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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: PARS02

Lab Code: CHEM Case No.: Q2268 SAS No.: Q2268 SDG No.: Q2268

Instrument ID: BNA_F Calibration Date(s): 06/10/2025 06/10/2025

Calibration Time(s): 16:54 20:19

LAB FILE ID: RRF2.5 = BF142712.D RRF005 = BF142713.D RRF010 = BF142714.D
RRF020 = BF142715.D RRF040 = BF142716.D RRF050 = BF142717.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
2-Fluorophenol		1.238	1.170	1.199	1.161	1.220	1.174	4.5
Benzaldehyde			0.943	0.950	0.839	0.839	0.856	11.5
Phenol-d6		1.434	1.339	1.400	1.376	1.446	1.382	3.7
Phenol		1.550	1.503	1.577	1.522	1.607	1.536	3.4
bis(2-Chloroethyl)ether		1.222	1.118	1.149	1.130	1.202	1.147	4.3
2-Chlorophenol		1.288	1.254	1.300	1.290	1.347	1.283	3.1
2-Methylphenol		0.978	0.950	0.995	0.992	1.043	0.984	3.6
2,2-oxybis(1-Chloropropane)		1.957	1.812	1.840	1.806	1.875	1.806	6.0
Acetophenone		0.475	0.451	0.458	0.435	0.454	0.445	4.8
3+4-Methylphenols			1.261	1.285	1.246	1.299	1.240	4.8
n-Nitroso-di-n-propylamine	0.885	0.912	0.870	0.886	0.878	0.921	0.880	3.4
Nitrobenzene-d5		0.381	0.363	0.369	0.358	0.378	0.365	3.2
Hexachloroethane		0.562	0.521	0.545	0.524	0.552	0.530	4.7
Nitrobenzene		0.338	0.313	0.326	0.320	0.335	0.324	3.1
Isophorone		0.657	0.621	0.628	0.603	0.630	0.619	3.8
2-Nitrophenol		0.172	0.174	0.183	0.181	0.192	0.181	3.9
2,4-Dimethylphenol		0.318	0.303	0.311	0.304	0.321	0.308	3.1
bis(2-Chloroethoxy)methane		0.408	0.381	0.392	0.377	0.397	0.384	4.3
2,4-Dichlorophenol		0.284	0.281	0.292	0.280	0.300	0.284	3.5
Naphthalene		1.065	0.997	1.021	0.972	1.008	0.989	5.2
4-Chloroaniline		0.429	0.389	0.399	0.399	0.408	0.397	4.7
Hexachlorobutadiene		0.210	0.204	0.206	0.197	0.205	0.200	4.4
Caprolactam			0.077	0.079	0.075	0.079	0.077	2.8
4-Chloro-3-methylphenol		0.317	0.299	0.303	0.289	0.301	0.296	4.8
2-Methylnaphthalene		0.674	0.649	0.641	0.618	0.636	0.626	5.7
Hexachlorocyclopentadiene			0.297	0.348	0.375	0.414	0.372	11.6
2,4,6-Trichlorophenol		0.349	0.373	0.383	0.373	0.405	0.375	4.8
2-Fluorobiphenyl		1.690	1.610	1.569	1.444	1.535	1.505	9.0
2,4,5-Trichlorophenol		0.404	0.404	0.413	0.400	0.431	0.405	3.6
1,1-Biphenyl		1.630	1.617	1.587	1.506	1.622	1.553	5.4
2-Chloronaphthalene		1.190	1.172	1.178	1.117	1.197	1.144	4.8
2-Nitroaniline		0.320	0.321	0.333	0.323	0.345	0.325	3.4
Dimethylphthalate		1.444	1.368	1.359	1.291	1.379	1.336	5.4
Acenaphthylene		2.053	1.986	2.003	1.881	1.991	1.929	5.6

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: PARS02

Lab Code: CHEM Case No.: Q2268 SAS No.: Q2268 SDG No.: Q2268

Instrument ID: BNA_F Calibration Date(s): 06/10/2025 06/10/2025

Calibration Time(s): 16:54 20:19

LAB FILE ID: RRF2.5 = BF142712.D RRF005 = BF142713.D RRF010 = BF142714.D
RRF020 = BF142715.D RRF040 = BF142716.D RRF050 = BF142717.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
2,6-Dinitrotoluene		0.307	0.283	0.295	0.285	0.299	0.289	4.5
3-Nitroaniline		0.334	0.313	0.316	0.307	0.322	0.313	4.1
Acenaphthene		1.266	1.222	1.224	1.170	1.237	1.196	4.8
2,4-Dinitrophenol			0.123	0.154	0.157	0.176	0.158	12.2
4-Nitrophenol			0.203	0.219	0.210	0.222	0.212	3.4
Dibenzofuran		1.855	1.777	1.783	1.643	1.741	1.703	6.9
2,4-Dinitrotoluene		0.396	0.383	0.399	0.377	0.396	0.382	4.7
Diethylphthalate		1.508	1.392	1.372	1.256	1.332	1.324	8.6
4-Chlorophenyl-phenylether		0.748	0.692	0.680	0.633	0.663	0.657	8.8
Fluorene		1.547	1.429	1.397	1.279	1.357	1.345	9.5
4-Nitroaniline		0.297	0.281	0.294	0.270	0.283	0.280	4.6
4,6-Dinitro-2-methylphenol			0.104	0.123	0.125	0.137	0.125	9.2
n-Nitrosodiphenylamine		0.710	0.679	0.693	0.672	0.722	0.687	3.4
2,4,6-Tribromophenol		0.236	0.223	0.224	0.213	0.226	0.219	5.3
4-Bromophenyl-phenylether		0.240	0.229	0.238	0.231	0.252	0.236	3.5
Hexachlorobenzene		0.270	0.261	0.263	0.255	0.275	0.262	3.2
Atrazine		0.185	0.174	0.188	0.179	0.191	0.183	3.3
Pentachlorophenol			0.118	0.133	0.139	0.148	0.137	7.8
Phenanthrene		1.165	1.100	1.094	1.036	1.091	1.071	5.6
Anthracene		1.203	1.145	1.140	1.064	1.132	1.108	6.0
Carbazole		1.003	0.960	0.968	0.898	0.931	0.928	6.1
Di-n-butylphthalate		1.105	1.048	1.072	1.005	1.053	1.036	4.8
Fluoranthene		1.184	1.083	1.081	0.965	0.988	1.019	10.1
Pyrene		2.014	1.918	1.928	1.883	1.878	1.859	6.7
Terphenyl-d14		1.609	1.562	1.556	1.462	1.430	1.456	9.1
Butylbenzylphthalate		0.435	0.486	0.526	0.581	0.626	0.550	12.7
3,3-Dichlorobenzidine			0.370	0.403	0.442	0.473	0.427	8.9
Benzo(a)anthracene		1.367	1.273	1.284	1.350	1.400	1.325	3.9
Chrysene		1.298	1.208	1.245	1.172	1.250	1.224	3.7
Bis(2-ethylhexyl)phthalate		0.616	0.709	0.756	0.895	0.977	0.825	16.0
Di-n-octyl phthalate			1.284	1.385	1.677	1.816	1.582	12.8
Benzo(b)fluoranthene		1.256	1.094	1.112	1.162	1.230	1.178	5.7
Benzo(k)fluoranthene		1.236	1.178	1.245	1.076	1.189	1.143	7.9
Benzo(a)pyrene		1.164	1.085	1.122	1.104	1.184	1.120	3.7
Indeno(1,2,3-cd)pyrene		1.438	1.406	1.458	1.498	1.602	1.482	4.3

All other compounds must meet a minimum RRF of 0.010.

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Lab Name: CHEMTECH Contract: PARS02

Lab Code: CHEM Case No.: Q2268 SAS No.: Q2268 SDG No.: Q2268

Instrument ID: BNA_F Calibration Date(s): 06/10/2025 06/10/2025

Calibration Time(s): 16:54 20:19

LAB FILE ID: RRF2.5 = BF142712.D RRF005 = BF142713.D RRF010 = BF142714.D
RRF020 = BF142715.D RRF040 = BF142716.D RRF050 = BF142717.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
Dibenzo(a,h)anthracene		1.134	1.176	1.214	1.236	1.318	1.210	4.9
Benzo(g,h,i)perylene		1.201	1.164	1.178	1.216	1.295	1.203	3.8
1,2,4,5-Tetrachlorobenzene		0.585	0.592	0.589	0.568	0.618	0.579	4.6
1,4-Dioxane		0.499	0.448	0.472	0.455	0.481	0.465	4.4
2,3,4,6-Tetrachlorophenol		0.364	0.339	0.357	0.327	0.354	0.340	5.6

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF061125.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Jun 11 05:56:09 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF142712.D 5.0 =BF142713.D 10 =BF142714.D 20 =BF142715.D 40 =BF142716.D 50 =BF142717.D 60 =BF142718.D 80 =BF1427
19.D

		Compound	2.5	5.0	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.499	0.448	0.472	0.455	0.481	0.460	0.439	0.465	4.40
3)		Pyridine		1.172	1.129	1.159	1.160	1.222	1.193	1.122	1.165	3.00
4)		n-Nitrosodimet...			0.558	0.590	0.591	0.633	0.617	0.588	0.596	4.36
5)	S	2-Fluorophenol		1.238	1.170	1.199	1.161	1.220	1.156	1.075	1.174	4.55
6)		Aniline		1.866	1.788	1.894	1.848	1.955	1.861	1.736	1.850	3.83
7)	S	Phenol-d6		1.434	1.339	1.400	1.376	1.446	1.377	1.302	1.382	3.67
8)		2-Chlorophenol		1.288	1.254	1.300	1.290	1.347	1.286	1.219	1.283	3.09
9)		Benzaldehyde			0.943	0.950	0.839	0.839	0.708		0.856	11.52
10)	C	Phenol		1.550	1.503	1.577	1.522	1.607	1.547	1.446	1.536	3.42
11)		bis(2-Chloroet...		1.222	1.118	1.149	1.130	1.202	1.131	1.079	1.147	4.29
12)		1,3-Dichlorobe...		1.557	1.483	1.504	1.451	1.513	1.411	1.333	1.465	5.08
13)	C	1,4-Dichlorobe...		1.596	1.483	1.519	1.454	1.528	1.431	1.349	1.480	5.34
14)		1,2-Dichlorobe...		1.554	1.418	1.444	1.401	1.457	1.375	1.282	1.419	5.83
15)		Benzyl Alcohol			0.970	1.049	1.059	1.121	1.061	1.007	1.045	4.95
16)		2,2'-oxybis(1-...		1.957	1.812	1.840	1.806	1.875	1.746	1.609	1.806	6.03
17)		2-Methylphenol		0.978	0.950	0.995	0.992	1.043	0.995	0.933	0.984	3.61
18)		Hexachloroethane		0.562	0.521	0.545	0.524	0.552	0.522	0.488	0.530	4.69
19)	P	n-Nitroso-di-n...	0.885	0.912	0.870	0.886	0.878	0.921	0.863	0.823	0.880	3.43
20)		3+4-Methylphenols			1.261	1.285	1.246	1.299	1.218	1.134	1.240	4.80
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.475	0.451	0.458	0.435	0.454	0.433	0.408	0.445	4.79
23)	S	Nitrobenzene-d5		0.381	0.363	0.369	0.358	0.378	0.363	0.346	0.365	3.24
24)		Nitrobenzene		0.338	0.313	0.326	0.320	0.335	0.327	0.312	0.324	3.10
25)		Isophorone		0.657	0.621	0.628	0.603	0.630	0.606	0.585	0.619	3.77
26)	C	2-Nitrophenol		0.172	0.174	0.183	0.181	0.192	0.187	0.178	0.181	3.92
27)		2,4-Dimethylph...		0.318	0.303	0.311	0.304	0.321	0.308	0.292	0.308	3.14
28)		bis(2-Chloroet...		0.408	0.381	0.392	0.377	0.397	0.378	0.356	0.384	4.31
29)	C	2,4-Dichloroph...		0.284	0.281	0.292	0.280	0.300	0.285	0.269	0.284	3.51
30)		1,2,4-Trichlor...		0.337	0.313	0.322	0.306	0.322	0.307	0.294	0.314	4.42
31)		Naphthalene		1.065	0.997	1.021	0.972	1.008	0.958	0.903	0.989	5.20
32)		Benzoic acid			0.137	0.162	0.174	0.192	0.190	0.186	0.174	12.16
33)		4-Chloroaniline		0.429	0.389	0.399	0.399	0.408	0.386	0.370	0.397	4.68
34)	C	Hexachlorobuta...		0.210	0.204	0.206	0.197	0.205	0.196	0.184	0.200	4.41
35)		Caprolactam			0.077	0.079	0.075	0.079	0.077	0.074	0.077	2.82
36)	C	4-Chloro-3-met...		0.317	0.299	0.303	0.289	0.301	0.287	0.273	0.296	4.76
37)		2-Methylnaphth...		0.674	0.649	0.641	0.618	0.636	0.599	0.565	0.626	5.72
38)		1-Methylnaphth...		0.727	0.666	0.669	0.629	0.650	0.619	0.580	0.649	7.16

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF061125.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.585	0.592	0.589	0.568	0.618	0.570	0.531	0.579	4.64
41)	P	Hexachlorocycl...		0.297	0.348	0.375	0.414	0.400	0.396	0.372	11.64
42)	S	2,4,6-Tribromo...	0.236	0.223	0.224	0.213	0.226	0.210	0.202	0.219	5.28
43)	C	2,4,6-Trichlor...	0.349	0.373	0.383	0.373	0.405	0.380	0.359	0.375	4.79
44)		2,4,5-Trichlor...	0.404	0.404	0.413	0.400	0.431	0.399	0.383	0.405	3.61
45)	S	2-Fluorobiphenyl	1.690	1.610	1.569	1.444	1.535	1.402	1.289	1.505	9.04
46)		1,1'-Biphenyl	1.630	1.617	1.587	1.506	1.622	1.500	1.409	1.553	5.39
47)		2-Chloronaphth...	1.190	1.172	1.178	1.117	1.197	1.108	1.047	1.144	4.82
48)		2-Nitroaniline	0.320	0.321	0.333	0.323	0.345	0.325	0.311	0.325	3.38
49)		Acenaphthylene	2.053	1.986	2.003	1.881	1.991	1.847	1.744	1.929	5.65
50)		Dimethylphthalate	1.444	1.368	1.359	1.291	1.379	1.273	1.234	1.336	5.42
51)		2,6-Dinitrotol...	0.307	0.283	0.295	0.285	0.299	0.283	0.268	0.289	4.49
52)	C	Acenaphthene	1.266	1.222	1.224	1.170	1.237	1.155	1.099	1.196	4.80
53)		3-Nitroaniline	0.334	0.313	0.316	0.307	0.322	0.304	0.295	0.313	4.08
54)	P	2,4-Dinitrophenol		0.123	0.154	0.157	0.176	0.170	0.169	0.158	12.18
55)		Dibenzofuran	1.855	1.777	1.783	1.643	1.741	1.607	1.517	1.703	6.93
56)	P	4-Nitrophenol		0.203	0.219	0.210	0.222	0.212	0.208	0.212	3.42
57)		2,4-Dinitrotol...	0.396	0.383	0.399	0.377	0.396	0.372	0.348	0.382	4.73
58)		Fluorene	1.547	1.429	1.397	1.279	1.357	1.240	1.167	1.345	9.49
59)		2,3,4,6-Tetrac...	0.364	0.339	0.357	0.327	0.354	0.332	0.311	0.340	5.58
60)		Diethylphthalate	1.508	1.392	1.372	1.256	1.332	1.246	1.164	1.324	8.55
61)		4-Chlorophenyl...	0.748	0.692	0.680	0.633	0.663	0.610	0.571	0.657	8.84
62)		4-Nitroaniline	0.297	0.281	0.294	0.270	0.283	0.275	0.261	0.280	4.58
63)		Azobenzene	1.290	1.186	1.178	1.115	1.187	1.094	1.045	1.157	6.89
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.104	0.123	0.125	0.137	0.133	0.129	0.125	9.17
66)	c	n-Nitrosodiphe...	0.710	0.679	0.693	0.672	0.722	0.685	0.651	0.687	3.45
67)		4-Bromophenyl-...	0.240	0.229	0.238	0.231	0.252	0.236	0.227	0.236	3.52
68)		Hexachlorobenzene	0.270	0.261	0.263	0.255	0.275	0.260	0.251	0.262	3.17
69)		Atrazine	0.185	0.174	0.188	0.179	0.191	0.188	0.178	0.183	3.33
70)	C	Pentachlorophenol		0.118	0.133	0.139	0.148	0.144	0.142	0.137	7.80
71)		Phenanthrene	1.165	1.100	1.094	1.036	1.091	1.035	0.978	1.071	5.61
72)		Anthracene	1.203	1.145	1.140	1.064	1.132	1.072	1.004	1.108	5.96
73)		Carbazole	1.003	0.960	0.968	0.898	0.931	0.903	0.832	0.928	6.07
74)		Di-n-butylphth...	1.105	1.048	1.072	1.005	1.053	1.017	0.953	1.036	4.76
75)	C	Fluoranthene	1.184	1.083	1.081	0.965	0.988	0.953	0.878	1.019	10.08
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine		0.711	0.772	0.799	0.754	0.684	0.553	0.712	12.40
78)		Pyrene	2.014	1.918	1.928	1.883	1.878	1.753	1.635	1.859	6.75
79)	S	Terphenyl-d14	1.609	1.562	1.556	1.462	1.430	1.327	1.247	1.456	9.11
80)		Butylbenzylpht...	0.435	0.486	0.526	0.581	0.626	0.605	0.588	0.550	12.67
81)		Benzo(a)anthra...	1.367	1.273	1.284	1.350	1.400	1.340	1.263	1.325	3.94
82)		3,3'-Dichlorob...		0.370	0.403	0.442	0.473	0.459	0.418	0.427	8.88
83)		Chrysene	1.298	1.208	1.245	1.172	1.250	1.222	1.170	1.224	3.72
84)		Bis(2-ethylhex...	0.616	0.709	0.756	0.895	0.977	0.926	0.896	0.825	16.02
85)	c	Di-n-octyl pht...		1.284	1.385	1.677	1.816	1.680	1.654	1.582	12.84

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF061125.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.438	1.406	1.458	1.498	1.602	1.514	1.460	1.482	4.31
88)		Benzo(b)fluora...	1.256	1.094	1.112	1.162	1.230	1.251	1.139	1.178	5.71
89)		Benzo(k)fluora...	1.236	1.178	1.245	1.076	1.189	1.035	1.039	1.143	7.94
90)	C	Benzo(a)pyrene	1.164	1.085	1.122	1.104	1.184	1.111	1.068	1.120	3.70
91)		Dibenzo(a,h)an...	1.134	1.176	1.214	1.236	1.318	1.222	1.172	1.210	4.87
92)		Benzo(g,h,i)pe...	1.201	1.164	1.178	1.216	1.295	1.207	1.163	1.203	3.77

(#) = Out of Range