Quantitation Report (Not Reviewed)

Data Path : Z:\SVOASRV\HPCHEM1\BNA N\DATA\BN082720\
Data File : BN011655.D
Acq On : 27 Aug 2020 09:37
Operator : CG/JU
Sample : SSTDICC0.1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument : BNA_N
ClientSampleId : SSTDICC0.1

Quant Time: Aug 27 11:25:20 2020
Quant Method : Z:\SVOASRV\HPCHEM1\BNA N\METHODS\8270-SIM-BN082720.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Aug 27 11:24:00 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.75	152	1971	0.40	ng		0.00
7) Naphthalene-d8	10.53	136	7703	0.40	ng		0.00
13) Acenaphthene-d10	14.38	164	4574	0.40	ng		0.00
19) Phenanthrene-d10	17.13	188	10299	0.40	ng		0.00
29) Chrysene-d12	21.32	240	11063	0.40	ng		0.00
36) Perylene-d12	23.59	264	11456	0.40	ng		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	5.34	112	646	0.10	ng		0.00
5) Phenol-d6	6.91	99	906	0.10	ng		0.00
8) Nitrobenzene-d5	8.88	82	809	0.12	ng		0.00
11) 2-Methylnaphthalene-d10	12.12	152	1564	0.11	ng		0.00
14) 2,4,6-Tribromophenol	15.88	330	249	0.10	ng		0.00
15) 2-Fluorobiphenyl	13.00	172	2234	0.13	ng		0.00
27) Fluoranthene-d10	19.17	212	3718	0.11	ng		0.00
31) Terphenyl-d14	19.77	244	3197	0.11	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.29	88	405	0.132	ng		91
3) n-Nitrosodimethylamine	3.60	42	494	0.153	ng	#	89
6) bis(2-Chloroethyl)ether	7.17	93	741	0.117	ng		96
9) Naphthalene	10.58	128	2455	0.112	ng	#	93
10) Hexachlorobutadiene	10.87	225	538	0.117	ng	#	97
12) 2-Methylnaphthalene	12.20	142	1750	0.108	ng		97
16) Acenaphthylene	14.10	152	2419	0.100	ng		99
17) Acenaphthene	14.45	154	1708	0.112	ng		99
18) Fluorene	15.44	166	2233	0.113	ng		100
20) 4,6-Dinitro-2-methylphenol	15.51	198	170	0.143	ng	#	5
21) 4-Bromophenyl-phenylether	16.32	248	650	0.108	ng		97
22) Hexachlorobenzene	16.43	284	848	0.122	ng		100
23) Atrazine	16.59	200	601	0.101	ng		91
24) Pentachlorophenol	16.79	266	452	0.147	ng		98
25) Phenanthrene	17.17	178	3706	0.116	ng		99
26) Anthracene	17.26	178	3175	0.101	ng		99
28) Fluoranthene	19.19	202	4327	0.112	ng		100
30) Pyrene	19.56	202	4415	0.113	ng		99
32) Benzo(a)anthracene	21.31	228	4494	0.113	ng		98
33) Chrysene	21.36	228	4691	0.123	ng		98
34) Bis(2-ethylhexyl)phthalate	21.26	149	1884	0.066	ng		100
35) Indeno(1,2,3-cd)pyrene	25.86	276	5953	0.128	ng		98
37) Benzo(b)fluoranthene	22.91	252	4991	0.120	ng	#	83
38) Benzo(k)fluoranthene	22.95	252	5082	0.123	ng	#	82
39) Benzo(a)pyrene	23.48	252	4482	0.116	ng	#	78
40) Dibenzo(a,h)anthracene	25.88	278	4855	0.120	ng	#	89
41) Benzo(g,h,i)perylene	26.55	276	4806	0.122	ng	#	90

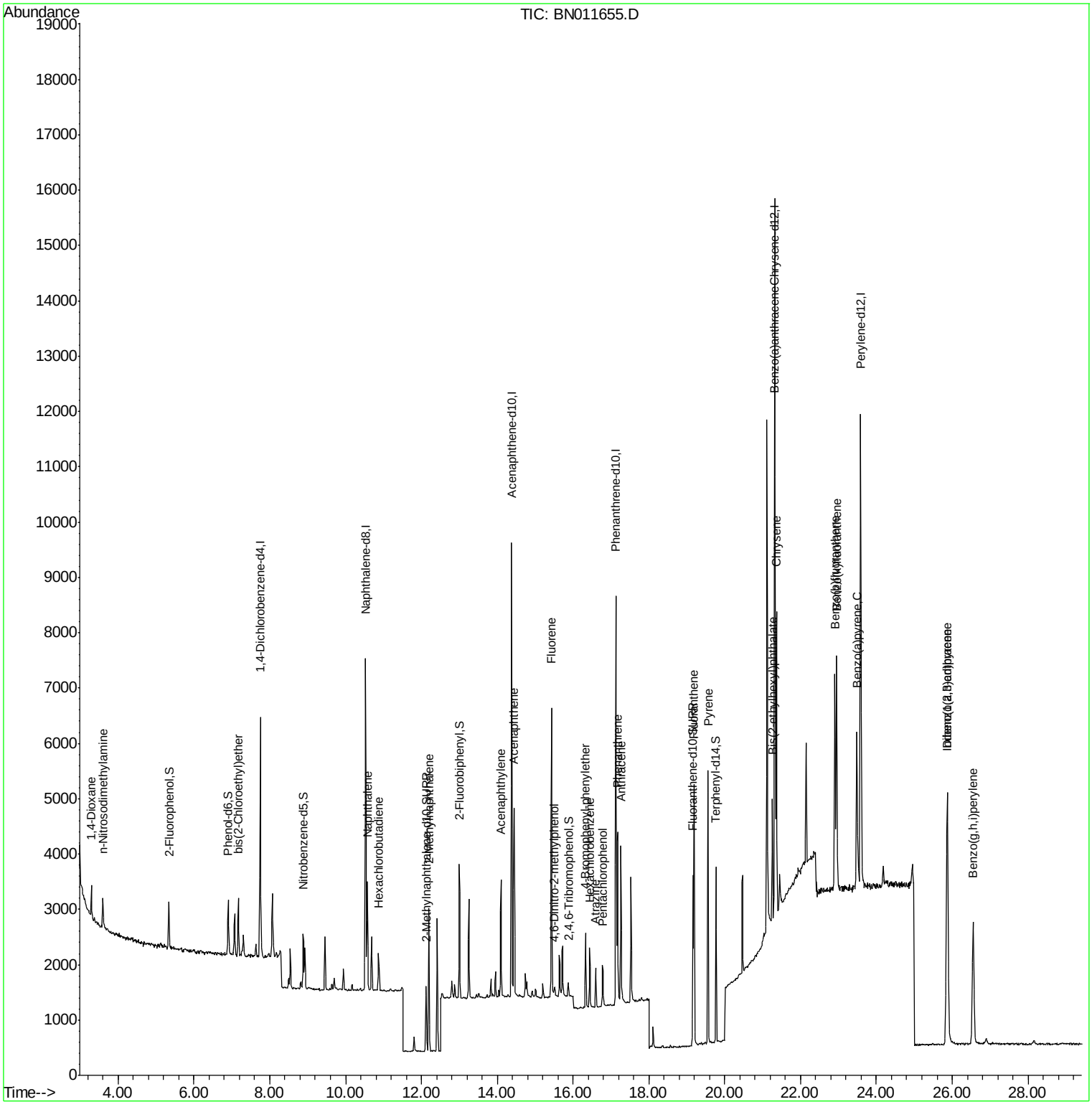
(#) = qualifier out of range (m) = manual integration (+) = signals summed

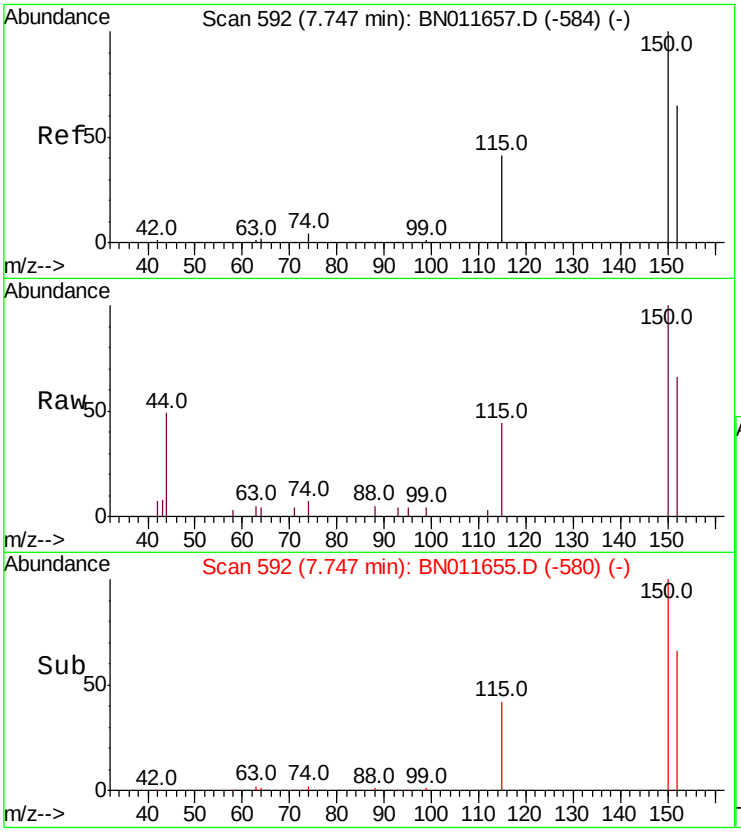
Quantitation Report (Not Reviewed)

Data Path : Z:\SVOASRV\HPCHEM1\BNA N\DATA\BN082720\
Data File : BN011655.D
Acq On : 27 Aug 2020 09:37
Operator : CG/JU
Sample : SSTDICC0.1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Quant Time: Aug 27 11:25:20 2020
Quant Method : Z:\SVOASRV\HPCHEM1\BNA N\METHODS\8270-SIM-BN082720.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Aug 27 11:24:00 2020
Response via : Initial Calibration



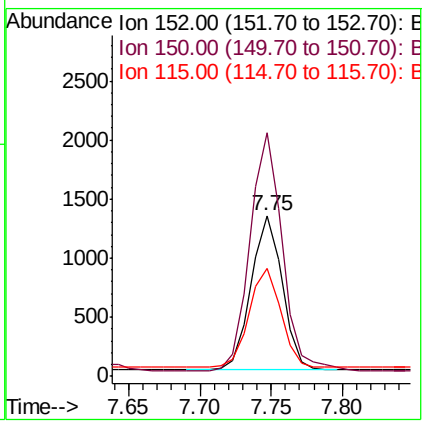


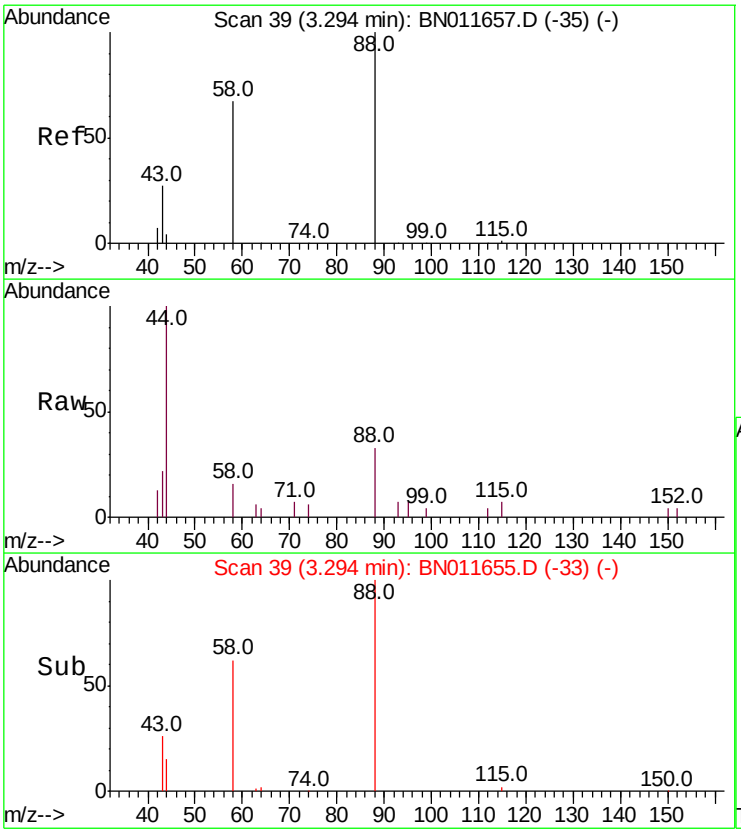
#1
1,4-Dichlorobenzene-d4
Concen: 0.400 ng
RT: 7.75 min Scan# 592
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:152 Resp: 1971

Ion	Ratio	Lower	Upper
152	100		
150	151.4	121.0	181.6
115	67.3	52.6	78.8

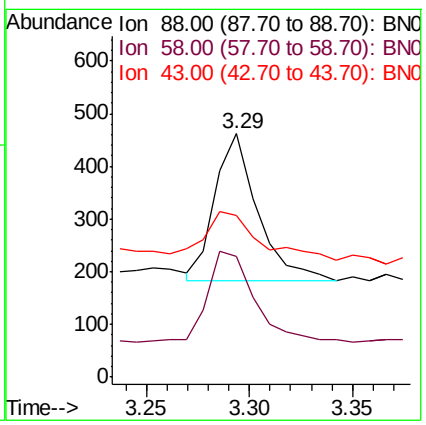


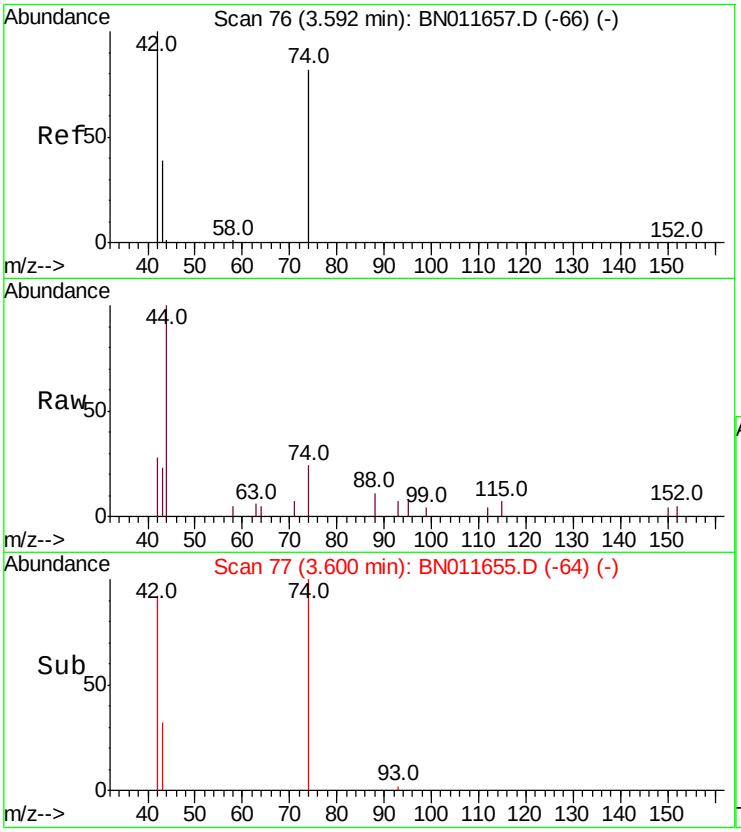


#2
1,4-Dioxane
Concen: 0.132 ng
RT: 3.29 min Scan# 39
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion: 88 Resp: 405

Ion	Ratio	Lower	Upper
88	100		
58	66.2	61.4	92.0
43	36.3	29.8	44.8



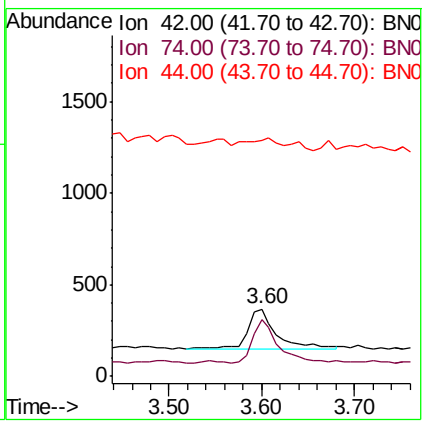


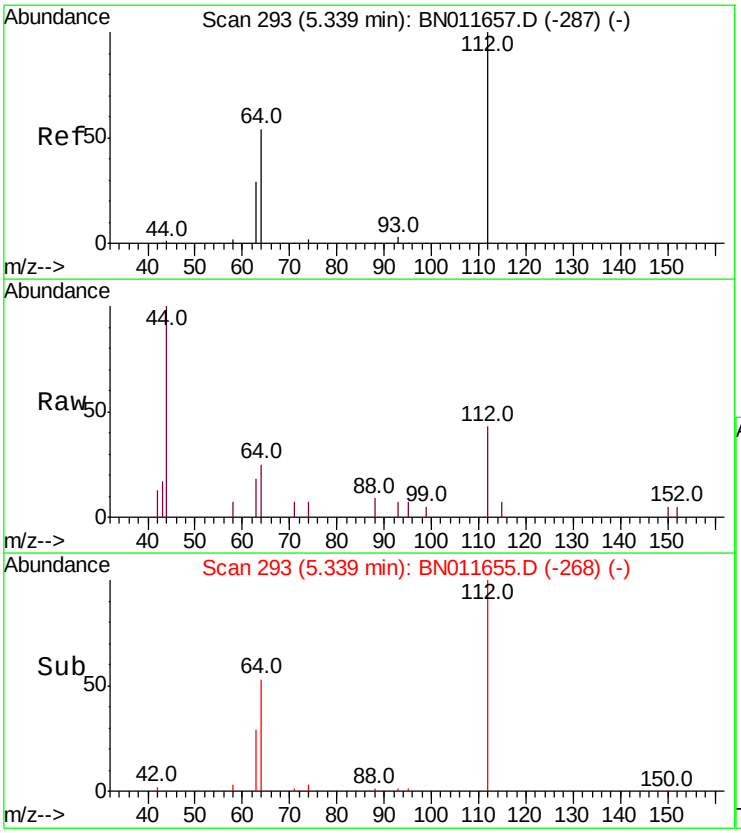
#3
n-Nitrosodimethylamine
Concen: 0.153 ng
RT: 3.60 min Scan# 77
Delta R.T. 0.01 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion: 42 Resp: 494

Ion	Ratio	Lower	Upper
42	100		
74	92.9	79.0	118.6
44	33.0	8.1	12.1#

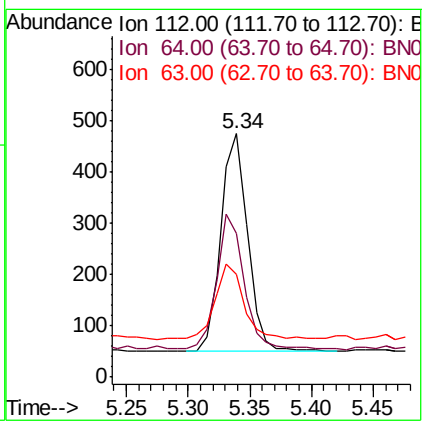


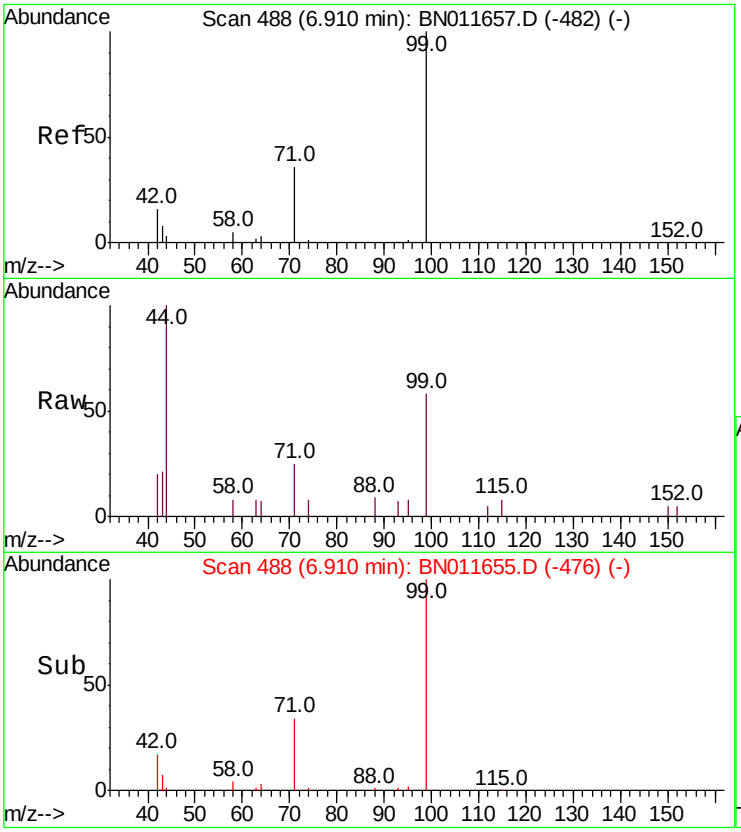


#4
2-Fluorophenol
Concen: 0.103 ng
RT: 5.34 min Scan# 293
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:112 Resp: 646

Ion	Ratio	Lower	Upper
112	100		
64	62.7	49.7	74.5
63	37.6	29.4	44.0



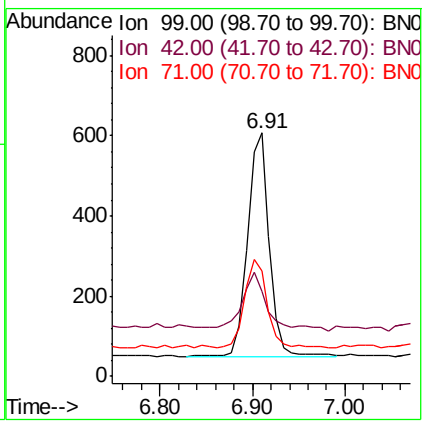


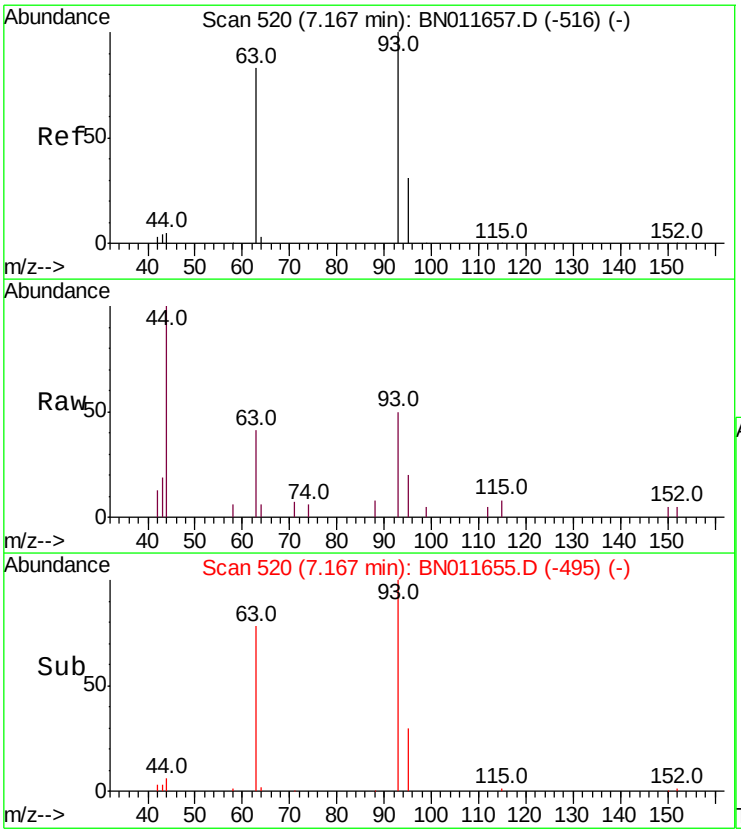
#5
Phenol-d6
Concen: 0.102 ng
RT: 6.91 min Scan# 488
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion: 99 Resp: 906

Ion	Ratio	Lower	Upper
99	100		
42	24.6	20.2	30.2
71	41.9	33.3	49.9

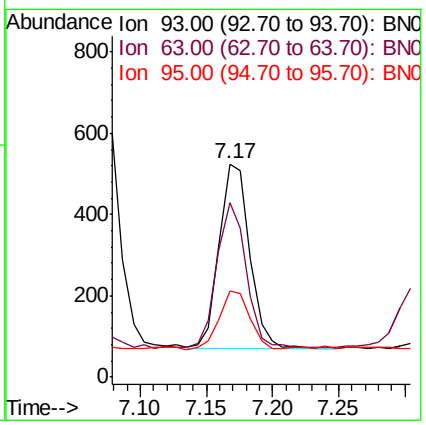


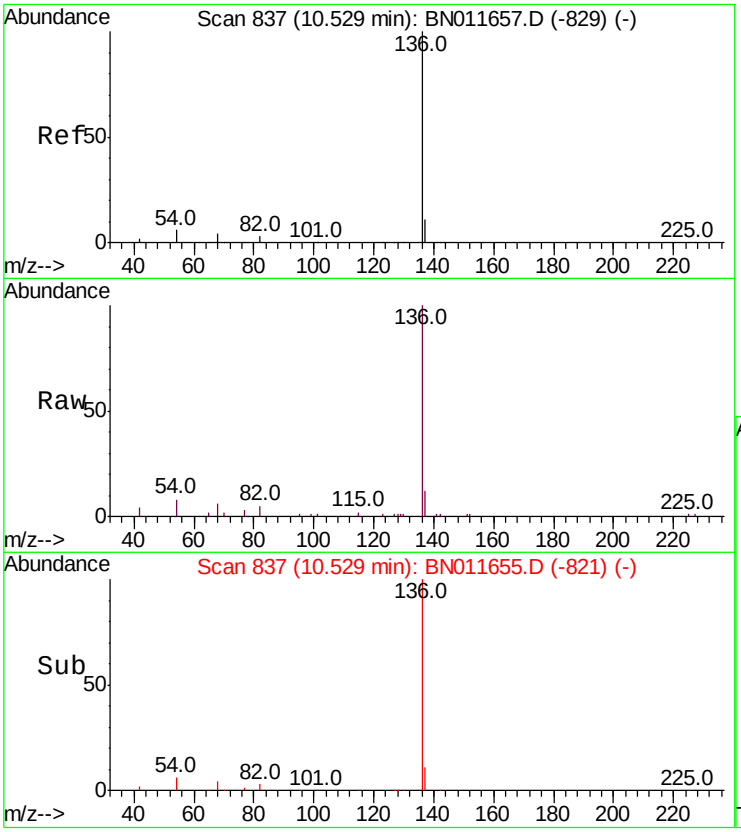


#6
bis(2-Chloroethyl)ether
Concen: 0.117 ng
RT: 7.17 min Scan# 520
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion: 93 Resp: 741

Ion	Ratio	Lower	Upper
93	100		
63	73.8	62.2	93.4
95	31.4	26.6	39.8



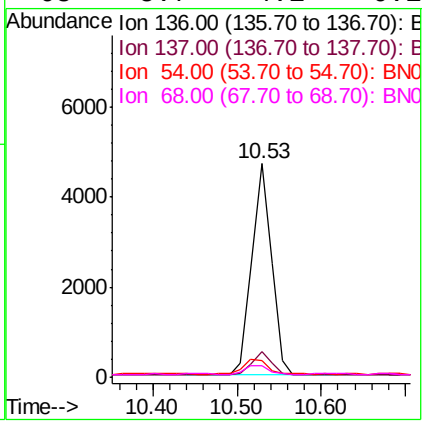


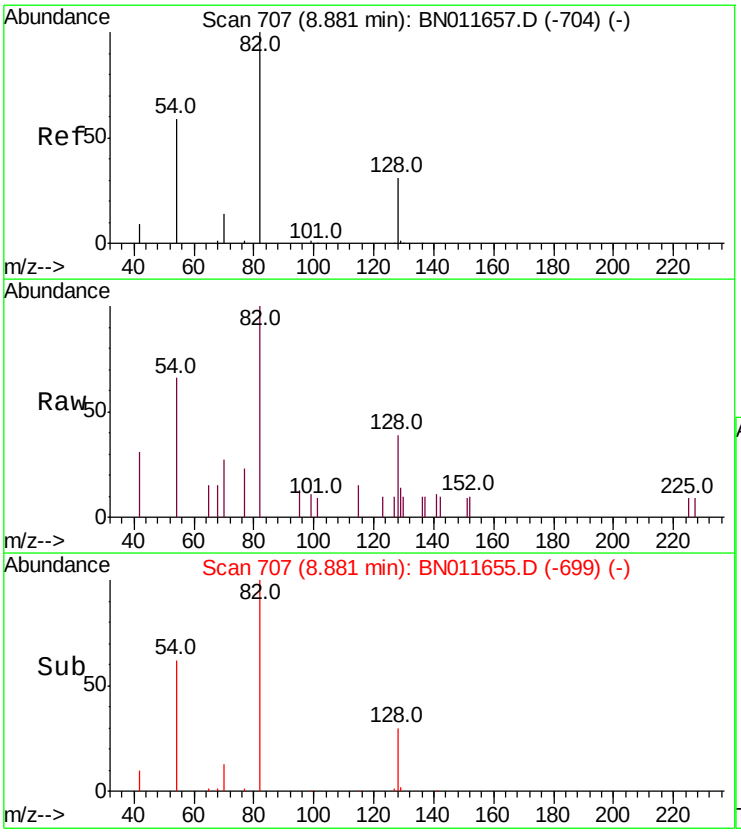
#7
Naphthalene-d8
Concen: 0.400 ng
RT: 10.53 min Scan# 837
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:136 Resp: 7703

Ion	Ratio	Lower	Upper
136	100		
137	11.8	9.3	13.9
54	7.5	5.8	8.8
68	5.7	4.1	6.1

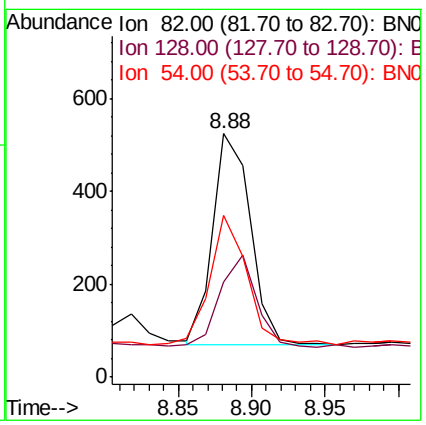


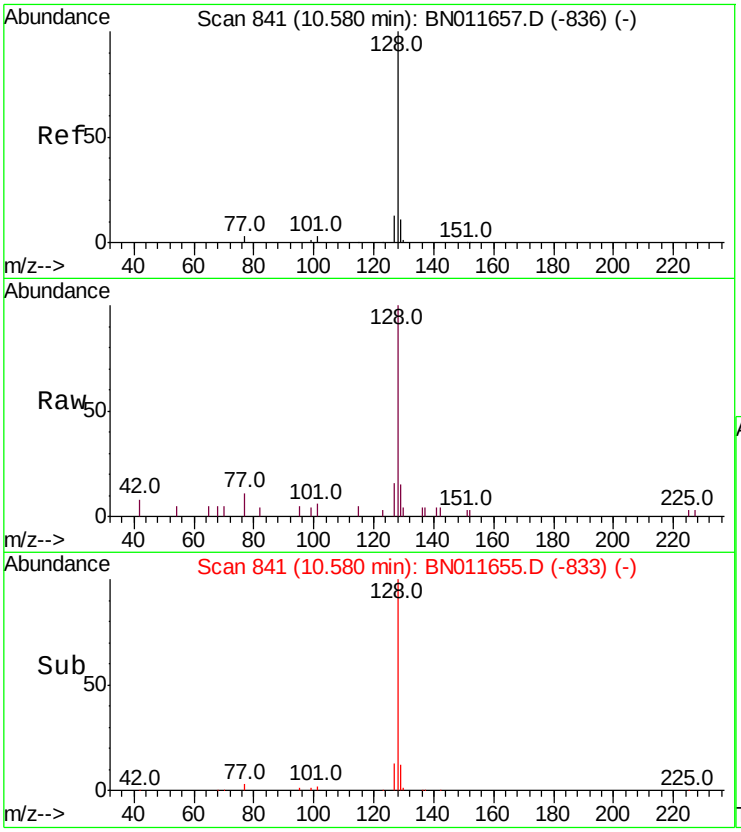


#8
Nitrobenzene-d5
Concen: 0.121 ng
RT: 8.88 min Scan# 707
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion: 82 Resp: 809

Ion	Ratio	Lower	Upper
82	100		
128	39.0	26.2	39.2
54	66.5	48.2	72.4



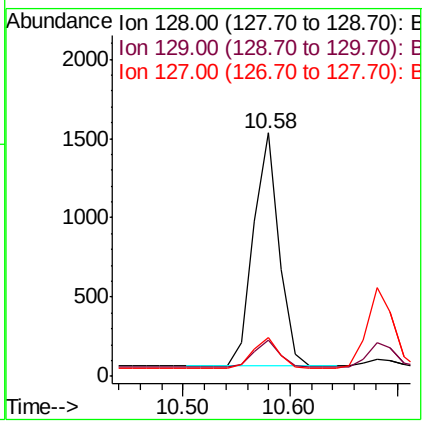


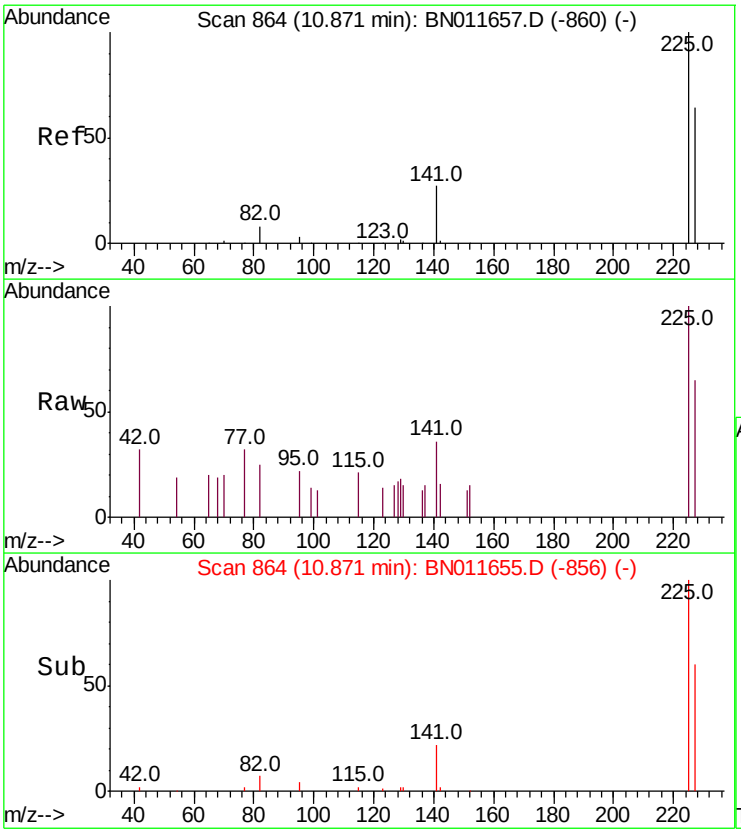
#9
Naphthalene
Concen: 0.112 ng
RT: 10.58 min Scan# 841
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:128 Resp: 2455

Ion	Ratio	Lower	Upper
128	100		
129	14.9	9.4	14.2#
127	15.9	10.8	16.2

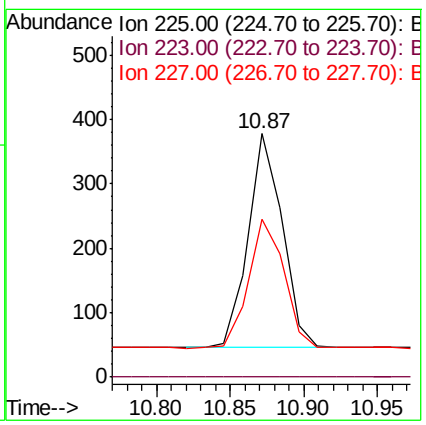


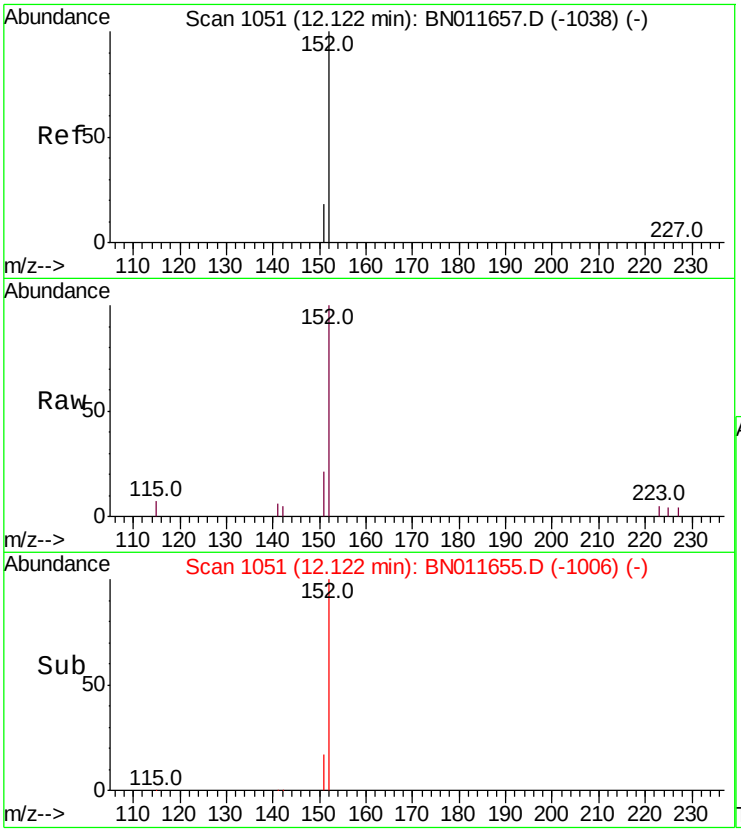


#10
Hexachlorobutadiene
Concen: 0.117 ng
RT: 10.87 min Scan# 864
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:225 Resp: 538

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	62.8	52.3	78.5



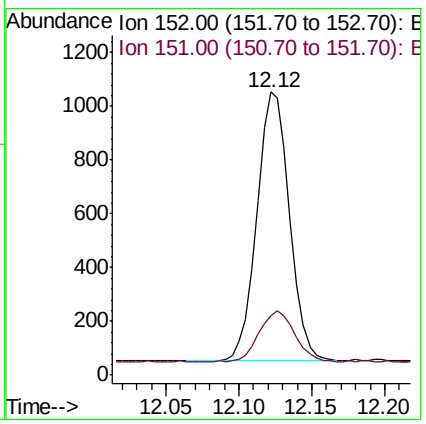


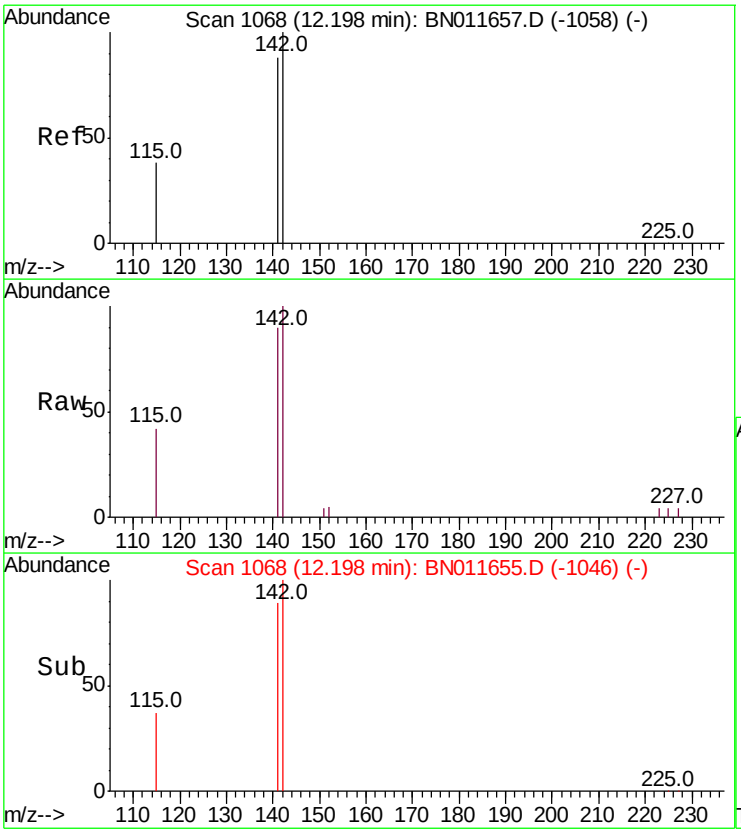
#11
2-Methylnaphthalene-d10
Concen: 0.107 ng
RT: 12.12 min Scan# 1051
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:152 Resp: 1564

Ion	Ratio	Lower	Upper
152	100		
151	20.7	16.7	25.1

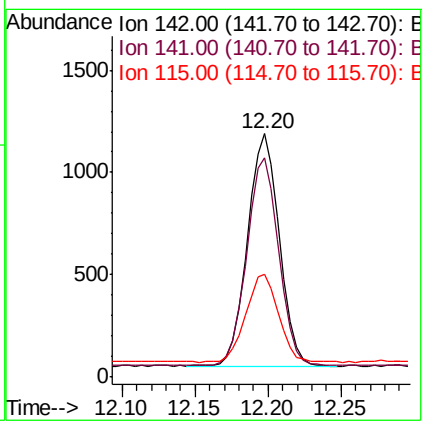


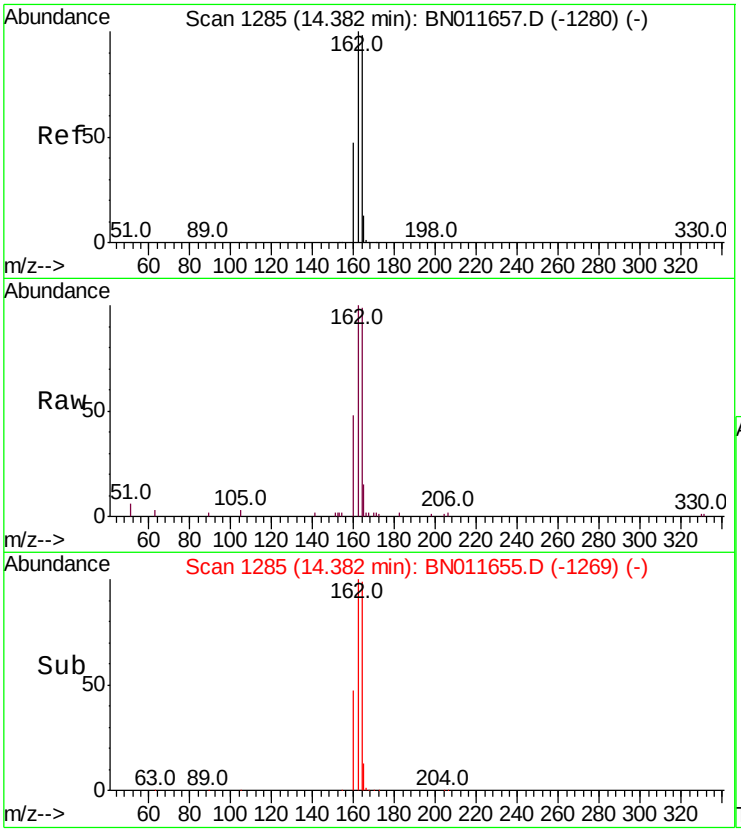


#12
2-Methylnaphthalene
Concen: 0.108 ng
RT: 12.20 min Scan# 1068
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:142 Resp: 1750

Ion	Ratio	Lower	Upper
142	100		
141	90.0	70.6	106.0
115	42.3	31.3	46.9



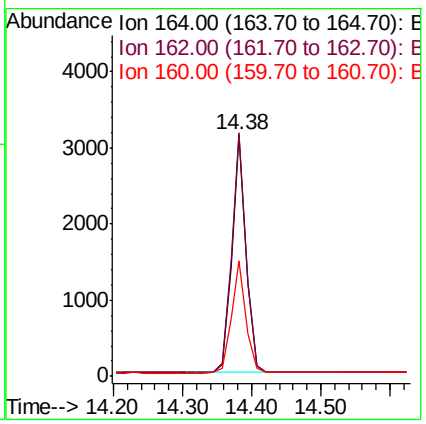


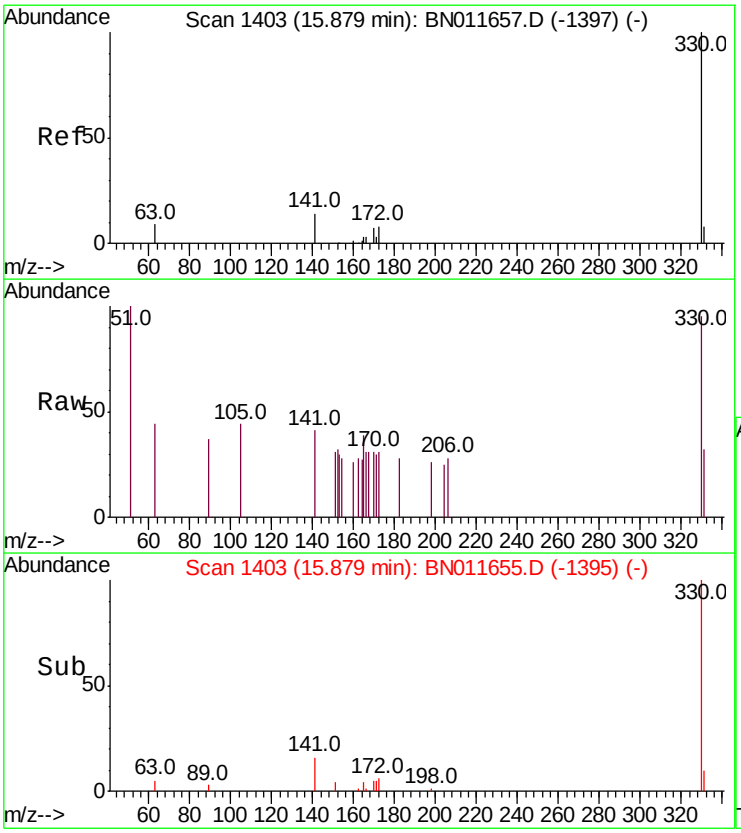
#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.38 min Scan# 1285
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:164 Resp: 4574

Ion	Ratio	Lower	Upper
164	100		
162	100.8	81.4	122.0
160	47.9	38.5	57.7

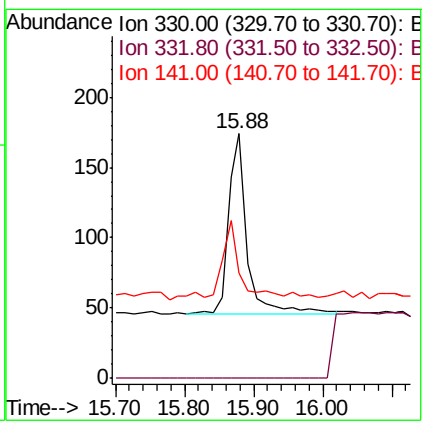


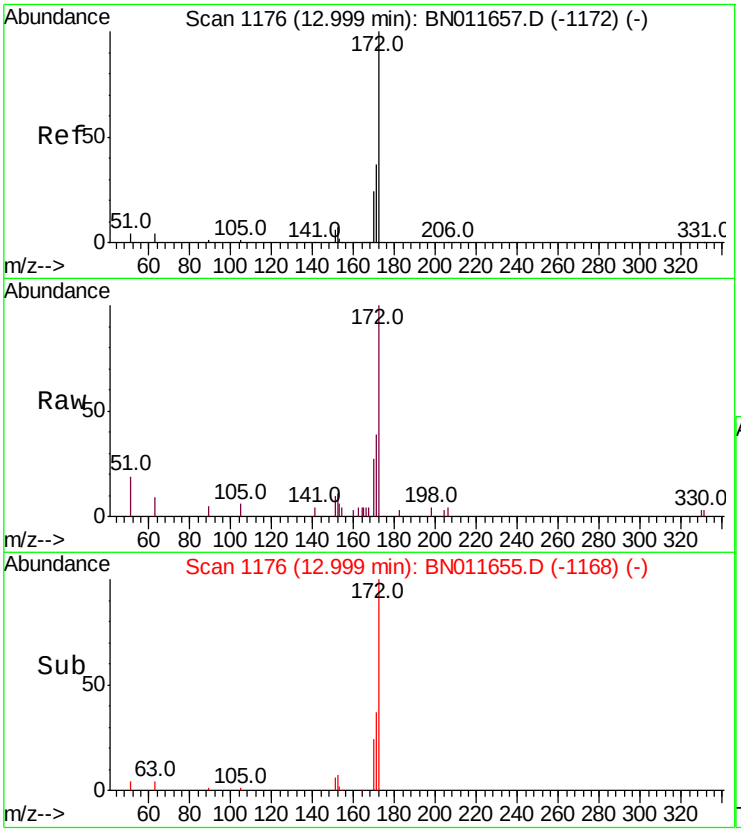


#14
2,4,6-Tribromophenol
Concen: 0.099 ng
RT: 15.88 min Scan# 1403
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:330 Resp: 249

Ion	Ratio	Lower	Upper
330	100		
332	0.0	0.0	0.0
141	36.5	30.0	45.0



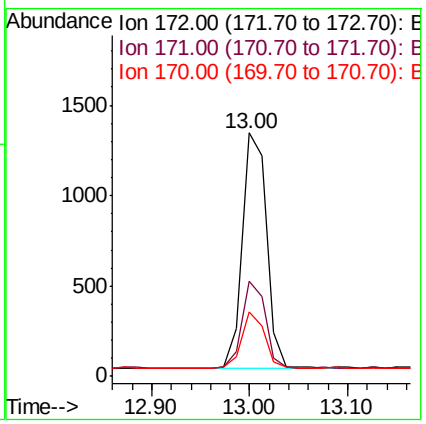


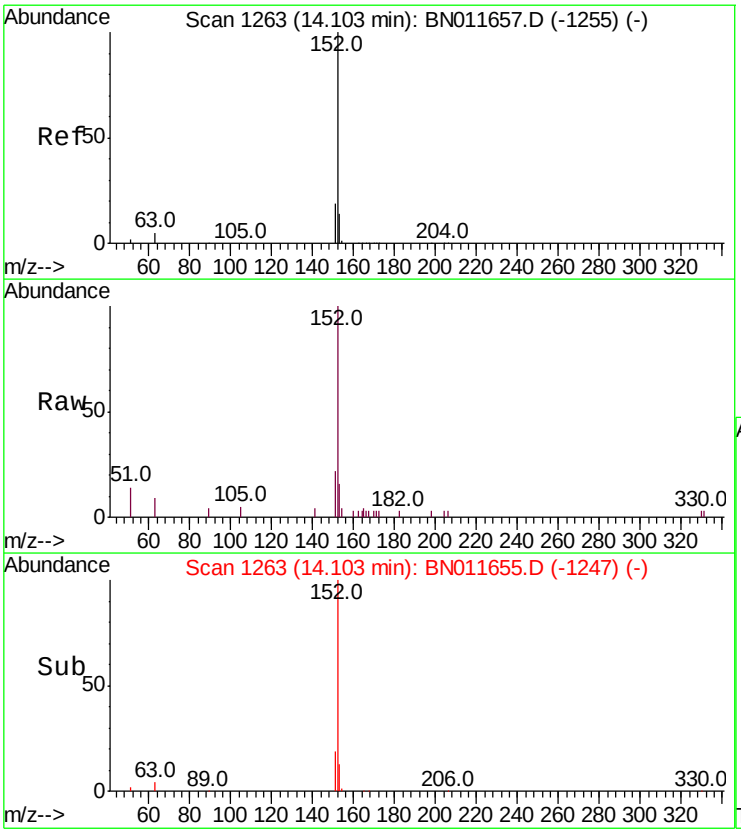
#15
2-Fluorobiphenyl
Concen: 0.125 ng
RT: 13.00 min Scan# 1176
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:172 Resp: 2234

Ion	Ratio	Lower	Upper
172	100		
171	39.3	30.0	45.0
170	26.6	20.1	30.1

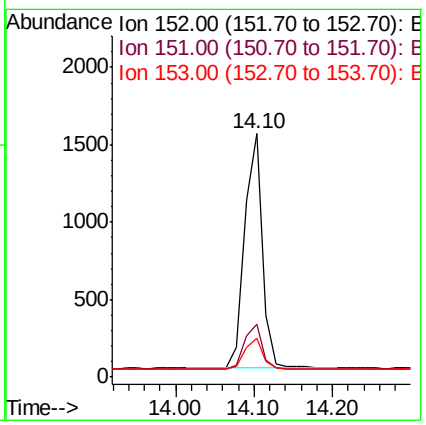


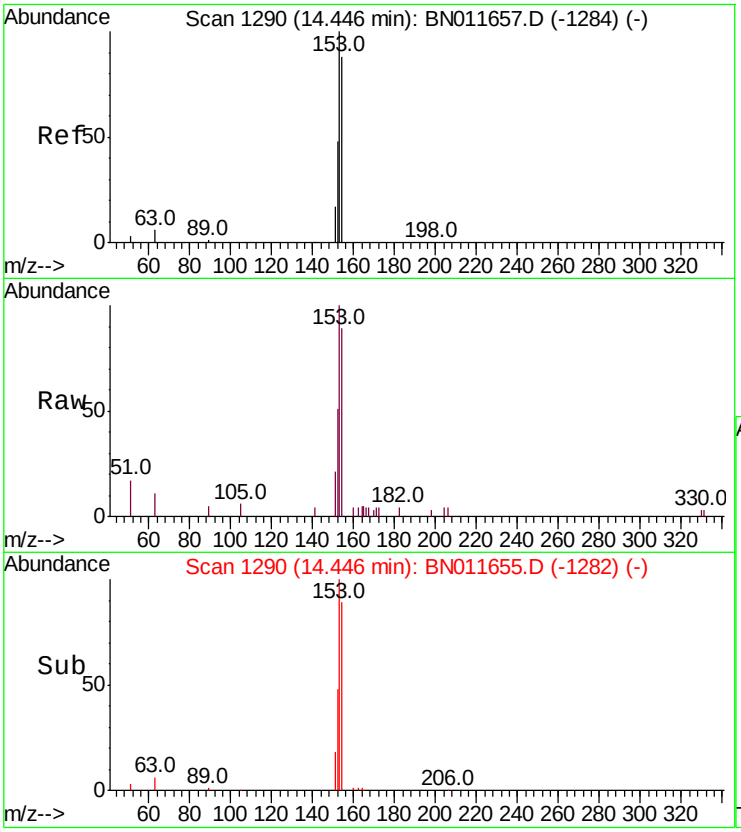


#16
Acenaphthylene
Concen: 0.100 ng
RT: 14.10 min Scan# 1263
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:152 Resp: 2419

Ion	Ratio	Lower	Upper
152	100		
151	19.6	15.6	23.4
153	14.0	10.5	15.7



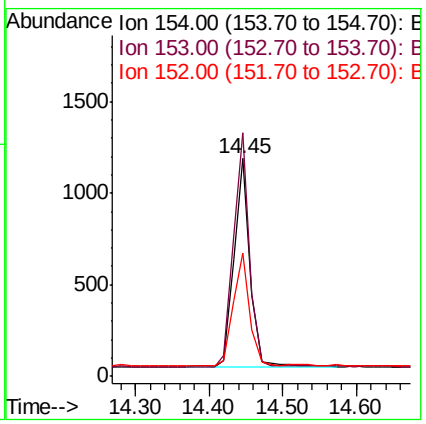


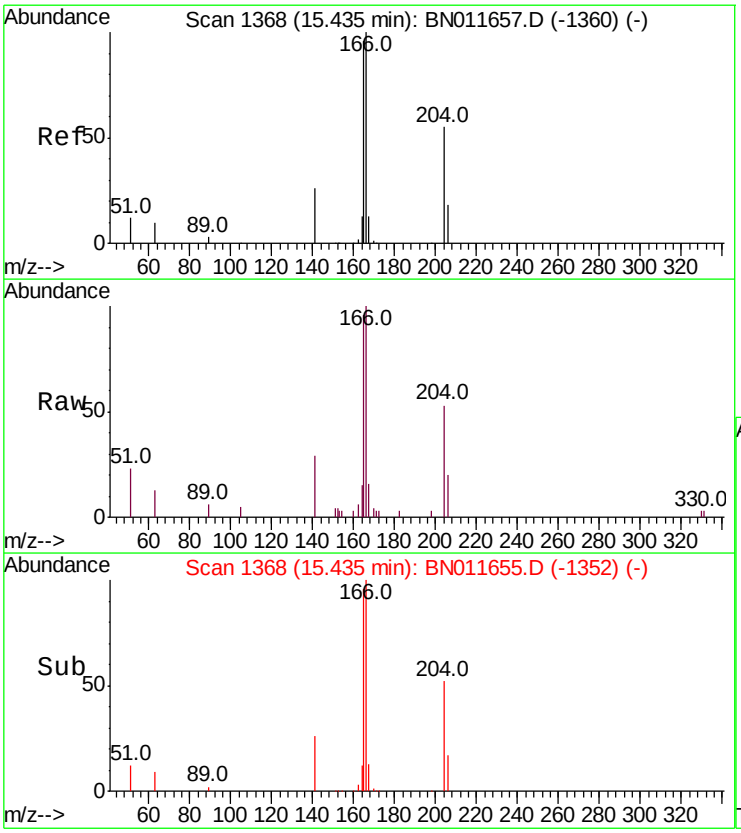
#17
Acenaphthene
Concen: 0.112 ng
RT: 14.45 min Scan# 1290
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:154 Resp: 1708

Ion	Ratio	Lower	Upper
154	100		
153	110.9	89.2	133.8
152	54.3	44.1	66.1

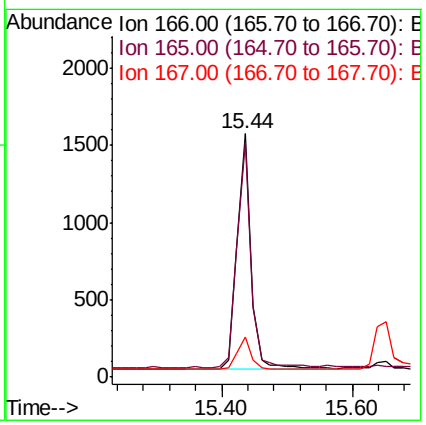


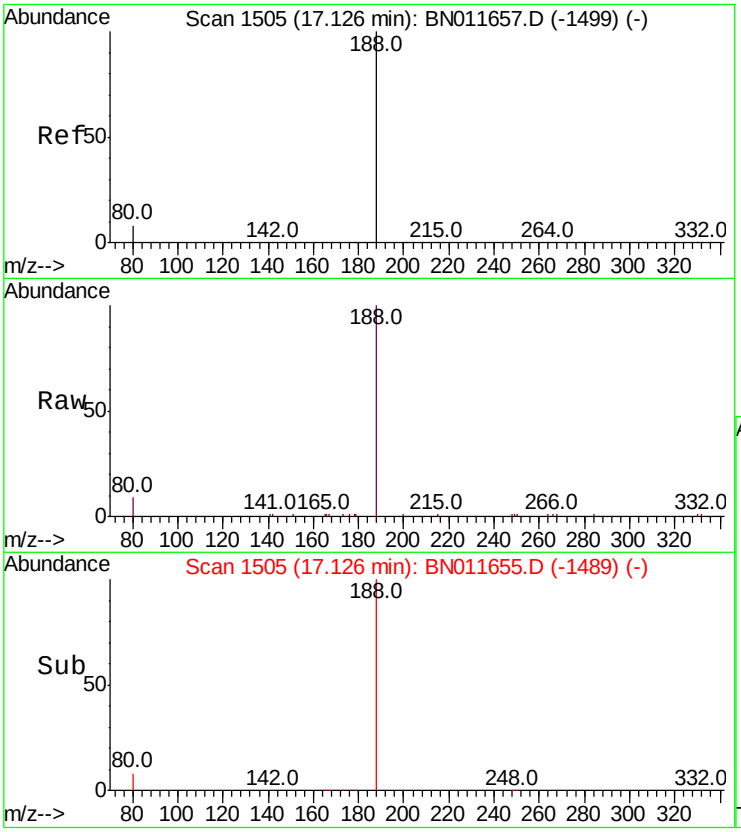


#18
Fluorene
Concen: 0.113 ng
RT: 15.44 min Scan# 1368
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:166 Resp: 2233

Ion	Ratio	Lower	Upper
166	100		
165	97.0	77.7	116.5
167	13.3	11.0	16.4



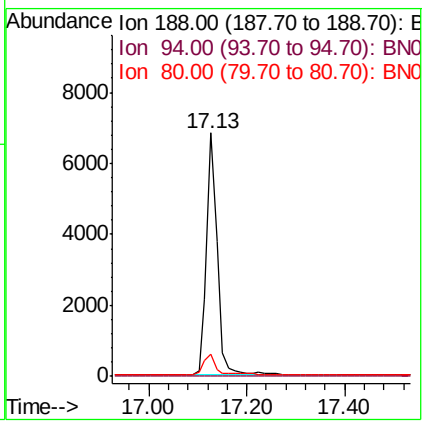


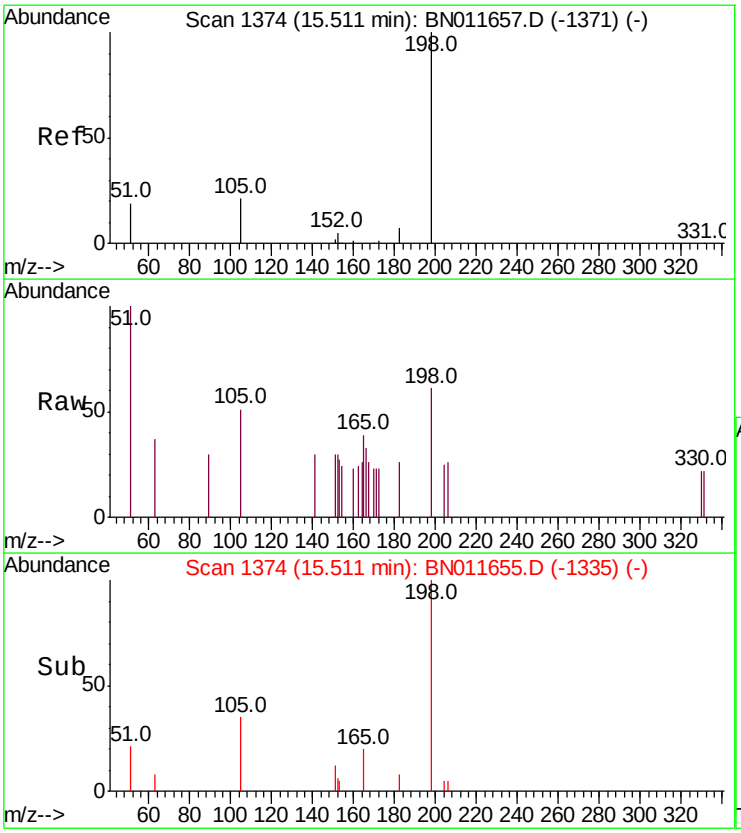
#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 17.13 min Scan# 1505
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:188 Resp: 10299

Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	8.9	6.6	9.8

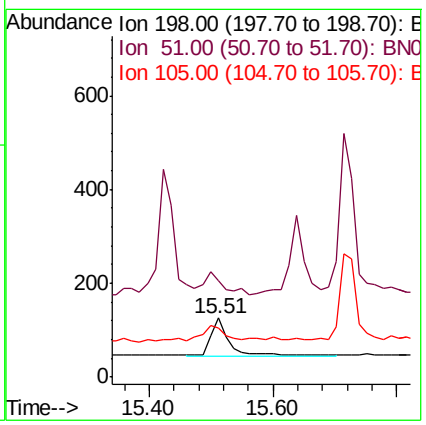


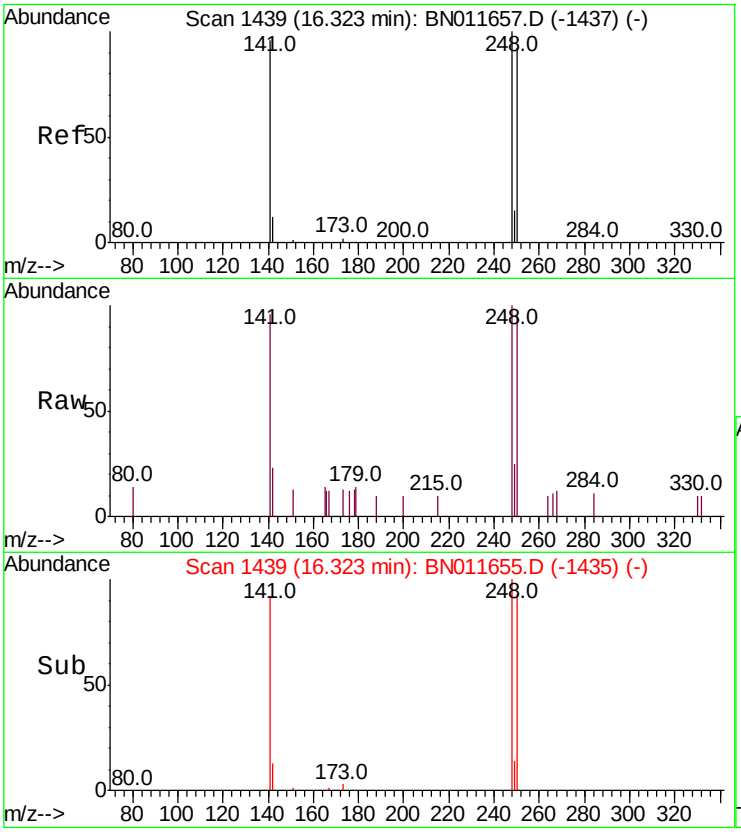


#20
4,6-Dinitro-2-methylphenol
Concen: 0.143 ng
RT: 15.51 min Scan# 1374
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:198 Resp: 170

Ion	Ratio	Lower	Upper
198	100		
51	164.0	58.6	87.8#
105	83.2	31.7	47.5#



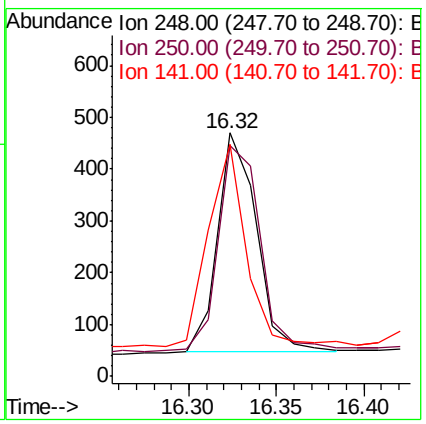


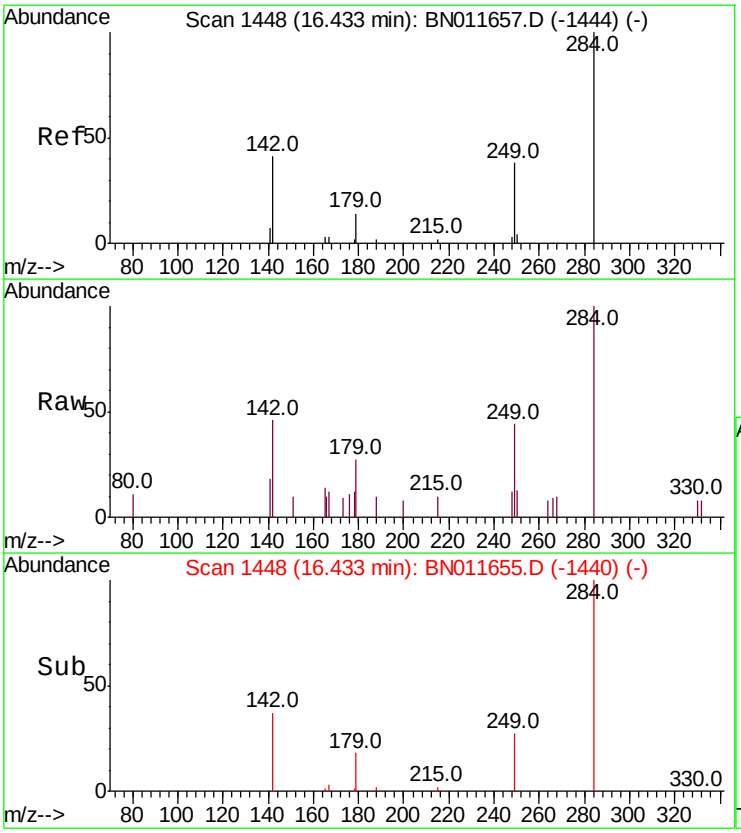
#21
4-Bromophenyl-phenylether
Concen: 0.108 ng
RT: 16.32 min Scan# 1439
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:248 Resp: 650

Ion	Ratio	Lower	Upper
248	100		
250	94.7	73.9	110.9
141	95.5	79.8	119.6

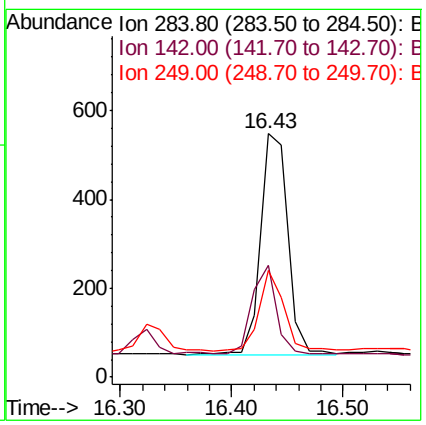


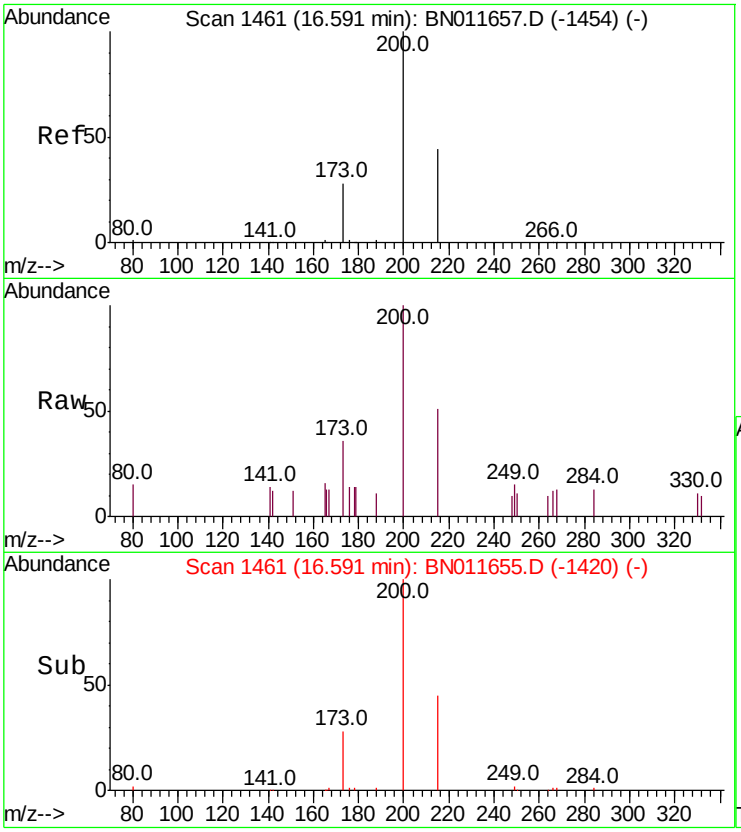


#22
Hexachlorobenzene
Concen: 0.122 ng
RT: 16.43 min Scan# 1448
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:284 Resp: 848

Ion	Ratio	Lower	Upper
284	100		
142	36.2	29.0	43.4
249	32.7	25.7	38.5



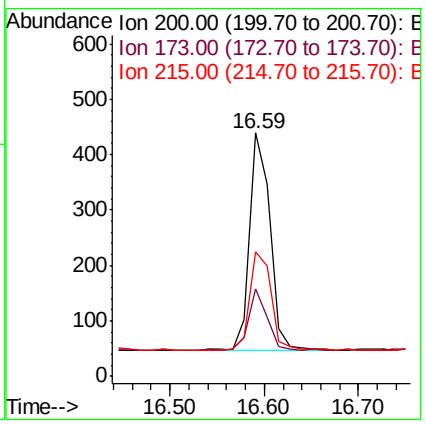


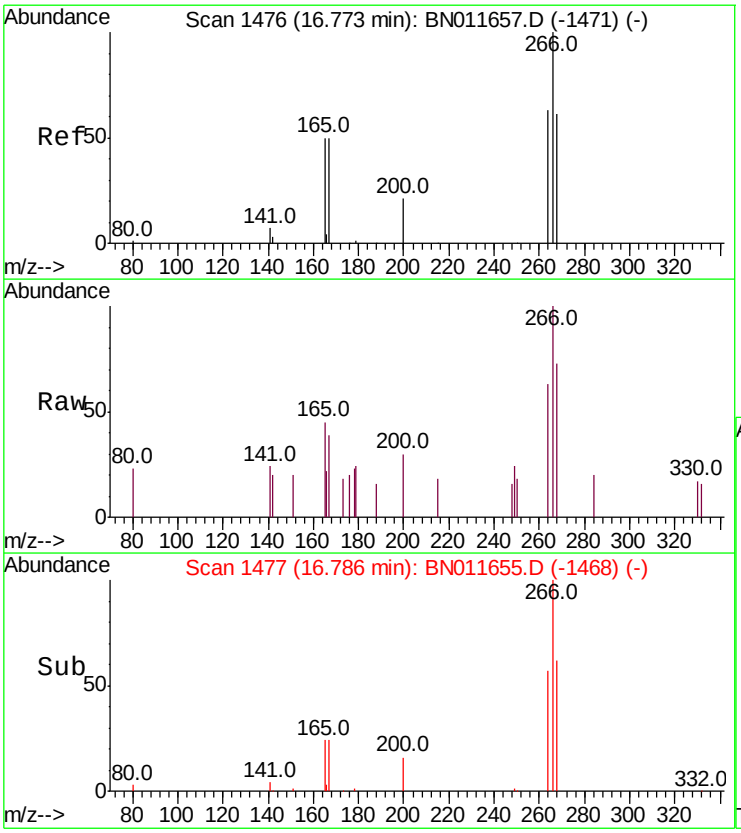
#23
Atrazine
Concen: 0.101 ng
RT: 16.59 min Scan# 1461
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:200 Resp: 601

Ion	Ratio	Lower	Upper
200	100		
173	36.0	24.3	36.5
215	51.3	36.4	54.6

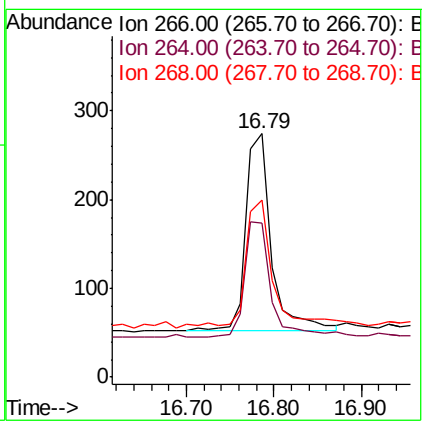


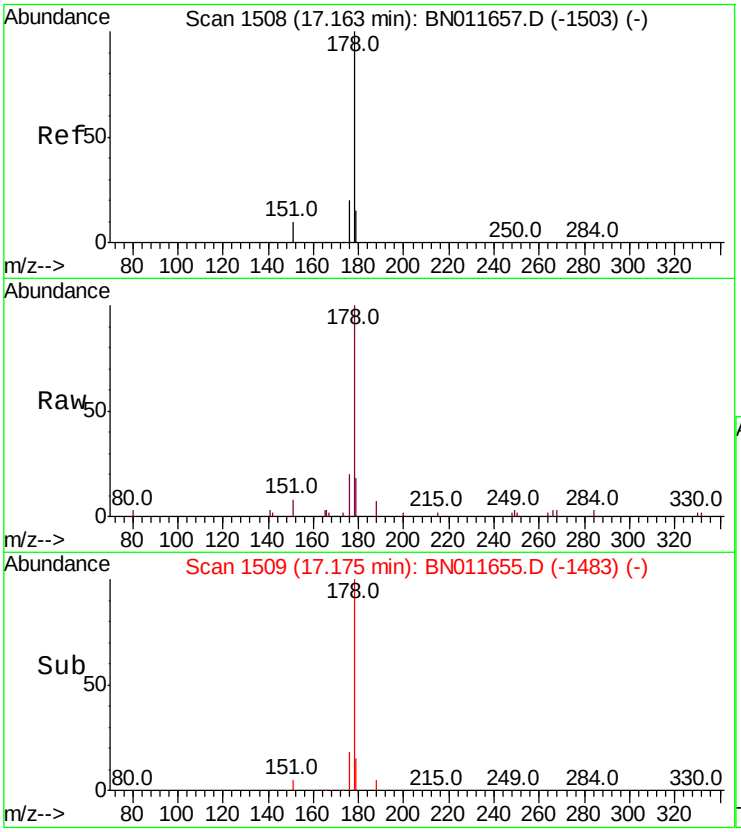


#24
Pentachlorophenol
Concen: 0.147 ng
RT: 16.79 min Scan# 1477
Delta R.T. 0.01 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:266 Resp: 452

Ion	Ratio	Lower	Upper
266	100		
264	59.1	49.5	74.3
268	65.9	53.0	79.4



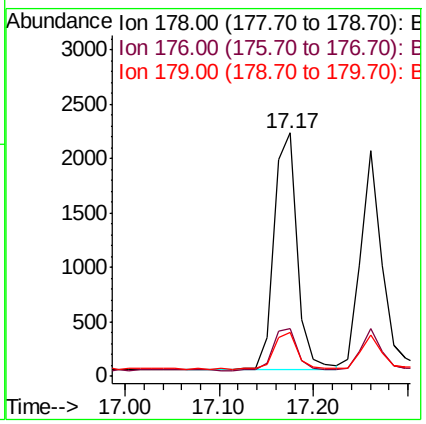


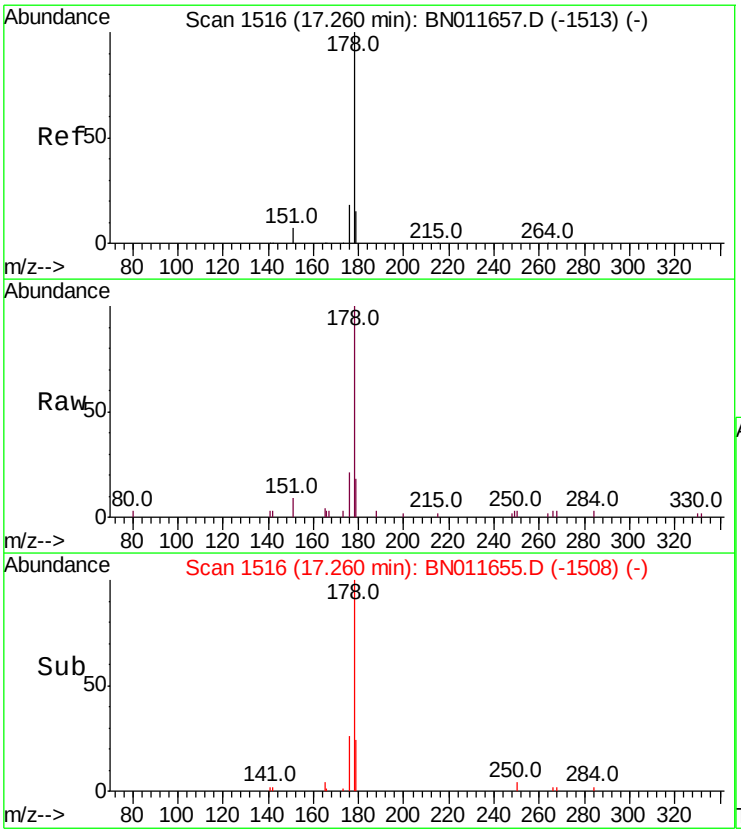
#25
Phenanthrene
Concen: 0.116 ng
RT: 17.17 min Scan# 1509
Delta R.T. 0.01 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:178 Resp: 3706

Ion	Ratio	Lower	Upper
178	100		
176	18.6	15.2	22.8
179	15.5	12.4	18.6

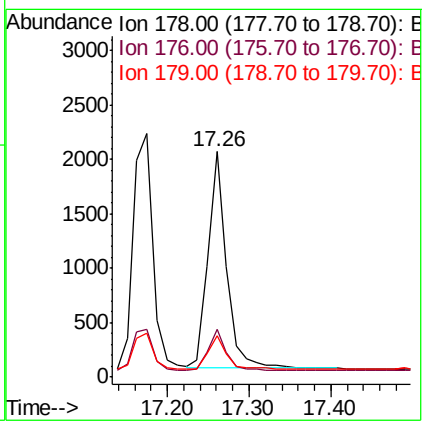


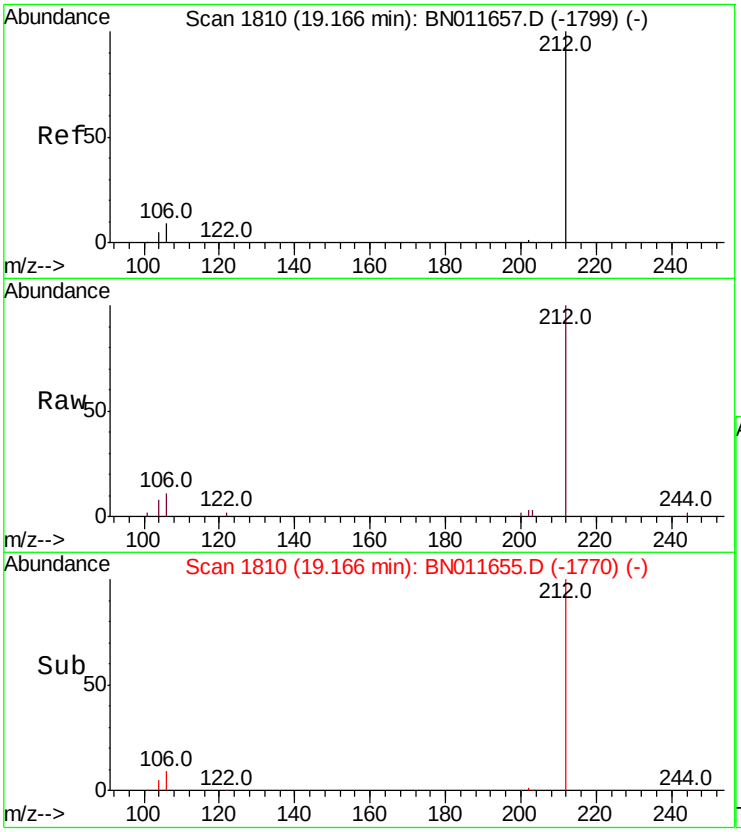


#26
Anthracene
Concen: 0.101 ng
RT: 17.26 min Scan# 1516
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:178 Resp: 3175

Ion	Ratio	Lower	Upper
178	100		
176	18.6	14.5	21.7
179	15.5	12.2	18.4



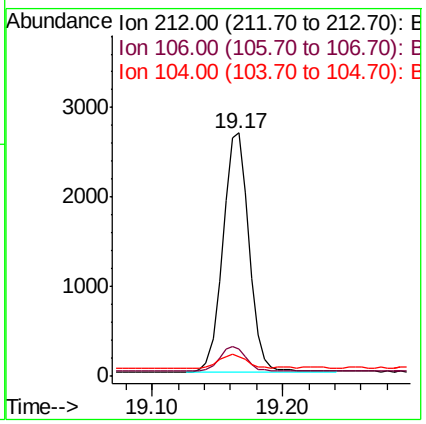


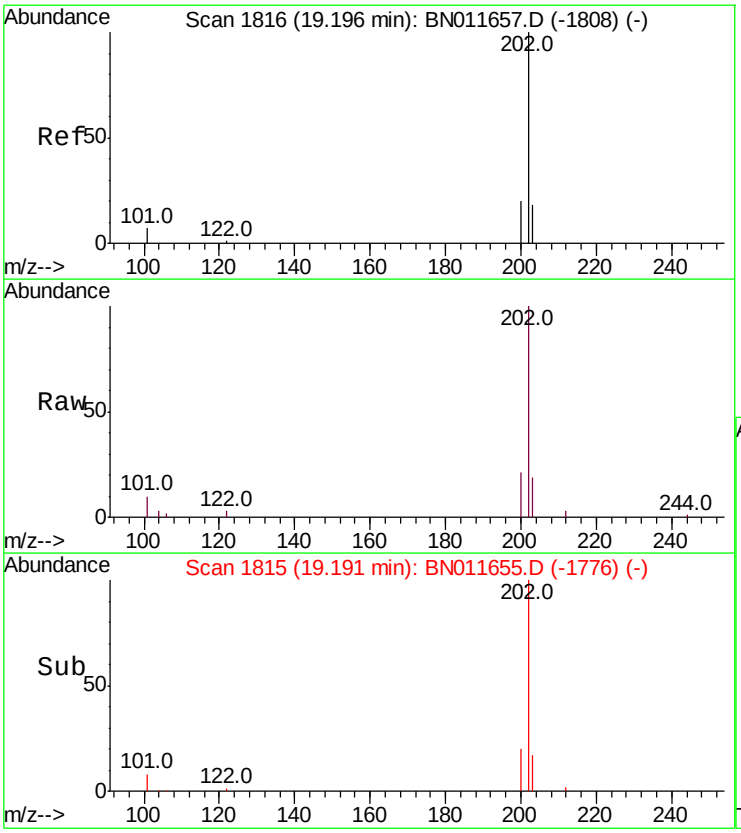
#27
Fluoranthene-d10
Concen: 0.111 ng
RT: 19.17 min Scan# 1810
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:212 Resp: 3718

Ion	Ratio	Lower	Upper
212	100		
106	10.2	7.6	11.4
104	6.0	4.6	6.8

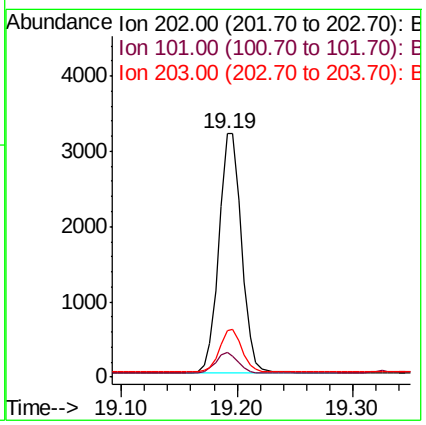


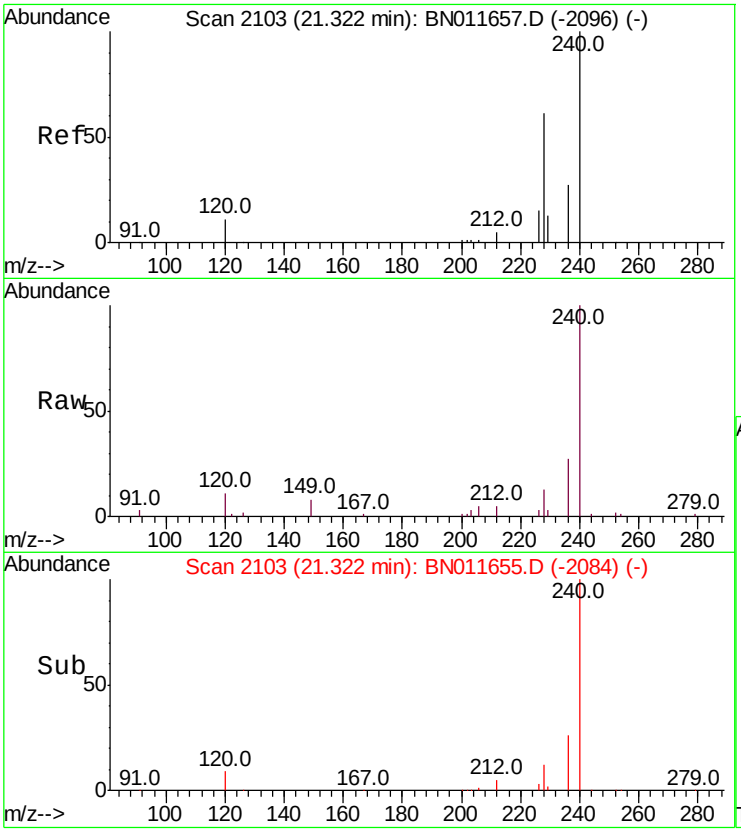


#28
Fluoranthene
Concen: 0.112 ng
RT: 19.19 min Scan# 1815
Delta R.T. -0.01 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:202 Resp: 4327

Ion	Ratio	Lower	Upper
202	100		
101	8.2	6.5	9.7
203	17.2	13.8	20.6



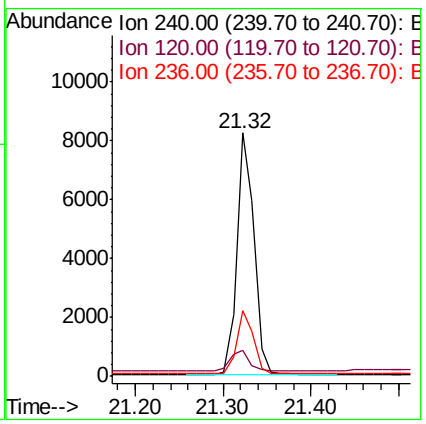


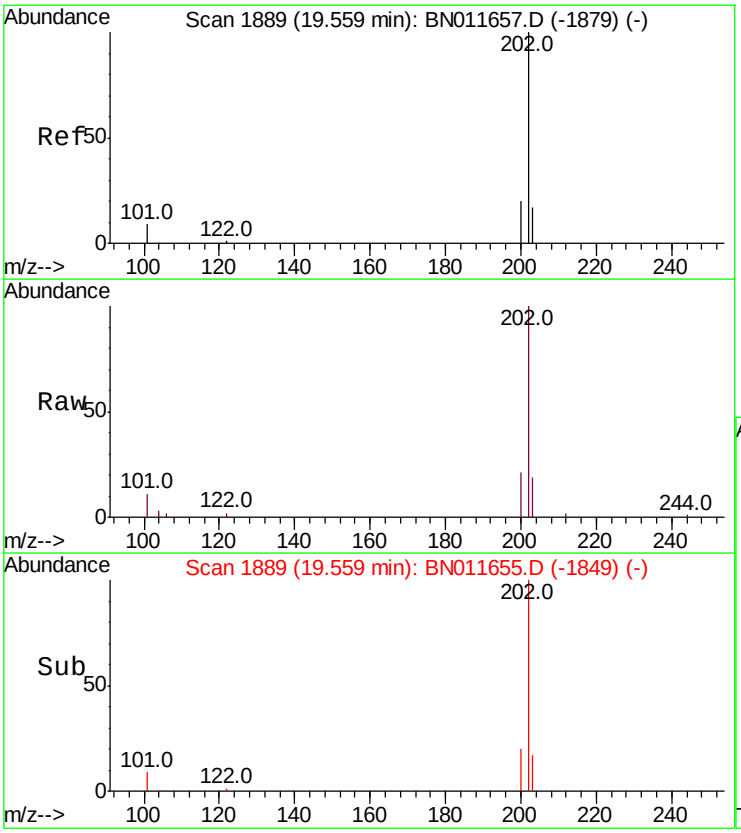
#29
Chrysene-d12
Concen: 0.400 ng
RT: 21.32 min Scan# 2103
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:240 Resp: 11063

Ion	Ratio	Lower	Upper
240	100		
120	10.9	9.9	14.9
236	26.7	22.2	33.4

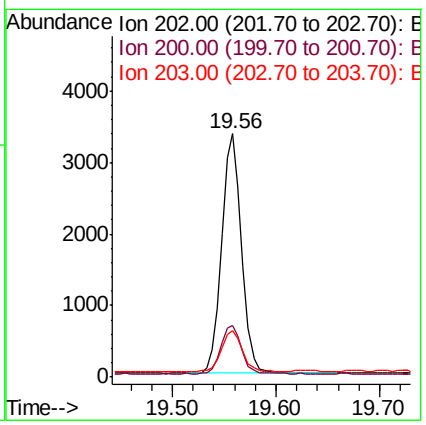


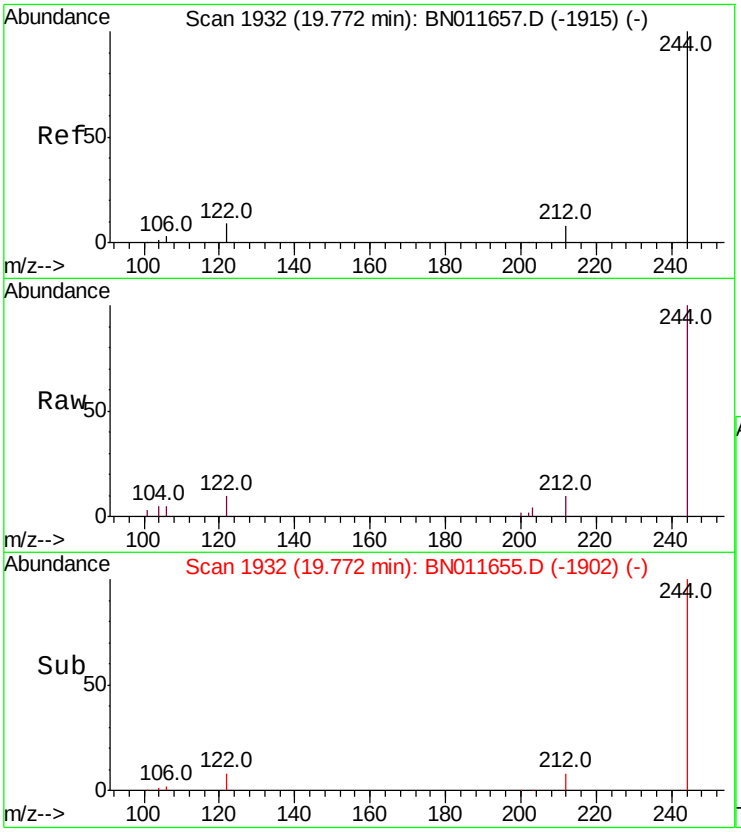


#30
Pyrene
Concen: 0.113 ng
RT: 19.56 min Scan# 1889
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:202 Resp: 4415

Ion	Ratio	Lower	Upper
202	100		
200	20.7	16.3	24.5
203	17.9	14.1	21.1



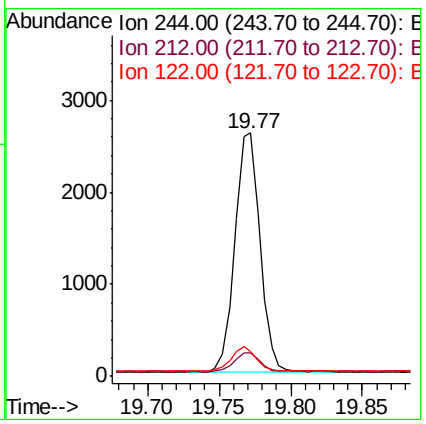


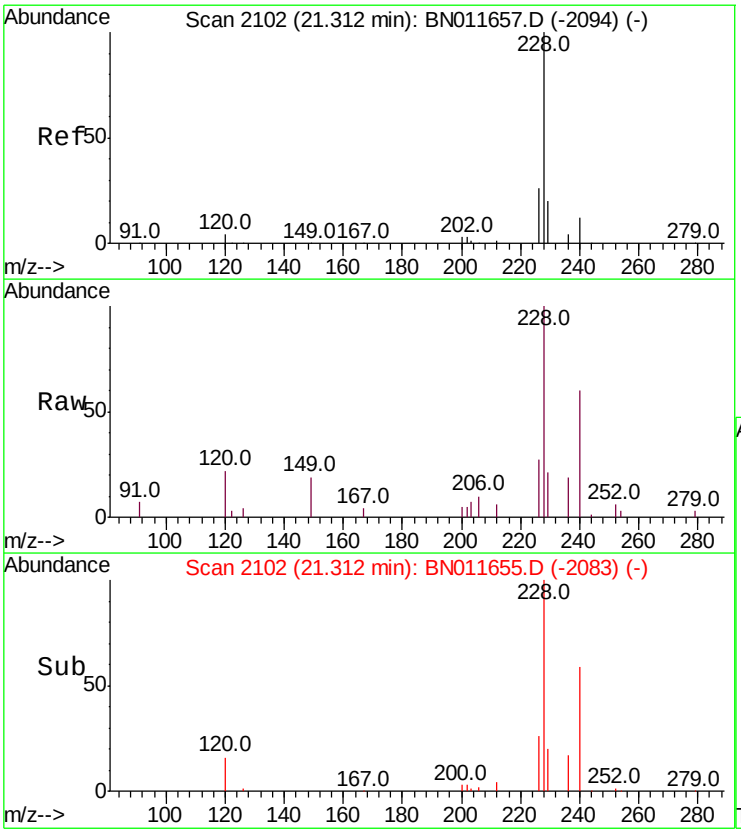
#31
Terphenyl-d14
Concen: 0.113 ng
RT: 19.77 min Scan# 1932
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:244 Resp: 3197

Ion	Ratio	Lower	Upper
244	100		
212	9.9	6.5	9.7#
122	10.2	7.4	11.2

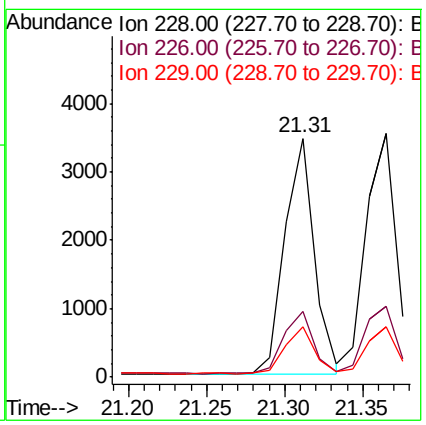


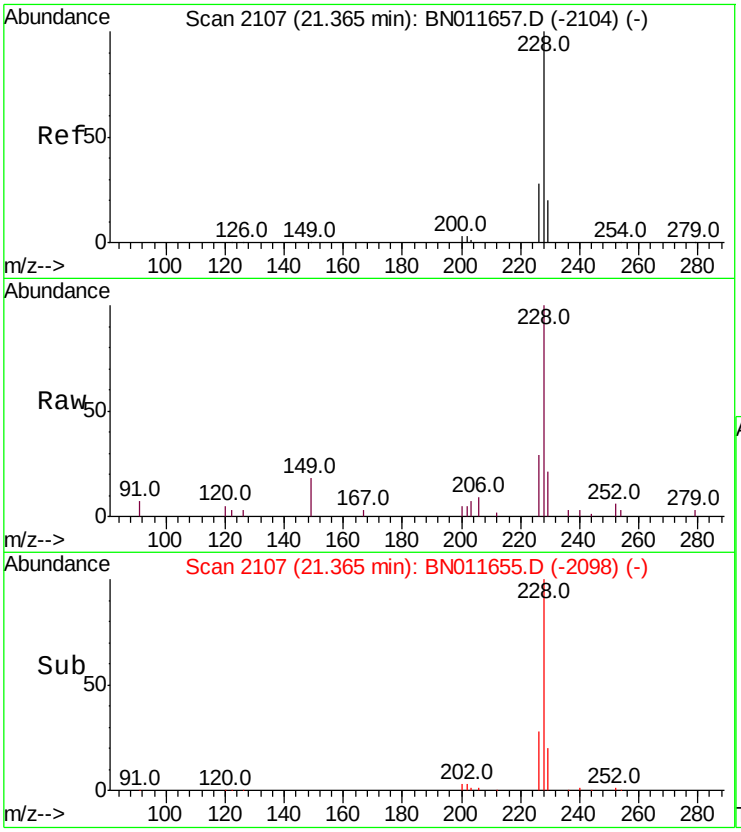


#32
Benzo(a)anthracene
Concen: 0.113 ng
RT: 21.31 min Scan# 2102
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:228 Resp: 4494

Ion	Ratio	Lower	Upper
228	100		
226	27.3	21.2	31.8
229	21.3	16.0	24.0



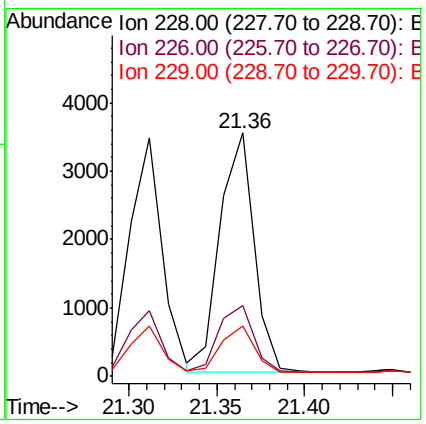


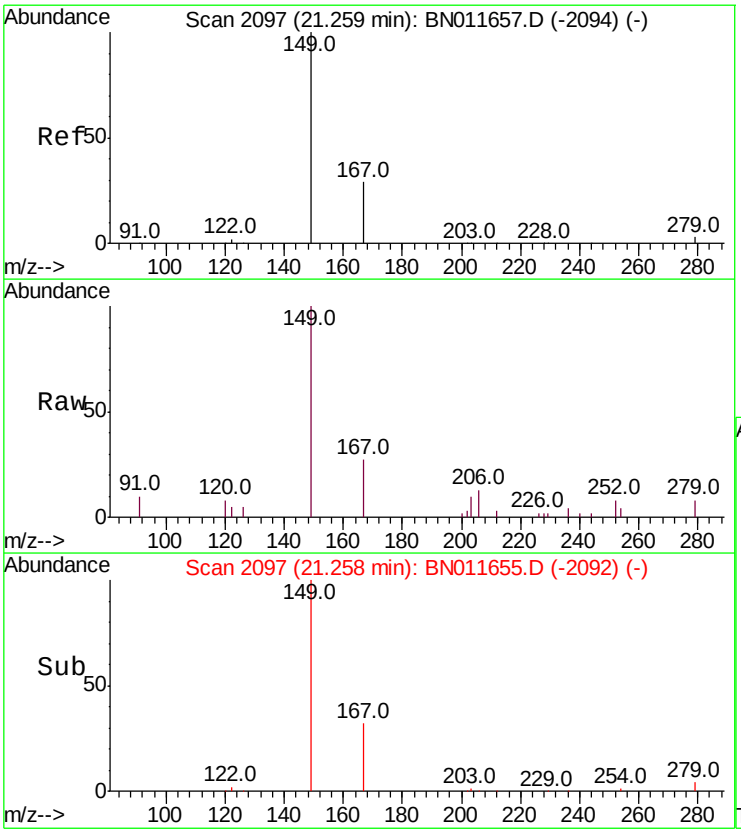
#33
Chrysene
Concen: 0.123 ng
RT: 21.36 min Scan# 2107
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:228 Resp: 4691

Ion	Ratio	Lower	Upper
228	100		
226	29.1	22.7	34.1
229	20.7	15.9	23.9

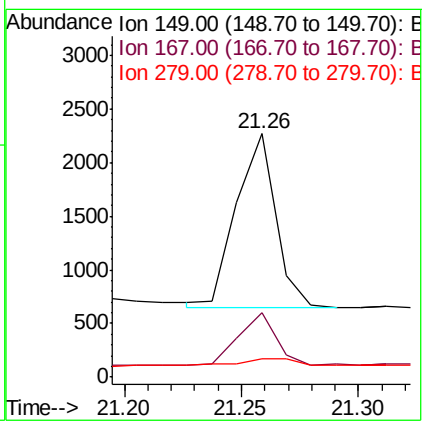


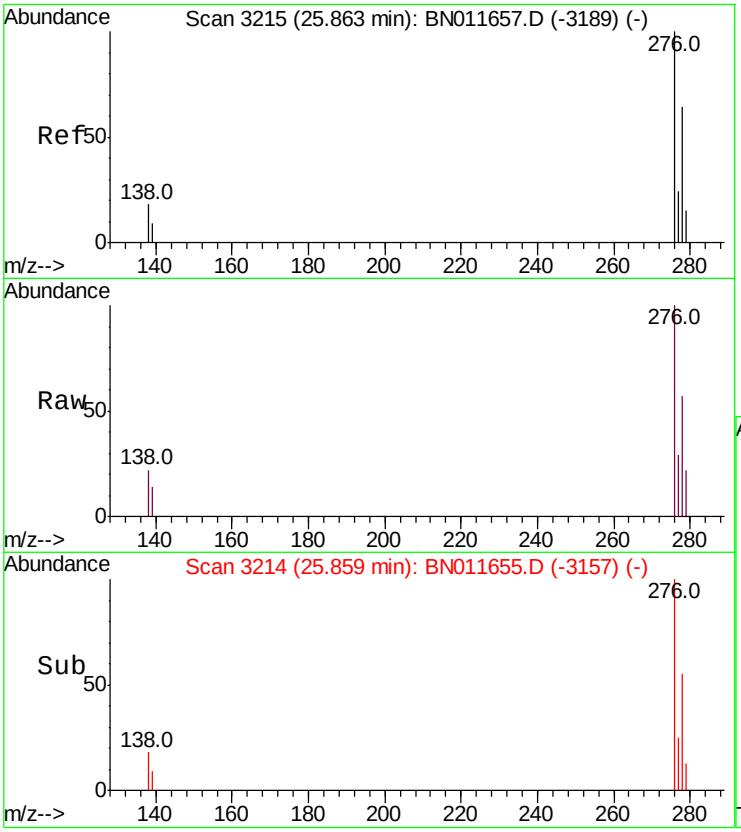


#34
Bis(2-ethylhexyl)phthalate
Concen: 0.066 ng
RT: 21.26 min Scan# 2097
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:149 Resp: 1884

Ion	Ratio	Lower	Upper
149	100		
167	29.0	23.2	34.8
279	5.5	4.0	6.0



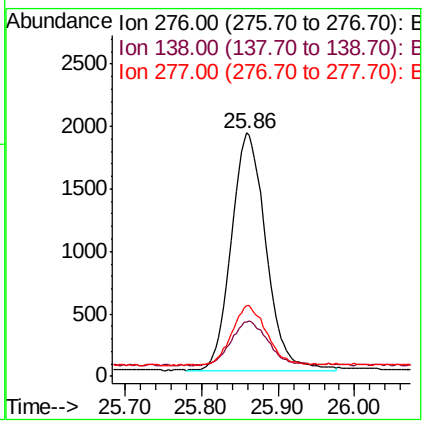


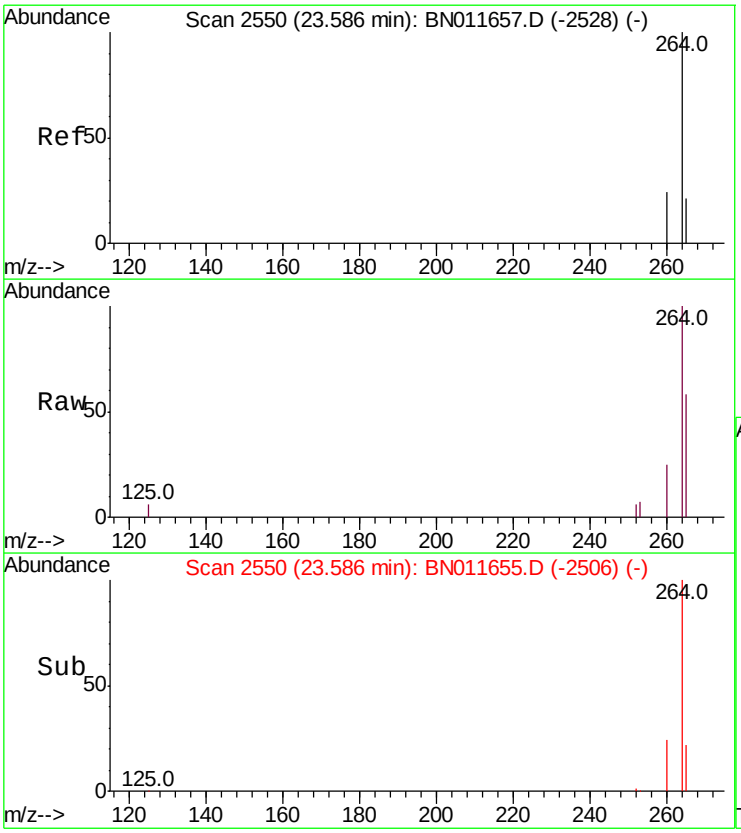
#35
Indeno(1,2,3-cd)pyrene
Concen: 0.128 ng
RT: 25.86 min Scan# 3214
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:276 Resp: 5953

Ion	Ratio	Lower	Upper
276	100		
138	20.9	15.4	23.2
277	25.2	20.1	30.1

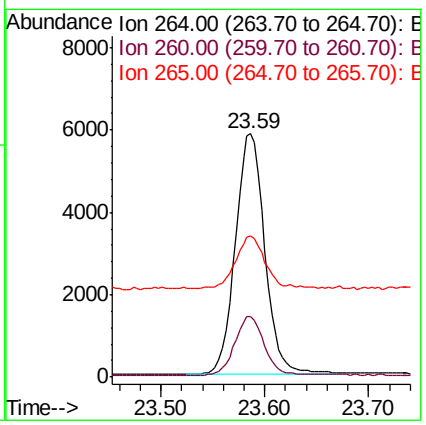


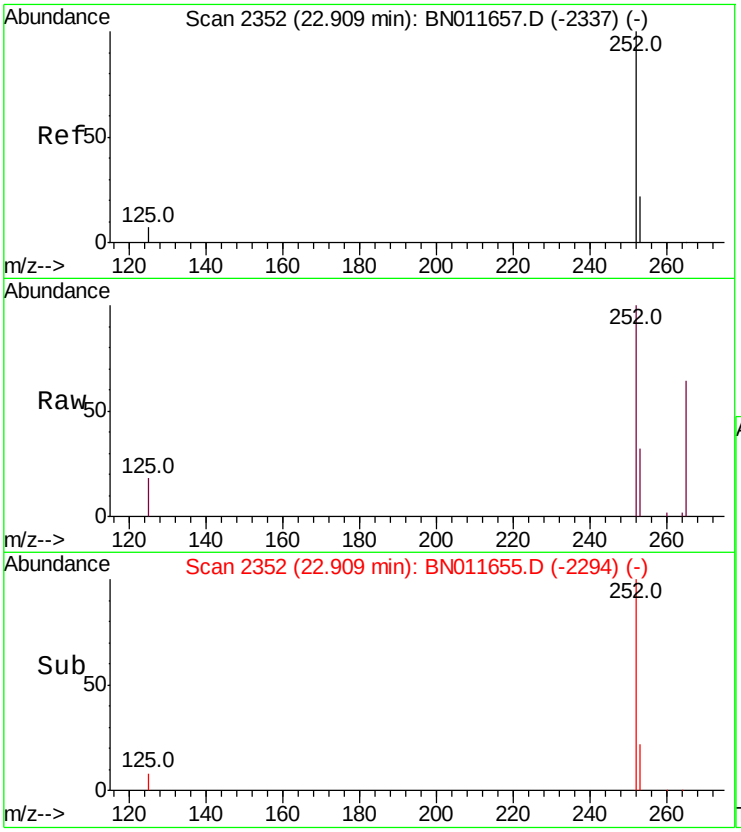


#36
Perylene-d12
Concen: 0.400 ng
RT: 23.59 min Scan# 2550
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:264 Resp: 11456

Ion	Ratio	Lower	Upper
264	100		
260	24.8	19.8	29.6
265	57.9	38.9	58.3



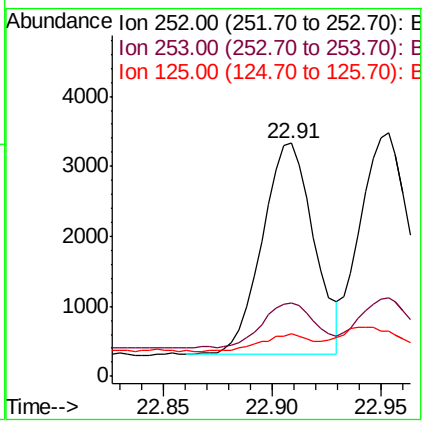


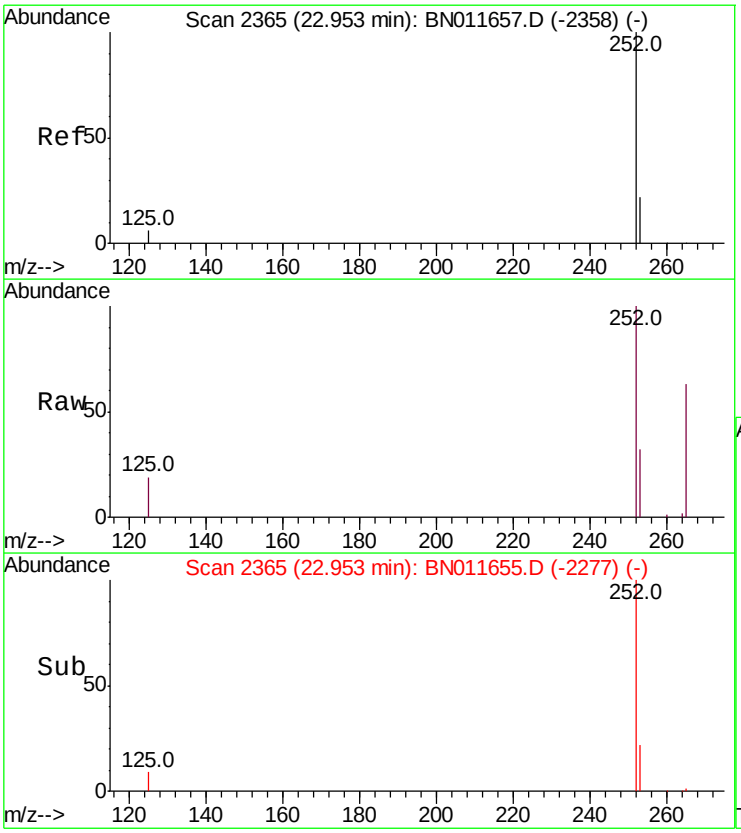
#37
Benzo(b)fluoranthene
Concen: 0.120 ng
RT: 22.91 min Scan# 2352
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:252 Resp: 4991

Ion	Ratio	Lower	Upper
252	100		
253	31.8	19.7	29.5#
125	18.3	7.8	11.8#

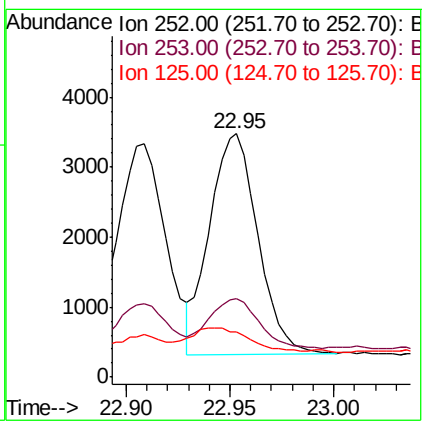


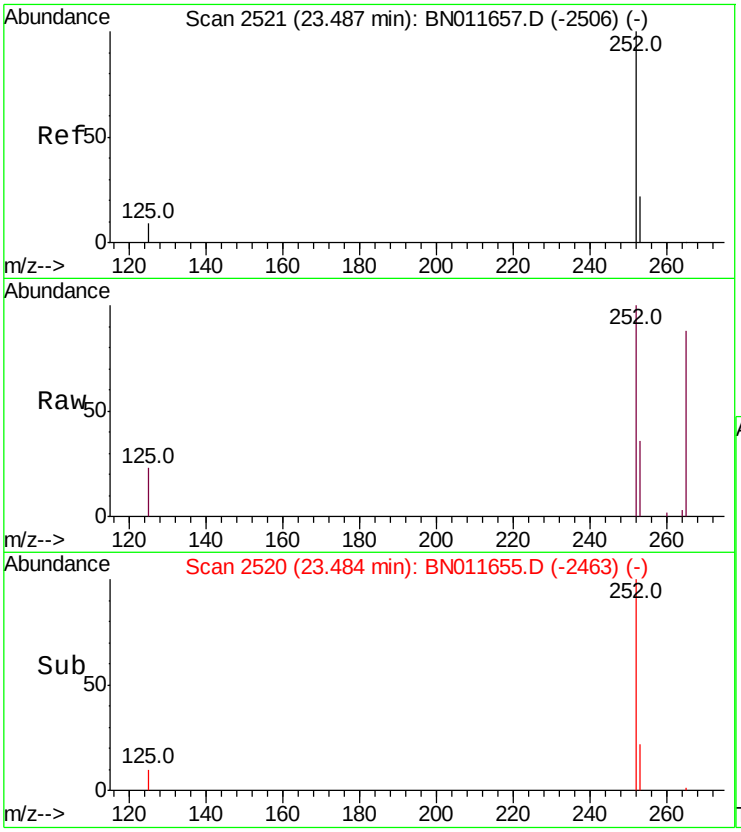


#38
Benzo(k)fluoranthene
Concen: 0.123 ng
RT: 22.95 min Scan# 2365
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:252 Resp: 5082

Ion	Ratio	Lower	Upper
252	100		
253	32.1	19.4	29.0#
125	18.8	8.4	12.6#



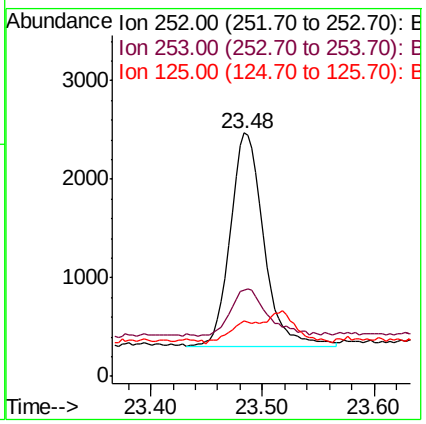


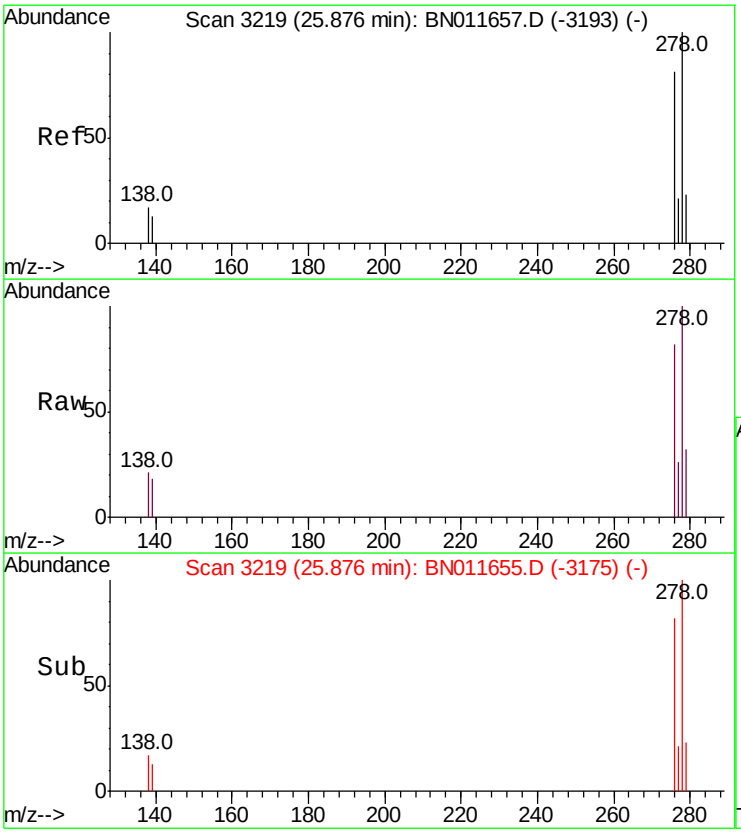
#39
Benzo(a)pyrene
Concen: 0.116 ng
RT: 23.48 min Scan# 2520
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:252 Resp: 4482

Ion	Ratio	Lower	Upper
252	100		
253	35.6	20.3	30.5#
125	22.6	9.8	14.6#

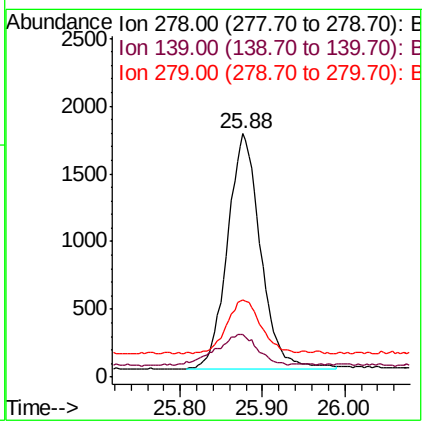


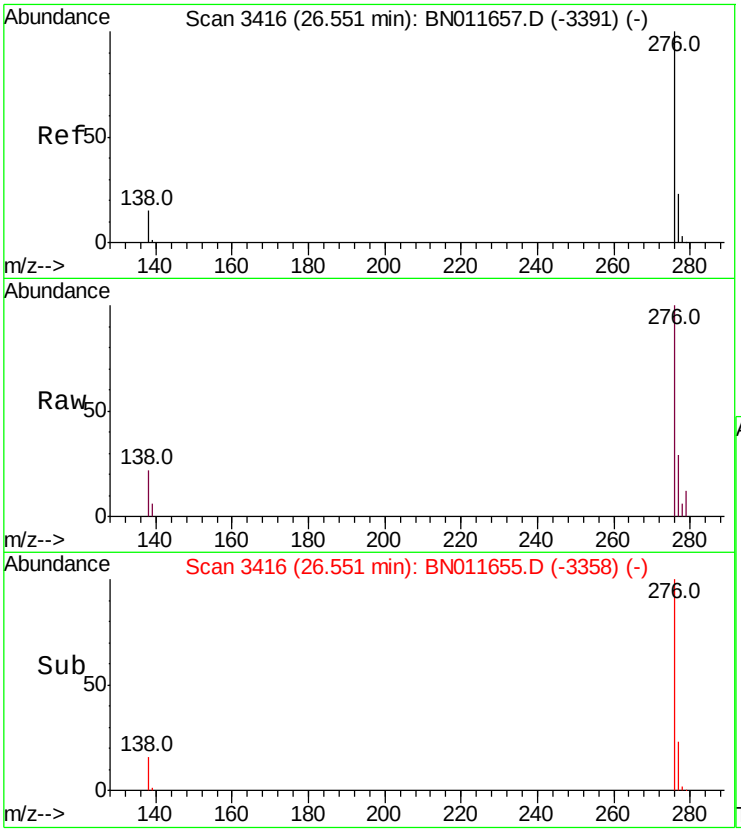


#40
Dibenzo(a,h)anthracene
Concen: 0.120 ng
RT: 25.88 min Scan# 3219
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Tgt Ion:278 Resp: 4855

Ion	Ratio	Lower	Upper
278	100		
139	17.6	11.0	16.6#
279	31.7	20.5	30.7#





#41
Benzo(g,h,i)perylene
Concen: 0.122 ng
RT: 26.55 min Scan# 3416
Delta R.T. -0.00 min
Lab File: BN011655.D
Acq: 27 Aug 2020 09:37

Instrument :
BNA_N
ClientSampleId :
SSTDICC0.1

Tgt Ion:276 Resp: 4806

Ion	Ratio	Lower	Upper
276	100		
277	28.5	19.7	29.5
138	21.9	13.4	20.2#