

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080118\
 Data File : BF107894.D
 Acq On : 1 Aug 2018 17:34
 Operator : JU/SJ
 Sample : J4231-13DL 5X
 Misc :
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 2018-NYSEG-CLARK-AREA-14-7DL

Manual Integrations
 APPROVED

Sohil
 8/2/2018 9:17:17 AM

Quant Time: Aug 01 18:24:55 2018
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073018.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Mon Jul 30 17:48:53 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.97	152	100546	20.00	ng	0.00
21) Naphthalene-d8	8.24	136	464705	20.00	ng	0.00
38) Acenaphthene-d10	10.00	164	186790	20.00	ng	0.00
63) Phenanthrene-d10	11.50	188	368499	20.00	ng	0.00
75) Chrysene-d12	14.15	240	383531	20.00	ng	0.00
86) Perylene-d12	15.69	264	384650	20.00	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.61	112	106893m	18.07	ng	0.01
7) Phenol-d6	6.62	99	161374	20.70	ng	0.01
23) Nitrobenzene-d5	7.55	82	102203m	12.67	ng	0.02
41) 2,4,6-Tribromophenol	10.80	330	47047	18.54	ng	0.00
44) 2-Fluorobiphenyl	9.31	172	215592	16.08	ng	0.00
78) Terphenyl-d14	13.08	244	238118	13.46	ng	0.00
Target Compounds						
31) Naphthalene	8.27	128	325455	15.066	ng	99
37) 2-Methylnaphthalene	8.96	142	111881	8.245	ng	97
45) 1,1'-Biphenyl	9.42	154	53782	3.164	ng	95
48) Acenaphthylene	9.87	152	43671	2.197	ng	97
51) Acenaphthene	10.04	154	252607	21.882	ng	99
57) Fluorene	10.55	166	129270	9.322	ng	97
70) Phenanthrene	11.52	178	830380	47.457	ng	99
71) Anthracene	11.58	178	267986	13.278	ng	99
74) Fluoranthene	12.72	202	692171	33.672	ng	96
77) Pyrene	12.95	202	793014	28.714	ng	97
80) Benzo(a)anthracene	14.14	228	321750m	14.810	ng	
82) Chrysene	14.18	228	237589	10.139	ng	98
83) Bis(2-ethylhexyl)phthalate	14.09	149	44570	2.931	ng	99
85) Indeno(1,2,3-cd)pyrene	17.27	276	93098	5.223	ng	# 86
87) Benzo(b)fluoranthene	15.23	252	255615m	13.474	ng	
88) Benzo(k)fluoranthene	15.25	252	136610m	5.865	ng	
89) Benzo(a)pyrene	15.62	252	255669	13.055	ng	99
91) Benzo(g,h,i)perylene	17.75	276	88271	5.340	ng	93

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

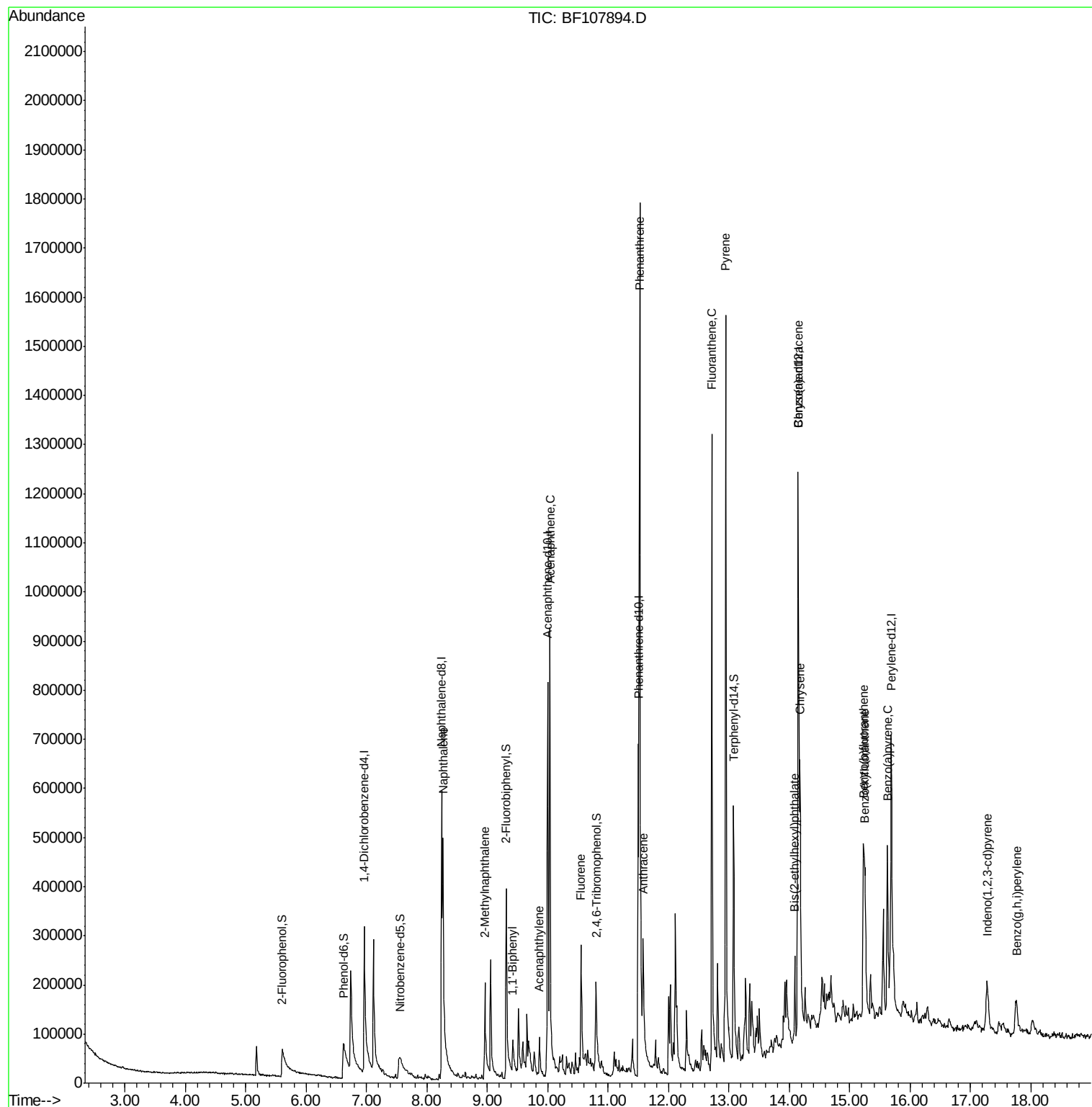
Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF080118\
Data File : BF107894.D
Acq On : 1 Aug 2018 17:34
Operator : JU/SJ
Sample : J4231-13DL 5X
Misc :
ALS Vial : 13 Sample Multiplier: 1

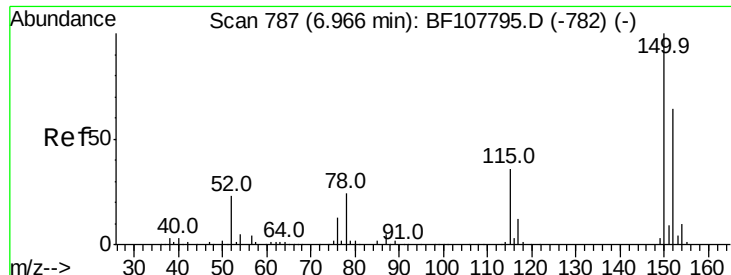
Instrument :
BNA_F
ClientSampleId :
2018-NYSEG-CLARK-AREA-14-7DL

Manual Integrations
APPROVED

Sohil
8/2/2018 9:17:17 AM

Quant Time: Aug 01 18:24:55 2018
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF073018.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Jul 30 17:48:53 2018
Response via : Initial Calibration





#1

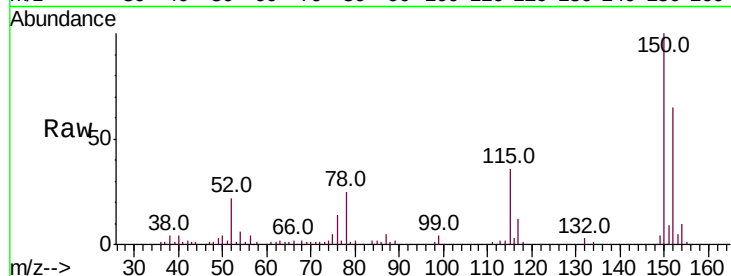
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.97 min Scan# 787
Delta R.T. 0.00 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Instrument :
BNA_F
ClientSampleId :
2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion	Ratio	Lower	Upper
152	100		
150	154.0	124.6	186.8
115	56.1	50.1	75.1

Manual Integrations
APPROVED

Sohil
8/2/2018 9:17:17 AM

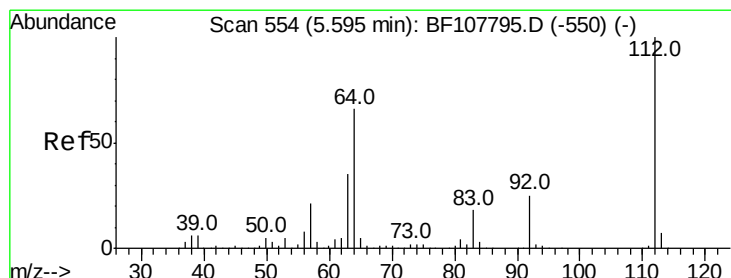
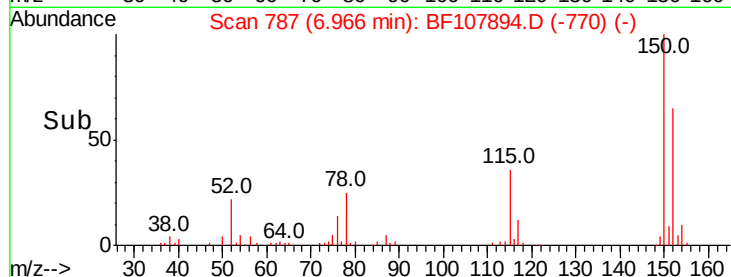
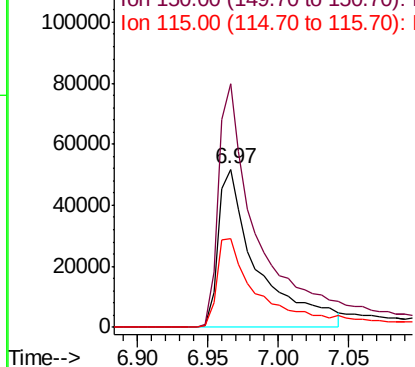


Abundance

Ion 152.00 (151.70 to 152.70): E

Ion 150.00 (149.70 to 150.70): E

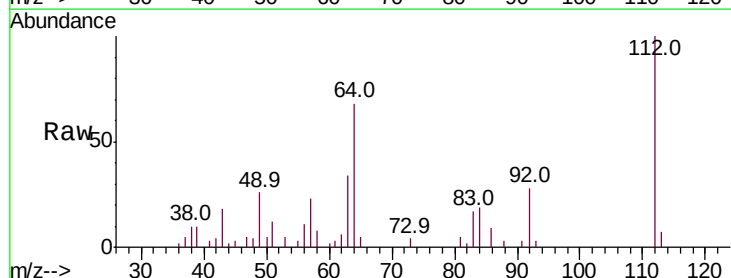
Ion 115.00 (114.70 to 115.70): E



#5

2-Fluorophenol
Concen: 18.068 ng m
RT: 5.61 min Scan# 556
Delta R.T. 0.01 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Tgt Ion	Ratio	Lower	Upper
112	100		
64	68.0	47.9	71.9
63	34.4	23.7	35.5

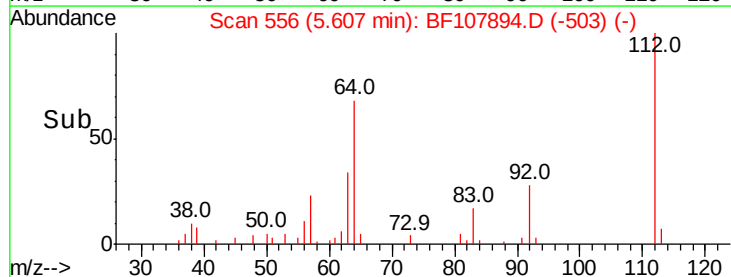
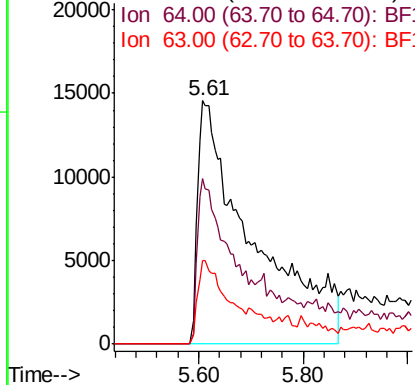


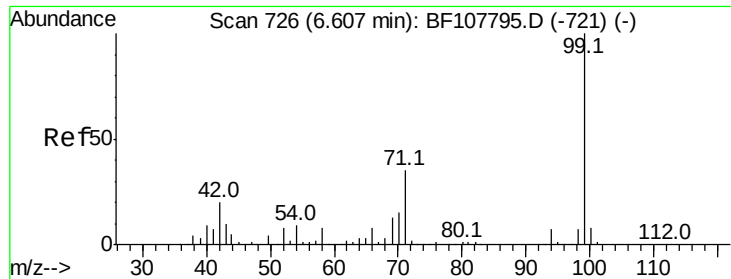
Abundance

Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BF1

Ion 63.00 (62.70 to 63.70): BF1





#7

Phenol-d6

Concen: 20.697 ng

RT: 6.62 min Scan# 728

Delta R.T. 0.01 min

Lab File: BF107894.D

Acq: 1 Aug 2018 17:34

Instrument :

BNA_F

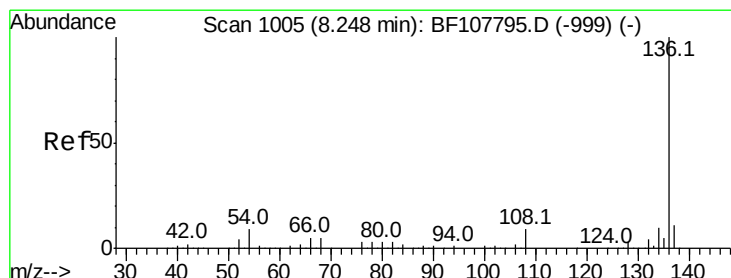
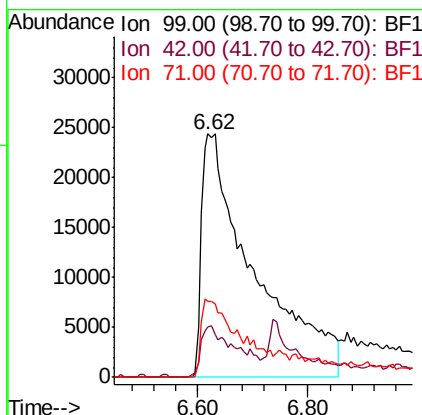
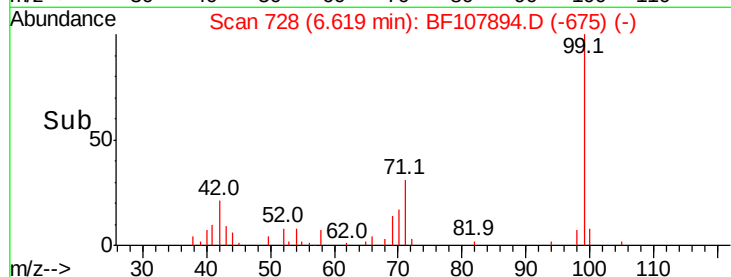
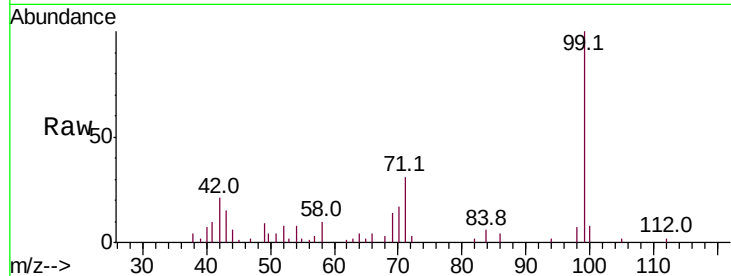
ClientSampleId :

2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion:	99	Resp:	161374
Ion Ratio	Lower	Upper	
99	100		
42	20.6	14.5	21.7
71	31.1	25.4	38.0

Manual Integrations
APPROVED

Sohil
8/2/2018 9:17:17 AM



#21

Naphthalene-d8

Concen: 20.000 ng

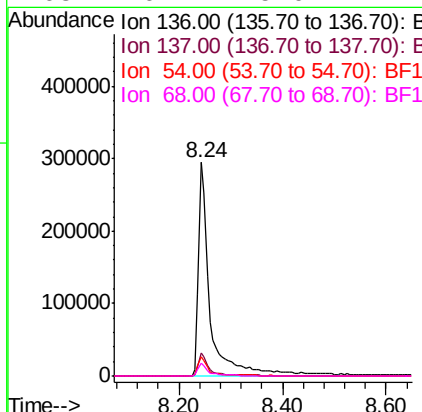
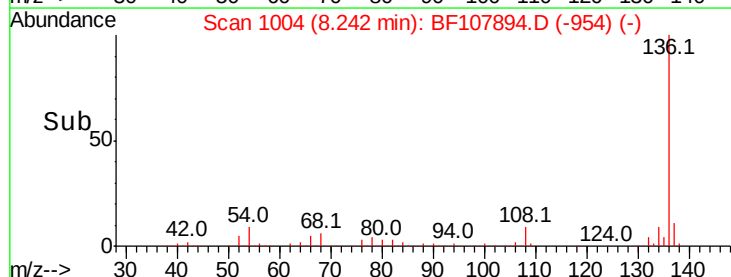
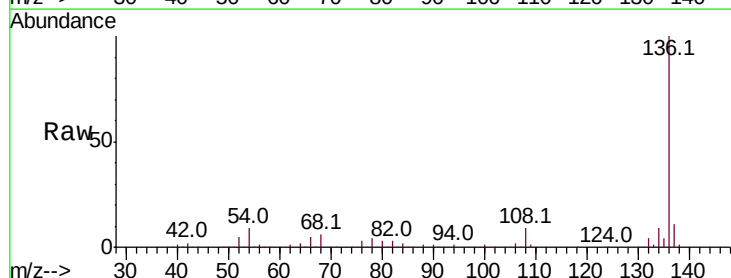
RT: 8.24 min Scan# 1004

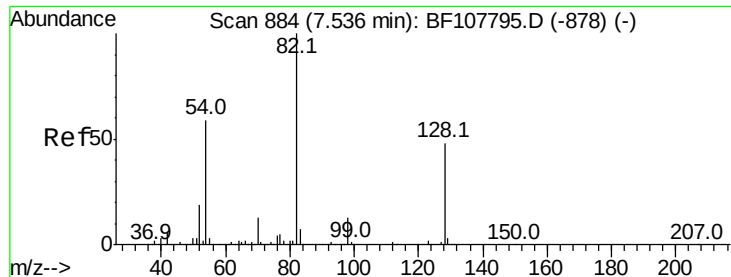
Delta R.T. -0.01 min

Lab File: BF107894.D

Acq: 1 Aug 2018 17:34

Tgt Ion:	136	Resp:	464705
Ion Ratio	Lower	Upper	
136	100		
137	10.5	8.9	13.3
54	9.3	6.6	9.8
68	6.2	5.0	7.4





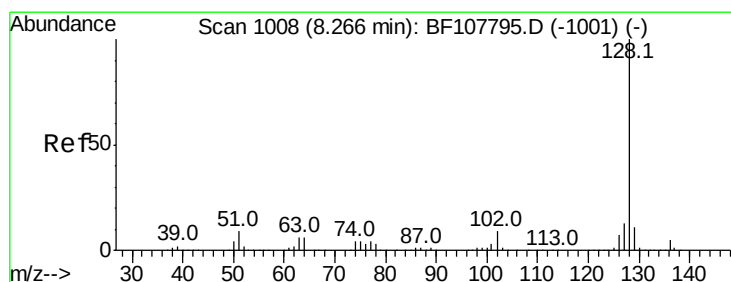
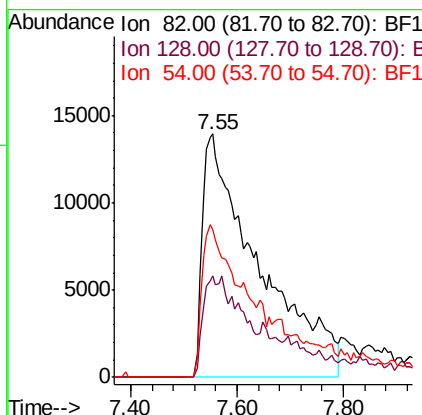
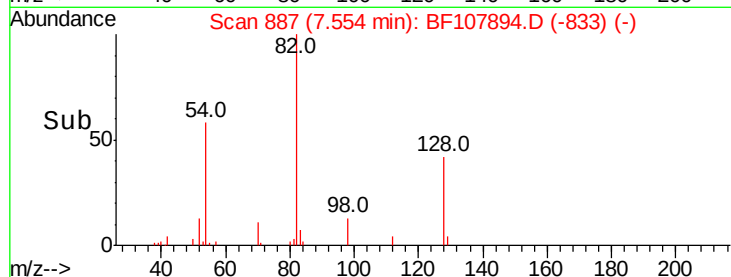
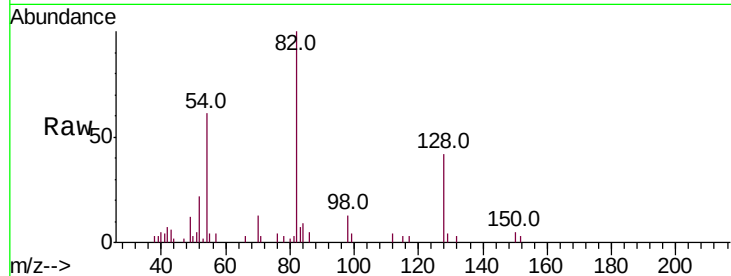
#23
 Nitrobenzene-d5
 Concen: 12.670 ng/ml
 RT: 7.55 min Scan# 887
 Delta R.T. 0.02 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Instrument :
 BNA_F
 ClientSampleId :
 2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion	Ratio	Lower	Upper
82	100		
128	41.6	36.1	54.1
54	60.7	41.4	62.2

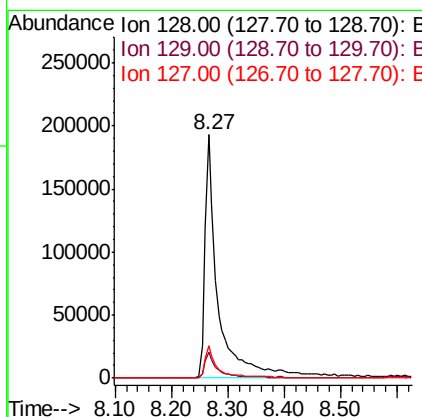
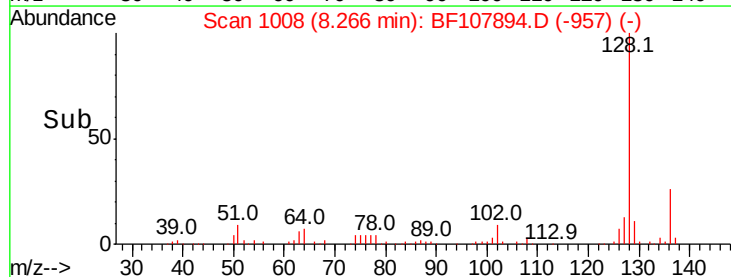
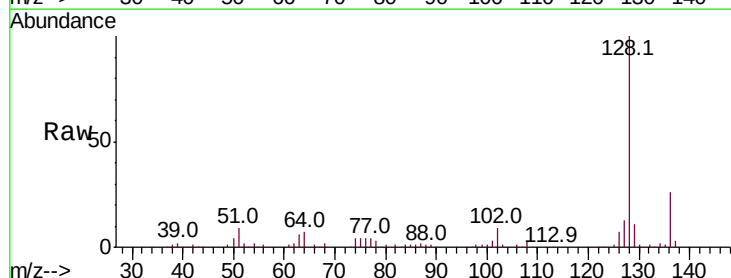
Manual Integrations
 APPROVED

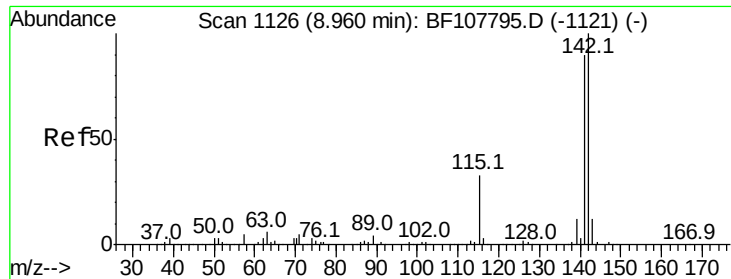
Sohil
 8/2/2018 9:17:17 AM



#31
 Naphthalene
 Concen: 15.066 ng
 RT: 8.27 min Scan# 1008
 Delta R.T. 0.00 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Tgt Ion	Ratio	Lower	Upper
128	100		
129	10.8	8.8	13.2
127	13.3	10.9	16.3





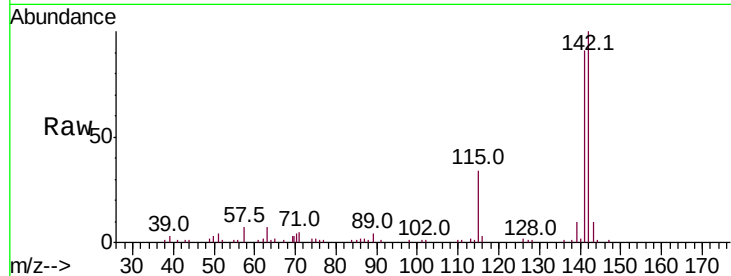
#37
2-Methylnaphthalene
Concen: 8.245 ng
RT: 8.96 min Scan# 1126
Delta R.T. 0.00 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Instrument :
BNA_F
ClientSampleId :
2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion	Ratio	Resp	Lower	Upper
142	100	111881		
141	91.2	70.8	106.2	
115	33.7	26.1	39.1	

Manual Integrations
APPROVED

Sohil
8/2/2018 9:17:17 AM

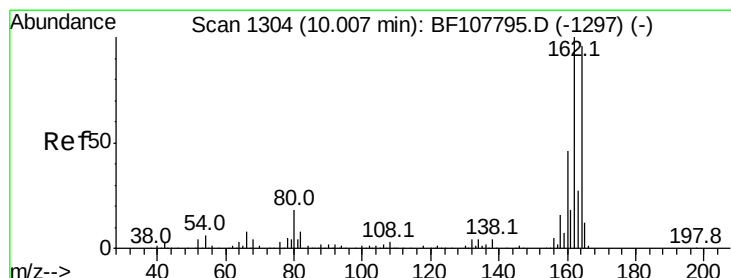
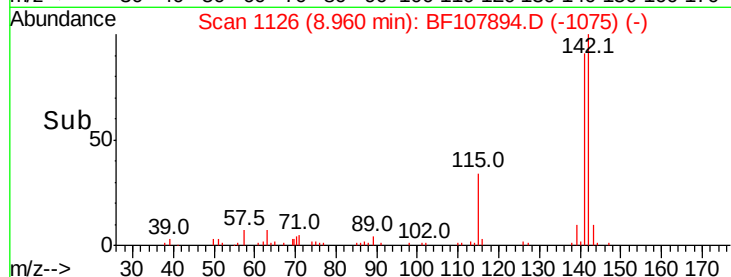
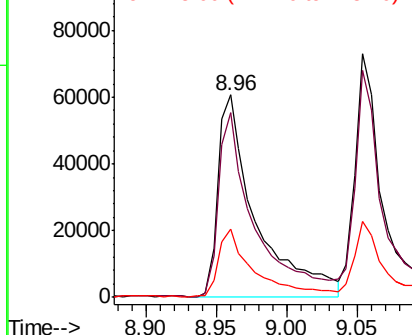


Abundance

Ion 142.00 (141.70 to 142.70): E

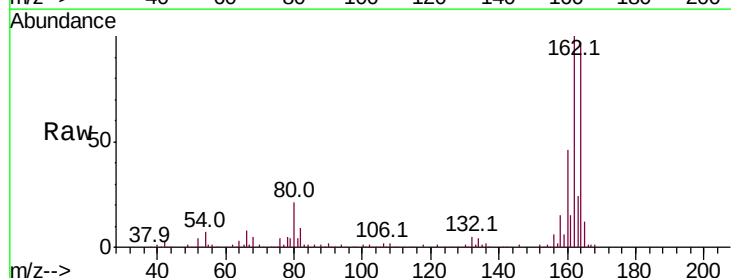
Ion 141.00 (140.70 to 141.70): E

Ion 115.00 (114.70 to 115.70): E



#38
Acenaphthene-d10
Concen: 20.000 ng
RT: 10.00 min Scan# 1303
Delta R.T. -0.01 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Tgt Ion	Ratio	Resp	Lower	Upper
164	100	186790		
162	102.6	86.1	129.1	
160	47.4	38.3	57.5	

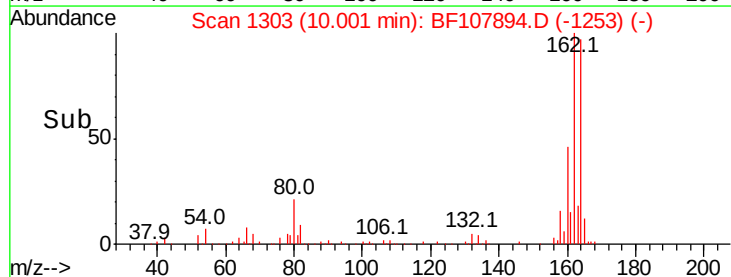
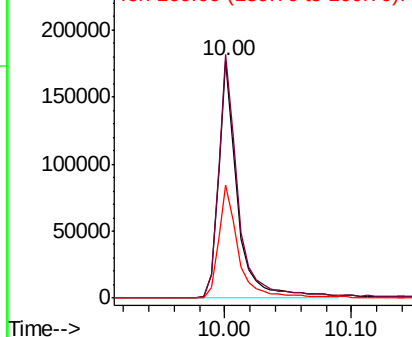


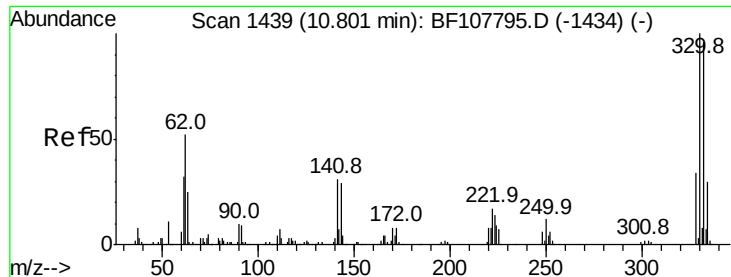
Abundance

Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E





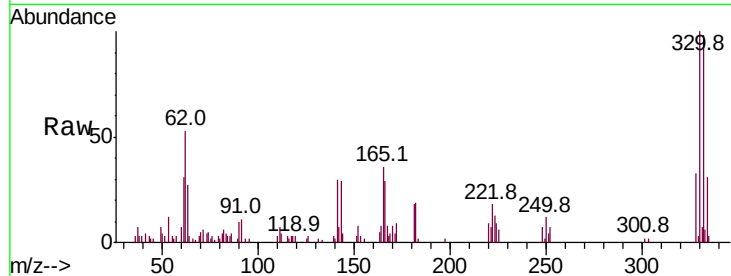
#41
 2,4,6-Tribromophenol
 Concen: 18.536 ng
 RT: 10.80 min Scan# 1439
 Delta R.T. 0.00 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Instrument :
 BNA_F
 ClientSampleId :
 2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion	Ratio	Resp	Lower	Upper
330	100	47047		
332	92.9	77.0	115.6	
141	29.4	29.9	44.9#	

Manual Integrations
 APPROVED

Sohil
 8/2/2018 9:17:17 AM

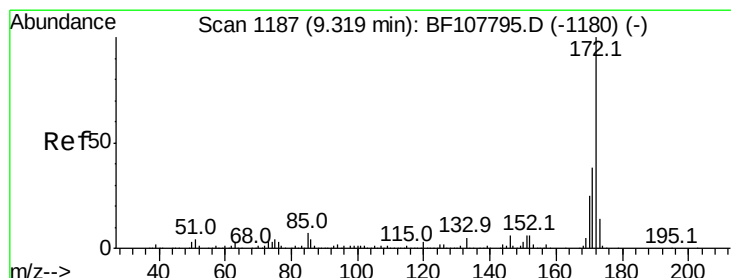
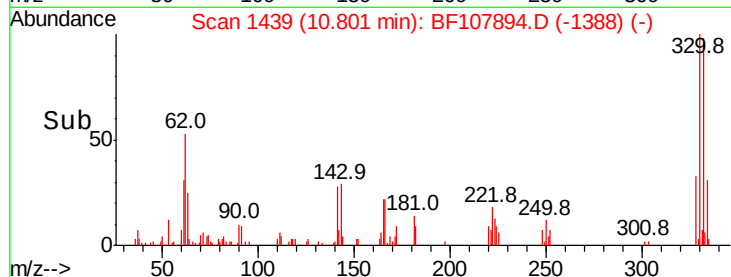
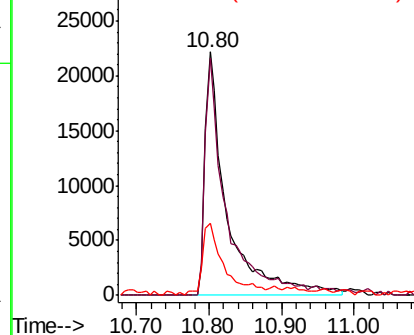


Abundance

Ion 329.80 (329.50 to 330.50): E

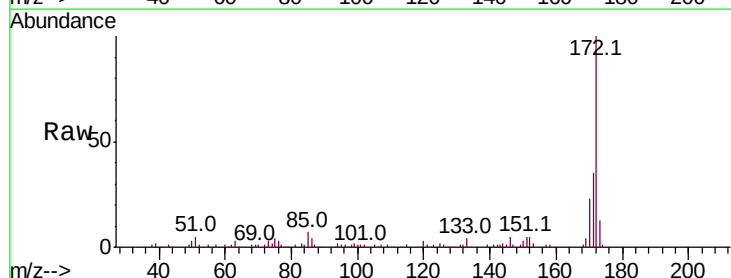
Ion 331.80 (331.50 to 332.50): E

Ion 141.00 (140.70 to 141.70): E



#44
 2-Fluorobiphenyl
 Concen: 16.084 ng
 RT: 9.31 min Scan# 1186
 Delta R.T. -0.01 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Tgt Ion	Ratio	Resp	Lower	Upper
172	100	215592		
171	34.8	29.7	44.5	
170	22.5	19.6	29.4	

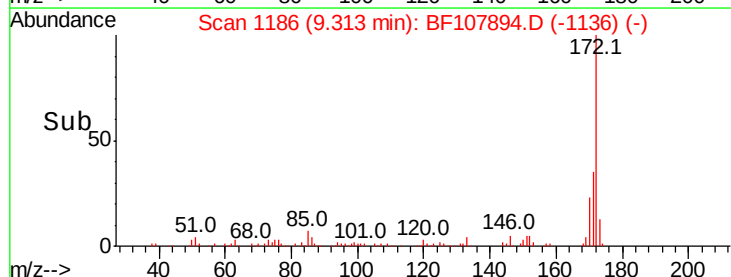
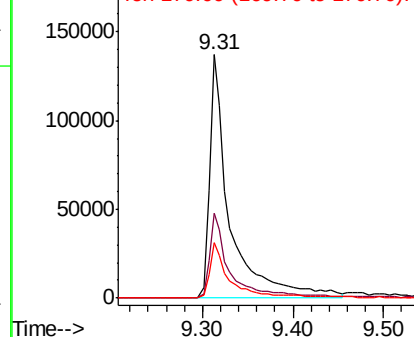


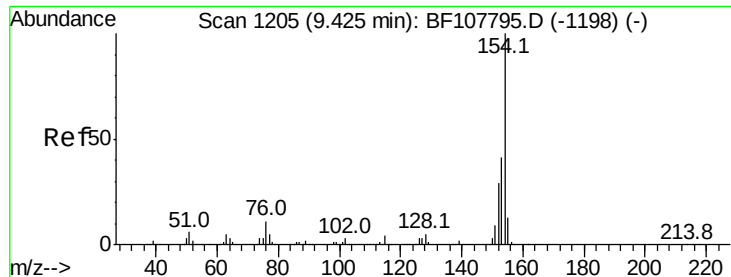
Abundance

Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E





#45

1,1'-Biphenyl

Concen: 3.164 ng

RT: 9.42 min Scan# 1205

Delta R.T. 0.00 min

Lab File: BF107894.D

Acq: 1 Aug 2018 17:34

Instrument :

BNA_F

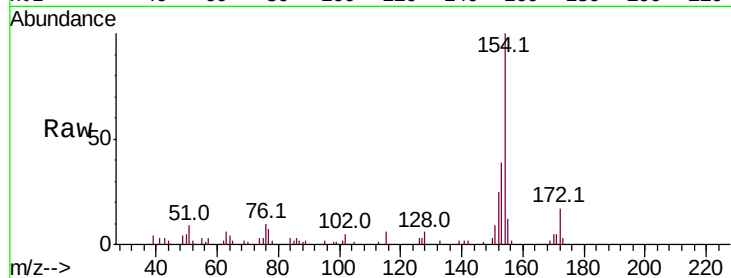
ClientSampleId :

2018-NYSEG-CLARK-AREA-14-7DL

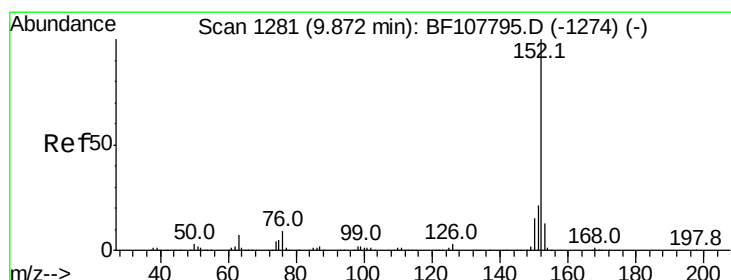
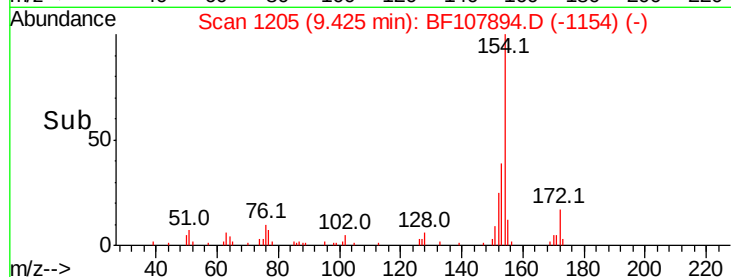
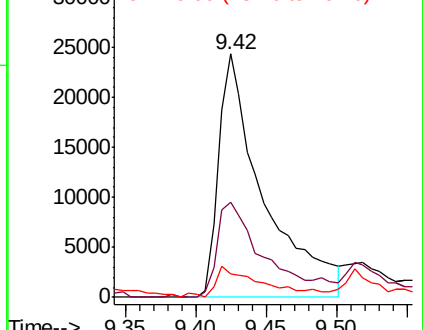
Tot Ion:	154	Resp:	53782
Ion Ratio	Lower	Upper	
154	100		
153	39.0	21.3	61.3
76	9.6	0.0	34.0

Manual Integrations
APPROVED

Sohil
8/2/2018 9:17:17 AM



Abundance Ion 154.00 (153.70 to 154.70): E
Ion 153.00 (152.70 to 153.70): E
Ion 76.00 (75.70 to 76.70): BF1



#48

Acenaphthylene

Concen: 2.197 ng

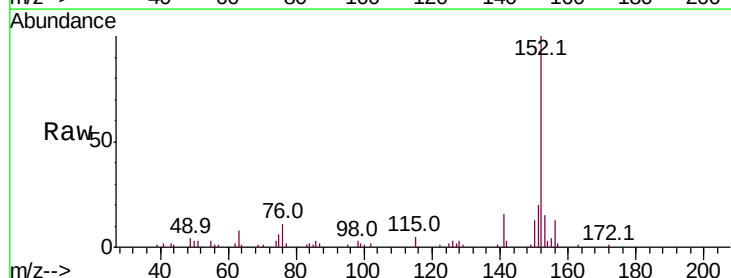
RT: 9.87 min Scan# 1280

Delta R.T. -0.01 min

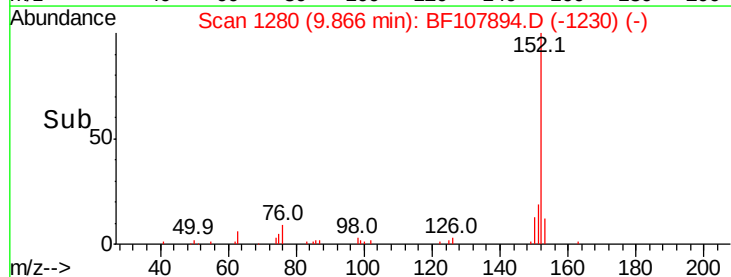
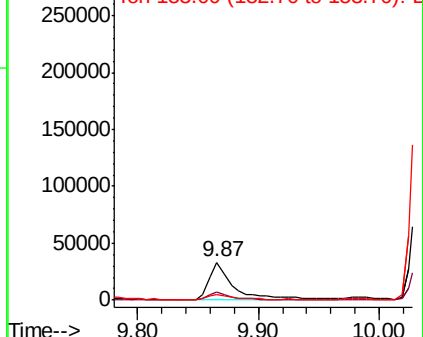
Lab File: BF107894.D

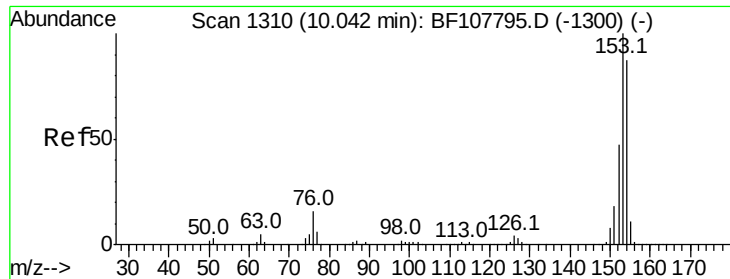
Acq: 1 Aug 2018 17:34

Tgt Ion:	152	Resp:	43671
Ion Ratio	Lower	Upper	
152	100		
151	19.9	16.3	24.5
153	15.4	10.7	16.1



Abundance Ion 152.00 (151.70 to 152.70): E
Ion 151.00 (150.70 to 151.70): E
Ion 153.00 (152.70 to 153.70): E





#51

Acenaphthene

Concen: 21.882 ng

RT: 10.04 min Scan# 1309

Delta R.T. -0.01 min

Lab File: BF107894.D

Acq: 1 Aug 2018 17:34

Instrument :

BNA_F

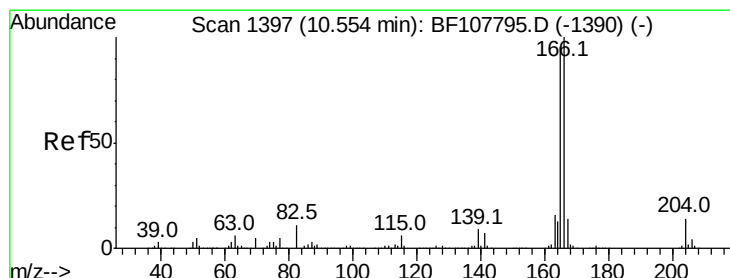
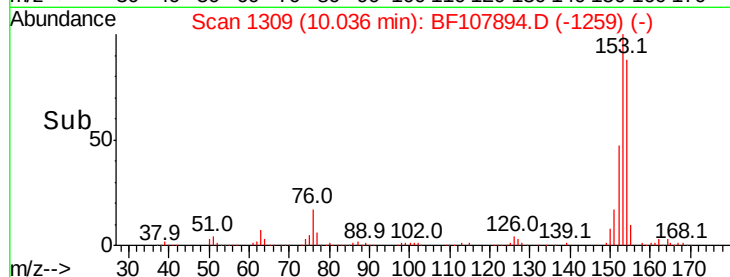
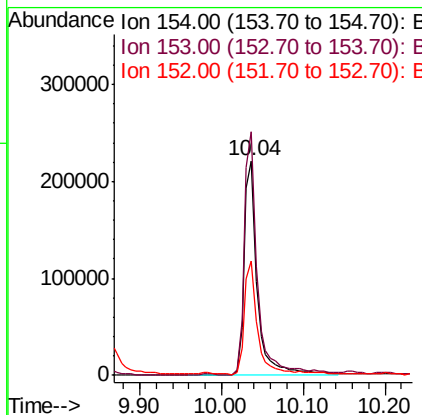
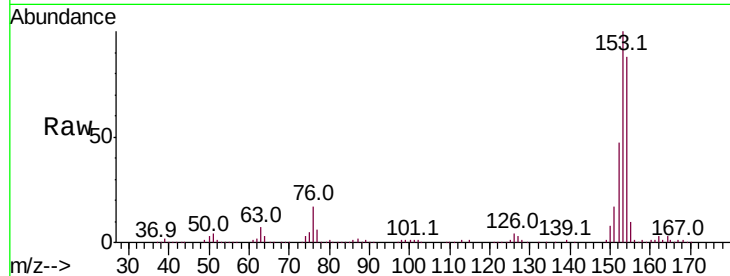
ClientSampleId :

2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion:	154	Resp:	252607
Ion Ratio	Lower	Upper	
154	100		
153	113.5	91.2	136.8
152	53.4	43.8	65.8

Manual Integrations
APPROVED

Sohil
8/2/2018 9:17:17 AM



#57

Fluorene

Concen: 9.322 ng

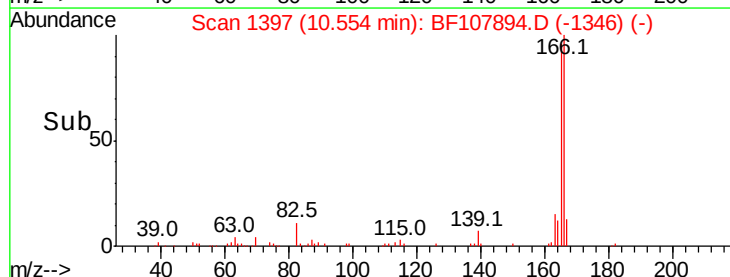
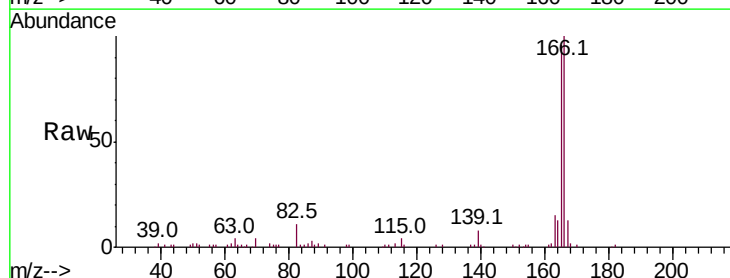
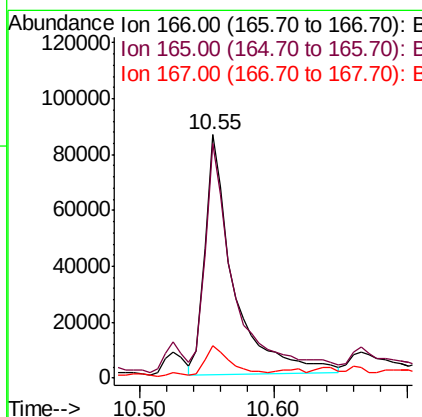
RT: 10.55 min Scan# 1397

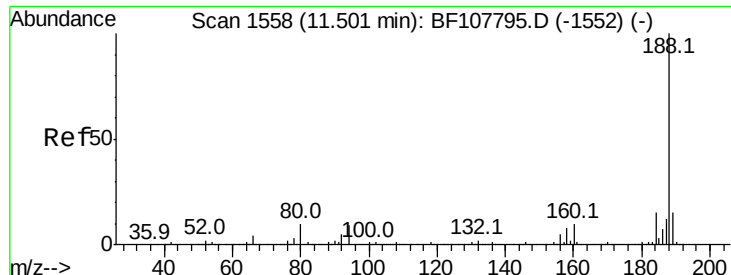
Delta R.T. 0.00 min

Lab File: BF107894.D

Acq: 1 Aug 2018 17:34

Tgt Ion:	166	Resp:	129270
Ion Ratio	Lower	Upper	
166	100		
165	96.4	79.8	119.8
167	13.3	10.6	16.0





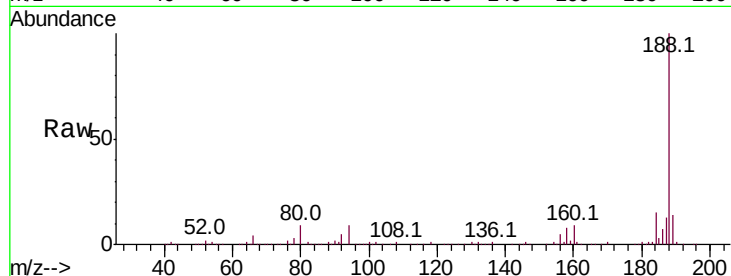
#63
 Phenanthrene-d10
 Concen: 20.000 ng
 RT: 11.50 min Scan# 1558
 Delta R.T. 0.00 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Instrument :
 BNA_F
 ClientSampleId :
 2018-NYSEG-CLARK-AREA-14-7DL

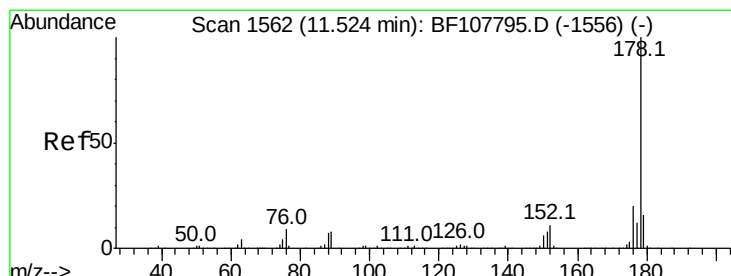
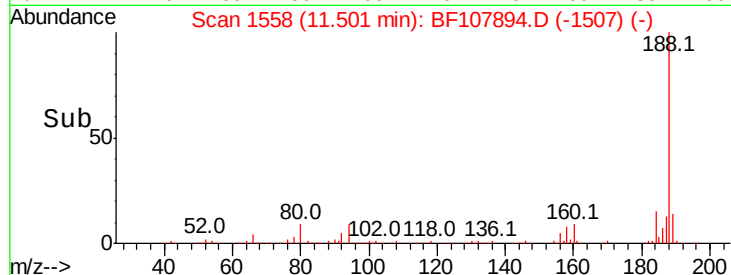
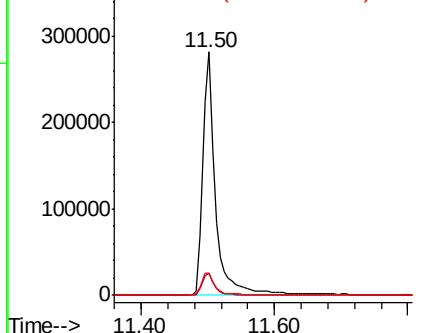
Tot Ion	Ratio	Resp	Lower	Upper
188	100	368499		
94	9.2		8.5	12.7
80	9.1		9.2	13.8#

Manual Integrations
 APPROVED

Sohil
 8/2/2018 9:17:17 AM



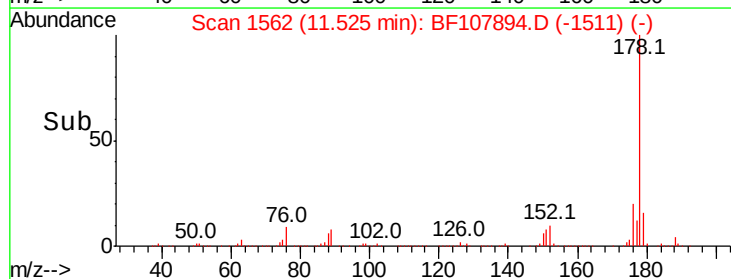
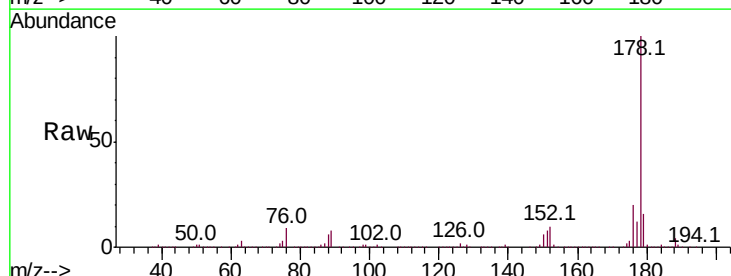
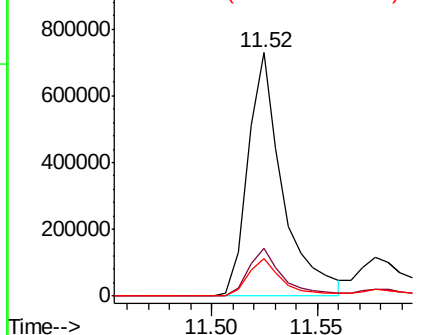
Abundance Ion 188.00 (187.70 to 188.70): E
 Ion 94.00 (93.70 to 94.70): BF1
 Ion 80.00 (79.70 to 80.70): BF1

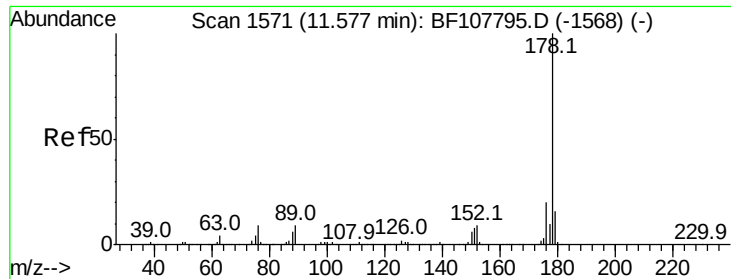


#70
 Phenanthrene
 Concen: 47.457 ng
 RT: 11.52 min Scan# 1562
 Delta R.T. 0.00 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Tgt Ion	Ratio	Resp	Lower	Upper
178	100	830380		
176	19.6		15.8	23.8
179	15.7		13.0	19.6

Abundance Ion 178.00 (177.70 to 178.70): E
 Ion 176.00 (175.70 to 176.70): E
 Ion 179.00 (178.70 to 179.70): E





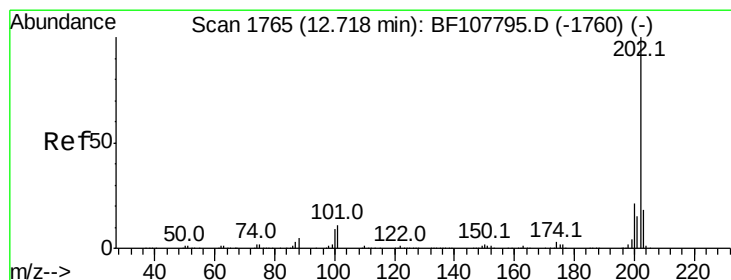
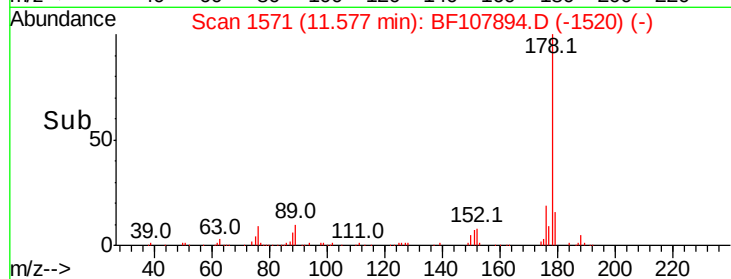
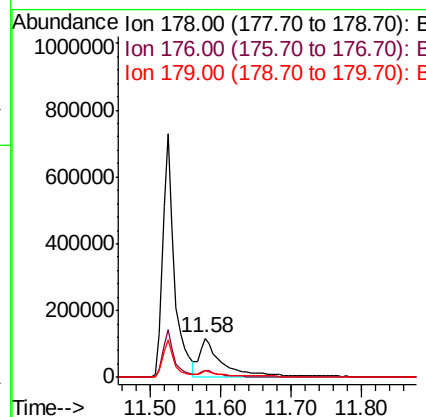
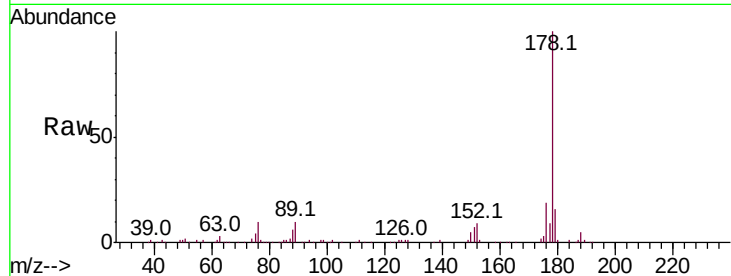
#71
 Anthracene
 Concen: 13.278 ng
 RT: 11.58 min Scan# 1571
 Delta R.T. 0.00 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Instrument :
 BNA_F
 ClientSampleId :
 2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion	Ratio	Lower	Upper
178	100		
176	18.9	15.4	23.2
179	16.1	12.6	19.0

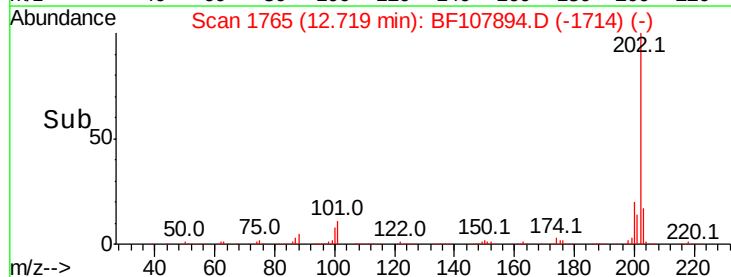
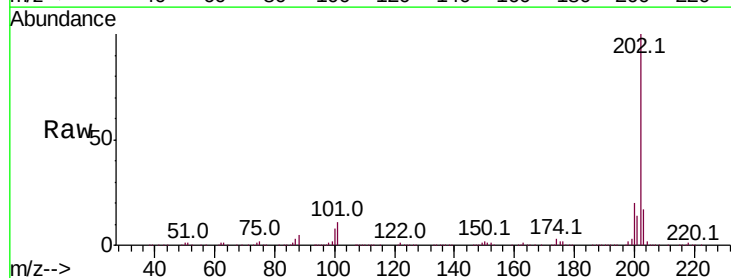
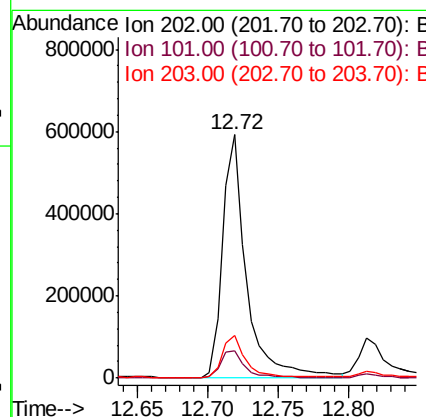
Manual Integrations
 APPROVED

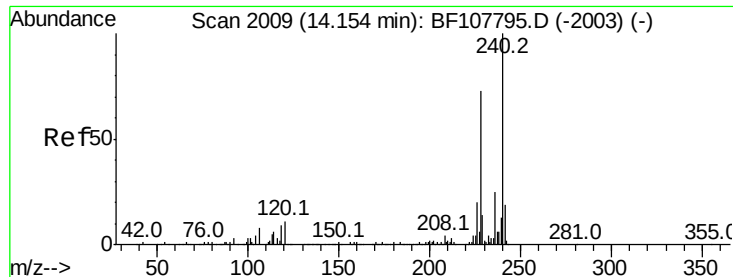
Sohil
 8/2/2018 9:17:17 AM



#74
 Fluoranthene
 Concen: 33.672 ng
 RT: 12.72 min Scan# 1765
 Delta R.T. 0.00 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Tgt Ion	Ratio	Lower	Upper
202	100		
101	11.3	0.0	34.1
203	17.4	0.0	38.1





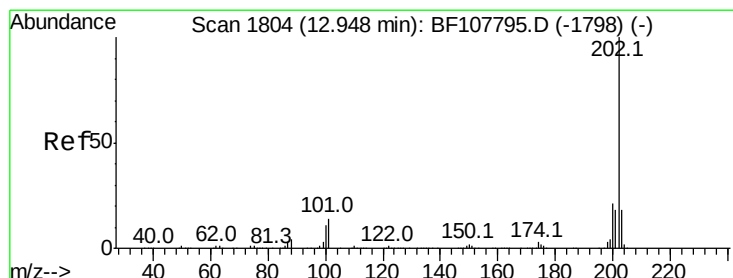
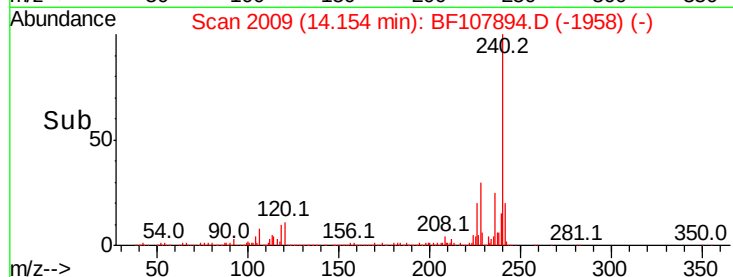
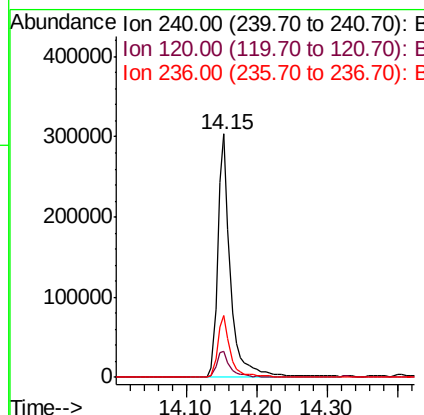
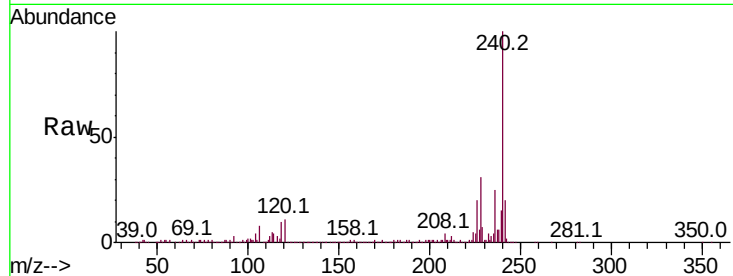
#75
Chrysene-d12
Concen: 20.000 ng
RT: 14.15 min Scan# 2009
Delta R.T. 0.00 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Instrument :
BNA_F
ClientSampleId :
2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion	Ratio	Resp	Lower	Upper
240	100			
120	10.7	9.5	14.3	
236	25.4	20.7	31.1	

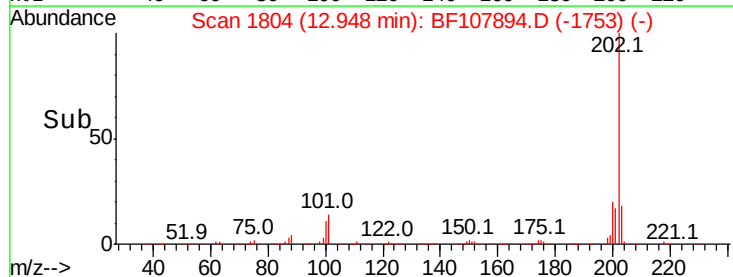
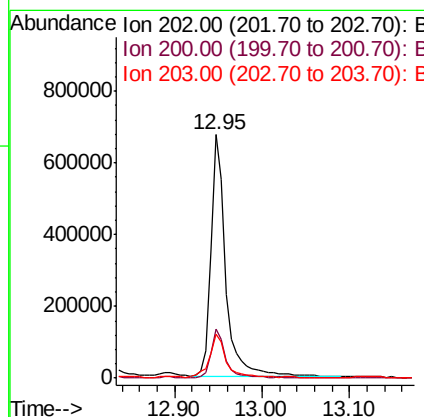
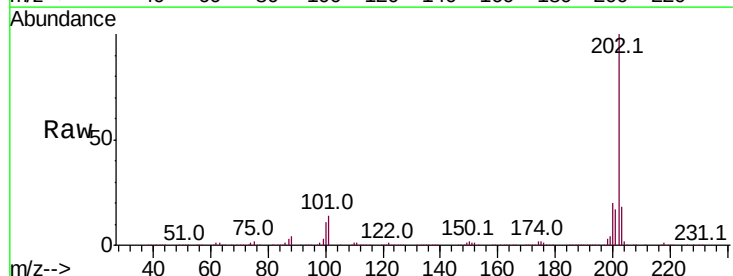
Manual Integrations
APPROVED

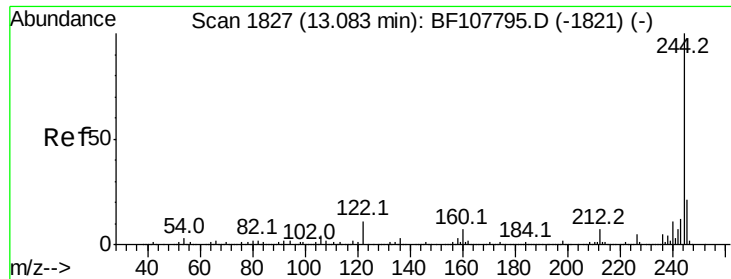
Sohil
8/2/2018 9:17:17 AM



#77
Pyrene
Concen: 28.714 ng
RT: 12.95 min Scan# 1804
Delta R.T. 0.00 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Tgt Ion	Ratio	Resp	Lower	Upper
202	100			
200	19.9	17.4	26.2	
203	18.3	14.3	21.5	





#78

Terphenyl-d14

Concen: 13.463 ng

RT: 13.08 min Scan# 1826

Delta R.T. -0.01 min

Lab File: BF107894.D

Acq: 1 Aug 2018 17:34

Instrument :

BNA_F

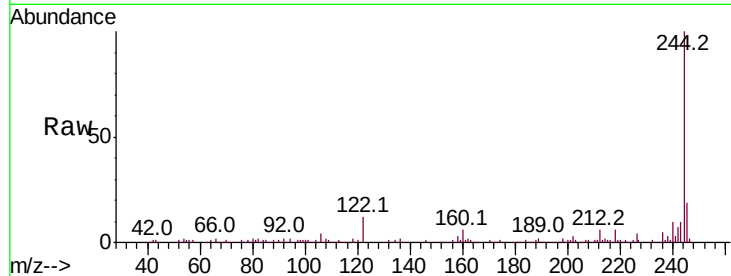
ClientSampleId :

2018-NYSEG-CLARK-AREA-14-7DL

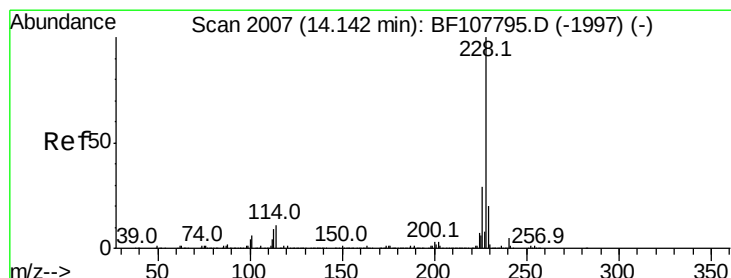
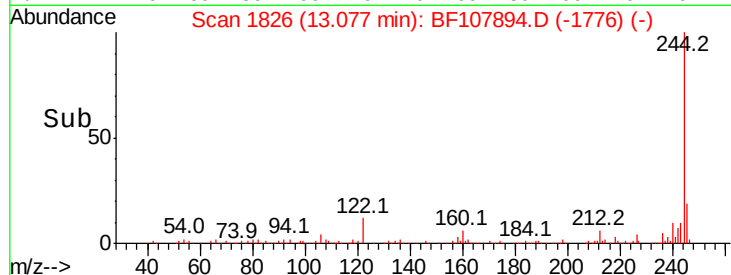
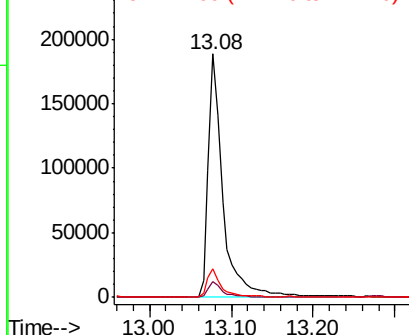
Tot Ion:	244	Resp:	238118
Ion Ratio	Lower	Upper	
244	100		
212	6.5	5.4	8.0
122	11.7	11.0	16.4

Manual Integrations
APPROVED

Sohil
8/2/2018 9:17:17 AM



Abundance Ion 244.00 (243.70 to 244.70): E
Ion 212.00 (211.70 to 212.70): E
Ion 122.00 (121.70 to 122.70): E



#80

Benzo(a)anthracene

Concen: 14.810 ng m

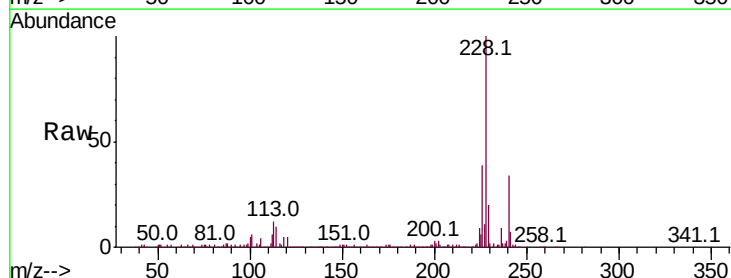
RT: 14.14 min Scan# 2007

Delta R.T. 0.00 min

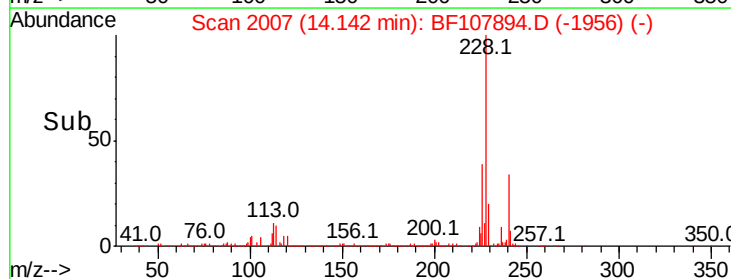
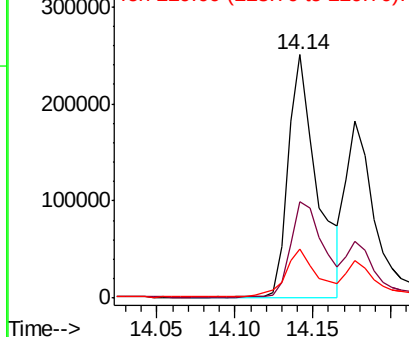
Lab File: BF107894.D

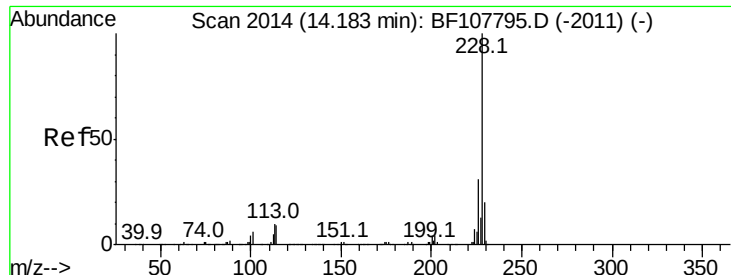
Acq: 1 Aug 2018 17:34

Tgt Ion:	228	Resp:	321750
Ion Ratio	Lower	Upper	
228	100		
226	39.5	22.6	33.8#
229	20.3	15.8	23.6



Abundance Ion 228.00 (227.70 to 228.70): E
Ion 226.00 (225.70 to 226.70): E
Ion 229.00 (228.70 to 229.70): E





#82

Chrysene

Concen: 10.139 ng

RT: 14.18 min Scan# 2013

Delta R.T. -0.01 min

Lab File: BF107894.D

Acq: 1 Aug 2018 17:34

Instrument :

BNA_F

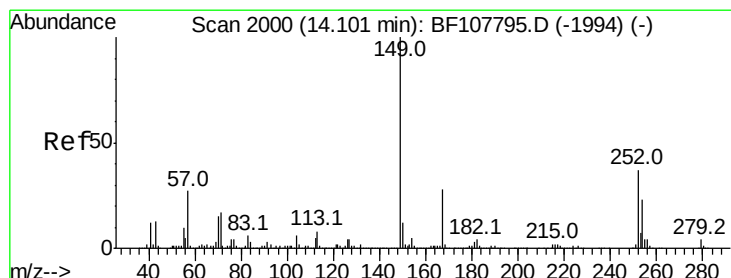
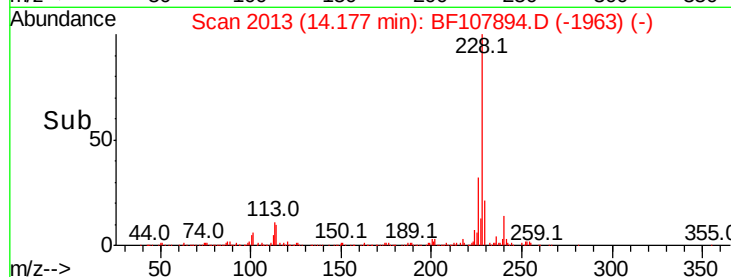
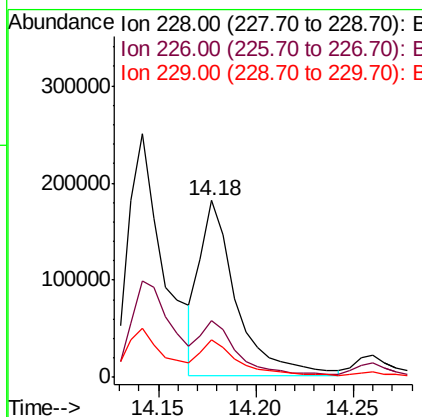
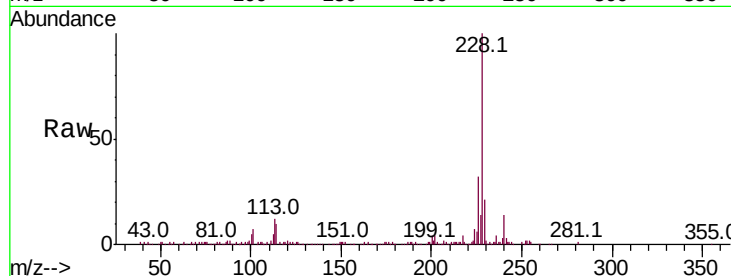
ClientSampleId :

2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion:	228	Resp:	237589
Ion Ratio	Lower	Upper	
228	100		
226	32.4	25.0	37.6
229	21.3	16.2	24.4

Manual Integrations
APPROVED

Sohil
8/2/2018 9:17:17 AM



#83

Bis(2-ethylhexyl)phthalate

Concen: 2.931 ng

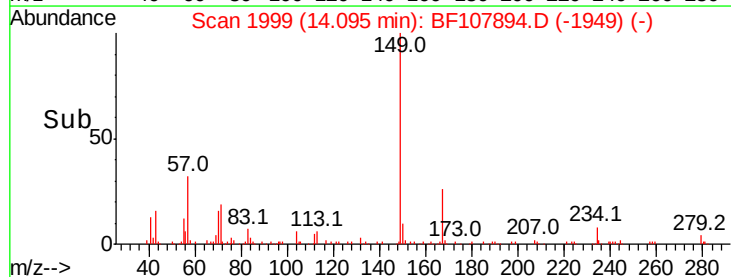
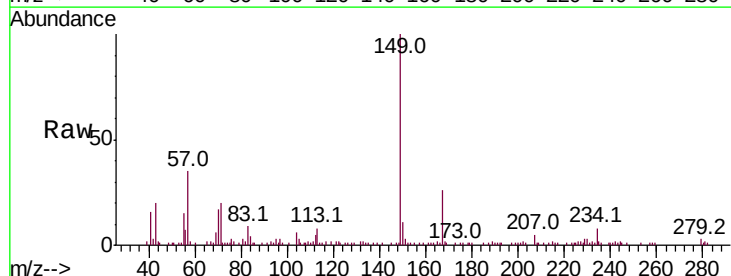
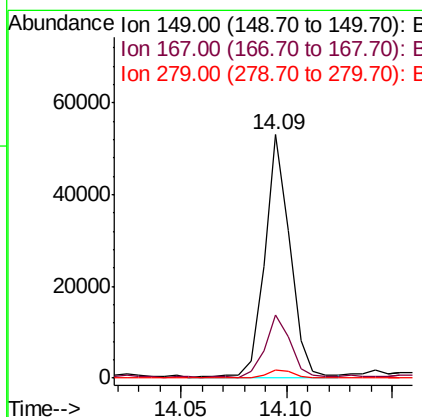
RT: 14.09 min Scan# 1999

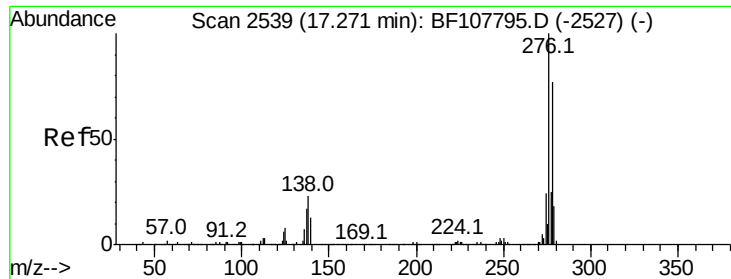
Delta R.T. -0.01 min

Lab File: BF107894.D

Acq: 1 Aug 2018 17:34

Tgt Ion:	149	Resp:	44570
Ion Ratio	Lower	Upper	
149	100		
167	26.2	21.3	31.9
279	3.5	3.0	4.4





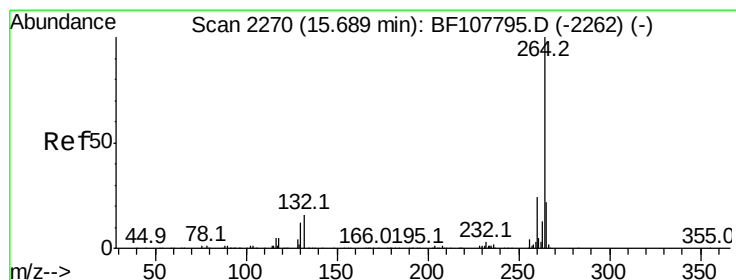
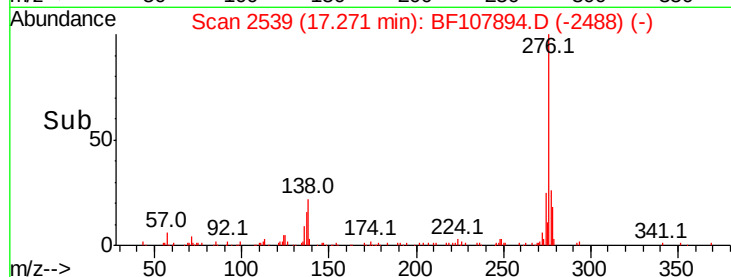
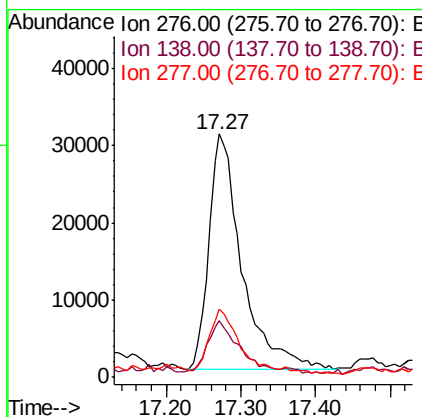
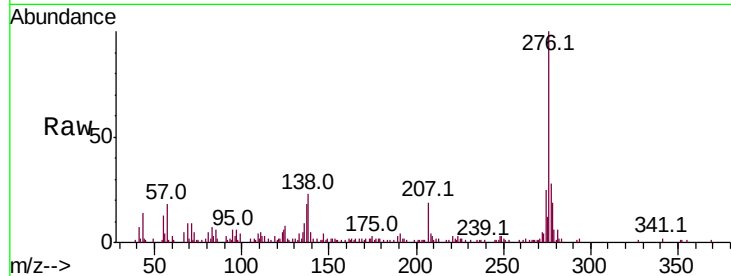
#85
 Indeno(1,2,3-cd)pyrene
 Concen: 5.223 ng
 RT: 17.27 min Scan# 2539
 Delta R.T. 0.00 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Instrument :
 BNA_F
 ClientSampleId :
 2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion	Ratio	Lower	Upper
276	100		
138	19.8	25.0	37.6#
277	27.7	20.1	30.1

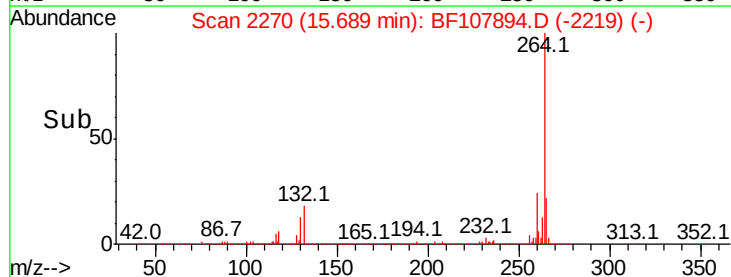
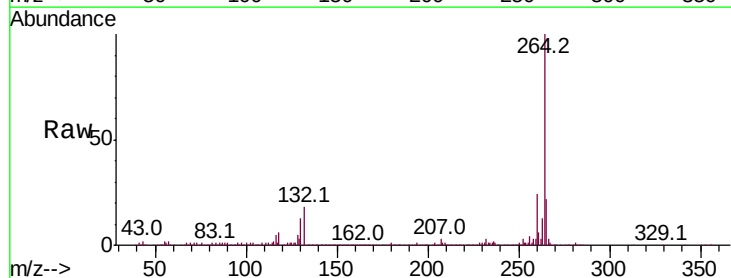
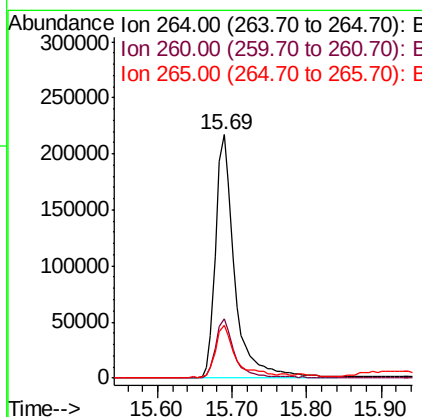
Manual Integrations
 APPROVED

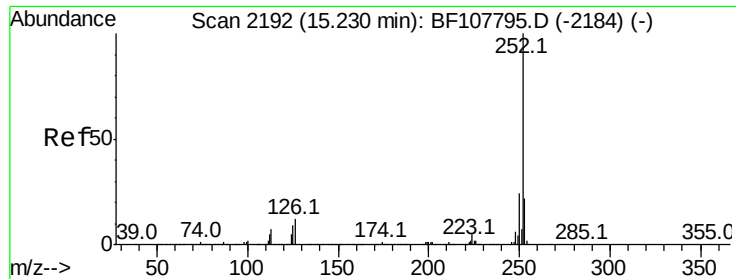
Sohil
 8/2/2018 9:17:17 AM



#86
 Perylene-d12
 Concen: 20.000 ng
 RT: 15.69 min Scan# 2270
 Delta R.T. 0.00 min
 Lab File: BF107894.D
 Acq: 1 Aug 2018 17:34

Tgt Ion	Ratio	Lower	Upper
264	100		
260	24.1	19.2	28.8
265	21.9	17.5	26.3





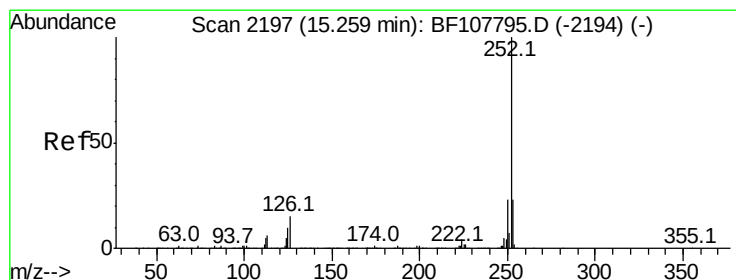
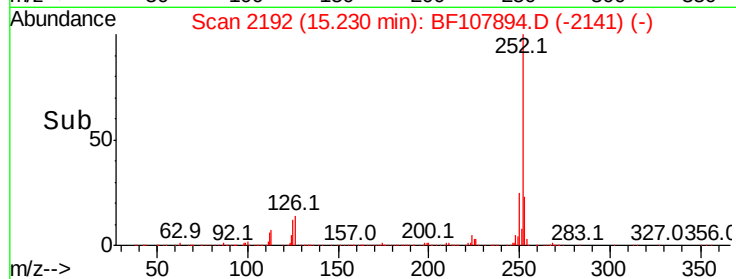
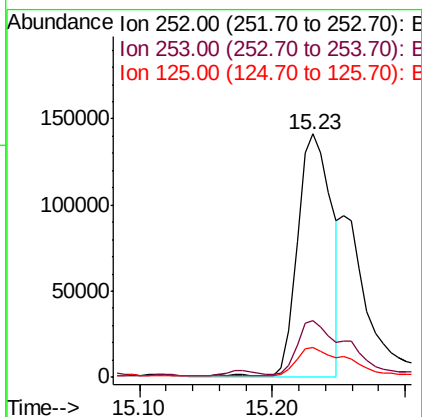
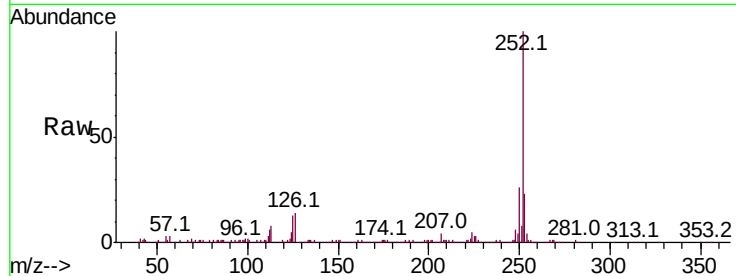
#87
Benzo(b)fluoranthene
Concen: 13.474 ng m
RT: 15.23 min Scan# 2192
Delta R.T. 0.00 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Instrument :
BNA_F
ClientSampleId :
2018-NYSEG-CLARK-AREA-14-7DL

Tot Ion	Ratio	Resp	Lower	Upper
252	100	255615		
253	23.2		17.0	25.6
125	12.5		9.0	13.6

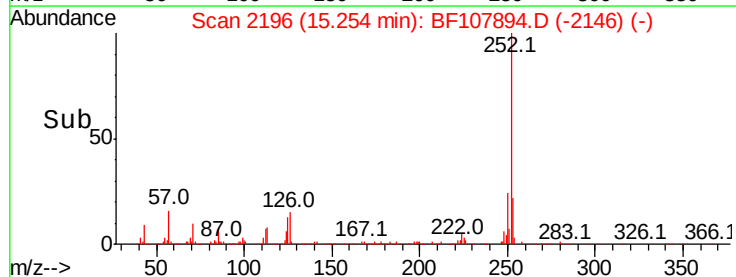
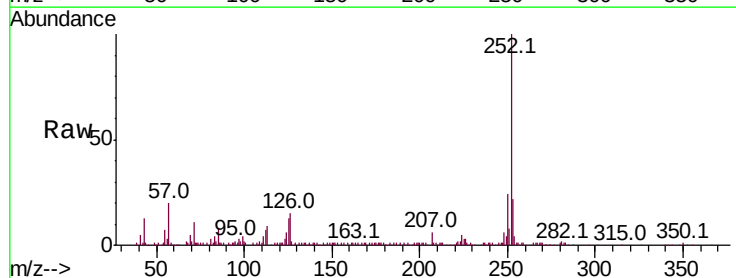
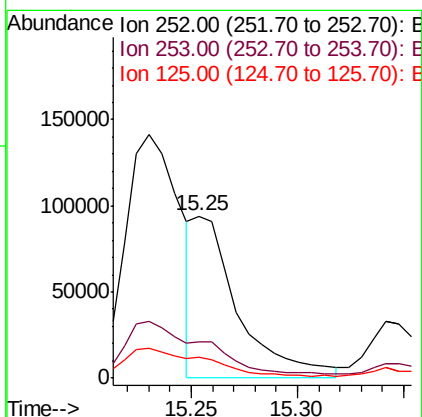
Manual Integrations
APPROVED

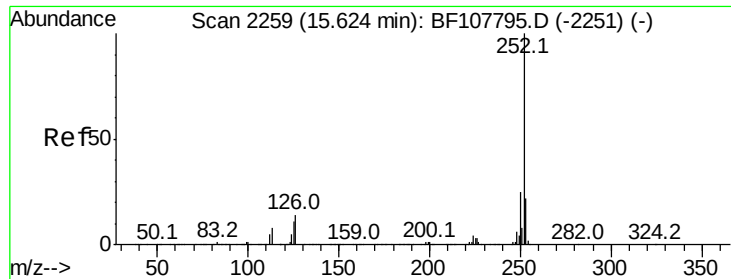
Sohil
8/2/2018 9:17:17 AM



#88
Benzo(k)fluoranthene
Concen: 5.865 ng m
RT: 15.25 min Scan# 2196
Delta R.T. -0.01 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Tgt Ion	Ratio	Resp	Lower	Upper
252	100	136610		
253	22.4		17.9	26.9
125	13.2		10.2	15.2





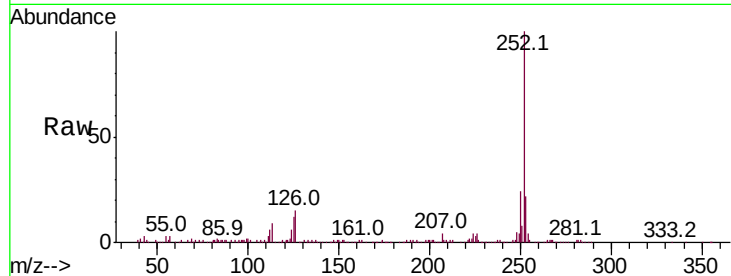
#89
Benzo(a)pyrene
Concen: 13.055 ng
RT: 15.62 min Scan# 2259
Delta R.T. 0.00 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Instrument :
BNA_F
ClientSampleId :
2018-NYSEG-CLARK-AREA-14-7DL

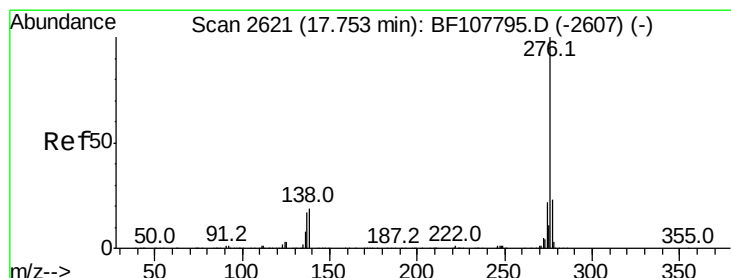
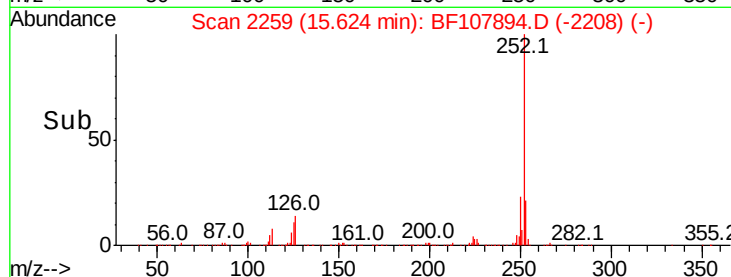
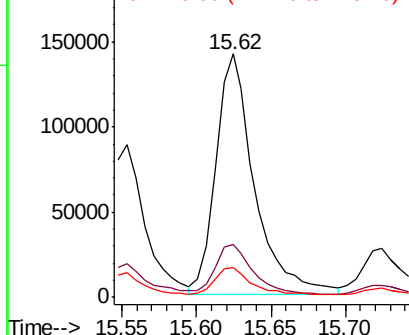
Tot Ion:	252	Resp:	255669
Ion Ratio	Lower	Upper	
252	100		
253	22.0	17.1	25.7
125	12.1	9.8	14.6

Manual Integrations
APPROVED

Sohil
8/2/2018 9:17:17 AM

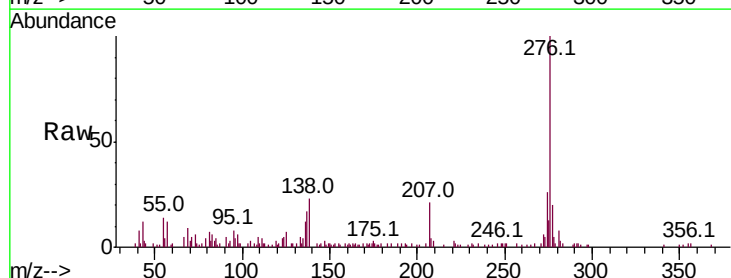


Abundance Ion 252.00 (251.70 to 252.70): E
Ion 253.00 (252.70 to 253.70): E
Ion 125.00 (124.70 to 125.70): E



#91
Benzo(g,h,i)perylene
Concen: 5.340 ng
RT: 17.75 min Scan# 2621
Delta R.T. 0.00 min
Lab File: BF107894.D
Acq: 1 Aug 2018 17:34

Tgt Ion:	276	Resp:	88271
Ion Ratio	Lower	Upper	
276	100		
277	19.6	17.9	26.9
138	23.1	21.8	32.8



Abundance Ion 276.00 (275.70 to 276.70): E
Ion 277.00 (276.70 to 277.70): E
Ion 138.00 (137.70 to 138.70): E

