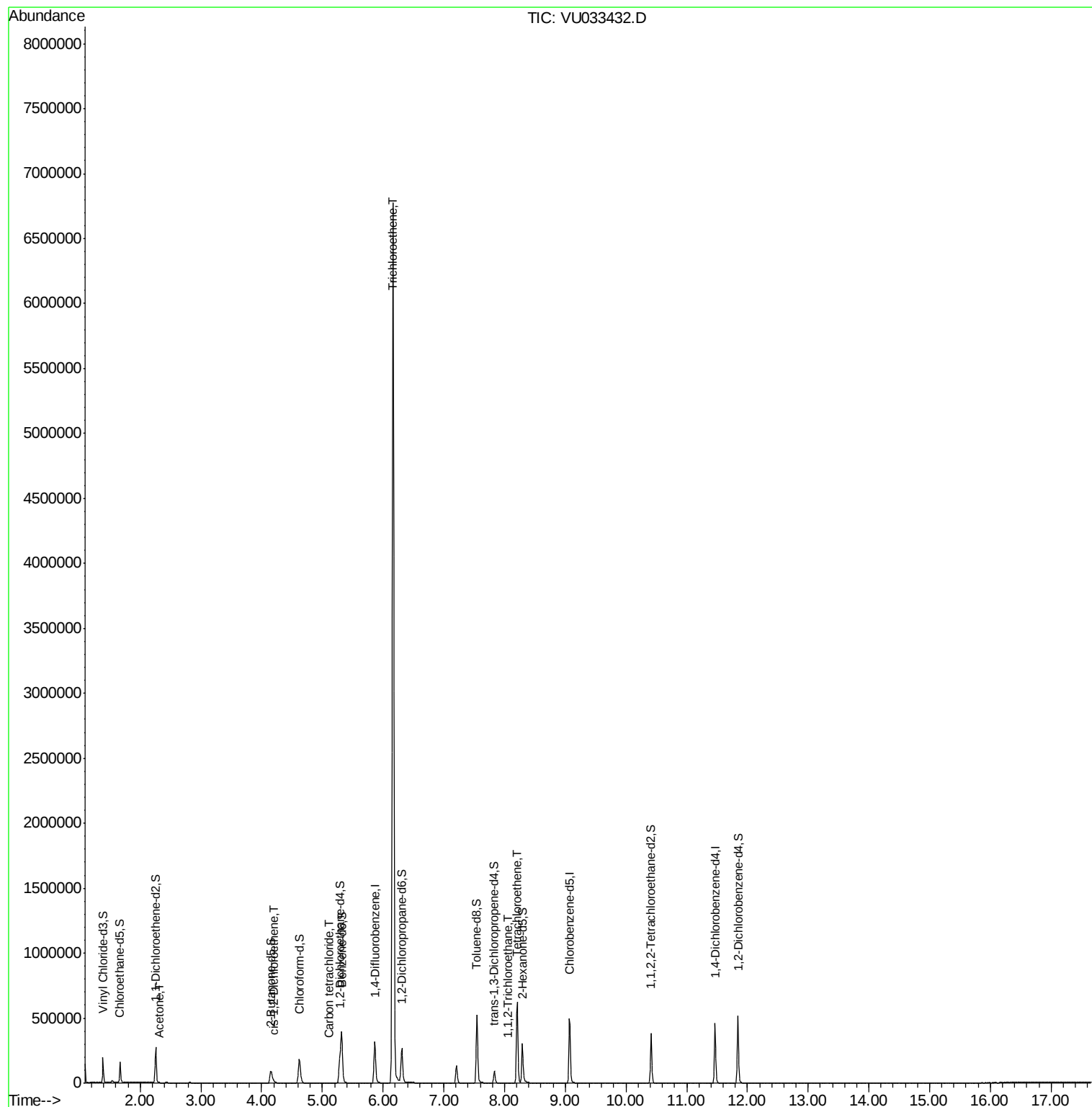
					Ovalue
13) Acetone	2.31	43	2324	1.437 ug/L	65
20) cis-1,2-Dichloroethene	4.20	96	2663	1.268 ug/L	83
31) Carbon tetrachloride	5.11	117	2269	0.792 ug/L	97
34) Trichloroethene	6.16	95	2303603	1075.913 ug/L	97
45) 1,1,2-Trichloroethane	8.05	97	1234	0.588 ug/L #	83
46) Tetrachloroethene	8.21	164	137365	82.876 ug/L	97

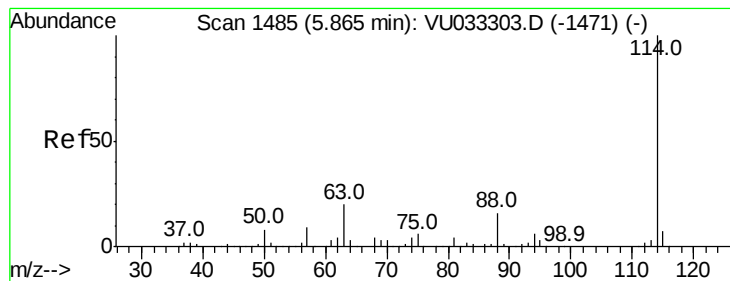
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Jul 26 05:48:12 2019
Response via : Initial Calibration





#1

1,4-Difluorobenzene

Concen: 50.000 ug/L

RT: 5.86 min Scan# 1485

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Instrument :

BNA_N

ClientSampleId :

C0CC3

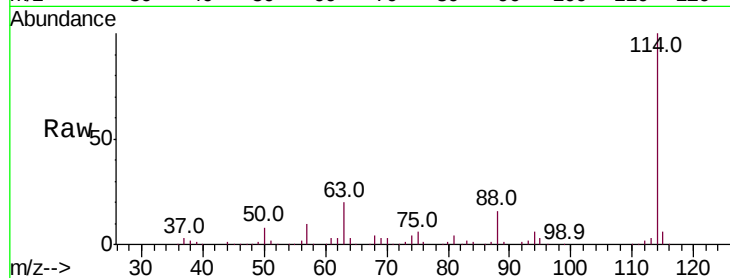
Tot Ion:114 Resp: 269871

Ion Ratio Lower Upper

114 100

63 21.1 16.9 25.3

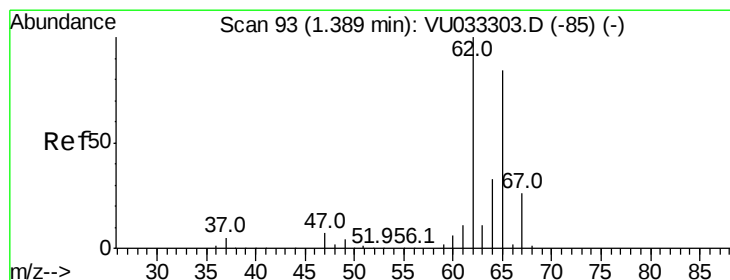
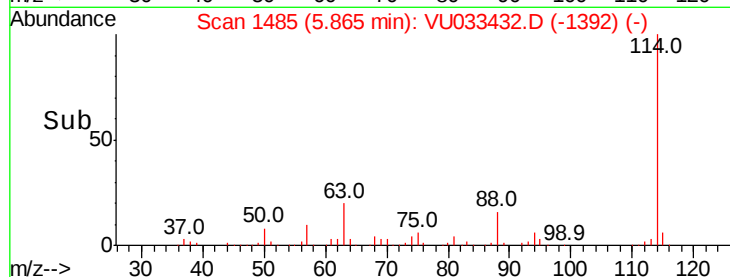
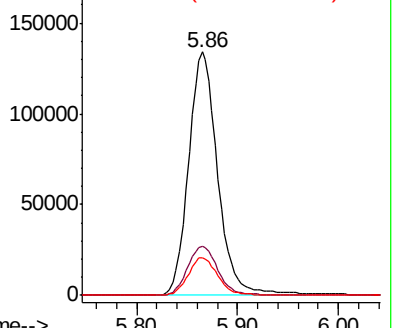
88 15.7 12.7 19.1



Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VU0

Ion 88.00 (87.70 to 88.70): VU0



#4

Vinyl Chloride-d3

Concen: 61.532 ug/L

RT: 1.39 min Scan# 93

Delta R.T. -0.00 min

Lab File: VU033432.D

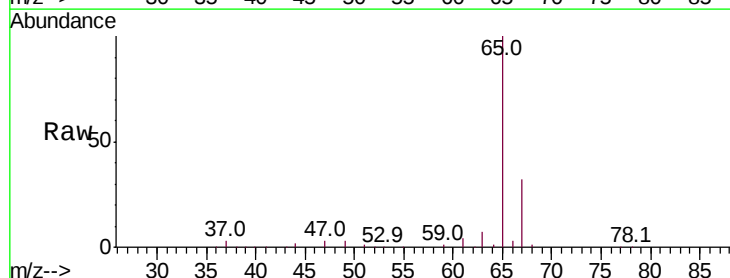
Acq: 26 Jul 2019 00:09

Tgt Ion: 65 Resp: 125705

Ion Ratio Lower Upper

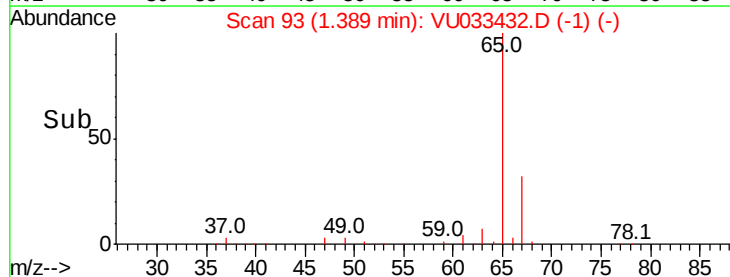
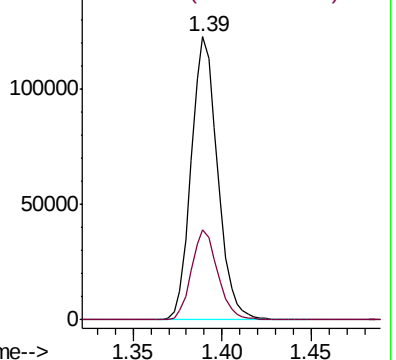
65 100

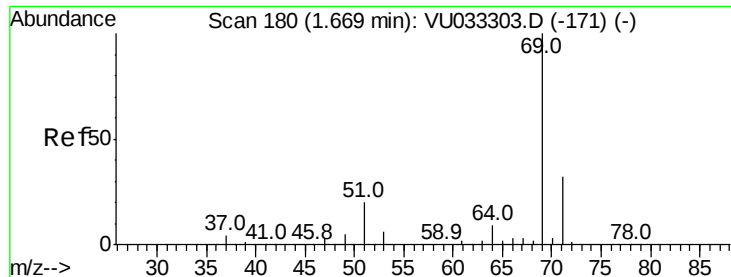
67 31.6 22.1 41.1



Abundance Ion 65.00 (64.70 to 65.70): VU0

Ion 67.00 (66.70 to 67.70): VU0





#7

Chloroethane-d5

Concen: 62.102 ug/L

RT: 1.67 min Scan# 180

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Instrument :

BNA_N

ClientSampleId :

C0CC3

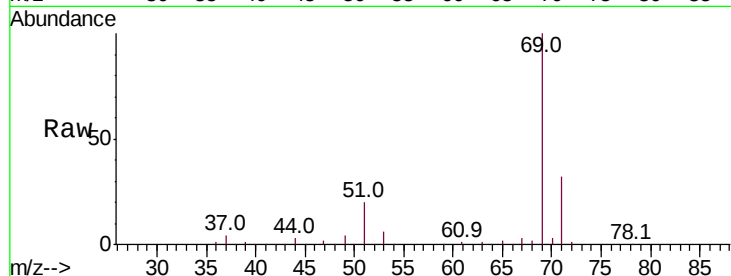
Tot Ion: 69 Resp: 108384

Ion Ratio Lower Upper

69 100

71 31.7 22.6 42.0

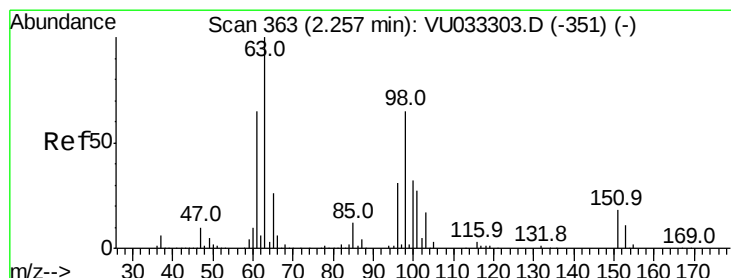
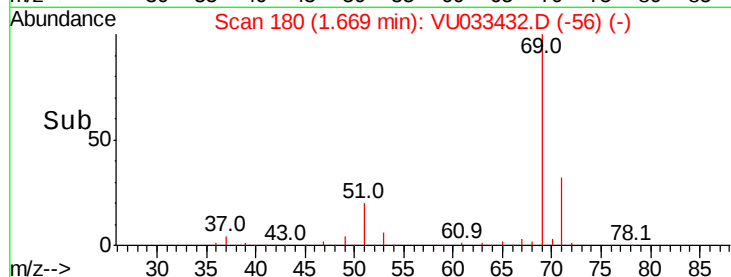
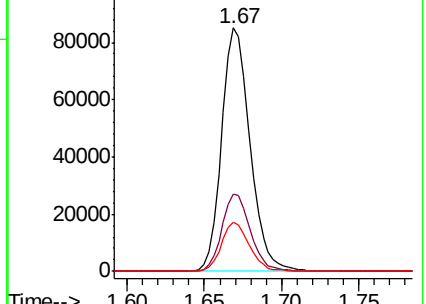
51 19.9 19.6 36.4



Abundance Ion 69.00 (68.70 to 69.70): VU033303.D (-171) (-)

Ion 71.00 (70.70 to 71.70): VU033303.D (-171) (-)

Ion 51.00 (50.70 to 51.70): VU033303.D (-171) (-)



#11

1,1-Dichloroethene-d2

Concen: 42.000 ug/L

RT: 2.26 min Scan# 363

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

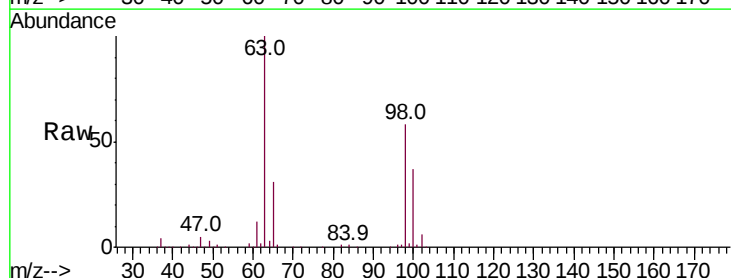
Tgt Ion: 63 Resp: 155633

Ion Ratio Lower Upper

63 100

98 57.1 50.0 92.8

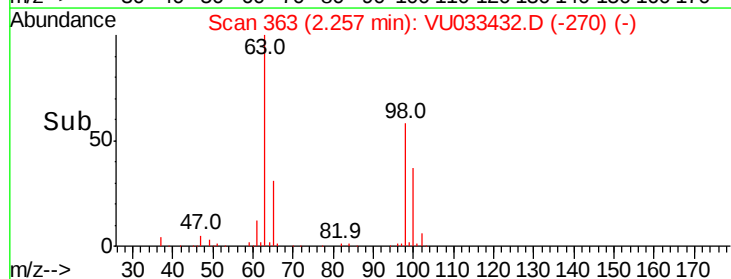
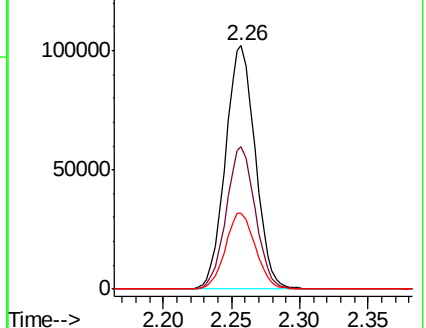
65 31.3 16.5 30.7#

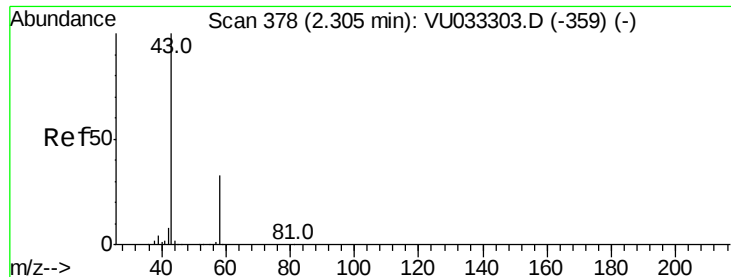


Abundance Ion 63.00 (62.70 to 63.70): VU033303.D (-351) (-)

Ion 98.00 (97.70 to 98.70): VU033303.D (-351) (-)

Ion 65.00 (64.70 to 65.70): VU033303.D (-351) (-)





#13

Acetone

Concen: 1.437 ug/L

RT: 2.31 min Scan# 378

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Instrument :

BNA_N

ClientSampleId :

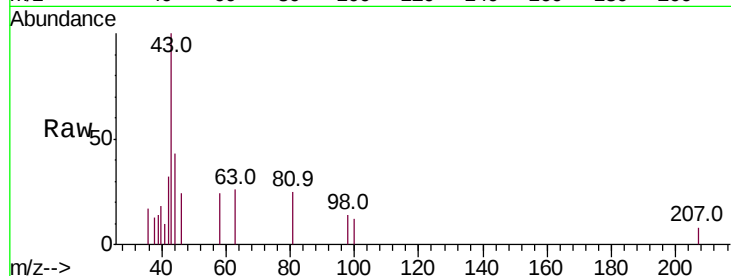
C0CC3

Tot Ion: 43 Resp: 2324

Ion Ratio Lower Upper

43 100

58 13.0 0.0 65.4



Abundance Ion 43.00 (42.70 to 43.70): VU033303.D (-359) (-)

Ion 58.00 (57.70 to 58.70): VU033303.D (-359) (-)

2.31

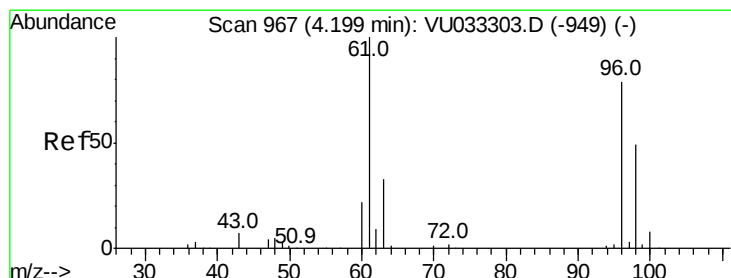
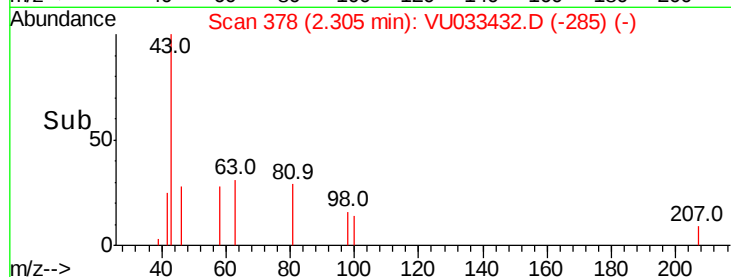
1500

1000

500

0

Time--> 2.25 2.30 2.35



#20

cis-1,2-Dichloroethene

Concen: 1.268 ug/L

RT: 4.20 min Scan# 968

Delta R.T. 0.01 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

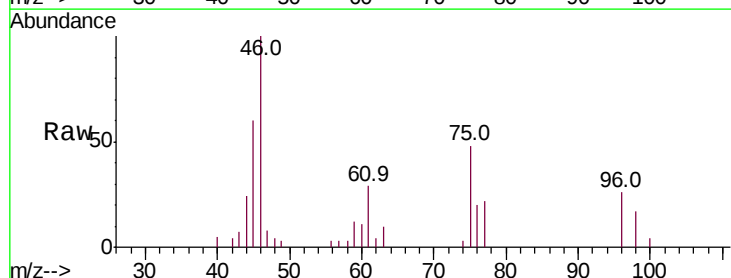
Tgt Ion: 96 Resp: 2663

Ion Ratio Lower Upper

96 100

61 110.7 91.1 169.1

68 0.0 0.0 0.0



Abundance Ion 96.00 (95.70 to 96.70): VU033303.D (-949) (-)

Ion 61.00 (60.70 to 61.70): VU033303.D (-949) (-)

Ion 68.00 (67.70 to 68.70): VU033303.D (-949) (-)

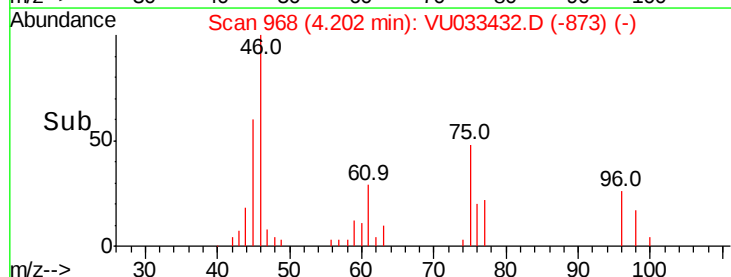
1500

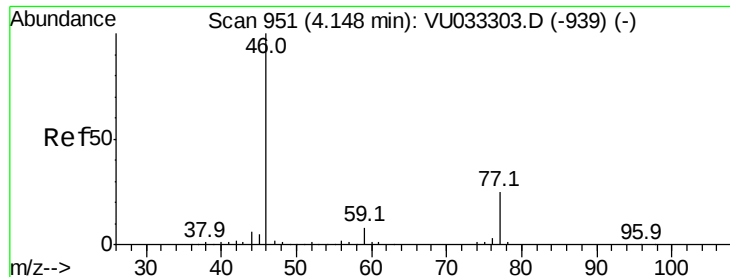
1000

500

0

Time--> 4.15 4.20 4.25





#21

2-Butanone-d5

Concen: 106.572 ug/L

RT: 4.15 min Scan# 952

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Instrument :

BNA_N

ClientSampleId :

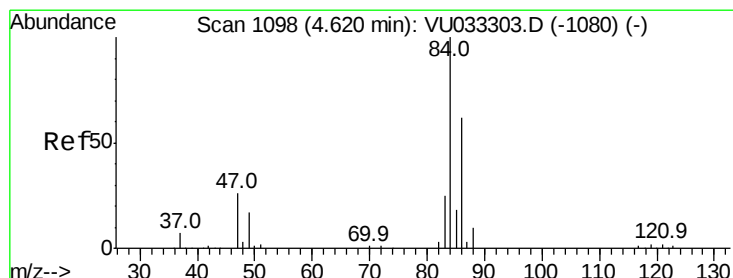
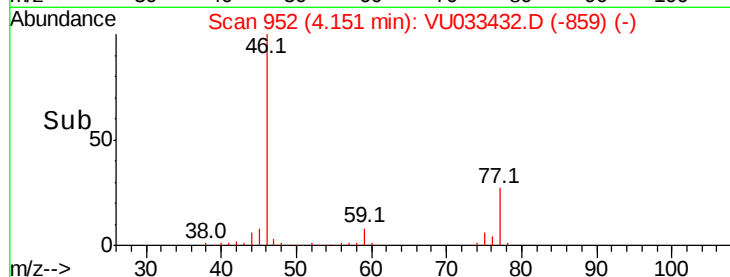
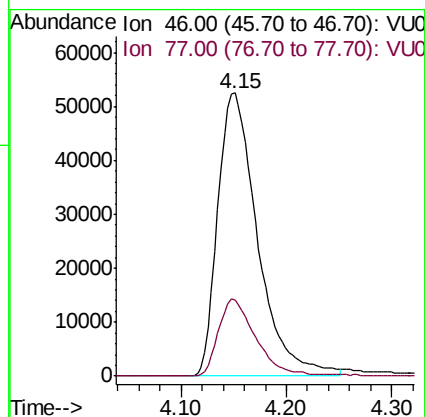
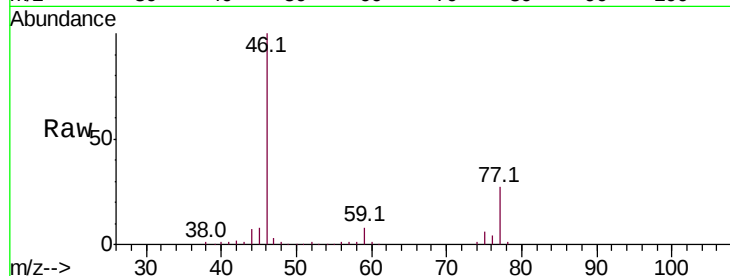
C0CC3

Tot Ion: 46 Resp: 137950

Ion Ratio Lower Upper

46 100

77 24.9 17.5 32.5



#24

Chloroform-d

Concen: 53.510 ug/L

RT: 4.62 min Scan# 1098

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Tgt Ion: 84 Resp: 183201

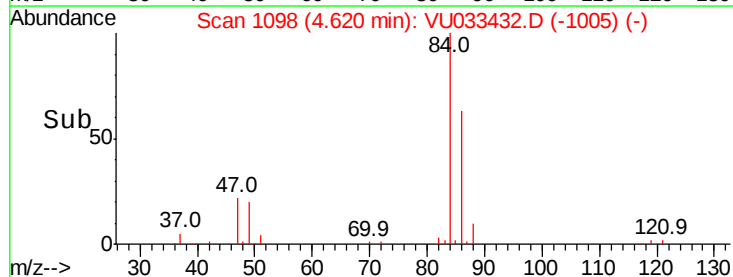
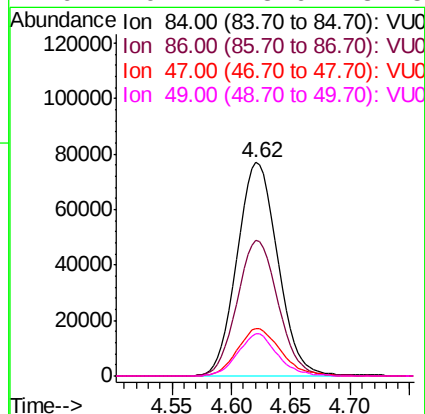
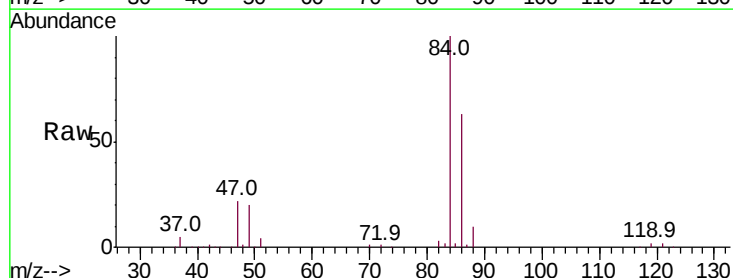
Ion Ratio Lower Upper

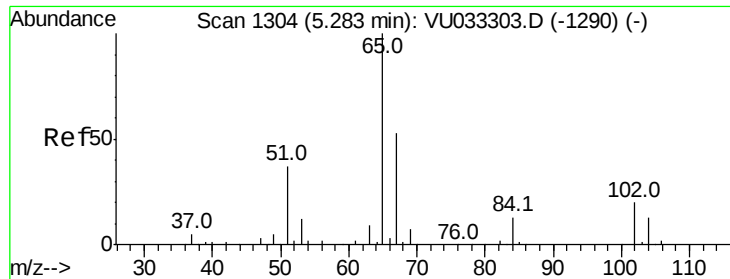
84 100

86 63.7 44.3 82.3

47 23.6 32.3 60.1#

49 19.1 18.6 34.5





#26

1,2-Dichloroethane-d4

Concen: 59.558 ug/L

RT: 5.29 min Scan# 1305

Delta R.T. -0.00 min

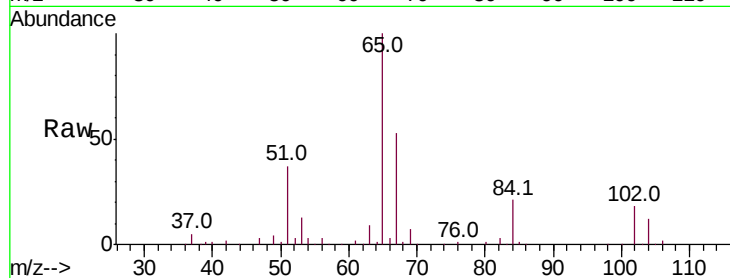
Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Instrument :
BNA_N
ClientSampleId :
C0CC3

Tot Ion: 65 Resp: 130779

Ion	Ratio	Lower	Upper
65	100		
67	54.0	37.7	69.9
51	36.8	25.6	47.6

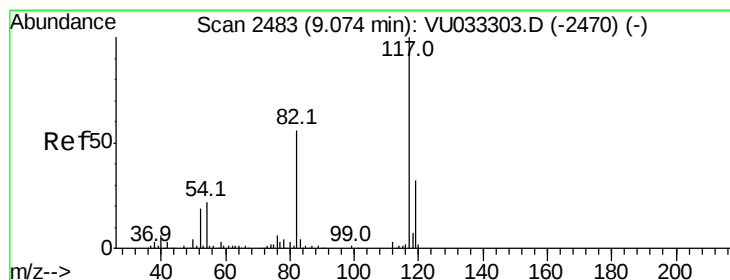
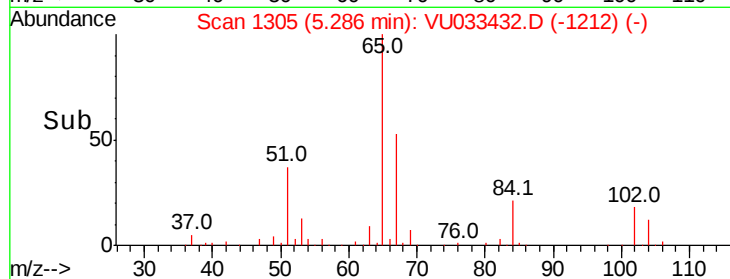
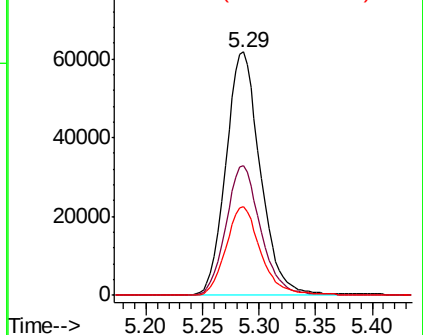


Abundance

Ion 65.00 (64.70 to 65.70): VU0

Ion 67.00 (66.70 to 67.70): VU0

Ion 51.00 (50.70 to 51.70): VU0



#28

Chlorobenzene-d5

Concen: 50.000 ug/L

RT: 9.07 min Scan# 2483

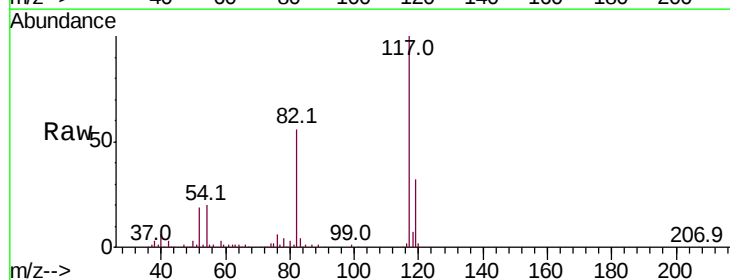
Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Tgt Ion: 117 Resp: 280728

Ion	Ratio	Lower	Upper
117	100		
82	56.1	45.5	68.3
119	31.8	25.5	38.3

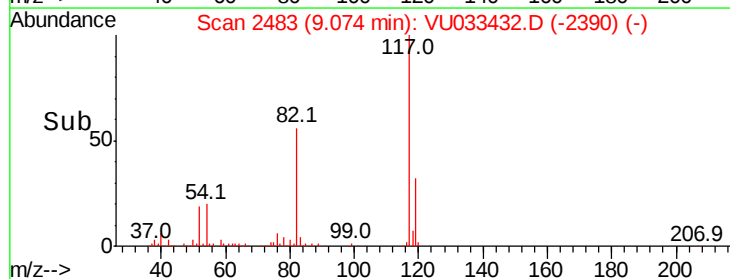
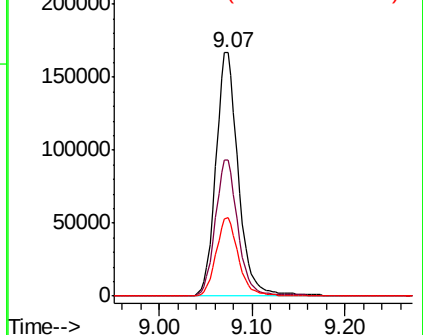


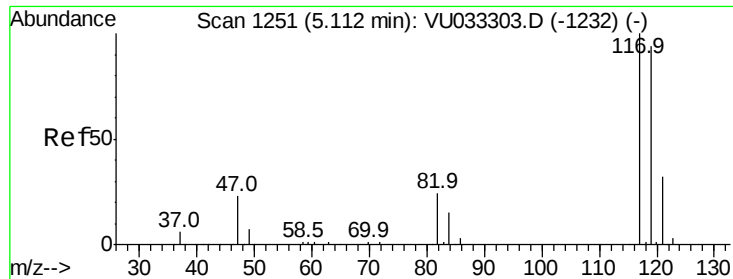
Abundance

Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): VU0

Ion 119.00 (118.70 to 119.70): V





#31

Carbon tetrachloride

Concen: 0.792 ug/L

RT: 5.11 min Scan# 1250

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Instrument :

BNA_N

ClientSampleId :

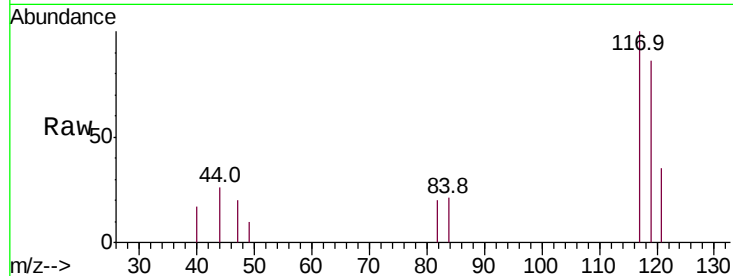
C0CC3

Tot Ion:117 Resp: 2269

Ion Ratio Lower Upper

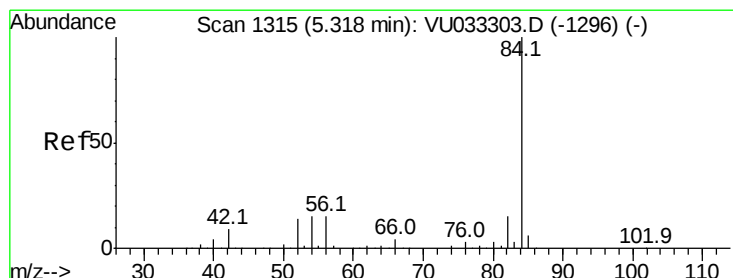
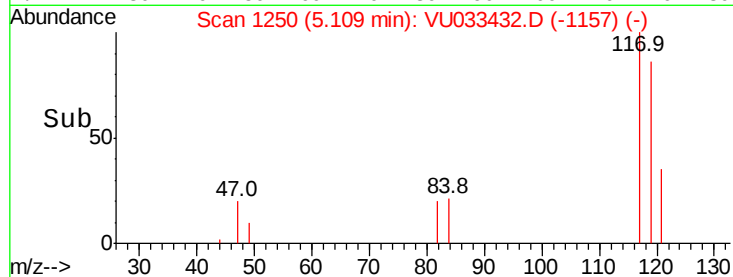
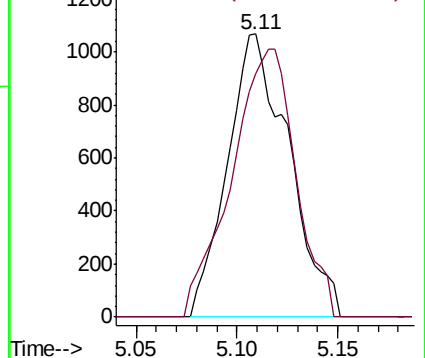
117 100

119 98.7 76.9 115.3



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#32

Benzene-d6

Concen: 58.567 ug/L

RT: 5.32 min Scan# 1315

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Tgt Ion: 84 Resp: 403336

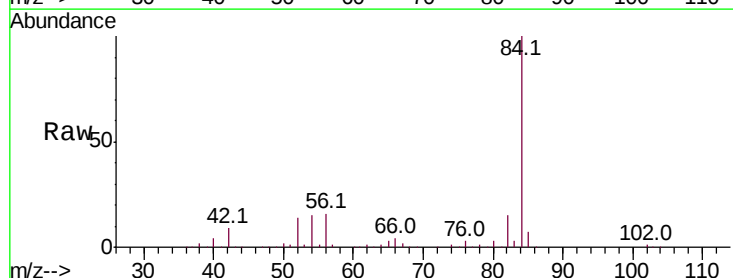
Ion Ratio Lower Upper

84 100

82 15.6 10.8 20.0

54 14.2 10.0 18.6

52 13.8 9.4 17.6

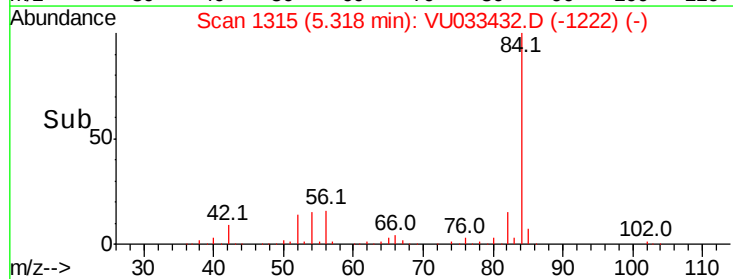
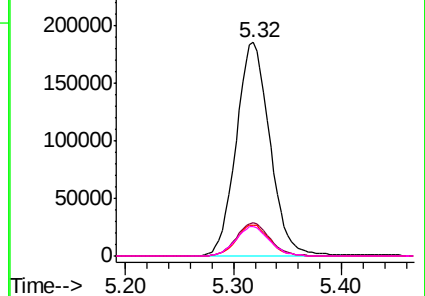


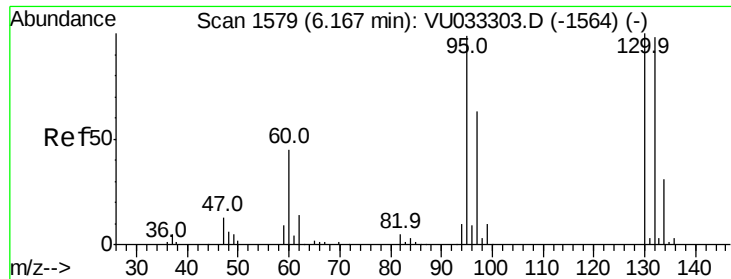
Abundance Ion 84.00 (83.70 to 84.70): VU0

Ion 82.00 (81.70 to 82.70): VU0

Ion 54.00 (53.70 to 54.70): VU0

Ion 52.00 (51.70 to 52.70): VU0





#34

Trichloroethene

Concen: 1075.913 ug/L

RT: 6.16 min Scan# 1578

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Instrument :

BNA_N

ClientSampleId :

C0CC3

Tot Ion: 95 Resp: 2303603

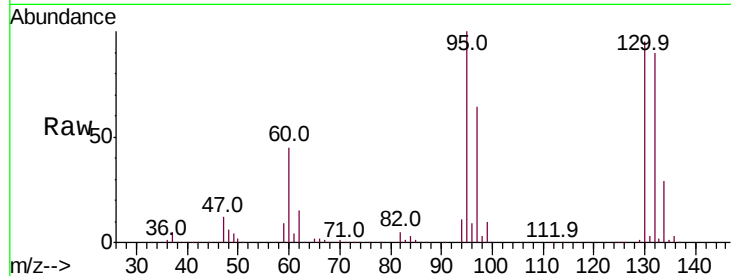
Ion Ratio Lower Upper

95 100

97 63.7 43.8 81.4

132 90.1 65.5 121.6

130 95.2 69.7 129.5



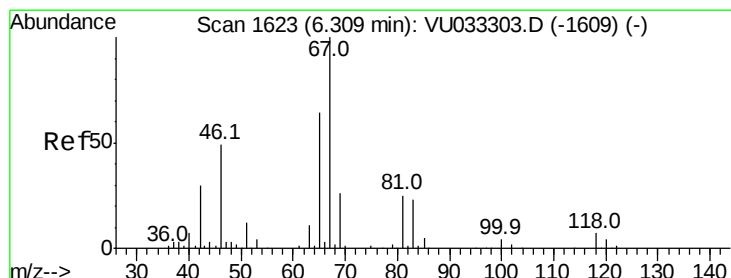
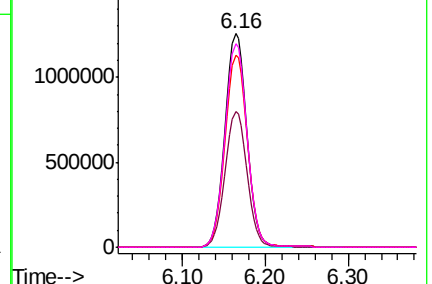
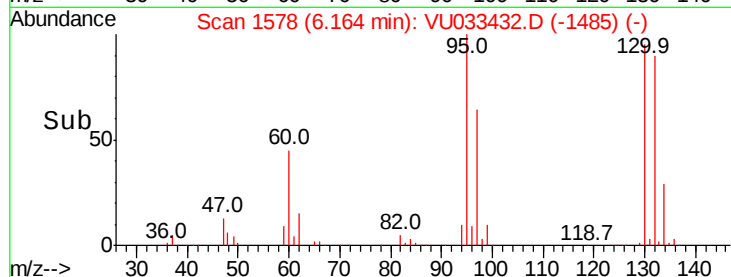
Abundance

Ion 95.00 (94.70 to 95.70): VU0

Ion 97.00 (96.70 to 97.70): VU0

Ion 132.00 (131.70 to 132.70): V

Ion 130.00 (129.70 to 130.70): V



#36

1,2-Dichloropropane-d6

Concen: 58.376 ug/L

RT: 6.31 min Scan# 1623

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Tgt Ion: 67 Resp: 128782

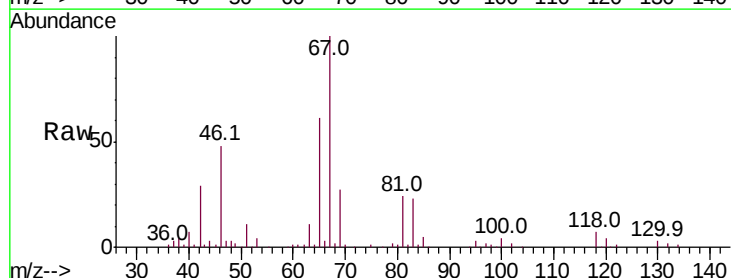
Ion Ratio Lower Upper

67 100

65 62.1 43.1 80.1

46 47.6 34.4 64.0

42 29.0 21.3 39.5



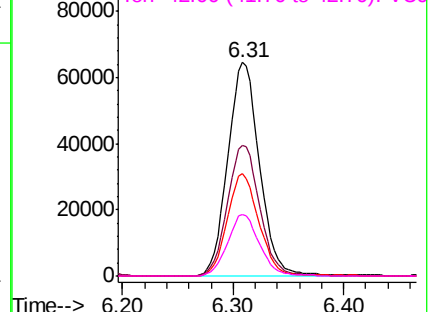
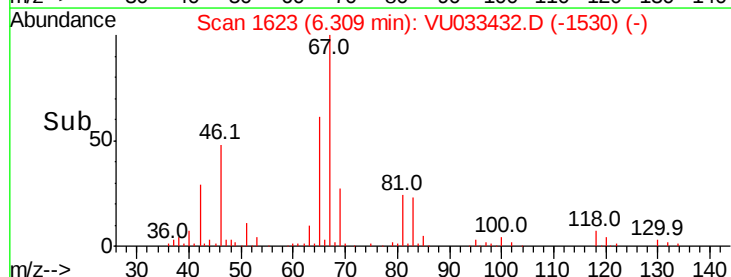
Abundance

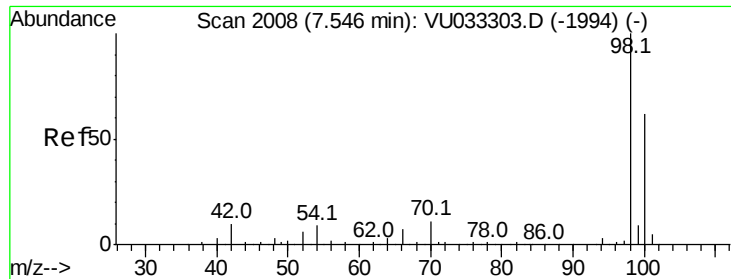
Ion 67.00 (66.70 to 67.70): VU0

Ion 65.00 (64.70 to 65.70): VU0

Ion 46.00 (45.70 to 46.70): VU0

Ion 42.00 (41.70 to 42.70): VU0





#41

Toluene-d8

Concen: 55.303 ug/L

RT: 7.55 min Scan# 2008

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Instrument :

BNA_N

ClientSampleId :

C0CC3

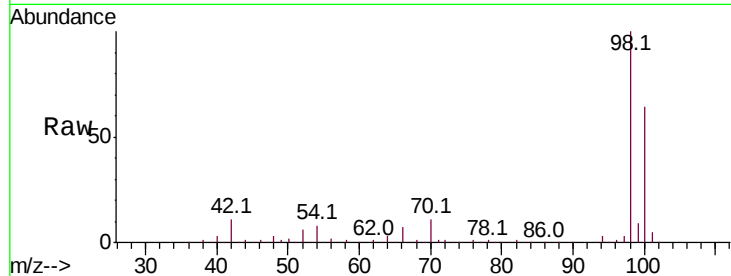
Tot Ion: 98 Resp: 359155

Ion Ratio Lower Upper

98 100

100 63.6 44.2 82.2

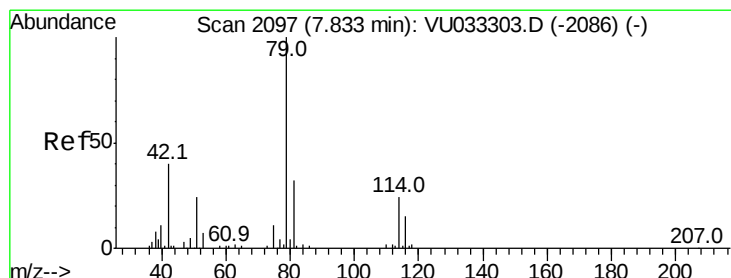
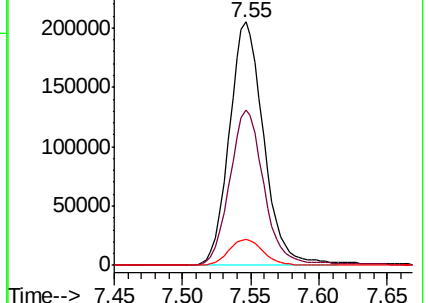
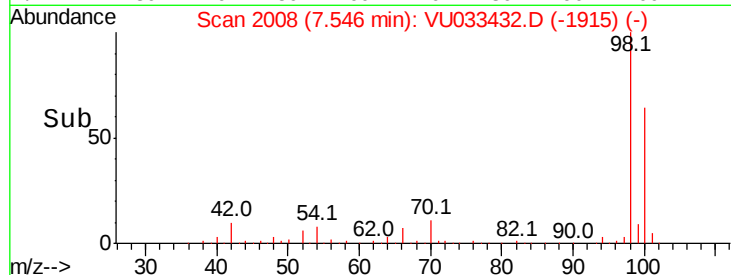
42 10.8 7.6 14.2



Abundance Ion 98.00 (97.70 to 98.70): VU033303.D (-1994) (-)

Ion 100.00 (99.70 to 100.70): VU033303.D (-1994) (-)

Ion 42.00 (41.70 to 42.70): VU033303.D (-1994) (-)



#43

trans-1,3-Dichloropropene-d4

Concen: 50.816 ug/L

RT: 7.83 min Scan# 2097

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

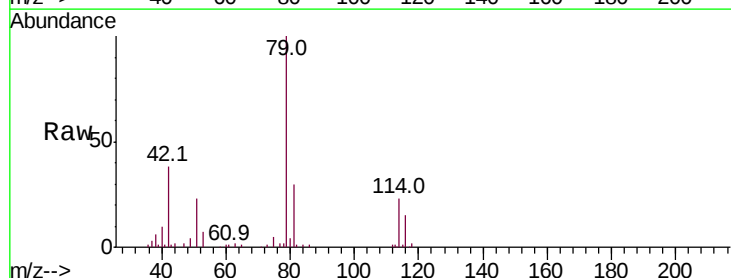
Tgt Ion: 79 Resp: 54971

Ion Ratio Lower Upper

79 100

81 32.6 22.7 42.3

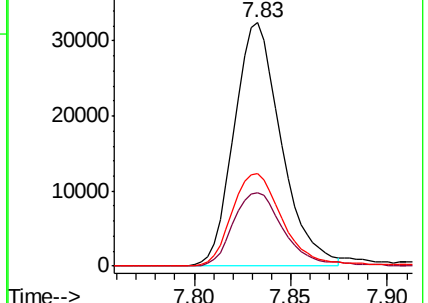
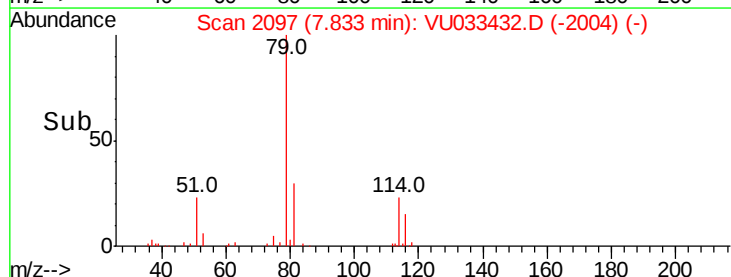
42 41.0 28.5 52.9

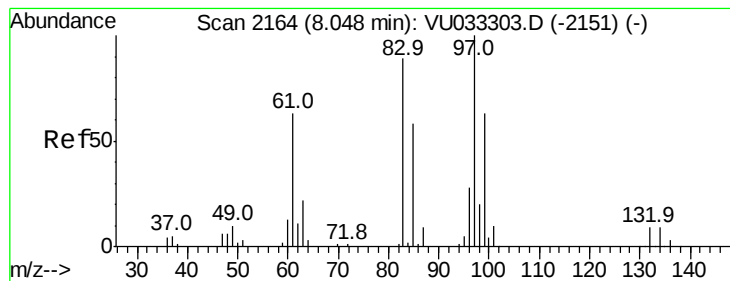


Abundance Ion 79.00 (78.70 to 79.70): VU033303.D (-2086) (-)

Ion 81.00 (80.70 to 81.70): VU033303.D (-2086) (-)

Ion 42.00 (41.70 to 42.70): VU033303.D (-2086) (-)





#45

1,1,2-Trichloroethane

Concen: 0.588 ug/L

RT: 8.05 min Scan# 2166

Delta R.T. 0.01 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Instrument :

BNA_N

ClientSampled :

C0CC3

Tot Ion: 97 Resp: 1234

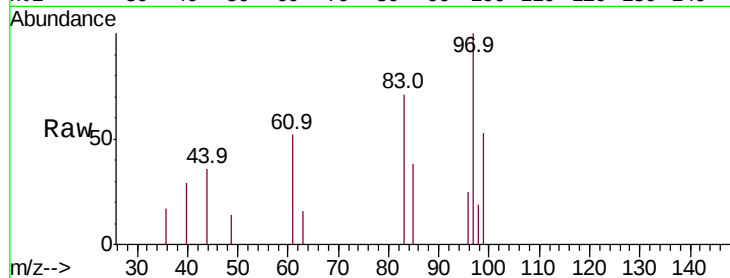
Ion Ratio Lower Upper

97 100

99 52.9 43.0 79.8

83 71.3 61.5 114.3

85 38.1 38.8 72.0#



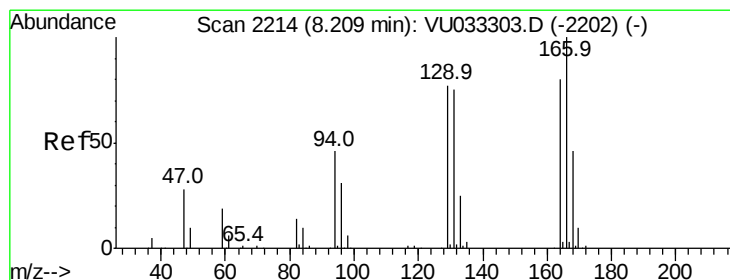
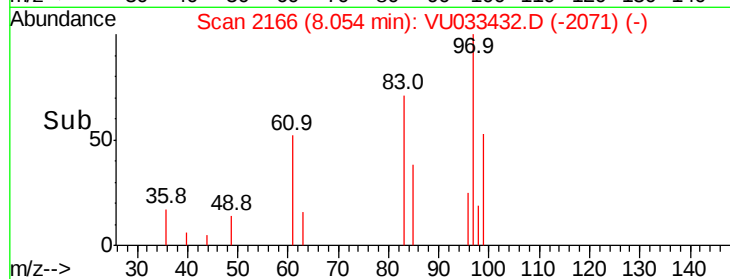
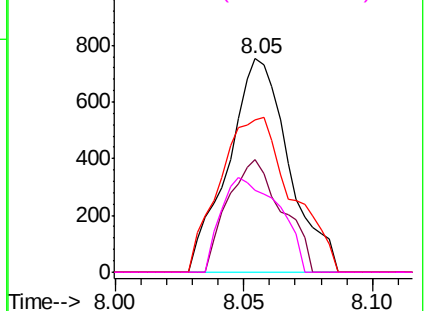
Abundance

Ion 97.00 (96.70 to 97.70): VU033303.D (-2151) (-)

Ion 99.00 (98.70 to 99.70): VU033303.D (-2151) (-)

Ion 83.00 (82.70 to 83.70): VU033303.D (-2151) (-)

Ion 85.00 (84.70 to 85.70): VU033303.D (-2151) (-)



#46

Tetrachloroethene

Concen: 82.876 ug/L

RT: 8.21 min Scan# 2214

Delta R.T. -0.00 min

Lab File: VU033432.D

Acq: 26 Jul 2019 00:09

Tgt Ion:164 Resp: 137365

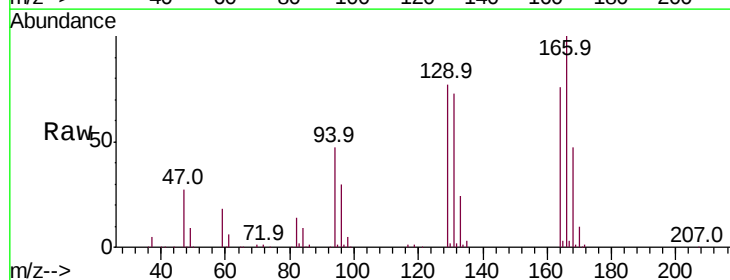
Ion Ratio Lower Upper

164 100

129 100.9 69.6 129.2

131 95.4 65.7 122.1

166 131.4 88.5 164.4



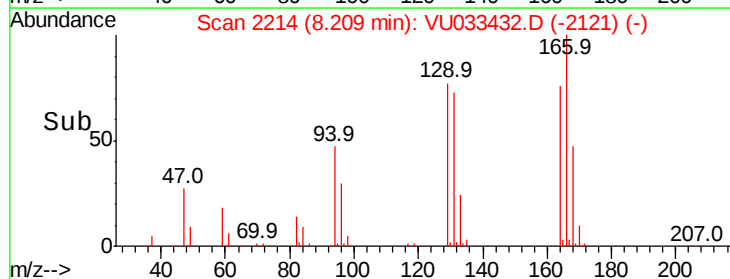
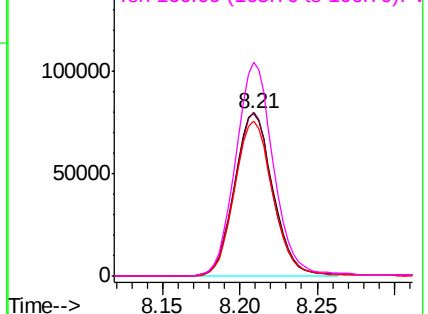
Abundance

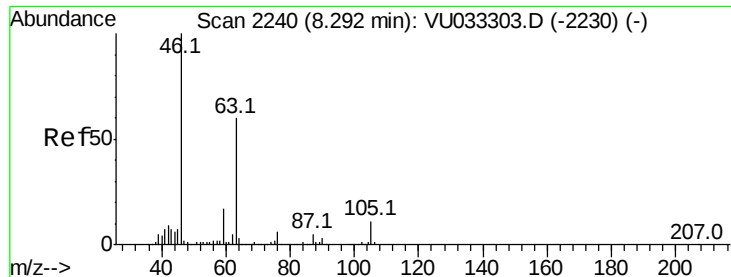
Ion 164.00 (163.70 to 164.70): VU033303.D (-2202) (-)

Ion 129.00 (128.70 to 129.70): VU033303.D (-2202) (-)

Ion 131.00 (130.70 to 131.70): VU033303.D (-2202) (-)

Ion 166.00 (165.70 to 166.70): VU033303.D (-2202) (-)

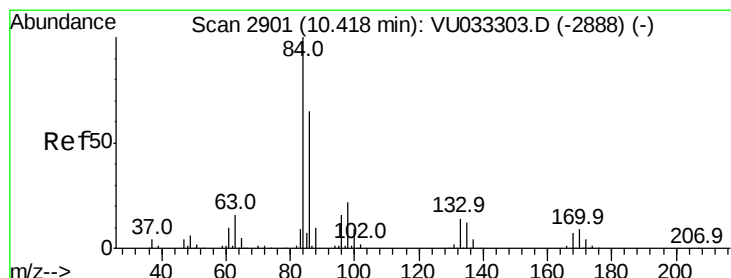
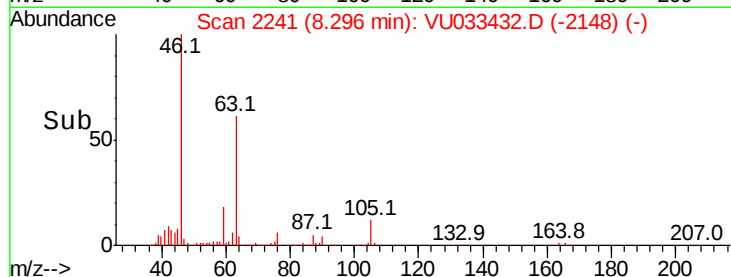
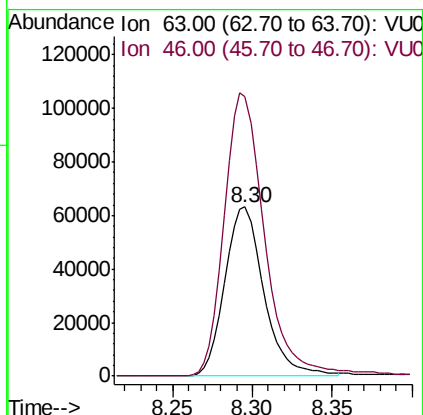
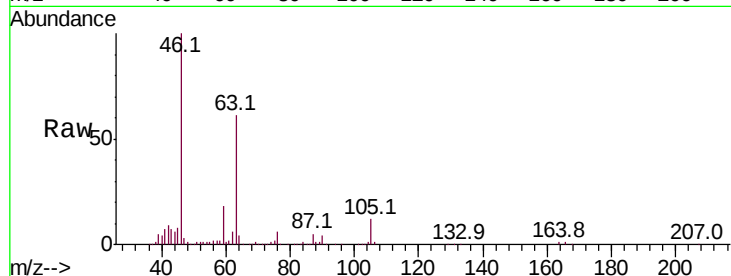




#47
 2-Hexanone-d5
 Concen: 106.172 ug/L
 RT: 8.30 min Scan# 2241
 Delta R.T. -0.00 min
 Lab File: VU033432.D
 Acq: 26 Jul 2019 00:09

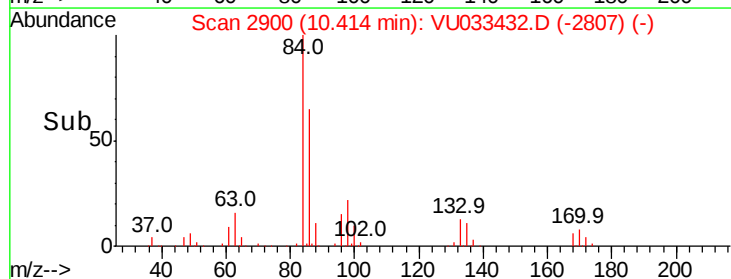
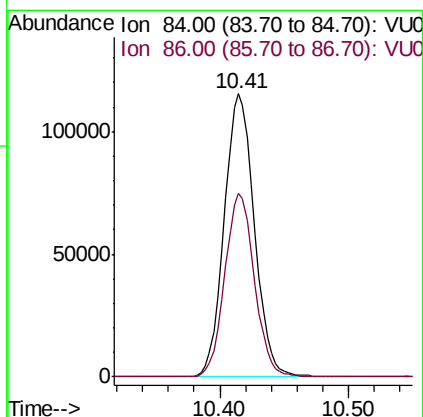
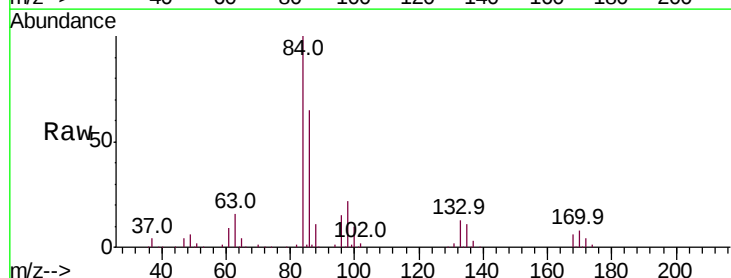
Instrument :
 BNA_N
 ClientSampleId :
 C0CC3

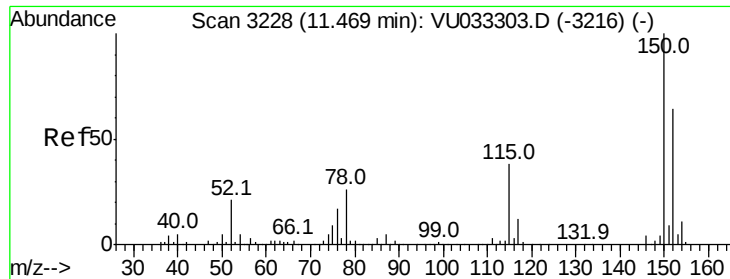
Tot Ion: 63 Resp: 105590
 Ion Ratio Lower Upper
 63 100
 46 174.2 119.6 222.0



#57
 1,1,2,2-Tetrachloroethane-d2
 Concen: 55.868 ug/L
 RT: 10.41 min Scan# 2900
 Delta R.T. -0.00 min
 Lab File: VU033432.D
 Acq: 26 Jul 2019 00:09

Tgt Ion: 84 Resp: 186539
 Ion Ratio Lower Upper
 84 100
 86 63.8 44.7 82.9

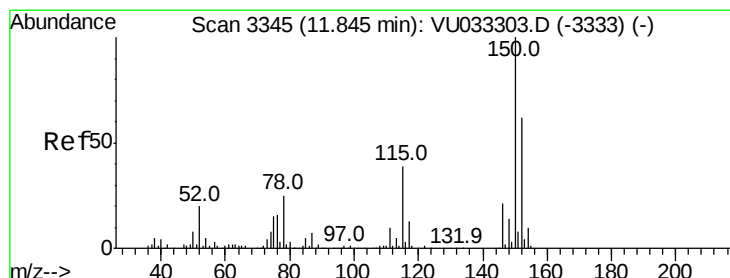
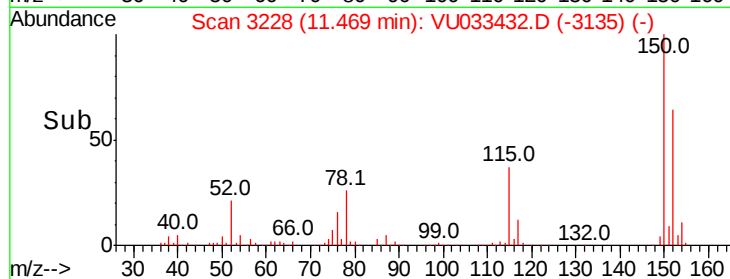
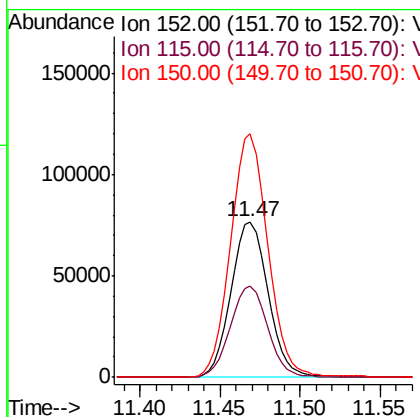
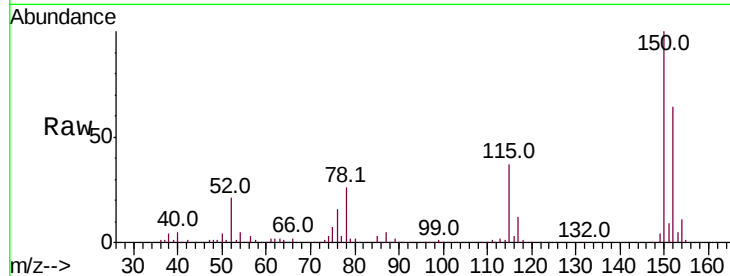




#60
 1,4-Dichlorobenzene-d4
 Concen: 50.000 ug/L
 RT: 11.47 min Scan# 3228
 Delta R.T. -0.00 min
 Lab File: VU033432.D
 Acq: 26 Jul 2019 00:09

Instrument :
 BNA_N
 ClientSampleId :
 C0CC3

Tot Ion	Ratio	Lower	Upper
152	100		
115	58.7	0.0	118.6
150	156.3	0.0	341.4



#64
 1,2-Dichlorobenzene-d4
 Concen: 62.602 ug/L
 RT: 11.85 min Scan# 3345
 Delta R.T. -0.00 min
 Lab File: VU033432.D
 Acq: 26 Jul 2019 00:09

Tgt Ion	Ratio	Lower	Upper
152	100		
150	157.8	123.5	229.4

