

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN061221\
 Data File : BN014886.D
 Acq On : 12 Jun 2021 10:02
 Operator : CG/JU
 Sample : SSTD00551
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 BNA_N
 ClientSampleId :

Quant Time: Jun 14 01:50:03 2021
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA_N\METHODS\SFAM-EPA-BN061221MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Mon Jun 14 01:48:30 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.693	152	100304	20.000	ng/u1	0.00
20) Naphthalene-d8	10.475	136	398171	20.000	ng/u1	# 0.00
38) Acenaphthene-d10	14.346	164	293229	20.000	ng/u1	0.00
64) Phenanthrene-d10	17.098	188	696852	20.000	ng/u1	# 0.00
79) Chrysene-d12	21.298	240	886255	20.000	ng/u1	0.00
88) Perylene-d12	23.551	264	969481	20.000	ng/u1	0.00
System Monitoring Compounds						
3) 1,4-Dioxane-d8	3.205	96	3445	1.399	ng/uL	0.00
4) Pyridine-d5	3.628	84	12744	2.054	ng/u1	0.02
7) Phenol-d5	6.875	99	30528	3.108	ng/u1	0.01
9) Bis-(2-Chloroethyl)eth...	7.034	67	17869	3.659	ng/u1	0.00
11) 2-Chlorophenol-d4	7.228	132	22853	3.757	ng/u1	0.00
15) 4-Methylphenol-d8	8.405	113	22472	2.943	ng/u1	0.00
21) Nitrobenzene-d5	8.846	128	11842	3.948	ng/u1	0.00
24) 2-Nitrophenol-d4	9.563	143	10113	3.137	ng/u1	0.00
28) 2,4-Dichlorophenol-d3	10.110	165	27341	3.719	ng/u1	0.01
31) 4-Chloroaniline-d4	10.616	131	33600	3.877	ng/u1	0.00
46) Dimethylphthalate-d6	13.757	166	110117	4.727	ng/u1	0.00
49) Acenaphthylene-d8	14.034	160	118879	4.413	ng/u1	0.00
54) 4-Nitrophenol-d4	14.563	143	4453	1.203	ng/u1	0.00
60) Fluorene-d10	15.340	176	90619	4.514	ng/u1	0.00
65) 4,6-Dinitro-2-methylph...	15.463	200	13603	3.569	ng/u1	0.00
73) Anthracene-d10	17.198	188	145459	4.468	ng/u1	0.00
81) Pyrene-d10	19.498	212	187313	4.482	ng/u1	0.00
92) Benzo(a)pyrene-d12	23.410	264	227692	4.409	ng/u1	0.00
Target Compounds						
					Qvalue	
2) 1,4-Dioxane	3.240	88	3384	1.170	ng/uL#	75
5) Pyridine	3.640	79	14993	2.307	ng/u1#	62
6) Benzaldehyde	6.840	77	15723	2.973	ng/u1	92
8) Phenol	6.899	94	28689	2.839	ng/u1#	85
10) Bis(2-Chloroethyl)ether	7.122	93	23936	3.069	ng/u1#	71
12) 2-Chlorophenol	7.264	128	28864	4.534	ng/u1#	68
13) 2-Methylphenol	8.140	108	24498	3.301	ng/u1	96
14) 2,2'-oxybis(1-Chloropr...	8.228	45	17068	3.469	ng/u1#	81
16) Acetophenone	8.516	105	47558	3.762	ng/u1	95
17) N-Nitroso-di-n-propyla...	8.493	70	21759	3.574	ng/u1#	83
18) 4-Methylphenol	8.463	108	25889	3.198	ng/u1	93
19) Hexachloroethane	8.763	117	15822	4.964	ng/u1#	81
22) Nitrobenzene	8.893	77	34439	3.679	ng/u1#	97
23) Isophorone	9.405	82	64736	3.642	ng/u1#	97
25) 2-Nitrophenol	9.599	139	14315	4.178	ng/u1#	85
26) 2,4-Dimethylphenol	9.658	107	41003	3.888	ng/u1#	74
27) Bis(2-Chloroethoxy)met...	9.893	93	37415	3.464	ng/u1#	96
29) 2,4-Dichlorophenol	10.134	162	26225	3.720	ng/u1#	87
30) Naphthalene	10.528	128	95885	4.431	ng/u1	98
32) 4-Chloroaniline	10.646	127	31866	3.455	ng/u1	100
33) Hexachlorobutadiene	10.816	225	30115	4.777	ng/u1	98
34) Caprolactam	11.405	113	4717	2.071	ng/u1#	75
35) 4-Chloro-3-methylphenol	11.781	107	29085	2.847	ng/u1	98
36) 2-Methylnaphthalene	12.146	142	69697	4.320	ng/u1	92

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN061221\
 Data File : BN014886.D
 Acq On : 12 Jun 2021 10:02
 Operator : CG/JU
 Sample : SSTD00551
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

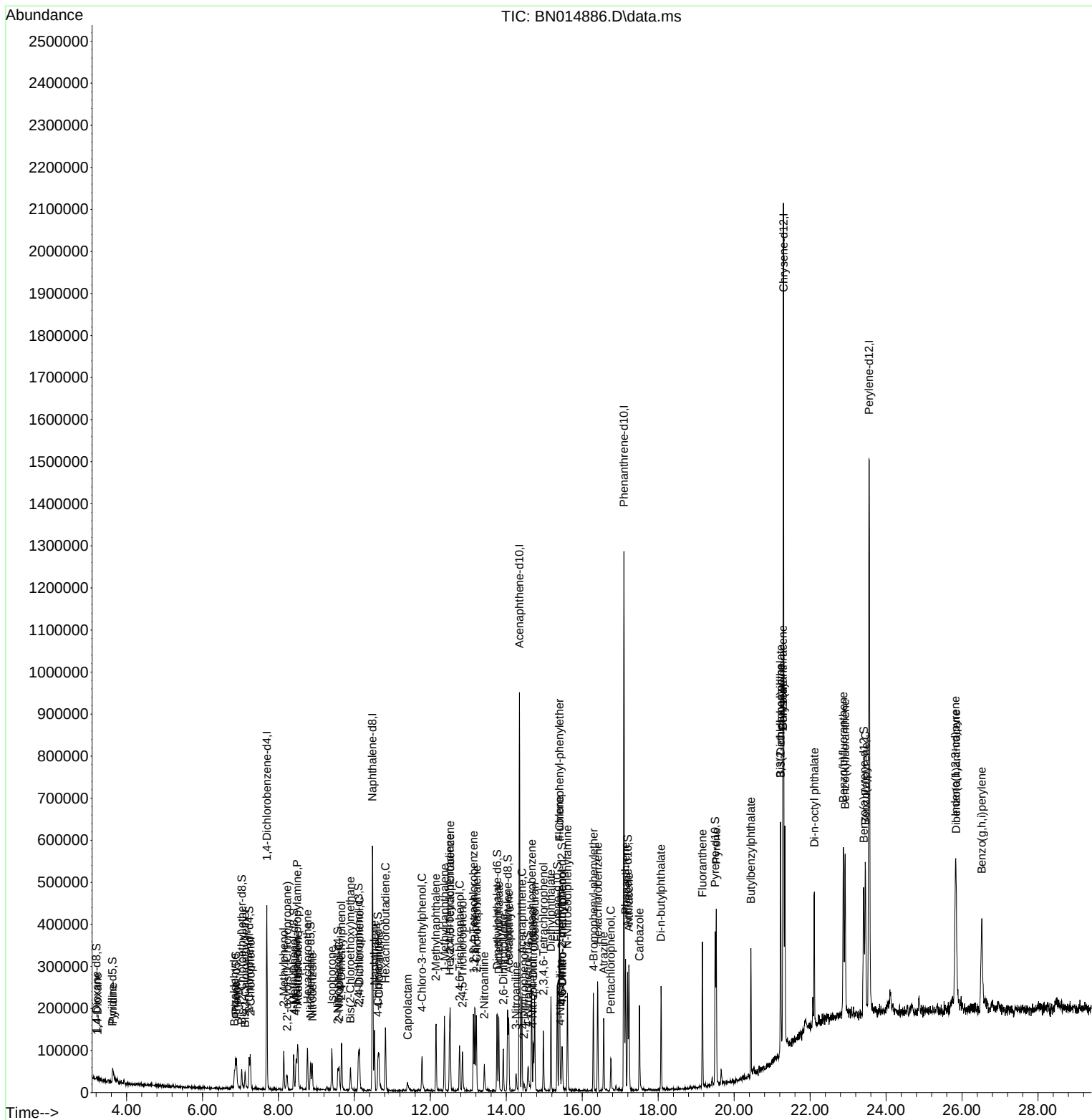
Instrument :
 BNA_N
 ClientSampleId :

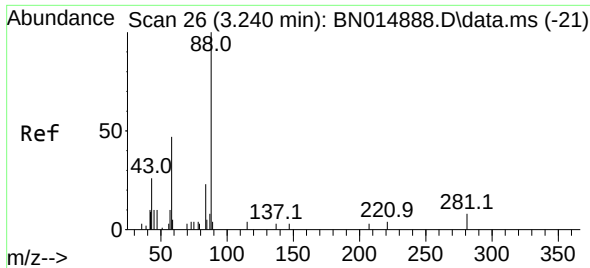
Quant Time: Jun 14 01:50:03 2021
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA_N\METHODS\SFAM-EPA-BN061221MA.M
 Quant Title : SVOA CALIBRATION
 QLast Update : Mon Jun 14 01:48:30 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 1-Methylnaphthalene	12.369	142	71526	4.510	ng/ul#	99
39) 1,2,4,5-Tetrachloroben...	12.522	216	46815	4.223	ng/ul#	86
40) Hexachlorocyclopentadiene	12.510	237	31217	4.250	ng/ul#	86
41) 2,4,6-Trichlorophenol	12.769	196	24589	3.950	ng/ul#	80
42) 2,4,5-Trichlorophenol	12.846	196	26890	3.958	ng/ul	90
43) 1,1'-Biphenyl	13.175	154	97337	4.640	ng/ul#	97
44) 2-Chloronaphthalene	13.216	162	76932	4.577	ng/ul	88
45) 2-Nitroaniline	13.422	65	18470	3.608	ng/ul	89
47) Dimethylphthalate	13.804	163	100864	4.377	ng/ul	97
48) 2,6-Dinitrotoluene	13.922	165	18214	4.254	ng/ul#	84
50) Acenaphthylene	14.063	152	108947	4.399	ng/ul	96
51) 3-Nitroaniline	14.257	138	9590	2.308	ng/ul	92
52) Acenaphthene	14.410	153	77420	4.314	ng/ul	89
53) 2,4-Dinitrophenol	14.463	184	3781	1.216	ng/ul#	85
55) 4-Nitrophenol	14.698	109	588	0.083	ng/ul	84
56) Dibenzofuran	14.746	168	119998	4.495	ng/ul	94
57) 2,4-Dinitrotoluene	14.710	165	27648	4.052	ng/ul#	94
58) 2,3,4,6-Tetrachlorophenol	14.981	232	25359	3.628	ng/ul#	95
59) Diethylphthalate	15.175	149	103883	4.690	ng/ul	97
61) Fluorene	15.398	166	103482	5.152	ng/ul	93
62) 4-Chlorophenyl-phenyle...	15.398	204	53314	4.487	ng/ul#	73
63) 4-Nitroaniline	15.422	138	6381	1.512	ng/ul#	91
66) 4,6-Dinitro-2-methylph...	15.475	198	11943	3.203	ng/ul#	69
67) N-Nitrosodiphenylamine	15.610	169	82506	4.396	ng/ul	98
68) 4-Bromophenyl-phenylether	16.298	248	36100	3.978	ng/ul#	78
69) Hexachlorobenzene	16.410	284	56665	4.992	ng/ul#	91
70) Atrazine	16.563	200	35824	4.616	ng/ul	90
71) Pentachlorophenol	16.751	266	13287	2.033	ng/ul#	81
72) Phenanthrene	17.140	178	166369	4.569	ng/ul#	93
74) Anthracene	17.234	178	163179	4.447	ng/ul#	95
75) 1,2,3,4-Tetrachloroben...	13.140	216	49852	4.329	ng/ul#	86
76) Pentachlorobenzene	14.669	250	57739	4.848	ng/ul#	91
77) Carbazole	17.504	167	127879	4.135	ng/ul#	93
78) Di-n-butylphthalate	18.075	149	160343	4.400	ng/ul#	96
80) Fluoranthene	19.163	202	207808	4.217	ng/ul#	94
82) Pyrene	19.528	202	239158	4.720	ng/ul#	92
83) Butylbenzylphthalate	20.439	149	77460	4.549	ng/ul#	78
84) 3,3'-Dichlorobenzidine	21.222	252	72041	4.311	ng/ul#	96
85) Benzo(a)anthracene	21.280	228	237251	4.295	ng/ul	96
86) Bis(2-ethylhexyl)phtha...	21.222	149	116342	4.740	ng/ul#	89
87) Chrysene	21.280	228	237251	4.265	ng/ul	98
89) Di-n-octyl phthalate	22.110	149	226388	5.278	ng/ul	100
90) Benzo(b)fluoranthene	22.875	252	262666	4.515	ng/ul	94
91) Benzo(k)fluoranthene	22.922	252	272750	4.705	ng/ul	98
93) Benzo(a)pyrene	23.457	252	243658	4.628	ng/ul#	97
94) Indeno(1,2,3-cd)pyrene	25.827	276	302548	4.194	ng/ul	99
95) Dibenzo(a,h)anthracene	25.845	278	257856	4.319	ng/ul	98
96) Benzo(g,h,i)perylene	26.521	276	266463	4.173	ng/ul#	95

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

Quant Time: Jun 14 01:50:03 2021
Quant Method : Z:\SVOASRV\HPCHEM1\BNA_N\METHODS\SFAM-EPA-BN061221MA.M
Quant Title : SVOA CALIBRATION
QLast Update : Mon Jun 14 01:48:30 2021
Response via : Initial Calibration

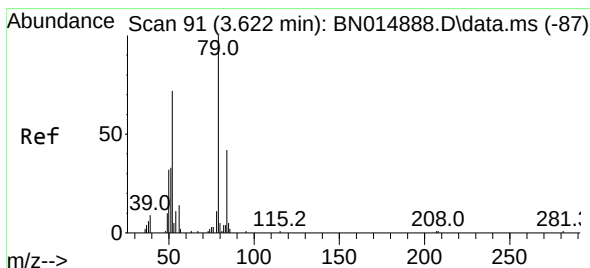
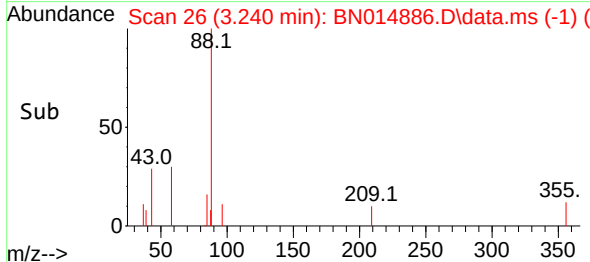
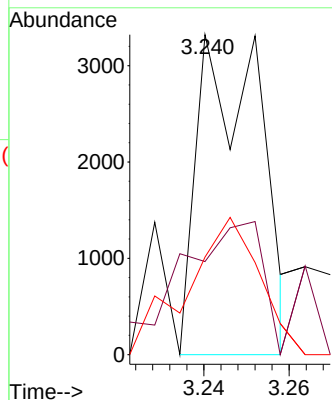
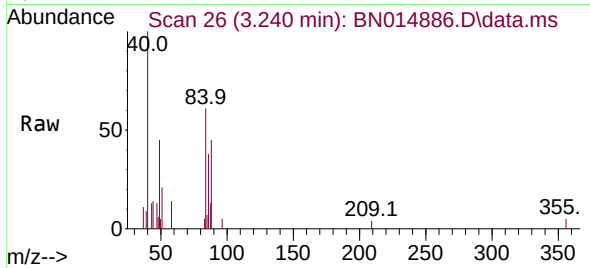




#2
1,4-Dioxane
Concen: 1.170 ng/uL
RT: 3.240 min Scan# 26
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

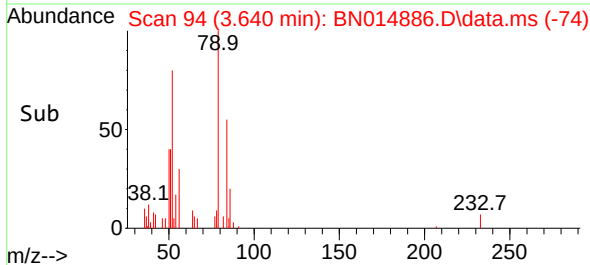
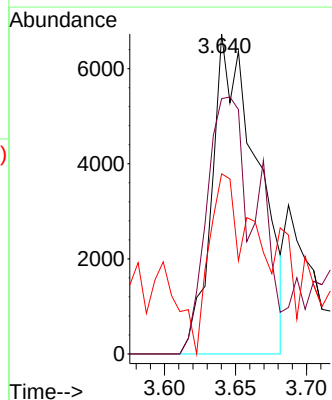
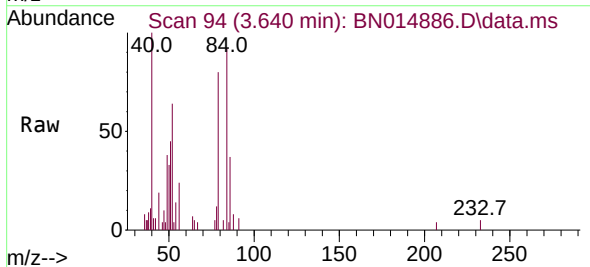
Instrument :
BNA_N
ClientSampled :

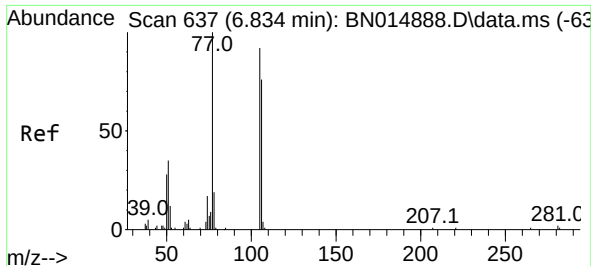
Tgt Ion: 88	Resp: 3384
Ion Ratio	Lower Upper
88 100	
43 29.1	13.8 20.6#
58 30.5	37.1 55.7#



#5
Pyridine
Concen: 2.307 ng/uL
RT: 3.640 min Scan# 94
Delta R.T. 0.018 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion: 79	Resp: 14993
Ion Ratio	Lower Upper
79 100	
52 79.8	45.9 68.9#
51 56.3	22.2 33.4#

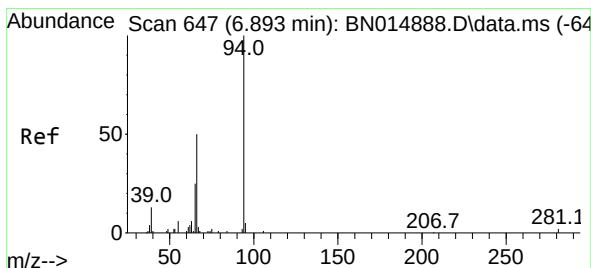
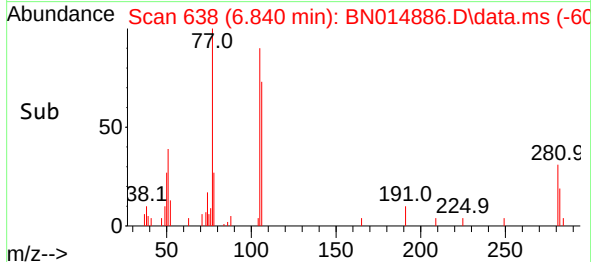
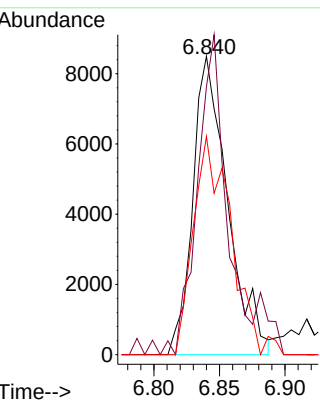
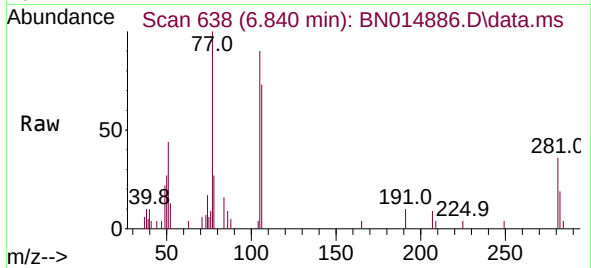




#6
Benzaldehyde
Concen: 2.973 ng/ul
RT: 6.840 min Scan# 638
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

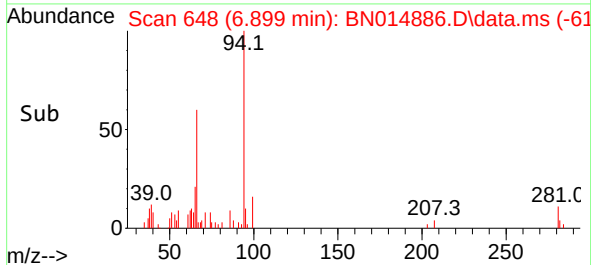
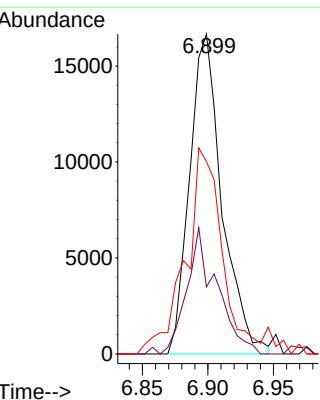
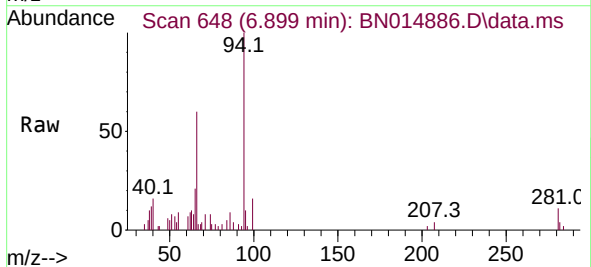
Instrument :
BNA_N
ClientSampled :

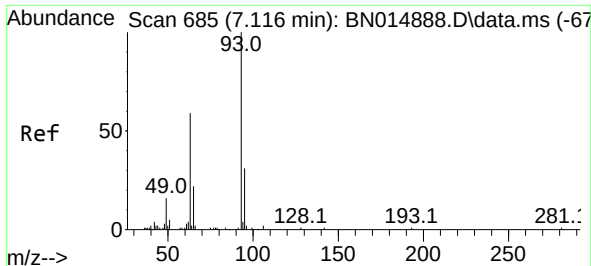
Tgt Ion: 77 Resp: 15723
Ion Ratio Lower Upper
77 100
105 89.8 72.2 108.4
106 73.1 70.2 105.4



#8
Phenol
Concen: 2.839 ng/ul
RT: 6.899 min Scan# 648
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion: 94 Resp: 28689
Ion Ratio Lower Upper
94 100
65 21.0 22.7 34.1#
66 60.1 39.2 58.8#

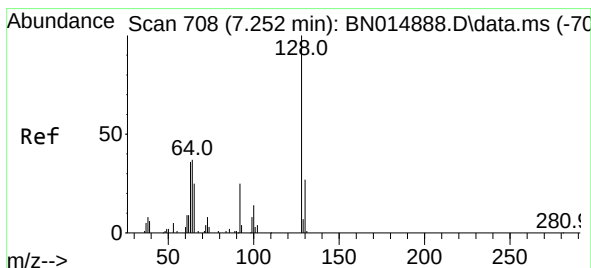
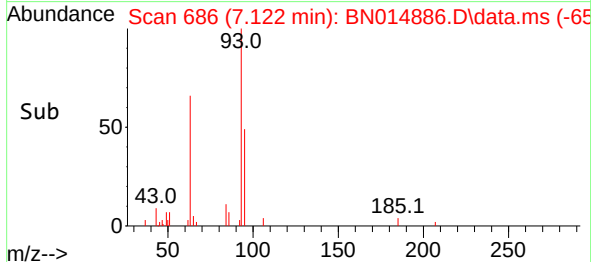
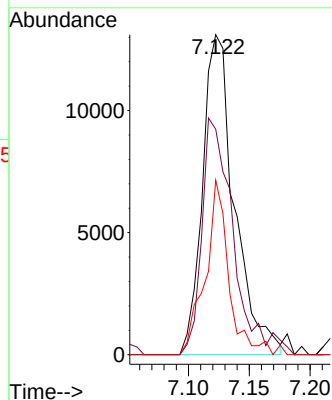
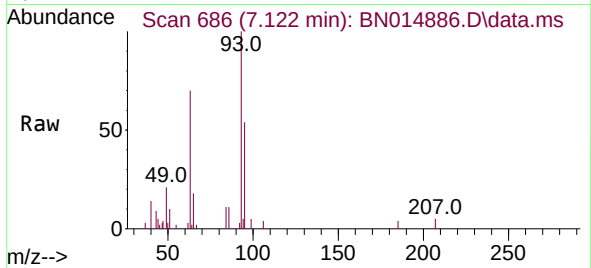




#10
Bis(2-Chloroethyl)ether
Concen: 3.069 ng/ul
RT: 7.122 min Scan# 686
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

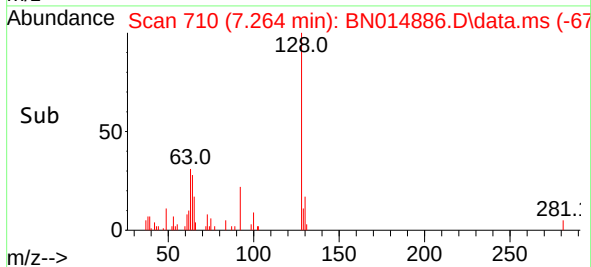
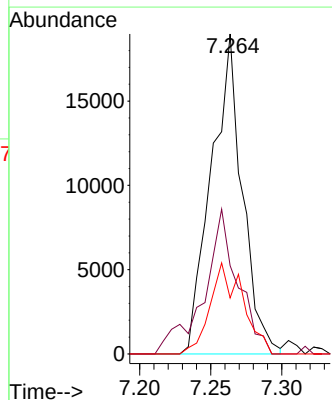
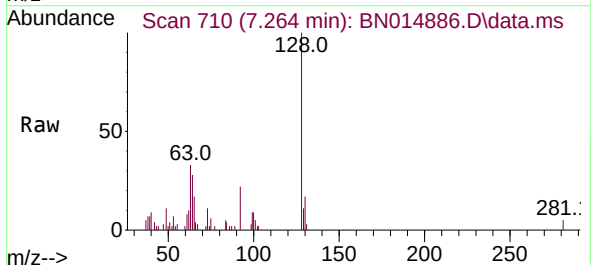
Instrument :
BNA_N
ClientSampled :

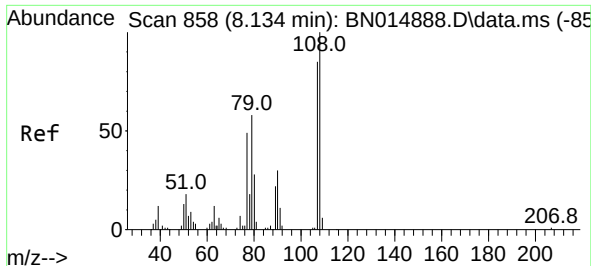
Tgt Ion: 93 Resp: 23936
Ion Ratio Lower Upper
93 100
63 70.4 45.3 67.9#
95 54.5 22.8 34.2#



#12
2-Chlorophenol
Concen: 4.534 ng/ul
RT: 7.264 min Scan# 710
Delta R.T. 0.012 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:128 Resp: 28864
Ion Ratio Lower Upper
128 100
64 27.6 42.3 63.5#
130 17.5 26.1 39.1#

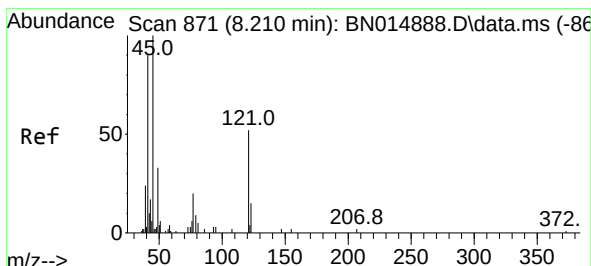
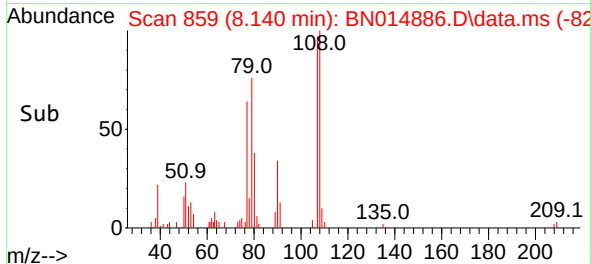
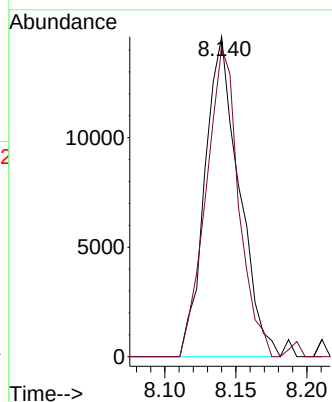
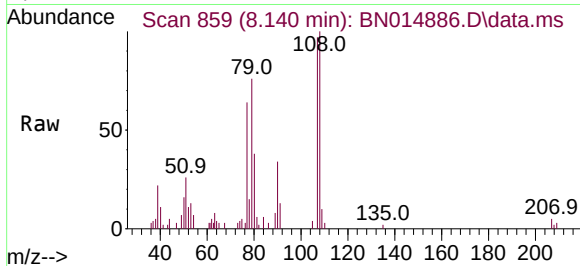




#13
2-Methylphenol
Concen: 3.301 ng/ul
RT: 8.140 min Scan# 859
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

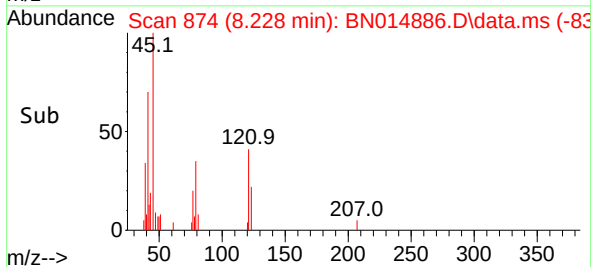
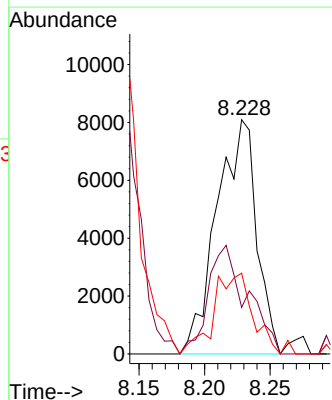
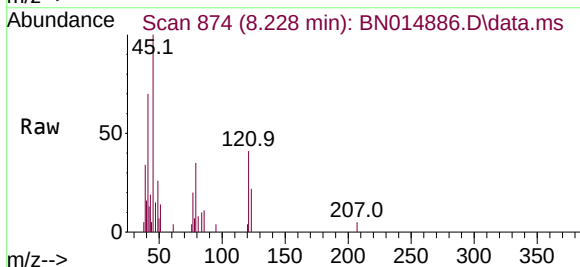
Instrument :
BNA_N
ClientSampled :

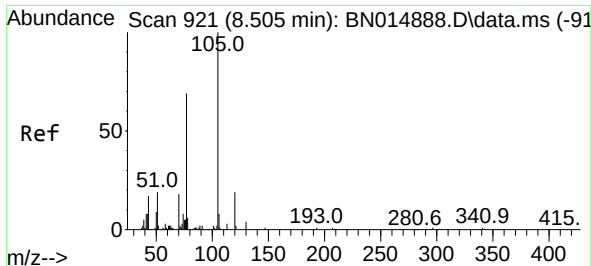
Tgt Ion:108 Resp: 24498
Ion Ratio Lower Upper
108 100
107 96.7 74.1 111.1



#14
2,2'-oxybis(1-Chloropropane)
Concen: 3.469 ng/ul
RT: 8.228 min Scan# 874
Delta R.T. 0.018 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion: 45 Resp: 17068
Ion Ratio Lower Upper
45 100
77 19.9 25.8 38.8#
79 34.5 21.4 32.2#

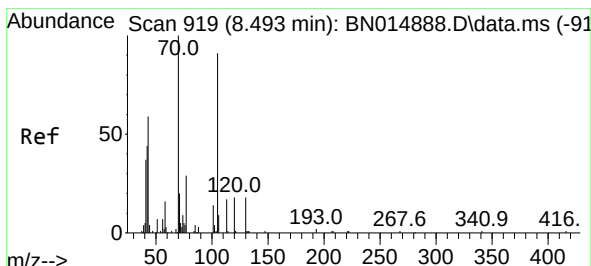
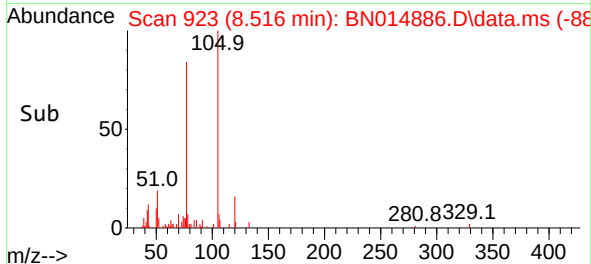
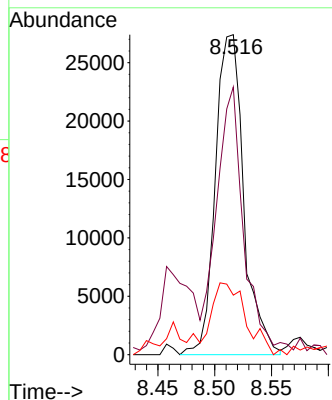
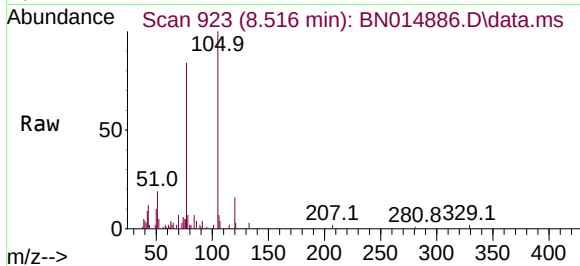




#16
Acetophenone
Concen: 3.762 ng/ul
RT: 8.516 min Scan# 923
Delta R.T. 0.012 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

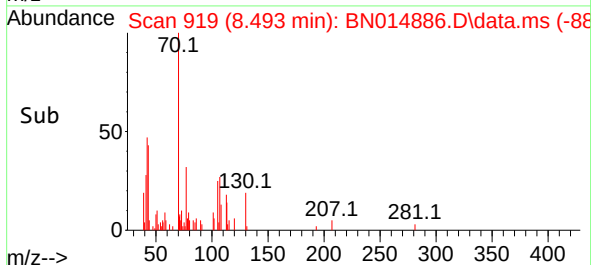
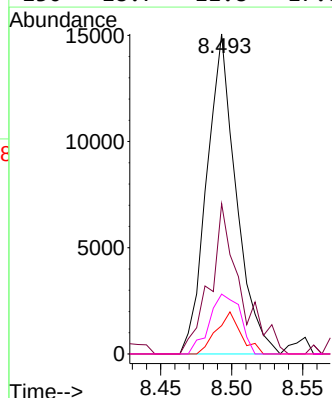
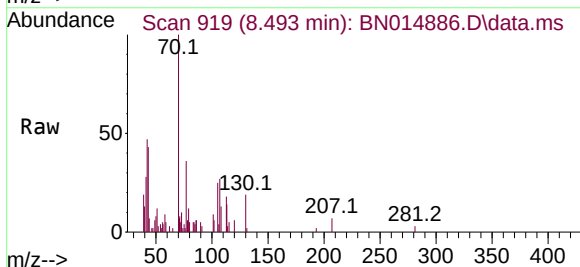
Instrument :
BNA_N
ClientSampled :

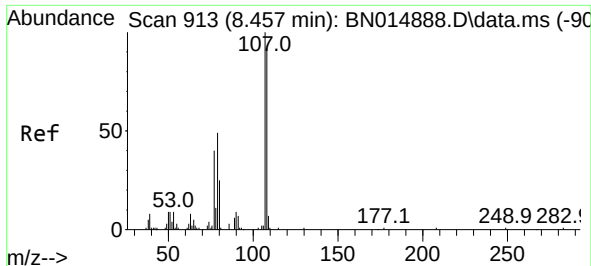
Tgt Ion:105 Resp: 47558
Ion Ratio Lower Upper
105 100
77 83.6 70.8 106.2
51 18.6 15.6 23.4



#17
N-Nitroso-di-n-propylamine
Concen: 3.574 ng/ul
RT: 8.493 min Scan# 919
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion: 70 Resp: 21759
Ion Ratio Lower Upper
70 100
42 47.0 27.1 40.7#
101 8.8 10.9 16.3#
130 18.7 11.8 17.8#

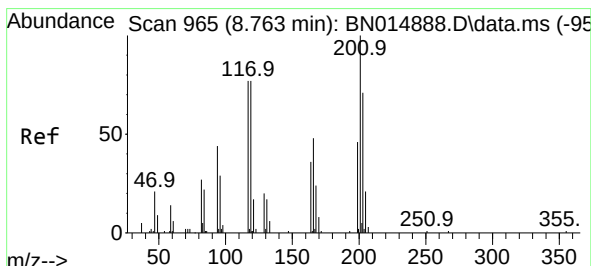
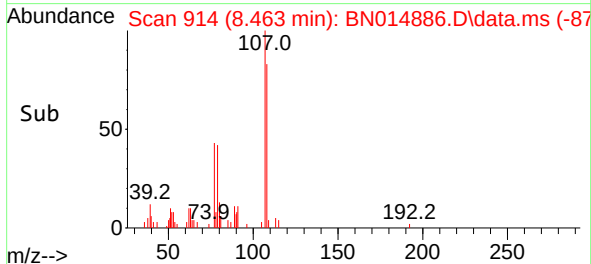
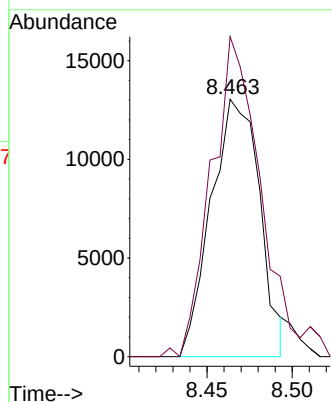
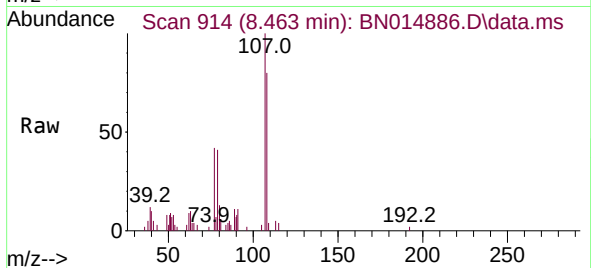




#18
4-Methylphenol
Concen: 3.198 ng/ul
RT: 8.463 min Scan# 914
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

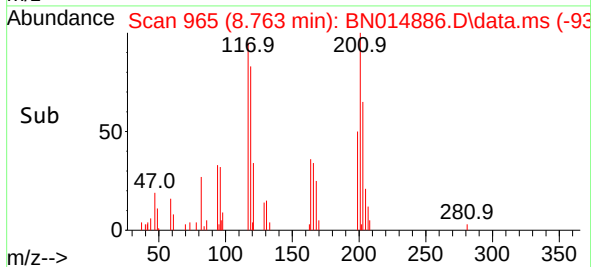
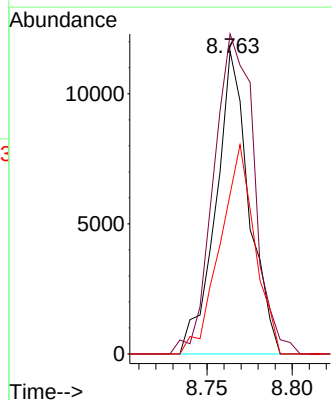
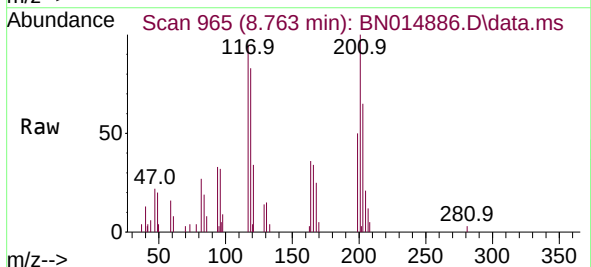
Instrument :
BNA_N
ClientSampled :

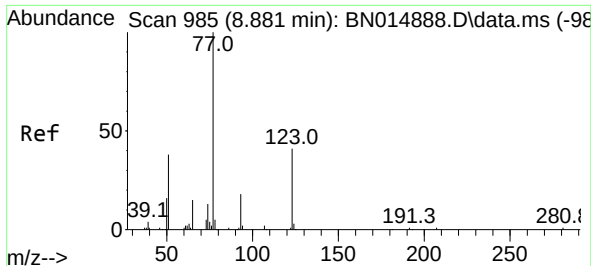
Tgt Ion:108 Resp: 25889
Ion Ratio Lower Upper
108 100
107 124.3 93.4 140.0



#19
Hexachloroethane
Concen: 4.964 ng/ul
RT: 8.763 min Scan# 965
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:117 Resp: 15822
Ion Ratio Lower Upper
117 100
201 109.3 91.0 136.4
199 52.9 70.1 105.1#

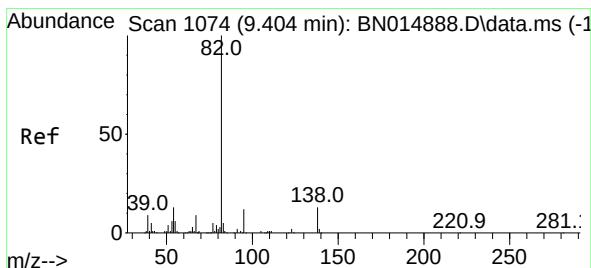
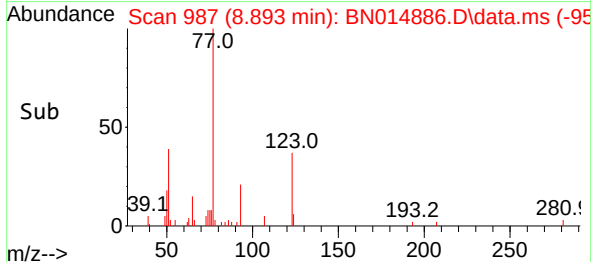
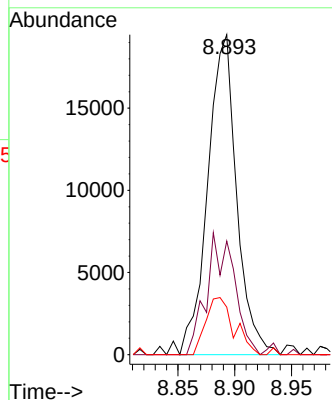
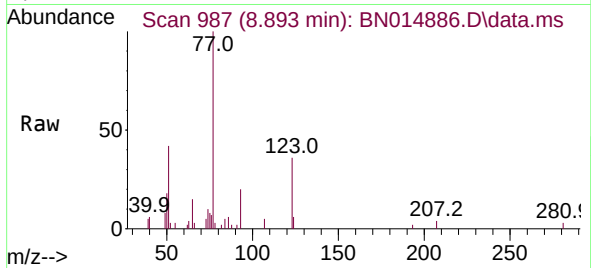




#22
Nitrobenzene
Concen: 3.679 ng/ul
RT: 8.893 min Scan# 987
Delta R.T. 0.012 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

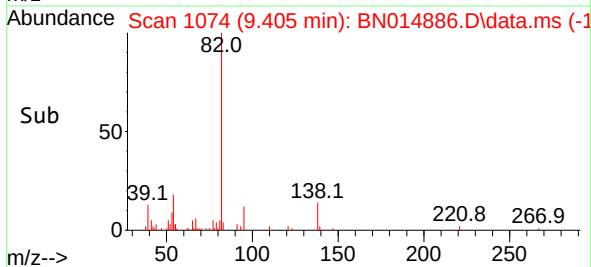
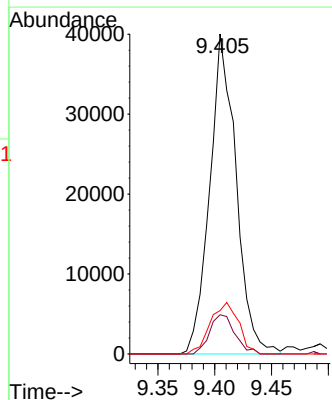
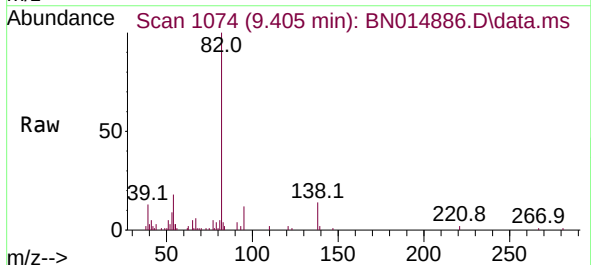
Instrument :
BNA_N
ClientSampled :

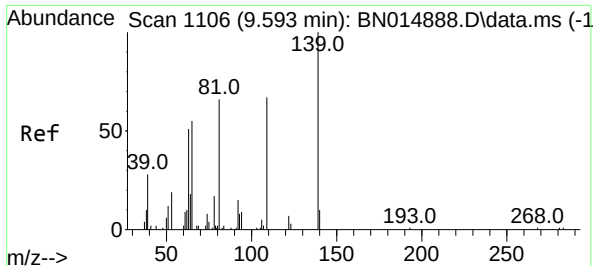
Tgt Ion: 77 Resp: 34439
Ion Ratio Lower Upper
77 100
123 35.5 29.4 44.2
65 14.8 9.7 14.5#



#23
Isophorone
Concen: 3.642 ng/ul
RT: 9.405 min Scan# 1074
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion: 82 Resp: 64736
Ion Ratio Lower Upper
82 100
95 12.2 7.7 11.5#
138 13.6 11.0 16.4

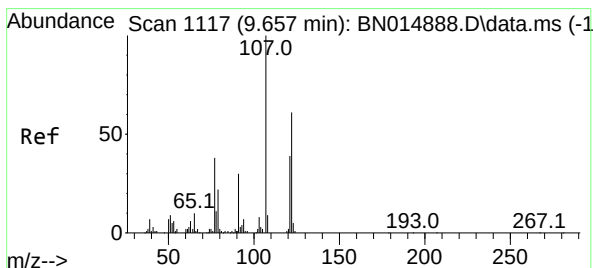
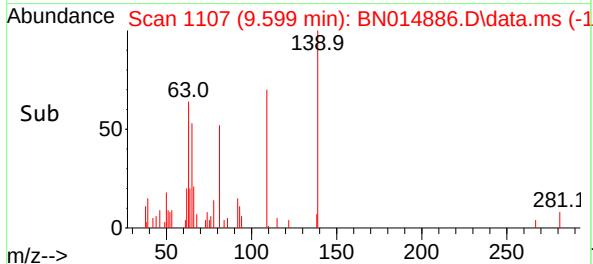
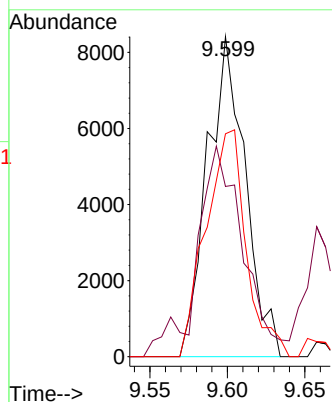
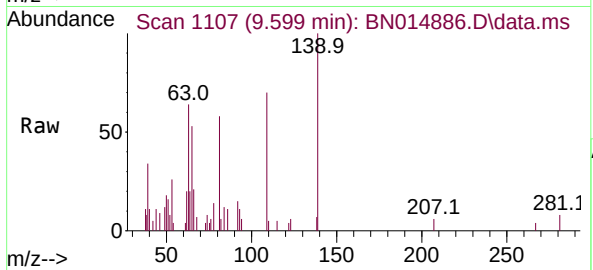




#25
2-Nitrophenol
Concen: 4.178 ng/ul
RT: 9.599 min Scan# 1107
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

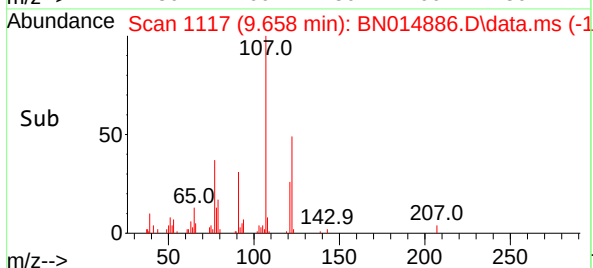
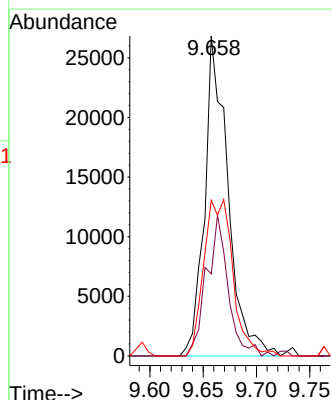
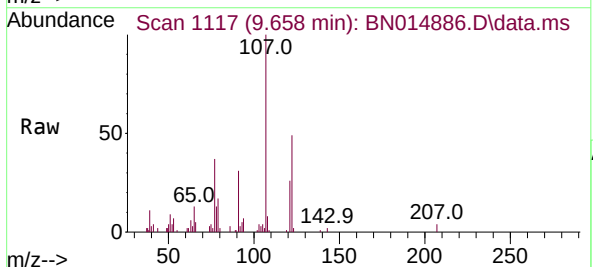
Instrument :
BNA_N
ClientSampled :

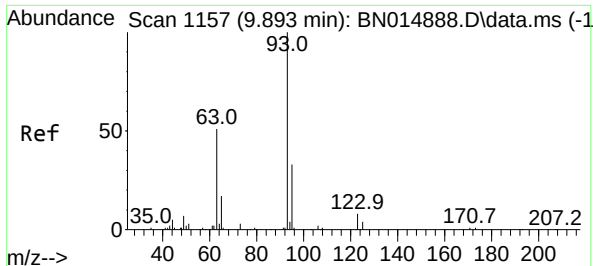
Tgt Ion:139 Resp: 14315
Ion Ratio Lower Upper
139 100
65 53.2 55.1 82.7#
109 69.6 49.9 74.9



#26
2,4-Dimethylphenol
Concen: 3.888 ng/ul
RT: 9.658 min Scan# 1117
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:107 Resp: 41003
Ion Ratio Lower Upper
107 100
121 25.7 31.8 47.6#
122 48.6 57.5 86.3#



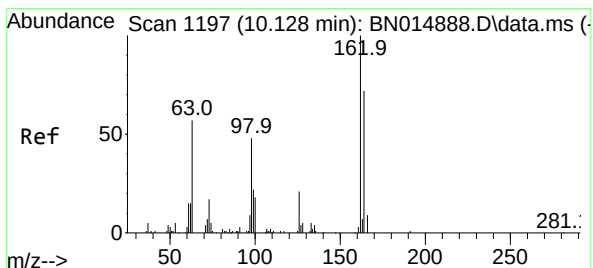
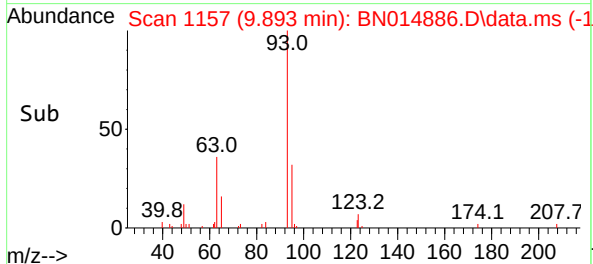
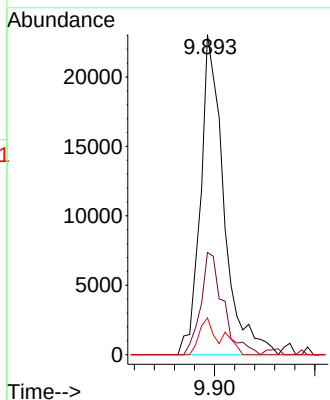
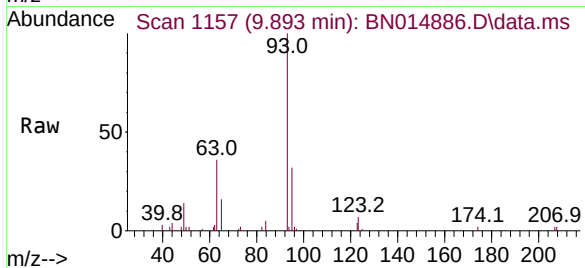


#27

Bis(2-Chloroethoxy)methane
Concen: 3.464 ng/ul
RT: 9.893 min Scan# 1157
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Instrument :
BNA_N
ClientSampled :

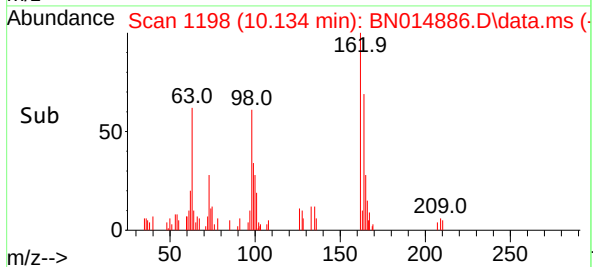
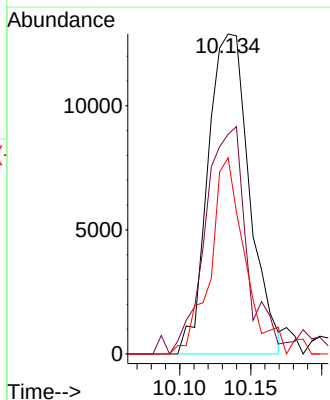
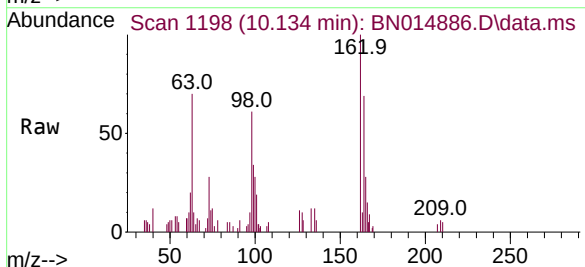
Tgt Ion:	93	Resp:	37415
Ion Ratio	Lower	Upper	
93	100		
95	31.5	26.4	39.6
123	11.4	6.4	9.6#

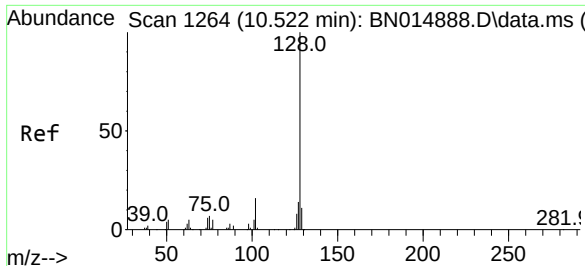


#29

2,4-Dichlorophenol
Concen: 3.720 ng/ul
RT: 10.134 min Scan# 1198
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:	162	Resp:	26225
Ion Ratio	Lower	Upper	
162	100		
164	68.6	48.8	73.2
98	61.3	40.3	60.5#

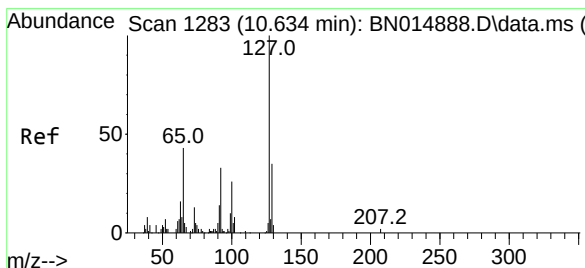
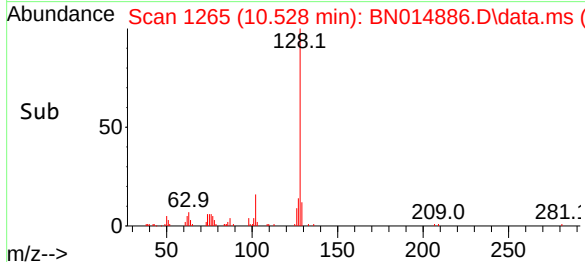
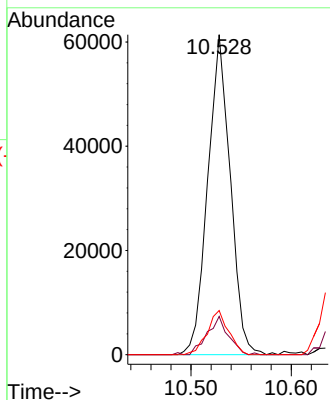
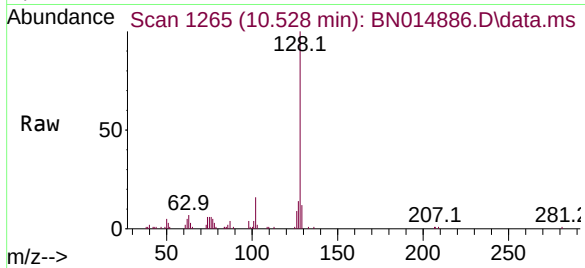




#30
Naphthalene
Concen: 4.431 ng/ul
RT: 10.528 min Scan# 1265
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

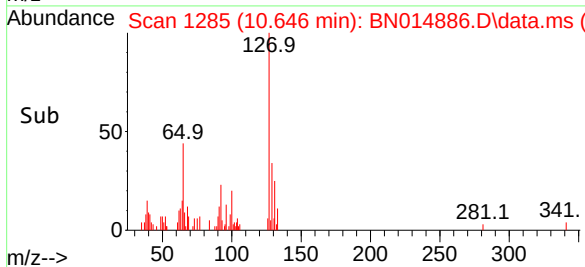
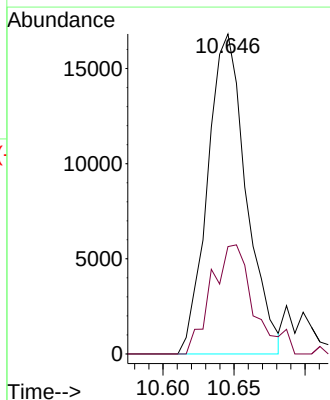
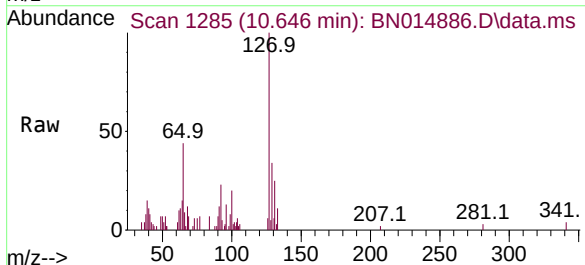
Instrument :
BNA_N
ClientSampled :

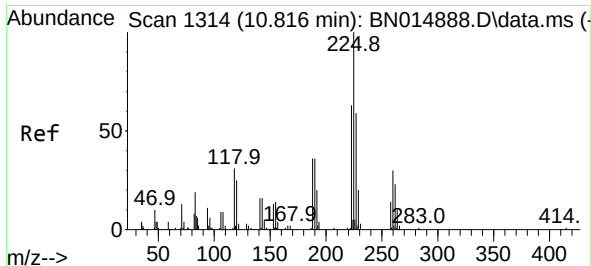
Tgt Ion	Ratio	Lower	Upper
128	100		
129	12.0	8.1	12.1
127	13.8	11.0	16.4



#32
4-Chloroaniline
Concen: 3.455 ng/ul
RT: 10.646 min Scan# 1285
Delta R.T. 0.012 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion	Ratio	Lower	Upper
127	100		
129	33.6	27.0	40.4

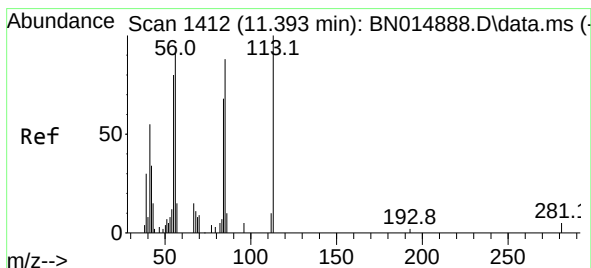
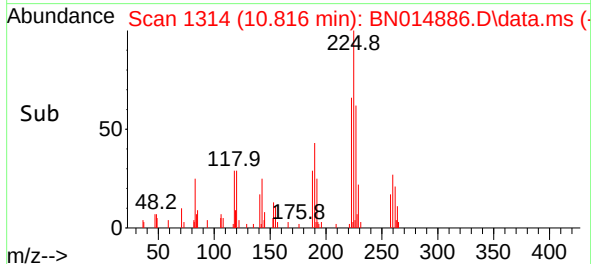
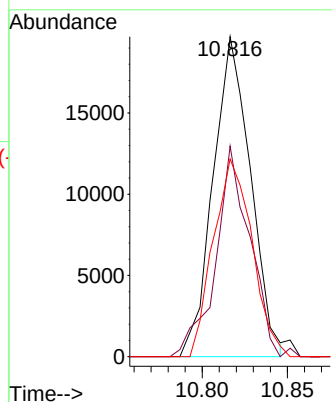
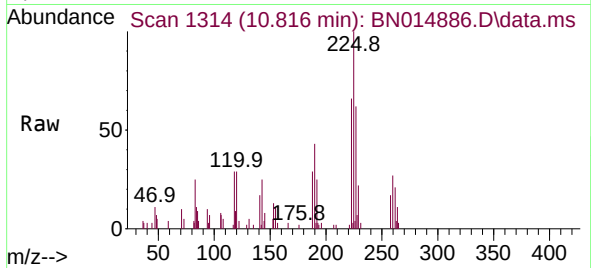




#33
Hexachlorobutadiene
Concen: 4.777 ng/ul
RT: 10.816 min Scan# 1314
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

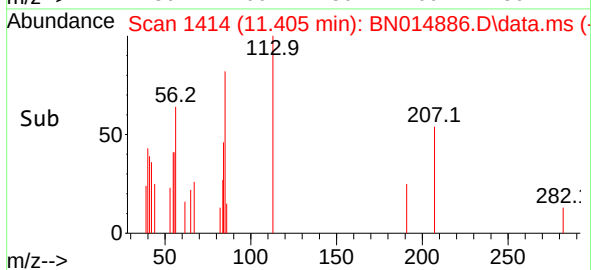
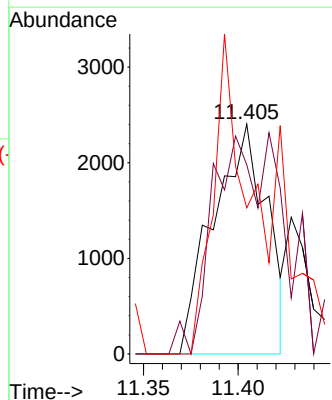
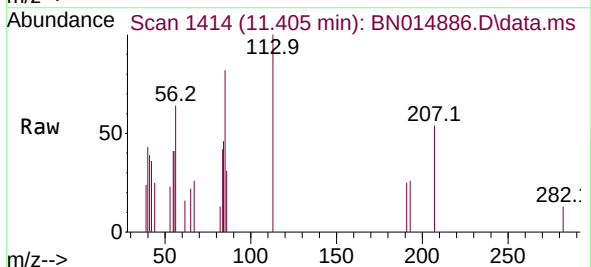
Instrument :
BNA_N
ClientSampled :

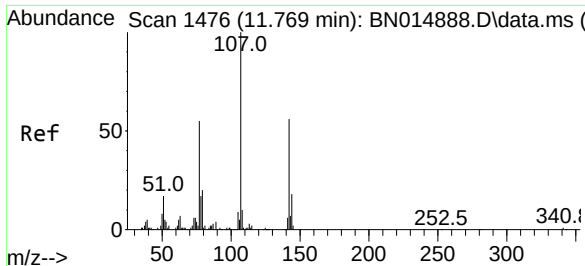
Tgt Ion:	225	Resp:	30115
Ion Ratio	Lower	Upper	
225	100		
223	65.8	53.3	79.9
227	68.9	53.3	79.9



#34
Caprolactam
Concen: 2.071 ng/ul
RT: 11.405 min Scan# 1414
Delta R.T. 0.012 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:	113	Resp:	4717
Ion Ratio	Lower	Upper	
113	100		
55	82.4	94.8	142.2#
56	63.6	58.6	87.8

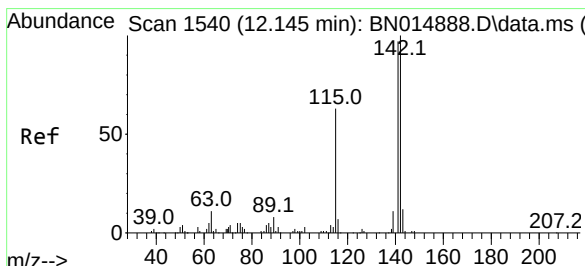
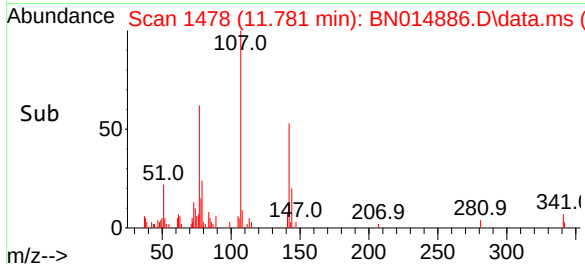
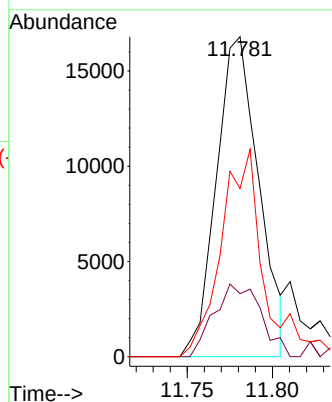
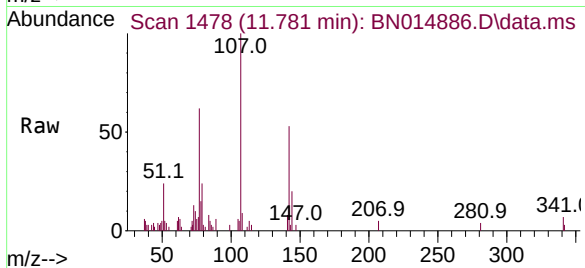




#35
4-Chloro-3-methylphenol
Concen: 2.847 ng/ul
RT: 11.781 min Scan# 1478
Delta R.T. 0.012 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

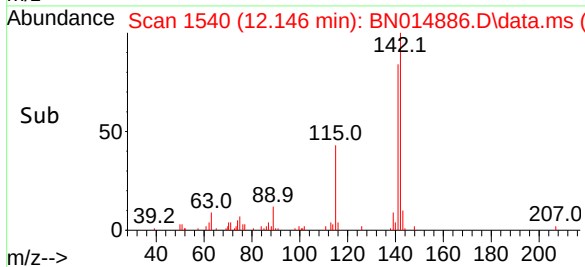
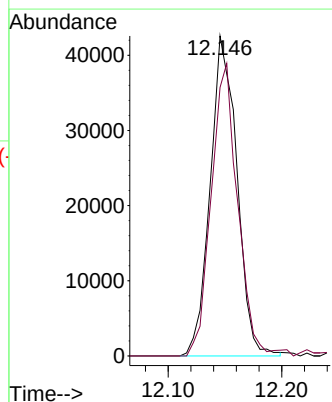
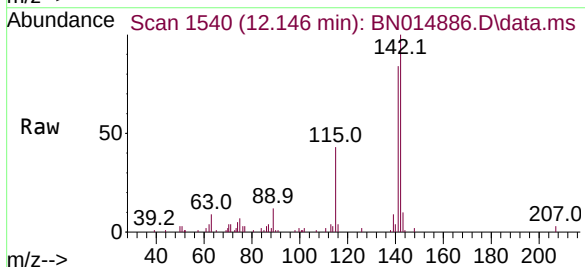
Instrument :
BNA_N
ClientSampled :

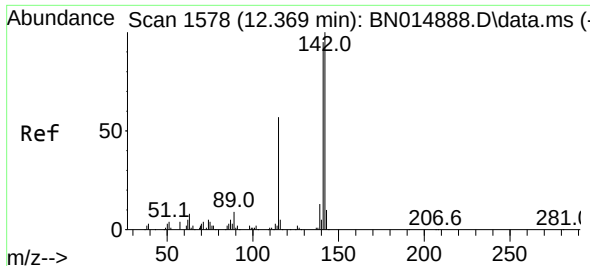
Tgt Ion:107 Resp: 29085
Ion Ratio Lower Upper
107 100
144 19.7 13.4 20.2
142 52.5 42.6 63.8



#36
2-Methylnaphthalene
Concen: 4.320 ng/ul
RT: 12.146 min Scan# 1540
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:142 Resp: 69697
Ion Ratio Lower Upper
142 100
141 83.9 73.6 110.4

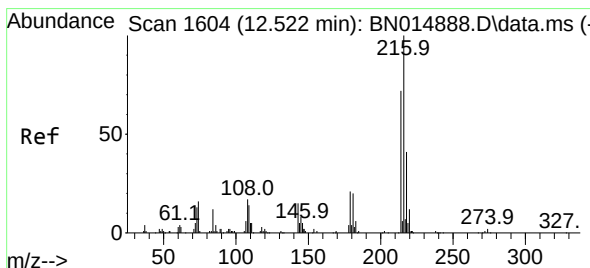
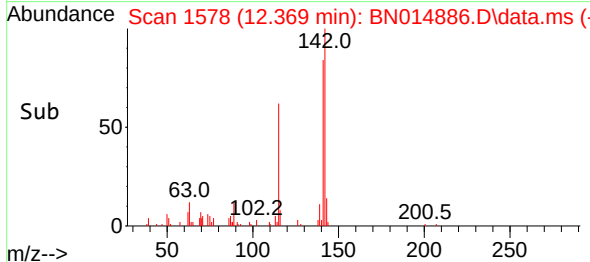
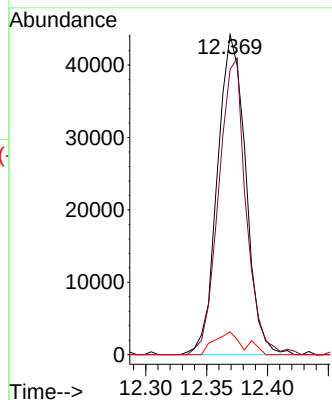
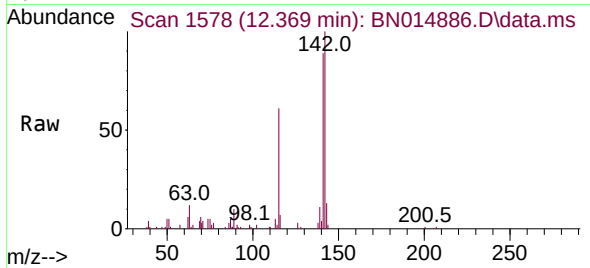




#37
1-Methylnaphthalene
Concen: 4.510 ng/ul
RT: 12.369 min Scan# 1578
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

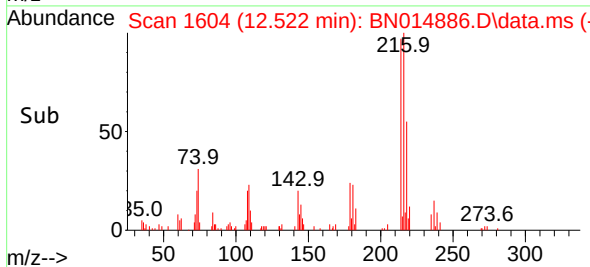
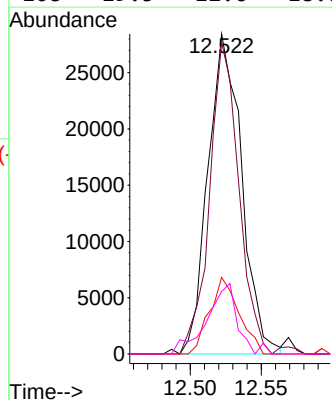
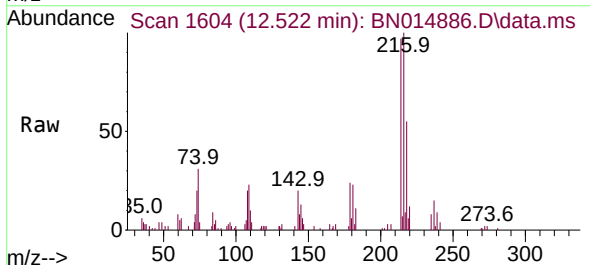
Instrument :
BNA_N
ClientSampled :

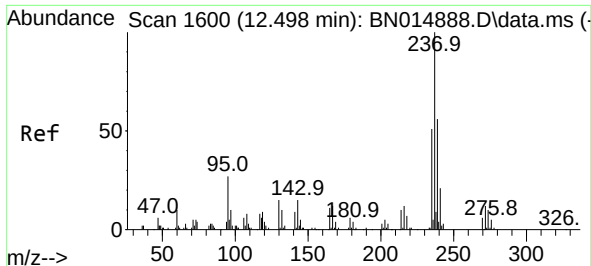
Tgt Ion:142 Resp: 71526
Ion Ratio Lower Upper
142 100
141 89.2 72.0 108.0
116 7.1 3.8 5.6#



#39
1,2,4,5-Tetrachlorobenzene
Concen: 4.223 ng/ul
RT: 12.522 min Scan# 1604
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:216 Resp: 46815
Ion Ratio Lower Upper
216 100
214 97.3 65.8 98.8
179 23.9 16.7 25.1
108 19.5 12.6 18.8#

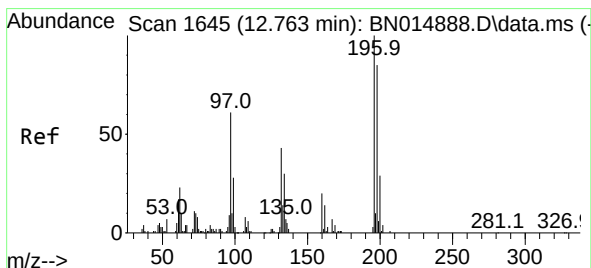
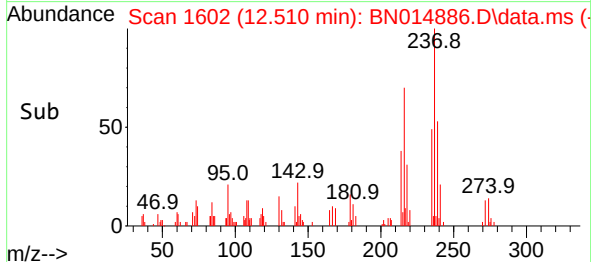
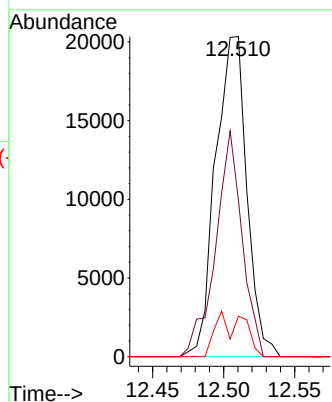
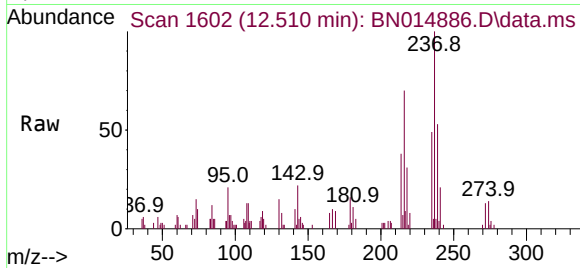




#40
Hexachlorocyclopentadiene
Concen: 4.250 ng/ul
RT: 12.510 min Scan# 1602
Delta R.T. 0.012 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

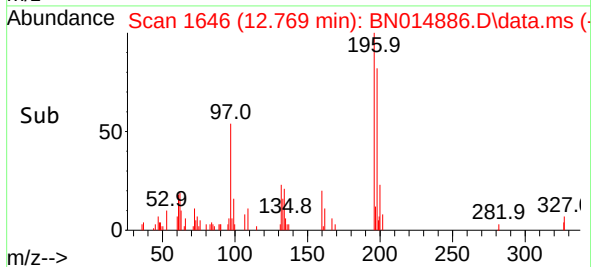
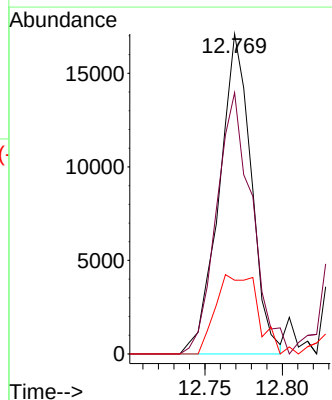
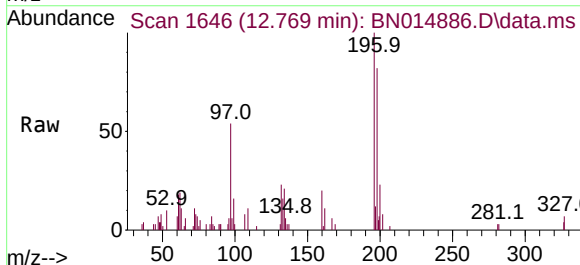
Instrument :
BNA_N
ClientSampled :

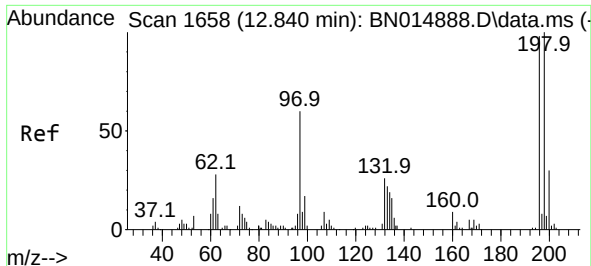
Tgt Ion:237 Resp: 31217
Ion Ratio Lower Upper
237 100
235 48.9 49.8 74.6#
272 12.6 9.9 14.9



#41
2,4,6-Trichlorophenol
Concen: 3.950 ng/ul
RT: 12.769 min Scan# 1646
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:196 Resp: 24589
Ion Ratio Lower Upper
196 100
198 81.6 81.4 122.2
200 23.1 26.7 40.1#

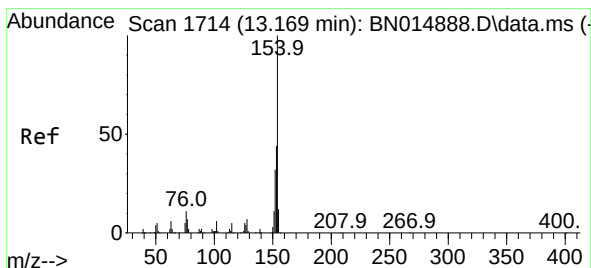
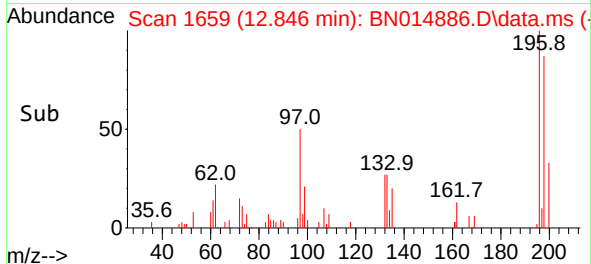
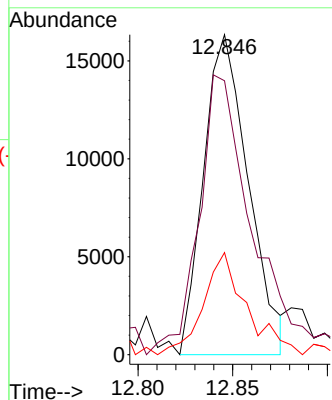
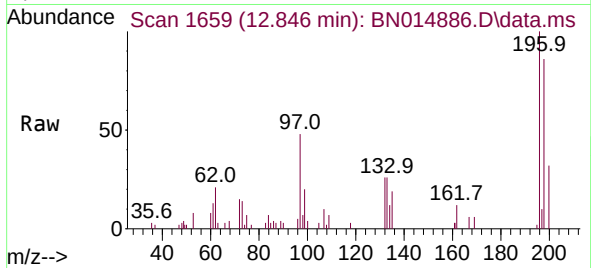




#42
2,4,5-Trichlorophenol
Concen: 3.958 ng/ul
RT: 12.846 min Scan# 1659
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

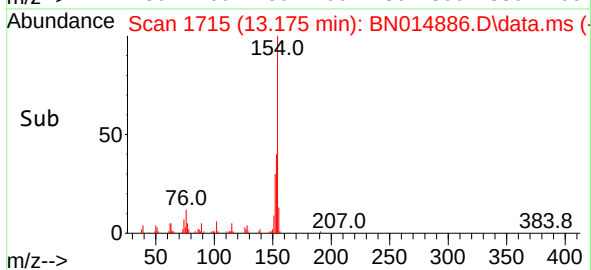
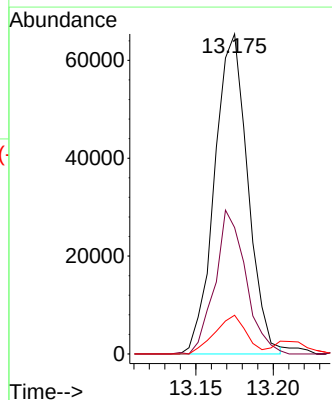
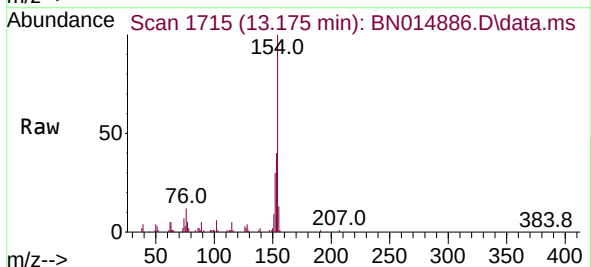
Instrument :
BNA_N
ClientSampled :

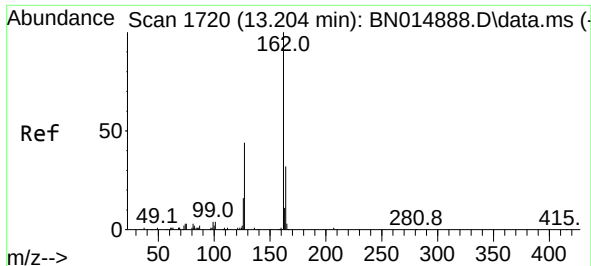
Tgt Ion:196 Resp: 26890
Ion Ratio Lower Upper
196 100
198 85.6 77.8 116.8
200 31.9 24.3 36.5



#43
1,1'-Biphenyl
Concen: 4.640 ng/ul
RT: 13.175 min Scan# 1715
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:154 Resp: 97337
Ion Ratio Lower Upper
154 100
153 39.5 32.2 48.4
76 12.1 12.3 18.5#

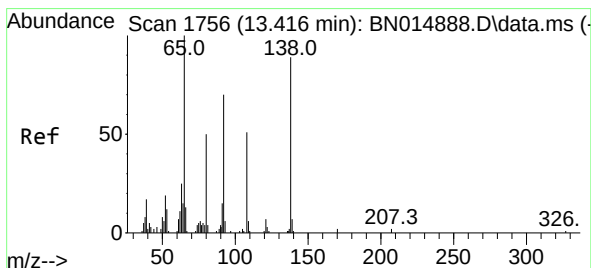
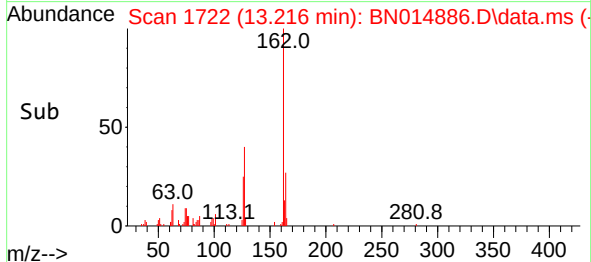
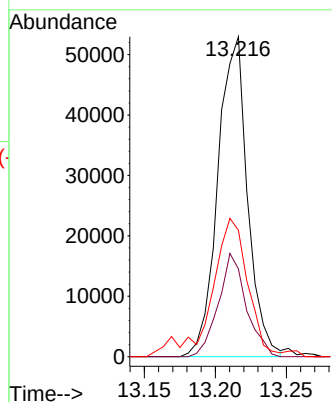
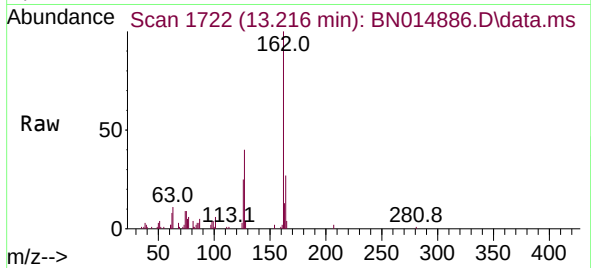




#44
2-Chloronaphthalene
Concen: 4.577 ng/ul
RT: 13.216 min Scan# 1722
Delta R.T. 0.012 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

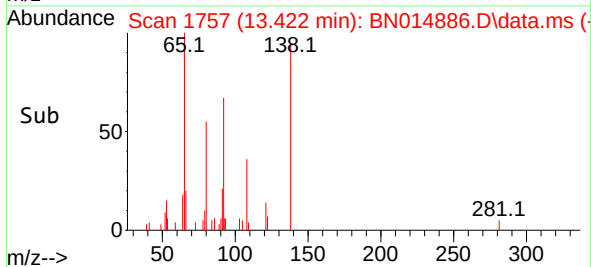
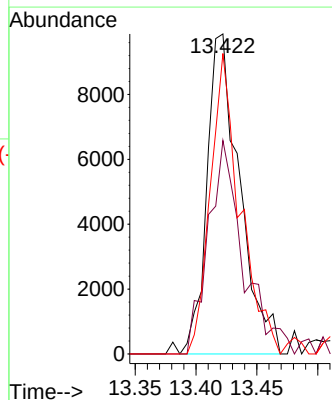
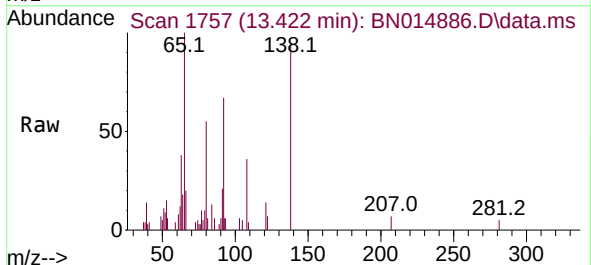
Instrument :
BNA_N
ClientSampled :

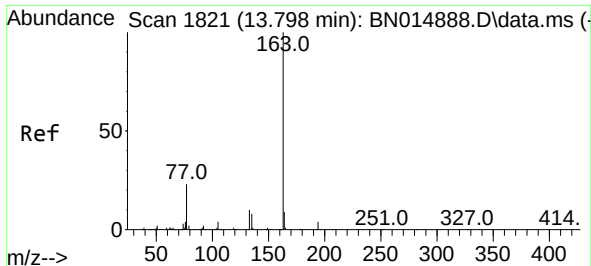
Tgt Ion:162 Resp: 76932
Ion Ratio Lower Upper
162 100
164 27.4 25.9 38.9
127 39.5 39.1 58.7



#45
2-Nitroaniline
Concen: 3.608 ng/ul
RT: 13.422 min Scan# 1757
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion: 65 Resp: 18470
Ion Ratio Lower Upper
65 100
92 66.7 60.5 90.7
138 93.9 67.0 100.6

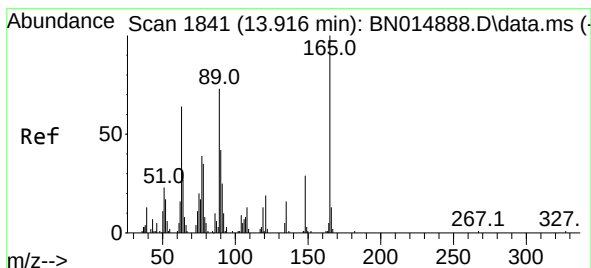
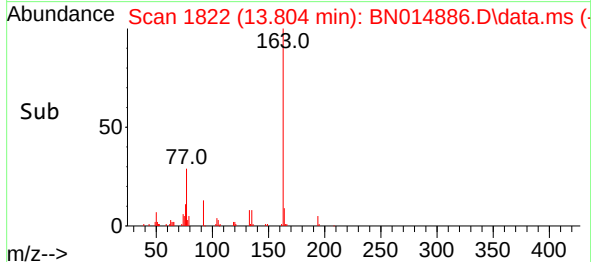
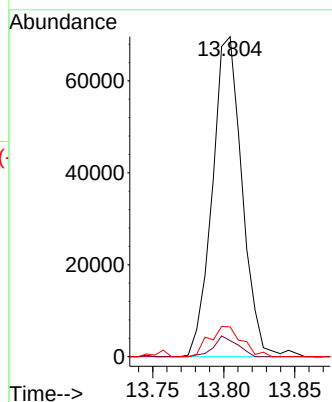
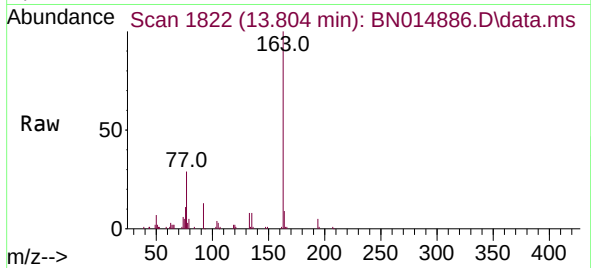




#47
Dimethylphthalate
Concen: 4.377 ng/ul
RT: 13.804 min Scan# 1822
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

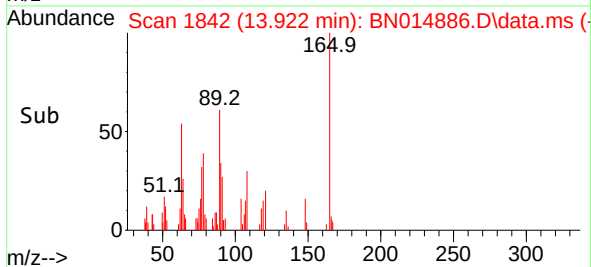
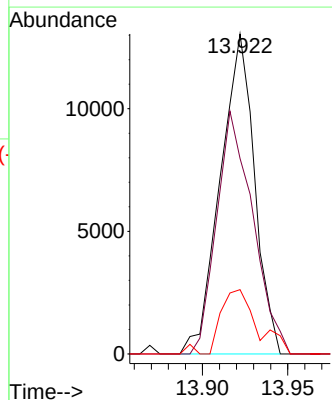
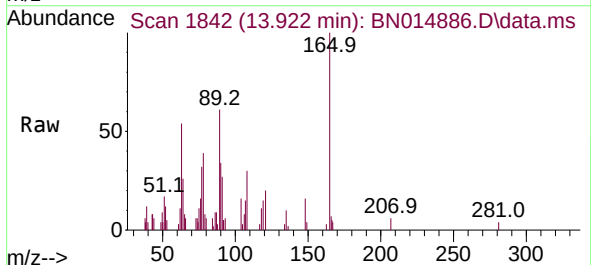
Instrument :
BNA_N
ClientSampled :

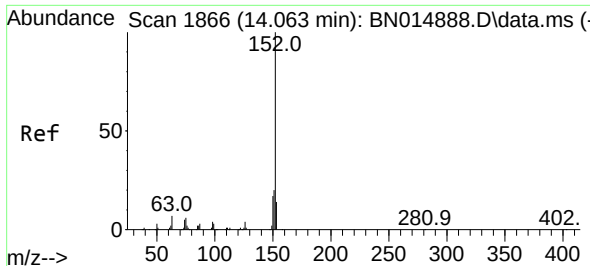
Tgt Ion:163 Resp: 100864
Ion Ratio Lower Upper
163 100
194 5.0 3.8 5.8
164 9.3 8.7 13.1



#48
2,6-Dinitrotoluene
Concen: 4.254 ng/ul
RT: 13.922 min Scan# 1842
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:165 Resp: 18214
Ion Ratio Lower Upper
165 100
89 61.1 63.0 94.6#
121 20.1 15.8 23.8

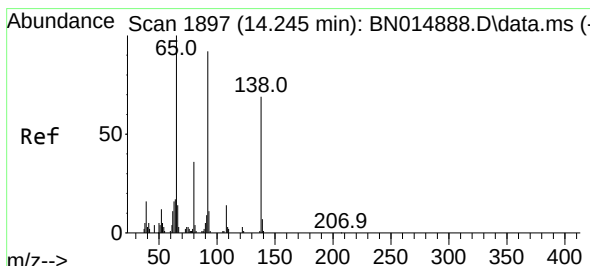
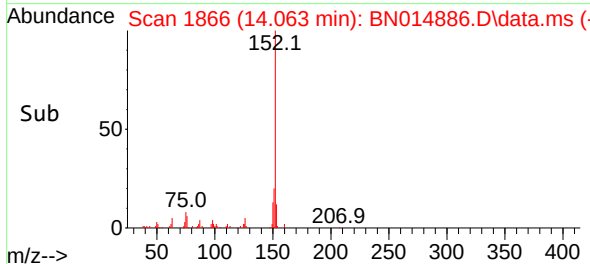
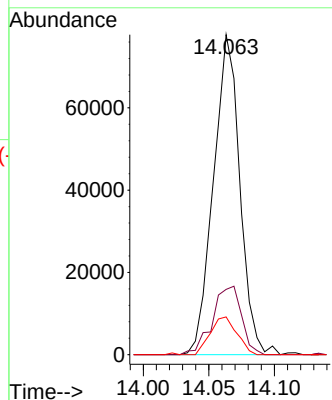
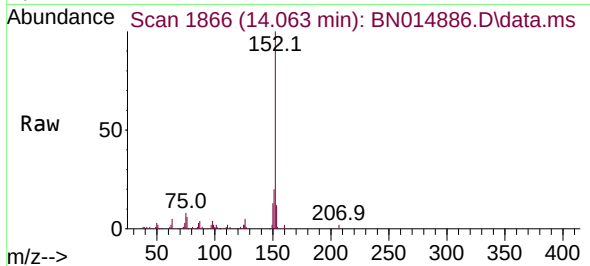




#50
Acenaphthylene
Concen: 4.399 ng/ul
RT: 14.063 min Scan# 1866
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

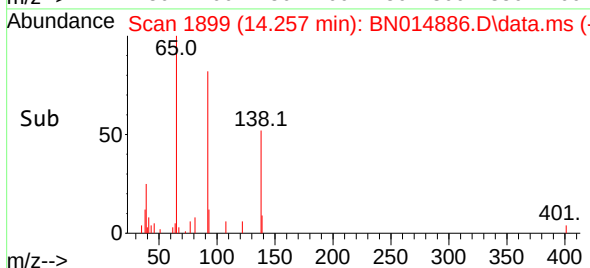
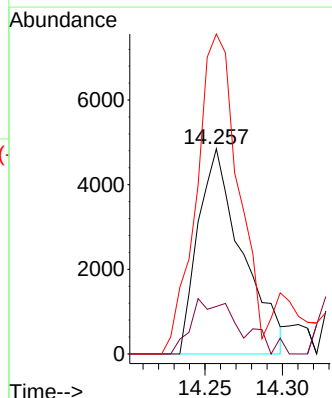
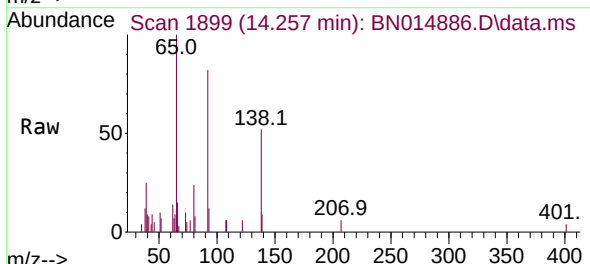
Instrument :
BNA_N
ClientSampled :

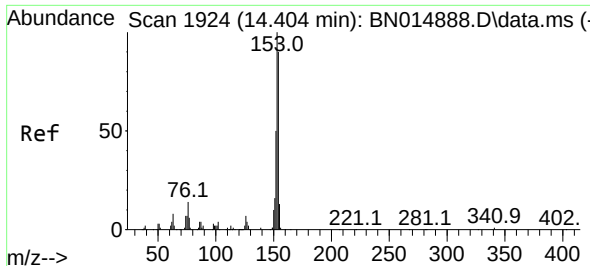
Tgt Ion:152 Resp: 108947
Ion Ratio Lower Upper
152 100
151 20.4 17.8 26.8
153 11.8 11.2 16.8



#51
3-Nitroaniline
Concen: 2.308 ng/ul
RT: 14.257 min Scan# 1899
Delta R.T. 0.012 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:138 Resp: 9590
Ion Ratio Lower Upper
138 100
108 23.1 17.0 25.4
92 156.0 133.6 200.4

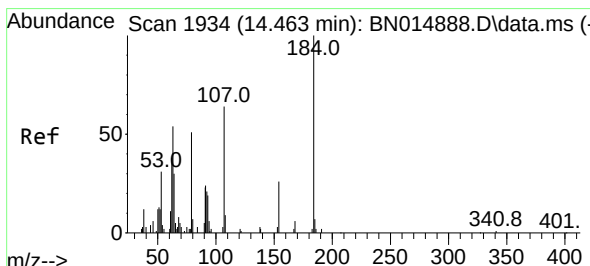
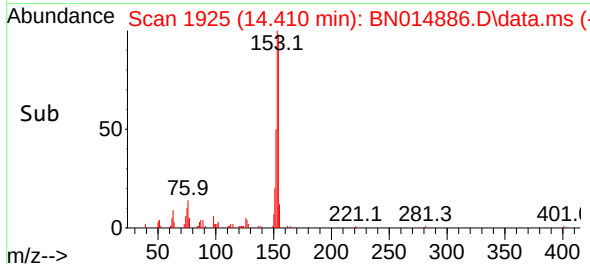
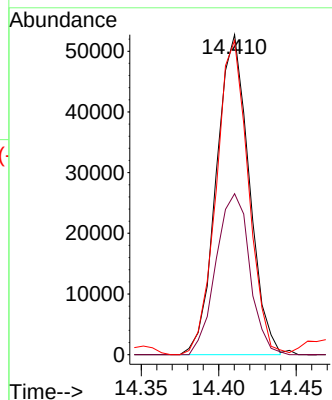
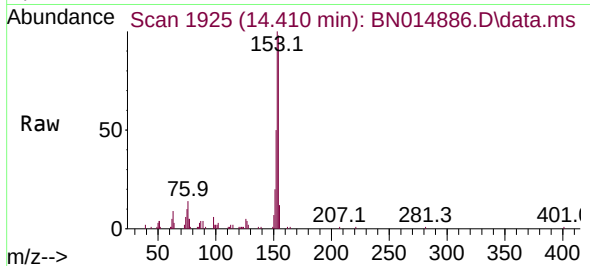




#52
Acenaphthene
Concen: 4.314 ng/ul
RT: 14.410 min Scan# 1925
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

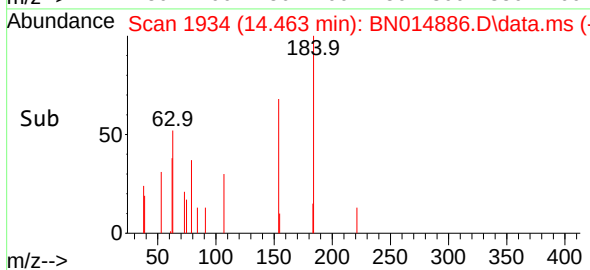
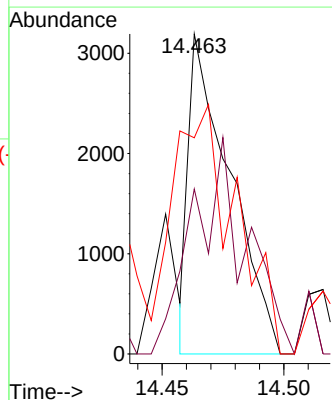
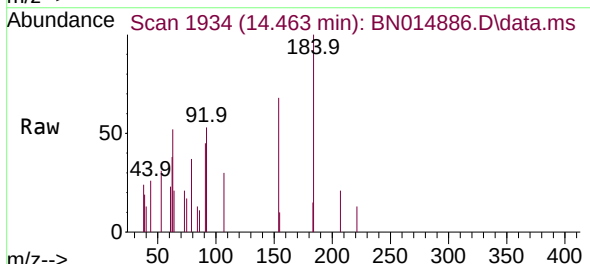
Instrument :
BNA_N
ClientSampled :

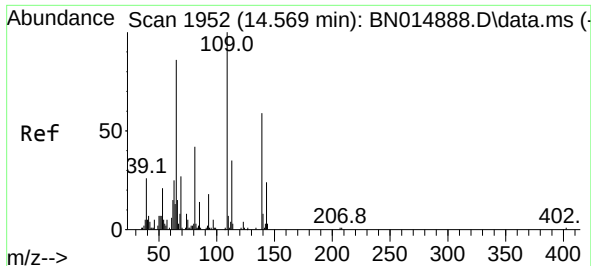
Tgt Ion:153 Resp: 77420
Ion Ratio Lower Upper
153 100
152 50.3 37.7 56.5
154 98.2 67.8 101.6



#53
2,4-Dinitrophenol
Concen: 1.216 ng/ul
RT: 14.463 min Scan# 1934
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:184 Resp: 3781
Ion Ratio Lower Upper
184 100
63 51.6 54.3 81.5#
154 77.6 70.0 105.0

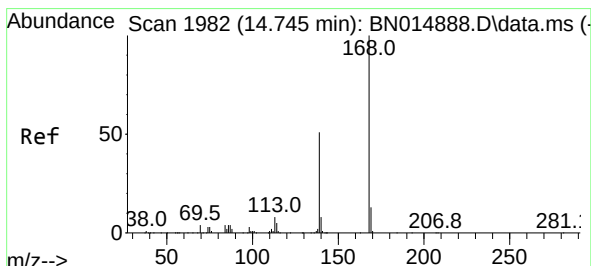
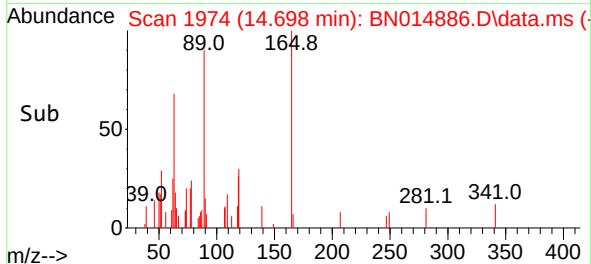
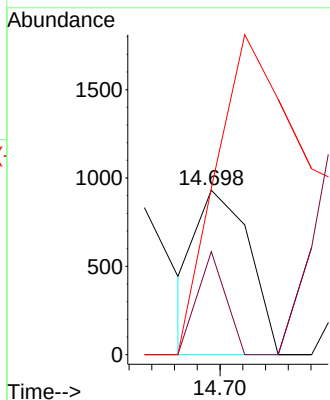
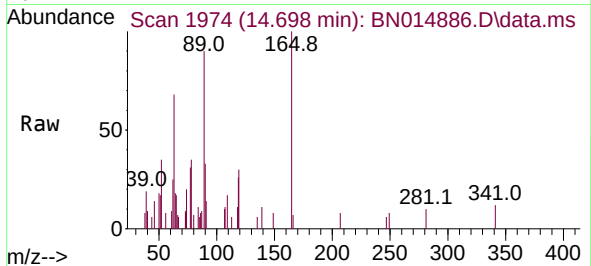




#55
4-Nitrophenol
Concen: 0.083 ng/ul
RT: 14.698 min Scan# 1974
Delta R.T. 0.130 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

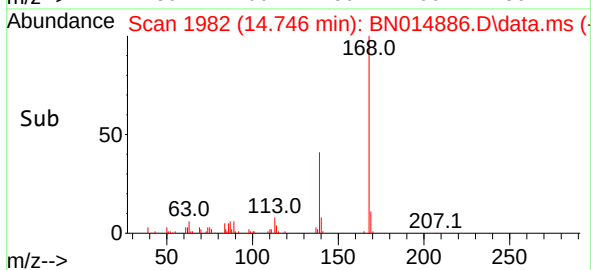
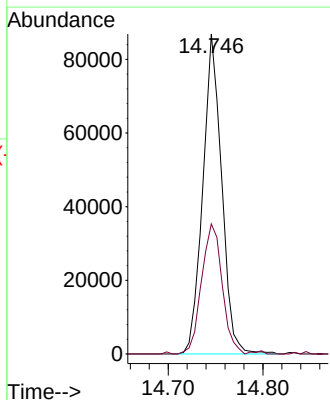
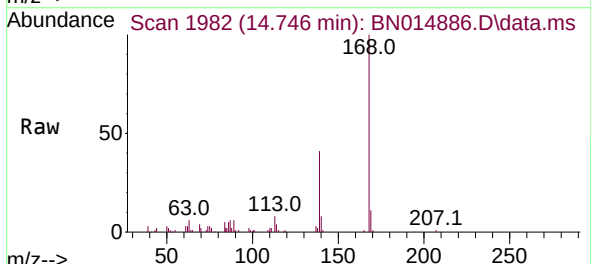
Instrument :
BNA_N
ClientSampleId :

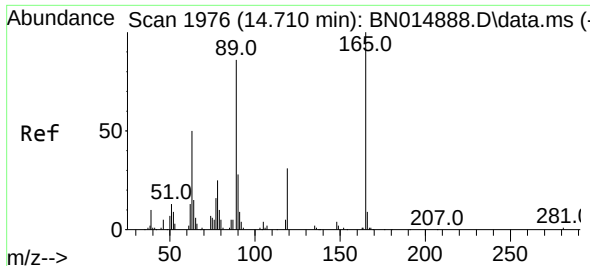
Tgt Ion:109 Resp: 588
Ion Ratio Lower Upper
109 100
139 62.6 59.8 89.8
65 101.3 68.6 102.8



#56
Dibenzofuran
Concen: 4.495 ng/ul
RT: 14.746 min Scan# 1982
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:168 Resp: 119998
Ion Ratio Lower Upper
168 100
139 40.7 29.5 44.3

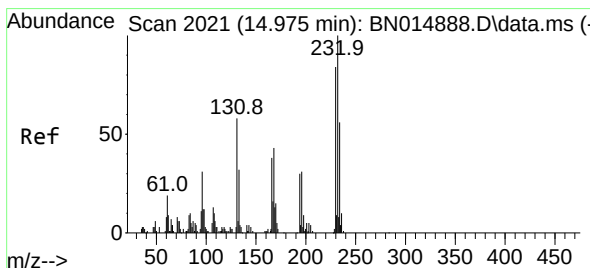
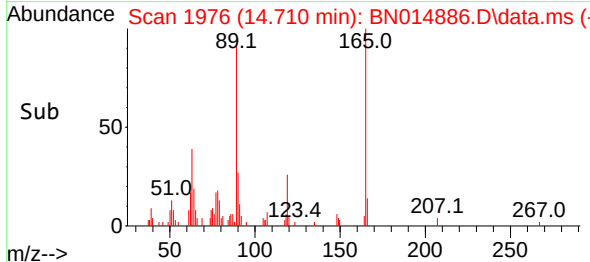
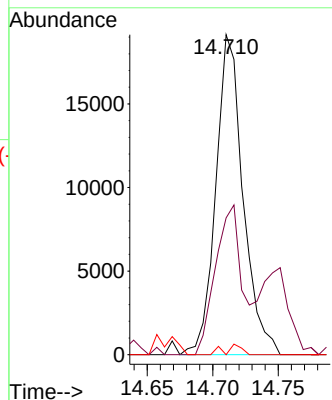
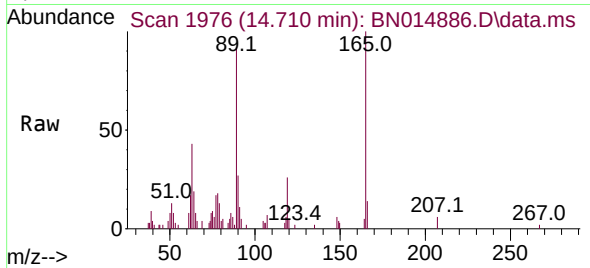




#57
2,4-Dinitrotoluene
Concen: 4.052 ng/ul
RT: 14.710 min Scan# 1976
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

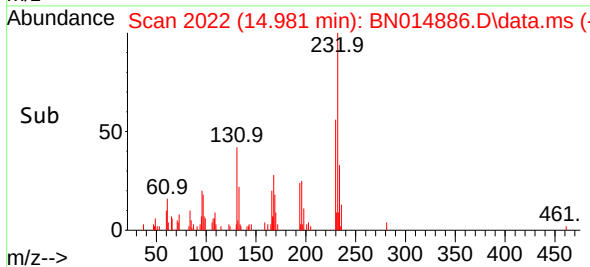
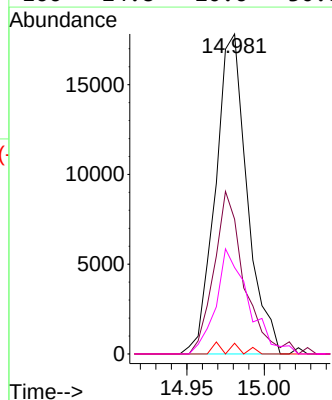
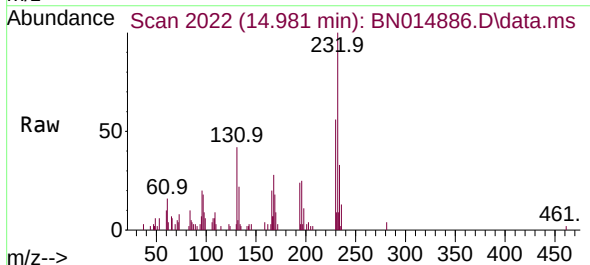
Instrument :
BNA_N
ClientSampled :

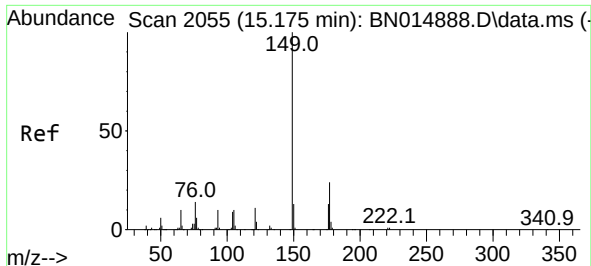
Tgt Ion:165 Resp: 27648
Ion Ratio Lower Upper
165 100
63 42.7 37.6 56.4
182 0.0 1.8 2.6#



#58
2,3,4,6-Tetrachlorophenol
Concen: 3.628 ng/ul
RT: 14.981 min Scan# 2022
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:232 Resp: 25359
Ion Ratio Lower Upper
232 100
131 38.7 27.8 41.8
130 3.1 1.7 2.5#
166 24.8 20.6 30.8

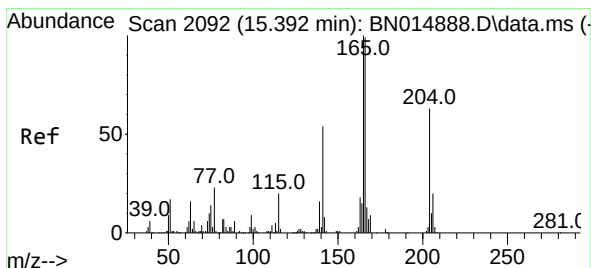
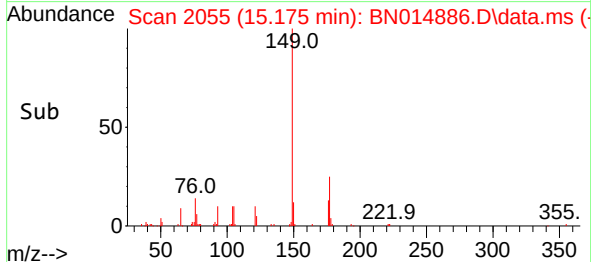
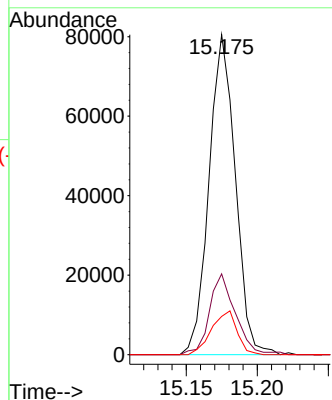
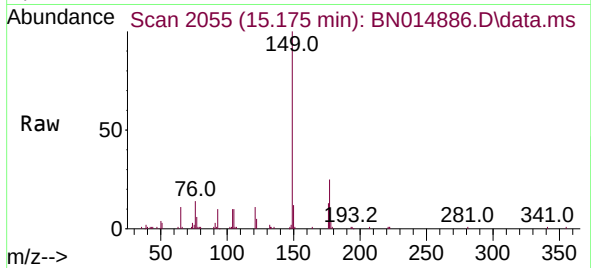




#59
Diethylphthalate
Concen: 4.690 ng/ul
RT: 15.175 min Scan# 2055
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

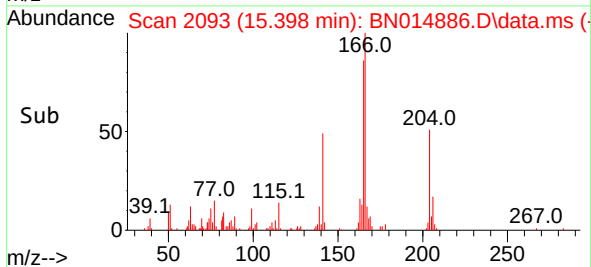
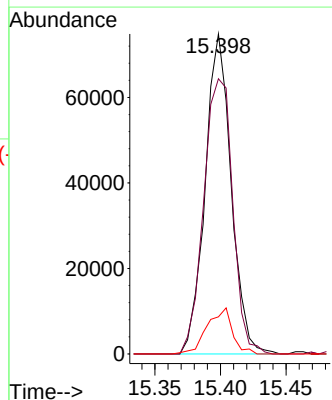
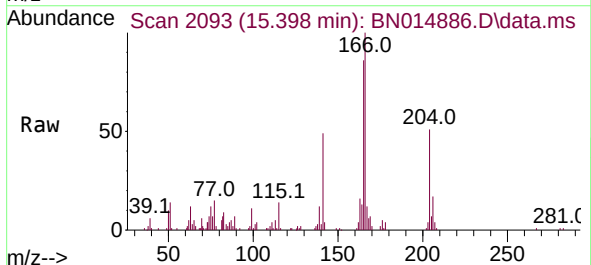
Instrument :
BNA_N
ClientSampleId :

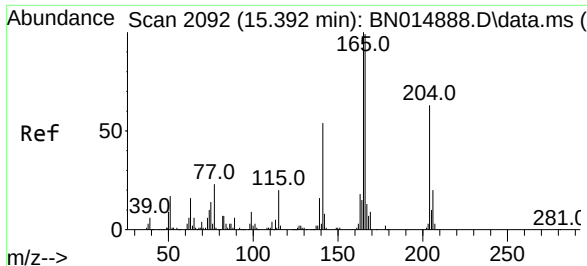
Tgt Ion:149 Resp: 103883
Ion Ratio Lower Upper
149 100
177 25.3 20.6 31.0
150 12.0 11.4 17.2



#61
Fluorene
Concen: 5.152 ng/ul
RT: 15.398 min Scan# 2093
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:166 Resp: 103482
Ion Ratio Lower Upper
166 100
165 86.0 74.6 111.8
167 11.6 11.1 16.7

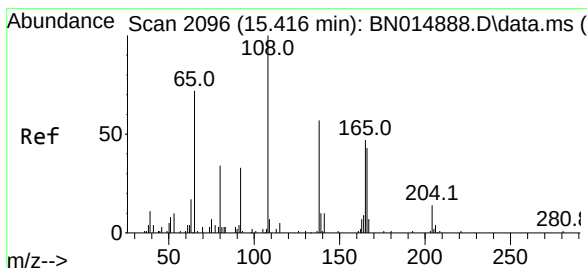
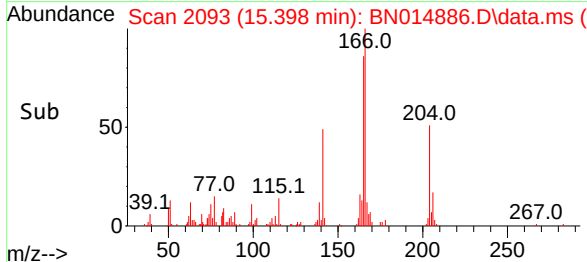
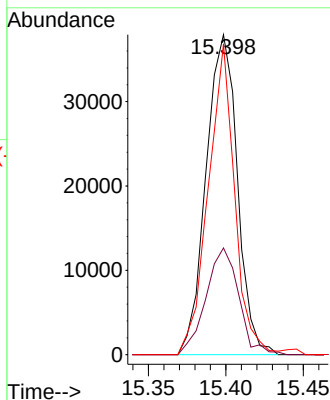
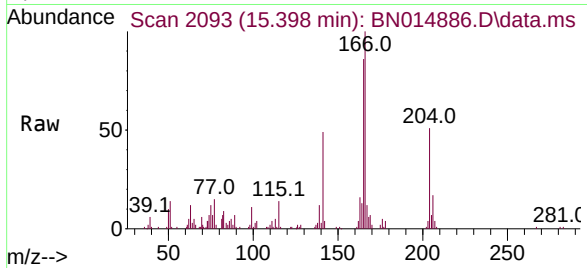




#62
4-Chlorophenyl-phenylether
Concen: 4.487 ng/ul
RT: 15.398 min Scan# 2093
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

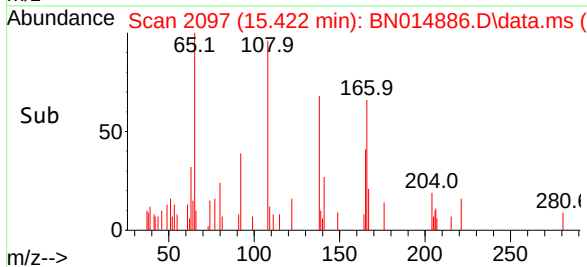
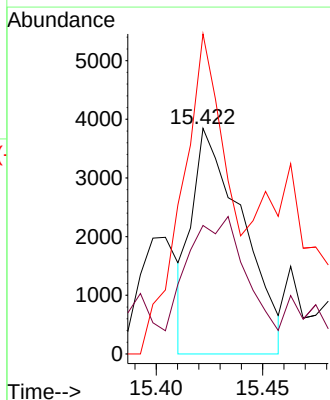
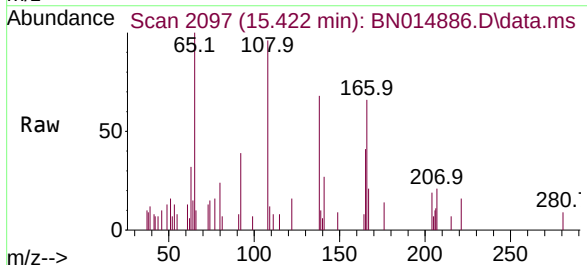
Instrument :
BNA_N
ClientSampleId :

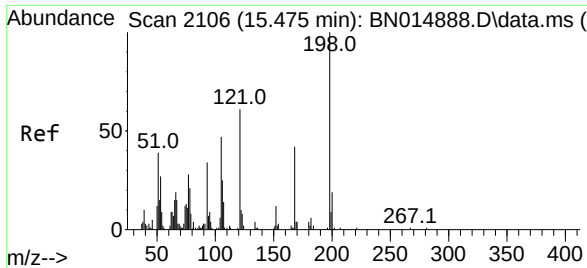
Tgt Ion:204 Resp: 53314
Ion Ratio Lower Upper
204 100
206 33.3 27.2 40.8
141 97.2 52.1 78.1#



#63
4-Nitroaniline
Concen: 1.512 ng/ul
RT: 15.422 min Scan# 2097
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:138 Resp: 6381
Ion Ratio Lower Upper
138 100
92 57.0 57.5 86.3#
108 141.9 109.3 163.9

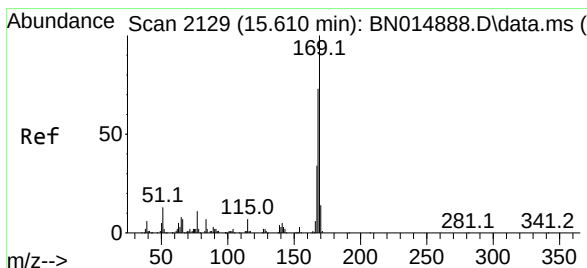
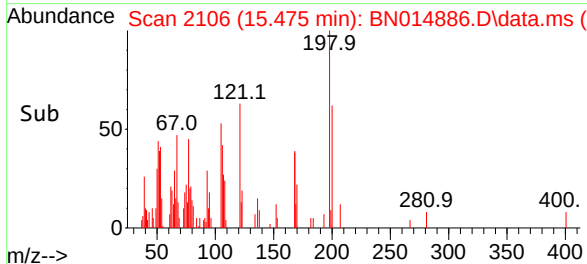
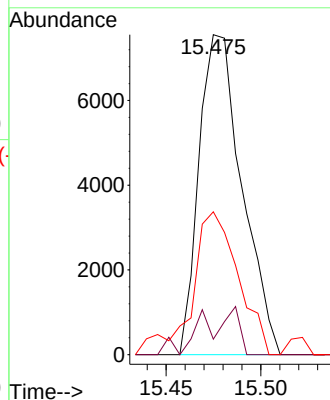
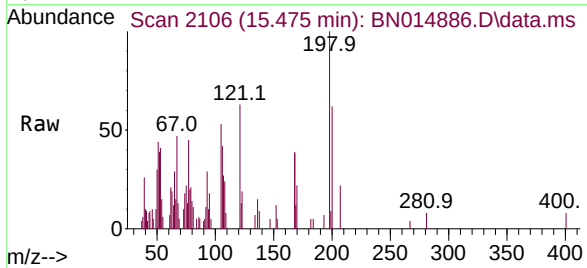




#66
 4,6-Dinitro-2-methylphenol
 Concen: 3.203 ng/ul
 RT: 15.475 min Scan# 2106
 Delta R.T. 0.000 min
 Lab File: BN014886.D
 Acq: 12 Jun 2021 10:02

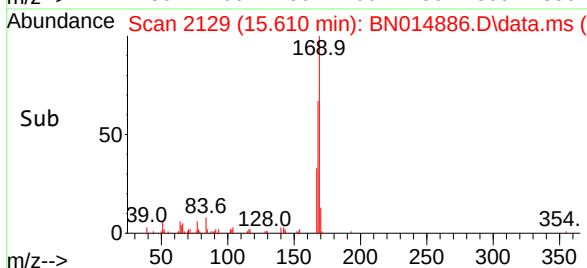
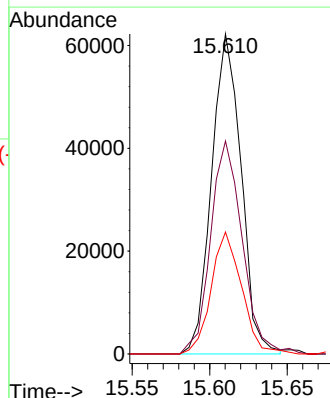
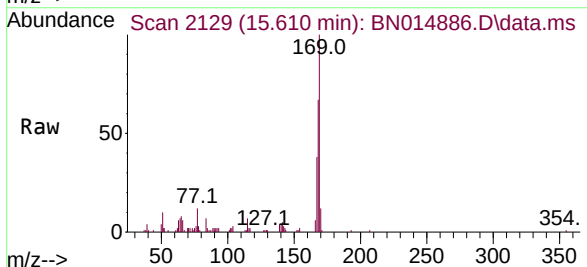
Instrument :
 BNA_N
 ClientSampled :

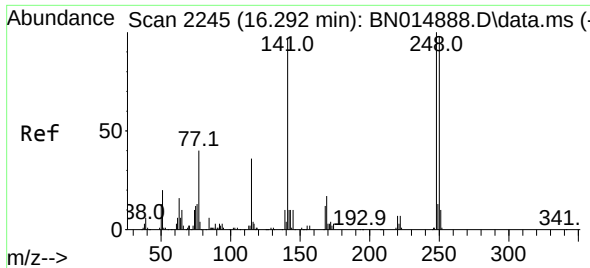
Tgt Ion:198 Resp: 11943
 Ion Ratio Lower Upper
 198 100
 182 4.9 4.1 6.1
 77 44.7 20.8 31.2#



#67
 N-Nitrosodiphenylamine
 Concen: 4.396 ng/ul
 RT: 15.610 min Scan# 2129
 Delta R.T. 0.000 min
 Lab File: BN014886.D
 Acq: 12 Jun 2021 10:02

Tgt Ion:169 Resp: 82506
 Ion Ratio Lower Upper
 169 100
 168 66.6 54.7 82.1
 167 38.1 30.6 46.0

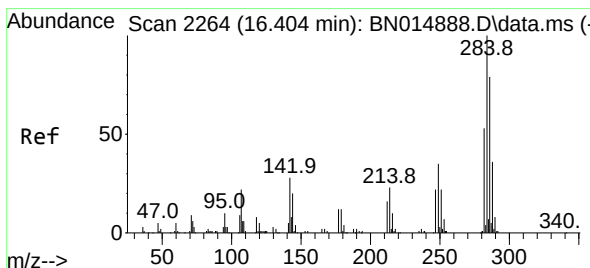
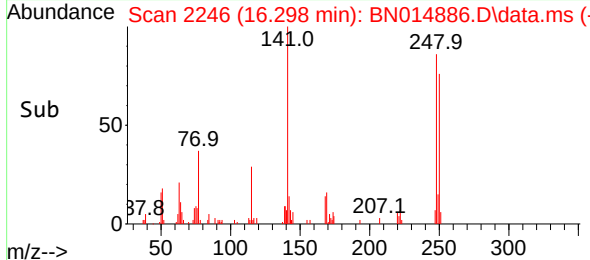
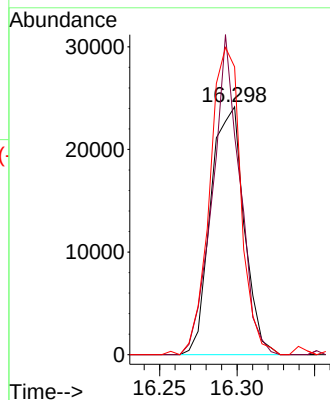
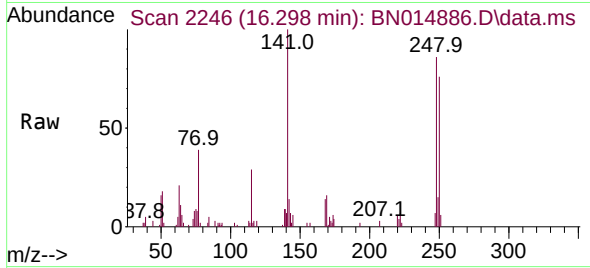




#68
4-Bromophenyl-phenylether
Concen: 3.978 ng/ul
RT: 16.298 min Scan# 2246
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

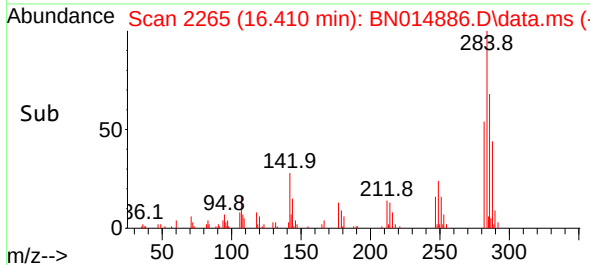
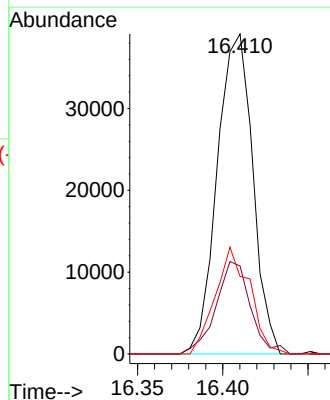
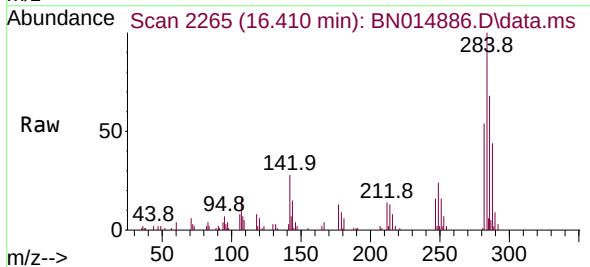
Instrument :
BNA_N
ClientSampled :

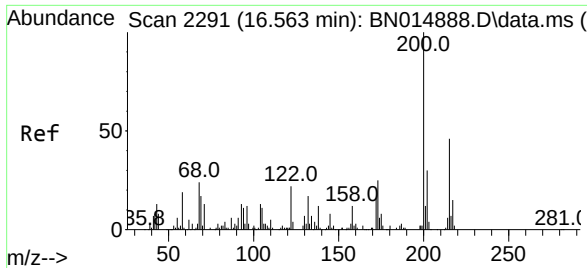
Tgt Ion:248 Resp: 36100
Ion Ratio Lower Upper
248 100
250 88.5 74.2 111.2
141 116.1 63.4 95.2#



#69
Hexachlorobenzene
Concen: 4.992 ng/ul
RT: 16.410 min Scan# 2265
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:284 Resp: 56665
Ion Ratio Lower Upper
284 100
142 27.5 20.6 30.8
249 26.5 27.3 40.9#

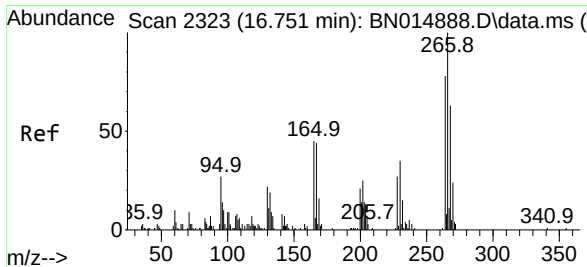
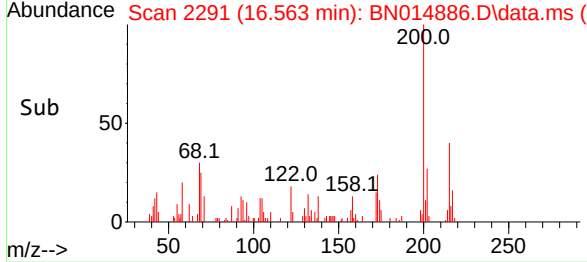
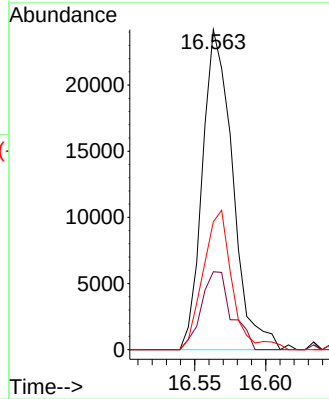
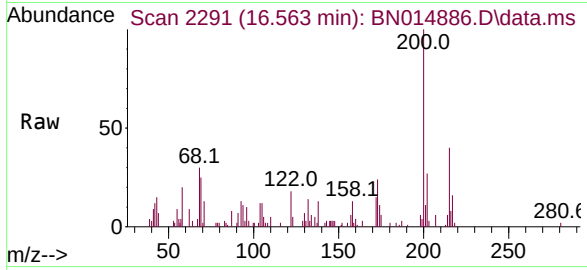




#70
Atrazine
Concen: 4.616 ng/ul
RT: 16.563 min Scan# 2291
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

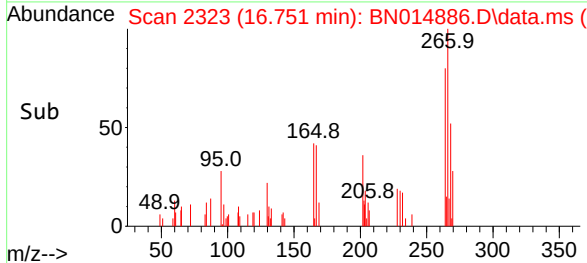
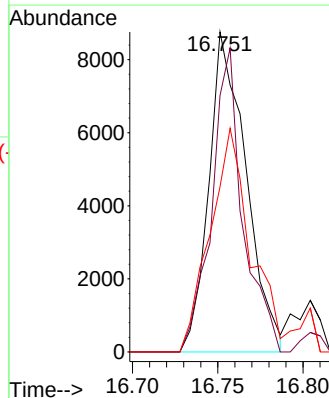
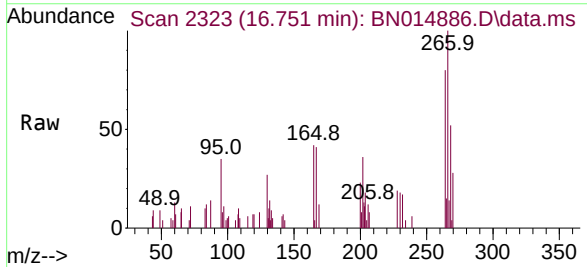
Instrument :
BNA_N
ClientSampled :

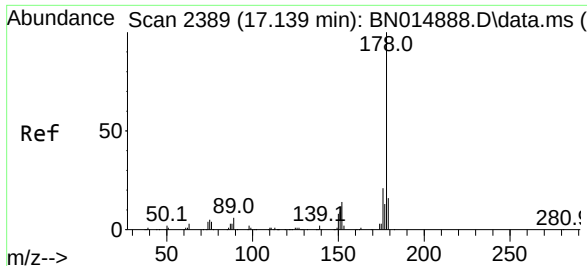
Tgt Ion:	200	Resp:	35824
Ion Ratio	Lower	Upper	
200	100		
173	24.3	22.0	33.0
215	39.9	38.3	57.5



#71
Pentachlorophenol
Concen: 2.033 ng/ul
RT: 16.751 min Scan# 2323
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:	266	Resp:	13287
Ion Ratio	Lower	Upper	
266	100		
264	80.2	47.8	71.6#
268	51.7	48.4	72.6

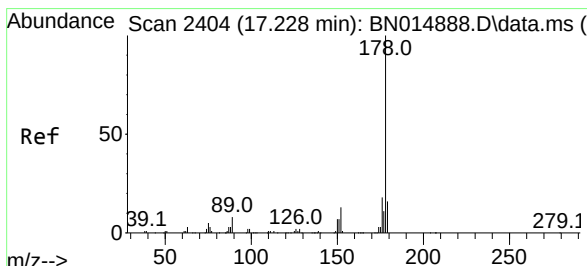
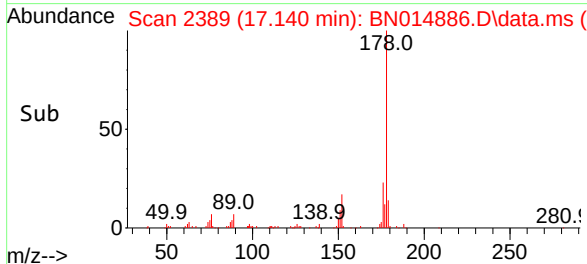
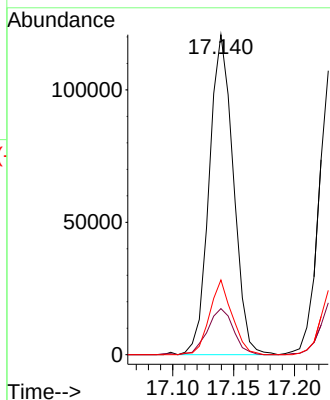
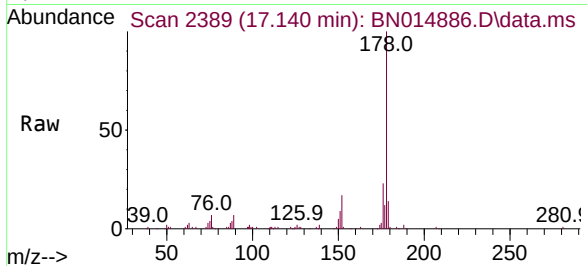




#72
Phenanthrene
Concen: 4.569 ng/ul
RT: 17.140 min Scan# 2389
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

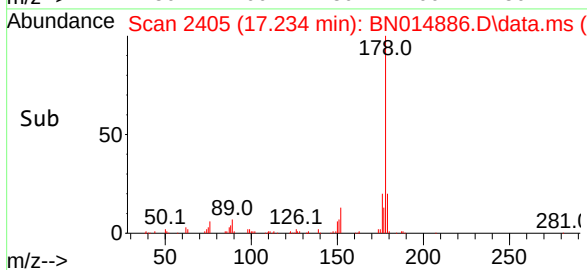
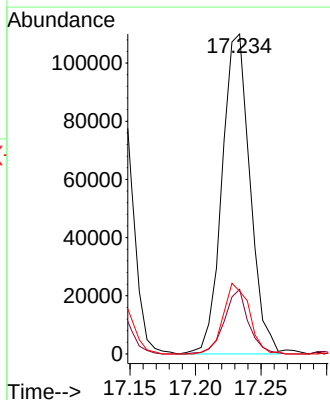
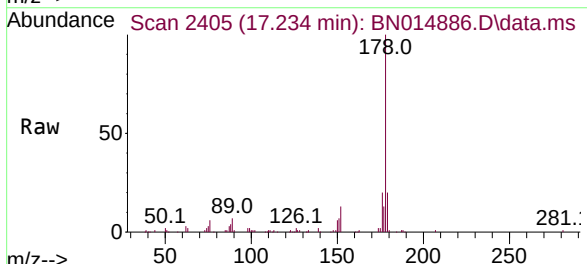
Instrument :
BNA_N
ClientSampled :

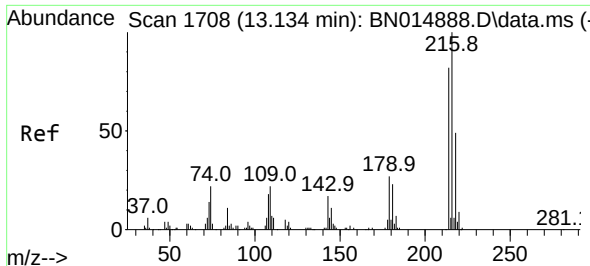
Tgt Ion:178 Resp: 166369
Ion Ratio Lower Upper
178 100
179 14.4 12.9 19.3
176 23.3 15.4 23.0#



#74
Anthracene
Concen: 4.447 ng/ul
RT: 17.234 min Scan# 2405
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:178 Resp: 163179
Ion Ratio Lower Upper
178 100
179 20.2 12.9 19.3#
176 19.6 15.3 22.9

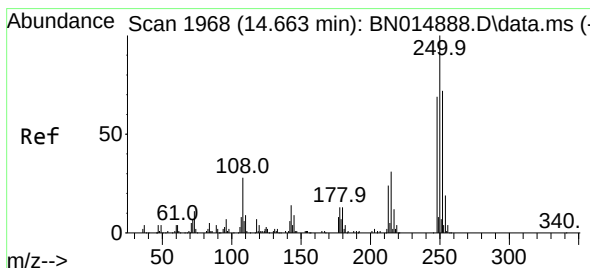
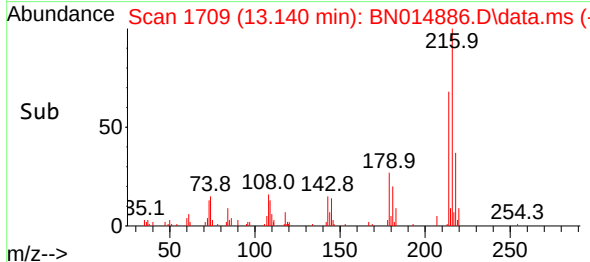
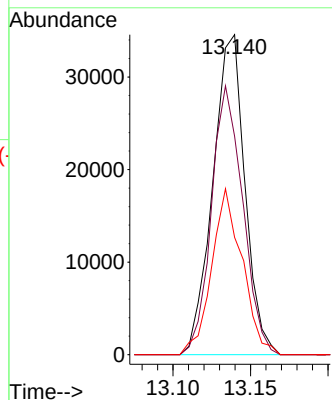
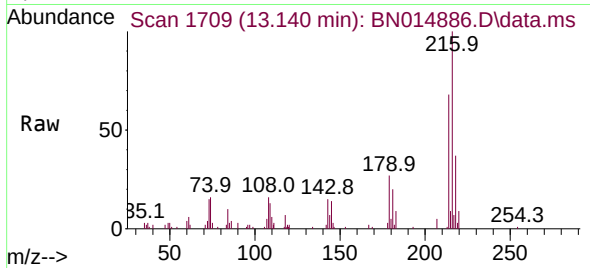




#75
1,2,3,4-Tetrachlorobenzene
Concen: 4.329 ng/uL
RT: 13.140 min Scan# 1709
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

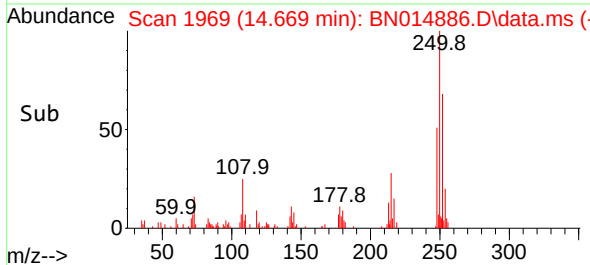
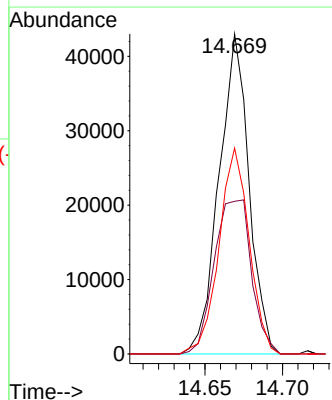
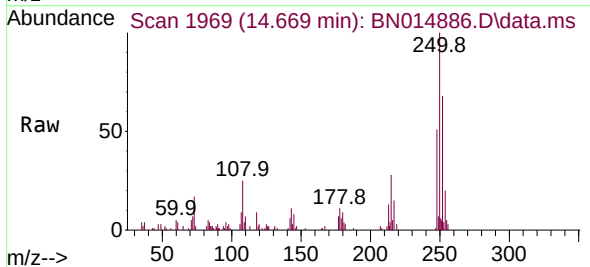
Instrument :
BNA_N
ClientSampled :

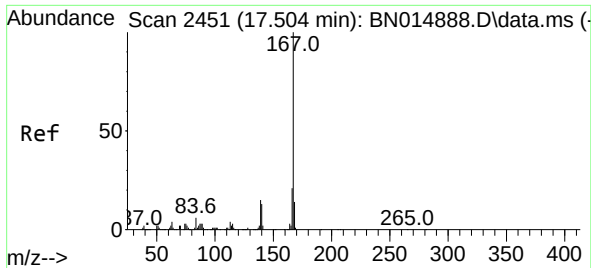
Tgt Ion:216 Resp: 49852
Ion Ratio Lower Upper
216 100
214 68.2 58.6 87.8
218 36.6 43.5 65.3#



#76
Pentachlorobenzene
Concen: 4.848 ng/uL
RT: 14.669 min Scan# 1969
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:250 Resp: 57739
Ion Ratio Lower Upper
250 100
248 47.7 49.5 74.3#
252 64.3 51.7 77.5

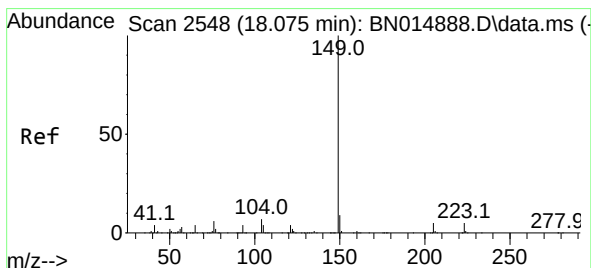
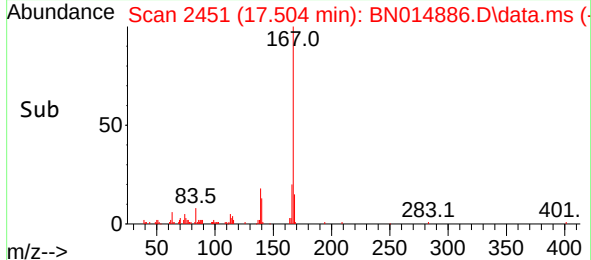
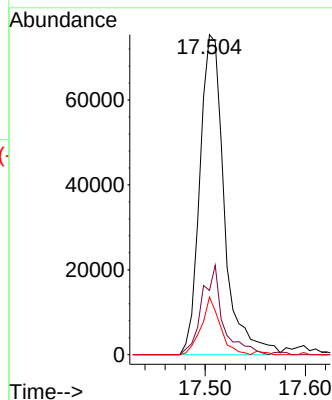
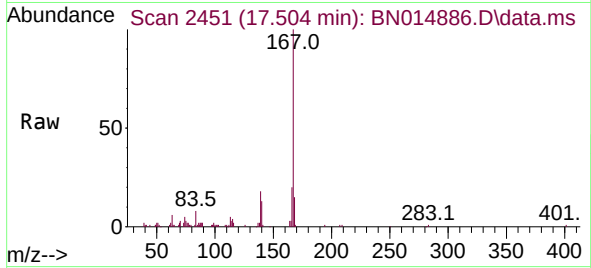




#77
 Carbazole
 Concen: 4.135 ng/ul
 RT: 17.504 min Scan# 2451
 Delta R.T. 0.000 min
 Lab File: BN014886.D
 Acq: 12 Jun 2021 10:02

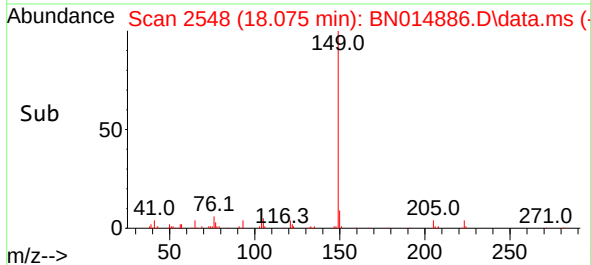
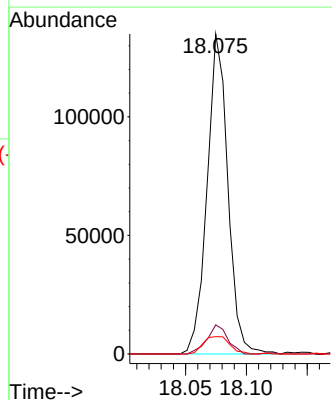
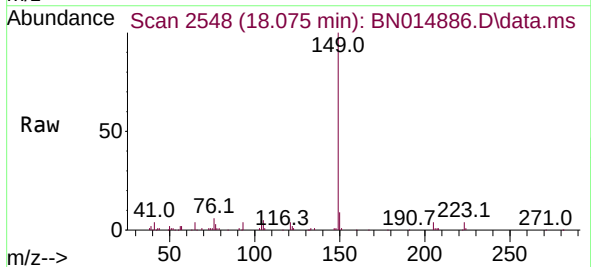
Instrument :
 BNA_N
 ClientSampled :

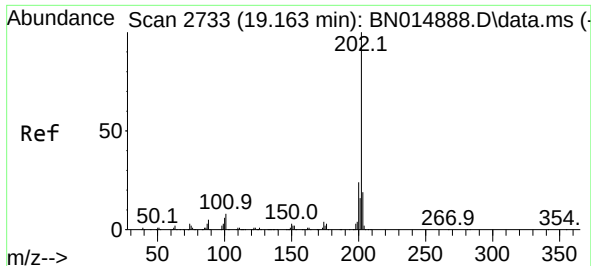
Tgt Ion:167 Resp: 127879
 Ion Ratio Lower Upper
 167 100
 166 20.1 17.4 26.0
 139 18.0 10.6 15.8#



#78
 Di-n-butylphthalate
 Concen: 4.400 ng/ul
 RT: 18.075 min Scan# 2548
 Delta R.T. 0.000 min
 Lab File: BN014886.D
 Acq: 12 Jun 2021 10:02

Tgt Ion:149 Resp: 160343
 Ion Ratio Lower Upper
 149 100
 150 9.1 6.5 9.7
 104 5.4 5.6 8.4#

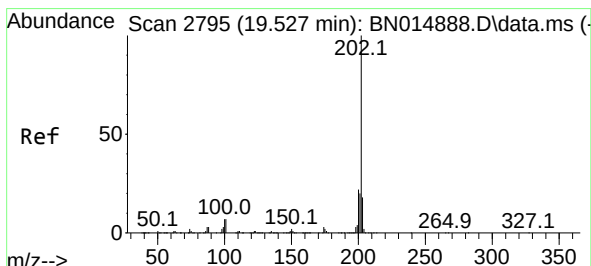
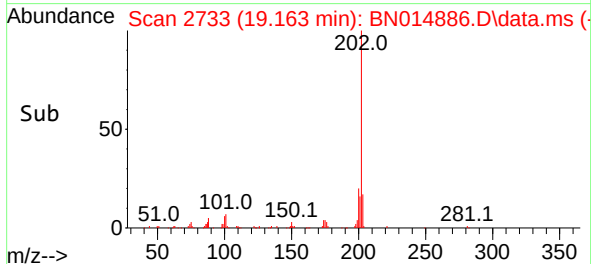
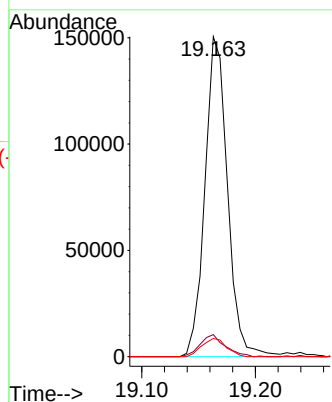
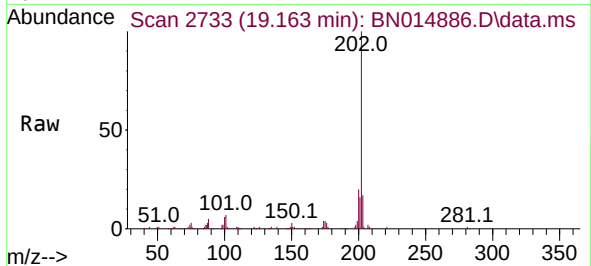




#80
Fluoranthene
Concen: 4.217 ng/ul
RT: 19.163 min Scan# 2733
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

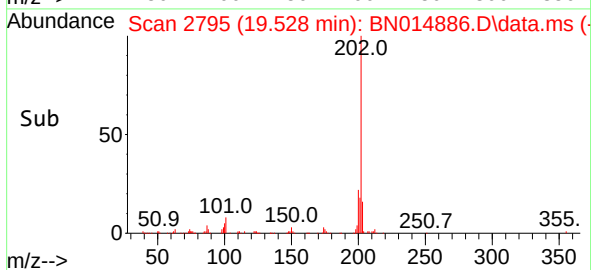
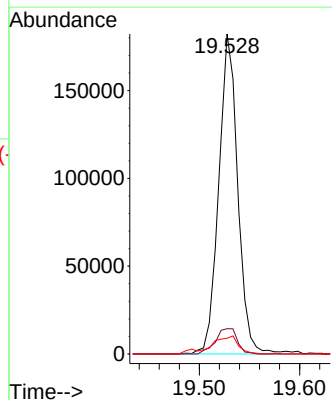
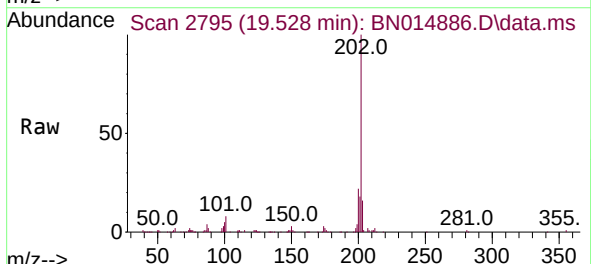
Instrument :
BNA_N
ClientSampled :

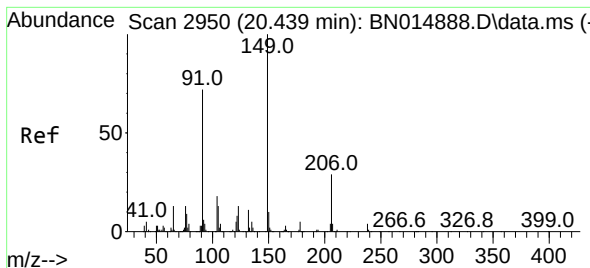
Tgt Ion:202 Resp: 207808
Ion Ratio Lower Upper
202 100
101 6.9 7.6 11.4#
100 5.7 5.6 8.4



#82
Pyrene
Concen: 4.720 ng/ul
RT: 19.528 min Scan# 2795
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:202 Resp: 239158
Ion Ratio Lower Upper
202 100
101 7.9 8.7 13.1#
100 4.9 6.2 9.4#





#83

Butylbenzylphthalate

Concen: 4.549 ng/ul

RT: 20.439 min Scan# 2950

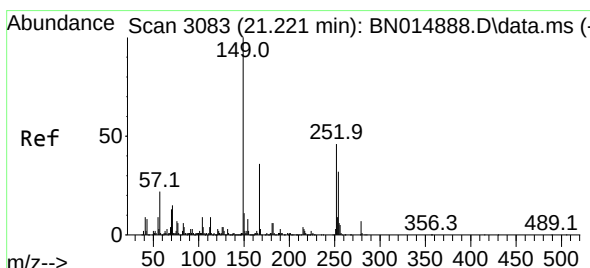
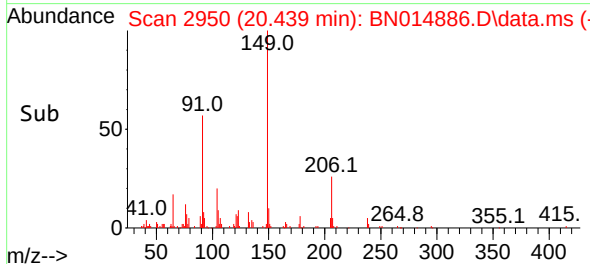
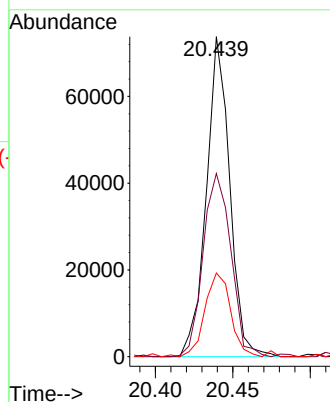
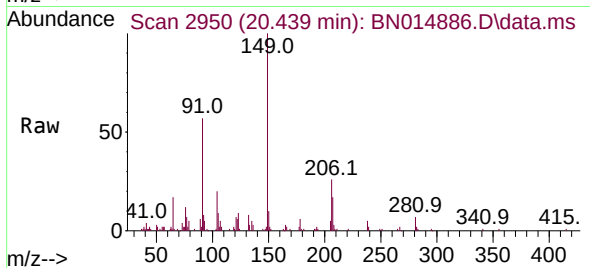
Delta R.T. 0.000 min

Lab File: BN014886.D

Acq: 12 Jun 2021 10:02

Tgt Ion:	149	Resp:	77460
Ion Ratio	Lower	Upper	
149	100		
91	57.3	65.7	98.5#
206	26.1	23.8	35.8

Instrument :
BNA_N
ClientSampled :



#84

3,3'-Dichlorobenzidine

Concen: 4.311 ng/ul

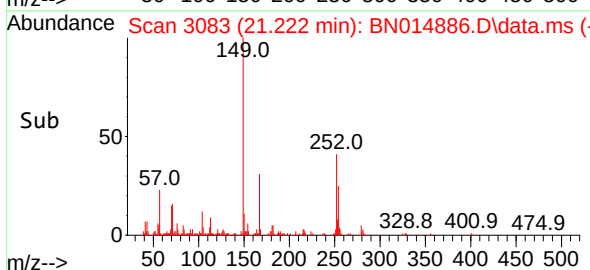
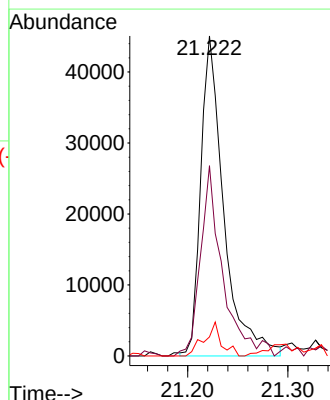
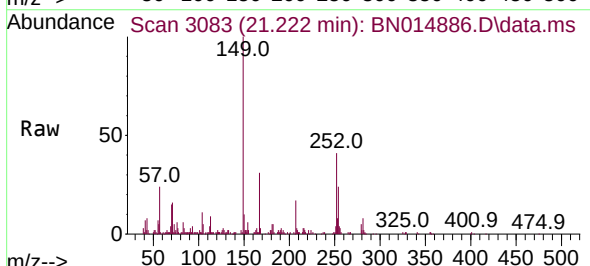
RT: 21.222 min Scan# 3083

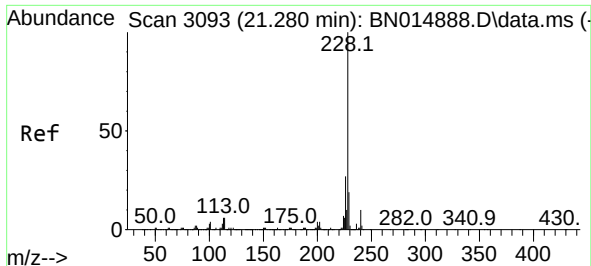
Delta R.T. 0.000 min

Lab File: BN014886.D

Acq: 12 Jun 2021 10:02

Tgt Ion:	252	Resp:	72041
Ion Ratio	Lower	Upper	
252	100		
254	59.4	50.1	75.1
126	6.0	6.3	9.5#

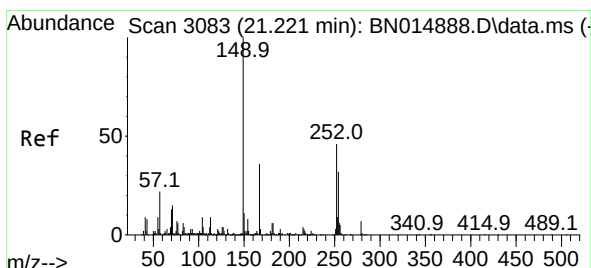
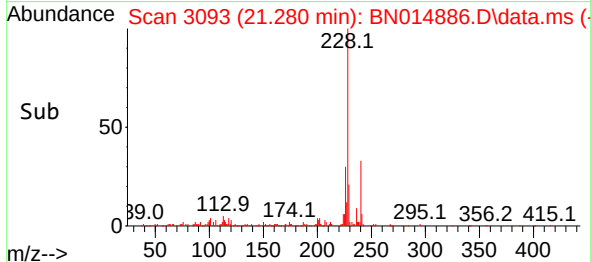
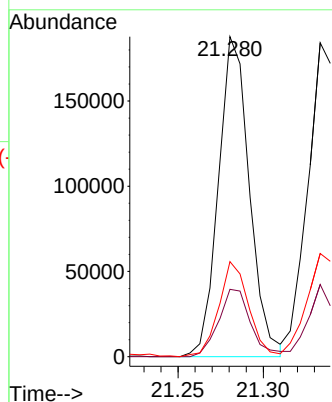
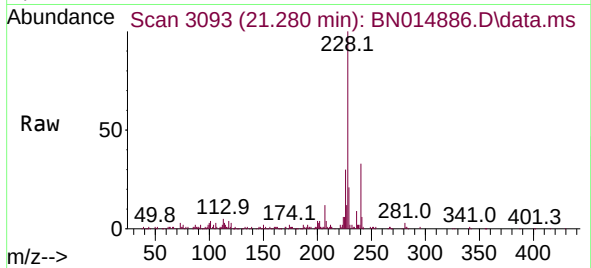




#85
Benzo(a)anthracene
Concen: 4.295 ng/ul
RT: 21.280 min Scan# 3093
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

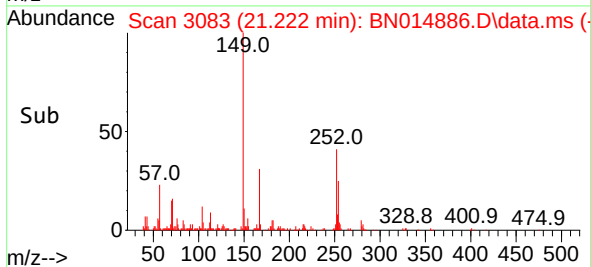
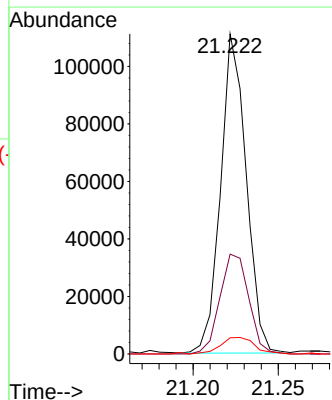
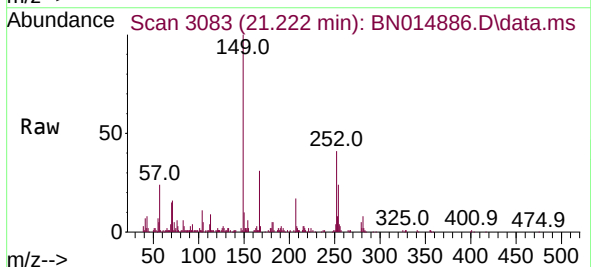
Instrument :
BNA_N
ClientSampled :

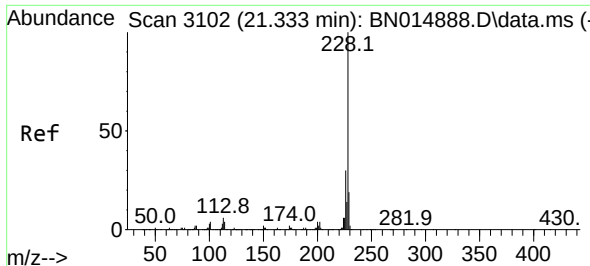
Tgt Ion:228 Resp: 237251
Ion Ratio Lower Upper
228 100
229 21.1 16.2 24.4
226 29.7 21.6 32.4



#86
Bis(2-ethylhexyl)phthalate
Concen: 4.740 ng/ul
RT: 21.222 min Scan# 3083
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:149 Resp: 116342
Ion Ratio Lower Upper
149 100
167 31.2 30.7 46.1
279 5.0 5.1 7.7#

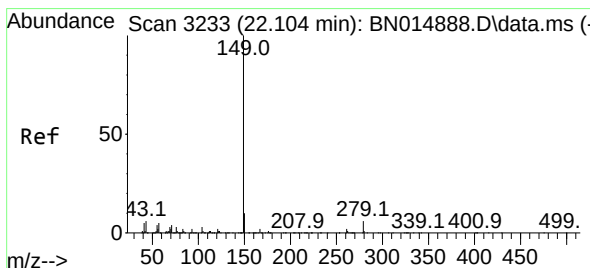
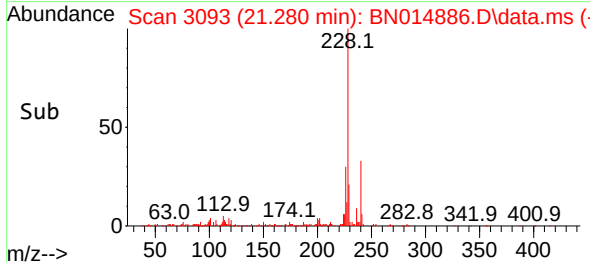
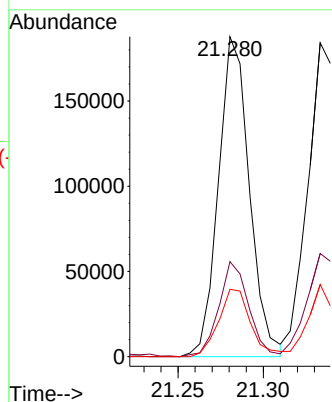
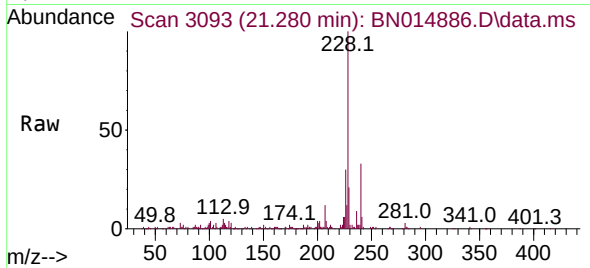




#87
Chrysene
Concen: 4.265 ng/ul
RT: 21.280 min Scan# 3093
Delta R.T. -0.053 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

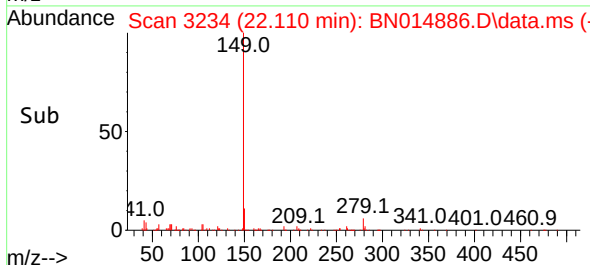
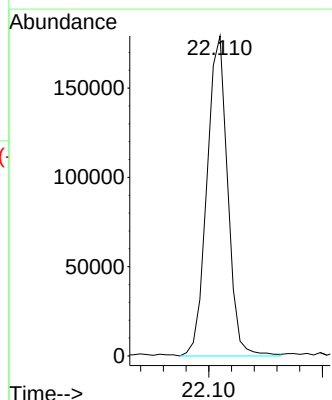
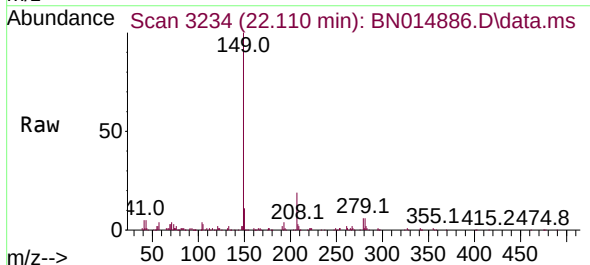
Instrument :
BNA_N
ClientSampled :

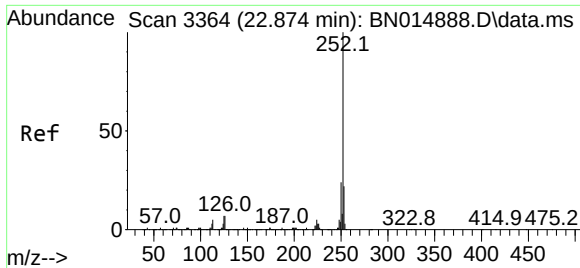
Tgt Ion:228 Resp: 237251
Ion Ratio Lower Upper
228 100
226 29.7 23.8 35.6
229 21.1 14.8 22.2



#89
Di-n-octyl phthalate
Concen: 5.278 ng/ul
RT: 22.110 min Scan# 3234
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:149 Resp: 226388

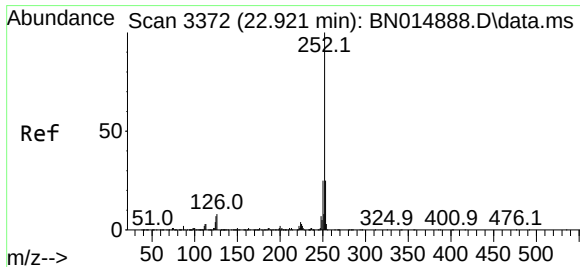
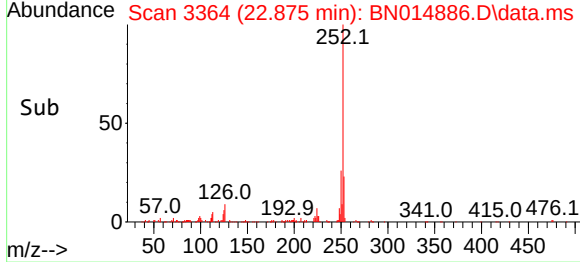
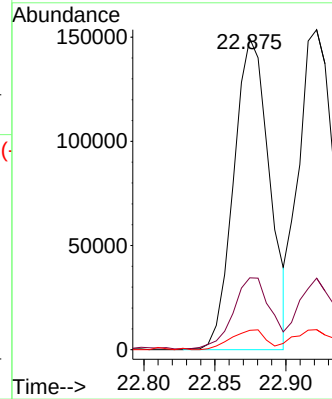
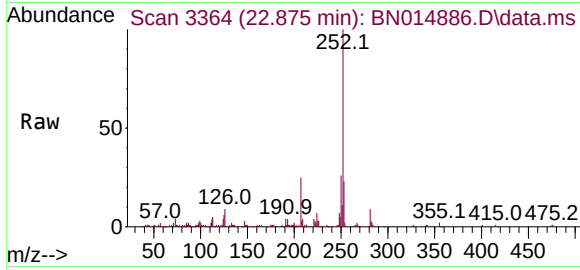




#90
Benzo(b)fluoranthene
Concen: 4.515 ng/ul
RT: 22.875 min Scan# 3364
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

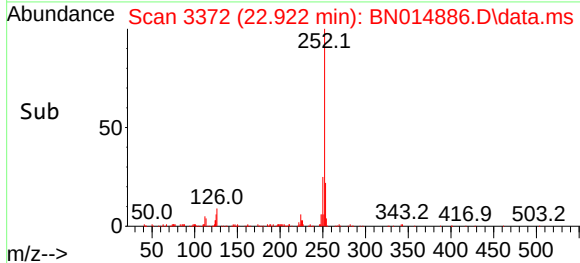
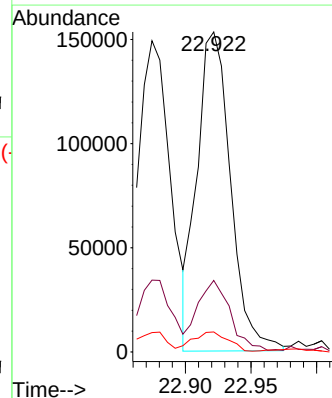
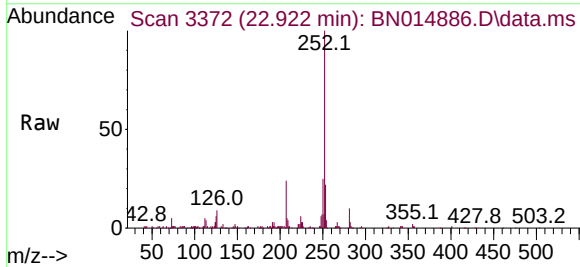
Instrument :
BNA_N
ClientSampled :

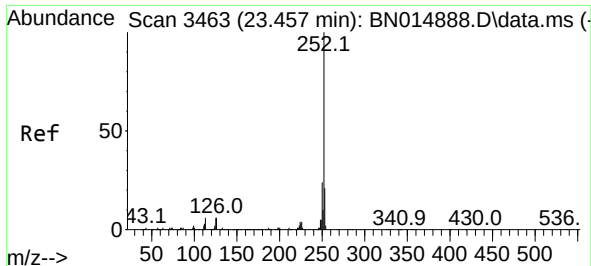
Tgt Ion:	252	Resp:	262666
Ion Ratio	Lower	Upper	
252	100		
253	23.1	15.8	23.8
125	6.2	4.3	6.5



#91
Benzo(k)fluoranthene
Concen: 4.705 ng/ul
RT: 22.922 min Scan# 3372
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:	252	Resp:	272750
Ion Ratio	Lower	Upper	
252	100		
253	22.3	17.0	25.4
125	6.3	4.8	7.2

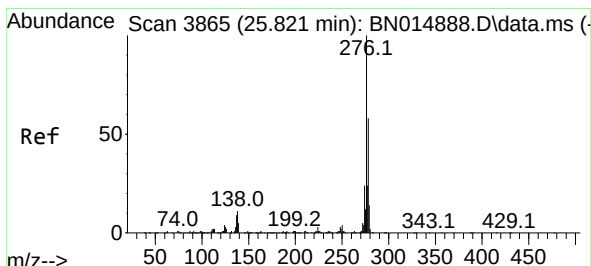
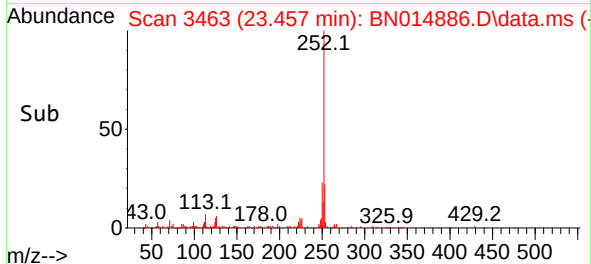
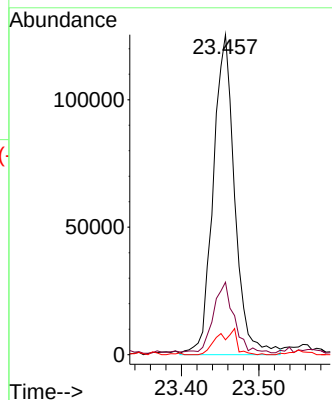
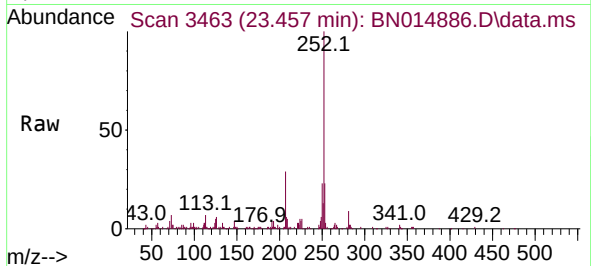




#93
Benzo(a)pyrene
Concen: 4.628 ng/ul
RT: 23.457 min Scan# 3463
Delta R.T. 0.000 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

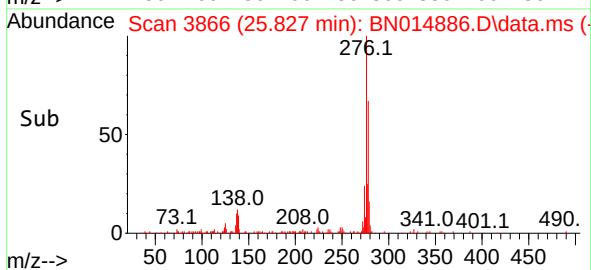
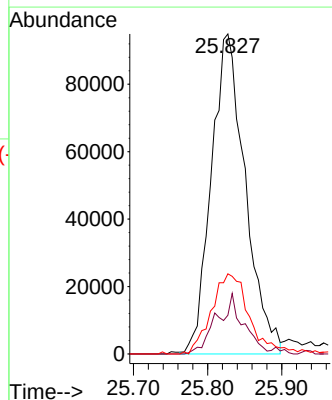
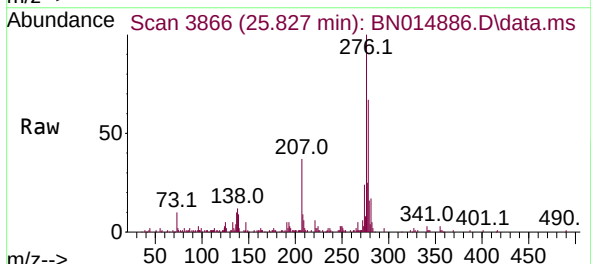
Instrument :
BNA_N
ClientSampled :

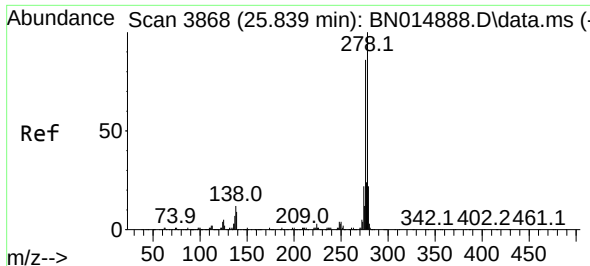
Tgt Ion:252 Resp: 243658
Ion Ratio Lower Upper
252 100
253 22.7 18.8 28.2
125 4.6 5.4 8.2#



#94
Indeno(1,2,3-cd)pyrene
Concen: 4.194 ng/ul
RT: 25.827 min Scan# 3866
Delta R.T. 0.006 min
Lab File: BN014886.D
Acq: 12 Jun 2021 10:02

Tgt Ion:276 Resp: 302548
Ion Ratio Lower Upper
276 100
138 12.1 10.0 15.0
277 25.0 19.5 29.3

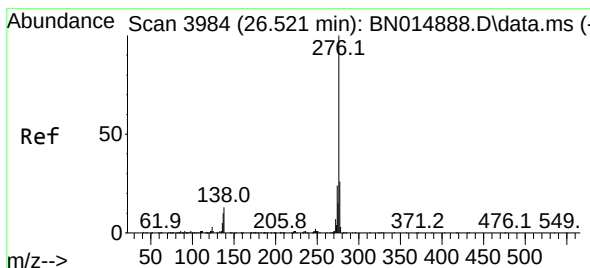
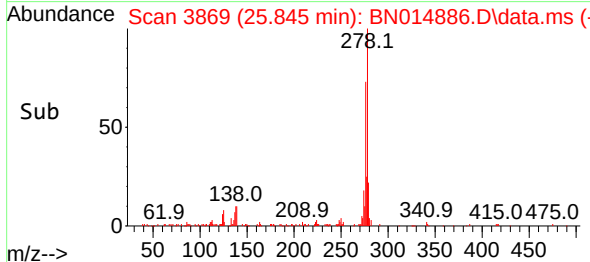
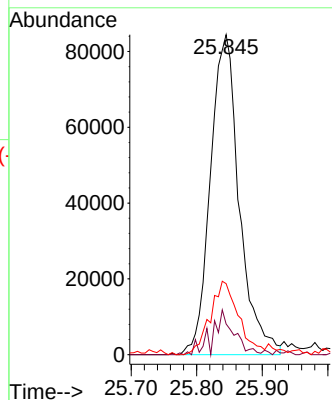
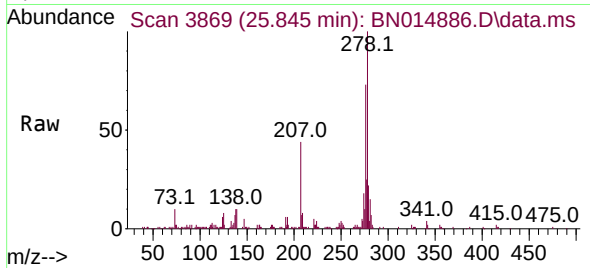




#95
 Dibenzo(a,h)anthracene
 Concen: 4.319 ng/ul
 RT: 25.845 min Scan# 3869
 Delta R.T. 0.006 min
 Lab File: BN014886.D
 Acq: 12 Jun 2021 10:02

Instrument :
 BNA_N
 ClientSampled :

Tgt Ion:278 Resp: 257856
 Ion Ratio Lower Upper
 278 100
 139 9.6 7.6 11.4
 279 22.2 19.0 28.6



#96
 Benzo(g,h,i)perylene
 Concen: 4.173 ng/ul
 RT: 26.521 min Scan# 3984
 Delta R.T. 0.000 min
 Lab File: BN014886.D
 Acq: 12 Jun 2021 10:02

Tgt Ion:276 Resp: 266463
 Ion Ratio Lower Upper
 276 100
 138 9.3 10.2 15.4#
 277 21.0 15.7 23.5

