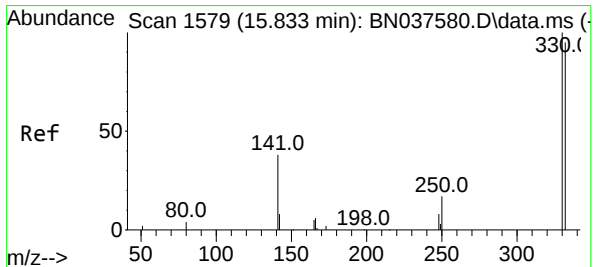
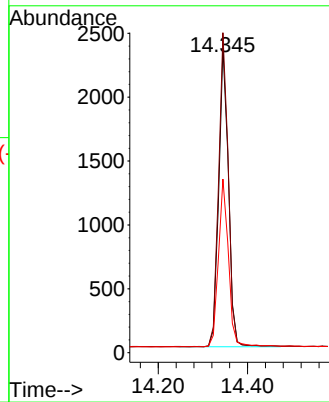
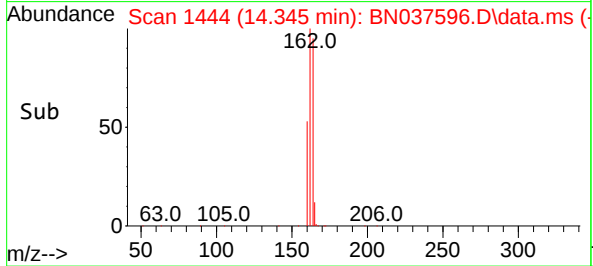
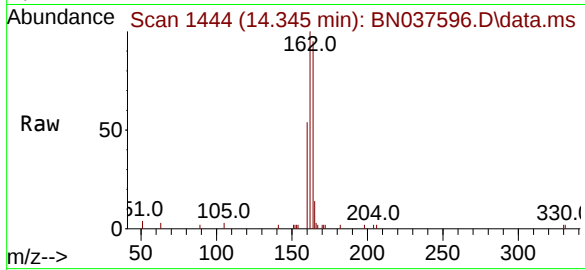


#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.345 min Scan# 1444
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

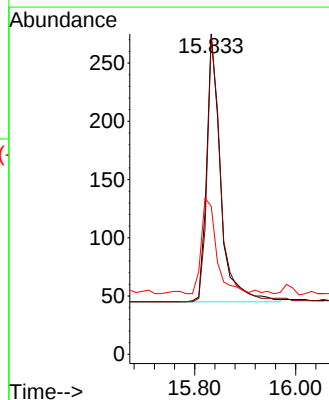
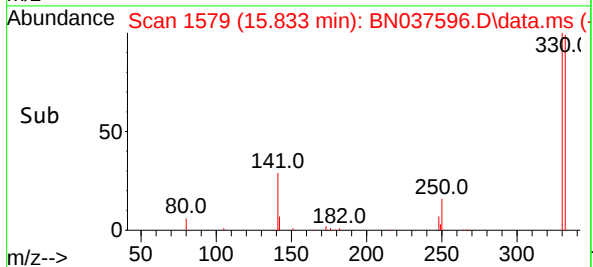
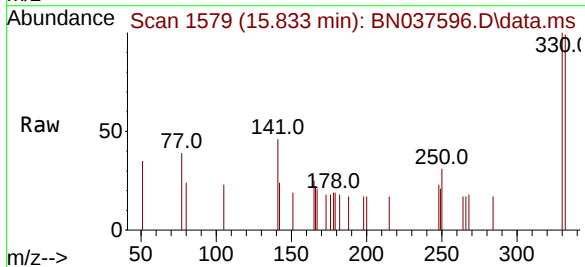
Instrument :
BNA_N
ClientSampleId :
PB169222BS

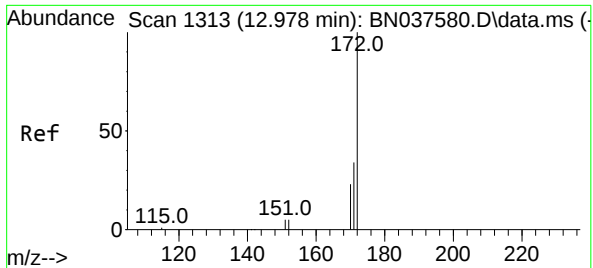
Tgt Ion	Ratio	Lower	Upper
164	100		
162	105.0	85.5	128.3
160	57.0	49.5	74.3



#14
2,4,6-Tribromophenol
Concen: 0.286 ng
RT: 15.833 min Scan# 1579
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion	Ratio	Lower	Upper
330	100		
332	97.3	77.4	116.0
141	38.7	30.9	46.3

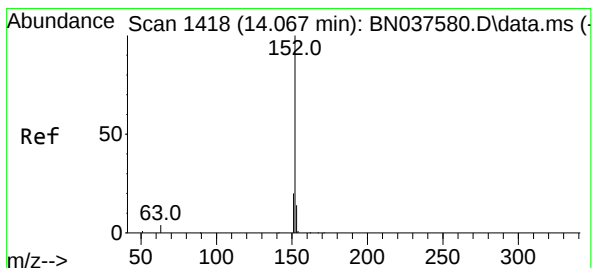
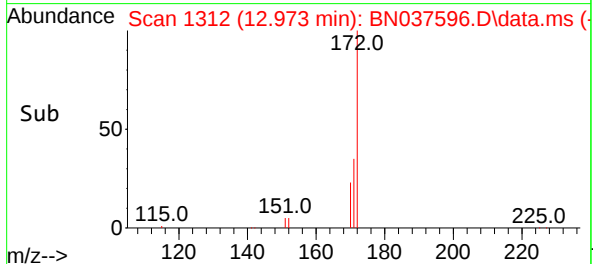
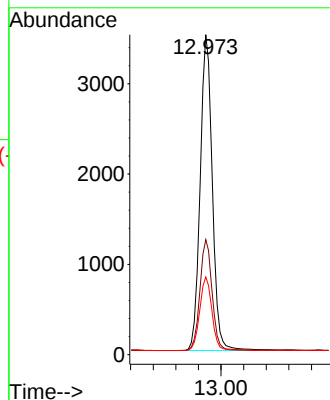
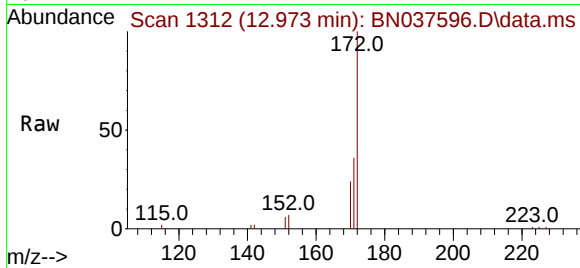




#15
2-Fluorobiphenyl
Concen: 0.356 ng
RT: 12.973 min Scan# 11
Delta R.T. -0.005 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

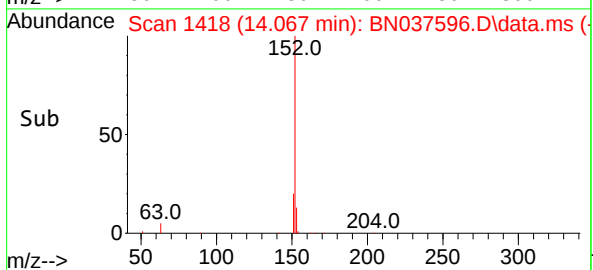
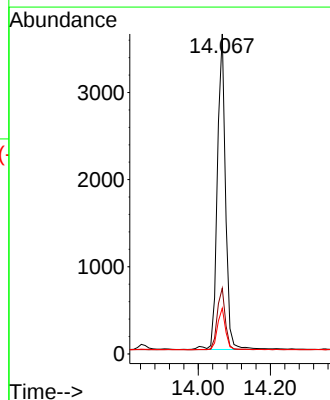
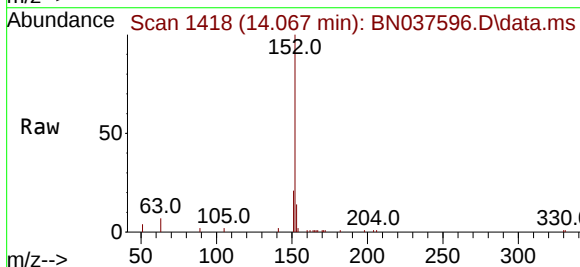
Instrument :
BNA_N
ClientSampleId :
PB169222BS

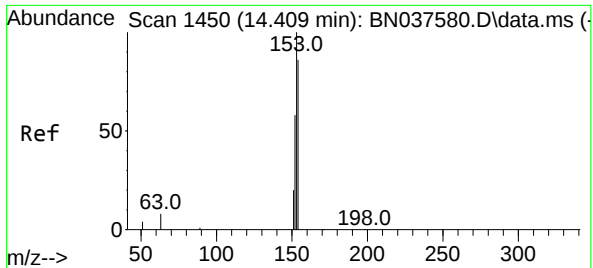
Tgt Ion:	172	Resp:	7275
Ion	Ratio	Lower	Upper
172	100		
171	36.0	28.2	42.4
170	24.3	19.2	28.8



#16
Acenaphthylene
Concen: 0.360 ng
RT: 14.067 min Scan# 1418
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion:	152	Resp:	5698
Ion	Ratio	Lower	Upper
152	100		
151	19.6	16.1	24.1
153	13.1	10.7	16.1

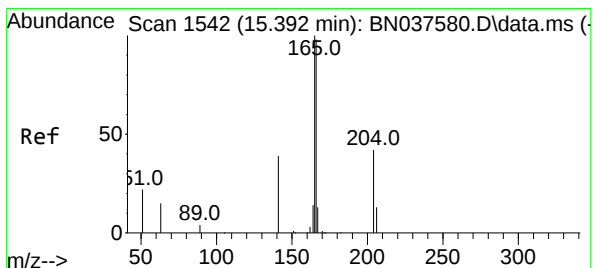
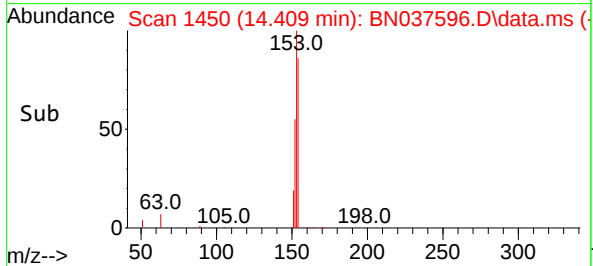
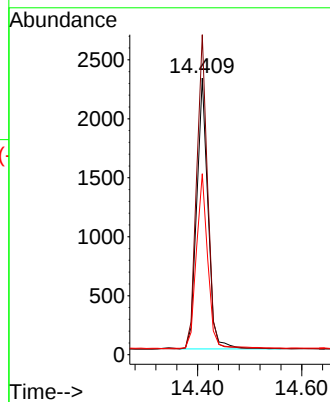
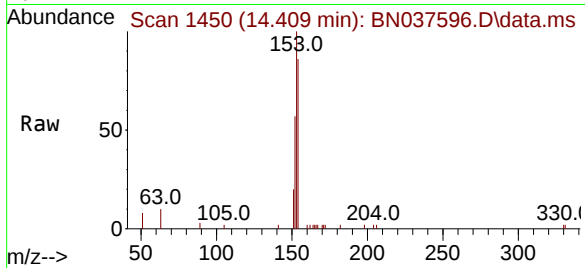




#17
Acenaphthene
Concen: 0.322 ng
RT: 14.409 min Scan# 1450
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

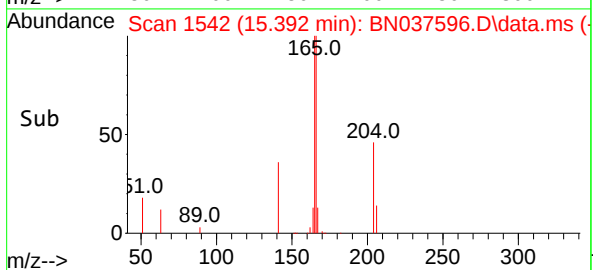
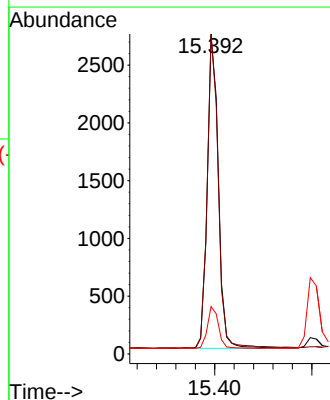
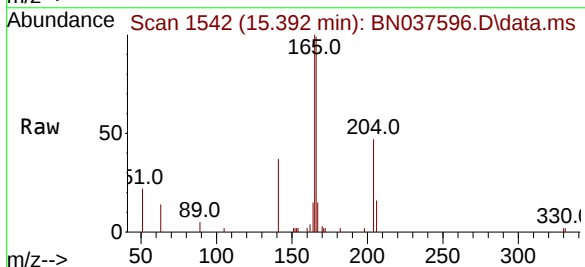
Instrument :
BNA_N
ClientSampleId :
PB169222BS

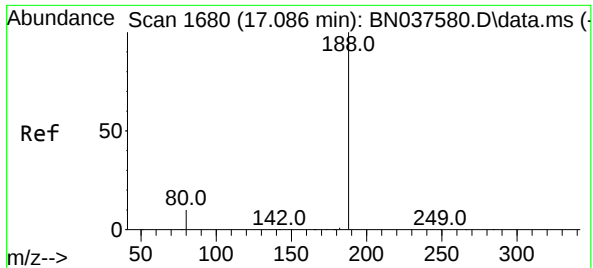
Tgt Ion	154	Resp:	3471
Ion Ratio	Lower	Upper	
154	100		
153	113.0	90.6	135.8
152	65.8	54.9	82.3



#18
Fluorene
Concen: 0.310 ng
RT: 15.392 min Scan# 1542
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion	166	Resp:	4368
Ion Ratio	Lower	Upper	
166	100		
165	98.9	78.9	118.3
167	13.0	10.7	16.1

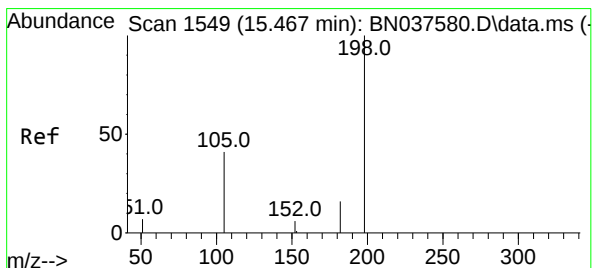
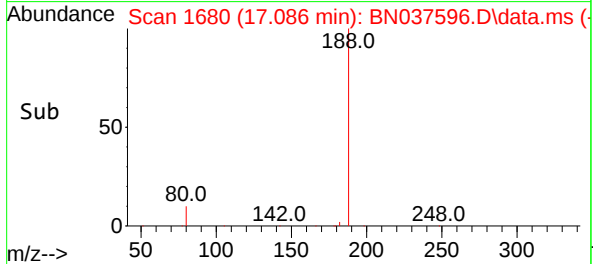
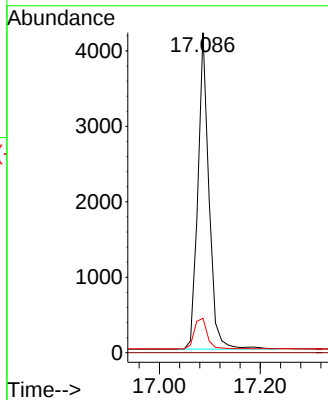
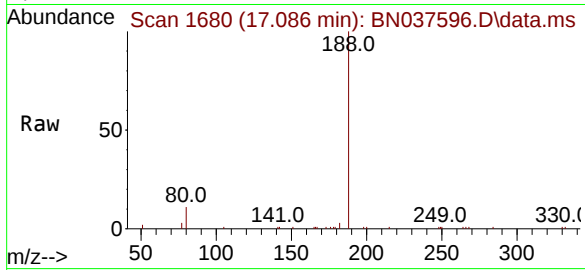




#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 17.086 min Scan# 1680
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

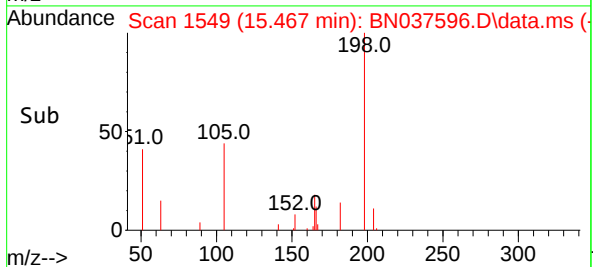
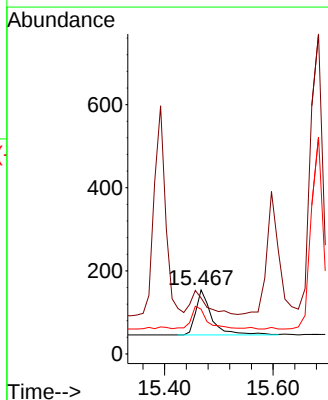
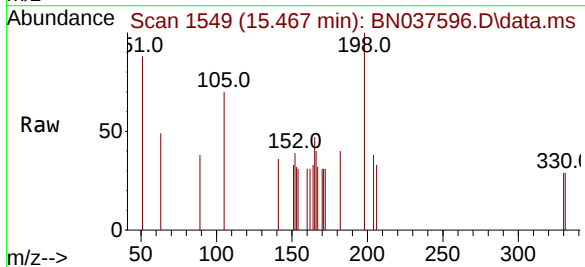
Instrument :
BNA_N
ClientSampleId :
PB169222BS

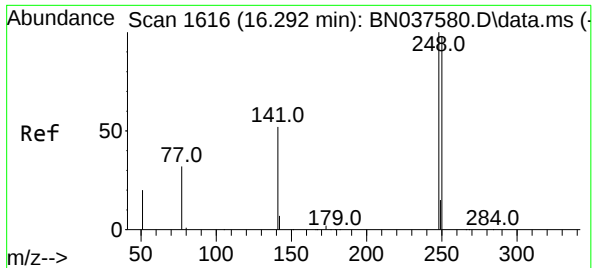
Tgt Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	10.7	9.1	13.7



#20
4,6-Dinitro-2-methylphenol
Concen: 0.378 ng
RT: 15.467 min Scan# 1549
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion	Ratio	Lower	Upper
198	100		
51	87.7	81.0	121.6
105	70.1	52.5	78.7

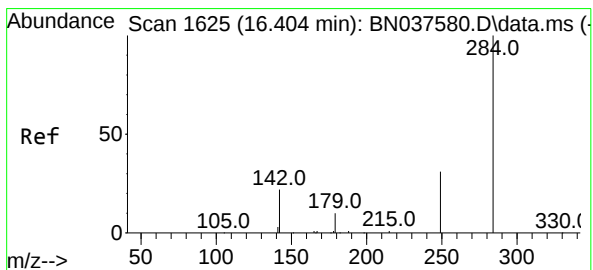
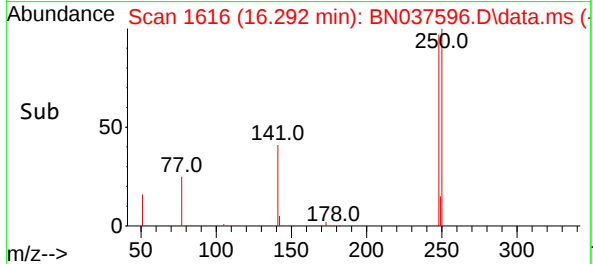
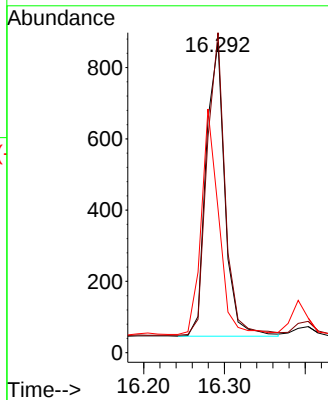
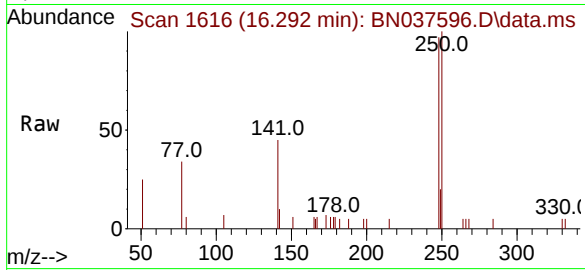




#21
4-Bromophenyl-phenylether
Concen: 0.331 ng
RT: 16.292 min Scan# 1616
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

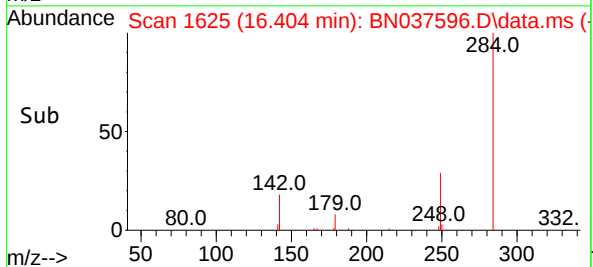
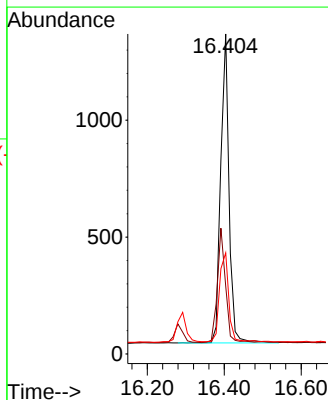
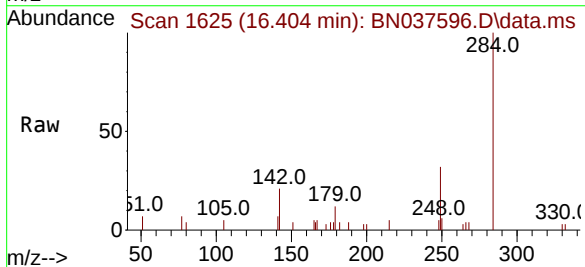
Instrument :
BNA_N
ClientSampleId :
PB169222BS

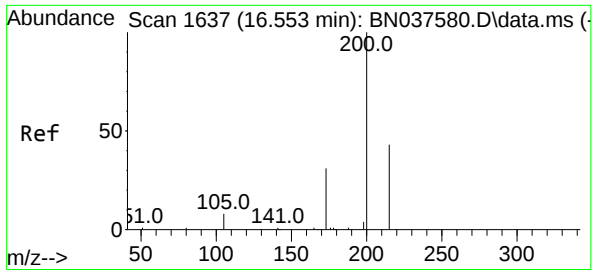
Tgt Ion	Ratio	Lower	Upper
248	100		
250	103.1	78.6	118.0
141	46.3	43.7	65.5



#22
Hexachlorobenzene
Concen: 0.349 ng
RT: 16.404 min Scan# 1625
Delta R.T. -0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion	Ratio	Lower	Upper
284	100		
142	36.1	29.8	44.6
249	32.3	26.0	39.0

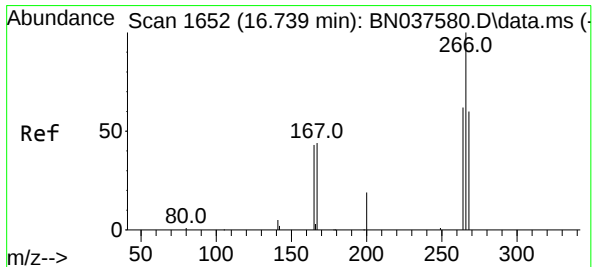
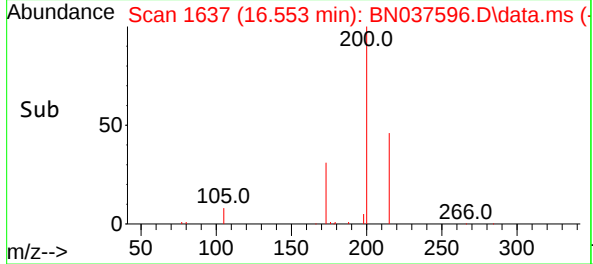
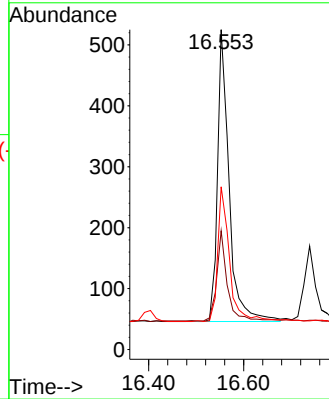
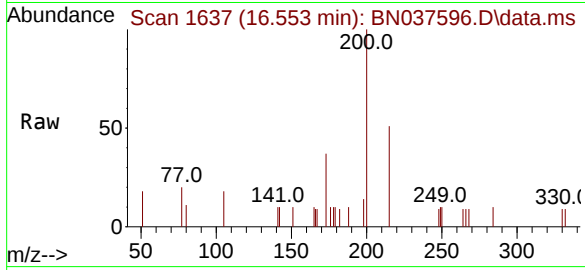




#23
Atrazine
Concen: 0.353 ng
RT: 16.553 min Scan# 1637
Delta R.T. -0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

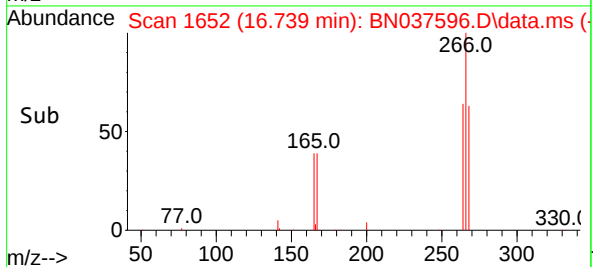
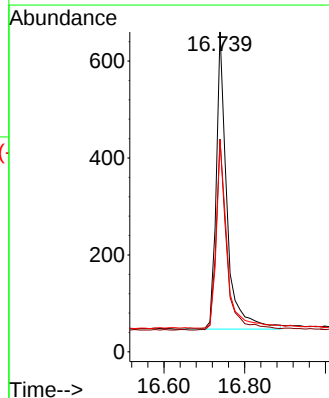
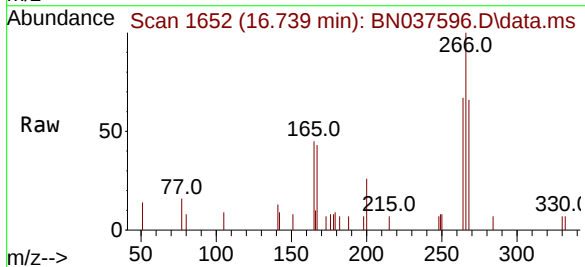
Instrument :
BNA_N
ClientSampleId :
PB169222BS

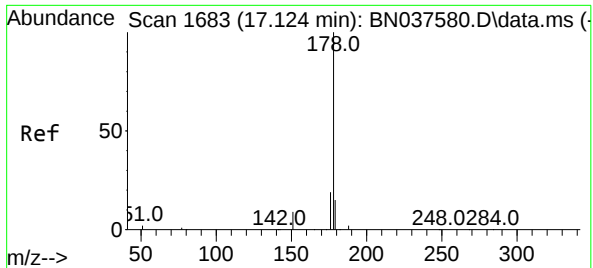
Tgt Ion:	200	Resp:	807
Ion	Ratio	Lower	Upper
200	100		
173	37.1	31.0	46.4
215	50.9	39.4	59.0



#24
Pentachlorophenol
Concen: 0.561 ng
RT: 16.739 min Scan# 1652
Delta R.T. -0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion:	266	Resp:	1130
Ion	Ratio	Lower	Upper
266	100		
264	63.7	49.6	74.4
268	62.9	49.2	73.8

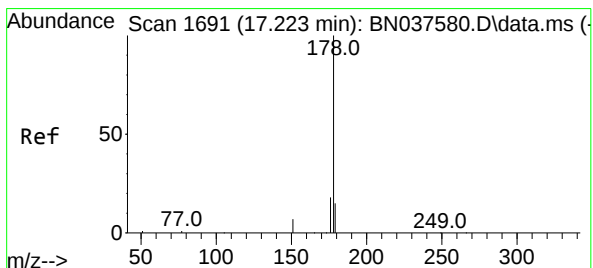
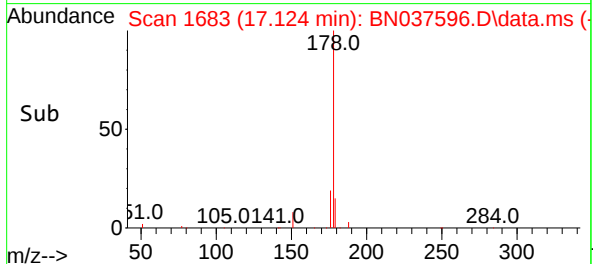
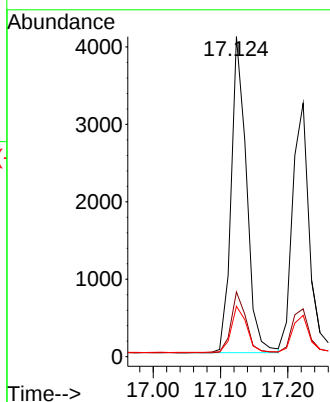
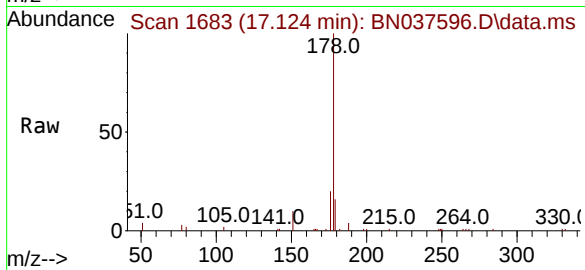




#25
Phenanthrene
Concen: 0.331 ng
RT: 17.124 min Scan# 1683
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

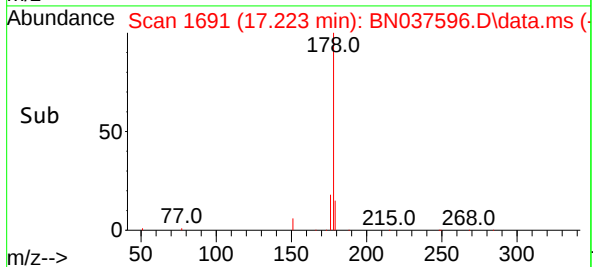
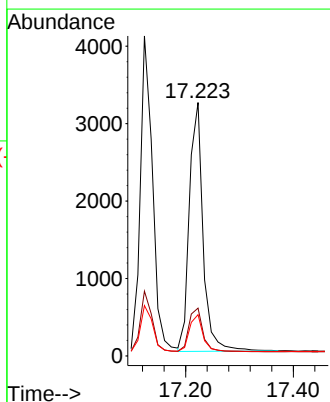
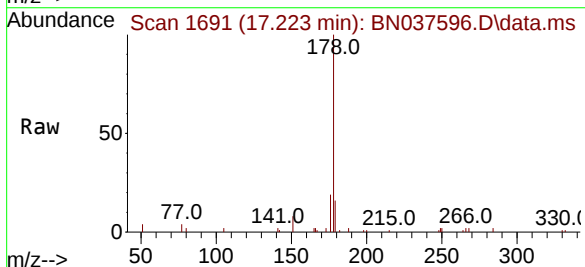
Instrument :
BNA_N
ClientSampleId :
PB169222BS

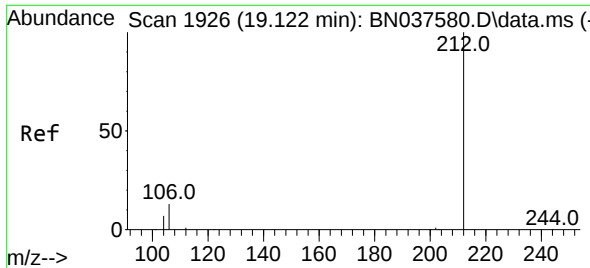
Tgt Ion	Ratio	Lower	Upper
178	100		
176	18.8	15.0	22.6
179	14.9	12.3	18.5



#26
Anthracene
Concen: 0.329 ng
RT: 17.223 min Scan# 1691
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion	Ratio	Lower	Upper
178	100		
176	18.2	14.7	22.1
179	14.8	12.3	18.5

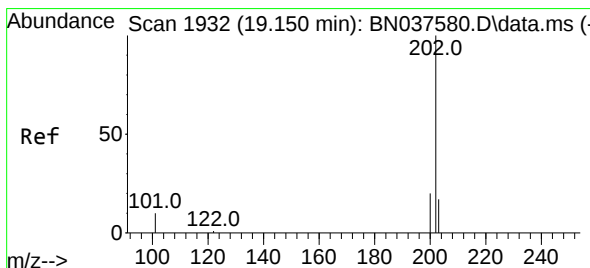
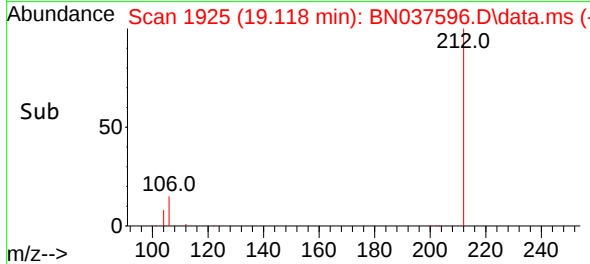
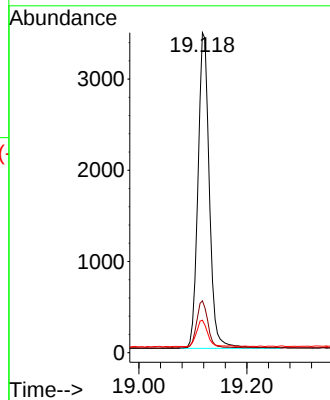
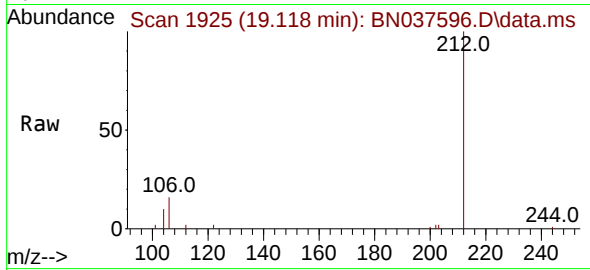




#27
Fluoranthene-d10
Concen: 0.300 ng
RT: 19.118 min Scan# 1925
Delta R.T. -0.005 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

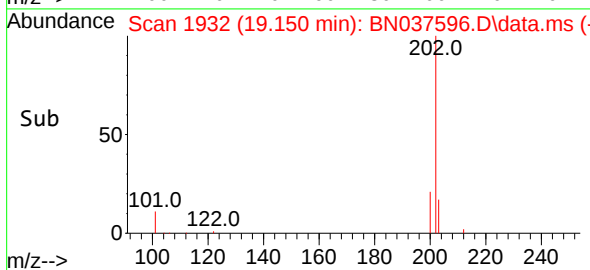
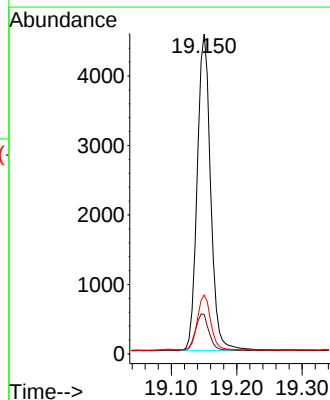
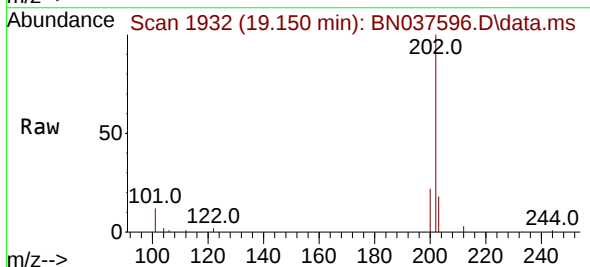
Instrument :
BNA_N
ClientSampleId :
PB169222BS

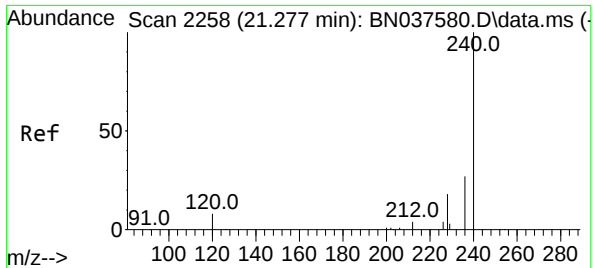
Tgt Ion	Ratio	Lower	Upper
212	100		
106	14.6	11.5	17.3
104	8.1	6.6	9.8



#28
Fluoranthene
Concen: 0.288 ng
RT: 19.150 min Scan# 1932
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.0	9.0	13.6
203	17.1	13.8	20.8





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.277 min Scan# 21

Delta R.T. 0.000 min

Lab File: BN037596.D

Acq: 13 Aug 2025 15:22

Instrument :

BNA_N

ClientSampleId :

PB169222BS

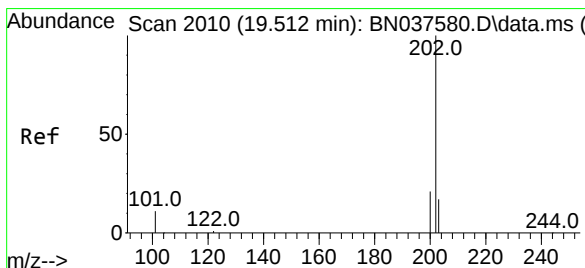
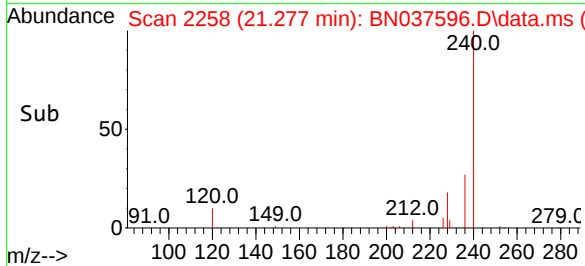
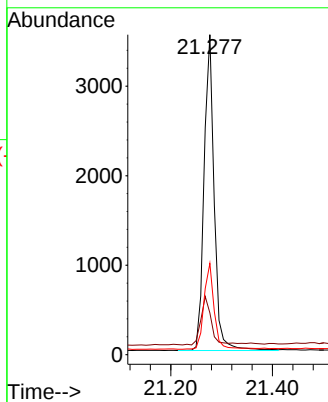
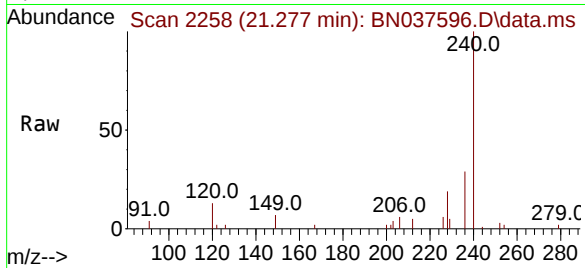
Tgt Ion:240 Resp: 4873

Ion Ratio Lower Upper

240 100

120 13.1 8.9 13.3

236 28.6 22.6 33.8



#30

Pyrene

Concen: 0.341 ng

RT: 19.513 min Scan# 2010

Delta R.T. 0.000 min

Lab File: BN037596.D

Acq: 13 Aug 2025 15:22

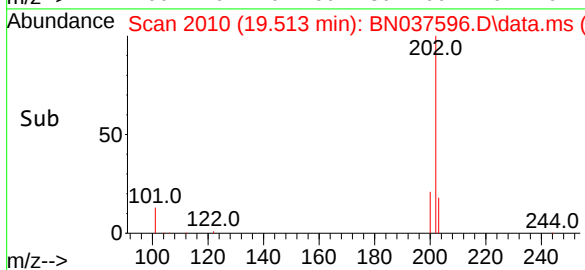
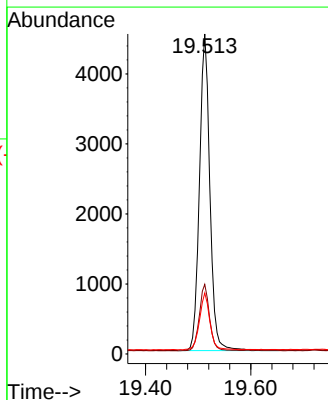
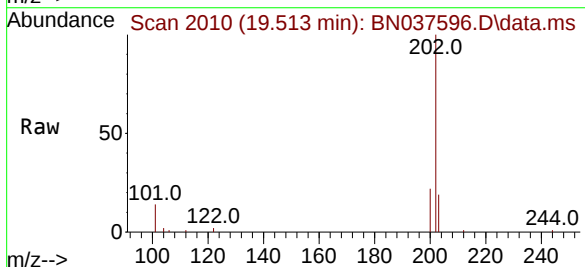
Tgt Ion:202 Resp: 6217

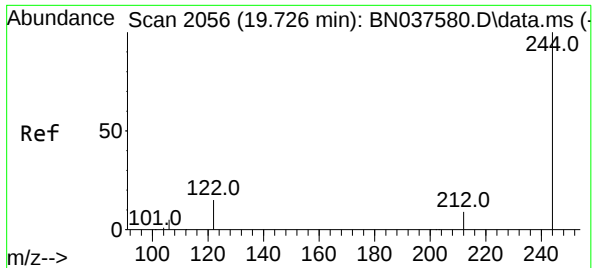
Ion Ratio Lower Upper

202 100

200 20.6 16.6 25.0

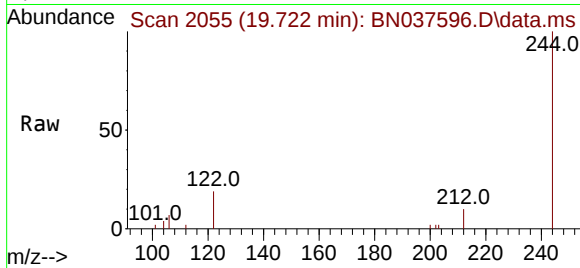
203 17.7 14.3 21.5



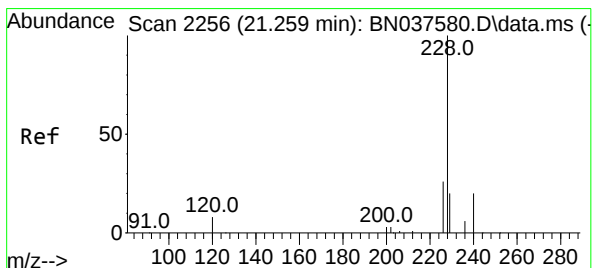
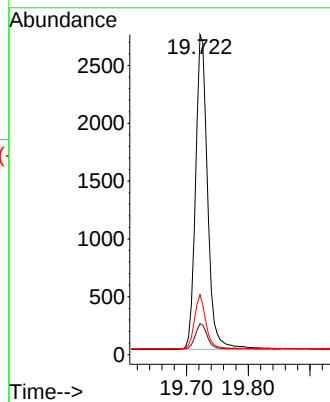
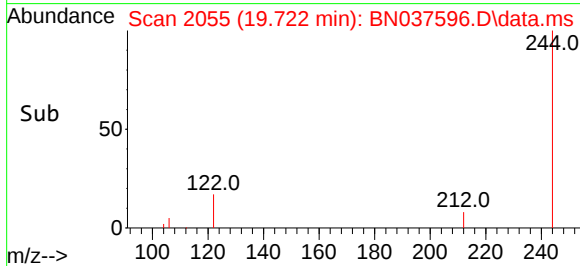


#31
Terphenyl-d14
Concen: 0.371 ng
RT: 19.722 min Scan# 2055
Delta R.T. -0.005 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Instrument :
BNA_N
ClientSampleId :
PB169222BS

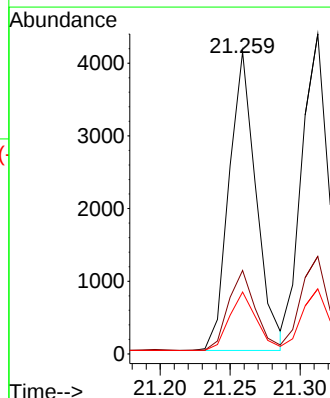
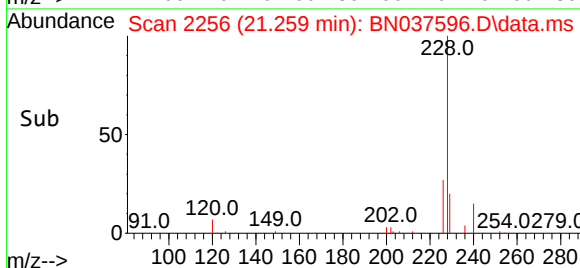
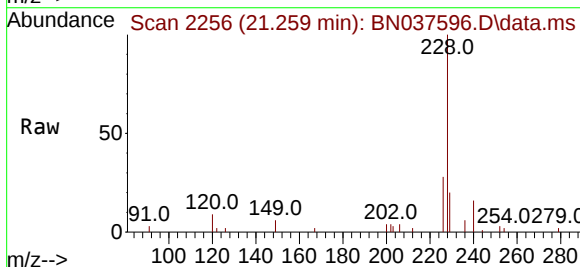


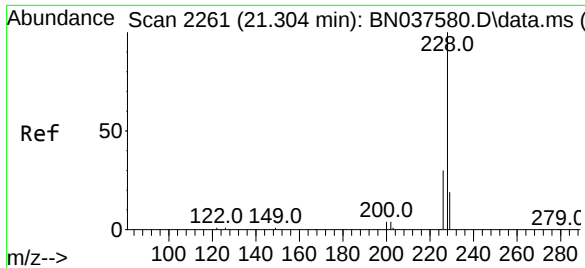
Tgt Ion:244 Resp: 3723
Ion Ratio Lower Upper
244 100
212 9.7 8.2 12.2
122 18.7 13.2 19.8



#32
Benzo(a)anthracene
Concen: 0.341 ng
RT: 21.259 min Scan# 2256
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion:228 Resp: 5547
Ion Ratio Lower Upper
228 100
226 27.6 21.5 32.3
229 20.5 16.5 24.7





#33

Chrysene

Concen: 0.340 ng

RT: 21.313 min Scan# 21

Delta R.T. 0.009 min

Lab File: BN037596.D

Acq: 13 Aug 2025 15:22

Instrument :

BNA_N

ClientSampleId :

PB169222BS

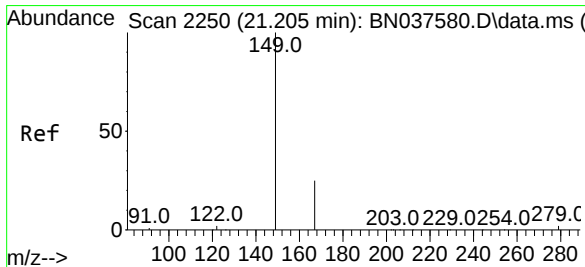
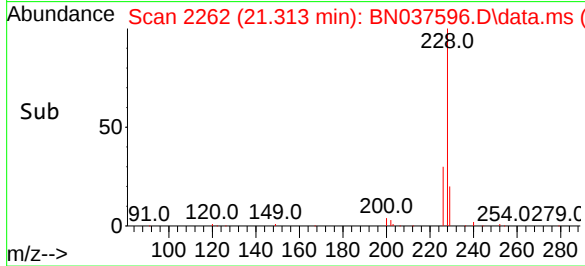
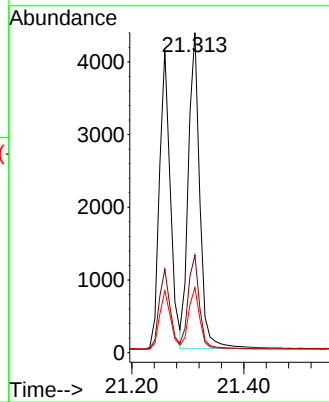
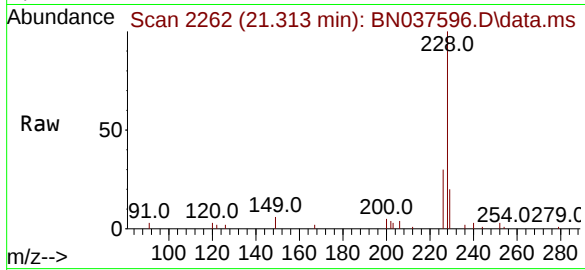
Tgt Ion:228 Resp: 6161

Ion Ratio Lower Upper

228 100

226 30.5 24.9 37.3

229 20.4 15.8 23.8



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.299 ng

RT: 21.205 min Scan# 2250

Delta R.T. 0.000 min

Lab File: BN037596.D

Acq: 13 Aug 2025 15:22

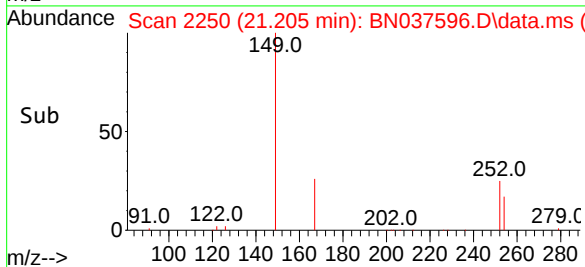
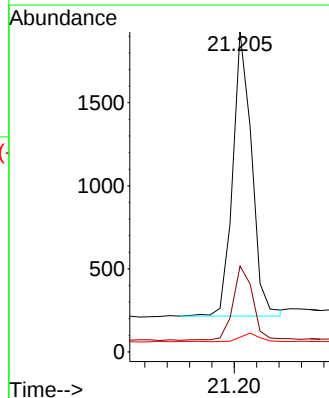
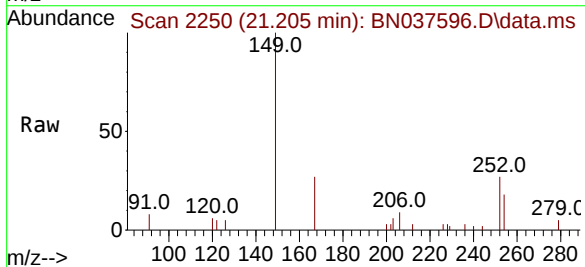
Tgt Ion:149 Resp: 2008

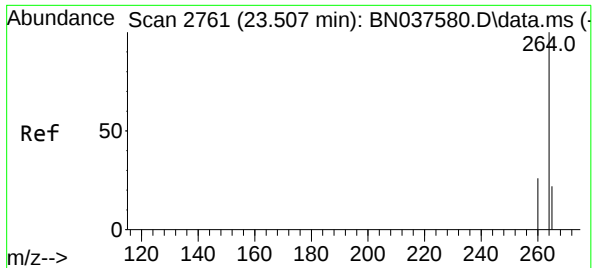
Ion Ratio Lower Upper

149 100

167 27.8 20.5 30.7

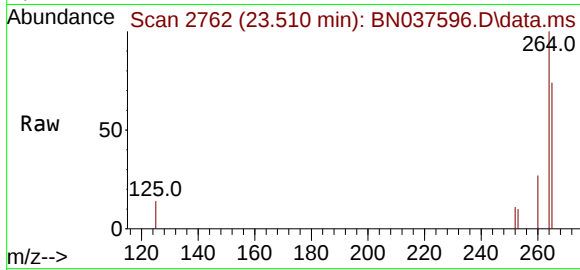
279 3.1 2.6 4.0



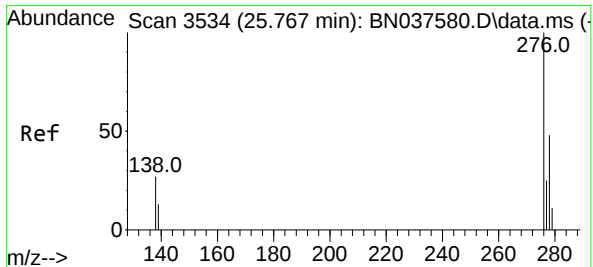
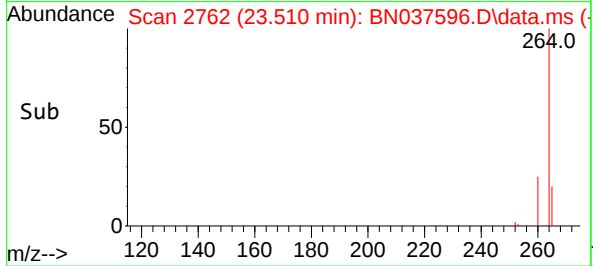
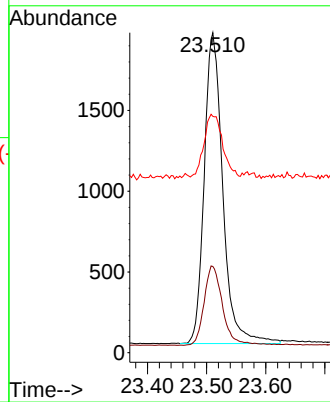


#35
Perylene-d12
Concen: 0.400 ng
RT: 23.510 min Scan# 21
Delta R.T. 0.003 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Instrument :
BNA_N
ClientSampleId :
PB169222BS

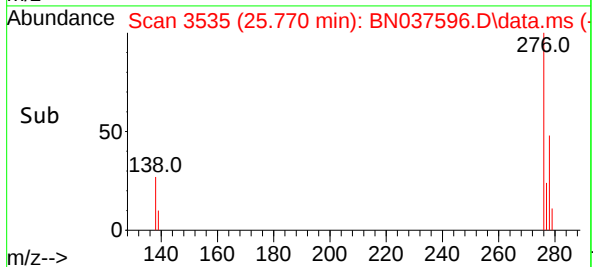
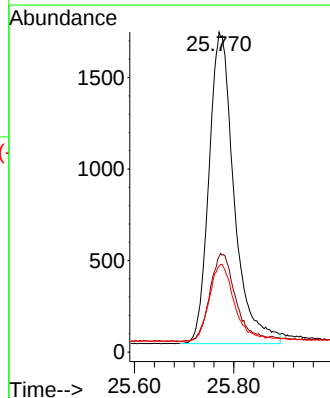
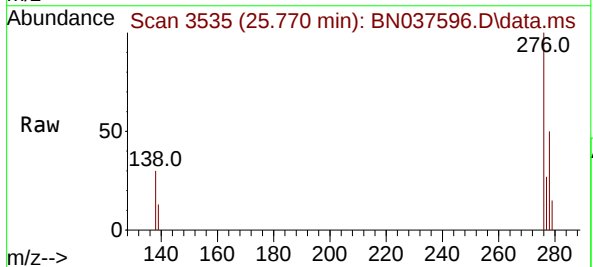


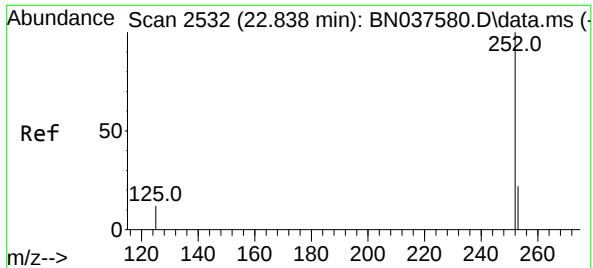
Tgt Ion:264 Resp: 4192
Ion Ratio Lower Upper
264 100
260 27.0 21.6 32.4
265 73.9 48.2 72.4#



#36
Indeno(1,2,3-cd)pyrene
Concen: 0.339 ng
RT: 25.770 min Scan# 3535
Delta R.T. 0.003 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

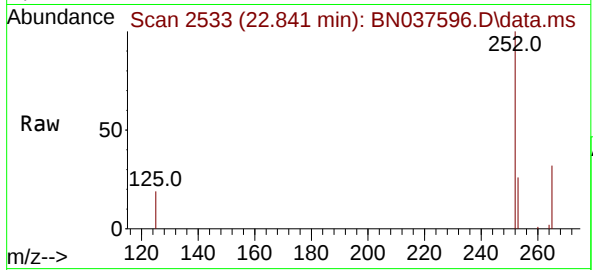
Tgt Ion:276 Resp: 5987
Ion Ratio Lower Upper
276 100
138 28.9 23.3 34.9
277 24.7 19.5 29.3



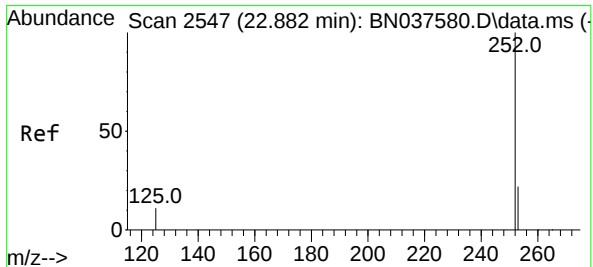
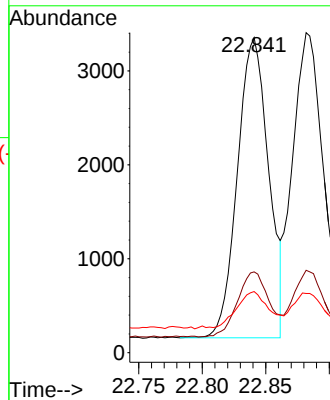
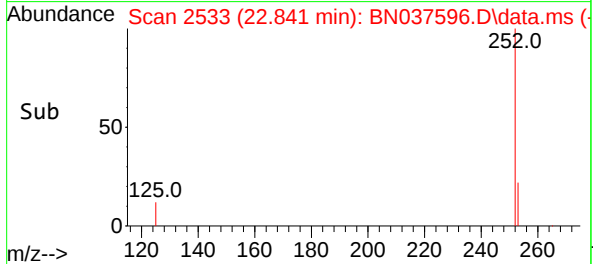


#37
Benzo(b)fluoranthene
Concen: 0.344 ng
RT: 22.841 min Scan# 2533
Delta R.T. 0.003 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Instrument :
BNA_N
ClientSampleId :
PB169222BS

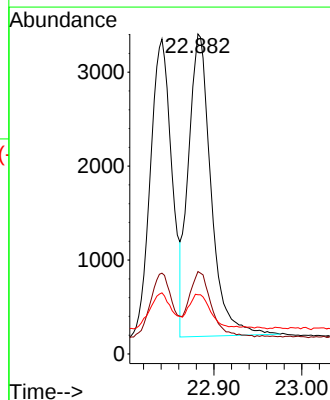
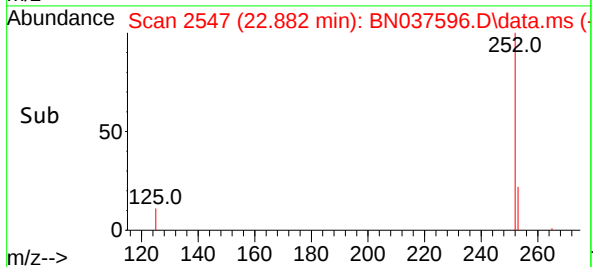
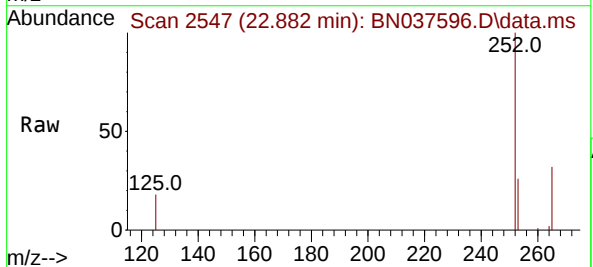


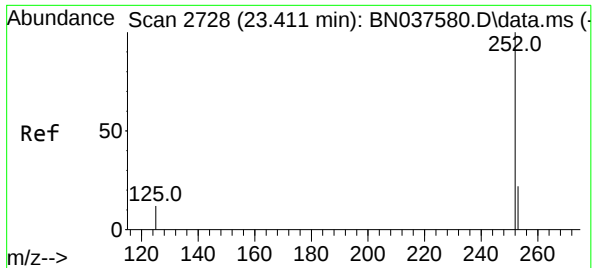
Tgt Ion:252 Resp: 5458
Ion Ratio Lower Upper
252 100
253 25.7 20.0 30.0
125 19.4 13.8 20.6



#38
Benzo(k)fluoranthene
Concen: 0.321 ng
RT: 22.882 min Scan# 2547
Delta R.T. 0.000 min
Lab File: BN037596.D
Acq: 13 Aug 2025 15:22

Tgt Ion:252 Resp: 5754
Ion Ratio Lower Upper
252 100
253 25.7 19.9 29.9
125 18.5 15.0 22.6





#39

Benzo(a)pyrene

Concen: 0.362 ng

RT: 23.414 min Scan# 21

Delta R.T. 0.003 min

Lab File: BN037596.D

Acq: 13 Aug 2025 15:22

Instrument :

BNA_N

ClientSampleId :

PB169222BS

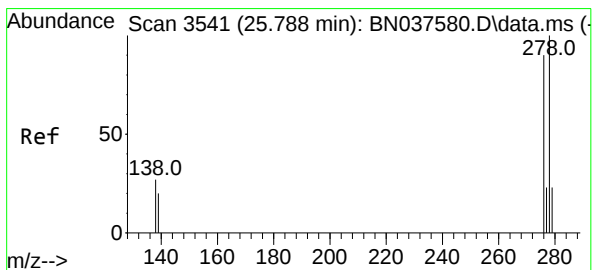
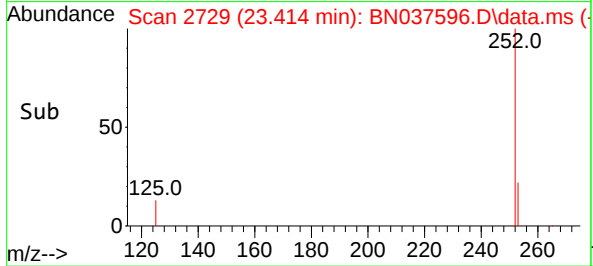
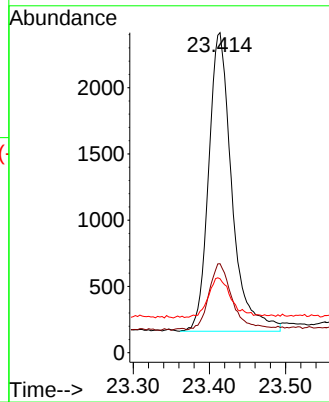
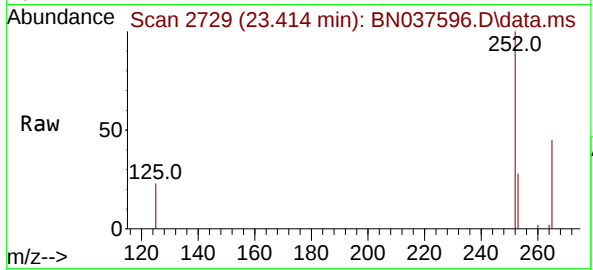
Tgt Ion:252 Resp: 4770

Ion Ratio Lower Upper

252 100

253 27.8 21.6 32.4

125 23.1 16.8 25.2



#40

Dibenzo(a,h)anthracene

Concen: 0.338 ng

RT: 25.791 min Scan# 3542

Delta R.T. 0.003 min

Lab File: BN037596.D

Acq: 13 Aug 2025 15:22

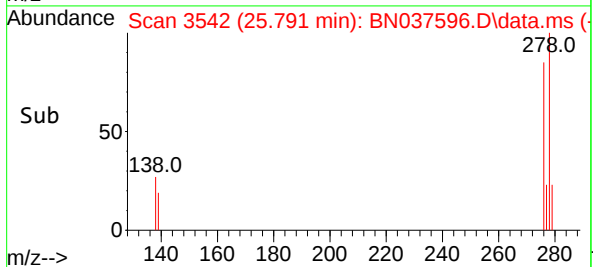
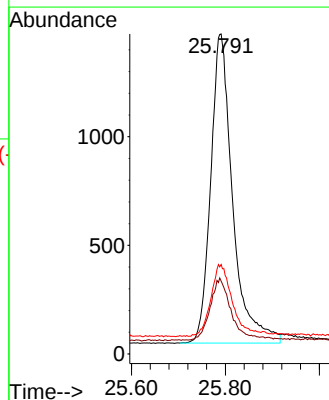
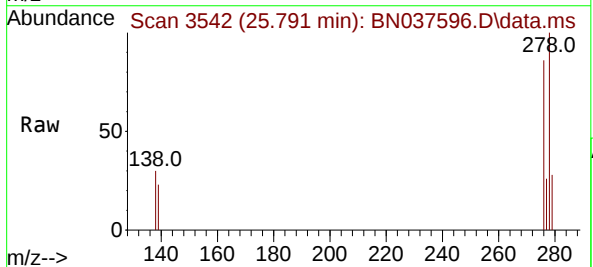
Tgt Ion:278 Resp: 4628

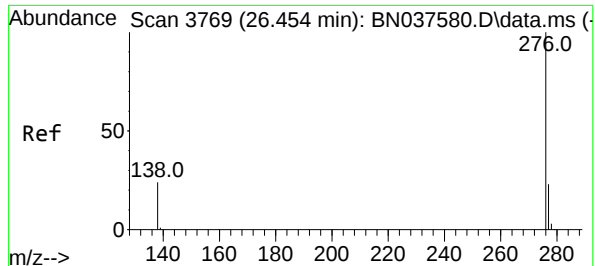
Ion Ratio Lower Upper

278 100

139 22.7 18.3 27.5

279 28.0 22.5 33.7





#41

Benzo(g,h,i)perylene

Concen: 0.366 ng

RT: 26.457 min Scan# 31

Delta R.T. 0.003 min

Lab File: BN037596.D

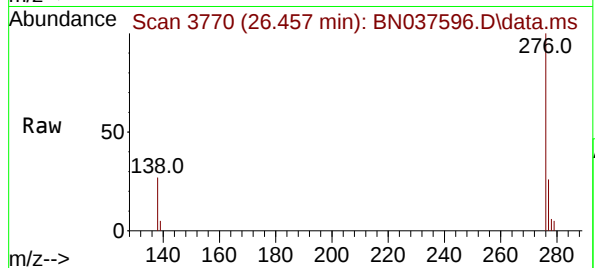
Acq: 13 Aug 2025 15:22

Instrument :

BNA_N

ClientSampleId :

PB169222BS



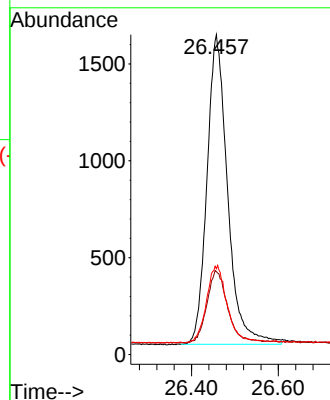
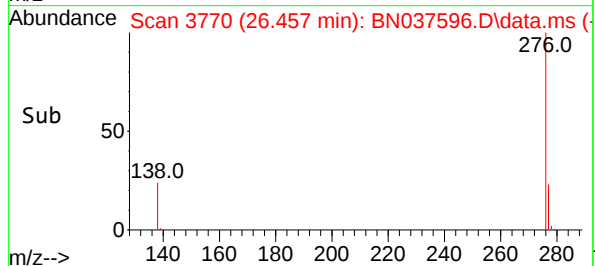
Tgt Ion:276 Resp: 5279

Ion Ratio Lower Upper

276 100

277 25.9 21.0 31.4

138 26.8 21.7 32.5



Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	
Client Sample ID:	PB169222BSD	SDG No.:	Q2806
Lab Sample ID:	PB169222BSD	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN037597.D	1	08/12/25 08:52	08/13/25 15:58	PB169222

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.29		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		88%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.32		30 - 150		80%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		91%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		97%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.41		58 - 132		101%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2740	7.717				
1146-65-2	Naphthalene-d8	6600	10.498				
15067-26-2	Acenaphthene-d10	3080	14.345				
1517-22-2	Phenanthrene-d10	5660	17.086				
1719-03-5	Chrysene-d12	4220	21.277				
1520-96-3	Perylene-d12	3620	23.505				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN081325\
 Data File : BN037597.D
 Acq On : 13 Aug 2025 15:58
 Operator : RC/JU
 Sample : PB169222BSD
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 BNA_N
 ClientSampleId :
 PB169222BSD

Quant Time: Aug 13 16:26:16 2025
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_N\Methods\8270-SIM-BN081225.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Wed Aug 13 05:00:58 2025
 Response via : Initial Calibration

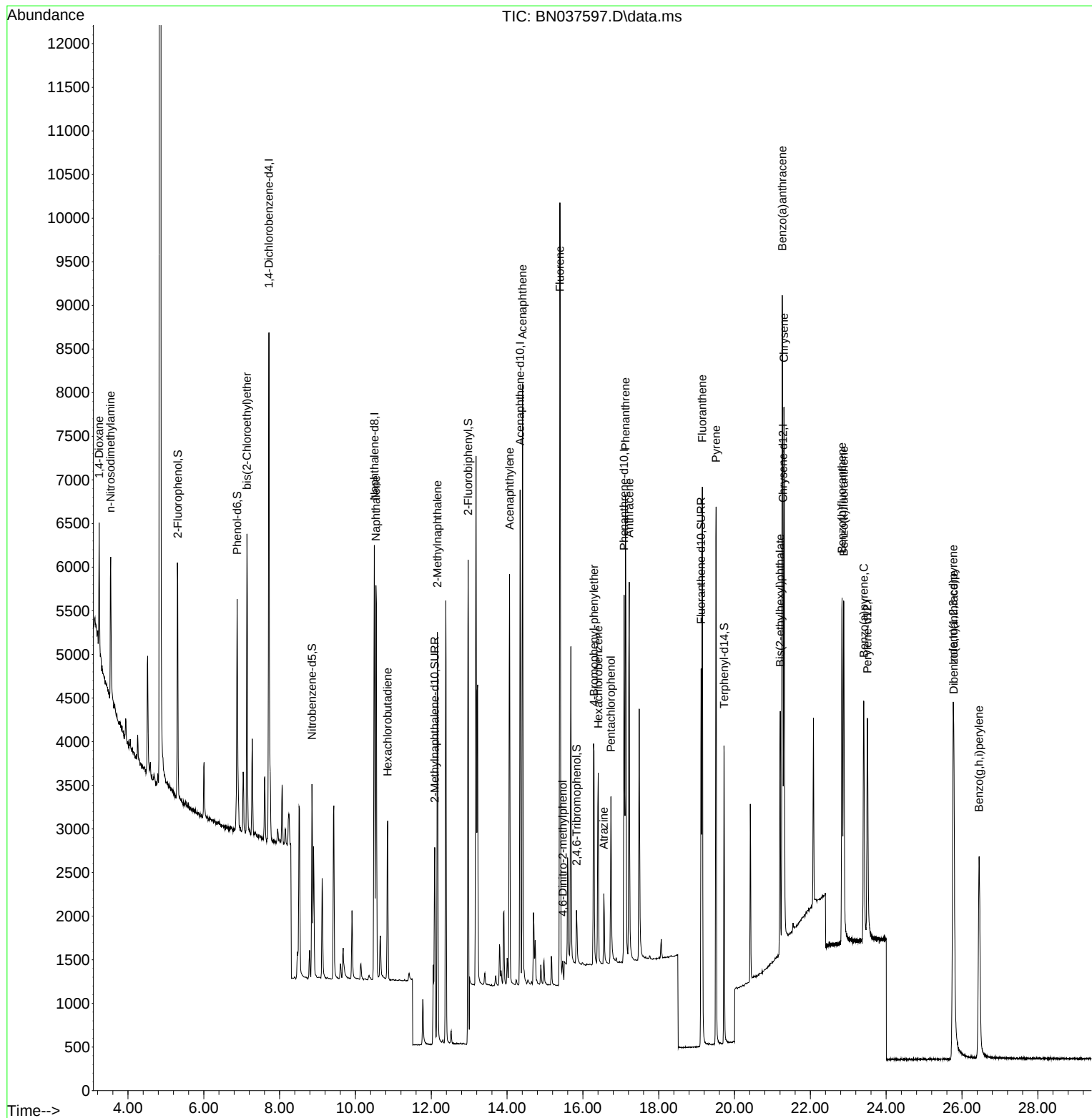
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.717	152	2742	0.400	ng	0.00
7) Naphthalene-d8	10.498	136	6598	0.400	ng	0.00
13) Acenaphthene-d10	14.345	164	3080	0.400	ng	0.00
19) Phenanthrene-d10	17.086	188	5659	0.400	ng	0.00
29) Chrysene-d12	21.277	240	4216	0.400	ng	0.00
35) Perylene-d12	23.505	264	3616	0.400	ng	# 0.00
System Monitoring Compounds						
4) 2-Fluorophenol	5.312	112	2133	0.343	ng	0.00
5) Phenol-d6	6.879	99	2445	0.327	ng	0.00
8) Nitrobenzene-d5	8.854	82	1693	0.364	ng	0.00
11) 2-Methylnaphthalene-d10	12.090	152	3138	0.350	ng	0.00
14) 2,4,6-Tribromophenol	15.833	330	400	0.297	ng	0.00
15) 2-Fluorobiphenyl	12.973	172	6923	0.389	ng	0.00
27) Fluoranthene-d10	19.118	212	4762	0.320	ng	0.00
31) Terphenyl-d14	19.726	244	3509	0.405	ng	0.00
Target Compounds						
2) 1,4-Dioxane	3.239	88	759	0.289	ng	# 75
3) n-Nitrosodimethylamine	3.543	42	1121	0.334	ng	# 93
6) bis(2-Chloroethyl)ether	7.139	93	2433	0.361	ng	97
9) Naphthalene	10.541	128	6304	0.359	ng	99
10) Hexachlorobutadiene	10.850	225	1564	0.364	ng	# 99
12) 2-Methylnaphthalene	12.161	142	3491	0.317	ng	99
16) Acenaphthylene	14.067	152	5329	0.386	ng	98
17) Acenaphthene	14.409	154	3263	0.347	ng	97
18) Fluorene	15.392	166	4095	0.333	ng	99
20) 4,6-Dinitro-2-methylph...	15.467	198	193	0.369	ng	95
21) 4-Bromophenyl-phenylether	16.292	248	1254	0.353	ng	94
22) Hexachlorobenzene	16.404	284	1910	0.379	ng	99
23) Atrazine	16.553	200	751	0.373	ng	98
24) Pentachlorophenol	16.739	266	1030	0.582	ng	98
25) Phenanthrene	17.124	178	6061	0.352	ng	99
26) Anthracene	17.223	178	5316	0.349	ng	99
28) Fluoranthene	19.150	202	6065	0.307	ng	99
30) Pyrene	19.513	202	5813	0.369	ng	99
32) Benzo(a)anthracene	21.259	228	5245	0.372	ng	99
33) Chrysene	21.304	228	5767	0.367	ng	99
34) Bis(2-ethylhexyl)phtha...	21.205	149	1866	0.321	ng	100
36) Indeno(1,2,3-cd)pyrene	25.767	276	5820	0.382	ng	100
37) Benzo(b)fluoranthene	22.835	252	5199	0.379	ng	98
38) Benzo(k)fluoranthene	22.879	252	5467	0.354	ng	99
39) Benzo(a)pyrene	23.411	252	4407	0.388	ng	98
40) Dibenzo(a,h)anthracene	25.785	278	4450	0.376	ng	99
41) Benzo(g,h,i)perylene	26.452	276	5052	0.406	ng	99

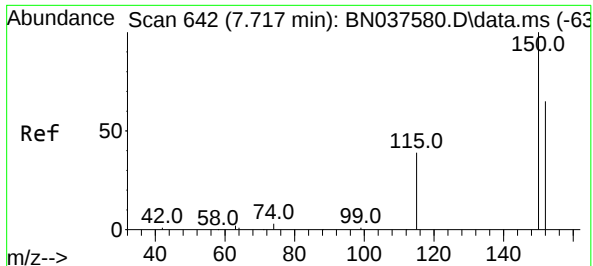
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Data Path : Z:\svoasrv\HPCHEM1\BNA_N\Data\BN081325\
Data File : BN037597.D
Acq On : 13 Aug 2025 15:58
Operator : RC/JU
Sample : PB169222BSD
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_N
ClientSampleId :
PB169222BSD

Quant Time: Aug 13 16:26:16 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_N\Methods\8270-SIM-BN081225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Aug 13 05:00:58 2025
Response via : Initial Calibration

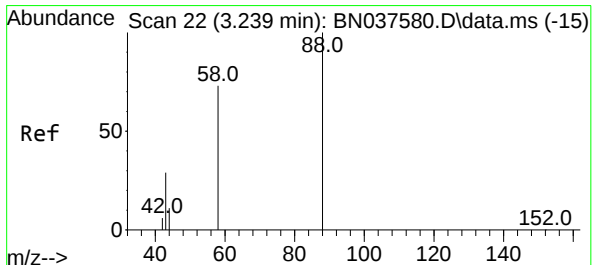
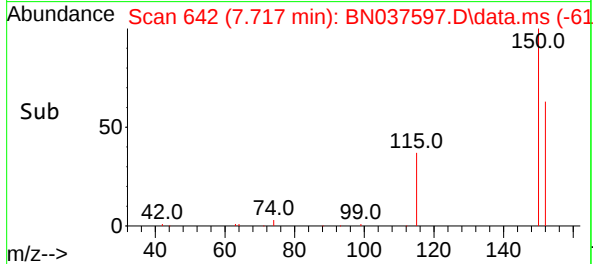
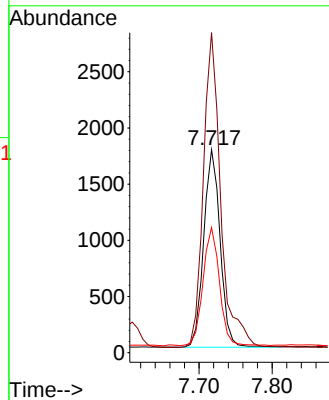
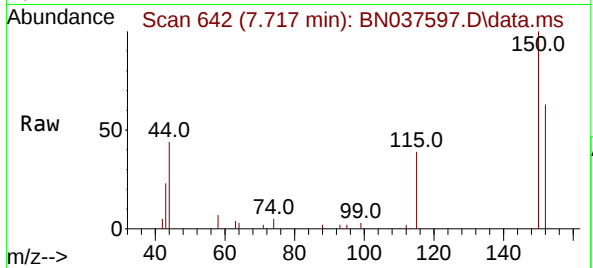




#1
1,4-Dichlorobenzene-d4
Concen: 0.400 ng
RT: 7.717 min Scan# 64
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

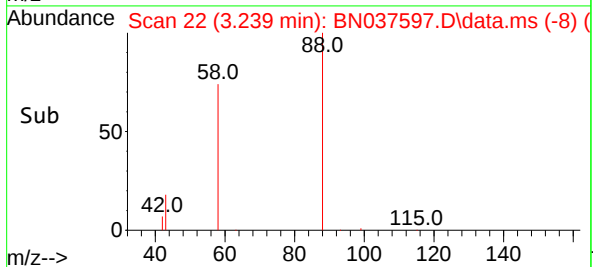
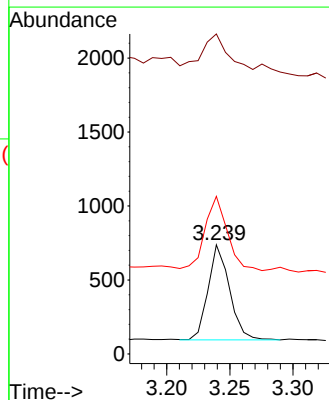
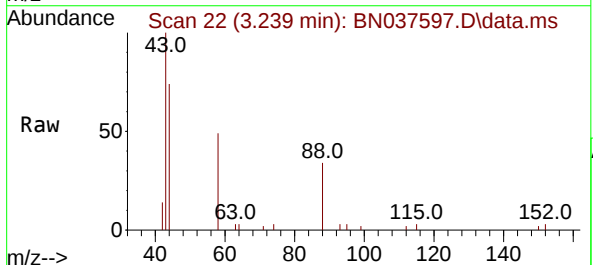
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

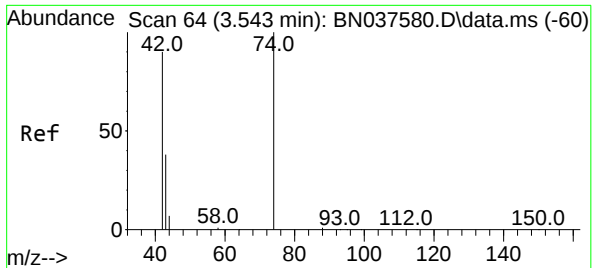
Tgt Ion:152 Resp: 2742
Ion Ratio Lower Upper
152 100
150 157.6 122.2 183.4
115 61.6 49.8 74.6



#2
1,4-Dioxane
Concen: 0.289 ng
RT: 3.239 min Scan# 22
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion: 88 Resp: 759
Ion Ratio Lower Upper
88 100
43 71.5 25.8 38.6#
58 81.8 61.2 91.8

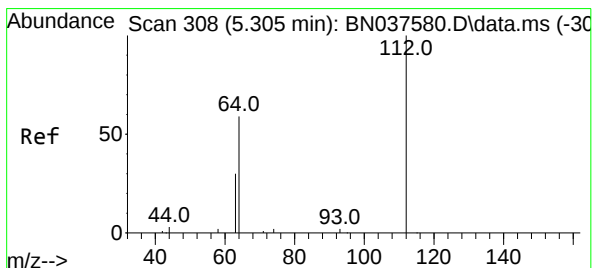
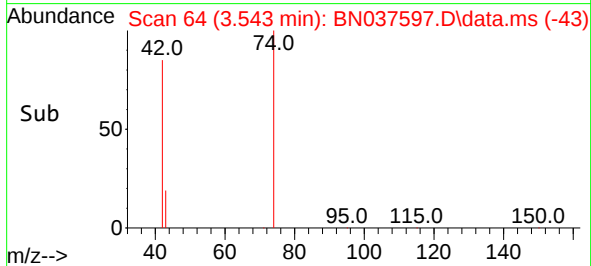
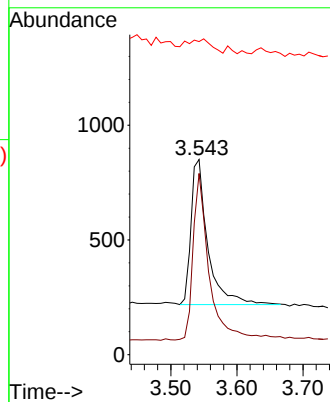
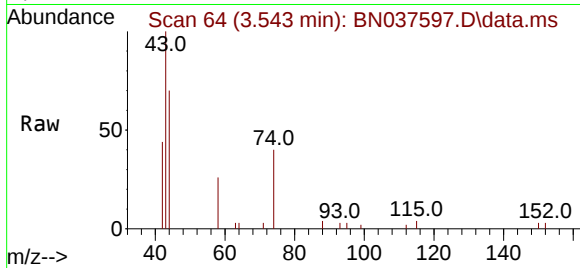




#3
n-Nitrosodimethylamine
Concen: 0.334 ng
RT: 3.543 min Scan# 64
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

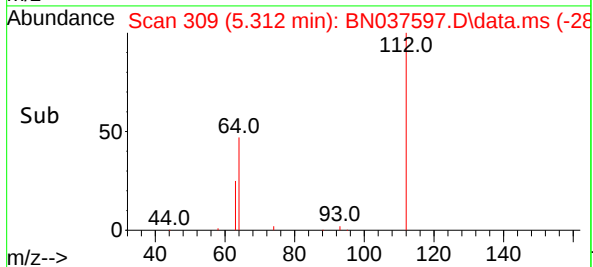
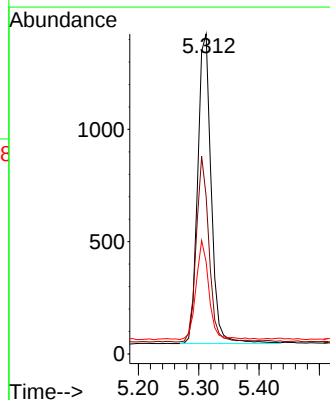
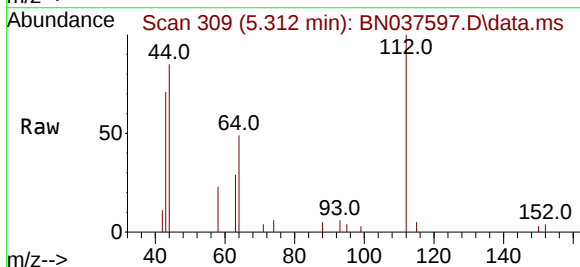
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

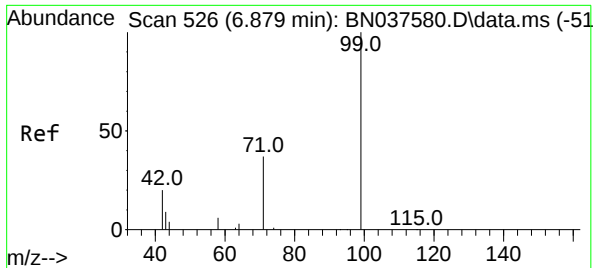
Tgt Ion: 42 Resp: 1121
Ion Ratio Lower Upper
42 100
74 109.5 82.0 123.0
44 13.6 7.9 11.9#



#4
2-Fluorophenol
Concen: 0.343 ng
RT: 5.312 min Scan# 309
Delta R.T. 0.007 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion: 112 Resp: 2133
Ion Ratio Lower Upper
112 100
64 56.7 44.9 67.3
63 30.2 23.4 35.2

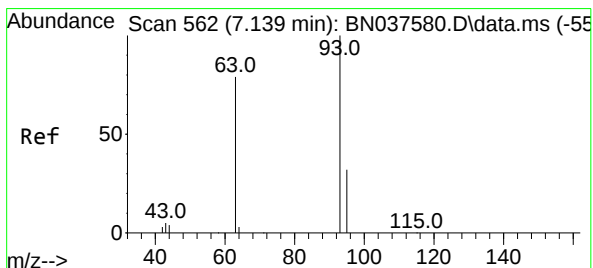
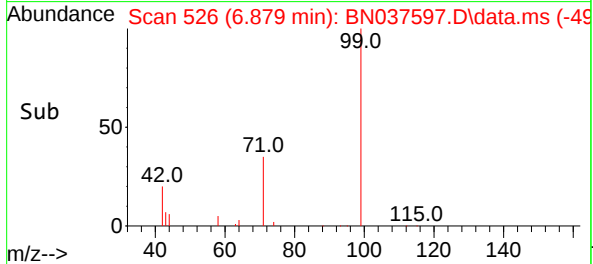
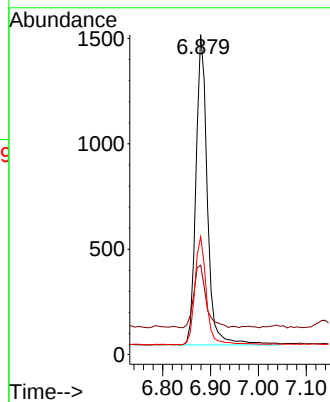
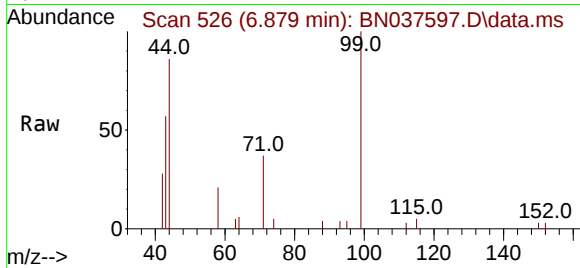




#5
Phenol-d6
Concen: 0.327 ng
RT: 6.879 min Scan# 51
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

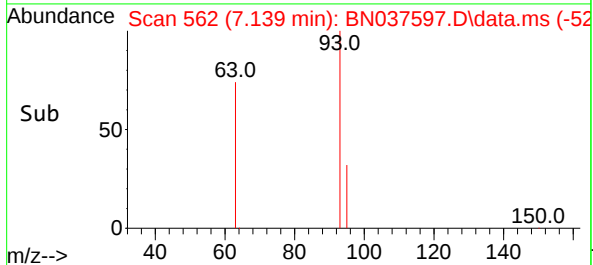
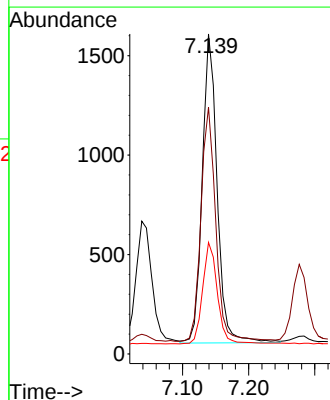
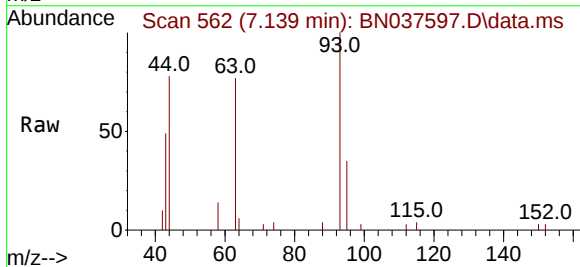
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

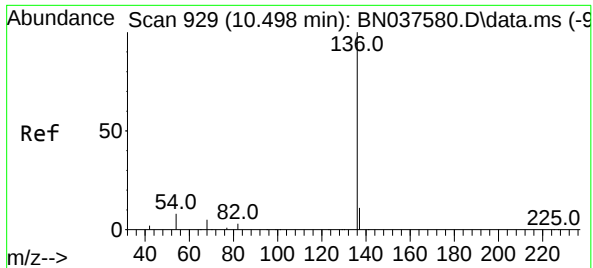
Tgt Ion:	99	Resp:	2445
Ion	Ratio	Lower	Upper
99	100		
42	21.6	18.5	27.7
71	35.1	28.6	42.8



#6
bis(2-Chloroethyl)ether
Concen: 0.361 ng
RT: 7.139 min Scan# 562
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion:	93	Resp:	2433
Ion	Ratio	Lower	Upper
93	100		
63	75.3	58.0	87.0
95	32.4	24.9	37.3

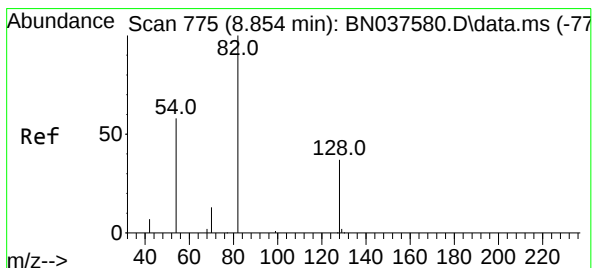
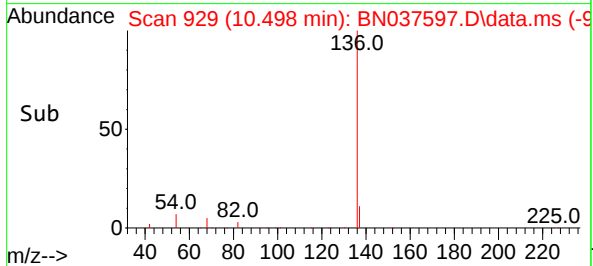
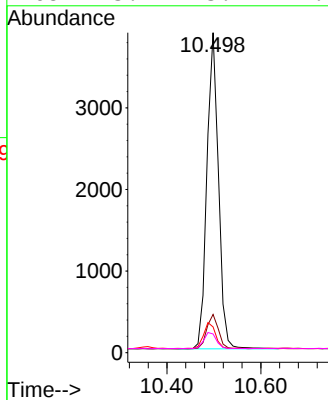
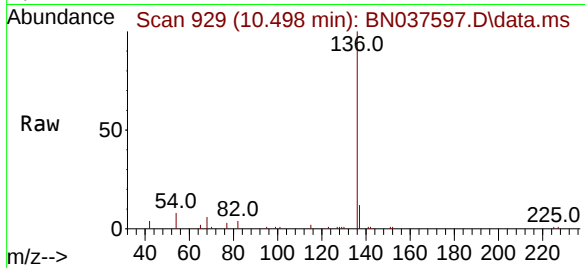




#7
Naphthalene-d8
Concen: 0.400 ng
RT: 10.498 min Scan# 91
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

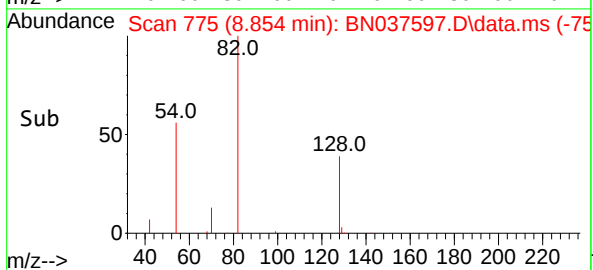
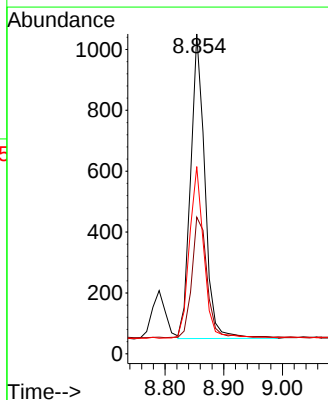
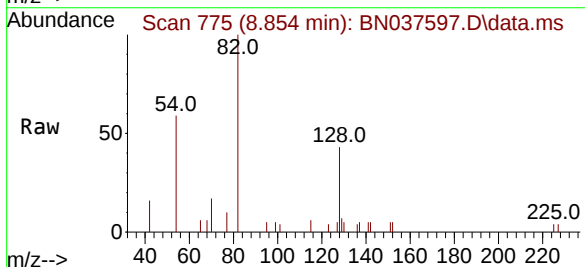
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

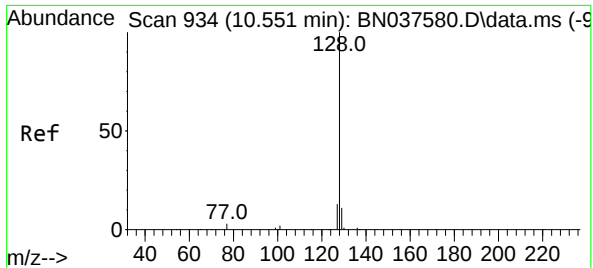
Tgt Ion:	136	Resp:	6598
Ion	Ratio	Lower	Upper
136	100		
137	12.0	9.5	14.3
54	8.0	7.3	10.9
68	5.9	5.1	7.7



#8
Nitrobenzene-d5
Concen: 0.364 ng
RT: 8.854 min Scan# 775
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion:	82	Resp:	1693
Ion	Ratio	Lower	Upper
82	100		
128	42.7	32.6	48.8
54	58.5	48.9	73.3

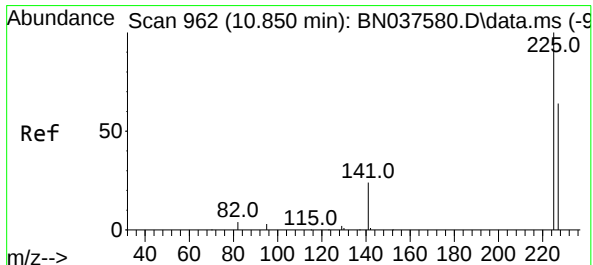
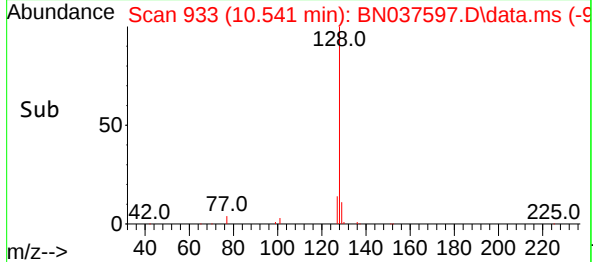
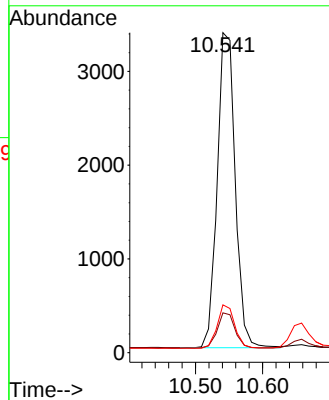
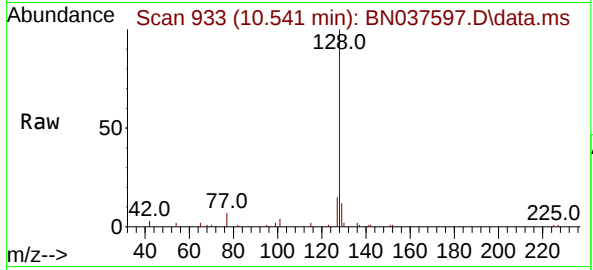




#9
Naphthalene
Concen: 0.359 ng
RT: 10.541 min Scan# 911
Delta R.T. -0.011 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

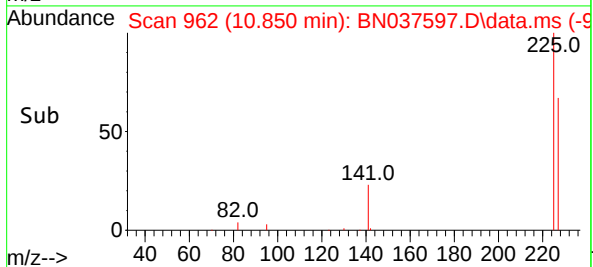
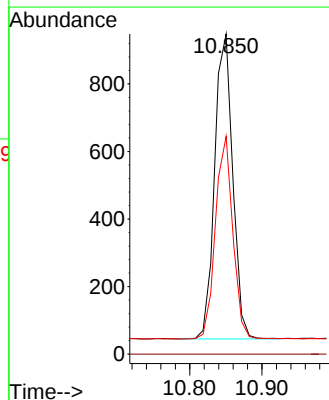
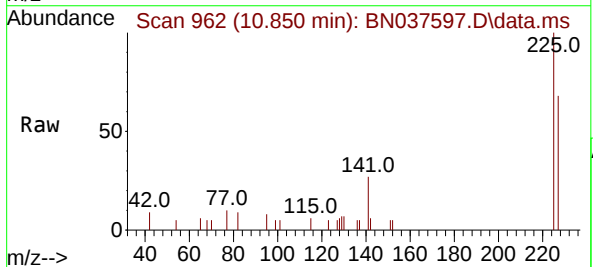
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

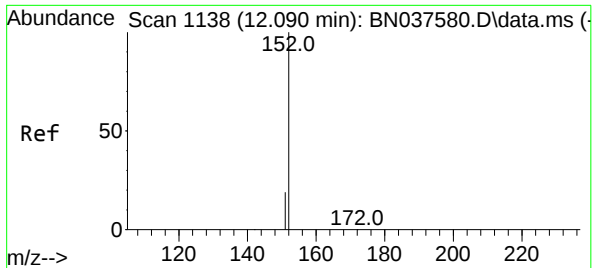
Tgt Ion:	128	Resp:	6304
Ion	Ratio	Lower	Upper
128	100		
129	12.5	9.8	14.6
127	15.0	11.5	17.3



#10
Hexachlorobutadiene
Concen: 0.364 ng
RT: 10.850 min Scan# 962
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion:	225	Resp:	1564
Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	64.1	50.8	76.2

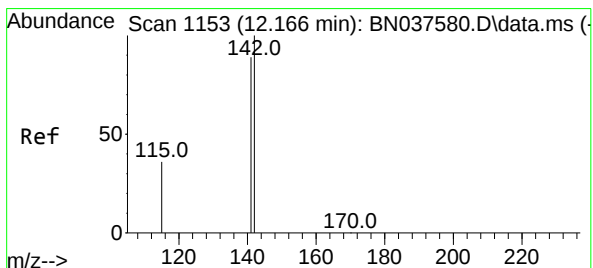
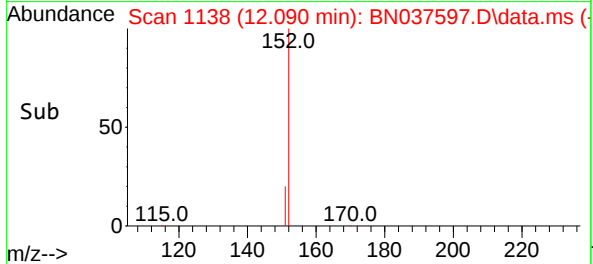
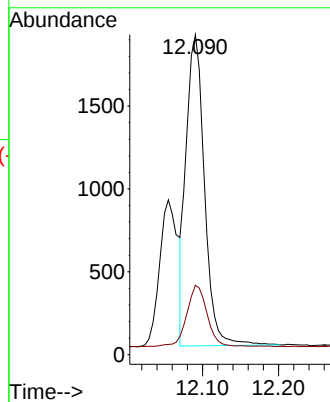
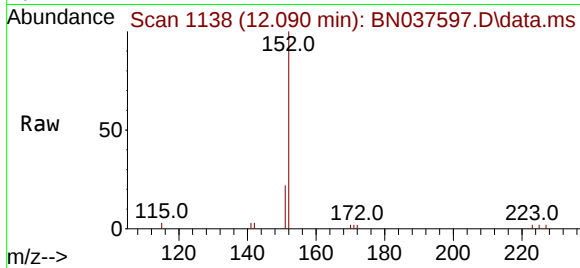




#11
2-Methylnaphthalene-d10
Concen: 0.350 ng
RT: 12.090 min Scan# 1138
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

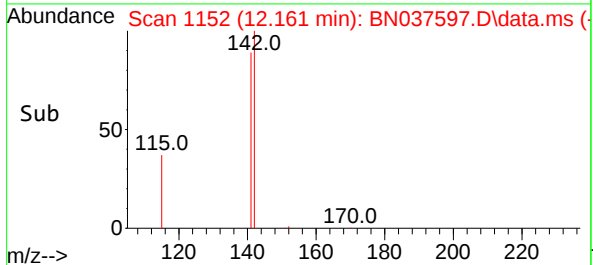
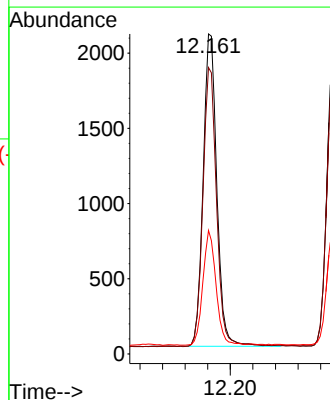
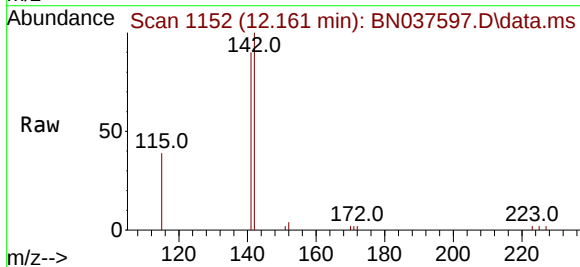
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

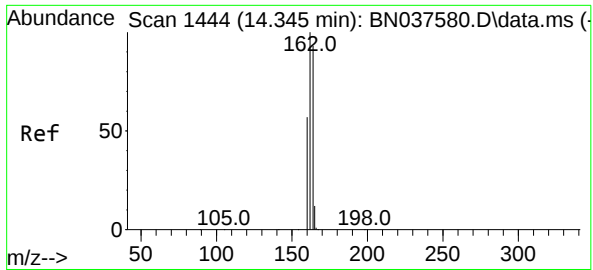
Tgt Ion:152 Resp: 3138
Ion Ratio Lower Upper
152 100
151 22.5 17.3 25.9



#12
2-Methylnaphthalene
Concen: 0.317 ng
RT: 12.161 min Scan# 1152
Delta R.T. -0.005 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion:142 Resp: 3491
Ion Ratio Lower Upper
142 100
141 89.5 71.4 107.0
115 38.6 30.2 45.4

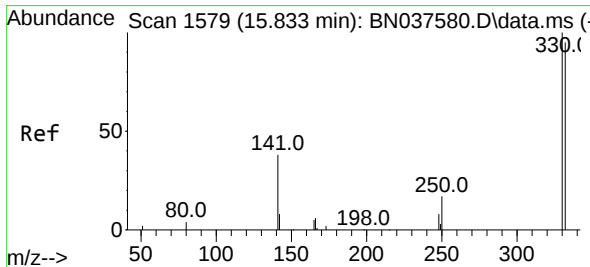
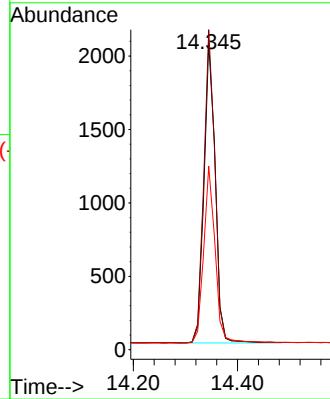
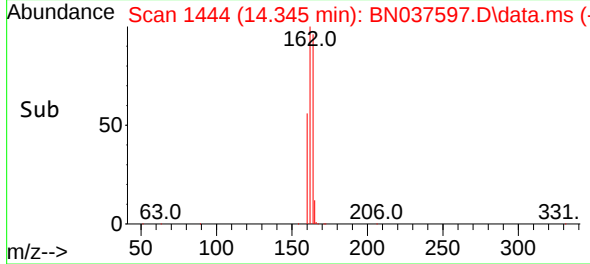
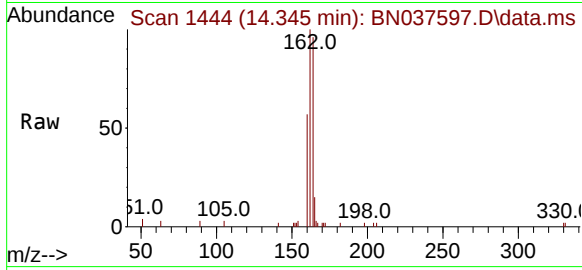




#13
Acenaphthene-d10
Concen: 0.400 ng
RT: 14.345 min Scan# 1444
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

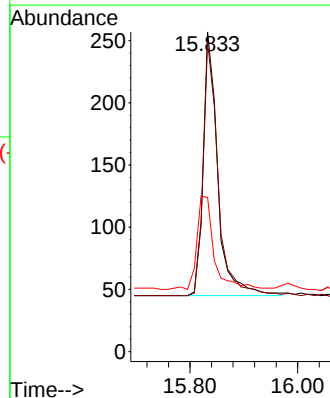
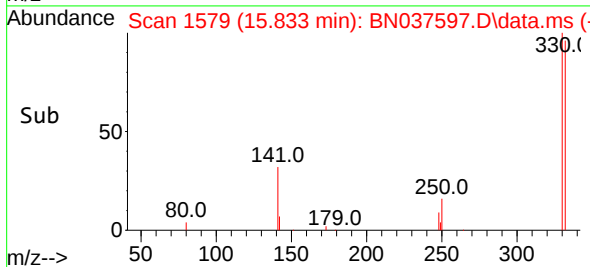
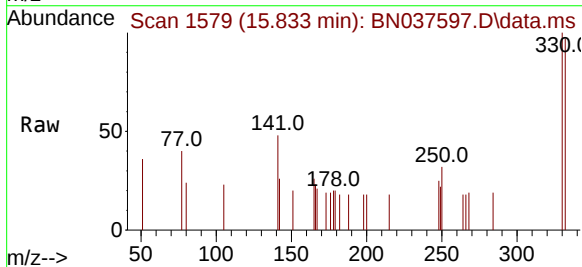
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

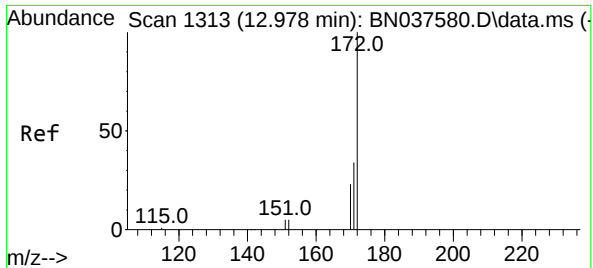
Tgt Ion	Ratio	Lower	Upper
164	100		
162	104.3	85.5	128.3
160	59.8	49.5	74.3



#14
2,4,6-Tribromophenol
Concen: 0.297 ng
RT: 15.833 min Scan# 1579
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion	Ratio	Lower	Upper
330	100		
332	97.5	77.4	116.0
141	41.8	30.9	46.3

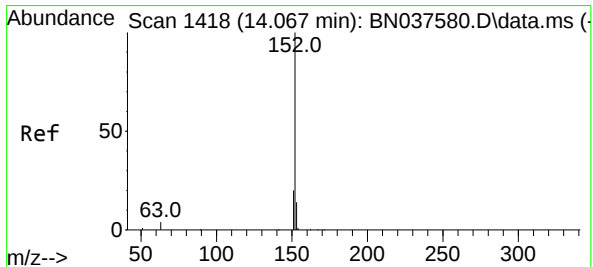
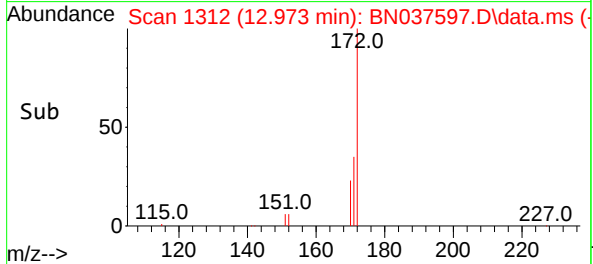
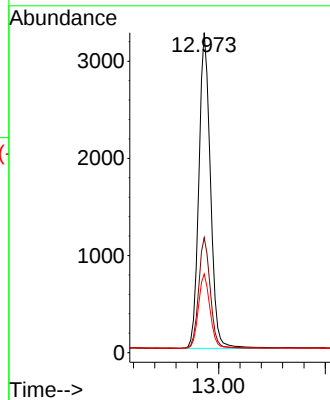
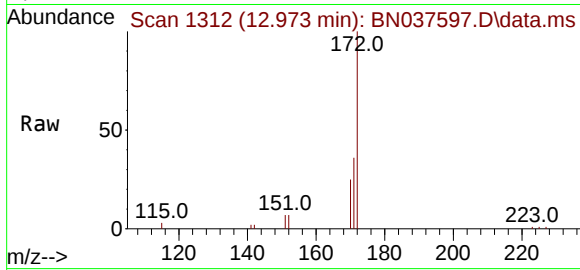




#15
2-Fluorobiphenyl
Concen: 0.389 ng
RT: 12.973 min Scan# 11
Delta R.T. -0.005 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

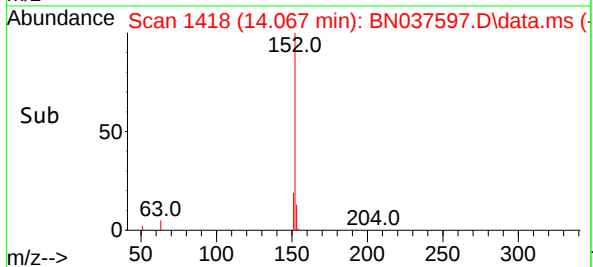
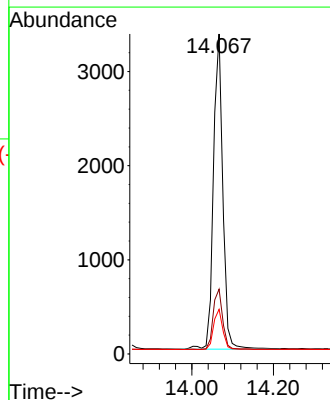
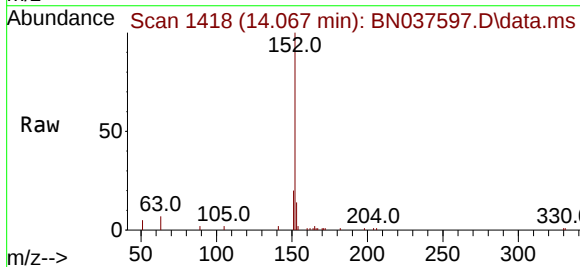
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

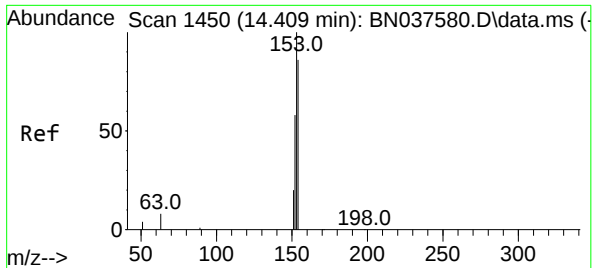
Tgt Ion	Ratio	Lower	Upper
172	100		
171	35.9	28.2	42.4
170	24.6	19.2	28.8



#16
Acenaphthylene
Concen: 0.386 ng
RT: 14.067 min Scan# 1418
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion	Ratio	Lower	Upper
152	100		
151	19.5	16.1	24.1
153	12.4	10.7	16.1

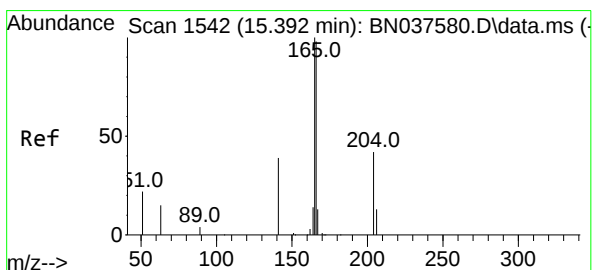
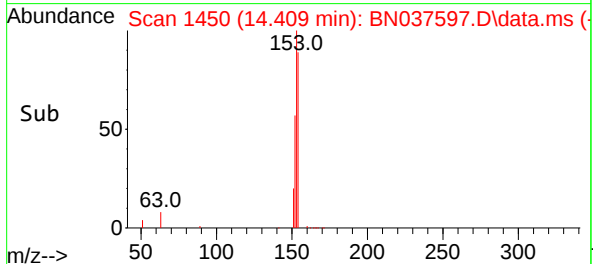
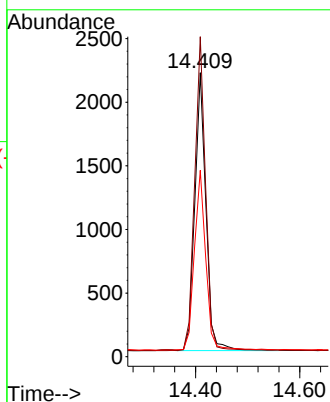
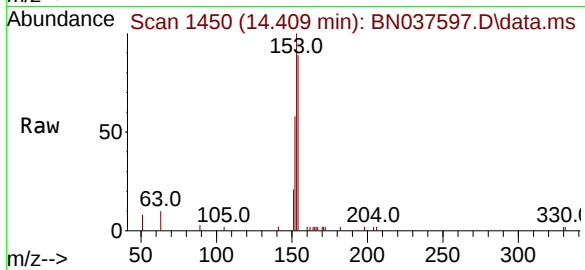




#17
Acenaphthene
Concen: 0.347 ng
RT: 14.409 min Scan# 1450
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

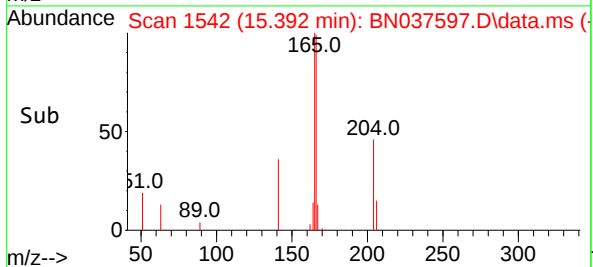
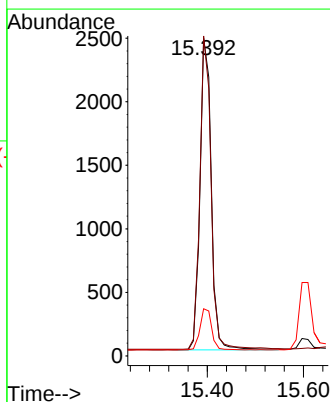
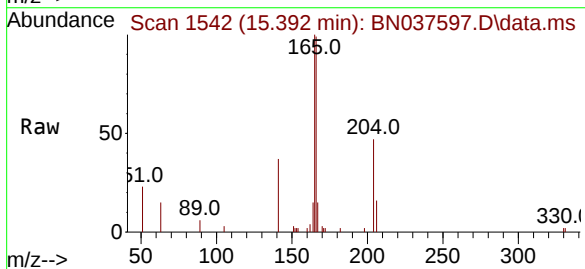
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

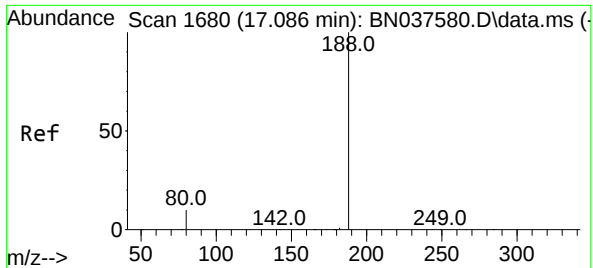
Tgt Ion	154	Resp:	3263
Ion Ratio	Lower	Upper	
154	100		
153	110.6	90.6	135.8
152	66.4	54.9	82.3



#18
Fluorene
Concen: 0.333 ng
RT: 15.392 min Scan# 1542
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion	166	Resp:	4095
Ion Ratio	Lower	Upper	
166	100		
165	99.5	78.9	118.3
167	13.4	10.7	16.1

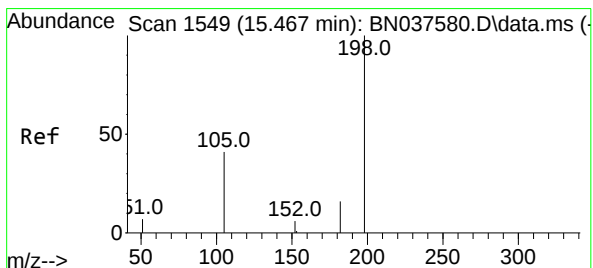
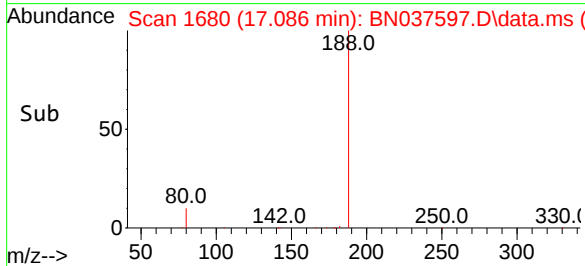
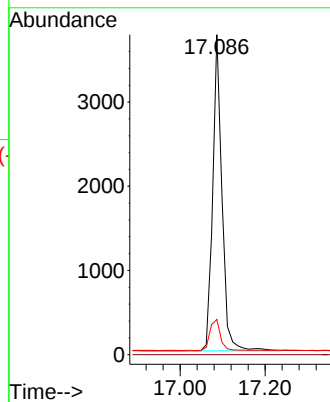
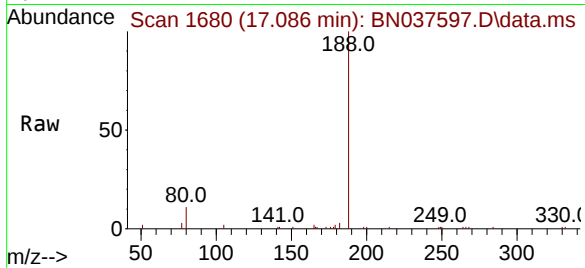




#19
Phenanthrene-d10
Concen: 0.400 ng
RT: 17.086 min Scan# 1
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

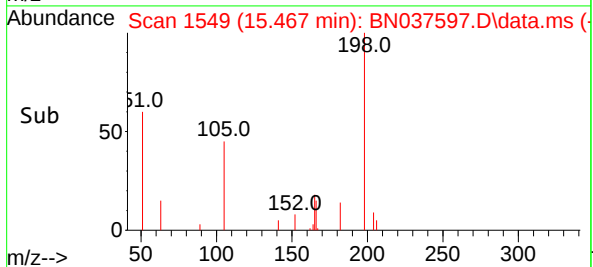
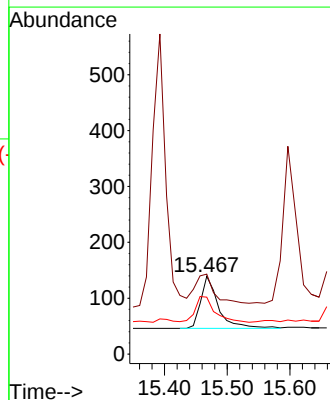
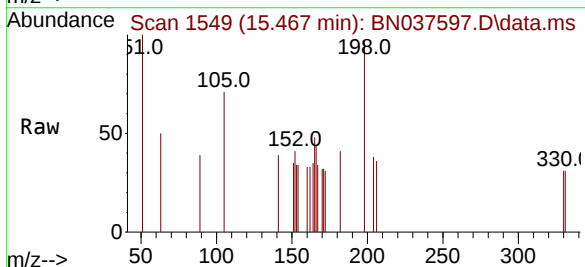
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

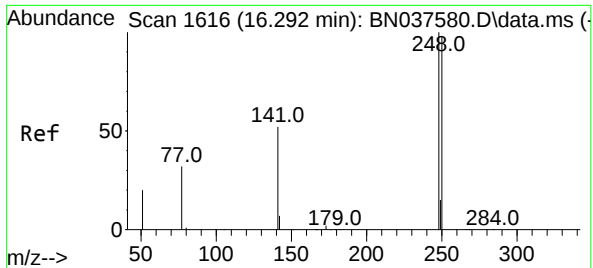
Tgt Ion:188 Resp: 5659
Ion Ratio Lower Upper
188 100
94 0.0 0.0 0.0
80 11.0 9.1 13.7



#20
4,6-Dinitro-2-methylphenol
Concen: 0.369 ng
RT: 15.467 min Scan# 1549
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion:198 Resp: 193
Ion Ratio Lower Upper
198 100
51 102.9 81.0 121.6
105 73.4 52.5 78.7

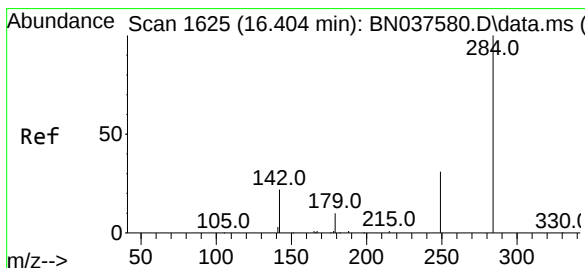
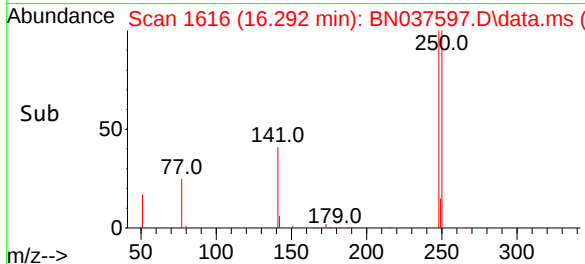
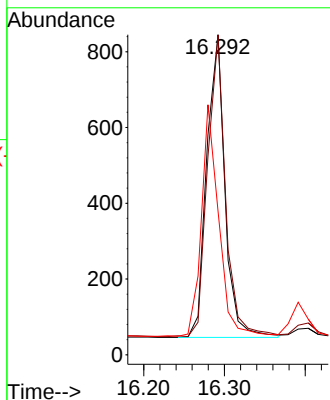
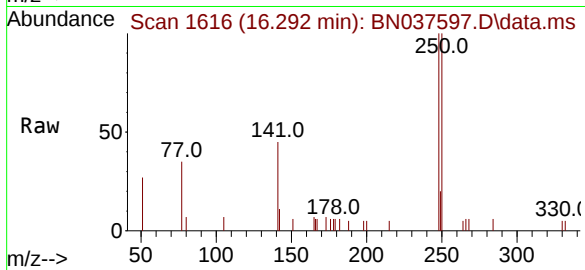




#21
4-Bromophenyl-phenylether
Concen: 0.353 ng
RT: 16.292 min Scan# 1616
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

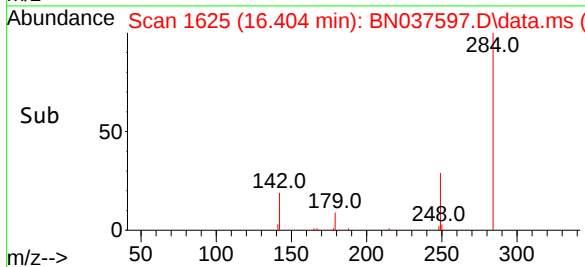
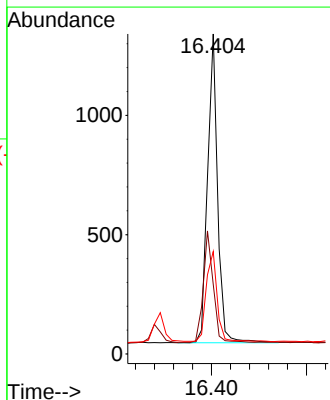
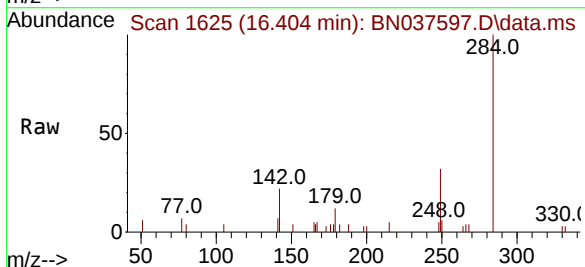
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

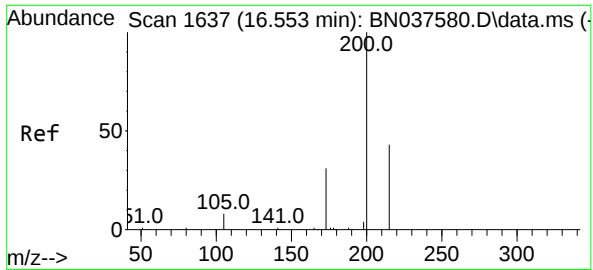
Tgt Ion	Ratio	Lower	Upper
248	100		
250	99.9	78.6	118.0
141	44.9	43.7	65.5



#22
Hexachlorobenzene
Concen: 0.379 ng
RT: 16.404 min Scan# 1625
Delta R.T. -0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion	Ratio	Lower	Upper
284	100		
142	36.0	29.8	44.6
249	32.4	26.0	39.0

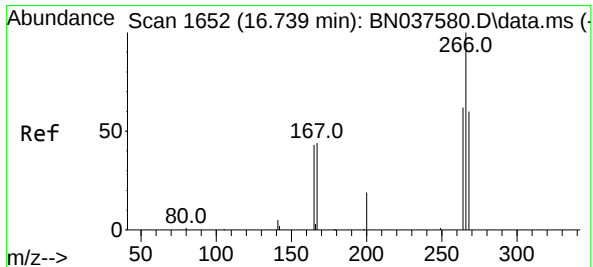
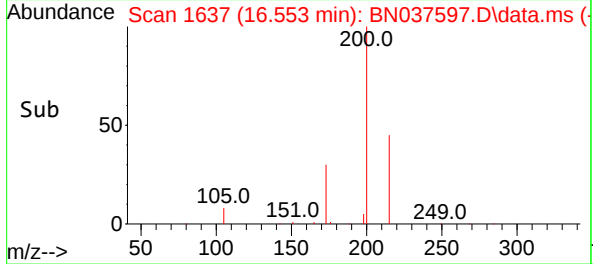
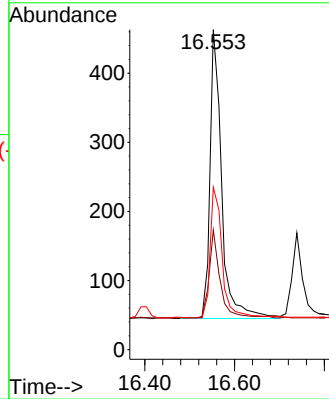
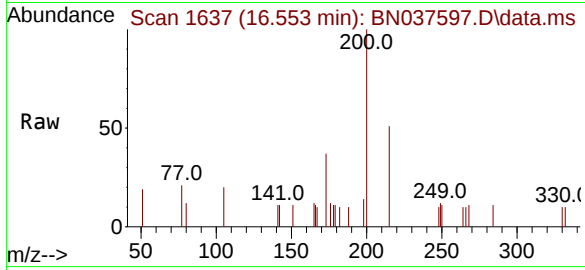




#23
Atrazine
Concen: 0.373 ng
RT: 16.553 min Scan# 1637
Delta R.T. -0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

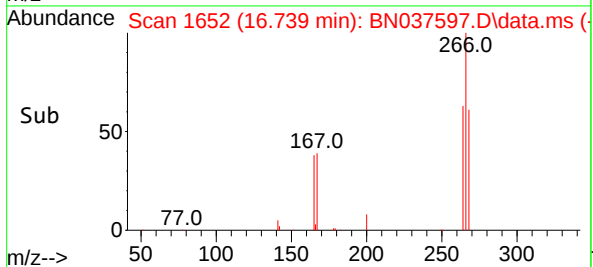
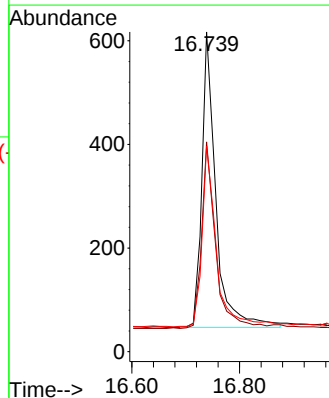
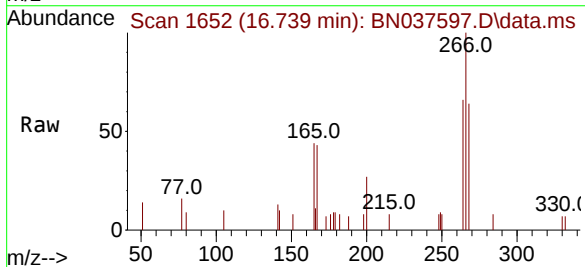
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

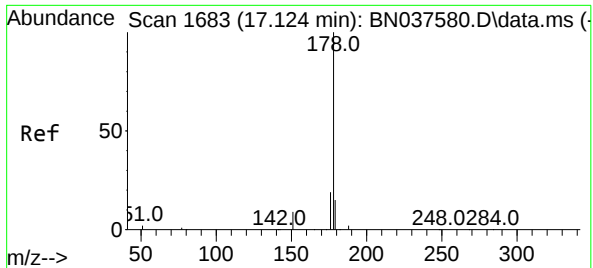
Tgt Ion:	200	Resp:	751
Ion	Ratio	Lower	Upper
200	100		
173	37.4	31.0	46.4
215	50.8	39.4	59.0



#24
Pentachlorophenol
Concen: 0.582 ng
RT: 16.739 min Scan# 1652
Delta R.T. -0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion:	266	Resp:	1030
Ion	Ratio	Lower	Upper
266	100		
264	62.7	49.6	74.4
268	63.1	49.2	73.8

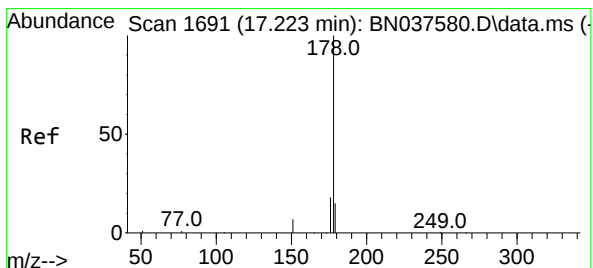
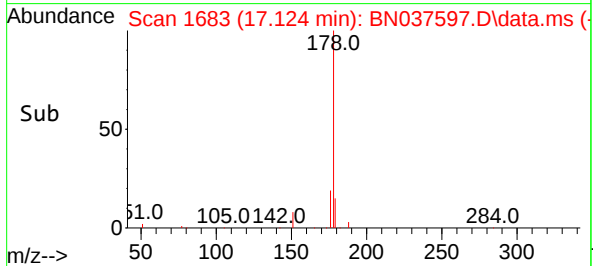
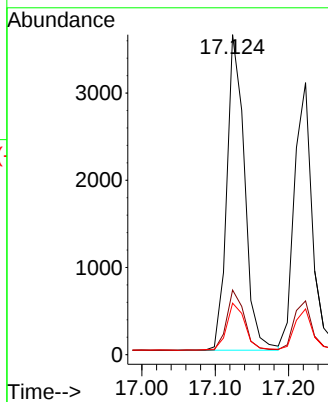
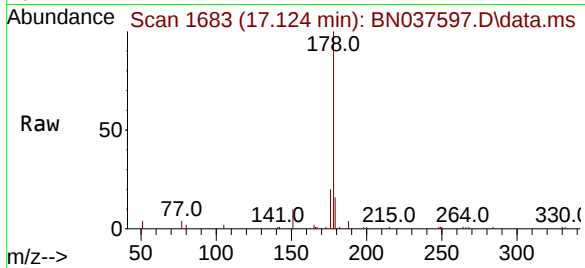




#25
Phenanthrene
Concen: 0.352 ng
RT: 17.124 min Scan# 1683
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

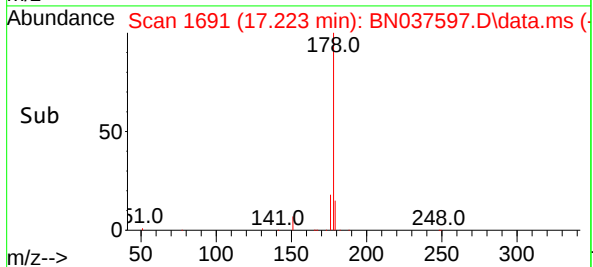
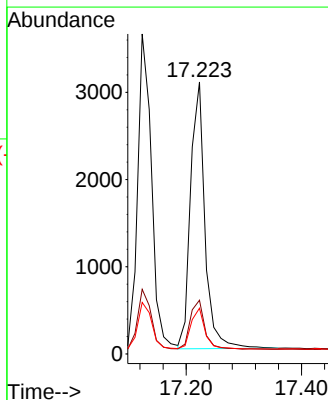
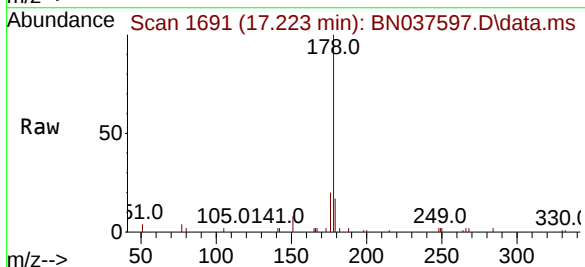
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

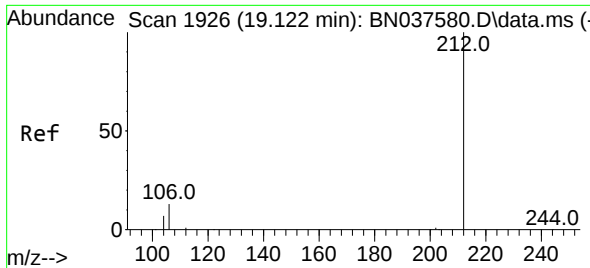
Tgt Ion	Ratio	Lower	Upper
178	100		
176	19.1	15.0	22.6
179	15.6	12.3	18.5



#26
Anthracene
Concen: 0.349 ng
RT: 17.223 min Scan# 1691
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion	Ratio	Lower	Upper
178	100		
176	18.8	14.7	22.1
179	15.3	12.3	18.5

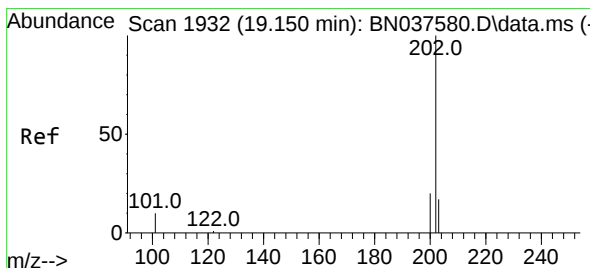
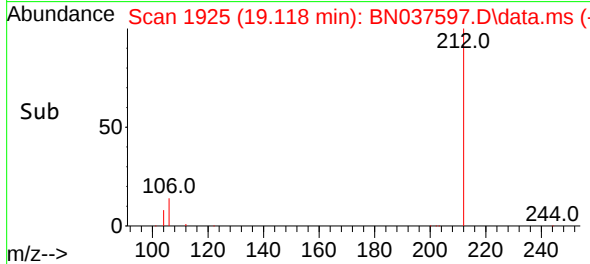
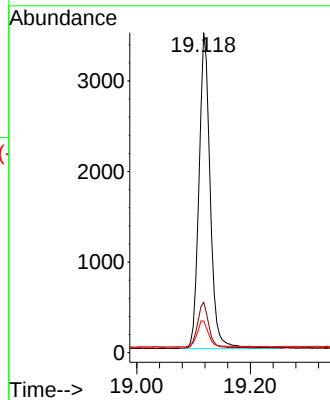
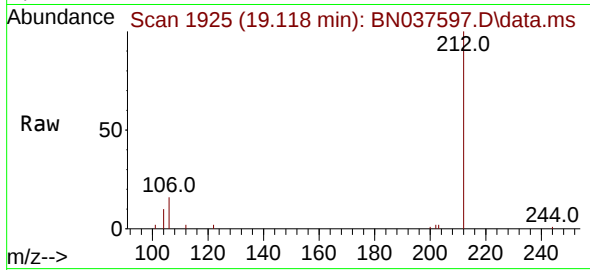




#27
Fluoranthene-d10
Concen: 0.320 ng
RT: 19.118 min Scan# 1925
Delta R.T. -0.005 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

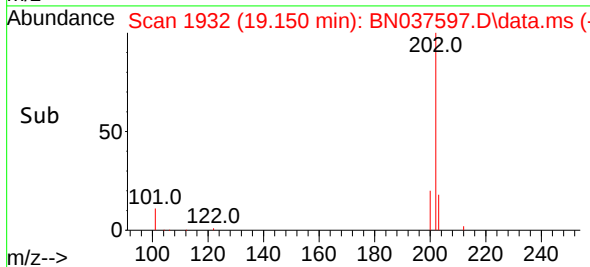
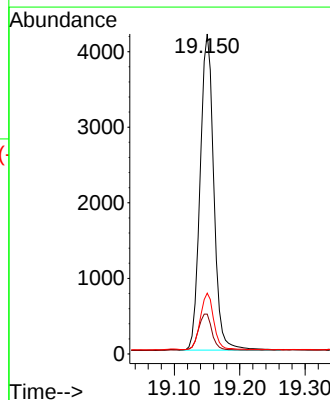
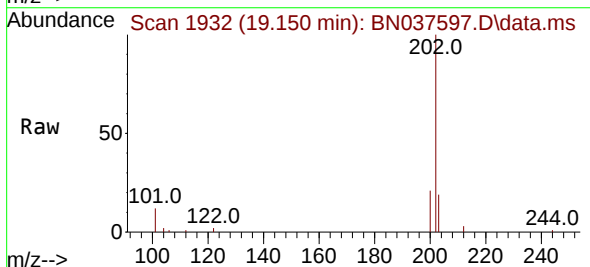
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

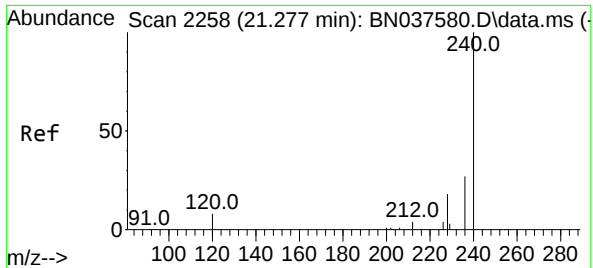
Tgt Ion	Ratio	Lower	Upper
212	100		
106	14.6	11.5	17.3
104	8.5	6.6	9.8



#28
Fluoranthene
Concen: 0.307 ng
RT: 19.150 min Scan# 1932
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion	Ratio	Lower	Upper
202	100		
101	11.6	9.0	13.6
203	17.5	13.8	20.8





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.277 min Scan# 21

Delta R.T. 0.000 min

Lab File: BN037597.D

Acq: 13 Aug 2025 15:58

Instrument :

BNA_N

ClientSampleId :

PB169222BSD

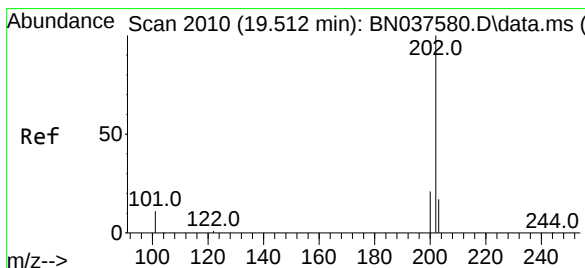
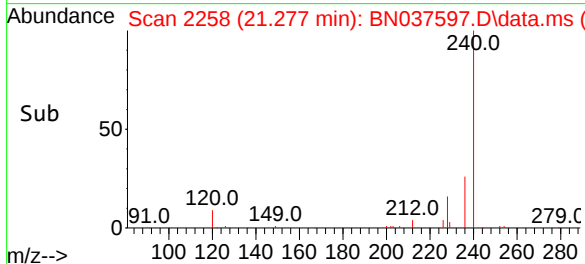
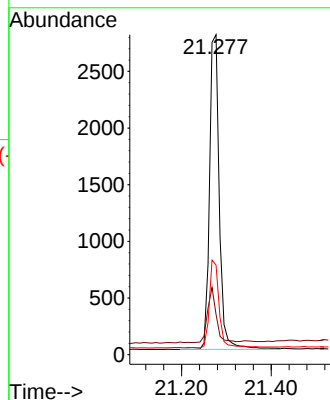
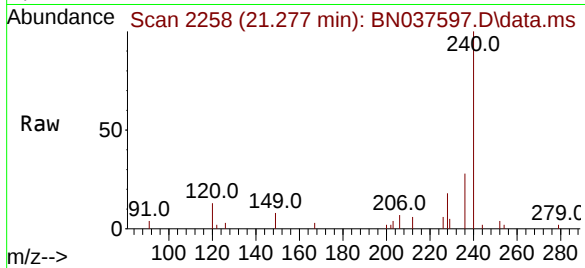
Tgt Ion:240 Resp: 4216

Ion Ratio Lower Upper

240 100

120 12.6 8.9 13.3

236 28.0 22.6 33.8



#30

Pyrene

Concen: 0.369 ng

RT: 19.513 min Scan# 2010

Delta R.T. 0.000 min

Lab File: BN037597.D

Acq: 13 Aug 2025 15:58

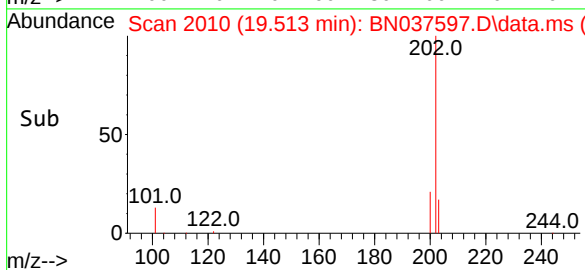
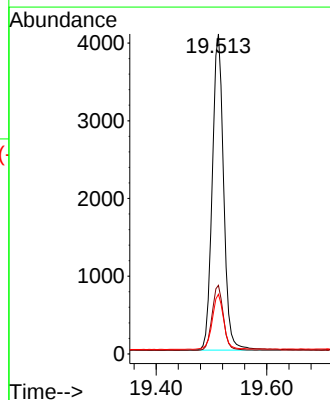
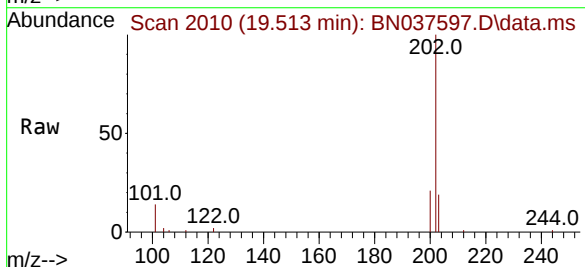
Tgt Ion:202 Resp: 5813

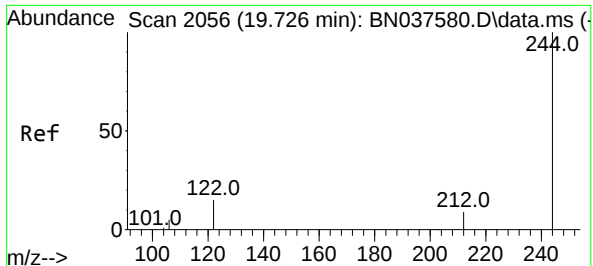
Ion Ratio Lower Upper

202 100

200 20.5 16.6 25.0

203 17.7 14.3 21.5

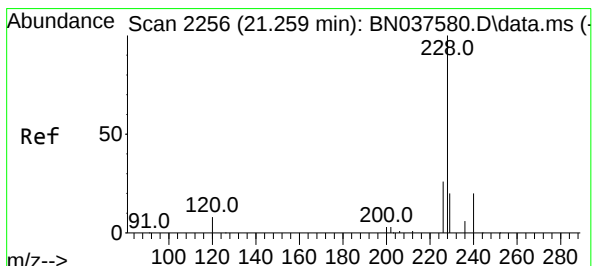
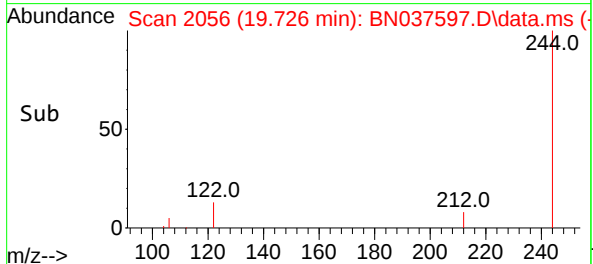
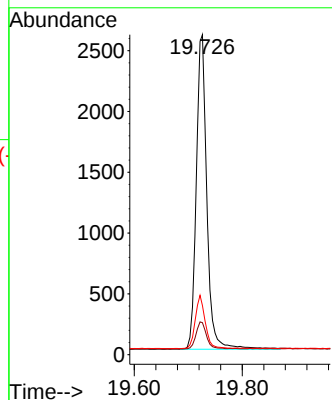
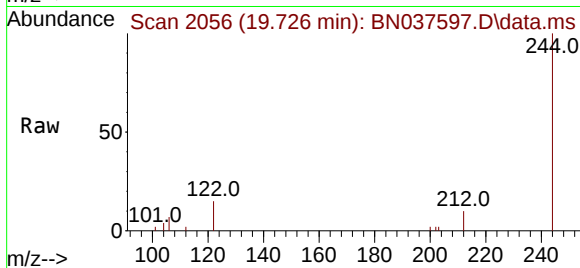




#31
Terphenyl-d14
Concen: 0.405 ng
RT: 19.726 min Scan# 2056
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

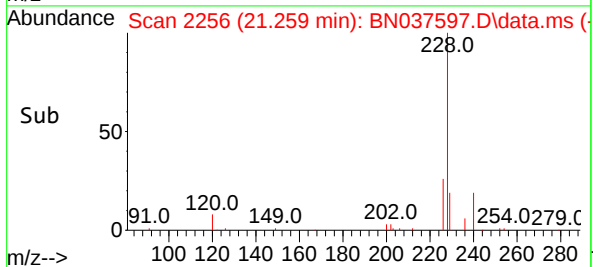
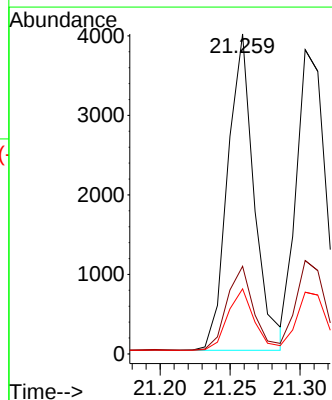
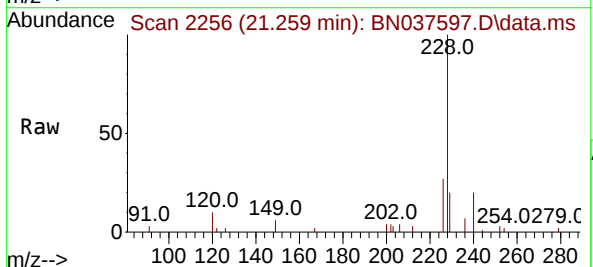
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

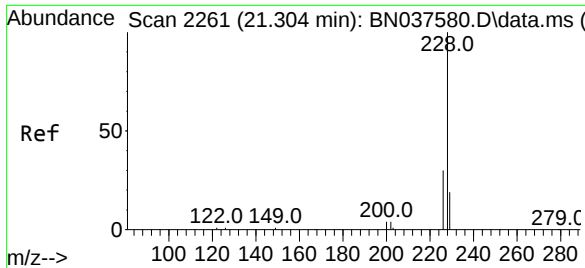
Tgt Ion	Ratio	Lower	Upper
244	100		
212	10.0	8.2	12.2
122	15.4	13.2	19.8



#32
Benzo(a)anthracene
Concen: 0.372 ng
RT: 21.259 min Scan# 2256
Delta R.T. 0.000 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion	Ratio	Lower	Upper
228	100		
226	27.4	21.5	32.3
229	20.4	16.5	24.7





#33

Chrysene

Concen: 0.367 ng

RT: 21.304 min Scan# 21

Delta R.T. 0.000 min

Lab File: BN037597.D

Acq: 13 Aug 2025 15:58

Instrument :

BNA_N

ClientSampleId :

PB169222BSD

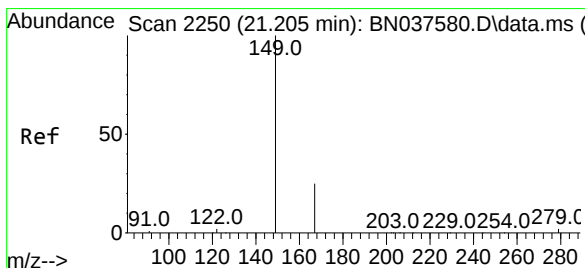
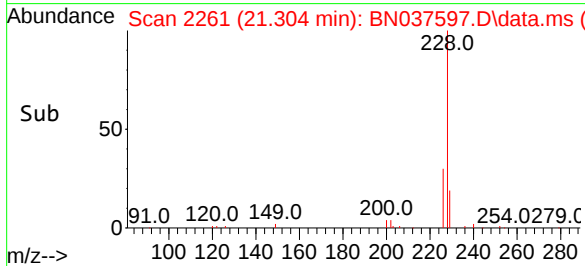
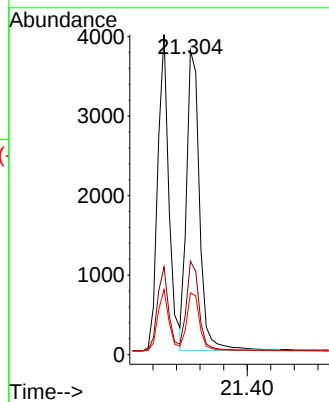
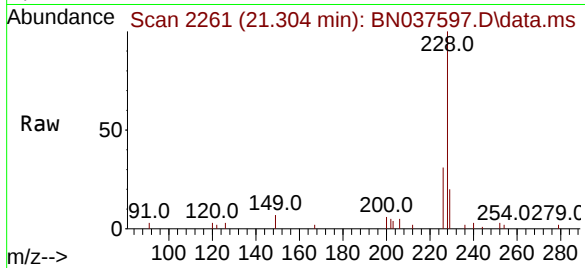
Tgt Ion:228 Resp: 5767

Ion Ratio Lower Upper

228 100

226 30.7 24.9 37.3

229 20.3 15.8 23.8



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.321 ng

RT: 21.205 min Scan# 2250

Delta R.T. 0.000 min

Lab File: BN037597.D

Acq: 13 Aug 2025 15:58

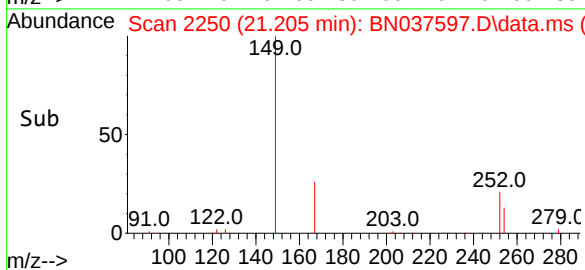
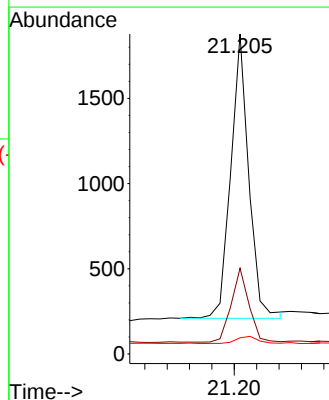
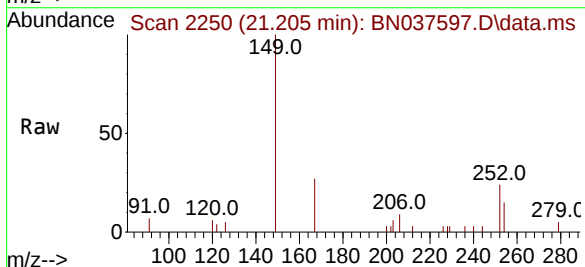
Tgt Ion:149 Resp: 1866

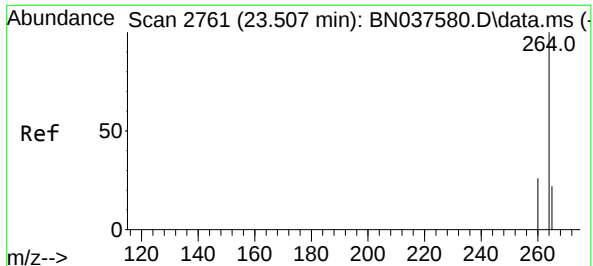
Ion Ratio Lower Upper

149 100

167 25.3 20.5 30.7

279 3.3 2.6 4.0





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.505 min Scan# 21

Delta R.T. -0.003 min

Lab File: BN037597.D

Acq: 13 Aug 2025 15:58

Instrument :

BNA_N

ClientSampleId :

PB169222BSD

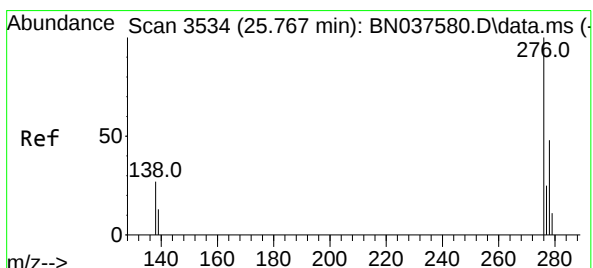
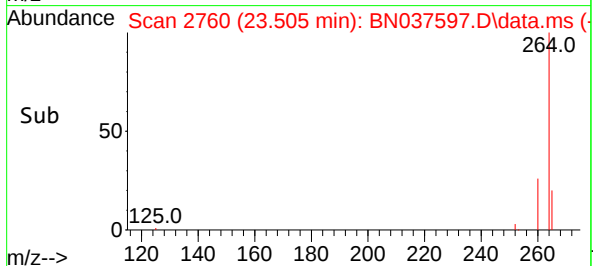
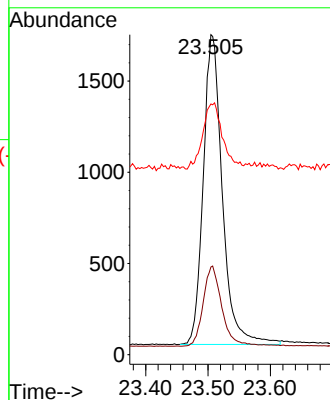
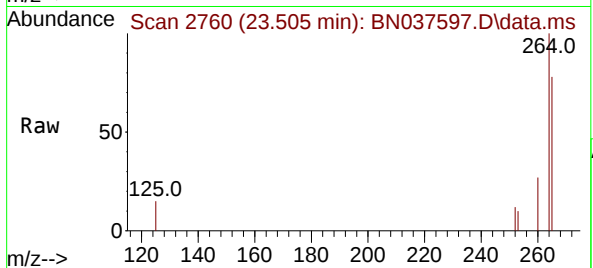
Tgt Ion:264 Resp: 3616

Ion Ratio Lower Upper

264 100

260 27.4 21.6 32.4

265 78.3 48.2 72.4#



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.382 ng

RT: 25.767 min Scan# 3534

Delta R.T. 0.000 min

Lab File: BN037597.D

Acq: 13 Aug 2025 15:58

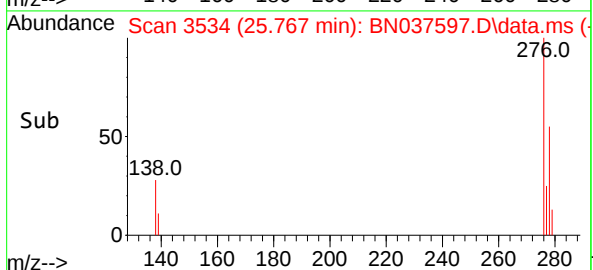
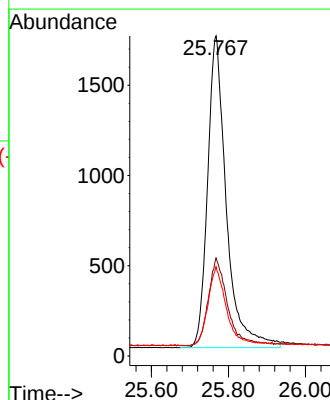
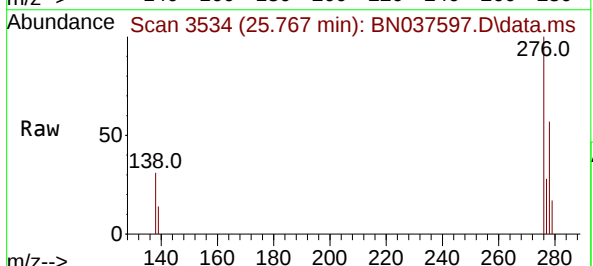
Tgt Ion:276 Resp: 5820

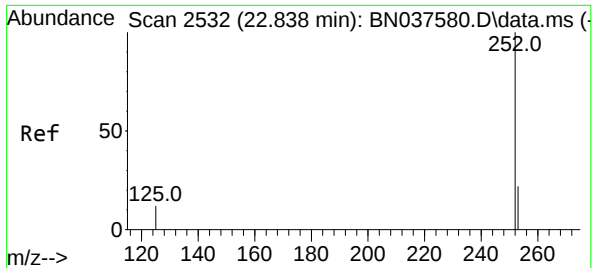
Ion Ratio Lower Upper

276 100

138 28.8 23.3 34.9

277 24.4 19.5 29.3

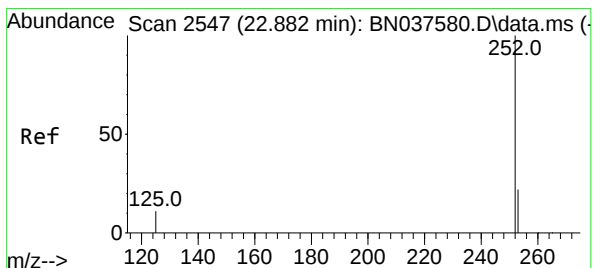
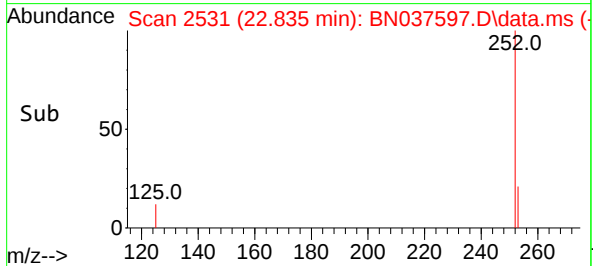
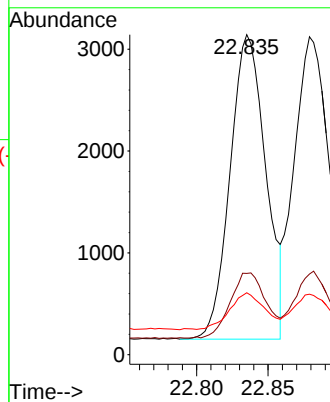
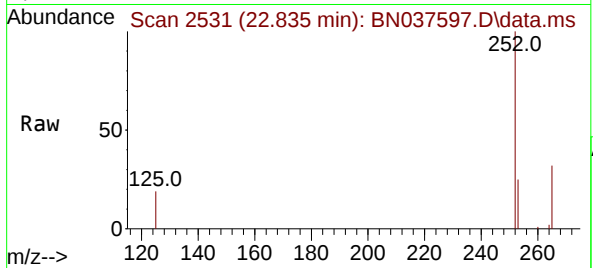




#37
Benzo(b)fluoranthene
Concen: 0.379 ng
RT: 22.835 min Scan# 2532
Delta R.T. -0.003 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

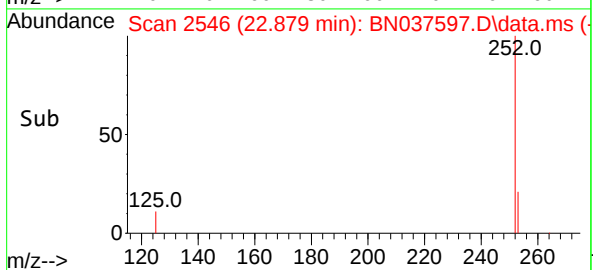
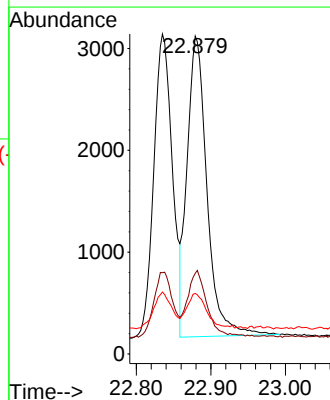
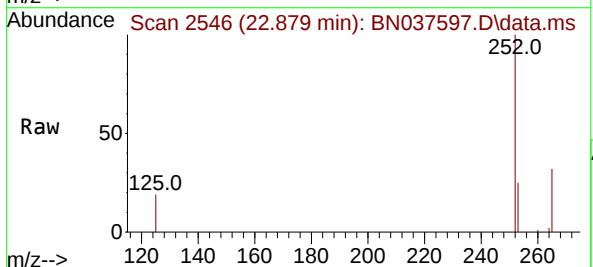
Instrument :
BNA_N
ClientSampleId :
PB169222BSD

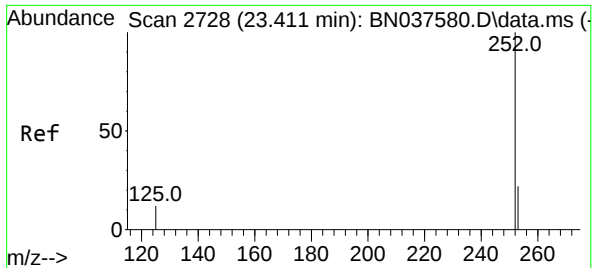
Tgt Ion:252 Resp: 5199
Ion Ratio Lower Upper
252 100
253 25.4 20.0 30.0
125 19.4 13.8 20.6



#38
Benzo(k)fluoranthene
Concen: 0.354 ng
RT: 22.879 min Scan# 2546
Delta R.T. -0.003 min
Lab File: BN037597.D
Acq: 13 Aug 2025 15:58

Tgt Ion:252 Resp: 5467
Ion Ratio Lower Upper
252 100
253 25.4 19.9 29.9
125 19.1 15.0 22.6





#39

Benzo(a)pyrene

Concen: 0.388 ng

RT: 23.411 min Scan# 21

Delta R.T. 0.000 min

Lab File: BN037597.D

Acq: 13 Aug 2025 15:58

Instrument :

BNA_N

ClientSampleId :

PB169222BSD

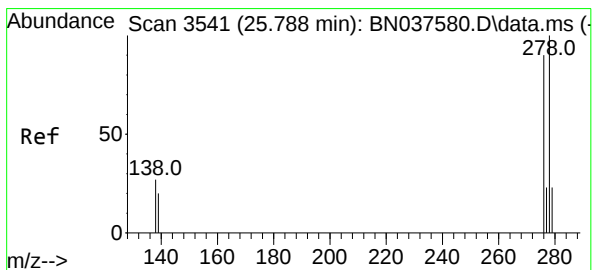
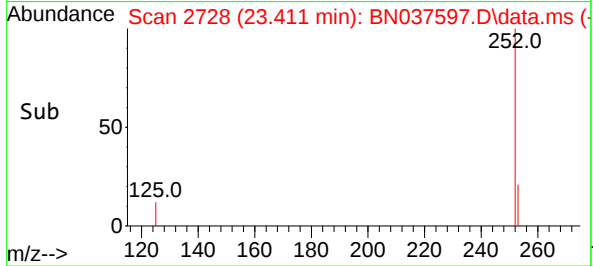
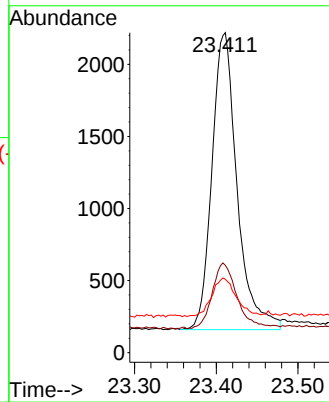
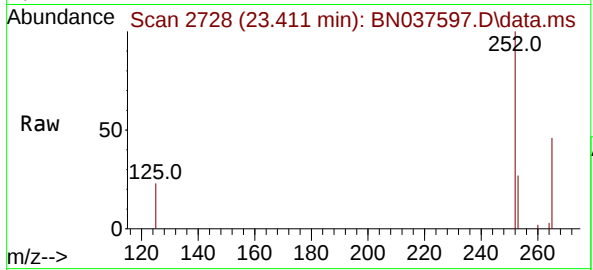
Tgt Ion:252 Resp: 4407

Ion Ratio Lower Upper

252 100

253 27.3 21.6 32.4

125 22.9 16.8 25.2



#40

Dibenzo(a,h)anthracene

Concen: 0.376 ng

RT: 25.785 min Scan# 3540

Delta R.T. -0.003 min

Lab File: BN037597.D

Acq: 13 Aug 2025 15:58

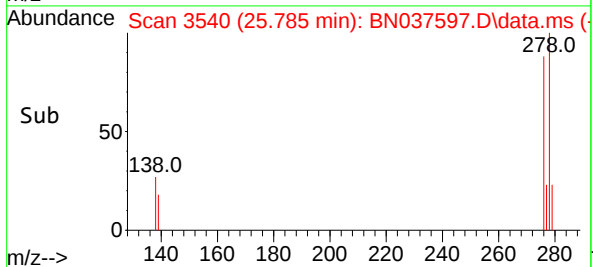
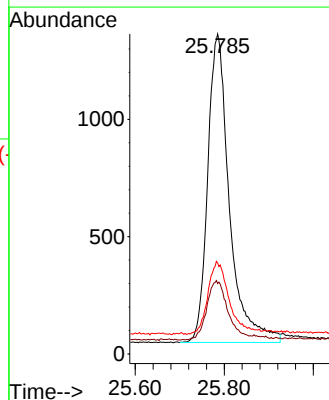
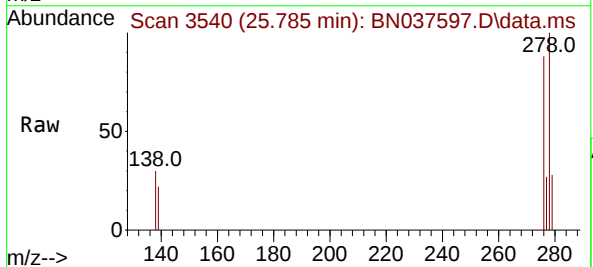
Tgt Ion:278 Resp: 4450

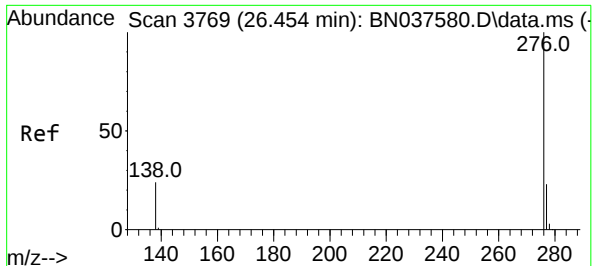
Ion Ratio Lower Upper

278 100

139 22.0 18.3 27.5

279 28.4 22.5 33.7





#41

Benzo(g,h,i)perylene

Concen: 0.406 ng

RT: 26.452 min Scan# 31

Delta R.T. -0.003 min

Lab File: BN037597.D

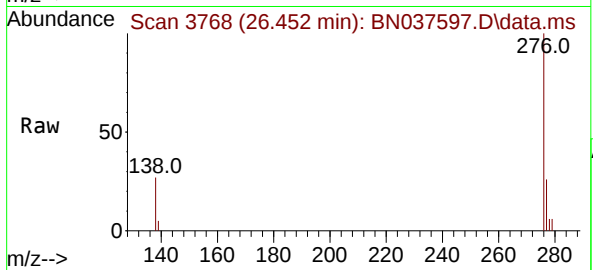
Acq: 13 Aug 2025 15:58

Instrument :

BNA_N

ClientSampleId :

PB169222BSD



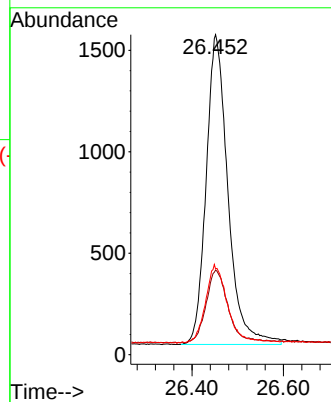
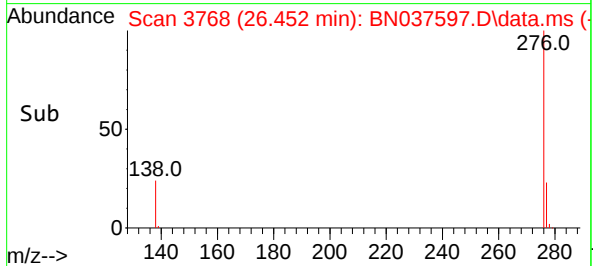
Tgt Ion:276 Resp: 5052

Ion Ratio Lower Upper

276 100

277 26.4 21.0 31.4

138 26.8 21.7 32.5





284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Manual Integration Report

Sequence:

BN081225

Instrument

BNA_n

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason



Manual Integration Report

Sequence:	BN081325	Instrument	BNA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
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Instrument ID: BNA_N

Daily Analysis Runlog For Sequence/QC Batch ID # BN081225

Review By	Rahul	Review On	8/13/2025 11:25:23 AM
Supervise By	Jagrut	Supervise On	8/13/2025 11:26:50 AM
SubDirectory	BN081225	HP Acquire Method	BNA_N, 8270_SiM HP Processing Method bn081225
STD. NAME	STD REF.#		
Tune/Reschk	SP6757		
Initial Calibration Stds	SP6842,SP6843,SP6844,SP6845,SP6846,SP6847,SP6848		
CCC	SP6846		
Internal Standard/PEM	SP6830,1ul/100ul sample		
ICV/I.BLK	SP6854		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BN037576.D	12 Aug 2025 15:05	RC/JU	Ok
2	SSTDCCC0.4	BN037577.D	12 Aug 2025 15:49	RC/JU	Not Ok
3	SSTDICC0.1	BN037578.D	12 Aug 2025 16:26	RC/JU	Ok
4	SSTDICC0.2	BN037579.D	12 Aug 2025 17:03	RC/JU	Ok
5	SSTDICCC0.4	BN037580.D	12 Aug 2025 17:39	RC/JU	Ok
6	SSTDICC0.8	BN037581.D	12 Aug 2025 18:16	RC/JU	Ok
7	SSTDICC1.6	BN037582.D	12 Aug 2025 18:52	RC/JU	Ok
8	SSTDICC3.2	BN037583.D	12 Aug 2025 19:29	RC/JU	Ok
9	SSTDICC5.0	BN037584.D	12 Aug 2025 20:05	RC/JU	Ok
10	SSTDICV0.4	BN037585.D	12 Aug 2025 20:42	RC/JU	Ok
11	PB169094BL	BN037586.D	12 Aug 2025 21:55	RC/JU	Ok

M : Manual Integration

Instrument ID: BNA_N

Daily Analysis Runlog For Sequence/QC Batch ID # BN081325

Review By	Rahul	Review On	8/14/2025 10:14:13 AM
Supervise By	Jagrut	Supervise On	8/15/2025 3:48:33 PM
SubDirectory	BN081325	HP Acquire Method	BNA_N, 8270_SiM HP Processing Method bn081225
STD. NAME	STD REF.#		
Tune/Reschk	SP6757		
Initial Calibration Stds	SP6842,SP6843,SP6844,SP6845,SP6846,SP6847,SP6848		
CCC	SP6846		
Internal Standard/PEM	SP6830,1ul/100ul sample		
ICV/I.BLK	SP6854		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BN037587.D	13 Aug 2025 09:48	RC/JU	Ok
2	SSTDCCC0.4	BN037588.D	13 Aug 2025 10:28	RC/JU	Ok
3	PB169222BL	BN037589.D	13 Aug 2025 11:05	RC/JU	Ok
4	Q2805-01	BN037590.D	13 Aug 2025 11:42	RC/JU	Ok
5	Q2805-02	BN037591.D	13 Aug 2025 12:18	RC/JU	Ok
6	Q2806-01	BN037592.D	13 Aug 2025 12:55	RC/JU	Ok
7	Q2806-02	BN037593.D	13 Aug 2025 13:31	RC/JU	Ok
8	Q2806-03	BN037594.D	13 Aug 2025 14:08	RC/JU	Ok
9	Q2825-01	BN037595.D	13 Aug 2025 14:45	RC/JU	Ok
10	PB169222BS	BN037596.D	13 Aug 2025 15:22	RC/JU	Ok
11	PB169222BSD	BN037597.D	13 Aug 2025 15:58	RC/JU	Ok
12	SSTDCCC0.4	BN037598.D	13 Aug 2025 16:35	RC/JU	Ok

M : Manual Integration

Instrument ID: BNA_N

Daily Analysis Runlog For Sequence/QC Batch ID # BN081225

Review By	Rahul	Review On	8/13/2025 11:25:23 AM
Supervise By	Jagrut	Supervise On	8/13/2025 11:26:50 AM
SubDirectory	BN081225	HP Acquire Method	BNA_N, 8270_HP Processing Method bn081225

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6842, SP6843, SP6844, SP6845, SP6846, SP6847, SP6848
CCC	SP6846
Internal Standard/PEM	SP6830, 1ul/100ul sample
ICV/I.BLK	SP6854
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BN037576.D	12 Aug 2025 15:05		RC/JU	Ok
2	SSTDCCC0.4	SSTDCCC0.4	BN037577.D	12 Aug 2025 15:49	A Fresh Calibration is required	RC/JU	Not Ok
3	SSTDICC0.1	SSTDICC0.1	BN037578.D	12 Aug 2025 16:26		RC/JU	Ok
4	SSTDICC0.2	SSTDICC0.2	BN037579.D	12 Aug 2025 17:03		RC/JU	Ok
5	SSTDICCC0.4	SSTDICCC0.4	BN037580.D	12 Aug 2025 17:39	Compound #20 kept on LR	RC/JU	Ok
6	SSTDICC0.8	SSTDICC0.8	BN037581.D	12 Aug 2025 18:16		RC/JU	Ok
7	SSTDICC1.6	SSTDICC1.6	BN037582.D	12 Aug 2025 18:52		RC/JU	Ok
8	SSTDICC3.2	SSTDICC3.2	BN037583.D	12 Aug 2025 19:29		RC/JU	Ok
9	SSTDICC5.0	SSTDICC5.0	BN037584.D	12 Aug 2025 20:05	Comp #20,23,24 removed from 5ppm	RC/JU	Ok
10	SSTDICV0.4	ICVBN081225	BN037585.D	12 Aug 2025 20:42		RC/JU	Ok
11	PB169094BL	PB169094BL	BN037586.D	12 Aug 2025 21:55		RC/JU	Ok

M : Manual Integration

Instrument ID: BNA_N

Daily Analysis Runlog For Sequence/QC Batch ID # BN081325

Review By	Rahul	Review On	8/14/2025 10:14:13 AM
Supervise By	Jagrut	Supervise On	8/15/2025 3:48:33 PM
SubDirectory	BN081325	HP Acquire Method	BNA_N, 8270_HP Processing Method bn081225

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6842, SP6843, SP6844, SP6845, SP6846, SP6847, SP6848
CCC	SP6846
Internal Standard/PEM	SP6830, 1ul/100ul sample
ICV/I.BLK	SP6854
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BN037587.D	13 Aug 2025 09:48		RC/JU	Ok
2	SSTDCCC0.4	SSTDCCC0.4	BN037588.D	13 Aug 2025 10:28		RC/JU	Ok
3	PB169222BL	PB169222BL	BN037589.D	13 Aug 2025 11:05		RC/JU	Ok
4	Q2805-01	RW8-SP100-20250807	BN037590.D	13 Aug 2025 11:42		RC/JU	Ok
5	Q2805-02	RW8-SP303-20250807	BN037591.D	13 Aug 2025 12:18		RC/JU	Ok
6	Q2806-01	RW7-SP100-20250807	BN037592.D	13 Aug 2025 12:55		RC/JU	Ok
7	Q2806-02	RW7-SP201-20250807	BN037593.D	13 Aug 2025 13:31		RC/JU	Ok
8	Q2806-03	RW7-SP303-20250807	BN037594.D	13 Aug 2025 14:08		RC/JU	Ok
9	Q2825-01	TW1	BN037595.D	13 Aug 2025 14:45		RC/JU	Ok
10	PB169222BS	PB169222BS	BN037596.D	13 Aug 2025 15:22		RC/JU	Ok
11	PB169222BSD	PB169222BSD	BN037597.D	13 Aug 2025 15:58		RC/JU	Ok
12	SSTDCCC0.4	SSTDCCC0.4EC	BN037598.D	13 Aug 2025 16:35		RC/JU	Ok

M : Manual Integration

SOP ID: M3510C,3580A-Extraction SVOC-21

Clean Up SOP #: N/A **Extraction Start Date :** 08/12/2025

Matrix : Water **Extraction Start Time :** 08:52

Welgh By: N/A **Extraction By:** RS **Extraction End Date :** 08/12/2025

Balance check: N/A **Filter By:** RJ **Extraction End Time :** 13:50

Balance ID: N/A **pH Meter ID:** N/A **Concentration By:** RS

pH Strip Lot#: E3880 **Hood ID:** 4,6,7 **Supervisor By :** RUPESH

Extraction Method: ☒ Separatory Funnel ☐ Continious Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☐ Soxhlet

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	0.4 PPM	SP6855
Surrogate	1.0ML	0.4 PPM	SP6831
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3954
Baked Na2SO4	N/A	EP2632
10N NaoH	N/A	EP2609
H2SO4 1:1	N/A	EP2610
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210443. pH Adjusted<2 with 1:1 H2SO4 &>11 with 10 N NaOH.

KD Bath ID: WATER BATH-1,2 **Envap ID:** NEVAP-02

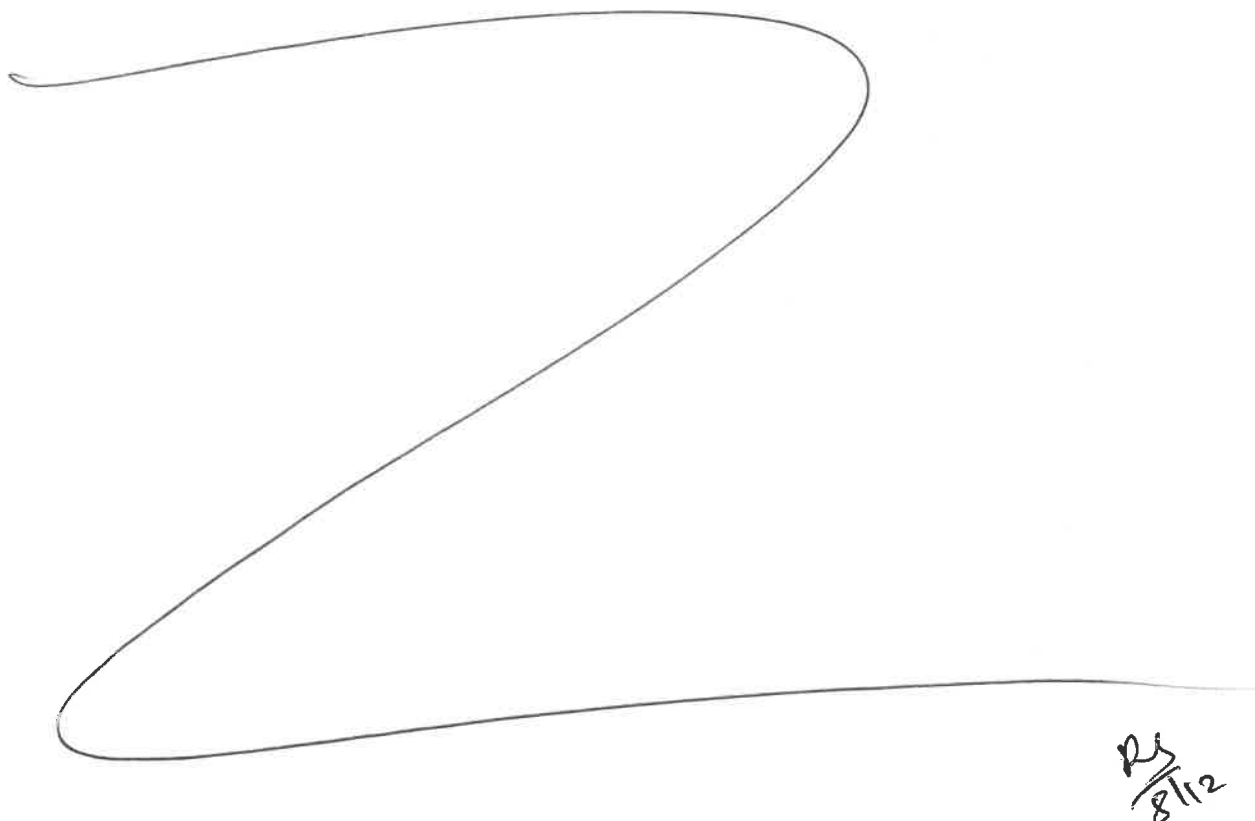
KD Bath Temperature: 60 °C **Envap Temperature:** 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
8/12/25	RS (ECL-606)	Rclsvarc
13:55	Preparation Group	Analysis Group

Analytical Method: M3510C,3580A-Extraction SVOC-21

Concentration Date: 08/04/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB169222BL	SBLK222	SVOC-SIMGrou p1	1000	6	RUPESEH	ritesh	1			SEP-1
PB169222BS	SLCS222	SVOC-SIMGrou p1	1000	6	RUPESEH	ritesh	1			2
PB169222BS D	SLCSD222	SVOC-SIMGrou p1	1000	6	RUPESEH	ritesh	1			3
Q2805-01	RW8-SP100-20250807	SVOC-SIMGrou p1	990	6	RUPESEH	ritesh	1	B		4
Q2805-02	RW8-SP303-20250807	SVOC-SIMGrou p1	980	6	RUPESEH	ritesh	1	D		5
Q2806-01	RW7-SP100-20250807	SVOC-SIMGrou p1	980	6	RUPESEH	ritesh	1			6
Q2806-02	RW7-SP201-20250807	SVOC-SIMGrou p1	1000	6	RUPESEH	ritesh	1			7
Q2806-03	RW7-SP303-20250807	SVOC-SIMGrou p1	890	6	RUPESEH	ritesh	1			8
Q2825-01	TW1	SVOC-SIMGrou p1	990	6	RUPESEH	ritesh	1	D		9



PS
8/12

* Extracts relinquished on the same date as received.

Q2806-SVOC-SIMGroup1

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q2805 WorkList ID : 191234 Department : Extraction Date : 08-12-2025 08:47:10

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2805-01	RW8-SP100-20250807	Water	SVOC-SIMGroup1	Cool 4 deg C	TETR06	J22	08/07/2025	8270-Modified
Q2805-02	RW8-SP303-20250807	Water	SVOC-SIMGroup1	Cool 4 deg C	TETR06	J22	08/07/2025	8270-Modified
Q2806-01	RW7-SP100-20250807	Water	SVOC-SIMGroup1	Cool 4 deg C	TETR06	J11	08/07/2025	8270-Modified
Q2806-02	RW7-SP201-20250807	Water	SVOC-SIMGroup1	Cool 4 deg C	TETR06	J11	08/07/2025	8270-Modified
Q2806-03	RW7-SP303-20250807	Water	SVOC-SIMGroup1	Cool 4 deg C	TETR06	J11	08/07/2025	8270-Modified
Q2825-01	TW1	Water	SVOC-SIMGroup1	Cool 4 deg C	GENV01	D31	08/10/2025	8270-Modified

Date/Time 8/12/25 8:47
Raw Sample Received by: PS (Ext-166)
Raw Sample Relinquished by: CP SM

Date/Time 8/12/25 9:30
Raw Sample Received by: CP SM
Raw Sample Relinquished by: PS (Ext-166)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Prep Standard - Chemical Standard Summary

Order ID : Q2806
Test : SVOC-SIMGroup1
Prepbatch ID : PB169222,
Sequence ID/Qc Batch ID: BN081325,

Standard ID :
EP2609,EP2610,EP2632,SP6757,SP6830,SP6831,SP6841,SP6842,SP6843,SP6844,SP6845,SP6846,SP6847,SP6848,SP6853,SP6854,SP6855,

Chemical ID :
1ul/100ul
sample,E3657,E3875,E3904,E3932,E3940,E3942,E3943,E3954,M6157,S10105,S 11073,S11496,S11652,S11807,S11828,S12115,S12195,S12197,S12216,S12220,S12273,S12498,S12499,S12552,S12577,S12670,S12986,S13058,W 3112,

Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1874	10 N SODIUM HYDROXIDE SOLN	EP2609	05/07/2025	11/07/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2	None	Riteshkumar Patel

(EX-SC-2)

FROM 1000.00000ml of W3112 + 400.00000gram of E3657 = Final Quantity: 1000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
314	1.1 H2SO4 SOLN	EP2610	05/07/2025	11/07/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2	None	Riteshkumar Patel

(EX-SC-2)

FROM 1000.00000ml of M6157 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2632	08/11/2025	01/28/2026	RUPESHKUMAR SHAH	Extraction_SC ALE_2 (EX-SC-2)	None	Riteshkumar Patel 08/11/2025

FROM 4000.00000gram of E3875 = Final Quantity: 4000.000 gram

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3895	50 ug/ml DFTTP 8270E	SP6757	03/31/2025	09/30/2025	Rahul Chavli	None	None	Jagrut Upadhyay 04/01/2025

FROM 1.00000ml of S12577 + 19.00000ml of E3904 = Final Quantity: 20.000 ml

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3493	Internal Standard 0.4 PPM	SP6830	06/17/2025	12/13/2025	Jagrut Upadhyay	None	None	Rahul Chavli
								06/19/2025

FROM 0.10000ml of S12670 + 4.90000ml of E3942 = Final Quantity: 5.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3491	8270-SIM-Surrogate 0.4 PPM	SP6831	06/18/2025	09/18/2025	Rahul Chavli	None	None	Jagrut Upadhyay
								06/18/2025

FROM 0.00800ml of S12195 + 0.01600ml of S12216 + 0.04000ml of S11828 + 199.93600ml of E3940 = Final Quantity: 200.000 ml

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3339	8270 sim calibration stock 10ppm (CPI)	SP6841	06/25/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli
								06/25/2025

FROM 0.03350ml of S10105 + 0.05000ml of S11496 + 0.12500ml of S11828 + 0.12500ml of S12115 + 0.25000ml of S12273 + 0.25000ml of S13058 + 24.16650ml of E3943 = Final Quantity: 25.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3361	8270-SIM MDL-5PPM CALIBRATION SOLUTION	SP6842	06/25/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli
								06/25/2025

FROM 0.50000ml of E3943 + 0.01000ml of SP6830 + 0.50000ml of SP6841 = Final Quantity: 1.010 ml

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3341	8270-SIM MDL-3.2PPM CALIBRATION SOLUTION	SP6843	06/25/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli
								06/25/2025

FROM 0.68000ml of E3943 + 0.01000ml of SP6830 + 0.32000ml of SP6841 = Final Quantity: 1.010 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3344	8270-SIM MDL-1.6PPM CALIBRATION SOLUTION	SP6844	06/25/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli
								06/25/2025

FROM 0.84000ml of E3943 + 0.01000ml of SP6830 + 0.16000ml of SP6841 = Final Quantity: 1.010 ml

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3342	8270-SIM MDL-0.8PPM CALIBRATION SOLUTION	SP6845	06/25/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli
								06/25/2025

FROM 0.92000ml of E3943 + 0.01000ml of SP6830 + 0.08000ml of SP6841 = Final Quantity: 1.010 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3343	8270-SIM MDL-0.4PPM CALIBRATION SOLUTION	SP6846	06/25/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli
								06/25/2025

FROM 0.96000ml of E3943 + 0.01000ml of SP6830 + 0.04000ml of SP6841 = Final Quantity: 1.010 ml

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3345	8270-SIM MDL-0.2PPM CALIBRATION SOLUTION	SP6847	06/25/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli
								06/25/2025

FROM 0.50000ml of E3943 + 0.01000ml of SP6830 + 0.50000ml of SP6846 = Final Quantity: 1.010 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3346	8270-SIM MDL-0.1PPM CALIBRATION SOLUTION	SP6848	06/25/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli
								06/25/2025

FROM 0.75000ml of E3943 + 0.01000ml of SP6830 + 0.25000ml of SP6846 = Final Quantity: 1.010 ml

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3355	8270-SIM MDL-3.2PPM CALIBRATION STOCK SOL- 2ND	SP6853	07/02/2025	09/30/2025	Jagrut Upadhyay	None	None	Rahul Chavli
SOURCE FROM 0.00630ml of S12197 + 0.01280ml of S12220 + 0.03200ml of S11073 + 0.03200ml of S11828 + 0.06400ml of S12499 + 0.06400ml of S12552 + 0.06400ml of S12986 + 19.72490ml of E3943 = Final Quantity: 20.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3356	8270-SIM MDL-0.4PPM CALIBRATION SOL ICV-2ND	SP6854	07/02/2025	09/30/2025	Jagrut Upadhyay	None	None	Rahul Chavli
SOURCE FROM 0.87500ml of E3943 + 0.01000ml of SP6830 + 0.12500ml of SP6853 = Final Quantity: 1.010 ml								

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3492	8270-SIM-Spike 0.4 PPM	SP6855	07/30/2025	09/30/2025	Rahul Chavli	None	None	Jagrut Upadhyay
FROM 0.00080ml of S11652 + 0.01000ml of S11807 + 0.02000ml of S12498 + 0.02000ml of S12552 + 0.02000ml of S12986 + 49.92920ml of E3932 = Final Quantity: 50.000 ml								

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4	23B1556310	12/31/2025	12/04/2023 / Rajesh	12/01/2023 / Rajesh	E3657

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	417203	01/28/2026	07/28/2025 / RUPESH	01/29/2025 / Rajesh	E3875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24K1762005	01/07/2026	03/13/2025 / RUPESH	12/27/2024 / RUPESH	E3904

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	11/05/2025	05/05/2025 / RUPESH	04/23/2025 / RUPESH	E3932

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	12/11/2025	06/11/2025 / Rajesh	06/04/2025 / Rajesh	E3940

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A2862010	12/13/2025	06/13/2025 / Rajesh	02/28/2025 / Rajesh	E3942

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A2862010	12/13/2025	06/13/2025 / Rajesh	02/28/2025 / Rajesh	E3943

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25B1862001	03/19/2026	07/14/2025 / RUPESH	06/11/2025 / RUPESH	E3954

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	24i1262013	11/07/2025	05/07/2025 / RUPESH	02/18/2025 / Mohan	M6157

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-112090-04 / CLP Acid Surrogate Solution, 7500 mg/L, 1ml	440246	12/19/2025	06/19/2025 / Jagrut	12/09/2021 / Christian	S10105

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0187043	11/16/2025	05/16/2025 / Jagrut	02/06/2023 / Christian	S11073

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110094-02 / CLP Base/Neutral Surrogate Solution, 5000 mg/L, 1ml	506889	10/28/2025	04/28/2025 / Jagrut	08/11/2023 / Yogesh	S11496

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555872 / Custom Standard, pentachlorophenol Std [CS 5328-5]	A0201728	01/30/2026	07/30/2025 / Rahul	11/09/2023 / Yogesh	S11652

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0200655	01/01/2026	07/01/2025 / Rahul	11/21/2023 / rahul	S11807

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	33913 / SOM01.0 SIM Analysis Standard (Surrogate), 2000 PPM	A0201976	12/09/2025	06/09/2025 / Jagrut	11/21/2023 / rahul	S11828

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	z-010223-01 / 1,4-Dioxane Solution, 2,000mg/L, 1ml	454157	10/28/2025	04/28/2025 / Jagrut	03/08/2024 / Rahul	S12115

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml, methanol, 5ml/ ampul	A0206206	09/18/2025	03/18/2025 / anahy	03/15/2024 / Rahul	S12195

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml, methanol, 5ml/ ampul	A0206206	01/02/2026	07/02/2025 / Jagrut	03/15/2024 / Rahul	S12197

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH ₂ Cl ₂ ,5ml	A0206381	09/18/2025	03/18/2025 / anahy	03/15/2024 / Rahul	S12216

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH ₂ Cl ₂ ,5ml	A0206381	01/02/2026	07/02/2025 / Jagrut	03/15/2024 / Rahul	S12220

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	z-110381-01 / 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1ml	520963	12/25/2025	06/25/2025 / Jagrut	05/24/2024 / Rahul	S12273

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at \$100 per ampul if requested - contact ARM with Request]	A0214021	12/04/2025	06/04/2025 / Jagrut	07/23/2024 / RAHUL	S12498

[CS 4978-1]

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at \$100 per ampul if requested - contact ARM with Request]	A0214021	01/01/2026	07/01/2025 / Rahul	07/23/2024 / RAHUL	S12499

[CS 4978-1]

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at \$85 per ampul if requested - contact ARM with Request]	A0214017	01/01/2026	07/01/2025 / Rahul	07/23/2024 / RAHUL	S12552

[CS 4978-2]

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31615 / SV Mixture, GC/MS Tuning Mixture, CH ₂ Cl ₂ , 1mL,	A0212955	06/30/2027	03/31/2025 / Rahul	08/01/2024 / Rahul	S12577

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH ₂ Cl ₂ , 1mL	A0212266	12/16/2025	06/16/2025 / anahy	09/20/2024 / anahy	S12670

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	A0219438	09/30/2025	06/04/2025 / Jagrut	12/11/2024 / anahy	S12986

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110816-01 / Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL, (Maximum Expiration: 180 Days)	531243	12/25/2025	06/25/2025 / Jagrut	01/16/2025 / anahy	S13058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112



5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received: _____

Certificate of Analysis

Rev 0

Page 1 of 1

Catalog No.: Lot No.: **Storage:** **Solvent:** **Exp. Date:** **Description:**
Z-112090 440246 $\leq -10^{\circ}\text{C}$ Methylene Chloride 2/16/2026 CLP Acid Surrogate Solution, 7,500 mg/L, 1 mL
-04

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
2-chlorophenol-d ₄	93951-73-6	99.3	248.12.7P	7487 $\pm$ 17.2
2-fluorophenol	367-12-4	99.8	10.7.3.3P	7513 $\pm$ 17.26
phenol-d ₆	13127-88-3	99.9	949.120.8P	7481 $\pm$ 17.19
2,4,6-tribromophenol	118-79-6	99.8	12.1.6P	7469 $\pm$ 17.17

Received on

02/25/21

by
CG

S9236
to

S9240

*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.

Certified By: Erica Castiglione
Erica Castiglione
Chemist



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Received on
02/08/23

b1
CG

S 11071
to
S 11075

Catalog No. : 31853 Lot No.: A0187043
Description : 1,4-dioxane
1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL Pkg Amt: > 1 mL
Expiration Date : July 31, 2027 Storage: 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,4-Dioxane CAS # 123-91-1 Purity 99% (Lot SHBN5929)	2,019.0 µg/mL	+/- 11.8486 µg/mL Gravimetric +/- 43.2570 µg/mL Unstressed +/- 44.5129 µg/mL Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

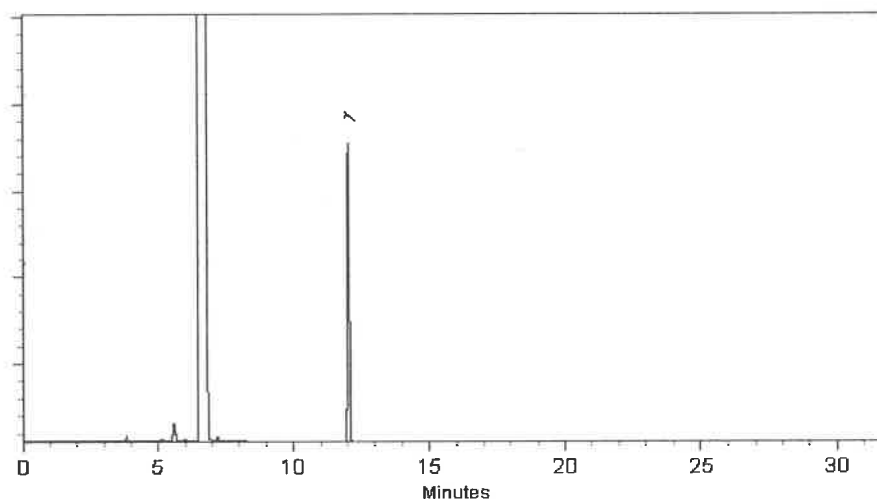
200°C

Det. Temp:

250°C

Det. Type:

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brittany Federinko - Operations Tech I

Date Mixed: 07-Jul-2022

Balance: 1128360905

Marlina Cowan - Operations Tech II ARM QC

Date Passed: 12-Jul-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: 0583
Grade: ACS GRADE
Batch Number: 23B1556310

Chemical Formula: NaOH
Molecular Weight: 40
CAS #: 1310-73-2
Appearance:

Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025

Storage: Room Temperature

Pellets

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	$\leq 0.005 \%$	$< 0.005 \%$	PASS
Chloride	$\leq 0.005 \%$	0.002 %	PASS
Heavy Metals	$\leq 0.002 \%$	$< 0.002 \%$	PASS
Iron	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Magnesium	$\leq 0.002 \%$	$< 0.002 \%$	PASS
Mercury	$\leq 0.1 \text{ ppm}$	$< 0.1 \text{ ppm}$	PASS
Nickel	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Nitrogen Compounds	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Phosphate	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Potassium	$\leq 0.02 \%$	$< 0.02 \%$	PASS
Purity	$\geq 97.0 \%$	99.2 %	PASS
Sodium Carbonate	$\leq 1.0 \%$	0.5 %	PASS
Sulfate	$\leq 0.003 \%$	$< 0.003 \%$	PASS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

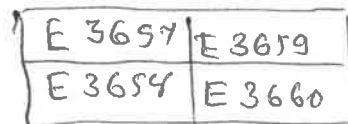
This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon
VWR Chemicals, LLC.
28600 Fountain Parkway, Solon OH 44139 USA

Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.





**PRODUCTOS
QUÍMICOS
MONTERREY, S.A. DE C.V.**

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CP 64070
TEL +52 81 13 52 67 67
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄
SPECIFICATION NUMBER:	6399	RELEASE DATE:	MAY/23/2024
LOT NUMBER :	417203		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.8 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.2
Insoluble matter	Max. 0.01%	0.001 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO ₄)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.001 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.001 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreign matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.2 %
Retained on US Standard No. 60 sieve	Min. 94%	96.2 %
Through US Standard No. 60 sieve	Max. 5%	3.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

RE-02-01, Ed. 3

E 3875

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H1462005

Manufactured Date: 2024-05-24

Expiration Date: 2027-05-24

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

RS

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3932

Jamie Croak

Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Acetone

BAKER RESI-ANALYZED® Reagent

For Organic Residue Analysis

Avantor™



Material No.: 9254-03

Batch No.: 24H1462005

Manufactured Date: 2024-05-24

Expiration Date: 2027-05-24

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 6/11/25

E3940

Jamie Croak

Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)



Material No.: 9266-A4
Batch No.: 25A2862010
Manufactured Date: 2024-12-18
Expiration Date: 2026-03-19
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	<1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	2
Assay (CH ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Titration Acid (μ eq/g)	≤ 0.3	<0.1
Chloride (Cl)	≤ 10 ppm	<5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	<0.01 %

For Laboratory, Research, or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3942

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™



Material No.: 9266-A4

Batch No.: 25A2862010

Manufactured Date: 2024-12-18

Expiration Date: 2026-03-19

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	<1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	2
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	5
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.3 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	<0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	<5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	<0.01 %

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E3942

Jamie Croak

Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)



Material No.: 9266-A4
Batch No.: 25B1862001
Manufactured Date: 2024-12-18
Expiration Date: 2026-03-19
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	2
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	5
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.3 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	<0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	<5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	<0.01 %

For Laboratory, Research, or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

RS
7/14/25

E3954

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™



M6157
MS

Material No.: 9673-33

Batch No.: 24I1262013

Manufactured Date: 2024-08-07

Retest Date: 2029-08-06

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H ₂ SO ₄)	95.0 – 98.0 %	96.2 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	<= 10	5
ACS – Residue after Ignition	<= 3 ppm	<1 ppm
ACS – Substances Reducing Permanganate(as SO ₂)	<= 2 ppm	<2 ppm
Ammonium (NH ₄)	<= 1 ppm	<1 ppm
Chloride (Cl)	<= 0.1 ppm	<0.1 ppm
Nitrate (NO ₃)	<= 0.2 ppm	0.1 ppm
Phosphate (PO ₄)	<= 0.5 ppm	<0.1 ppm
Trace Impurities – Aluminum (Al)	<= 30.0 ppb	<5.0 ppb
Arsenic & Antimony (as As)	<= 4.0 ppb	<2.0 ppb
Trace Impurities – Boron (B)	<= 10.0 ppb	<5.0 ppb
Trace Impurities – Cadmium (Cd)	<= 2.0 ppb	<1.0 ppb
Trace Impurities – Chromium (Cr)	<= 6.0 ppb	<1.0 ppb
Trace Impurities – Cobalt (Co)	<= 0.5 ppb	<0.3 ppb
Trace Impurities – Copper (Cu)	<= 1.0 ppb	<1.0 ppb
Trace Impurities – Gold (Au)	<= 10.0 ppb	<5.0 ppb
Heavy Metals (as Pb)	<= 500.0 ppb	<100.0 ppb
Trace Impurities – Iron (Fe)	<= 50.0 ppb	<1.0 ppb
Trace Impurities – Lead (Pb)	<= 0.5 ppb	<0.5 ppb
Trace Impurities – Magnesium (Mg)	<= 7.0 ppb	<1.0 ppb
Trace Impurities – Manganese (Mn)	<= 1.0 ppb	<1.0 ppb
Trace Impurities – Mercury (Hg)	<= 0.5 ppb	<0.1 ppb
Trace Impurities – Nickel (Ni)	<= 2.0 ppb	<0.3 ppb
Trace Impurities – Potassium (K)	<= 500.0 ppb	<10.0 ppb
Trace Impurities – Selenium (Se)	<= 50.0 ppb	7.2 ppb
Trace Impurities – Silicon (Si)	<= 100.0 ppb	12.8 ppb
Trace Impurities – Silver (Ag)	<= 1.0 ppb	<1.0 ppb

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

 **avantor**™



Material No.: 9673-33

Batch No.: 24I1262013

Test	Specification	Result
Trace Impurities – Sodium (Na)	≤ 500.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 5.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	1.1 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	< 1.0 ppb

For Laboratory, Research, or Manufacturing Use

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production



5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received: _____

Certificate of Analysis

Rev 0

Page 1 of 1

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110094-02	506889	≤ -10 °C	Methylene Chloride	7/25/2028	CLP Base/Neutral Surrogate Solution, 5,000 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,2-dichlorobenzene-d ₄	2199-69-1	99.7	247.29.3P	5035 ± 28.02
2-fluorobiphenyl	321-60-8	99.69	8.286.1.1P	4999 ± 103.66
nitrobenzene-d5	4165-60-0	99.67	7.9.3P	4988 ± 27.32
p-terphenyl-d14	1718-51-0	99.3	9.120.8P	5005 ± 27.85

511494 } Y.P.
↓
511498 } 08/11/2023

*Not a certified value

Certified By: Shane C. Tipton
Clint Tipton
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values
listed are determined gravimetrically.



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555872 **Lot No.:** A0201728

Description : Custom Pentachlorophenol Standard

Custom Pentachlorophenol Standard 25,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

511649
↓
511658 } Y.P.
11/13/23

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pentachlorophenol	87-86-5	RP230530RSR	99%	25,000.0 µg/mL	+/- 777.0837

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Josh McCloskey - Operations Technician I

Date Mixed: 05-Sep-2023

Balance: B251644995

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31853 **Lot No.:** A0200655
Description : 1,4-dioxane
1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2028 **Storage:** 0°C or colder
Ship: Ambient

S11795
↓
S11808 } RC / 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBQ1693	99%	2,007.0 µg/mL	+/- 24.9775

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant flow 1.8 mL/min.

Temp. Program:

80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

Inj. Temp:

250°C

Det. Temp:

340°C

Det. Type:

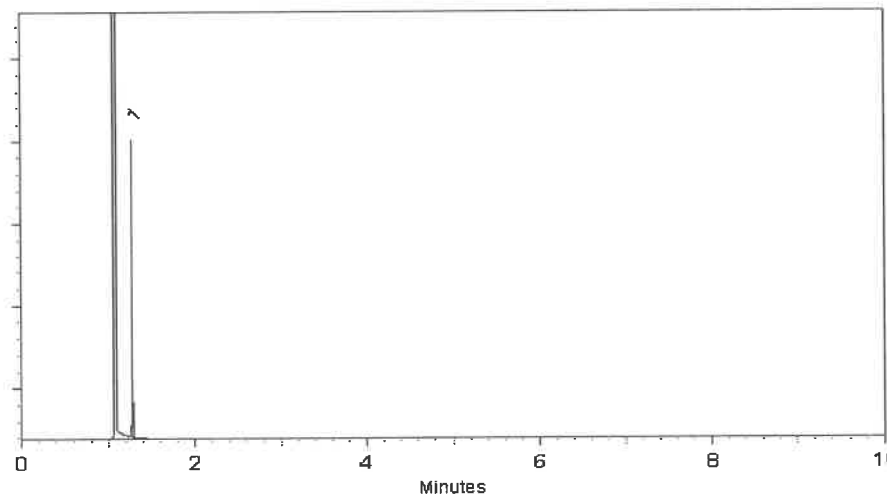
FID

Split Vent:

100 mL/min.

Inj. Vol

1µL



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 06-Aug-2023

Balance Serial # 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 08-Aug-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 **Lot No.:** A0201976
Description : SOM01.0 SIM Analysis Standard
SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2029 **Storage:** 10°C or colder
Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

S11828
↓
S11832 } RC/
11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Methylnaphthalene-d10	7297-45-2	EF-135	98%	2,015.9 µg/mL	+/- 90.8098
2	Fluoranthene-d10	93951-69-0	PR-32557	99%	2,020.0 µg/mL	+/- 90.9963

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

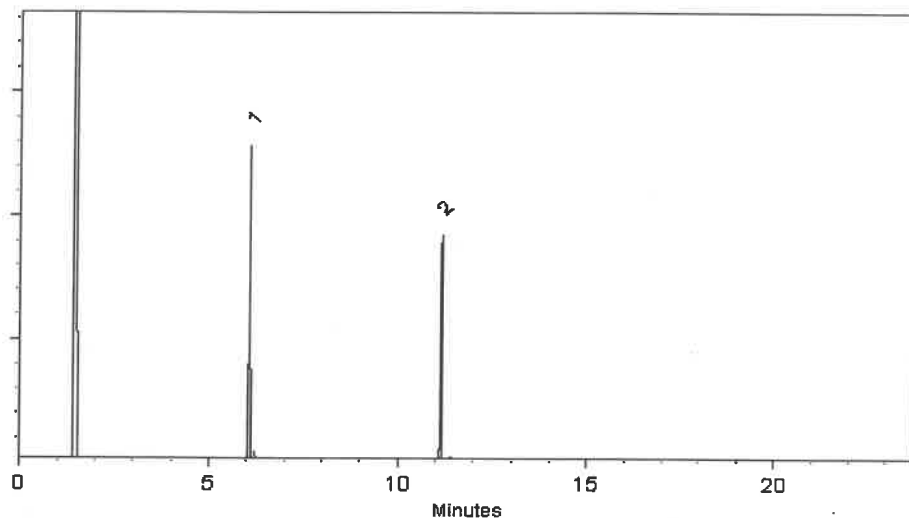
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl

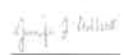


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 13-Sep-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 28-Sep-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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Santa Rosa, CA 95403

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Manufacturer's Quality System
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Certificate of Analysis

Rev 0

Page 1 of 1

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-020223-01	454157	≤ -10 °C	P/T Methanol	6/10/2026	1,4-Dioxane Solution, 2000 mg/L, 1 mL

<u>Compound</u>	<u>CAS No.</u>	<u>Purity (%)</u>	<u>Compound Lot No.</u>	<u>Concentration, mg/L</u>
1,4-dioxane	123-91-1	100	223.1.3P	1997 ± 57.08

512112 } RC/
↓
912116 } 03/08/24

*Not a certified value

Certified By: _____

Melissa Workoff
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values
listed are determined gravimetrically.



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31087 **Lot No.:** A0206206
Description : Acid Surrogate Mix (4/89 SOW)
Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : January 31, 2032 **Storage:** 10°C or colder
Ship: Ambient

512187 } RC/
↓
512206 } 03/18/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	10,005.3 µg/mL	+/- 302.5390
2	Phenol-d6	13127-88-3	PR-33287A	99%	10,005.5 µg/mL	+/- 302.5475
3	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	10,006.6 µg/mL	+/- 302.5783

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

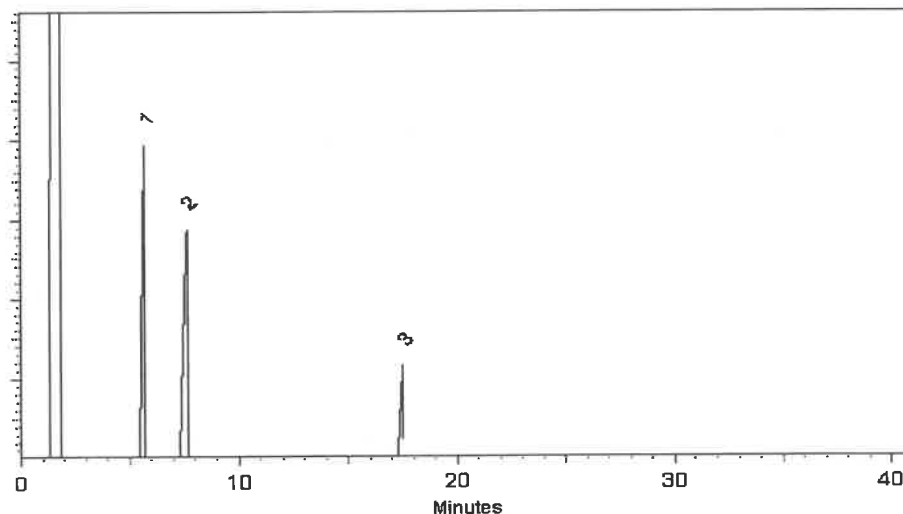
FID

Split Vent:

2 ml/min.

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope A. Riglin

Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024

Balance Serial # 1128360905

Christie Mills

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Jan-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31086 **Lot No.:** A0206381
Description : B/N Surrogate Mix (4/89 SOW)
Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : December 31, 2029 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

S12207 } RC/
↓
S12221 } 03/18/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,029.3 µg/mL	+/- 226.5204
2	2-Fluorobiphenyl	321-60-8	00021384	99%	5,030.9 µg/mL	+/- 226.5936
3	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,026.4 µg/mL	+/- 226.3909

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:

30m x 0.25mm x 0.25µm
Rtx-S (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

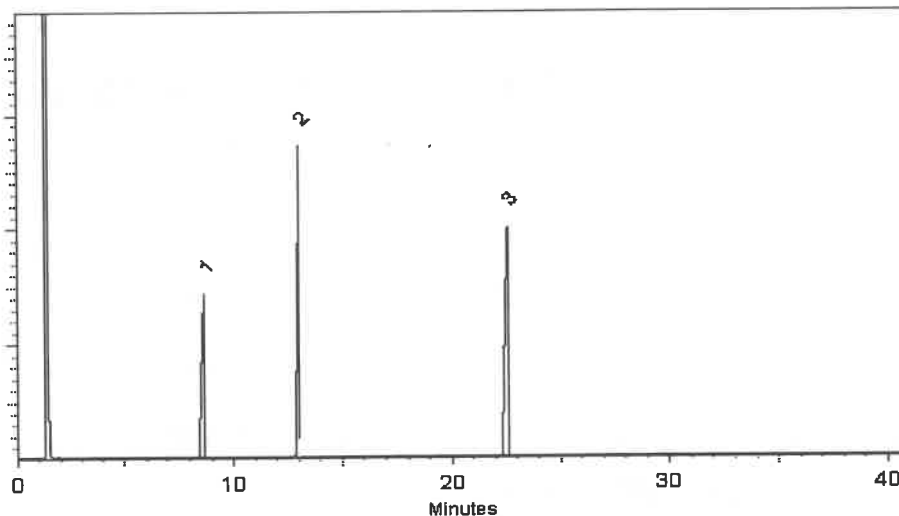
FID

Split Vent:

2 ml/min.

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jess Hoy - Operations Tech I

Date Mixed: 09-Jan-2024

Balance Serial # 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Jan-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



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Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

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by TUV USA to ISO 9001:2015

Date Received: _____

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Rev 0

Page 1 of 4

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110381-01	520963	≤ -10 °C	Methylene Chloride	10/10/2028	Method 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
acenaphthene	83-32-9	99.9	13.1.5P	1010 ± 9.89
acenaphthylene	208-96-8	97.6	14.290.1P	1014 ± 9.93
aniline	62-53-3	99.97	64.1.4P	1001 ± 9.8
anthracene	120-12-7	99.5	15.7.1P	999.6 ± 9.79
azobenzene	103-33-3	98.1	252.7.2P	999.1 ± 9.8
benzo[a]anthracene	56-55-3	100	16.7.3P	1007 ± 9.86
benzo[b]fluoranthene	205-99-2	99.8	17.421.3P	1011 ± 14.11
benzo[k]fluoranthene	207-08-9	98.9	18.421.4P	1001 ± 10.96
benzo[ghi]perylene	191-24-2	93	19.286.4P	999.6 ± 13.95
benzo[a]pyrene	50-32-8	97	20.286.2P	999.9 ± 22.24
benzyl alcohol	100-51-6	99.9	65.18.1P	1001 ± 9.82
bis(2-chloroethoxy)methane	111-91-1	99.1	31.3.15P	1000 ± 14.69
bis(2-chloroethyl)ether	111-44-4	99.8	32.7.1P	1003 ± 13.89
bis(2-chloro-1-methylethyl) ether	108-60-1	99.5	34.3.15P	999.4 ± 14.68
bis(2-ethylhexyl)adipate	103-23-1	99.5	874.7.1P	999.5 ± 9.8
bis(2-ethylhexyl)phthalate	117-81-7	99.4	33.29.1P	998.8 ± 17.03
4-bromophenyl phenyl ether	101-55-3	99.4	35.7.1.1P	1000 ± 13.85
butyl benzyl phthalate	85-68-7	98.4	36.1.6P	984.7 ± 16.79
carbazole	86-74-8	99.4	239.7.2P	1000 ± 9.8

*Not a certified value

512270 } RC/
↓
512274 } 05/24/24

Kerry Kane

Certified By: _____

Kerry Kane
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values
listed are determined gravimetrically.

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Page 2 of 4

Catalog No.: Z-110381-01

Lot No.: 520963

Expiration Date: 10/10/2028

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
4-chloroaniline	106-47-8	100	66.7.1P	1000 ± 9.79
4-chlorophenylphenyl ether	7005-72-3	98	37.158.2P	1001 ± 17.07
4-chloro-3-methylphenol	59-50-7	99	102.1.2P	1006 ± 17.16
2-chloronaphthalene	91-58-7	99.9	42.7.6P	1000 ± 9.79
2-chlorophenol	95-57-8	99.8	103.7.1P	1007 ± 13.96
chrysene	218-01-9	96	21.286.2P	998.4 ± 12.85
dibenz[a,h]anthracene	53-70-3	99.44	22.286.3P	1000 ± 9.74
dibenzofuran	132-64-9	100	67.7.2.1P	1002 ± 9.77
di-n-butyl phthalate	84-74-2	99.84	40.286.1P	1007 ± 24.48
1,2-dichlorobenzene	95-50-1	99.8	43.7.1P	1000 ± 9.79
1,3-dichlorobenzene	541-73-1	99.5	44.1.3P	999.4 ± 9.79
1,4-dichlorobenzene	106-46-7	99.9	45.29.2P	1000 ± 9.79
2,4-dichlorophenol	120-83-2	99.6	104.7.1.1P	1005 ± 13.93
diethyl phthalate	84-66-2	99.8	38.7.1P	1011 ± 14
2,4-dimethylphenol	105-67-9	99.6	105.7.1.1P	1009 ± 13.98
dimethyl phthalate	131-11-3	99.9	39.9.2P	996.5 ± 13.8
1,2-dinitrobenzene	528-29-0	99.86	86.7.3.1P	999.5 ± 9.75
1,3-dinitrobenzene	99-65-0	100	313.7.2P	998 ± 9.79
1,4-dinitrobenzene	100-25-4	100	907.7.1P	999.5 ± 9.8
2,4-dinitrophenol	51-28-5	99.9	106.1.6DP	1002 ± 13.89
2,4-dinitrotoluene	121-14-2	100	87.7.3P	999.8 ± 13.85
2,6-dinitrotoluene	606-20-2	99.4	88.7.2.1P	999.6 ± 13.85
di-n-octyl phthalate	117-84-0	99.1	41.7.5P	991.6 ± 13.74
diphenylamine	122-39-4	100	78.1.6P	998 ± 13.79
2,3,5,6-tetrachlorophenol	935-95-5	97	1112.286.1P	1004 ± 14.02
fluoranthene	206-44-0	98.6	23.7.4P	999.6 ± 9.79
fluorene	86-73-7	98.4	24.7.1P	999.7 ± 9.79

*Not a certified value

Kerry Kane

Certified By:

Kerry Kane
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.

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Page 3 of 4

Catalog No.: Z-110381-01

Lot No.: 520963

Expiration Date: 10/10/2028

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
hexachlorobenzene	118-74-1	99	46.158.4P	999.9 ± 13.96
hexachlorobutadiene	87-68-3	97.4	47.1.4P	1000 ± 9.79
hexachlorocyclopentadiene	77-47-4	99.2	48.2.2P	1001 ± 9.8
hexachloroethane	67-72-1	99.9	49.1.4P	1003 ± 9.82
indeno[1,2,3-cd]pyrene	193-39-5	98	25.286.4P	999.4 ± 22.23
isophorone	78-59-1	98.9	90.1.4P	999.9 ± 13.85
2-methyl-4,6-dinitrophenol	534-52-1	99.6	107.421.2DP	991 ± 24.09
1-methylnaphthalene	90-12-0	97.1	249.7.5P	999.2 ± 13.95
2-methylnaphthalene	91-57-6	97.4	68.7.2P	1006 ± 22.38
2-methylphenol	95-48-7	99.6	114.7.3P	1001 ± 13.87
3-methylphenol	108-39-4	99.1	115.7.4P	499.7 ± 6.92
4-methylphenol	106-44-5	99.5	116.7.1P	501.2 ± 6.94
naphthalene	91-20-3	99.8	26.9.1P	1018 ± 9.97
2-nitroaniline	88-74-4	99.7	69.29.1P	999.6 ± 9.79
3-nitroaniline	99-09-2	100	70.7.3P	1000 ± 9.74
4-nitroaniline	100-01-6	99.7	71.29.1P	1001 ± 9.8
nitrobenzene	98-95-3	100	94.7.1P	1000 ± 13.85
2-nitrophenol	88-75-5	99.1	108.29.1P	996.5 ± 13.81
4-nitrophenol	100-02-7	100	109.7.1P	1000 ± 13.82
N-nitrosodimethylamine	62-75-9	99.5	57.3.19P	998.5 ± 14.67
N-nitrosodi-n-propylamine	621-64-7	99.8	59.286.1P	996.8 ± 17
pentachlorophenol	87-86-5	99	110.1.7P	1004 ± 13.92
phenanthrene	85-01-8	99.7	27.1.5P	999 ± 12.87
phenol	108-95-2	100	112.7.1P	998.5 ± 13.8
pyrene	129-00-0	99.2	28.9.2P	998.9 ± 9.78
pyridine	110-86-1	100	101.24.1P	999 ± 9.73
2,3,4,6-Tetrachlorophenol	58-90-2	91.8	120.421.1P	996.5 ± 13.92

*Not a certified value

Kerry Kane

Certified By:

Kerry Kane
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.

Certificate of Analysis

Page 4 of 4

Catalog No.: Z-110381-01

Lot No.: 520963

Expiration Date: 10/10/2028

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,2,4-trichlorobenzene	120-82-1	99.6	54.29.1P	999.6 ± 9.79
2,4,5-trichlorophenol	95-95-4	96.5	121.7.1.1P	999.5 ± 13.85
2,4,6-trichlorophenol	88-06-2	99.6	113.7.1P	996 ± 13.8

*Not a certified value



Certified By:

Kerry Kane
Chemist

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Concentration (correct for purity) and uncertainty (95% confidence) values
listed are determined gravimetrically.



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gravimetric



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 } RC/
↓
S12508 } 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024

Balance: 1128353505

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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gravimetric



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 } RC/
↓
S12568 } 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024

Balance: 1128360905

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0212955

Description : GC/MS Tuning Mixture
GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2027 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,004.5 µg/mL	+/- 44.8902
2	DFTPP (Decafluorotriphenylphosphine)	5074-71-5	Q117-147	99%	1,004.5 µg/mL	+/- 44.8902
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 44.9572
4	4,4'-DDT	50-29-3	S240530RSR	97%	1,000.1 µg/mL	+/- 44.6922

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12577 } RC
↓
S12579 } 8/2/24

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

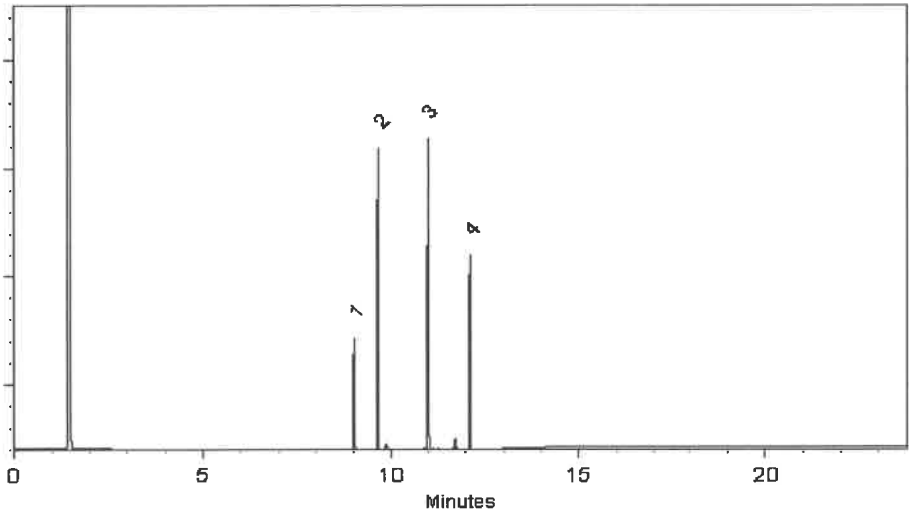
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

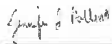
Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Ethan Winiarski - Operations Tech I

Date Mixed: 19-Jun-2024 Balance Serial # 1128353505


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 26-Jun-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0212266

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	2,000.6 µg/mL	+/- 90.1075
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,000.3 µg/mL	+/- 90.0925
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,000.4 µg/mL	+/- 90.1000
4	Phenanthrene-d10	1517-22-2	PR-34099	99%	2,000.5 µg/mL	+/- 90.1037
5	Chrysene-d12	1719-03-5	PR-33506	99%	2,000.7 µg/mL	+/- 90.1112
6	Perylene-d12	1520-96-3	PR-33205	99%	2,000.6 µg/mL	+/- 90.1075

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12645
↓
S12674 } AC
10/1/24



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0219438

Description : 8270 MegaMix®
8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

S12963
↓
S12992 } AC
12/17/20

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,008.3 µg/mL	+/- 36.6849
2	N-Nitrosodimethylamine	62-75-9	S240313RSR	99%	1,008.6 µg/mL	+/- 36.6985
3	Phenol	108-95-2	MKCK1120	99%	1,003.5 µg/mL	+/- 36.5120
4	Aniline	62-53-3	X22F726	99%	1,002.9 µg/mL	+/- 36.4893
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,003.0 µg/mL	+/- 36.4938
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.6 µg/mL	+/- 36.5894
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.1 µg/mL	+/- 36.5348
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,002.1 µg/mL	+/- 36.4620
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,003.5 µg/mL	+/- 36.5120
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,005.3 µg/mL	+/- 36.5757
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,008.4 µg/mL	+/- 36.6894
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,004.6 µg/mL	+/- 36.5530
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.1 µg/mL	+/- 18.2697
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.8 µg/mL	+/- 18.3288
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,006.5 µg/mL	+/- 36.6212
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.5 µg/mL	+/- 36.5484
17	Nitrobenzene	98-95-3	10224044	99%	1,002.5 µg/mL	+/- 36.4757

18	Isophorone	78-59-1	MKCR3249	99%	1,003.4	µg/mL	+/- 36.5075
19	2-Nitrophenol	88-75-5	RP230710	99%	1,002.5	µg/mL	+/- 36.4757
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,006.5	µg/mL	+/- 36.6212
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,006.6	µg/mL	+/- 36.6257
22	2,4-Dichlorophenol	120-83-2	BCKK6969	99%	1,001.5	µg/mL	+/- 36.4393
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,006.4	µg/mL	+/- 36.6166
24	Naphthalene	91-20-3	STBL1057	99%	1,002.1	µg/mL	+/- 36.4620
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,004.4	µg/mL	+/- 36.5439
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,002.5	µg/mL	+/- 36.4771
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.5	µg/mL	+/- 36.5484
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,000.0	µg/mL	+/- 36.3847
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,001.3	µg/mL	+/- 36.4325
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,006.4	µg/mL	+/- 36.6166
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.6	µg/mL	+/- 36.5505
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.3	µg/mL	+/- 36.5393
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.4	µg/mL	+/- 36.5439
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,002.8	µg/mL	+/- 36.4847
36	Acenaphthylene	208-96-8	RP241029RSR	98%	1,000.0	µg/mL	+/- 36.3835
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,006.3	µg/mL	+/- 36.6121
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,008.9	µg/mL	+/- 36.7076
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,006.6	µg/mL	+/- 36.6257
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,002.5	µg/mL	+/- 36.4757
41	Acenaphthene	83-32-9	MKCR7169	99%	1,000.0	µg/mL	+/- 36.3847
42	3-Nitroaniline	99-09-2	RP240708RSR	99%	1,004.6	µg/mL	+/- 36.5530
43	2,4-Dinitrophenol	51-28-5	D240927RSR	----%	1,005.6	µg/mL	+/- 36.5894
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,003.5	µg/mL	+/- 36.5120
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,008.3	µg/mL	+/- 36.6849
46	4-Nitrophenol	100-02-7	20241029-2-AN	99%	1,004.8	µg/mL	+/- 36.5575
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,005.8	µg/mL	+/- 36.5939
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP231219RSR	99%	1,006.4	µg/mL	+/- 36.6166
49	Fluorene	86-73-7	10246250	98%	1,000.7	µg/mL	+/- 36.4102
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,004.9	µg/mL	+/- 36.5621
51	Diethylphthalate	84-66-2	BCCJ6241	99%	1,003.9	µg/mL	+/- 36.5257
52	4-Nitroaniline	100-01-6	RP230111	99%	1,006.6	µg/mL	+/- 36.6257
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,001.3	µg/mL	+/- 36.4302

54	Diphenylamine	122-39-4	MKCT1512	99%	1,003.0	µg/mL	+/- 36.4938
55	Azobenzene	103-33-3	BCKK0887	99%	1,002.4	µg/mL	+/- 36.4711
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,008.8	µg/mL	+/- 36.7031
57	Hexachlorobenzene	118-74-1	15458400	99%	1,005.1	µg/mL	+/- 36.5712
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.9	µg/mL	+/- 36.5984
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.9	µg/mL	+/- 36.5621
60	Anthracene	120-12-7	101492T18R	99%	1,005.1	µg/mL	+/- 36.5712
61	Carbazole	86-74-8	15276700	99%	1,005.4	µg/mL	+/- 36.5803
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,006.3	µg/mL	+/- 36.6121
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,003.5	µg/mL	+/- 36.5120
64	Pyrene	129-00-0	BCKK2592	99%	1,002.0	µg/mL	+/- 36.4575
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,007.5	µg/mL	+/- 36.6576
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.9	µg/mL	+/- 36.5984
67	Benz(a)anthracene	56-55-3	I70012022BAA	99%	1,005.5	µg/mL	+/- 36.5848
68	Chrysene	218-01-9	RP241007RSR	99%	1,005.3	µg/mL	+/- 36.5757
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,007.5	µg/mL	+/- 36.6576
70	Di-n-octyl phthalate	117-84-0	15566400	99%	1,002.3	µg/mL	+/- 36.4666
71	Benzo(b)fluoranthene	205-99-2	052013B	99%	1,004.1	µg/mL	+/- 36.5348
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,002.8	µg/mL	+/- 36.4847
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,006.2	µg/mL	+/- 36.6108
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,001.8	µg/mL	+/- 36.4490
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,003.3	µg/mL	+/- 36.5029
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,003.8	µg/mL	+/- 36.5217

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.



5580 Skyline Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received: _____

Certificate of Analysis

Rev 0

Page 1 of 1

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110816-01	531243	≤ -10 °C	Methylene Chloride	1/2/2030	Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
atrazine	1912-24-9	99.5	337.7.4P	997 ± 5.81
benzidine	92-87-5	99.9	124.18.6.2P	993.8 ± 5.78
caprolactam	105-60-2	99.9	271.1.6P	999 ± 5.82

513057 } AC
↓
513061 } 1/16/25

*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: _____

Melissa Workoff

Melissa Workoff
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.



SHIPPING DOCUMENTS

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CHEMTECH CHAIN OF CUSTODY RECORD		284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax: (908) 78-8922 www.chemtech.net		Chemtech Project Number: 22806	
				COC Number:	
CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION	
COMPANY: Tetra Tech		PROJECT NAME: NWIRP Bethpage		BILL TO: PO#	
ADDRESS: 4433 Corporation Ln, Suite 300		PROJECT #: 112G08005-WE13 LOCATION: RW7B		ADDRESS:	
CITY: Virginia Beach STATE: VA ZIP: 23462		PROJECT MANAGER: Ernie Wu		CITY: STATE: ZIP:	
ATTENTION: Ernie Wu		E-MAIL: ernie.wu@tetratech.com		ATTENTION: PHONE:	
PHONE: 757-466-4901 FAX: 757-461-4148		PHONE: 757-466-4901 FAX: 757-461-4148			
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS	
FAX: _____ 10 _____ DAYS* HARD COPY: _____ 10 _____ DAYS* EDD _____ 10 _____ DAYS* * TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		☐ RESEULTS ONLY ☐ USEPA CLP ☐ RESULTS + QC ☐ New York State ASP "B" ☐ New Jersey REDUCED ☐ New York State ASP "A" ☐ New Jersey CLP ☐ Other _____ ☐ EDD Format _____		1,4-Dioxane SW846 8270 SIM	
				PRESERVATIVES	
				COMMENTS	
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP GRAB	SAMPLE COLLECTION DATE TIME	# of Bottles
1.	RW7-SP100-20250807	GW		8/7/25 12:15	1
2.	RW7-SP201-20250807	GW		8/7/25 12:17	1
3.	RW7-SP303-20250807	GW		8/7/25 12:29	1
4.					
5.					
6.					
7.					
8.					
9.					
10.					

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSESSION INCLUDING COURIER DELIVERY					
RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp <u>2.1°C</u> MeOH extraction requires an additional 4oz. Jar for percent solid Comments: Ice in Cooler? <u>yes</u>		
1.	8/7/25/1520	1.			
RELINQUISHED BY	DATE/TIME	RECEIVED BY			
2.	8/8/25	2.	SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight CHEMTECH: ☐ Picked Up ☐ Overnight		
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY			
3.		3.	Page _____ of _____		
			Shipment Complete ☐ YES ☐ NO		

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488