

US EPA ARCHIVE DOCUMENT

APPENDIX C.3

HUMAN HEALTH REFERENCE CALCULATIONS

Surface Water, Sediment and Fish Fillet Tissue

TABLE C.3-1
SELECTION OF EXPOSURE PATHWAYS
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/ Future ^a	Surface Water	Surface Water	River/Stream (Stations 23 & 27, SW-04-IP, SW-12- IP, and SW-01-IP)	1-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with low frequency in partially isolated areas.
						Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.
				Young Child	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with low frequency in partially isolated areas.	
					Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.	
			River/Stream (Stations 23 & 27, SW-04-IP, SW-12- IP, and SW-01-IP)	4-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with high frequency in residential areas.
						Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.
				Young Child	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with high frequency in residential areas.	
					Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.	
			Wetland (Station 24)	1-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with low frequency in partially isolated areas.
						Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.
				Young Child	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with low frequency in partially isolated areas.	
					Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.	
Wetland (Station 24)	4-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with high frequency in residential areas.			
			Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.			
	Young Child	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with high frequency in residential areas.				
	Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.					

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 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
			Pond/Lake (Stations 25 & 26, SW-02-IP, and SW-03-IP)	1-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with low frequency in partially isolated areas.
						Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.
				Young Child	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with low frequency in partially isolated areas.	
					Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.	
			Pond/Lake (Stations 25 & 26, SW-02-IP, and SW-03-IP)	4-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with high frequency in residential areas.
						Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.
				Young Child	Dermal	Ref	Quant	Residents may contact surface water during recreational activities (wading) with high frequency in residential areas.	
					Ingestion	Ref	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.	
			Pond/Lake (Stations 25 & 26, SW-02-IP, and SW-03-IP)	Recreational User	Adult	Dermal	Ref	Quant	Due to surface water depth, residents may use these areas for swimming.
						Ingestion	Ref	Quant	Due to surface water depth, residents may use these areas for swimming.
					Young Child	Dermal	Ref	Quant	Due to surface water depth, residents may use these areas for swimming.
						Ingestion	Ref	Quant	Due to surface water depth, residents may use these areas for swimming.
Current/ Future ^a	Surface Water	Fish Tissue	Fish from reference areas	Recreational User	Adult	Dermal	Ref	None	Exposure to contaminants in fish unlikely through dermal pathway.
						Ingestion	Ref	Quant	Possibility of contaminants in fish exposed to surface water.
					Older Child	Dermal	Ref	None	Exposure to contaminants in fish unlikely through the dermal pathway.
						Ingestion	Ref	Quant	Possibility of contaminants in fish exposed to surface water.

TABLE C.3-1
SELECTION OF EXPOSURE PATHWAYS
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/ Future ^a	Sediment	Sediment	River/Stream (Stations 23 & 27, SD-04-IP, SD-12-IP, and SD-01-IP)	1-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading) with low frequency in partially isolated areas.
						Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading) with low frequency in partially isolated areas.
					Young Child	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading) with low frequency in partially isolated areas.
						Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading) with low frequency in partially isolated areas.
			River/Stream (Stations 23 & 27, SD-04-IP, SD-12-IP, and SD-01-IP)	4-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading) with high frequency in residential areas.
						Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading) with high frequency in residential areas.
					Young Child	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading) with high frequency in residential areas.
						Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading) with high frequency in residential areas.
			Wetland (Stations 24, HB, and SA)	1-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading) with low frequency in partially isolated areas.
						Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading) with low frequency in partially isolated areas.
					Young Child	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading) with low frequency in partially isolated areas.
						Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading) with low frequency in partially isolated areas.
Wetland (Stations 24, HB, and SA)	4-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading) with high frequency in residential areas.			
			Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading) with high frequency in residential areas.			
		Young Child	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading) with high frequency in residential areas.			
			Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading) with high frequency in residential areas.			

TABLE C.3-1
SELECTION OF EXPOSURE PATHWAYS
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
			Pond/Lake (Station SD-02-IP)	1-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading and swimming) with low frequency in partially isolated areas.
						Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading and swimming) with low frequency in partially isolated areas.
				Young Child	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading and swimming) with low frequency in partially isolated areas.	
					Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading and swimming) with low frequency in partially isolated areas.	
			Pond/Lake (Station SD-02-IP)	4-Day Recreational User	Adult	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading and swimming) with high frequency in residential areas.
						Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading and swimming) with high frequency in residential areas.
		Young Child	Dermal	Ref	Quant	Residents may contact sediments during recreational activities (wading and swimming) with high frequency in residential areas.			
			Ingestion	Ref	Quant	Residents may contact sediments during recreational activities (wading and swimming) with high frequency in residential areas.			

^a The range of exposure assumptions used are intended to be protective of current as well as future worst-case land use scenarios.

Ref = Reference area

TABLE C.3-2.1
 OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Combined Reference Data^a

CAS Number	Chemical	Minimum Concentration ⁽¹⁾	Minimum Qualifier	Maximum Concentration ⁽¹⁾	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value ⁽²⁾	Screening Toxicity Value ⁽³⁾	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection ⁽⁴⁾
117-81-7	bis(2-Ethylhexyl)phthalate	3.0	J	3.0	J	ug/L	SW-MC-03-01	1 / 11	4 - 5	3	N/A	4.8 C	1.8	AWQC	YES	ASL
5103-74-2	gamma-Chlordane	0.0017	J	0.0017	J	ug/L	SW-24-01	1 / 11	0.0083 - 0.05	0.0017	N/A	0.19 C	0.0021	AWQC	NO	BSL
7429-90-5	Aluminum	21.3		2500		ug/L	SW-MC-01	9 / 11	23.5 - 29.2	2500	N/A	N/A	N/A	N/A	NO	NTX
7440-38-2	Arsenic	1.1	J	15.7	J	ug/L	SW-MC-01	8 / 11	1 - 1.7	15.7	N/A	0.045 C	0.018	AWQC	YES	ASL
7440-39-3	Barium	15.4		64		ug/L	SW-MC-01	11 / 11	N/A	64	N/A	260 N	N/A	N/A	NO	BSL
7440-70-2	Calcium	17700		37000		ug/L	SW-24-01	11 / 11	N/A	37000	N/A	N/A	N/A	N/A	NO	NUT
7440-47-3	Chromium	0.34		9	J	ug/L	SW-MC-03-01	4 / 11	0.25 - 9	9	N/A	11 N	N/A	N/A	NO	BSL
7440-48-4	Cobalt	3	J	7.1	J	ug/L	SW-MC-01	2 / 11	0.5 - 3	7.1	N/A	N/A	N/A	N/A	NO	NTX
7440-50-8	Copper	0.45		13.8		ug/L	SW-MC-01	8 / 11	0.35 - 1.4	13.8	N/A	150 N	1300	AWQC	NO	BSL
7439-89-6	Iron	118		15800		ug/L	SW-MC-01	11 / 11	N/A	15800	N/A	N/A	N/A	N/A	NO	NUT
7439-92-1	Lead	0.665	J	51.4		ug/L	SW-MC-01	8 / 11	0.75	51.4	N/A	15 N	N/A	N/A	YES	ASL
7439-95-4	Magnesium	2050		5950		ug/L	SW-24-01	11 / 11	N/A	5950	N/A	N/A	N/A	N/A	NO	NUT
7439-96-5	Manganese	46.4		1960		ug/L	SW-MC-01	11 / 11	N/A	1960	N/A	88 N	N/A	N/A	YES	ASL
7439-97-6	Mercury	0.097		0.13		ug/L	SW-24-01	4 / 11	0.04 - 0.087	0.13	N/A	1.1 N	0.05	AWQC	YES	ASL
7440-02-0	Nickel	0.66		6.5	J	ug/L	SW-MC-01	9 / 11	0.5 - 1.2	6.5	N/A	73 N	610	AWQC	NO	BSL
7440-09-7	Potassium	1080		6260		ug/L	SW-24-01	5 / 5	N/A	6260	N/A	N/A	N/A	N/A	NO	NUT
7782-49-2	Selenium	1.6	J	1.6	J	ug/L	SW-MC-04	1 / 11	1.1 - 1.9	1.6	N/A	18 N	170	AWQC	NO	BSL
7440-23-5	Sodium	42200		88300		ug/L	SW-26-01	5 / 5	N/A	88300	N/A	N/A	N/A	N/A	NO	NUT
7440-62-2	Vanadium	0.85		12	J	ug/L	SW-MC-01	6 / 11	0.55 - 2.6	12	N/A	26 N	N/A	N/A	NO	BSL
7440-66-6	Zinc	1.375	J	71.7		ug/L	SW-MC-01	7 / 11	1.6 - 9	71.7	N/A	1100 N	9100	AWQC	NO	BSL

^a Data presented are from surface water samples SW-23-01, SW-24-01, SW-25-01, SW-26-01, SW-27-01, SW-MC-01, SW-MC-02, SW-MC-03, SW-MC-03-01, SW-MC-04, and SW-MC-12.

- (1) Minimum/maximum detected concentration.
- (2) Refer to supporting information for background discussion.
- (3) USEPA Region 9 PRGs for tap water (adjusted to a hazard quotient = 0.1 for noncarcinogens), October 1, 2002.
 Lead value is a drinking water criterion protective of blood lead levels in children (USEPA, 2002e).
 PRG for chromium VI has been used for chromium.
 PRG for chlordane used for gamma-chlordane and alpha-chlordane.
 PRG for mercury chloride used for mercury.

- Definitions:
- COPC = Chemical of Potential Concern
 - ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
 - PRG = Preliminary Remedial Goal
 - N/A = Not Applicable or Not Available
 - J = Estimated Value
 - C = Carcinogenic
 - N = Non-Carcinogenic
 - AWQC = Ambient Water Quality Criterion for Human Health (1998b)

- (4) Rationale Codes Selection Reason: Above Screening Levels (ASL)
 Deletion Reason: No Toxicity Information (NTX)
 Essential Nutrient (NUT)
 Below Screening Level (BSL)

TABLE C.3-2.2
 COPCs DETECTED IN SURFACE WATER IN RIVER/STREAM REFERENCE SAMPLES
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Reference River/Stream ^a

CAS Number	Chemical	Minimum Concentration ⁽¹⁾	Minimum Qualifier	Maximum Concentration ⁽¹⁾	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
117-81-7	bis(2-Ethylhexyl)phthalate	ND		ND		ug/L	ND	0 / 5	4 - 5
7440-38-2	Arsenic	1.1	J	16	J	ug/L	SW-MC-01	4 / 5	2
7439-92-1	Lead ⁽²⁾	4.0	J	51		ug/L	SW-MC-01	3 / 5	1
7439-96-5	Manganese	48		1960		ug/L	SW-MC-01	5 / 5	N/A
7439-97-6	Mercury	0.097		0.11		ug/L	SW-23-01	2 / 5	0.04 - 0.087

^a Data presented are from surface water samples SW-MC-01, SW-MC-04, SW-MC-12, SW-23-01 and SW-27-01; only COPCs selected on Table C.3-2.1 appear.

(1) Minimum/maximum detected concentration.

(2) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

Definitions: COPC = Chemical of Potential Concern
 N/A = Not Applicable or Not Available
 J = Estimated Value

TABLE C.3-2.3
 COPCs DETECTED IN SURFACE WATER IN WETLAND REFERENCE SAMPLES
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Reference Wetland ^a

CAS Number	Chemical	Minimum Concentration (1)	Minimum Qualifier	Maximum Concentration (1)	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
117-81-7	bis(2-Ethylhexyl)phthalate	ND		ND		ug/L	ND	0 / 1	5
7440-38-2	Arsenic	3.2		3.2		ug/L	SW-24-01	1 / 1	N/A
7439-92-1	Lead ⁽²⁾	6.3		6.3		ug/L	SW-24-01	1 / 1	N/A
7439-96-5	Manganese	520		520		ug/L	SW-24-01	1 / 1	N/A
7439-97-6	Mercury	0.13		0.13		ug/L	SW-24-01	1 / 1	N/A

^a Data presented are from surface water sample SW-24-01; only COPCs selected on Table C.3-2.1 appear.

(1) Minimum/maximum detected concentration.

(2) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

Definitions: COPC = Chemical of Potential Concern

N/A = Not Applicable or Not Available

J = Estimated Value

TABLE C.3-2.4
COPCs DETECTED IN SURFACE WATER IN LAKE REFERENCE SAMPLES
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Reference Pond/Lake ^a

CAS Number	Chemical	Minimum Concentration ⁽¹⁾	Minimum Qualifier	Maximum Concentration ⁽¹⁾	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
117-81-7	bis(2-Ethylhexyl)phthalate	3	J	3	J	ug/L	SW-MC-03-01	1 / 5	4 - 5
7440-38-2	Arsenic	1.2	J	2.9	J	ug/L	SW-MC-03-01	3 / 5	1 - 1.4
7439-92-1	Lead ⁽²⁾	0.67	J	3.2	J	ug/L	SW-MC-03	4 / 5	1
7439-96-5	Manganese	46		425		ug/L	SW-MC-03-01	5 / 5	N/A
7439-97-6	Mercury	0.12		0.12		ug/L	SW-25-01	1 / 5	0.04 - 0.08

^a Data presented are from surface water samples SW-MC-02, SW-MC-03, SW-MC-03-01, SW-25-01 and SW-26-01; only COPCs selected on Table C.3-2.1 appear.

(1) Minimum/maximum detected concentration.

(2) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

Definitions: COPC = Chemical of Potential Concern

N/A = Not Applicable or Not Available

J = Estimated Value

TABLE C.3-2.5
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

WELLS G&H SUPERFUND SITE UO3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Combined Reference Data ^a

CAS Number	Chemical	Minimum Concentration ⁽¹⁾	Minimum Qualifier	Maximum Concentration ⁽¹⁾	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value ⁽²⁾	Screening Toxicity Value ⁽³⁾	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection ⁽⁴⁾
78-93-3	2-Butanone	0.23		0.68		mg/Kg	SD-MC-02	2 / 14	0.01 - 0.046	0.68	N/A	730 N	N/A	N/A	NO	BSL
67-64-1	Acetone	0.057	J	2.2	J	mg/Kg	SD-MC-02	4 / 15	0.01 - 0.22	2.2	N/A	160 N	N/A	N/A	NO	BSL
75-15-0	Carbon Disulfide	0.003	J	0.003	J	mg/Kg	SD-27-03-FW	1 / 14	0.01 - 0.046	0.003	N/A	36 N	N/A	N/A	NO	BSL
79-20-9	Methyl Acetate	0.0240		0.2100		mg/Kg	SD-MC-01-TR	4 / 4	0.01 - 0.055	0.2100	N/A	2200 N	N/A	N/A	NO	BSL
108-88-3	Toluene	0.0079	J	0.01	J	mg/Kg	SD-SA-01-TR	2 / 15	0.01 - 0.055	0.01	N/A	52 N	N/A	N/A	NO	BSL
91-57-6	2-Methylnaphthalene	0.023	J	0.36	J	mg/Kg	SD-24-02-FW	4 / 16	0.067 - 1	0.36	N/A	5.6 N	N/A	N/A	NO	BSL
106-44-5	4-Methylphenol	0.190	J	0.19	J	mg/Kg	SD-MC-01	1 / 11	0.32 - 2.1	0.19	N/A	31 N	N/A	N/A	NO	BSL
83-32-9	Acenaphthene	0.05	J	1.4	J	mg/Kg	SD-24-02-FW	5 / 16	0.067 - 1	1.4	N/A	370 N	N/A	N/A	NO	BSL
208-96-8	Acenaphthylene	0.044	J	0.8	J	mg/Kg	SD-24-02-FW	8 / 16	0.067 - 1	0.8	N/A	5.6 N	N/A	N/A	NO	BSL
120-12-7	Anthracene	0.048	J	1.9	J	mg/Kg	SD-24-02-FW	9 / 16	0.067 - 1	1.9	N/A	2200 N	N/A	N/A	NO	BSL
56-55-3	Benzo(a)anthracene	0.11	J	5.9	J	mg/Kg	SD-24-02-FW	12 / 16	0.067 - 1	5.9	N/A	0.62 C	N/A	N/A	YES	ASL
50-32-8	Benzo(a)pyrene	0.13	J	5.5	J	mg/Kg	SD-24-02-FW	12 / 16	0.067 - 1	5.5	N/A	0.062 C	N/A	N/A	YES	ASL
205-99-2	Benzo(b)fluoranthene	0.18	J	10	J	mg/Kg	SD-24-02-FW	13 / 16	0.067 - 1	10	N/A	0.62 C	N/A	N/A	YES	ASL
191-24-2	Benzo(g,h,i)perylene	0.21	J	1.4	J	mg/Kg	SD-MC-04	6 / 16	0.067 - 1	1.4	N/A	5.6 N	N/A	N/A	NO	BSL
207-08-9	Benzo(k)fluoranthene	0.4	J	9.6	J	mg/Kg	SD-24-02-FW	10 / 16	0.067 - 1	9.6	N/A	6.2 C	N/A	N/A	YES	ASL
117-81-7	bis(2-Ethylhexyl)phthalate	0.094	J	0.43	J	mg/Kg	SD-24-03-FW	6 / 15	0.23 - 2.1	0.43	N/A	35 C	N/A	N/A	NO	BSL
85-68-7	Butylbenzylphthalate	0.047	J	0.087	J	mg/Kg	SD-24-03-FW	2 / 15	0.23 - 2.1	0.087	N/A	1200 N	N/A	N/A	NO	BSL
86-74-8	Carbazole	0.048	J	0.99	J	mg/Kg	SD-24-02-FW	5 / 15	0.23 - 1	0.99	N/A	24 C	N/A	N/A	NO	BSL
218-01-9	Chrysene	0.14	J	7.3	J	mg/Kg	SD-24-02-FW	12 / 16	0.067 - 1	7.3	N/A	62 C	N/A	N/A	NO	BSL
53-70-3	Dibenz(a,h)anthracene	0.11	J	0.5	J	mg/Kg	SD-24-02-FW	6 / 16	0.067 - 1	0.5	N/A	0.062 C	N/A	N/A	YES	ASL
132-64-9	Dibenzofuran	0.12	J	1	J	mg/Kg	SD-24-02-FW	3 / 15	0.23 - 1	1	N/A	29 N	N/A	N/A	NO	BSL
84-66-2	Diethylphthalate	0.048	J	0.23	J	mg/Kg	SD-24-02-FW	3 / 16	0.23 - 1	0.23	N/A	4900 N	N/A	N/A	NO	BSL
84-74-2	Di-n-butylphthalate	0.16	J	0.16	J	mg/Kg	SD-27-02-FW	1 / 15	0.23 - 2.1	0.16	N/A	610 N	N/A	N/A	NO	BSL
206-44-0	Fluoranthene	0.071	J	15	J	mg/Kg	SD-24-02-FW	14 / 16	0.067 - 1	15	N/A	230 N	N/A	N/A	NO	BSL
86-73-7	Fluorene	0.044	J	2.8	J	mg/Kg	SD-24-02-FW	8 / 16	0.067 - 1	2.8	N/A	270 N	N/A	N/A	NO	BSL
193-39-5	Indeno(1,2,3-cd)pyrene	0.16	J	1.8	J	mg/Kg	SD-MC-04	8 / 16	0.067 - 1	1.8	N/A	0.62 C	N/A	N/A	YES	ASL
91-20-3	Naphthalene	0.023	J	0.52	J	mg/Kg	SD-24-02-FW	4 / 12	0.067 - 1	0.52	N/A	5.6 N	N/A	N/A	NO	BSL
85-01-8	Phenanthrene	0.17	J	12	J	mg/Kg	SD-24-02-FW	12 / 16	0.067 - 1	12	N/A	5.6 N	N/A	N/A	YES	ASL
129-00-0	Pyrene	0.081	J	11	J	mg/Kg	SD-24-02-FW	13 / 16	0.067 - 1	11	N/A	230 N	N/A	N/A	NO	BSL

TABLE C.3-2.5
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Combined Reference Data ^a

CAS Number	Chemical	Minimum Concentration (1)	Minimum Qualifier	Maximum Concentration (1)	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value (2)	Screening Toxicity Value (3)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection (4)
72-54-8	4,4'-DDD	0.0045		0.39		mg/Kg	SD-24-03-ME	13 / 16	0.0019 - 0.021	0.39	N/A	2.4 C	N/A	N/A	NO	BSL
72-55-9	4,4'-DDE	0.0035	J	0.47	J	mg/Kg	SD-MC-01	12 / 16	0.00079 - 0.0036	0.47	N/A	1.7 C	N/A	N/A	NO	BSL
50-29-3	4,4'-DDT	0.0022		0.18	J	mg/Kg	SD-MC-01	10 / 16	0.00079 - 0.006	0.18	N/A	1.7 C	N/A	N/A	NO	BSL
309-00-2	Aldrin	0.00029	J	0.0016	J	mg/Kg	SD-24-02-FW	3 / 16	0.00076 - 0.011	0.0016	N/A	0.029 C	N/A	N/A	NO	BSL
319-84-6	alpha-BHC	0.00031	J	0.00031	J	mg/Kg	SD-24-02-FW	1 / 16	0.00076 - 0.011	0.00031	N/A	0.09 C	N/A	N/A	NO	BSL
5103-71-9	alpha-Chlordane	0.002	J	0.023	J	mg/Kg	SD-MC-01	3 / 16	0.00079 - 0.011	0.023	N/A	1.6 C	N/A	N/A	NO	BSL
12672-29-6	Aroclor 1248	0.29	J	0.29	J	mg/Kg	SD-24-03-ME	1 / 16	0.003 - 0.22	0.29	N/A	0.22 C	N/A	N/A	YES	ASL
11096-82-5	Aroclor 1260	0.2		0.2		mg/Kg	SD-24-03-ME	1 / 16	0.003 - 0.22	0.2	N/A	0.22 C	N/A	N/A	NO	BSL
319-85-7	beta-BHC	0.0004	J	0.00075	J	mg/Kg	SD-23-01-FW	2 / 16	0.00076 - 0.011	0.00075	N/A	0.32 C	N/A	N/A	NO	BSL
60-57-1	Dieldrin	0.0011	J	0.018		mg/Kg	SD-24-02-FW	5 / 16	0.00076 - 0.0046	0.018	N/A	0.03 C	N/A	N/A	NO	BSL
959-98-8	Endosulfan I	0.00022	J	0.035	J	mg/Kg	SD-27-02-FW	3 / 16	0.00076 - 0.0031	0.035	N/A	37 N	N/A	N/A	NO	BSL
33213-65-9	Endosulfan II	0.0023	J	0.0071		mg/Kg	SD-24-02-FW	3 / 16	0.00076 - 0.022	0.0071	N/A	37 N	N/A	N/A	NO	BSL
1031-07-8	Endosulfan Sulfate	0.0066		0.0091	J	mg/Kg	SD-27-02-FW	2 / 16	0.00076 - 0.022	0.0091	N/A	37 N	N/A	N/A	NO	BSL
72-20-8	Endrin	0.0003	J	0.0051		mg/Kg	SD-24-02-FW	3 / 16	0.00076 - 0.022	0.0051	N/A	1.8 N	N/A	N/A	NO	BSL
7421-36-3	Endrin Aldehyde	0.0011	J	0.0059	J	mg/Kg	SD-24-03-ME	2 / 12	0.0019 - 0.022	0.0059	N/A	1.8 N	N/A	N/A	NO	BSL
53494-70-5	Endrin Ketone	0.0027	J	0.0061	J	mg/Kg	SD-27-02-FW	3 / 16	0.00076 - 0.022	0.0061	N/A	1.8 N	N/A	N/A	NO	BSL
58-89-9	gamma-BHC (Lindane)	0.0019	J	0.0019	J	mg/Kg	SD-24-02-FW	1 / 16	0.00076 - 0.011	0.0019	N/A	0.44 C	N/A	N/A	NO	BSL
5103-74-2	gamma-Chlordane	0.00031	J	0.0046		mg/Kg	SD-24-03-FW	4 / 16	0.00076 - 0.011	0.0046	N/A	1.6 C	N/A	N/A	NO	BSL
76-44-8	Heptachlor	0.00084	J	0.00084	J	mg/Kg	SD-24-02-FW	1 / 16	0.00076 - 0.011	0.00084	N/A	0.11 C	N/A	N/A	NO	BSL
1024-57-3	Heptachlor Epoxide	0.00048	J	0.0014	J	mg/Kg	SD-24-02-FW	2 / 16	0.00076 - 0.011	0.0014	N/A	0.053 C	N/A	N/A	NO	BSL

TABLE C.3-2.5
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Combined Reference Data ^a

CAS Number	Chemical	(1) Minimum Concentration	Minimum Qualifier	(1) Maximum Concentration	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	(2) Background Value	(3) Screening Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	(4) Rationale for Contaminant Deletion or Selection
7429-90-5	Aluminum	1100		14300		mg/Kg	SD-SA-01-TR	17 / 17	3.5 - 9.14	14300	N/A	N/A	N/A	N/A	NO	NTX
7440-36-0	Antimony	0.5	J	5.6		mg/Kg	SD-MC-04-TR	13 / 17	0.067 - 1.4	5.6	N/A	3.1 N	N/A	N/A	YES	ASL
7440-38-2	Arsenic	3.8		44.5		mg/Kg	SD-MC-04-TR	17 / 17	0.22 - 1	44.5	N/A	0.39 C	N/A	N/A	YES	ASL
7440-39-3	Barium	5.7		173		mg/Kg	SD-MC-04-TR	17 / 17	0.018 - 0.4	173	N/A	540 N	N/A	N/A	NO	BSL
7440-41-7	Beryllium	0.15		1.2		mg/Kg	SD-24-03-FW	14 / 17	0.027 - 0.22	1.2	N/A	15 N	N/A	N/A	NO	BSL
7440-43-9	Cadmium	0.08699		6.1		mg/Kg	SD-MC-04	15 / 17	0.053 - 0.6	6.1	N/A	3.7 N	N/A	N/A	YES	ASL
7440-70-2	Calcium	610		10900		mg/Kg	SD-MC-01-TR	13 / 13	1.6 - 2.14	10900	N/A	N/A	N/A	N/A	NO	NUT
7440-47-3	Chromium	10.3	J	512		mg/Kg	SD-MC-04-TR	17 / 17	0.055 - 1	512	N/A	30 C	N/A	N/A	YES	ASL
7440-48-4	Cobalt	0.76		21.8	J	mg/Kg	SD-MC-04-TR	17 / 17	0.36 - 0.37	21.8	N/A	N/A	N/A	N/A	NO	BSL
7440-50-8	Copper	1.9		344		mg/Kg	SD-MC-04-TR	17 / 17	0.082 - 0.44	344	N/A	310 N	N/A	N/A	YES	ASL
7439-89-6	Iron	2040		51600		mg/Kg	SD-MC-04-TR	17 / 17	0.57 - 1.4	51600	N/A	N/A	N/A	N/A	NO	NTX
7439-92-1	Lead	5.6	J	581		mg/Kg	SD-24-03-FW	17 / 17	0.27 - 0.6	581	N/A	400 N	N/A	N/A	YES	ASL
7439-95-4	Magnesium	324		4370		mg/Kg	SD-24-03-FW	13 / 13	3.5 - 15.18	4370	N/A	N/A	N/A	N/A	NO	NUT
7439-96-5	Manganese	12.6	J	1980		mg/Kg	SD-MC-04-TR	17 / 17	0.018 - 0.24	1980	N/A	180 N	N/A	N/A	YES	ASL
7439-97-6	Mercury	0.021	J	0.71		mg/Kg	SD-24-03-ME	13 / 16	0.005 - 0.02	0.71	N/A	0.61 N	N/A	N/A	YES	ASL
7440-02-0	Nickel	1.1		27.3		mg/Kg	SD-HB-00-TR	17 / 17	0.15 - 0.8	27.3	N/A	160 N	N/A	N/A	NO	BSL
7440-09-7	Potassium	126		1170	J	mg/Kg	SD-24-03-ME	13 / 13	2.7 - 4.38	1170	N/A	N/A	N/A	N/A	NO	NUT
7782-49-2	Selenium	0.91	J	3	J	mg/Kg	SD-23-03-FW	7 / 17	0.053 - 1	3	N/A	39 N	N/A	N/A	NO	BSL
7440-22-4	Silver	0.085	J	2.9		mg/Kg	SD-24-03-FW	6 / 16	0.01 - 1	2.9	N/A	39 N	N/A	N/A	NO	BSL
7440-23-5	Sodium	66.5		516		mg/Kg	SD-24-03-ME	11 / 13	0.22 - 98.04	516	N/A	N/A	N/A	N/A	NO	NUT
7440-62-2	Vanadium	2.5		148		mg/Kg	SD-24-03-FW	17 / 17	0.073 - 0.64	148	N/A	55 N	N/A	N/A	YES	ASL
7440-66-6	Zinc	10.4	J	611	J	mg/Kg	SD-MC-04-TR	17 / 17	0.16 - 1.7	611	N/A	2300 N	N/A	N/A	NO	BSL

^a Data presented are from sediment samples SD-MC-01, SD-MC-01-TR, SD-MC-02, SD-MC-04, SD-MC-04-TR, SD-MC-12, SD-23-01-FW, SD-23-02-FW, SD-23-03-FW, SD-24-01-FW, SD-24-02-FW, SD-24-03-FW, SD-24-03-ME, SD-27-02-FW, SD-27-03-FW, SD-HB-00-TR, and SD-SA-01-TR.

- (1) Minimum/maximum detected concentration.
- (2) Refer to supporting information for background discussion.
- (3) USEPA Region 9 PRGs for residential soil (adjusted to a hazard quotient = 0.1 for noncarcinogens), October 1, 2002.
 - The most conservative PRG for all noncarcinogenic PAHs has been used for 2-methylnaphthalene, acenaphthylene, benzo(g,h,i)perylene and phenanthrene.
 - The most conservative PRG for all BHCs has been used for delta-BHC.
 - PRG for endosulfan has been used for endosulfan I, endosulfan II, and endosulfan sulfate.
 - PRG for endrin has been used for endrin aldehyde and endrin ketone.
 - PRG for chromium VI used for chromium.
 - PRG for methylmercury used for mercury.
 - PRG for cis-1,2-dichloroethene has been used for 1,2-dichloroethene (total)
 - The screening toxicity value for lead is the residential soil lead guidance level of 400 mg/Kg (USEPA, 1994a).
- (4) Rationale Codes
 - Selection Reason: Above Screening Levels (ASL)
 - Deletion Reason: No Toxicity Information (NTX)
 - Essential Nutrient (NUT)
 - Below Screening Level (BSL)

Definitions:

- COPC = Chemical of Potential Concern
- ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
- PRG = Preliminary Remedial Goal
- N/A = Not Applicable or Not Available
- J = Estimated Value
- C = Carcinogenic
- N = Non-Carcinogenic

TABLE C.3-2.6
COPCs DETECTED IN SEDIMENT IN RIVER/STREAM REFERENCE SAMPLES
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future Medium: Sediment Exposure Medium: Sediment Exposure Point: Reference River/Stream ^a
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CAS Number	Chemical	Minimum Concentration ⁽¹⁾	Minimum Qualifier	Maximum Concentration ⁽¹⁾	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
56-55-3	Benzo(a)anthracene	0.21	J	1.8		mg/Kg	SD-23-02-FW	7 / 9	0.38 - 0.6
50-32-8	Benzo(a)pyrene	0.25	J	2.1		mg/Kg	SD-MC-04	7 / 9	0.38 - 0.6
205-99-2	Benzo(b)fluoranthene	0.21	J	3.0		mg/Kg	SD-MC-04	8 / 9	0.38 - 0.6
207-08-9	Benzo(k)fluoranthene	0.54	J	2.2		mg/Kg	SD-MC-04	6 / 9	0.38 - 0.6
53-70-3	Dibenz(a,h)anthracene	0.11	J	0.35	J	mg/Kg	SD-MC-04	4 / 9	0.38 - 0.6
193-39-5	Indeno(1,2,3-cd)pyrene	0.16	J	1.8		mg/Kg	SD-MC-04	5 / 9	0.38 - 0.6
85-01-8	Phenanthrene	0.22	J	3.0		mg/Kg	SD-23-02-FW	7 / 9	0.38 - 0.6
12672-29-6	Aroclor 1248	ND		ND		mg/Kg	ND	0 / 9	0.003 - 0.22
7440-36-0	Antimony	0.56	J	5.6		mg/Kg	SD-MC-04-TR	8 / 10	0.43 - 0.74
7440-38-2	Arsenic	4.1		44.5		mg/Kg	SD-MC-04-TR	10 / 10	1
7440-43-9	Cadmium	0.087		6.1		mg/Kg	SD-MC-04	8 / 10	0.053 - 0.6
7440-47-3	Chromium	12	J	512		mg/Kg	SD-MC-04-TR	10 / 10	1
7440-50-8	Copper	2		344		mg/Kg	SD-MC-04-TR	10 / 10	0.44
7439-92-1	Lead	5.6	J	369		mg/Kg	SD-MC-04-TR	10 / 10	0.6
7439-96-5	Manganese	13	J	1980		mg/Kg	SD-MC-04-TR	10 / 10	0.24
7439-97-6	Mercury	0	J	0.6		mg/Kg	SD-MC-04	7 / 9	0.0095 - 0.02
7440-62-2	Vanadium	2.5		54		mg/Kg	SD-MC-04-TR	10 / 10	0.64

^a Data presented are from sediment samples SD-MC-01, SD-MC-01-TR, SD-MC-04, SD-MC-04-TR, SD-MC-12, SD-23-01-FW, SD-23-02-FW, SD-23-03-FW, SD-27-02-FW and SD-27-03-FW; only COPCs selected on Table C.3-2.5 appear.

(1) Minimum/maximum detected concentration.

(2) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

TABLE C.3-2.7
COPCs DETECTED IN SEDIMENT IN WETLAND REFERENCE SAMPLES

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future Medium: Sediment Exposure Medium: Sediment Exposure Point: Reference Wetland ^a

CAS Number	Chemical	Minimum Concentration ⁽¹⁾	Minimum Qualifier	Maximum Concentration ⁽¹⁾	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
56-55-3	Benzo(a)anthracene	0.11	J	5.9		mg/Kg	SD-24-02-FW	5 / 6	0.067 - 0.46
50-32-8	Benzo(a)pyrene	0.13	J	5.5		mg/Kg	SD-24-02-FW	5 / 6	0.067 - 0.46
205-99-2	Benzo(b)fluoranthene	0.18	J	10		mg/Kg	SD-24-02-FW	5 / 6	0.067 - 0.46
207-08-9	Benzo(k)fluoranthene	0.40		9.6		mg/Kg	SD-24-02-FW	4 / 6	0.067 - 0.46
53-70-3	Dibenz(a,h)anthracene	0.12	J	0.50	J	mg/Kg	SD-24-02-FW	2 / 6	0.067 - 0.46
193-39-5	Indeno(1,2,3-cd)pyrene	0.21	J	1.7	J	mg/Kg	SD-24-02-FW	3 / 6	0.067 - 0.46
85-01-8	Phenanthrene	0.17	J	12		mg/Kg	SD-24-02-FW	5 / 6	0.067 - 0.57
12672-29-6	Aroclor 1248	0.29	J	0.29	J	mg/Kg	SD-24-03-ME	1 / 6	0.0032 - 0.046
7440-36-0	Antimony	0.5	J	1.2	J	mg/Kg	SD-24-03-ME	4 / 6	0.067 - 1.4
7440-38-2	Arsenic	3.8		40.6		mg/Kg	SD-24-03-FW	6 / 6	0.22 - 1
7440-43-9	Cadmium	0.22		2.9		mg/Kg	SD-HB-00-TR	6 / 6	0.35 - 0.6
7440-47-3	Chromium	10	J	410	J	mg/Kg	SD-24-03-ME	6 / 6	0.055 - 1
7440-50-8	Copper	12		130		mg/Kg	SD-24-03-ME	6 / 6	0.082 - 0.44
7439-92-1	Lead	74		581		mg/Kg	SD-24-03-FW	6 / 6	0.27 - 0.6
7439-96-5	Manganese	50	J	263		mg/Kg	SD-SA-01-TR	6 / 6	0.018 - 0.24
7439-97-6	Mercury	0	J	0.71		mg/Kg	SD-24-03-ME	5 / 6	0.005 - 0.02
7440-62-2	Vanadium	7.1		148		mg/Kg	SD-24-03-FW	6 / 6	0.073 - 0.64

^a Data presented are from sediment samples SD-24-01-FW, SD-24-02-FW, SD-24-03-FW, SD-24-03-ME, SD-HB-00-TR, and SD-SA-01-TR; only COPCs selected on Table C.3-2.5 appear.

(1) Minimum/maximum detected concentration.

(2) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
J = Estimated Value

TABLE C.3-2.8
COPCs DETECTED IN SEDIMENT IN POND/LAKE REFERENCE SAMPLES

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future Medium: Sediment Exposure Medium: Sediment Exposure Point: Reference Pond/Lake ^a

CAS Number	Chemical	Minimum Concentration ⁽¹⁾	Minimum Qualifier	Maximum Concentration ⁽¹⁾	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
56-55-3	Benzo(a)anthracene	ND		ND		mg/Kg	ND	0 / 1	1
50-32-8	Benzo(a)pyrene	ND		ND		mg/Kg	ND	0 / 1	1
205-99-2	Benzo(b)fluoranthene	ND		ND		mg/Kg	ND	0 / 1	1
207-08-9	Benzo(k)fluoranthene	ND		ND		mg/Kg	ND	0 / 1	1
53-70-3	Dibenz(a,h)anthracene	ND		ND		mg/Kg	ND	0 / 1	1
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ND		mg/Kg	ND	0 / 1	1
85-01-8	Phenanthrene	ND		ND		mg/Kg	ND	0 / 1	1
12672-29-6	Aroclor 1248	ND		ND		mg/Kg	ND	0 / 1	0.0104
7440-36-0	Antimony	1.4	J	1.4	J	mg/Kg	SD-MC-02	1 / 1	N/A
7440-38-2	Arsenic	29.9		30		mg/Kg	SD-MC-02	1 / 1	N/A
7440-43-9	Cadmium	2.9		2.9		mg/Kg	SD-MC-02	1 / 1	N/A
7440-47-3	Chromium	155	J	155	J	mg/Kg	SD-MC-02	1 / 1	N/A
7440-50-8	Copper	66		65.7		mg/Kg	SD-MC-02	1 / 1	N/A
7439-92-1	Lead	197		197		mg/Kg	SD-MC-02	1 / 1	N/A
7439-96-5	Manganese	837		837		mg/Kg	SD-MC-02	1 / 1	N/A
7439-97-6	Mercury	0.4		0.35		mg/Kg	SD-MC-02	1 / 1	N/A
7440-62-2	Vanadium	52		52		mg/Kg	SD-MC-02	1 / 1	N/A

^a Data presented are from sediment sample SD-MC-02; only COPCs selected on Table C.3-2.5 appear.

(1) Minimum/maximum detected concentration.

(2) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

Definitions: COPC = Chemical of Potential Concern
 N/A = Not Applicable or Not Available
 J = Estimated Value

TABLE C.3-2.9
 OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
 WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Fish Tissue
 Exposure Point: Combined Reference Data*

CAS Number	Chemical	(1) Minimum Concentration	Minimum Qualifier	(1) Maximum Concentration	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value (2)	Screening Toxicity Value (3)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	(4) Rationale for Contaminant Deletion or Selection
191-24-2	Benzo(g,h,i)perylene	0.40	J	0.40	J	mg/Kg	LF-LB-08-F	1 / 12	0.82 - 3.3	0.40	N/A	2.7 N	N/A	N/A	NO	BSL
72-54-8	4,4'-DDD	0.0064	J	0.0064	J	mg/Kg	LF-LB-15-F	1 / 13	0.00098 - 0.0049	0.0064	N/A	0.013 C	N/A	N/A	NO	BSL
72-55-9	4,4'-DDE	0.0028	J	0.032	J	mg/Kg	LF-LB-15-F	12 / 12	N/A	0.032	N/A	0.0093 C	N/A	N/A	YES	ASL
5103-71-9	alpha-Chlordane	0.00029	J	0.00033	J	mg/Kg	LF-LB-04-F	3 / 13	0.00051 - 0.0027	0.00033	N/A	0.009 C	N/A	N/A	NO	BSL
11096-82-5	Aroclor-1260	0.0051	J	0.13	J	mg/Kg	LF-LB-15-F	13 / 13	N/A	0.13	N/A	0.0016 C	N/A	N/A	YES	ASL
76-44-8	Heptachlor	0.00039	J	0.00039	J	mg/Kg	LF-LB-04-F	1 / 13	0.0005 - 0.0027	0.00039	N/A	0.0007 C	N/A	N/A	NO	BSL
1024-57-3	Heptachlor Epoxide	0.00034	J	0.00034	J	mg/Kg	LF-LB-05-F	1 / 13	0.00051 - 0.0027	0.00034	N/A	0.00035 C	N/A	N/A	NO	BSL
7429-90-5	Aluminum	0.13	J	0.48	J	mg/Kg	LF-LB-03-F	2 / 29	0.48 - 10	0.48	N/A	N/A	N/A	N/A	NO	NTX
7440-47-3	Arsenic	0.022	J	0.081	J	mg/Kg	FI-MC-PP-LMB17-F	16 / 29	0.082 - 0.1	0.081	N/A	0.0021 C	N/A	N/A	YES	ASL
7440-47-3	Barium	0.060	J	0.060	J	mg/Kg	FI-MC-PP-WS3-F	1 / 29	0.13 - 10	0.060	N/A	9.5 N	N/A	N/A	NO	BSL
7440-47-3	Chromium	0.057	J	0.810	J	mg/Kg	FI-MC-PP-WS3-F	11 / 29	0.072 - 1	0.81	N/A	0.41 N	N/A	N/A	YES	ASL
7440-48-4	Cobalt	0.0084	J	0.049	J	mg/Kg	LF-LB-03-F	6 / 29	0.039 - 10	0.049	N/A	N/A	N/A	N/A	NO	NTX
7440-50-8	Copper	0.12	J	0.27	J	mg/Kg	FI-MC-PP-WS3-F	6 / 29	0.19 - 10	0.27	N/A	5.4 N	N/A	N/A	NO	BSL
7439-89-6	Iron	5.7	J	25	J	mg/Kg	LF-LB-15-F	5 / 29	3.5 - 10	25	N/A	N/A	N/A	N/A	NO	NTX
7439-92-1	Lead	0.059	J	0.061	J	mg/Kg	LF-LB-14-F	3 / 29	0.018 - 1	0.061	N/A	N/A	N/A	N/A	YES	(5)
7439-97-6	Manganese	0.37	J	0.4	J	mg/Kg	FI-MC-PP-WS3-F	1 / 29	0.13 - 10	0.37	N/A	19 N	N/A	N/A	NO	BSL
7440-09-7	Mercury	0.1	J	1	J	mg/Kg	LF-LB-09-F	25 / 29	0.025 - 0.15	1.0	N/A	0.014 N	N/A	N/A	YES	ASL
7782-49-2	Nickel	0.016	J	0.02	J	mg/Kg	FI-MC-PP-WS3-F	1 / 29	0.039 - 10	0.016	N/A	2.7 N	N/A	N/A	NO	BSL
7440-66-6	Potassium	3560	J	4650	J	mg/Kg	LF-LB-14-F	13 / 13	N/A	4650	N/A	N/A	N/A	N/A	NO	NUT
7440-66-6	Selenium	0.52	J	0.8	J	mg/Kg	LF-LB-06-F	16 / 29	0.5	0.80	N/A	0.68 N	N/A	N/A	YES	ASL
7440-66-6	Vanadium	0.04	J	0.04	J	mg/Kg	FI-MC-PP-WS3-F	1 / 29	0.045 - 0.5	0.040	N/A	0.14 N	N/A	N/A	NO	BSL
7440-66-6	Zinc	3.3	J	8.3	J	mg/Kg	FI-MC-PP-WS13-F	25 / 29	4.3 - 5.2	8.3	N/A	41 N	N/A	N/A	NO	BSL

* Data presented are from all fish tissue samples LF-LB-01-F, LF-LB-02-F, LF-LB-03-F, LF-LB-04-F, LF-LB-05-F, LF-LB-06-F, LF-LB-07-F, LF-LB-08-F, LF-LB-09-F, LF-LB-10-F, LF-LB-14-F, LF-LB-15-F, LF-LB-16-F, FI-MC-PP-BB1-F, FI-MC-PP-LMB15-F, FI-MC-PP-LMB17-F, FI-MC-PP-LMB2-F, FI-MC-PP-LMB5-F, FI-MC-PP-LMB6-F, FI-MC-PP-WS11-F, FI-MC-PP-WS13-F, FI-MC-PP-WS1-F, FI-MC-PP-WS3-F, FI-MC-PP-WS8-F, FI-MC-SP-LMB12-F, FI-MC-SP-LMB2-F, FI-MC-SP-LMB4-F, FI-MC-SP-LMB5-F, and FI-MC-SP-LMB9-F.

- (1) Minimum/maximum detected concentration.
 (2) Refer to supporting information for background discussion.
 (3) USEPA Region III RBCs for fish (adjusted to a hazard quotient = 0.1 for noncarcinogens), April 14, 2004.
 RBC for chlordane has been used for alpha-chlordane.
 RBC for PCBs has been used for Aroclor-1260.
 RBC for chromium VI has been used for chromium.
 RBC for methylmercury has been used for mercury.
 RBC for naphthalene has been used for benzo(g,h,i)perylene.

Definitions:
 SQL = Sample Quantitation Limit
 COPC = Chemical of Potential Concern
 ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
 RBC = Risk-Based Concentration
 N/A = Not Applicable or Not Available
 J = Estimated Value
 C = Carcinogenic
 N = Non-Carcinogenic

- (4) Rationale Codes Selection Reason: Above Screening Levels (ASL)
 Deletion Reason: No Toxicity Information (NTX)
 Essential Nutrient (NUT)
 Below Screening Level (BSL)

- (5) Retained for comparison purposes.

TABLE C.3-3.1
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL	Maximum Detected Concentration (1)	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
							Arsenic	Wg/L	4.5E+00	1.9E+01	1.6E+01	J
Lead ⁽⁴⁾	Wg/L	1.2E+01	2.6E+02	5.1E+01		Wg/L	5.1E+01	Max	(2)	1.2E+01	Mean	(3)
Manganese	Wg/L	6.5E+02	1.4E+03	2.0E+03		Wg/L	1.4E+03	95% UCL		1.4E+03	95% UCL	
Mercury	Wg/L	5.8E-02	9.9E-02	1.1E-01		Wg/L	9.9E-02	95% UCL		9.9E-02	95% UCL	

(1) Data are from surface water samples SW-MC-01, SW-MC-04, SW-MC-12, SW-23-01 and SW-27-01; only COPCs selected on Table C.3-2.1 and detected at this exposure point appear.

(2) Due to the small sample size, the maximum detected concentration is used.

(3) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.

(4) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

-- Not detected at this exposure point.

J = Estimated Concentration

Max = Maximum Detected Concentration

N/A = Not Applicable

UCL = Upper Confidence Limit

EPC = Exposure Point Concentration

TABLE C.3-3.2
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Wetland

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL	Maximum Detected Concentration (1)	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
							Arsenic	Wg/L	3.2E+00	N/A	3.2E+00	
Lead ⁽³⁾	Wg/L	6.3E+00	N/A	6.3E+00		Wg/L	6.3E+00	Max	(2)	6.3E+00	Max	(2)
Manganese	Wg/L	5.2E+02	N/A	5.2E+02		Wg/L	5.2E+02	Max	(2)	5.2E+02	Max	(2)
Mercury	Wg/L	1.3E-01	N/A	1.3E-01		Wg/L	1.3E-01	Max	(2)	1.3E-01	Max	(2)

(1) Data are from surface water sample SW-24-01; only COPCs selected on Table C.3-2.1 and detected at this exposure point appear.

(2) Due to the small sample size, the maximum detected concentration is used.

(3) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

-- Not detected at this exposure point.

J = Estimated Concentration

Max = Maximum Detected Concentration

N/A = Not Applicable

UCL = Upper Confidence Limit

EPC = Exposure Point Concentration

TABLE C.3-3.3
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL	Maximum Detected Concentration (1)	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
							bis(2-Ethylhexyl)phthalate	Wg/L	2.5E+00	2.8E+00	3.0E+00	J
Arsenic	Wg/L	1.6E+00	2.8E+00	2.9E+00	J	Wg/L	2.8E+00	95% UCL		2.8E+00	95% UCL	
Lead (4)	Wg/L	1.6E+00	2.8E+00	3.2E+00	J	Wg/L	2.8E+00	95% UCL		2.8E+00	95% UCL	
Manganese	Wg/L	2.4E+02	3.7E+02	4.3E+02		Wg/L	3.7E+02	95% UCL		3.7E+02	95% UCL	
Mercury	Wg/L	4.3E-02	1.2E-01	1.2E-01		Wg/L	1.2E-01	Max	(2)	4.3E-02	Mean	(3)

(1) Data are from surface water samples SW-25-01, SW-26-01, SW-MC-02, SW-MC-03, and SW-MC-03-01; only COPCs selected on Table C.3-2.1 and detected at this exposure point appear.

(2) Due to the small sample size, the maximum detected concentration is used.

(3) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.

(4) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

-- Not detected at this exposure point.

J = Estimated Concentration

Max = Maximum Detected Concentration

N/A = Not Applicable

UCL = Upper Confidence Limit

EPC = Exposure Point Concentration

TABLE C.3-3.4
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: River/Stream

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL	Maximum Detected Concentration (1)	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency				
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale		
Benzo(a)anthracene	mg/kg	1.8E+00	1.3E+00	1.8E+00	J	mg/kg	1.3E+00	95% UCL	(2)	1.3E+00	95% UCL	(2)		
Benzo(a)pyrene	mg/kg	2.1E+00	1.4E+00	2.1E+00		mg/kg	1.4E+00	95% UCL		1.4E+00	95% UCL			
Benzo(b)fluoranthene	mg/kg	3.0E+00	1.8E+00	3.0E+00		mg/kg	1.8E+00	95% UCL		1.8E+00	95% UCL			
Benzo(k)fluoranthene	mg/kg	2.2E+00	1.6E+00	2.2E+00		mg/kg	1.6E+00	95% UCL		1.6E+00	95% UCL			
Dibenz(a,h)anthracene	mg/kg	3.5E-01	2.8E-01	3.5E-01		mg/kg	2.8E-01	95% UCL		2.8E-01	95% UCL			
Indeno(1,2,3-cd)pyrene	mg/kg	1.8E+00	1.1E+00	1.8E+00		mg/kg	1.1E+00	95% UCL		1.1E+00	95% UCL			
Phenanthrene	mg/kg	3.0E+00	1.7E+00	3.0E+00		mg/kg	1.7E+00	95% UCL		1.7E+00	95% UCL			
Aroclor 1248	mg/kg	ND	ND	ND		mg/kg	ND	Max		(2)	ND		Max	(2)
Antimony	mg/kg	5.6E+00	2.5E+00	5.6E+00		mg/kg	2.5E+00	95% UCL			2.5E+00		95% UCL	
Arsenic	mg/kg	4.5E+01	2.6E+01	4.5E+01		mg/kg	2.6E+01	95% UCL			2.6E+01		95% UCL	
Cadmium	mg/kg	6.1E+00	4.6E+00	6.1E+00	mg/kg	4.6E+00	95% UCL		4.6E+00	95% UCL				
Chromium	mg/kg	5.1E+02	3.5E+02	5.1E+02	mg/kg	3.5E+02	95% UCL		3.5E+02	95% UCL				
Copper	mg/kg	3.4E+02	2.2E+02	3.4E+02	mg/kg	2.2E+02	95% UCL		2.2E+02	95% UCL				
Lead ⁴	mg/kg	3.7E+02	2.6E+02	3.7E+02	mg/kg	2.6E+02	95% UCL		2.6E+02	95% UCL				
Manganese	mg/kg	2.0E+03	1.4E+03	2.0E+03	mg/kg	1.4E+03	95% UCL		1.4E+03	95% UCL				
Mercury	mg/kg	6.0E-01	4.8E-01	6.0E-01	mg/kg	4.8E-01	95% UCL		4.8E-01	95% UCL				
Vanadium	mg/kg	5.4E+01	3.4E+01	5.4E+01	mg/kg	3.4E+01	95% UCL		3.4E+01	95% UCL				

(1) Data presented are from sediment samples SD-MC-01, SD-MC-01-TR, SD-MC-04, SD-MC-04-TR, SD-MC-12, SD-23-01-FW, SD-23-02-FW, SD-23-03-FW, SD-27-02-FW, and SD-27-03-FW;

only COPCs selected on Table C.3-2.5 and detected at this exposure point appear.

(2) Due to the small sample size, the maximum detected concentration is used.

(3) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.

(4) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

J = Estimated Concentration

Max = Maximum Detected Concentration

N/A = Not Applicable

UCL = Upper Confidence Limit

EPC = Exposure Point Concentration

RME = Reasonable Maximum Exposure

CT = Central Tendency

TABLE C.3-3.5
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL	Maximum Detected Concentration (1)	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Benzo(a)anthracene	mg/kg	5.9E+00	5.4E+00	5.9E+00		mg/kg	5.4E+00	95% UCL		5.4E+00	95% UCL	
Benzo(a)pyrene	mg/kg	5.5E+00	4.9E+00	5.5E+00		mg/kg	4.9E+00	95% UCL		4.9E+00	95% UCL	
Benzo(b)fluoranthene	mg/kg	1.0E+01	9.4E+00	1.0E+01		mg/kg	9.4E+00	95% UCL		9.4E+00	95% UCL	
Benzo(k)fluoranthene	mg/kg	9.6E+00	9.5E+00	9.6E+00		mg/kg	9.5E+00	95% UCL		9.5E+00	95% UCL	
Dibenz(a,h)anthracene	mg/kg	5.0E-01	3.5E-01	5.0E-01	J	mg/kg	3.5E-01	95% UCL		3.5E-01	95% UCL	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7E+00	1.4E+00	1.7E+00	J	mg/kg	1.4E+00	95% UCL		1.4E+00	95% UCL	
Phenanthrene	mg/kg	1.2E+01	2.5E+01	1.2E+01		mg/kg	1.2E+01	Max	(2)	1.2E+01	Max	(2)
Aroclor 1248	mg/kg	2.9E-01	2.6E-01	2.9E-01	J	mg/kg	2.6E-01	95% UCL		2.6E-01	95% UCL	
Antimony	mg/kg	1.2E+00	1.0E+00	1.2E+00	J	mg/kg	1.0E+00	95% UCL		1.0E+00	95% UCL	
Arsenic	mg/kg	4.1E+01	3.3E+01	4.1E+01		mg/kg	3.3E+01	95% UCL		3.3E+01	95% UCL	
Cadmium	mg/kg	2.9E+00	2.2E+00	2.9E+00		mg/kg	2.2E+00	95% UCL		2.2E+00	95% UCL	
Chromium	mg/kg	4.1E+02	5.4E+02	4.1E+02	J	mg/kg	4.1E+02	Max	(2)	4.1E+02	Max	(2)
Copper	mg/kg	1.3E+02	9.3E+01	1.3E+02		mg/kg	9.3E+01	95% UCL		9.3E+01	95% UCL	
Lead ⁴	mg/kg	5.8E+02	5.2E+02	5.8E+02		mg/kg	5.2E+02	95% UCL		5.2E+02	95% UCL	
Manganese	mg/kg	2.6E+02	2.1E+02	2.6E+02		mg/kg	2.1E+02	95% UCL		2.1E+02	95% UCL	
Mercury	mg/kg	7.1E-01	1.3E+00	7.1E-01		mg/kg	7.1E-01	Max	(2)	7.1E-01	Max	(2)
Vanadium	mg/kg	1.5E+02	9.9E+01	1.5E+02		mg/kg	9.9E+01	95% UCL		9.9E+01	95% UCL	

(1) Data presented are from sediment samples SD-24-01-FW, SD-24-02-FW, SD-24-03-FW, SD-24-03-ME, SD-HB-00-TR, and SD-SA-01-TR; only COPCs selected on Table C.3-2.5 and detected at this exposure point appear.

(2) Due to the small sample size, the maximum detected concentration is used.

(3) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.

(4) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

J = Estimated Concentration

Max = Maximum Detected Concentration

N/A = Not Applicable

UCL = Upper Confidence Limit

EPC = Exposure Point Concentration

RME = Reasonable Maximum Exposure

CT = Central Tendency

TABLE C.3-3.6
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL	Maximum Detected Concentration (1)	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Benzo(a)anthracene	mg/kg	ND	ND	ND		mg/kg	ND	Max	(2)	ND	Max	(2)
Benzo(a)pyrene	mg/kg	ND	ND	ND		mg/kg	ND	Max	(2)	ND	Max	(2)
Benzo(b)fluoranthene	mg/kg	ND	ND	ND		mg/kg	ND	Max	(2)	ND	Max	(2)
Benzo(k)fluoranthene	mg/kg	ND	ND	ND		mg/kg	ND	Max	(2)	ND	Max	(2)
Dibenz(a,h)anthracene	mg/kg	ND	ND	ND		mg/kg	ND	Max	(2)	ND	Max	(2)
Indeno(1,2,3-cd)pyrene	mg/kg	ND	ND	ND		mg/kg	ND	Max	(2)	ND	Max	(2)
Phenanthrene	mg/kg	ND	ND	ND		mg/kg	ND	Max	(2)	ND	Max	(2)
Aroclor 1248	mg/kg	ND	ND	ND		mg/kg	ND	Max	(2)	ND	Max	(2)
Antimony	mg/kg	1.4E+00	N/A	1.4E+00	J	mg/kg	1.4E+00	Max	(2)	1.4E+00	Max	(2)
Arsenic	mg/kg	3.0E+01	N/A	3.0E+01		mg/kg	3.0E+01	Max	(2)	3.0E+01	Max	(2)
Cadmium	mg/kg	2.9E+00	N/A	2.9E+00		mg/kg	2.9E+00	Max	(2)	2.9E+00	Max	(2)
Chromium	mg/kg	1.6E+02	N/A	1.6E+02	J	mg/kg	1.6E+02	Max	(2)	1.6E+02	Max	(2)
Copper	mg/kg	6.6E+01	N/A	6.6E+01		mg/kg	6.6E+01	Max	(2)	6.6E+01	Max	(2)
Lead ⁴	mg/kg	2.0E+02	N/A	2.0E+02		mg/kg	2.0E+02	Max	(2)	2.0E+02	Max	(2)
Manganese	mg/kg	8.4E+02	N/A	8.4E+02		mg/kg	8.4E+02	Max	(2)	8.4E+02	Max	(2)
Mercury	mg/kg	3.5E-01	N/A	3.5E-01		mg/kg	3.5E-01	Max	(2)	3.5E-01	Max	(2)
Vanadium	mg/kg	5.2E+01	N/A	5.2E+01		mg/kg	5.2E+01	Max	(2)	5.2E+01	Max	(2)

(1) Data presented are from sediment sample SD-MC-02; only COPCs selected on Table C.3-2.5 and detected at this exposure point appear.

(2) Due to the small sample size, the maximum detected concentration is used.

(3) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.

(4) Since lead cannot be quantitatively evaluated, it has been retained on this table for comparative purposes.

J = Estimated Concentration

Max = Maximum Detected Concentration

N/A = Not Applicable

UCL = Upper Confidence Limit

EPC = Exposure Point Concentration

RME = Reasonable Maximum Exposure

CT = Central Tendency

TABLE C.3-3.7
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current / Future
Medium: Surface Water
Exposure Medium: Fish Tissue
Exposure Point: Fillet, Reference Locations

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL of Normal Data	Maximum Detected Concentration (1)	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
4,4'-DDE	mg/kg	9.1E-03	1.4E-02	3.2E-02	J	mg/kg	1.4E-02	95% UCL	(2)	1.4E-02	95% UCL	(4)
Aroclor-1260	mg/kg	2.2E-02	6.3E-02	1.3E-01	J	mg/kg	6.3E-02	95% UCL		6.3E-02	95% UCL	
Arsenic	mg/kg	4.4E-02	4.8E-02	8.1E-02	J	mg/kg	4.8E-02	95% UCL		4.8E-02	95% UCL	
Chromium	mg/kg	3.2E-01	7.5E-01	8.1E-01	J	mg/kg	7.5E-01	95% UCL		7.5E-01	95% UCL	
Lead	mg/kg	2.8E-01	7.1E-01	6.1E-02		mg/kg	6.1E-02	Max		6.1E-02	Max	
Mercury	mg/kg	3.1E-01	4.1E-01	1.0E+00		mg/kg	4.1E-01	95% UCL		4.1E-01	95% UCL	
Selenium	mg/kg	4.5E-01	5.1E-01	8.0E-01	J	mg/kg	5.1E-01	95% UCL		5.1E-01	95% UCL	

(1) Data are from fish samples LF-LB-01-F, LF-LB-02-F, LF-LB-03-F, LF-LB-04-F, LF-LB-05-F, LF-LB-06-F, LF-LB-07-F, LF-LB-08-F, LF-LB-09-F, LF-LB-10-F, LF-LB-14-F, LF-LB-15-F & LF-LB-16-F; only COPCs selected on Table C.3-2.9 and detected for this exposure point appear.

(2) Due to the small sample size, the maximum detected concentration is used.

(3) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.

J = Estimated Concentration

Max = Maximum Detected Concentration

N/A = Not Applicable

UCL = Upper Confidence Limit

EPC = Exposure Point Concentration

RME = Reasonable Maximum Exposure

CT = Central Tendency

TABLE C.3-4.1
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: All Stations
 Receptor Population: 1-Day Recreational User
 Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Dermal	CW	Chemical Concentration in Water	Wg/L	see Tables C.3-3.1 and C.3-3.2	Organics: Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$ Inorganics: CDI (mg/kg-day) = $\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$			
	DA	Dose Absorbed per Unit Area per Event	mg/cm ² -event	see Appendix C.7	USEPA, 2001b	see Appendix C.7	USEPA, 2001b	
	SA	Skin Surface Area Available for Contact	cm ²	5,700	USEPA, 2001b	5,700	USEPA, 2001b	
	PC	Permeability Constant	cm/hr	chemical specific	USEPA, 2001b	chemical specific	USEPA, 2001b	
	ET	Event Time	hrs/event	1	Prof. Judgement	0.5	Prof. Judgement	
	EV	Event Frequency	events/day	1	Prof. Judgement	1	Prof. Judgement	
	EF	Exposure Frequency	days/year	26	assumption	26	assumption	
	ED	Exposure Duration	years	24	USEPA, 1994b	7	USEPA, 1994b	
	BW	Body Weight	kg	70	USEPA, 1994b	70	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, 1989	2,555	USEPA, 1989	
	CF1	Conversion Factor 1	L/cm ³	0.001	--	0.001	--	
	CF2	Conversion Factor 2	mg/Wg	0.001	--	0.001	--	

TABLE C.3-4.2
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: All Stations
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Dermal	CW	Chemical Concentration in Water	Wg/L	see Tables C.3-3.1 and C.3-3.2	Organics: Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$ Inorganics: CDI (mg/kg-day) = $\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$			
	DA	Dose Absorbed per Unit Area per Event	mg/cm ² -event	see Appendix C.7	USEPA, 2001b	see Appendix C.7	USEPA, 2001b	
	SA	Skin Surface Area Available for Contact	cm ²	2,800	USEPA, 2001b	2,800	USEPA, 2001b	
	PC	Permeability Constant	cm/hr	chemical specific	USEPA, 2001b	chemical specific	USEPA, 2001b	
	ET	Event Time	hrs/event	1	Prof. Judgement	0.5	Prof. Judgement	
	EV	Event Frequency	events/day	1	Prof. Judgement	1	Prof. Judgement	
	EF	Exposure Frequency	days/year	26	assumption	26	assumption	
	ED	Exposure Duration	years	6	USEPA, 1994b	2	USEPA, 1994b	
	BW	Body Weight	kg	15	USEPA, 1994b	15	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, 1989	730	USEPA, 1989	
	CF1	Conversion Factor 1	L/cm ³	0.001	--	0.001	--	
CF2	Conversion Factor 2	mg/Wg	0.001	--	0.001	--		

TABLE C.3-4.3
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: All Stations
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Dermal	CW	Chemical Concentration in Water	Wg/L	see Tables C.3-3.1 and C.3-3.2	Organics: Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$ Inorganics: CDI (mg/kg-day) = $\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$			
	DA	Dose Absorbed per Unit Area per Event	mg/cm ² -event	see Appendix C.7	USEPA, 2001b	see Appendix C.7	USEPA, 2001b	
	SA	Skin Surface Area Available for Contact	cm ²	5,700	USEPA, 2001b	5,700	USEPA, 2001b	
	PC	Permeability Constant	cm/hr	chemical specific	USEPA, 2001b	chemical specific	USEPA, 2001b	
	ET	Event Time	hrs/event	1	Prof. Judgement	0.5	Prof. Judgement	
	EV	Event Frequency	events/day	1	Prof. Judgement	1	Prof. Judgement	
	EF	Exposure Frequency	days/year	104	assumption	78	assumption	
	ED	Exposure Duration	years	24	USEPA, 1994b	7	USEPA, 1994b	
	BW	Body Weight	kg	70	USEPA, 1994b	70	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, 1989	2,555	USEPA, 1989	
	CF1	Conversion Factor 1	L/cm ³	0.001	--	0.001	--	
	CF2	Conversion Factor 2	mg/Wg	0.001	--	0.001	--	

TABLE C.3-4.4
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: All Stations
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/Reference	CT Value	CT Rationale/Reference	Intake Equation/Model Name
Dermal	CW	Chemical Concentration in Water	Wg/L	see Tables C.3-3.1 and C.3-3.2	Organics: Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$ Inorganics: CDI (mg/kg-day) = $\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$			
	DA	Dose Absorbed per Unit Area per Event	mg/cm ² -event	see Appendix C.7	USEPA, 2001b	see Appendix C.7	USEPA, 2001b	
	SA	Skin Surface Area Available for Contact	cm ²	2,800	USEPA, 2001b	2,800	USEPA, 2001b	
	PC	Permeability Constant	cm/hr	chemical specific	USEPA, 2001b	chemical specific	USEPA, 2001b	
	ET	Event Time	hrs/event	1	Prof. Judgement	0.5	Prof. Judgement	
	EV	Event Frequency	events/day	1	Prof. Judgement	1	Prof. Judgement	
	EF	Exposure Frequency	days/year	104	assumption	78	assumption	
	ED	Exposure Duration	years	6	USEPA, 1994b	2	USEPA, 1994b	
	BW	Body Weight	kg	15	USEPA, 1994b	15	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, 1989	730	USEPA, 1989	
	CF1	Conversion Factor 1	L/cm ³	0.001	--	0.001	--	
CF2	Conversion Factor 2	mg/Wg	0.001	--	0.001	--		

TABLE C.3-4.5
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: Recreational User
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/Reference	CT Value	CT Rationale/Reference	Intake Equation/Model Name
Ingestion	CW	Chemical Concentration in Water	Wg/L	see Table C.3-3.3	see Table C.3-3.3	see Table C.3-3.3	see Table C.3-3.3	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CW \times IR \times ET \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
	IR	Ingestion Rate of Water	mL/hr	50	USEPA, 1989	50	USEPA, 1989	
	ET	Exposure Time	hrs/day	1	Prof. Judgement	0.5	Prof. Judgement	
	EF	Exposure Frequency	days/year	39	assumption	5	assumption	
	ED	Exposure Duration	years	24	USEPA, 1994b	7	USEPA, 1994b	
	BW	Body Weight	kg	70	USEPA, 1994b	70	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, 1989	2,555	USEPA, 1989	
	CF1	Conversion Factor 1	mg/Wg	0.001	--	0.001	--	
CF2	Conversion Factor 2	L/mL	0.001	--	0.001	--		
Dermal	CW	Chemical Concentration in Water	Wg/L	see Table C.3-3.3	see Table C.3-3.3	see Table C.3-3.3	see Table C.3-3.3	Organics: Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$ Inorganics: CDI (mg/kg-day) = $\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
	DA	Dose Absorbed per Unit Area per Event	mg/cm ² -event	see Appendix C.7	USEPA, 2001b	see Appendix C.7	USEPA, 2001b	
	SA	Skin Surface Area Available for Contact	cm ²	18,000	USEPA, 2001b	18,000	USEPA, 2001b	
	PC	Permeability Constant	cm/hr	chemical specific	USEPA, 2001b	chemical specific	USEPA, 2001b	
	ET	Event Time	hrs/event	1	Prof. Judgement	0.5	Prof. Judgement	
	EV	Event Frequency	event/day	1	Prof. Judgement	1	Prof. Judgement	
	EF	Exposure Frequency	days/year	39	assumption	5	assumption	
	ED	Exposure Duration	years	24	USEPA, 1994b	7	USEPA, 1994b	
	BW	Body Weight	kg	70	USEPA, 1994b	70	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, 1989	2,555	USEPA, 1989	
	CF1	Conversion Factor 1	L/cm ³	0.001	--	0.001	--	
	CF2	Conversion Factor 2	mg/Wg	0.001	--	0.001	--	

TABLE C.3-4.6
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: Recreational User
Receptor Age: Young Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	CW	Chemical Concentration in Water	Wg/L	see Table C.3-3.3	see Table C.3-3.3	see Table C.3-3.3	see Table C.3-3.3	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CW \times IR \times ET \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
	IR	Ingestion Rate of Water	mL/hr	50	USEPA, 1989	50	USEPA, 1989	
	ET	Exposure Time	hrs/day	1	Prof. Judgement	0.5	Prof. Judgement	
	EF	Exposure Frequency	days/year	39	assumption	5	assumption	
	ED	Exposure Duration	years	6	USEPA, 1994b	2	USEPA, 1994b	
	BW	Body Weight	kg	15	USEPA, 1994b	15	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, 1989	730	USEPA, 1989	
	CF1	Conversion Factor 1	mg/Wg	0.001	--	0.001	--	
CF2	Conversion Factor 2	L/mL	0.001	--	0.001	--		
Dermal	CW	Chemical Concentration in Water	Wg/L	see Table C.3-3.3	see Table C.3-3.3	see Table C.3-3.3	see Table C.3-3.3	Organics: Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
	DA	Dose Absorbed per Unit Area per Event	mg/cm ² -event	see Appendix C.7	USEPA, 2001b	see Appendix C.7	USEPA, 2001b	
	SA	Skin Surface Area Available for Contact	cm ²	6,600	USEPA, 2001b	6,600	USEPA, 2001b	
	PC	Permeability Constant	cm/hr	chemical specific	USEPA, 2001b	chemical specific	USEPA, 2001b	
	ET	Event Time	hrs/event	1	Prof. Judgement	0.5	Prof. Judgement	
	EV	Event Frequency	event/day	1	Prof. Judgement	1	Prof. Judgement	
	EF	Exposure Frequency	days/year	39	assumption	5	assumption	Inorganics: CDI (mg/kg-day) = $\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
	ED	Exposure Duration	years	6	USEPA, 1994b	2	USEPA, 1994b	
	BW	Body Weight	kg	15	USEPA, 1994b	15	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, 1989	730	USEPA, 1989	
	CF1	Conversion Factor 1	L/cm ³	0.001	--	0.001	--	
	CF2	Conversion Factor 2	mg/Wg	0.001	--	0.001	--	

TABLE C.3-4.7
VALUES USED FOR DAILY INTAKE CALCULATIONS
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: All Stations
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	CS	Chemical Concentration in Sediment	mg/kg	see Tables C.3-3.1 through C.3-3.3	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$			
	IR	Ingestion Rate of Sediment	mg/day	100	USEPA, 1994b	50	USEPA, 1994b	
	FI	Fraction Ingested	unitless	0.5	Prof. Judgement	0.5	Prof. Judgement	
	EF	Exposure Frequency	days/year	26	assumption	26	assumption	
	ED	Exposure Duration	years	24	USEPA, 1994b	7	USEPA, 1994b	
	BW	Body Weight	kg	70	USEPA, 1994b	70	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, 1989	2,555	USEPA, 1989	
	CF	Conversion Factor	kg/mg	0.000001	--	0.000001	--	
Dermal	CS	Chemical Concentration in Soil	mg/kg	see Tables C.3-3.1 through C.3-3.3	CDI (mg/kg-day) = $\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$			
	SA	Skin Surface Area Available for Contact	cm ²	5,700	USEPA, 2001b	5,700	USEPA, 2001b	
	AF	Skin Adherence Factor	mg/cm ² -day	0.07	USEPA, 2001b	0.07	USEPA, 2001b	
	EF	Exposure Frequency	days/year	26	assumption	26	assumption	
	ED	Exposure Duration	years	24	USEPA, 1994b	7	USEPA, 1994b	
	DAF	Dermal Absorption Factor	--	chemical specific	--	chemical specific	--	
	BW	Body Weight	kg	70	USEPA, 1994b	70	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, 1989	2,555	USEPA, 1989	
CF	Conversion Factor	kg/mg	0.000001	--	0.000001	--		

TABLE C.3-4.9
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: All Stations
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	CS	Chemical Concentration in Sediment	mg/kg	see Tables C.3-3.1 through C.3-3.3	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$			
	IR	Ingestion Rate of Sediment	mg/day	100	USEPA, 1994b	50	USEPA, 1994b	
	FI	Fraction Ingested	unitless	0.5	Prof. Judgement	0.5	Prof. Judgement	
	EF	Exposure Frequency	days/year	104	assumption	78	assumption	
	ED	Exposure Duration	years	24	USEPA, 1994b	7	USEPA, 1994b	
	BW	Body Weight	kg	70	USEPA, 1994b	70	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, 1989	2,555	USEPA, 1989	
	CF	Conversion Factor	kg/mg	0.000001	--	0.000001	--	
Dermal	CS	Chemical Concentration in Soil	mg/kg	see Tables C.3-3.1 through C.3-3.3	CDI (mg/kg-day) = $\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$			
	SA	Skin Surface Area Available for Contact	cm ²	5,700	USEPA, 2001b	5,700	USEPA, 2001b	
	AF	Skin Adherence Factor	mg/cm ² -day	0.07	USEPA, 2001b	0.07	USEPA, 2001b	
	EF	Exposure Frequency	days/year	104	assumption	78	assumption	
	ED	Exposure Duration	years	24	USEPA, 1994b	7	USEPA, 1994b	
	DAF	Dermal Absorption Factor	--	chemical specific	--	chemical specific	--	
	BW	Body Weight	kg	70	USEPA, 1994b	70	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, 1989	2,555	USEPA, 1989	
CF	Conversion Factor	kg/mg	0.000001	--	0.000001	--		

TABLE C.3-4.8
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: All Stations
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	CS	Chemical Concentration in Sediment	mg/kg	see Tables C.3-3.1 through C.3-3.3	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$			
	IR	Ingestion Rate of Sediment	mg/day	200	USEPA, 1994b	100	USEPA, 1994b	
	FI	Fraction Ingested	unitless	0.5	Prof. Judgement	0.5	Prof. Judgement	
	EF	Exposure Frequency	days/year	26	assumption	26	assumption	
	ED	Exposure Duration	years	6	USEPA, 1994b	2	USEPA, 1994b	
	BW	Body Weight	kg	15	USEPA, 1994b	15	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, 1989	730	USEPA, 1989	
	CF	Conversion Factor	kg/mg	0.000001	--	0.000001	--	
Dermal	CS	Chemical Concentration in Soil	mg/kg	see Tables C.3-3.1 through C.3-3.3	CDI (mg/kg-day) = $\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$			
	SA	Skin Surface Area Available for Contact	cm ²	2,800	USEPA, 2001b	2,800	USEPA, 2001b	
	AF	Skin Adherence Factor	mg/cm ² -day	0.3	USEPA, 2001b	0.3	USEPA, 2001b	
	EF	Exposure Frequency	days/year	26	assumption	26	assumption	
	ED	Exposure Duration	years	6	USEPA, 1994b	2	USEPA, 1994b	
	DAF	Dermal Absorption Factor	--	chemical specific	--	chemical specific	--	
	BW	Body Weight	kg	15	USEPA, 1994b	15	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, 1989	730	USEPA, 1989	
CF	Conversion Factor	kg/mg	0.000001	--	0.000001	--		

TABLE C.3-4.10
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: All Stations
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	CS	Chemical Concentration in Sediment	mg/kg	see Tables C.3-3.1 through C.3-3.3	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$			
	IR	Ingestion Rate of Sediment	mg/day	200	USEPA, 1994b	100	USEPA, 1994b	
	FI	Fraction Ingested	unitless	0.5	Prof. Judgement	0.5	Prof. Judgement	
	EF	Exposure Frequency	days/year	104	assumption	78	assumption	
	ED	Exposure Duration	years	6	USEPA, 1994b	2	USEPA, 1994b	
	BW	Body Weight	kg	15	USEPA, 1994b	15	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, 1989	730	USEPA, 1989	
	CF	Conversion Factor	kg/mg	0.000001	--	0.000001	--	
Dermal	CS	Chemical Concentration in Soil	mg/kg	see Tables C.3-3.1 through C.3-3.3	CDI (mg/kg-day) = $\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$			
	SA	Skin Surface Area Available for Contact	cm ²	2,800	USEPA, 2001b	2,800	USEPA, 2001b	
	AF	Skin Adherence Factor	mg/cm ² -day	0.3	USEPA, 2001b	0.3	USEPA, 2001b	
	EF	Exposure Frequency	days/year	104	assumption	78	assumption	
	ED	Exposure Duration	years	6	USEPA, 1994b	2	USEPA, 1994b	
	DAF	Dermal Absorption Factor	--	chemical specific	--	chemical specific	--	
	BW	Body Weight	kg	15	USEPA, 1994b	15	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, 1989	730	USEPA, 1989	
CF	Conversion Factor	kg/mg	0.000001	--	0.000001	--		

TABLE C.3-4.11
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Fish Tissue
 Exposure Point: Aberjona River Reaches
 Receptor Population: Recreational User
 Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	CF	Chemical Concentration in Fish	mg/kg	see Table C.3-3.7	see Table C.3-3.7	see Table C.3-3.7	see Table C.3-3.7	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CF \times IR \times EF \times ED \times FI \times CF1}{BW \times AT}$
	IR	Ingestion Rate of Fish	mg/day	6,700	USEPA, 1994b	6,700	USEPA, 1994b	
	EF	Exposure Frequency	days/year	365	USEPA, 1994b	365	USEPA, 1994b	
	ED	Exposure Duration	years	24	USEPA, 1994b	7	USEPA, 1994b	
	FI	Fraction Ingested From Site	--	1	assumption	0.5	assumption	
	BW	Body Weight	kg	70	USEPA, 1994b	70	USEPA, 1994b	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, 1989	2,555	USEPA, 1989	
CF1	Conversion Factor	kg/mg	0.000001	--	0.000001	--		

TABLE C.3-4.12
VALUES USED FOR DAILY INTAKE CALCULATIONS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Fish Tissue
 Exposure Point: Aberjona River Reaches
 Receptor Population: Recreational User
 Receptor Age: Older Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	CF	Chemical Concentration in Fish	mg/kg	see Table C.3-3.7	see Table C.3-3.7	see Table C.3-3.7	see Table C.3-3.7	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CF \times IR \times EF \times ED \times FI \times CF1}{BW \times AT}$
	IR	Ingestion Rate of Fish	mg/day	3,350	assumption	3,350	assumption	
	EF	Exposure Frequency	days/year	365	USEPA, 1994b	365	USEPA, 1994b	
	ED	Exposure Duration	years	6	USEPA, 1994b	2	USEPA, 1994b	
	FI	Fraction Ingested From Site	--	1	assumption	0.5	assumption	
	BW	Body Weight	kg	31	USEPA, 1989	31	USEPA, 1989	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, 1989	730	USEPA, 1989	
CF1	Conversion Factor	kg/mg	0.000001	--	0.000001	--		

TABLE C.3-5
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (MM/DD/YY)
Benzo(a)anthracene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
bis(2-Ethylhexyl)phthalate	Chronic	2E-02	mg/kg-day	(4)	2.E-02	mg/kg-day	Liver	1000	IRIS	08/01/04
Dibenz(a,h)anthracene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenanthrene ⁽³⁾	Chronic	2E-02	mg/kg-day	(4)	2.E-02	mg/kg-day	General Toxicity	3000	IRIS	08/01/04
4,4'-DDE	Chronic	3E-04	mg/kg-day	(4)	3E-04	mg/kg-day	Developmental	3000	NCEA	08/01/04
Aroclor 1248 ⁽³⁾	Chronic	2E-05	mg/kg-day	(4)	2E-05	mg/kg-day	Immune System	300	IRIS	08/01/04
Aroclor 1260 ⁽³⁾	Chronic	2E-05	mg/kg-day	(4)	2E-05	mg/kg-day	Immune System	300	IRIS	08/01/04
Antimony	Chronic	4E-04	mg/kg-day	0.15	6E-05	mg/kg-day	Blood	1000	IRIS	08/01/04
Arsenic	Chronic	3E-04	mg/kg-day	(4)	3E-04	mg/kg-day	Skin	3	IRIS	08/01/04
Cadmium (food)	Chronic	1E-03	mg/kg-day	0.01	1E-05	mg/kg-day	Kidney	10	IRIS	08/01/04
Chromium VI	Chronic	3E-03	mg/kg-day	0.013	3.9E-05	mg/kg-day	Gastrointestinal System	300	IRIS	08/01/04
Copper	Chronic	3E-02	mg/kg-day	(4)	3E-02	mg/kg-day	Kidney	1000	NCEA	08/01/04
Lead ⁽⁶⁾										
Manganese	Chronic	7E-02	mg/kg-day	0.04	2.8E-03	mg/kg-day	Nervous System	1	IRIS	08/01/04
Mercury (inorganic)	Chronic	3E-04	mg/kg-day	0.07	2.1E-05	mg/kg-day	Immune System	1000	IRIS	08/01/04
Mercury (organic)	Chronic	1E-04	mg/kg-day	(4)	1E-04	mg/kg-day	Nervous System	10	IRIS	08/01/04
Selenium	Chronic	5E-03	mg/kg-day	(4)	5E-03	mg/kg-day	Liver	3	IRIS	08/01/04
Vanadium	Chronic	1E-03	mg/kg-day	0.026	2.6E-05	mg/kg-day	Kidney	300	NCEA	08/01/04

(1) All oral absorption efficiencies from USEPA, 2001b, except copper (from ASTDR, 2002).

IRIS = Integrated Risk Information System

(2) Calculated as: (oral RfD) x (oral to dermal adjustment factor).

HEAST = Health Effects Assessment Summary Tables

(3) RfD for Aroclor 1254 used as a surrogate for Aroclor 1248 and Aroclor 1260.

N/A = Not Applicable

RfDs for manganese are based on total allowable intake (10 mg/day) minus the background intake (5 mg/day). The remaining intake (5 mg/day) is divided by 70 kg.

NCEA = National Center for Environmental Assessment

RfD for naphthalene used as a surrogate for phenanthrene.

RfD for chromium is based on Chromium VI.

RfD for mercury (inorganic) based on mercuric chloride; for mercury (organic), based on methylmercury.

(4) Oral absorption efficiency exceeds 50%. Therefore, no adjustment of the oral reference dose is necessary.

(5) Permeability constants (Kp) used for surface water absorption calculations: 1E-03 cm/hr for arsenic, manganese, and mercury (USEPA, 2001b); for organics, see Appendix C.7.

(6) Retained for comparison purposes.

TABLE C.3-6
 CANCER TOXICITY DATA -- ORAL/DERMAL
 WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor	Adjusted Dermal Cancer Slope Factor (2)	Units	Weight of Evidence Category	Source	Date (MM/DD/YY)
Benzo(a)anthracene	7.3E-01	(1)	7.3E-01	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
Benzo(a)pyrene	7.3E+00	(1)	7.3E+00	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
Benzo(b)fluoranthene	7.3E-01	(1)	7.3E-01	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
Benzo(k)fluoranthene	7.3E-02	(1)	7.3E-02	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
bis(2-Ethylhexyl)phthalate	1.4E-02	(1)	1.4E-02	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
Dibenz(a,h)anthracene	7.3E+00	(1)	7.3E+00	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
Indeno(1,2,3-cd)pyrene	7.3E-01	(1)	7.3E-01	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
Phenanthrene	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
4,4'-DDE	3.4E-01	(1)	3.4E-01	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
Aroclor 1248	2.0E+00	(1)	2.0E+00	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
Aroclor 1260	2.0E+00	(1)	2.0E+00	(mg/kg-day) ⁻¹	B2	IRIS	08/01/04
Antimony	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Arsenic	1.5E+00	(1)	1.5E+00	(mg/kg-day) ⁻¹	A	IRIS	08/01/04
Cadmium	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Chromium VI	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Copper	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Lead ⁽³⁾							
Manganese	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Mercury (inorganic)	N/A	N/A	N/A	N/A	C	IRIS	08/01/04
Mercury (organic)	N/A	N/A	N/A	N/A	C	IRIS	08/01/04
Selenium	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Vanadium	N/A	N/A	N/A	N/A	D	IRIS	08/01/04

IRIS = Integrated Risk Information System

EPA Group:

RME = Reasonable Maximum Exposure

CT = Central Tendency

N/A = Not Applicable

Slope factor for benzo(a)pyrene, along with the appropriate relative potency factor (USEPA, 1993), used for the other carcinogenic PAHs.

For PCBs, the RME slope factor is presented. A slope factor of 1 (mg/kg-day)⁻¹ is used for CT risk estimates.

Weight of evidence for mercury (inorganic) based on mercuric chloride; for mercury (organic), based on methylmercury.

(1) Oral absorption efficiency exceeds 50%. Therefore, no adjustment of the oral slope factor is necessary.

(2) Calculated as: (oral slope factor) / (oral to dermal adjustment factor)

(3) Retained for comparison purposes.

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen (by the oral route)

E - Evidence of noncarcinogenicity

TABLE C.3-7.1.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	1.6E+01	Wg/L	1.6E+01	Wg/L	M	9.1E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.0E-04
	Lead												
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	8.1E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	2.9E-03
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	5.7E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	2.7E-05
	(Total)												3.2E-03
Total Hazard Index Across All Exposure Routes/Pathways													3E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.1.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: River/Stream
 Receptor Population: 1-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	4.5E+00	Wg/L	4.5E+00	Wg/L	M	1.3E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.3E-05
	Lead												
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	4.0E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	1.4E-03
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	2.9E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	1.4E-05
	(Total)												1.5E-03
Total Hazard Index Across All Exposure Routes/Pathways													2E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.2.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	1.6E+01	Wg/L	1.6E+01	Wg/L	M	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.0E-04
	Lead												
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	1.9E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	6.6E-03
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	1.3E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	6.3E-05
	(Total)												7.4E-03
Total Hazard Index Across All Exposure Routes/Pathways													7E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.2.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	4.5E+00	Wg/L	4.5E+00	Wg/L	M	3.0E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	9.9E-05
	Lead	1.4E+03	Wg/L	1.4E+03	Wg/L	M	9.3E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	3.3E-03
	Manganese	9.9E-02	Wg/L	9.9E-02	Wg/L	M	6.6E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	3.1E-05
	Mercury												3.4E-03
	(Total)												
Total Hazard Index Across All Exposure Routes/Pathways													3E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.3.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: River/Stream
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	1.6E+01	Wg/L	1.6E+01	Wg/L	M	3.6E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-03
	Lead												
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	3.2E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	1.2E-02
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	2.3E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	1.1E-04
	(Total)												1.3E-02
Total Hazard Index Across All Exposure Routes/Pathways													1E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.3.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	4.5E+00	Wg/L	4.5E+00	Wg/L	M	3.9E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.3E-04
	Lead												
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	1.2E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	4.3E-03
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	4.1E-05
	(Total)												4.5E-03
Total Hazard Index Across All Exposure Routes/Pathways													5E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.4.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	1.6E+01	Wg/L	1.6E+01	Wg/L	M	8.4E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.8E-03
	Lead												
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	7.4E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	2.7E-02
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	5.3E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	2.5E-04
	(Total)												3.0E-02
Total Hazard Index Across All Exposure Routes/Pathways													3E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.4.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: River/Stream
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	4.5E+00	Wg/L	4.5E+00	Wg/L	M	8.9E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.0E-04
	Lead												
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	2.8E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	9.9E-03
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	9.4E-05
	(Total)												1.0E-02
Total Hazard Index Across All Exposure Routes/Pathways													1E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.5.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	1.9E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	6.2E-05
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	3.0E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	1.1E-03
	Lead												
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	7.5E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	3.6E-05
	(Total)												1.2E-03
Total Hazard Index Across All Exposure Routes/Pathways													1E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.5.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Wetland
 Receptor Population: 1-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	9.3E-09	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.1E-05
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	1.5E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	5.4E-04
	Lead												
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	3.8E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	1.8E-05
	(Total)												5.9E-04
Total Hazard Index Across All Exposure Routes/Pathways													6E-04

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.6.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Wetland
 Receptor Population: 1-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	4.3E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.4E-04
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	6.9E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	2.5E-03
	Lead												
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	1.7E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	8.2E-05
	(Total)												2.7E-03
Total Hazard Index Across All Exposure Routes/Pathways													3E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.6.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Wetland
 Receptor Population: 1-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	2.1E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.1E-05
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	3.5E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	1.2E-03
	Lead												
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	4.1E-05
	(Total)												1.3E-03
Total Hazard Index Across All Exposure Routes/Pathways													1E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.7.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Wetland
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	7.4E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.5E-04
	Lead												
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	1.2E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	4.3E-03
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	3.0E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	1.4E-04
	(Total)												4.7E-03
Total Hazard Index Across All Exposure Routes/Pathways													5E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.7.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Wetland
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	2.8E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	9.3E-05
	Lead												
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	4.5E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	1.6E-03
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	5.4E-05
	(Total)												1.8E-03
Total Hazard Index Across All Exposure Routes/Pathways													2E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.8.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Wetland
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.7E-04
	Lead												
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	2.8E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	9.9E-03
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	6.9E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	3.3E-04
	(Total)												1.1E-02
Total Hazard Index Across All Exposure Routes/Pathways													1E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.8.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Wetland
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	6.4E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.1E-04
	Lead												
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	3.7E-03
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	2.6E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	1.2E-04
	(Total)												4.0E-03
Total Hazard Index Across All Exposure Routes/Pathways													4E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.9.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Pond/Lake
 Receptor Population: Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	bis(2-Ethylhexyl)	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.2E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.1E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.0E-04
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	2.9E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	4.1E-04
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	8.8E-09	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.9E-05
	Mercury	1.2E-01	Wg/L	1.2E-01	Wg/L	M	8.8E-09	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-03
	(Total)												
Dermal	bis(2-Ethylhexyl)	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	9.7E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	7.6E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.5E-04
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	3.7E-03
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	3.2E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	1.5E-04
	Mercury	1.2E-01	Wg/L	1.2E-01	Wg/L	M	3.2E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	4.2E-03
	(Total)												4.2E-03
Total Hazard Index Across All Exposure Routes/Pathways													5E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.9.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Pond/Lake
 Receptor Population: Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	bis(2-Ethylhexyl)	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.4E-08	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	6.9E-07
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.3E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.5E-05
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.8E-06	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.6E-05
	Mercury	4.3E-02	Wg/L	4.3E-02	Wg/L	M	2.1E-10	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.0E-07
	(Total)												7.3E-05
Dermal	bis(2-Ethylhexyl)	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.2E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	6.2E-06
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	4.9E-09	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.6E-05
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	6.6E-07	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	2.4E-04
	Mercury	4.3E-02	Wg/L	4.3E-02	Wg/L	M	7.6E-11	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	3.6E-06
	(Total)												2.6E-04
Total Hazard Index Across All Exposure Routes/Pathways													3E-04

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.10.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Pond/Lake
 Receptor Population: Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	bis(2-Ethylhexyl)	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.0E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	5.1E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	9.8E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.3E-03
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	1.9E-03
	Mercury	1.2E-01	Wg/L	1.2E-01	Wg/L	M	4.1E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.4E-04
	(Total)												5.4E-03
Dermal	bis(2-Ethylhexyl)	2.8E+00	Wg/L	2.8E+00	Wg/L	M	3.3E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.7E-04
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.3E-04
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	6.3E-03
	Mercury	1.2E-01	Wg/L	1.2E-01	Wg/L	M	5.4E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	2.6E-04
	(Total)												7.1E-03
Total Hazard Index Across All Exposure Routes/Pathways													1E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.
 -- Not detected at this exposure point.
 N/A = Not Applicable
 EPC = Exposure Point Concentration
 Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.10.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Pond/Lake
 Receptor Population: Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	bis(2-Ethylhexyl)	2.8E+00	Wg/L	2.8E+00	Wg/L	M	6.5E-08	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.2E-06
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	6.3E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.1E-04
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	8.6E-06	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	1.2E-04
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	9.8E-10	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.3E-06
	Mercury												3.4E-04
	(Total)												
Dermal	bis(2-Ethylhexyl)	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.1E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.1E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	8.3E-09	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.8E-05
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.1E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	4.0E-04
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	1.3E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	6.2E-06
	Mercury												4.5E-04
	(Total)												8E-04
Total Hazard Index Across All Exposure Routes/Pathways													8E-04

(1) Medium-Specific (M) EPC selected for hazard calculation.
 -- Not detected at this exposure point.
 N/A = Not Applicable
 EPC = Exposure Point Concentration
 Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.11.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	4.1E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	2.1E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.6E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.3E-05
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	2.2E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	7.8E-04
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	6.7E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	3.2E-05
	Mercury												8.8E-04
	(Total)												9E-04
Total Hazard Index Across All Exposure Routes/Pathways													9E-04

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.11.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.1E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.0E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	8.0E-09	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.7E-05
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.1E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	3.9E-04
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	1.2E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	5.9E-06
	Mercury												4.3E-04
	(Total)												4.3E-04
Total Hazard Index Across All Exposure Routes/Pathways													4E-04

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.12.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	9.4E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.7E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	3.7E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-04
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	5.0E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	1.8E-03
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	7.3E-05
	Mercury												2.0E-03
	(Total)												2.0E-03
Total Hazard Index Across All Exposure Routes/Pathways													2E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.12.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	4.7E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	2.4E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.8E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	6.1E-05
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	2.5E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	8.9E-04
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	2.9E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	1.4E-05
	Mercury												9.9E-04
	(Total)												9.9E-04
Total Hazard Index Across All Exposure Routes/Pathways													1E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.13.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	8.2E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	6.4E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.1E-04
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	8.7E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	3.1E-03
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	2.7E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	1.3E-04
	Mercury												3.5E-03
	(Total)												4E-03
Total Hazard Index Across All Exposure Routes/Pathways													4E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.13.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	6.2E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.1E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.4E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	8.0E-05
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	3.3E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	1.2E-03
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	3.7E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	1.8E-05
	Mercury												1.3E-03
	(Total)												1.3E-03
Total Hazard Index Across All Exposure Routes/Pathways													1E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.14.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	3.8E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.9E-04
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.5E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.9E-04
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	2.0E-05	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	7.1E-03
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	6.1E-09	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	2.9E-04
	Mercury												8.1E-03
	(Total)												8E-03
Total Hazard Index Across All Exposure Routes/Pathways													8E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.14.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.4E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	7.1E-05
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	5.5E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.8E-04
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	7.5E-06	mg/kg-day	2.8E-03	mg/kg-day	N/A	N/A	2.7E-03
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	N/A	N/A	4.1E-05
	Mercury												3.0E-03
	(Total)												3.0E-03
Total Hazard Index Across All Exposure Routes/Pathways													3E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.15.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	6.6E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.2E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	9.2E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	8.2E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.4E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.5E-08	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.2E-06
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	1.3E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	3.1E-04
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.5E-03
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	2.3E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.3E-04
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	1.8E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	6.0E-03
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	1.1E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	3.8E-04
	Lead												
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	7.0E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	1.0E-03
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	8.2E-05
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	1.7E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.7E-03
		(Total)											
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	6.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.4E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	9.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	8.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.9E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.8E-08	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.4E-06
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	3.2E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.1E-03
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.9E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.9E-03
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													2E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.15.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: River/Stream
 Receptor Population: 1-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	3.3E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.6E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	4.6E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	4.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	7.2E-09	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.2E-08	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	2.1E-06
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	6.3E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.6E-04
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	6.7E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.2E-03
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.2E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.2E-04
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	9.0E-06	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	3.0E-03
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	5.7E-06	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.9E-04
	Lead												
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	3.5E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	5.0E-04
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	1.2E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.1E-05
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	8.7E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	8.7E-04
		(Total)											
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	6.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.4E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	9.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	8.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.9E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.8E-08	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.4E-06
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	3.2E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.1E-03
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.9E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.9E-03
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													1E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.16.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	6.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	8.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	7.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.9E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.0E-05
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	1.2E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	2.9E-03
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.2E-02
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	2.2E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.2E-03
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	1.7E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	5.6E-02
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	1.1E-04	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	3.6E-03
	Lead												
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	6.5E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	9.3E-03
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	2.3E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.7E-04
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.6E-02
		(Total)											
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	6.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	9.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	8.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.6E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.3E-05
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.1E-02
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.8E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.8E-02
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													2E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.16.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: River/Stream
 Receptor Population: 1-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	3.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	4.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	6.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.0E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	2.0E-05
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	5.9E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.5E-03
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	6.3E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.1E-02
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.1E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.1E-03
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	8.4E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.8E-02
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	5.3E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.8E-03
	Lead												
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	3.3E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	4.7E-03
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.8E-04
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	8.1E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	8.1E-03
		(Total)											
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	6.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	9.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	8.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.6E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.3E-05
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.1E-02
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.8E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.8E-02
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													1E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.17.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: River/Stream
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.4E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.7E-05
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	5.0E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.3E-03
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	5.4E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.8E-02
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	9.3E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	9.3E-04
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	7.2E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.4E-02
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	4.6E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.5E-03
	Lead												
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	2.8E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	4.0E-03
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	9.8E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.3E-04
Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	7.0E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	7.0E-03	
	(Total)												5.7E-02
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	6.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.5E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.8E-05
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.3E-03
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	7.4E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	7.4E-03
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													7E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.17.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: River/Stream
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	9.9E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.2E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	8.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	6.3E-06
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	1.9E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	4.7E-04
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	6.7E-03
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	3.5E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	3.5E-04
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.7E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	9.0E-03
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	1.7E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	5.7E-04
	Lead												
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	1.5E-03
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	3.7E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-04
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.6E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.6E-03
		(Total)											
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.6E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.3E-05
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	9.7E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.2E-03
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	5.6E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	5.6E-03
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													3E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.18.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: River/Stream
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.4E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.2E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.6E-04
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	4.7E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.2E-02
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	5.0E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.7E-01
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	8.7E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	8.7E-03
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	6.7E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.2E-01
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	4.3E-04	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.4E-02
	Lead												
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	2.6E-03	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	3.7E-02
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	9.2E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.1E-03
Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	6.5E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	6.5E-02	
	(Total)												5.3E-01
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.5E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.7E-04
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.2E-02
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	7.3E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	7.3E-02
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													6E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.18.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: River/Stream
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	9.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	7.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	5.9E-05
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	1.8E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	4.4E-03
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	6.3E-02
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	3.3E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	3.3E-03
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.5E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	8.4E-02
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	1.6E-04	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	5.3E-03
	Lead												
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	9.8E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	1.4E-02
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.1E-03
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.4E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.4E-02
		(Total)											
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.8E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.6E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.3E-04
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	9.5E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.2E-02
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	5.5E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	5.5E-02
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													3E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.
 N/A = Not Applicable
 EPC = Exposure Point Concentration
 Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.19.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	4.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	4.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.1E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.1E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	6.6E-04
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	5.3E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.3E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.6E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.1E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.1E-04
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	2.1E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	7.0E-03
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	4.8E-06	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.6E-04
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.1E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	1.5E-04
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	3.6E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-04
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	5.0E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	5.0E-03
	(Total)												1.9E-02
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	4.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	5.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.4E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.3E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.2E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.5E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	7.4E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	4.0E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.3E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.8E-09	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	8.8E-04
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													2E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.
N/A = Not Applicable
EPC = Exposure Point Concentration
Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.19.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	1.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	2.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	2.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.9E-09	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.6E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	3.1E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.5E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	6.6E-09	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.3E-04
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.7E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	6.7E-05
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	8.3E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.8E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	5.5E-08	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	5.5E-05
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	1.0E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	3.5E-03
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	2.4E-06	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	7.9E-05
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	5.3E-06	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	7.6E-05
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.8E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	6.0E-05
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.5E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.5E-03
	(Total)												9.5E-03
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	4.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	5.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.4E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.3E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.2E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.5E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	7.4E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	4.0E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.3E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.8E-09	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	8.8E-04
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													1E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.
N/A = Not Applicable
EPC = Exposure Point Concentration
Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.20.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.6E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	4.4E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	4.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.7E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	2.8E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.2E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	6.2E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	5.0E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.2E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.2E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.0E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.0E-03
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	1.9E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	6.5E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	4.4E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.5E-03
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	1.4E-03
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.1E-03
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	4.7E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	4.7E-02
	(Total)												1.8E-01
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.8E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	4.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	4.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.2E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.1E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.5E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	7.3E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.9E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.3E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.6E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	8.6E-03
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													2E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.
N/A = Not Applicable
EPC = Exposure Point Concentration
Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.20.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	1.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	1.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	2.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	2.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.3E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.8E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.4E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	6.2E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.1E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.5E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	6.2E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	7.8E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.6E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	5.1E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	5.1E-04
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	9.7E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	3.2E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	2.2E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	7.4E-04
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	5.0E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	7.1E-04
Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.6E-04	
Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.3E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.3E-02	
	(Total)												8.8E-02
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.8E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	4.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	4.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.2E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.1E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.5E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	7.3E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.9E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.3E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.6E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	8.6E-03
	(Total)												2.9E-02
Total Hazard Index Across All Exposure Routes/Pathways													1E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.
N/A = Not Applicable
EPC = Exposure Point Concentration
Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.21.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	1.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	1.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.2E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.3E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.7E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.1E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	5.3E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	6.7E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.2E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	4.4E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	4.4E-04
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	8.3E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.8E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.9E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	6.3E-04
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	4.3E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	6.1E-04
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.8E-04
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.0E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.0E-02
	(Total)												7.6E-02
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	1.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	1.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	2.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	2.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.4E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.5E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.3E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.9E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.0E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.6E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.3E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.5E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	3.5E-03
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													9E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.
N/A = Not Applicable
EPC = Exposure Point Concentration
Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.21.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	4.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	3.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	7.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	7.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	9.2E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.6E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	2.0E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	1.0E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	8.0E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	2.0E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.5E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	8.3E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.7E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.7E-04
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	3.1E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.0E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	7.1E-06	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	2.4E-04
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.6E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.3E-04
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	5.4E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.8E-04
Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	7.6E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	7.6E-03	
	(Total)												2.8E-02
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	8.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	7.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	9.5E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.5E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.2E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.0E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	2.6E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	2.6E-03
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													4E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.
N/A = Not Applicable
EPC = Exposure Point Concentration
Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.22.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	1.0E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	9.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.8E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.8E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.3E-05	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.1E-03
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.0E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.5E-02
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.0E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	5.0E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	6.2E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.1E-01
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	4.1E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	4.1E-03
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	7.8E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.6E-01
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.8E-04	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	5.9E-03
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	4.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	5.7E-03
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.5E-03
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	1.9E-04	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.9E-01
	(Total)												7.1E-01
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	1.1E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	1.0E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.9E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	2.0E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.5E-05	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.2E-03
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.8E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.9E-02
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.2E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.5E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	3.5E-02
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													8E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.
N/A = Not Applicable
EPC = Exposure Point Concentration
Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.22.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	3.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	3.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	6.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	6.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.5E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.3E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.9E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	9.3E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	7.5E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.9E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.8E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.5E-03
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	2.9E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	9.7E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	6.7E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	2.2E-03
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.1E-03
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	5.1E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.7E-03
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	7.0E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	7.0E-02
	(Total)												2.6E-01
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	8.4E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	7.6E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.5E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.5E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.9E-05	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	9.3E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.4E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.2E-02
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.9E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	2.6E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	2.6E-02
		(Total)											
Total Hazard Index Across All Exposure Routes/Pathways													4E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.
N/A = Not Applicable
EPC = Exposure Point Concentration
Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.23.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.1E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.8E-04
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.1E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.5E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.5E-04
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	7.9E-06	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.6E-03
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	3.3E-06	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.1E-04
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	4.3E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	6.1E-04
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.9E-05
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	2.6E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.6E-03
	(Total)												1.1E-02
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.2E-03
		(Total)											2.4E-03
Total Hazard Index Across All Exposure Routes/Pathways													1E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.23.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: Pond/Lake
 Receptor Population: 1-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.6E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	8.9E-05
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	7.6E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.5E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	7.4E-08	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	7.4E-05
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.9E-06	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.3E-03
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.7E-06	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	5.6E-05
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	2.1E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	3.0E-04
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.9E-09	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.0E-05
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.3E-03
	(Total)												5.7E-03
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.2E-03
		(Total)											2.4E-03
Total Hazard Index Across All Exposure Routes/Pathways													8E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.24.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.6E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.7E-03
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.7E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.4E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.4E-03
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	7.4E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.5E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	3.1E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.0E-03
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	4.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	5.7E-03
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.5E-04
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	2.4E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.4E-02
	(Total)												1.1E-01
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.2E-02
		(Total)											2.3E-02
Total Hazard Index Across All Exposure Routes/Pathways													1E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.24.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: Pond/Lake
 Receptor Population: 1-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.3E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	8.3E-04
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	7.1E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.4E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	6.9E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	6.9E-04
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.7E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.2E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.6E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	5.2E-04
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	2.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.8E-03
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.3E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.8E-04
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.2E-02
	(Total)												5.3E-02
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.2E-02
		(Total)											2.3E-02
Total Hazard Index Across All Exposure Routes/Pathways													8E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.25.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: Pond/Lake
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.8E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	7.1E-04
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	6.1E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.0E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	5.9E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	5.9E-04
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.2E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.1E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.3E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	4.5E-04
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.7E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.4E-03
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.1E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.4E-04
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.0E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.0E-02
	(Total)												4.6E-02
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.9E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.7E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	4.7E-03
		(Total)											9.6E-03
Total Hazard Index Across All Exposure Routes/Pathways													6E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.25.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: Pond/Lake
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.1E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	2.7E-04
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.6E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.2E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.2E-04
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.2E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	3.9E-03
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	5.0E-06	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.7E-04
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	6.4E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	9.1E-04
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	8.9E-05
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.9E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	3.9E-03
	(Total)												1.7E-02
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.6E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	3.5E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	3.5E-03
		(Total)											7.2E-03
Total Hazard Index Across All Exposure Routes/Pathways													2E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.26.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: Pond/Lake
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.7E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	6.6E-03
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	5.7E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.9E-01
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	5.5E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	5.5E-03
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	2.9E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	9.8E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.2E-04	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	4.2E-03
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.6E-03	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.3E-02
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.6E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.2E-03
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	9.8E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	9.8E-02
	(Total)												4.3E-01
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.8E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.6E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	4.6E-02
		(Total)											9.4E-02
Total Hazard Index Across All Exposure Routes/Pathways													5E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.26.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: Pond/Lake
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.0E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	2.5E-03
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.1E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.1E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.1E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.1E-03
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.1E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	3.7E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	4.7E-05	mg/kg-day	3.0E-02	mg/kg-day	N/A	N/A	1.6E-03
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	6.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	8.5E-03
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	8.3E-04
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.7E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	3.7E-02
	(Total)												1.6E-01
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.6E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	3.5E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	3.5E-02
		(Total)											7.0E-02
Total Hazard Index Across All Exposure Routes/Pathways													2E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.27.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Fish Tissue
 Exposure Point: Fillet, Reference Locations
 Receptor Population: Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	4,4'-DDE Aroclor-1260	1.4E-02	mg/kg	1.4E-02	mg/kg	M	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	N/A
		6.3E-02	mg/kg	6.3E-02	mg/kg	M	6.0E-06	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.0E-01
	Arsenic	4.8E-02	mg/kg	4.8E-02	mg/kg	M	4.6E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.5E-02
	Chromium	7.5E-01	mg/kg	7.5E-01	mg/kg	M	7.2E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.4E-02
	Mercury	4.1E-01	mg/kg	4.1E-01	mg/kg	M	3.9E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	3.9E-01
	Selenium	5.1E-01	mg/kg	5.1E-01	mg/kg	M	4.9E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	9.8E-03
	(Total)												7.4E-01
Total Hazard Index Across All Exposure Routes/Pathways													7E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.27.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Fish Tissue
 Exposure Point: Fillet, Reference Locations
 Receptor Population: Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	4,4'-DDE	1.4E-02	mg/kg	1.4E-02	mg/kg	M	6.9E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	N/A
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	3.0E-06	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	1.5E-01
	Arsenic	4.8E-02	mg/kg	4.8E-02	mg/kg	M	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.7E-03
	Chromium	7.5E-01	mg/kg	7.5E-01	mg/kg	M	3.6E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.2E-02
	Mercury	4.1E-01	mg/kg	4.1E-01	mg/kg	M	2.0E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	2.0E-01
	Selenium	5.1E-01	mg/kg	5.1E-01	mg/kg	M	2.4E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	4.9E-03
	(Total)												3.7E-01
Total Hazard Index Across All Exposure Routes/Pathways													4E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.28.RME
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Fish Tissue
 Exposure Point: Fillet, Reference Locations
 Receptor Population: Recreational User
 Receptor Age: Older Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	4,4'-DDE Aroclor-1260	1.4E-02	mg/kg	1.4E-02	mg/kg	M	1.6E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	N/A
		6.3E-02	mg/kg	6.3E-02	mg/kg	M	6.8E-06	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.4E-01
	Arsenic	4.8E-02	mg/kg	4.8E-02	mg/kg	M	5.2E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.7E-02
	Chromium	7.5E-01	mg/kg	7.5E-01	mg/kg	M	8.1E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.7E-02
	Mercury	4.1E-01	mg/kg	4.1E-01	mg/kg	M	4.4E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	4.4E-01
	Selenium	5.1E-01	mg/kg	5.1E-01	mg/kg	M	5.5E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	1.1E-02
	(Total)												8.4E-01
Total Hazard Index Across All Exposure Routes/Pathways													8E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.28.CT
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Fish Tissue
 Exposure Point: Fillet, Reference Locations
 Receptor Population: Recreational User
 Receptor Age: Older Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	4,4'-DDE	1.4E-02	mg/kg	1.4E-02	mg/kg	M	7.8E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	N/A
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	3.4E-06	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	1.7E-01
	Arsenic	4.8E-02	mg/kg	4.8E-02	mg/kg	M	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	8.7E-03
	Chromium	7.5E-01	mg/kg	7.5E-01	mg/kg	M	4.1E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.4E-02
	Mercury	4.1E-01	mg/kg	4.1E-01	mg/kg	M	2.2E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	2.2E-01
	Selenium	5.1E-01	mg/kg	5.1E-01	mg/kg	M	2.8E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	5.5E-03
	(Total)												4.2E-01
Total Hazard Index Across All Exposure Routes/Pathways													4E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-8.1.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.6E+01	Wg/L	1.6E+01	Wg/L	M	3.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.7E-08
	Lead										
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	2.8E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	2.0E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										4.7E-08
Total Risk Across All Exposure Routes/Pathways											5E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.1.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	4.5E+00	Wg/L	4.5E+00	Wg/L	M	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-09
	Lead										
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	4.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	2.9E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.9E-09
Total Risk Across All Exposure Routes/Pathways											2E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.2.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.6E+01	Wg/L	1.6E+01	Wg/L	M	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-08
	Lead										
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	1.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	1.1E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										2.7E-08
Total Risk Across All Exposure Routes/Pathways											3E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.2.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	4.5E+00	Wg/L	4.5E+00	Wg/L	M	8.5E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-09
	Lead										
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	2.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	1.9E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.3E-09
Total Risk Across All Exposure Routes/Pathways											1E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.3.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.6E+01	Wg/L	1.6E+01	Wg/L	M	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-07
	Lead										
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	7.9E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.9E-07
Total Risk Across All Exposure Routes/Pathways											2E-07

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.3.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	4.5E+00	Wg/L	4.5E+00	Wg/L	M	3.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.8E-09
	Lead										
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	1.2E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	8.6E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										5.8E-09
Total Risk Across All Exposure Routes/Pathways											6E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.4.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.6E+01	Wg/L	1.6E+01	Wg/L	M	7.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-07
	Lead										
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	6.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	4.5E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.1E-07
Total Risk Across All Exposure Routes/Pathways											1E-07

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.4.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: River/Stream
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	4.5E+00	Wg/L	4.5E+00	Wg/L	M	2.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.8E-09
	Lead										
	Manganese	1.4E+03	Wg/L	1.4E+03	Wg/L	M	8.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	Wg/L	9.9E-02	Wg/L	M	5.6E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										3.8E-09
Total Risk Across All Exposure Routes/Pathways											4E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.5.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	6.4E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.5E-09
	Lead										
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	1.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	2.6E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										9.5E-09
Total Risk Across All Exposure Routes/Pathways											1E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.5.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	9.3E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-09
	Lead										
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	1.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	3.8E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.4E-09
Total Risk Across All Exposure Routes/Pathways											1E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.6.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	3.6E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.5E-09
	Lead										
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	5.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	1.5E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										5.5E-09
Total Risk Across All Exposure Routes/Pathways											5E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.6.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	6.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.1E-10
	Lead										
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	9.9E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	2.5E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										9.1E-10
Total Risk Across All Exposure Routes/Pathways											9E-10

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.7.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	2.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.8E-08
	Lead										
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	4.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	1.0E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										3.8E-08
Total Risk Across All Exposure Routes/Pathways											4E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.7.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	2.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.2E-09
	Lead										
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	4.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	1.1E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										4.2E-09
Total Risk Across All Exposure Routes/Pathways											4E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.8.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	1.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.2E-08
	Lead										
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	2.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	5.9E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										2.2E-08
Total Risk Across All Exposure Routes/Pathways											2E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.8.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Wetland
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	Wg/L	3.2E+00	Wg/L	M	1.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-09
	Lead										
	Manganese	5.2E+02	Wg/L	5.2E+02	Wg/L	M	3.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	Wg/L	1.3E-01	Wg/L	M	7.4E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										2.7E-09
Total Risk Across All Exposure Routes/Pathways											3E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.9.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	7.4E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.0E-09
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	7.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-07
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	9.8E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	3.0E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										1.1E-07
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	6.7E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	9.4E-09
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.9E-08
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	3.5E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	1.1E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										4.8E-08
Total Risk Across All Exposure Routes/Pathways											2E-07

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.9.CT
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.4E-09	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.9E-11
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.0E-09
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.8E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	2.1E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										2.0E-09
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.2E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.7E-10
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	4.9E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.3E-10
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	6.6E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	7.6E-12	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										9.0E-10
Total Risk Across All Exposure Routes/Pathways											3E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.10.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	8.7E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.2E-09
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	8.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-07
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	3.5E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										1.3E-07
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.9E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	4.0E-09
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.7E-08
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.5E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	4.6E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										2.1E-08
Total Risk Across All Exposure Routes/Pathways											1E-07

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.10.CT
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.9E-09	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	2.6E-11
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-09
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	2.4E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	2.8E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										2.7E-09
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	6.1E-09	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	8.6E-11
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.4E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.6E-10
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	3.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	3.7E-12	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										4.4E-10
Total Risk Across All Exposure Routes/Pathways											3E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.11.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.4E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	2.0E-09
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	5.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.2E-09
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	7.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	2.3E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										1.0E-08
Total Risk Across All Exposure Routes/Pathways											1E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.11.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.1E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	2.9E-10
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	8.0E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-09
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.1E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	1.2E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										1.5E-09
Total Risk Across All Exposure Routes/Pathways											1E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.12.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	8.1E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.1E-09
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	3.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.7E-09
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	4.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.2E-01	Wg/L	1.2E-01	Wg/L	M	1.3E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										5.8E-09
Total Risk Across All Exposure Routes/Pathways											6E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.12.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.3E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.9E-10
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	5.2E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.9E-10
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	7.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	Wg/L	4.3E-02	Wg/L	M	8.2E-12	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										9.7E-10
Total Risk Across All Exposure Routes/Pathways											1E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.13.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	5.6E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	7.9E-09
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.3E-08
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	3.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.2E-01	Wg/L	1.2E-01	Wg/L	M	9.1E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										4.1E-08
Total Risk Across All Exposure Routes/Pathways											4E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.13.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	6.2E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	8.6E-10
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	2.4E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.6E-09
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	3.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.3E-02	Wg/L	4.3E-02	Wg/L	M	3.7E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										4.5E-09
Total Risk Across All Exposure Routes/Pathways											4E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.14.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	3.2E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	4.5E-09
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-08
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	1.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	Wg/L	1.2E-01	Wg/L	M	5.2E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										2.3E-08
Total Risk Across All Exposure Routes/Pathways											2E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.14.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Surface Water
 Exposure Point: Pond/Lake
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	Wg/L	2.8E+00	Wg/L	M	4.0E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	5.7E-10
	Arsenic	2.8E+00	Wg/L	2.8E+00	Wg/L	M	1.6E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-09
	Lead	3.7E+02	Wg/L	3.7E+02	Wg/L	M	2.1E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.3E-02	Wg/L	4.3E-02	Wg/L	M	2.5E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										2.9E-09
Total Risk Across All Exposure Routes/Pathways											3E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.15.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: River/Stream
 Receptor Population: 1-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.8E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.3E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.1E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.6E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.4E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.9E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	4.3E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	4.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.9E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	8.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	6.2E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	3.9E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	2.4E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	8.4E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	6.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.9E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.4E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.1E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.7E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.5E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.7E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	6.4E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Total Risk Across All Exposure Routes/Pathways											1E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.
 N/A = Not Applicable
 EPC = Exposure Point Concentration
 Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.15.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: River/Stream
 Receptor Population: 1-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.4E-09
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.6E-08
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	4.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.4E-09
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	4.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.0E-10
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	7.2E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.3E-09
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-09
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.2E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	6.3E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	6.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.0E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	9.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	5.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	3.5E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	1.2E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	8.7E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	6.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.0E-09
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.4E-08
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	9.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.0E-09
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	8.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.2E-10
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.1E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.3E-09
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.8E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	3.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.8E-08
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.9E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Total Risk Across All Exposure Routes/Pathways											3E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.
 N/A = Not Applicable
 EPC = Exposure Point Concentration
 Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.16.RME
CALCULATION OF CANCER RISKS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	5.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.9E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	5.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.2E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	7.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.4E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	6.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.8E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	8.4E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	4.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.3E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	6.8E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	1.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-06
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	1.4E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	9.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	5.6E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	2.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	1.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	5.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.2E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.6E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	8.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.9E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	7.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.2E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.2E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	4.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.6E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	2.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.1E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.6E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Total Risk Across All Exposure Routes/Pathways											3E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.
N/A = Not Applicable
EPC = Exposure Point Concentration
Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.16.CT
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: River/Stream
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	8.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.4E-09
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.0E-08
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.9E-09
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	8.0E-10
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.4E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	7.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.5E-09
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	1.7E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	3.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	1.5E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	9.3E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	3.3E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	1.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.4E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.5E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.7E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.1E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.5E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	5.2E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Total Risk Across All Exposure Routes/Pathways											7E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.17.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: River/Stream
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.6E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.2E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.2E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	8.2E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.4E-07
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	7.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.7E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	1.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.8E-06
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	3.2E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.5E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	1.6E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	9.6E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	3.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	9.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.9E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.0E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.4E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.5E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	8.5E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.5E-07
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	8.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.9E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	4.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.6E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	2.5E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Total Risk Across All Exposure Routes/Pathways											6E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.
 N/A = Not Applicable
 EPC = Exposure Point Concentration
 Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.17.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: River/Stream
 Receptor Population: 4-Day Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	9.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.2E-09
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.9E-08
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.0E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	9.0E-10
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.6E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	8.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.2E-09
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.3E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	1.9E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	2.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.0E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	3.5E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	1.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	1.0E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	3.7E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.6E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.5E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.6E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.9E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.3E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.3E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.6E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	9.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	5.6E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Total Risk Across All Exposure Routes/Pathways											8E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.
 N/A = Not Applicable
 EPC = Exposure Point Concentration
 Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.18.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: River/Stream
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.5E-07
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.3E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.7E-06
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.9E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-07
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.6E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.9E-08
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.4E-07
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.3E-07
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	4.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	4.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.5E-06
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	7.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	5.8E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	3.7E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	2.2E-04	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	7.9E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	5.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-07
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.5E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.8E-06
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.3E-07
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.1E-08
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.7E-07
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.4E-07
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-06
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	6.3E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Total Risk Across All Exposure Routes/Pathways											1E-05

(1) Medium-Specific (M) EPC selected for hazard calculation.
 N/A = Not Applicable
 EPC = Exposure Point Concentration
 Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.18.CT
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: River/Stream
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.9E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.1E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.7E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.4E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.2E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	2.5E+00	mg/kg	2.5E+00	mg/kg	M	5.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	5.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.1E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	9.3E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	7.2E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	2.2E+02	mg/kg	2.2E+02	mg/kg	M	4.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	1.4E+03	mg/kg	1.4E+03	mg/kg	M	2.8E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.8E-01	mg/kg	4.8E-01	mg/kg	M	9.8E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	7.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	5.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.2E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.6E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	8.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.9E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	7.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.2E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.2E-08
	Indeno(1,2,3-cd)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	4.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.6E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	2.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.1E-07
	Cadmium	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.6E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Total Risk Across All Exposure Routes/Pathways											2E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.19.RME
CALCULATION OF CANCER RISKS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	9.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.9E-08
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	8.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.2E-07
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.2E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.5E-08
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.8E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.1E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.6E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	9.1E-09
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	1.8E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	5.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.6E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.8E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	7.2E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	3.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	1.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.8E-06
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	9.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.1E-08
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.5E-07
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.3E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.6E-08
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.9E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.2E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.0E-08
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.1E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.0E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.1E-06
Total Risk Across All Exposure Routes/Pathways											3E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.19.CT
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.0E-08
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.1E-08
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-08
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.8E-09
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.9E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.5E-09
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.6E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	3.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	6.6E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	6.6E-10
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.7E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	8.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	5.5E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	1.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	2.4E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	5.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.8E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										2.6E-07
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-08
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.9E-07
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	4.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.6E-08
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	5.0E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.6E-09
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.3E-08
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.4E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.3E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.5E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.5E-09
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	4.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.0E-08
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.8E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										3.3E-07
Total Risk Across All Exposure Routes/Pathways											6E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.20.RME
CALCULATION OF CANCER RISKS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.6E-07
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.0E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.5E-06
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	3.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.8E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	3.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.8E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.0E-07
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	5.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.2E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	4.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.1E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	2.1E-08
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	4.3E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.0E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.8E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	1.7E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	3.8E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	8.5E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	2.9E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	4.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										4.1E-06
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.4E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.8E-07
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.6E-06
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	4.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.0E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	4.2E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.1E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.1E-07
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.6E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.3E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	2.5E-08
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.0E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	7.4E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										2.8E-06
Total Risk Across All Exposure Routes/Pathways											7E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.20.CT
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	3.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.7E-08
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	3.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.4E-07
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	6.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.6E-08
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	6.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.7E-09
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.7E-08
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.0E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.8E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.8E-09
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	7.1E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.3E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.5E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	2.8E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	6.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	4.8E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	6.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										6.8E-07
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	8.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.8E-08
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	7.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.3E-07
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.0E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.0E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.8E-08
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.5E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.8E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.2E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	4.2E-09
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.7E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	2.5E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										9.3E-07
Total Risk Across All Exposure Routes/Pathways											2E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.21.RME
CALCULATION OF CANCER RISKS
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	3.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.8E-07
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	3.4E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.5E-06
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	6.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.8E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	6.6E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.8E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.8E-07
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.2E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.4E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.8E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	3.6E-08
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	7.3E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.4E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	2.9E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	6.5E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.5E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	5.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	6.9E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										7.0E-06
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	3.9E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.9E-07
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	3.5E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.6E-06
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	6.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.9E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	6.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.0E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.8E-07
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.4E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	2.0E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	4.1E-08
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	5.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.2E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										4.5E-06
Total Risk Across All Exposure Routes/Pathways											1E-05

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.21.CT
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	4.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.0E-08
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	3.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.7E-07
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	7.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.2E-08
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	7.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.3E-09
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.9E-08
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.8E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	9.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	2.0E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	2.0E-09
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	8.0E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.7E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.7E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	3.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	7.1E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	5.4E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	7.6E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										7.6E-07
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	8.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.2E-08
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	7.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.7E-07
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.1E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.5E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.1E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.0E-08
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.6E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.5E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	4.5E-09
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.8E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	2.6E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										9.9E-07
Total Risk Across All Exposure Routes/Pathways											2E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.22.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: Wetland
 Receptor Population: 4-Day Recreational User
 Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	8.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.4E-07
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	8.0E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.8E-06
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.5E-06	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.1E-06
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.5E-06	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.1E-07
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.2E-07
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-07
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.3E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	8.5E-08
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	1.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	5.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.0E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	6.7E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.5E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	3.4E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	1.6E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										1.6E-05
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	9.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.0E-07
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	8.7E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.4E-06
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.7E-06	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-06
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.7E-06	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.2E-07
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.5E-07
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.8E-07
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.0E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.0E-07
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.0E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.1E-05
Total Risk Across All Exposure Routes/Pathways											3E-05

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.22.CT
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Wetland
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.0E-08
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	1.0E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.3E-07
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	1.9E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.4E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	1.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.4E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.2E-08
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.4E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.3E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	5.3E-09
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	6.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.0E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	4.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	8.3E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.9E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	4.3E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										2.0E-06
Dermal	Benzo(a)anthracene	5.4E+00	mg/kg	5.4E+00	mg/kg	M	2.4E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.8E-07
	Benzo(a)pyrene	4.9E+00	mg/kg	4.9E+00	mg/kg	M	2.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.6E-06
	Benzo(b)fluoranthene	9.4E+00	mg/kg	9.4E+00	mg/kg	M	4.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.0E-07
	Benzo(k)fluoranthene	9.5E+00	mg/kg	9.5E+00	mg/kg	M	4.2E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.1E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.1E-07
	Indeno(1,2,3-cd)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.6E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.3E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.3E-08
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.0E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	7.4E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										2.8E-06
Total Risk Across All Exposure Routes/Pathways											5E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.23.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	5.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.8E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	5.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	2.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.5E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.1E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	9.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										7.8E-07
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.0E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.9E-07
Total Risk Across All Exposure Routes/Pathways											1E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.23.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.6E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	7.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	7.4E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	2.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.9E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										1.1E-07
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.5E-08
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										5.5E-08
Total Risk Across All Exposure Routes/Pathways											2E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.24.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	5.7E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.8E-06
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	6.3E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	2.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	3.4E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	2.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										1.8E-06
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.6E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	9.9E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										4.6E-07
Total Risk Across All Exposure Routes/Pathways											2E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.24.CT
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 1-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.5E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.0E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	4.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	5.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										3.0E-07
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.5E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	3.3E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.5E-07
Total Risk Across All Exposure Routes/Pathways											5E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.25.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.8E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.1E-06
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	4.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	5.8E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										3.1E-06
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	5.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.5E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.6E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										7.5E-07
Total Risk Across All Exposure Routes/Pathways											4E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.25.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.4E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.2E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	5.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	6.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										3.4E-07
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	3.5E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.6E-07
Total Risk Across All Exposure Routes/Pathways											5E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.26.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	4.9E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.3E-06
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	2.5E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.4E-04	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.7E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	8.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										7.3E-06
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.8E-06
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.8E-06
Total Risk Across All Exposure Routes/Pathways											9E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.26.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Pond/Lake
Receptor Population: 4-Day Recreational User
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.8E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	6.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.1E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	5.9E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.2E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.3E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.7E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.1E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										9.1E-07
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.6E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	9.9E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										4.6E-07
Total Risk Across All Exposure Routes/Pathways											1E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.27.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Tissue
Exposure Point: Fillet, Reference Locations
Receptor Population: Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	4,4'-DDE	1.4E-02	mg/kg	1.4E-02	mg/kg	M	4.7E-07	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	1.6E-07
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	2.1E-06	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	4.1E-06
	Arsenic	4.8E-02	mg/kg	4.8E-02	mg/kg	M	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	N/A
	Chromium	7.5E-01	mg/kg	7.5E-01	mg/kg	M	2.5E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.1E-01	mg/kg	4.1E-01	mg/kg	M	1.3E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Selenium	5.1E-01	mg/kg	5.1E-01	mg/kg	M	1.7E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										
Total Risk Across All Exposure Routes/Pathways											4E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.
 - - Not detected at this exposure point.
 N/A = Not Applicable
 EPC = Exposure Point Concentration
 Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.27.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Fish Tissue
 Exposure Point: Fillet, Reference Locations
 Receptor Population: Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	4,4'-DDE	1.4E-02	mg/kg	1.4E-02	mg/kg	M	6.9E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	2.3E-08
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	3.0E-07	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	3.0E-07
	Arsenic	4.8E-02	mg/kg	4.8E-02	mg/kg	M	2.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	N/A
	Chromium	7.5E-01	mg/kg	7.5E-01	mg/kg	M	3.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.1E-01	mg/kg	4.1E-01	mg/kg	M	2.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Selenium	5.1E-01	mg/kg	5.1E-01	mg/kg	M	2.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										
Total Risk Across All Exposure Routes/Pathways											3E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.28.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Tissue
Exposure Point: Fillet, Reference Locations
Receptor Population: Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	4,4'-DDE	1.4E-02	mg/kg	1.4E-02	mg/kg	M	1.3E-07	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	4.5E-08
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	5.8E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.2E-06
	Arsenic	4.8E-02	mg/kg	4.8E-02	mg/kg	M	4.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	N/A
	Chromium	7.5E-01	mg/kg	7.5E-01	mg/kg	M	7.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.1E-01	mg/kg	4.1E-01	mg/kg	M	3.8E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Selenium	5.1E-01	mg/kg	5.1E-01	mg/kg	M	4.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										
Total Risk Across All Exposure Routes/Pathways											1E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.28.CT
 CALCULATION OF CANCER RISKS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Medium: Surface Water
 Exposure Medium: Fish Tissue
 Exposure Point: Fillet, Reference Locations
 Receptor Population: Recreational User
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	4,4'-DDE	1.4E-02	mg/kg	1.4E-02	mg/kg	M	2.2E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	7.5E-09
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	9.7E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	9.7E-08
	Arsenic	4.8E-02	mg/kg	4.8E-02	mg/kg	M	7.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	N/A
	Chromium	7.5E-01	mg/kg	7.5E-01	mg/kg	M	1.2E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.1E-01	mg/kg	4.1E-01	mg/kg	M	6.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Selenium	5.1E-01	mg/kg	5.1E-01	mg/kg	M	7.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										
Total Risk Across All Exposure Routes/Pathways											1E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor