TABLE 12-47
HAZARD QUOTIENTS FOR COPCS IN SEDIMENT
TIDAL FLATS

REMEDIAL INVESTIGATION REPORT
STRATFORD ARMY ENGINE PLANT
STRATFORD, CONNECTICUT

CAS NUMBER	CHEMICAL	DETECTION FREQUENCY	UNITS	RME (1) CONCENTRATION	CT (2) CONCENTRATION	BACKGROUND VALUE (4)	SCREENING TOXICITY VALUE (3) MG/KG	HAZARD QUOTIENTS		
								RME (1)	CT (2)	BACKGROUND
	Volatile Organics									
67-64-1	Acetone	2/ 14	mg/kg	0.0055	0.0055	ND	0.0091	6.0E-01	6.0E-01	
	Semivolatile Organics									
91-57-6	2-Methylnaphthalene	15/ 15	mg/kg	0.51	0.37267	0.08867	0.07	7.2E+00	5.3E+00	1.3E+00
83-32-9	Acenaphthene	28/ 42	mg/kg	0.62	0.621	0.163	0.016	3.9E+01	3.9E+01	1.0E+01
208-96-8	Acenaphthylene	12/ 36	mg/kg	0.21	0.2587	ND	0.044	4.8E+00	5.9E+00	
120-12-7	Anthracene	30/ 38	mg/kg	0.58	0.3852	ND	0.0572	1.0E+01	6.7E+00	
56-55-3	Benzo[a]anthracene	40/ 47	mg/kg	0.78	0.7818	0.07	0.108	7.2E+00	7.2E+00	6.5E-01
50-32-8	Benzo[a]pyrene	36/ 43	mg/kg	0.62	0.6232	0.14625	0.15	4.2E+00	4.2E+00	9.7E-01
205-99-2	Benzo[b]fluoranthene	37/ 47	mg/kg	0.60	0.6043	0.0967	0.24	2.5E+00	2.5E+00	4.0E-01
191-24-2	Benzo[ghi]perylene	30/ 40	mg/kg	0.52	0.4202	0.07633	0.17	3.1E+00	2.5E+00	4.5E-01
207-08-9	Benzo[k]fluoranthene	37/ 47	mg/kg	0.52	0.5231	0.05567	0.24	2.2E+00	2.2E+00	2.3E-01
218-01-9	Chrysene	42/ 47	mg/kg	0.87	0.8724	0.0847	0.166	5.3E+00	5.3E+00	5.1E-01
53-70-3	Dibenz[a,h]anthracene	15/ 15	mg/kg	0.08	0.0829	0.01152	0.033	2.5E+00	2.5E+00	3.5E-01
132-64-9	Dibenzofuran	3/ 3	mg/kg	0.83	0.282	ND	0.42	2.0E+00	6.7E-01	
206-44-0	Fluoranthene	45/ 49	mg/kg	1.60	1.605	0.172	0.423	3.8E+00	3.8E+00	4.1E-01
86-73-7	Fluorene	22/ 29	mg/kg	0.29	0.2852	0.0076	0.019	1.5E+01	1.5E+01	4.0E-01
193-39-5	Indeno[1,2,3-cd]pyrene	29/ 35	mg/kg	0.38	0.376	0.059	0.2	1.9E+00	1.9E+00	3.0E-01
91-20-3	Naphthalene	16/ 16	mg/kg	0.14	0.13744	0.02017	0.16	8.6E-01	8.6E-01	1.3E-01
86-30-6	N-Nitrosodiphenylamine	1/ 1	mg/kg	0.06	0.063	ND	0.028	2.3E+00	2.3E+00	
85-01-8	Phenanthrene	44/ 47	mg/kg	0.95	0.9498	0.086	0.204	4.7E+00	4.7E+00	4.2E-01
129-00-0	Pyrene	47/ 48	mg/kg	1.42	1.4226	0.1883	0.195	7.3E+00	7.3E+00	9.7E-01
PAH	Total PAHs	48/ 50	mg/kg	15.2	8.93	1.10	1.61	9.4E+00	5.5E+00	6.8E-01
	Inorganics/Metals									
7429-90-5	Aluminum	21/ 21	mg/kg	10518	8963.81	3870	3300	3.2E+00	2.7E+00	1.2E+00
7440-36-0	Antimony	23/ 39	mg/kg	4.5	4.47	0.955	2	2.2E+00	2.2E+00	4.8E-01
7440-38-2	Arsenic	50/ 50	mg/kg	5.5	5.095	1.635	6	9.2E-01	8.5E-01	2.7E-01
7440-39-3	Barium	21/ 21	mg/kg	49	49	15.87	45	1.1E+00	1.1E+00	3.5E-01
7440-41-7	Beryllium	42/ 43	mg/kg	0.65	0.6517	0.16	0.88	7.4E-01	7.4E-01	1.8E-01
7440-43-9	Cadmium	42/ 43	mg/kg	2.41	2.407	0.4875	0.6	4.0E+00	4.0E+00	8.1E-01
7440-47-3	Chromium	50/ 50	mg/kg	255	255	24.725	26	9.8E+00	9.8E+00	9.5E-01
7440-48-4	Cobalt	21/ 21	mg/kg	12	11.9	4.13	50	2.4E-01	2.4E-01	8.3E-02
7440-50-8	Copper	50/ 50	mg/kg	659	385.4	82.85	16	4.1E+01	2.4E+01	5.2E+00
74-90-8	Hydrogen Cyanide	1/ 1	mg/kg	0.54	0.54	ND	0.1	5.4E+00	5.4E+00	
7439-89-6	Iron	21/ 21	mg/kg	22574	19250	7323	20000	1.1E+00	9.6E-01	3.7E-01
7439-92-1	Lead	50/ 50	mg/kg	75	64.17	15.2	31	2.4E+00	2.1E+00	4.9E-01
7439-96-5	Manganese	21/ 21	mg/kg	310	310	105	460	6.7E-01	6.7E-01	2.3E-01
7439-97-6	Mercury	39/ 49	mg/kg	14	13.94	0.11	0.15	9.3E+01	9.3E+01	7.3E-01
22967-92-6	Methyl mercury	14/ 14	mg/kg	0.0018	0.00136	0.000873	0.15	1.2E-02		

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								RME (1)	CT (2)	BACKGROUND
7440-02-0	Nickel	48/ 50	mg/kg	65	65.2	7.575	16	4.1E+00	4.1E+00	4.7E-01
7782-49-2	Selenium	14/ 14	mg/kg	1.33	1.161	0.67	1	1.3E+00	1.2E+00	6.7E-01
7440-22-4	Silver	34/ 45	mg/kg	110	37.08	ND	0.5	2.2E+02	7.4E+01	
7440-62-2	Vanadium	21/ 21	mg/kg	67	67.048	10.27	6.4	1.0E+01	1.0E+01	1.6E+00
7440-66-6	Zinc	45/ 45	mg/kg	354	268.2	59.9	120	2.9E+00	2.2E+00	5.0E-01
	Pests/PCBs									
12672-29-6	Aroclor-1248	30/ 42	mg/kg	5.07	5.073	0.0777	0.03	1.7E+02	1.7E+02	2.6E+00
11097-69-1	Aroclor-1254	10/ 19	mg/kg	0.61	0.1378	ND	0.06	1.0E+01	2.3E+00	
11096-82-5	Aroclor-1260	32/ 43	mg/kg	0.21	0.1705	0.03825	0.005	4.3E+01	3.4E+01	7.6E+00
PCB	Total PCBs	39/ 46	mg/kg	2.64	4.86	0.13744	0.0227	1.2E+02	2.1E+02	6.1E+00
	Miscellaneous									
7440-44-0	Carbon	23/ 23	mg/kg	145000	52778	21927	NA	NA	NA	NA
HLA0048	AVS/SEM Ratio	14/ 14	NA	5.3364	1.677	0.107	NA	NA	NA	NA

(1)Reasonable Maximum Exposure - Lowest of the maximum or 95% UCL concentration detected in exposure area.

(2) Central Tendency - Arithmetic mean concentration, calculated using 1/2 the detection limit for non-detects.

(3) Lowest of screening toxicity values presented in Table 12-38.

(4) Background values are presented in Table 12-14.

Shaded Hazard Quotients = Hazard Quotients greater than 1 and greater than Background.