

US EPA ARCHIVE DOCUMENT

TABLE C.3-7.18.R10
 CALCULATION OF NON-CANCER
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

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	1.8E+00	mg/kg	1.8E+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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.9E-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	3.5E+00	mg/kg	3.5E+00	mg/kg	M	6.7E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.7E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.2E-02	
	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	3.4E+02	mg/kg	3.4E+02	mg/kg	M	6.6E-04	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	1.6E-02	
	Lead													
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	3.8E-03	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	5.4E-02	
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.8E-03	
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	6.5E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	7.2E-03	
	(Total)												5.0E-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	1.8E+00	mg/kg	1.8E+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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	3.1E-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	3.5E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	9.7E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	9.7E-02	
		(Total)												1.4E-01
	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
CALCULATION OF NON-CARCINOGENIC 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-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	1.3E-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	1.1E-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	2.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.1E-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	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	5.9E-05
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	2.5E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	6.3E-03
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.9E-03	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	6.3E-02
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	4.3E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	4.3E-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	3.4E+02	mg/kg	3.4E+02	mg/kg	M	2.5E-04	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	8.1E-03
	Lead												
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	1.4E-03	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.0E-02
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	4.3E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.4E-03
Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.4E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	2.7E-03	
	(Total)												1.6E-01
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-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	2.8E-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	2.5E-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	4.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.4E-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	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	6.1E+00	mg/kg	6.1E+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													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.Potential
CALCULATION OF NON-CANCER
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	4.9E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.6E-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	6.0E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.0E-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	6.8E-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	5.8E-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	4.0E-02	mg/kg-day	N/A	N/A	1.2E-04
	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	3.8E-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	9.0E-03	mg/kg-day	N/A	N/A	5.8E-04
(Total)													1.4E-02
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.1E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	9.0E-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	6.2E-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	1.5E-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)													3.0E-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
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	9.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	8.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	1.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.3E-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	3.0E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.5E-05
	Aroclor 1248	2.8E-01	mg/kg	2.8E-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	8.7E-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	5.9E-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	4.0E-02	mg/kg-day	N/A	N/A	5.9E-05
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	5.3E-08	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	7.8E-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	9.0E-03	mg/kg-day	N/A	N/A	2.8E-04
	(Total)												7.2E-03
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	3.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.1E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	9.0E-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	6.2E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.1E-05
	Aroclor 1248	2.8E-01	mg/kg	2.8E-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)												3.0E-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.3-7.20.1
 CALCULATION OF NON-CANCER R
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	2.9E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	4.6E-08	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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.1E-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	5.6E-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	1.6E-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	4.0E-02	mg/kg-day	N/A	N/A	1.1E-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	9.0E-03	mg/kg-day	N/A	N/A	5.2E-03	
	(Total)												1.3E-01
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.0E-08	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	1.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.8E-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	6.1E-08	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.0E-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-08	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													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
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Welland
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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	9.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	7.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.4E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.3E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.0E-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	2.8E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.4E-04
	Aroclor 1248	2.8E-01	mg/kg	2.8E-01	mg/kg	M	9.2E-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-08	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	6.1E-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	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.2E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	5.5E-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	9.0E-03	mg/kg-day	N/A	N/A	2.6E-03
	(Total)												6.7E-02
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.0E-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	1.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.6E-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	6.1E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.0E-04
	Aroclor 1248	2.8E-01	mg/kg	2.8E-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													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 HAZARD INDEX
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE 003

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	7.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.5E-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	4.0E-02	mg/kg-day	N/A	N/A	4.8E-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	9.0E-03	mg/kg-day	N/A	N/A	2.2E-03
	(Total)												5.8E-02
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.6E-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	1.2E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.9E-06	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)												1.2E-02
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
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	7.3E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.3E-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	8.8E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.5E-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	4.0E-02	mg/kg-day	N/A	N/A	1.8E-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	1.6E-04
Vanadium	8.6E+01	mg/kg	8.6E+01	mg/kg	M	7.6E-06	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	8.4E-04	
	(Total)												2.2E-02
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.7E-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	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	9.3E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.8E-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)												8.9E-03
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.3-7.22.H
 CALCULATION OF NON-CANCER
 REASONABLE MAXIMUM EXPOSURE

WELLS GAH SUPERFUND SITE OUS

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.1E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.2E-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	2.2E-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	4.0E-02	mg/kg-day	N/A	N/A	4.4E-03
	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	4.6E-03
Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	1.9E-04	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	2.1E-02	
(Total)													5.4E-01
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.6E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.3E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.5E-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	2.4E-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	5.6E-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	1.8E-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	3.6E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	3.6E-02
	(Total)												
Total Hazard Index Across All Exposure Routes/Pathways													7E-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
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE 003

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.3E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.3E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	8.8E+00	mg/kg	8.8E+00	mg/kg	M	6.8E-08	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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-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	8.3E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.2E-04
	Aroclor 1248	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.8E-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	1.8E-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	8.7E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	1.7E-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	8.8E+01	mg/kg	8.8E+01	mg/kg	M	7.0E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	7.8E-03
	(Total)												2.0E-01
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	5.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.4E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.8E-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	1.8E-05	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	9.1E-04
	Aroclor 1248	2.8E-01	mg/kg	2.8E-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)												8.8E-02
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.3-7.23.R10
 CALCULATION OF NON-CANCER
 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	1.8E+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	4.0E-02	mg/kg-day	N/A	N/A	8.4E-05
	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	3.6E-01	mg/kg	3.6E-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	9.0E-03	mg/kg-day	N/A	N/A	2.6E-04
	(Total)												9.1E-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													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.1
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	1.8E+02	mg/kg	1.8E+02	mg/kg	M	3.9E-08	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	4.0E-02	mg/kg-day	N/A	N/A	4.2E-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	8.0E-03	mg/kg-day	N/A	N/A	1.5E-04
	(Total)												4.5E-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-06	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													7E-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 HAZARD INDEX
 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	2.6E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	3.1E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	7.8E-04
	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	9.0E-03	mg/kg-day	N/A	N/A	2.7E-03	
	(Total)												8.6E-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													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
 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	4.0E-02	mg/kg-day	N/A	N/A	3.9E-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	9.0E-03	mg/kg-day	N/A	N/A	1.4E-03
	(Total)												4.2E-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													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.3-7.25.RME
 CALCULATION OF NON-CANCER HAZARD INDEX
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUI3

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	4.0E-02	mg/kg-day	N/A	N/A	3.3E-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-06	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	9.0E-03	mg/kg-day	N/A	N/A	1.2E-03
	(Total)												3.8E-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													5E-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
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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-06	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	4.0E-02	mg/kg-day	N/A	N/A	1.3E-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	9.0E-03	mg/kg-day	N/A	N/A	4.4E-04	
	(Total)												1.4E-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.RM
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

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	5.6E-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	4.0E-02	mg/kg-day	N/A	N/A	3.1E-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	9.0E-03	mg/kg-day	N/A	N/A	1.1E-02
	(Total)												3.4E-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													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
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	4.0E-02	mg/kg-day	N/A	N/A	1.2E-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	9.0E-03	mg/kg-day	N/A	N/A	4.1E-03
	(Total)												1.3E-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
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

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	3.2E-03	mg/kg	3.2E-03	mg/kg	M	3.0E-07	mg/kg-day	N/A	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
	Mercury Selenium (Total)	5.3E-01	mg/kg	5.3E-01	mg/kg	M	5.1E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	5.1E-01
		6.4E-01	mg/kg	6.4E-01	mg/kg	M	6.2E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	1.2E-02
	Total Hazard Index Across All Exposure Routes/Pathways												8.2E-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
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	3.2E-03	mg/kg	3.2E-03	mg/kg	M	1.5E-07	mg/kg-day	N/A	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
	Mercury	5.3E-01	mg/kg	5.3E-01	mg/kg	M	2.6E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	2.6E-01
	Selenium	6.4E-01	mg/kg	6.4E-01	mg/kg	M	3.1E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	6.2E-03
	(Total)												4.1E-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
 CALCULATION OF NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE 003

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	3.2E-03	mg/kg	3.2E-03	mg/kg	M	3.4E-07	mg/kg-day	N/A	mg/kg-day	N/A	N/A	N/A
	Arochlor-1260	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
	Mercury	5.3E-01	mg/kg	5.3E-01	mg/kg	M	5.8E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	5.8E-01
	Selenium	6.4E-01	mg/kg	6.4E-01	mg/kg	M	7.0E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	1.4E-02
	(Total)												9.3E-01
Total Hazard Index Across All Exposure Routes/Pathways													9E-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
 CALCULATION OF NON-CANCER HAZARDS
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE 013

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	3.2E-03	mg/kg	3.2E-03	mg/kg	M	1.7E-07	mg/kg-day	N/A	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
	Mercury	5.3E-01	mg/kg	5.3E-01	mg/kg	M	2.9E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	2.9E-01
	Selenium	6.4E-01	mg/kg	6.4E-01	mg/kg	M	3.5E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	7.0E-03
	(Total)												4.7E-01
Total Hazard Index Across All Exposure Routes/Pathways													5E-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	1.2E+01	µg/L	1.2E+01	µg/L	M	2.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.6E-08
	Lead										
	Manganese	1.4E+03	µg/L	1.4E+03	µg/L	M	2.8E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	µg/L	9.9E-02	µg/L	M	2.0E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										3.6E-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.3-8.1.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	1.2E+01	µg/L	1.2E+01	µg/L	M	3.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.3E-09
	Lead	1.4E+03	µg/L	1.4E+03	µg/L	M	4.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	9.9E-02	µg/L	9.9E-02	µg/L	M	2.9E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										5.3E-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.3-8.2.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	1.2E+01	µg/L	1.2E+01	µg/L	M	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.1E-08
	Lead										
	Manganese	1.4E+03	µg/L	1.4E+03	µg/L	M	1.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	µg/L	9.9E-02	µg/L	M	1.1E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										2.1E-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.3-8.2.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	1.2E+01	µg/L	1.2E+01	µg/L	M	2.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.5E-09
	Lead										
	Manganese	1.4E+03	µg/L	1.4E+03	µg/L	M	2.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	µg/L	9.9E-02	µg/L	M	1.9E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										3.5E-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.3-8.3.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	1.2E+01	µg/L	1.2E+01	µg/L	M	9.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.5E-07
	Lead	1.4E+03	µg/L	1.4E+03	µg/L	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	9.9E-02	µg/L	9.9E-02	µg/L	M	7.9E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										1.5E-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.3-8.3.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	1.2E+01	µg/L	1.2E+01	µg/L	M	1.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-08
	Lead	1.4E+03	µg/L	1.4E+03	µg/L	M	1.2E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	9.9E-02	µg/L	9.9E-02	µg/L	M	8.6E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										1.6E-08
	(Total)										1.6E-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.3-8.4.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	1.2E+01	µg/L	1.2E+01	µg/L	M	5.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.3E-08
	Lead	1.4E+03	µg/L	1.4E+03	µg/L	M	6.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	9.9E-02	µg/L	9.9E-02	µg/L	M	4.5E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										8.3E-08
Total Risk Across All Exposure Routes/Pathways											8E-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.3-8.4.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	1.2E+01	µg/L	1.2E+01	µg/L	M	6.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.0E-08
	Lead	-	-	-	-	-	-	-	-	-	-
	Manganese	1.4E+03	µg/L	1.4E+03	µg/L	M	8.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	9.9E-02	µg/L	9.9E-02	µg/L	M	5.6E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(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.3-8.5.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	µg/L	3.2E+00	µg/L	M	6.4E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.5E-09
	Lead										
	Manganese	5.2E+02	µg/L	5.2E+02	µg/L	M	1.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	µg/L	1.3E-01	µg/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	µg/L	3.2E+00	µg/L	M	9.3E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-09
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	1.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	3.8E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										1.4E-09
	(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.3-3.6.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	µg/L	3.2E+00	µg/L	M	3.6E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.5E-09
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	5.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	1.5E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(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	µg/L	3.2E+00	µg/L	M	6.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.1E-10
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	9.9E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	2.5E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										9.1E-10
	(Total)										9E-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	µg/L	3.2E+00	µg/L	M	2.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.8E-08
	Lead										
	Manganese	5.2E+02	µg/L	5.2E+02	µg/L	M	4.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	µg/L	1.3E-01	µg/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	µg/L	3.2E+00	µg/L	M	2.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.2E-09
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	4.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	1.1E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										4.2E-09
	(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	µg/L	3.2E+00	µg/L	M	1.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.2E-08
	Lead										N/A
	Manganese	5.2E+02	µg/L	5.2E+02	µg/L	M	2.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.3E-01	µg/L	1.3E-01	µg/L	M	5.9E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	2.2E-08
	(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 OUS

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	µg/L	3.2E+00	µg/L	M	1.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-09
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	3.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	7.4E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(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.3-3.9.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframes: 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	µg/L	2.8E+00	µg/L	M	7.4E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.0E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	7.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-07
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	9.8E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	3.0E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	6.7E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	9.4E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	2.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.9E-08
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	3.5E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	1.1E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										
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	µg/L	2.8E+00	µg/L	M	1.4E-09	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.9E-11
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.0E-09
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	1.8E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.3E-02	µg/L	4.3E-02	µg/L	M	2.1E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										2.0E-09
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	1.2E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.7E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	4.9E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.3E-10
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	6.6E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.3E-02	µg/L	4.3E-02	µg/L	M	7.6E-12	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(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	µg/L	2.8E+00	µg/L	M	8.7E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.2E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	8.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-07
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	µg/L	1.2E-01	µg/L	M	3.5E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.3E-07
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	2.9E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	4.0E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.7E-08
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	1.5E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	µg/L	1.2E-01	µg/L	M	4.6E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(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 OUS

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	µg/L	2.8E+00	µg/L	M	1.9E-09	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	2.6E-11
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-09
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	2.4E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/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	µg/L	2.8E+00	µg/L	M	6.1E-09	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	8.6E-11
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	2.4E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.6E-10
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	3.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/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	µg/L	2.8E+00	µg/L	M	1.4E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	2.0E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	5.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.2E-09
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	7.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	2.3E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(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	µg/L	2.8E+00	µg/L	M	2.1E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	2.9E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	8.0E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-09
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	1.1E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.3E-02	µg/L	4.3E-02	µg/L	M	1.2E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(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	µg/L	2.8E+00	µg/L	M	8.1E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.1E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	3.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.7E-09
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	4.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	µg/L	1.2E-01	µg/L	M	1.3E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(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	µg/L	2.8E+00	µg/L	M	1.3E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	1.9E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	5.2E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.9E-10
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	7.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	4.3E-02	µg/L	4.3E-02	µg/L	M	8.2E-12	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(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	µg/L	2.8E+00	µg/L	M	5.6E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	7.9E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	2.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.3E-08
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	3.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	µg/L	1.2E-01	µg/L	M	9.1E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(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	µg/L	2.8E+00	µg/L	M	6.2E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	8.6E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	2.4E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.6E-09
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	3.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/L	M	3.7E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(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	µg/L	2.8E+00	µg/L	M	3.2E-07	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	4.5E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-08
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	1.7E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	1.2E-01	µg/L	1.2E-01	µg/L	M	5.2E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(Total)										
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	µg/L	2.8E+00	µg/L	M	4.0E-08	mg/kg-day	1.4E-02	(mg/kg-day) ⁻¹	5.7E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.6E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-09
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	2.1E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/L	M	2.5E-11	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury										
	(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 R
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE Q03

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	1.6E+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	1.8E+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	4.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.6E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.9E-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	3.5E+00	mg/kg	3.5E+00	mg/kg	M	6.1E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	1.1E-07	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	3.4E+02	mg/kg	3.4E+02	mg/kg	M	6.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead								N/A	(mg/kg-day) ⁻¹	N/A
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	3.5E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	1.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	8.5E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									4.5E-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.3-8.15.C1
 CALCULATION OF CANCER RISK
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	3.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.8E-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	3.5E+00	mg/kg	3.5E+00	mg/kg	M	8.9E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	1.6E-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	3.4E+02	mg/kg	3.4E+02	mg/kg	M	8.8E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	5.0E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	1.5E-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)										1.4E-07
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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	8.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.8E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	2.5E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										1.3E-07
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.3-8.18.RME
 CALCULATION OF CANCER RISKS
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE 003

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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	6.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.5E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.8E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	1.4E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	2.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	1.4E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	1.4E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	8.1E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	6.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.9E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	2.1E-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.C
 CALCULATION OF CANCER RISK
 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	9.8E-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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.5E-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	3.6E+00	mg/kg	3.5E+00	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.8E+01	mg/kg	2.8E+01	mg/kg	M	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	4.1E-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-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	2.3E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	1.3E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	4.1E-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-09
	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	1.6E+00	mg/kg	1.5E+00	mg/kg	M	2.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.6E-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	2.8E+01	mg/kg	2.6E+01	mg/kg	M	6.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	7.0E-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 OUS

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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.7E-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	3.5E+00	mg/kg	3.5E+00	mg/kg	M	2.5E-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-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.8E-08
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	4.3E-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	3.4E+02	mg/kg	3.4E+02	mg/kg	M	2.4E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	1.4E-04	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	4.2E-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-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										3.9E-06
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	8.6E-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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.0E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	3.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
		(Total)									
Total Risk Across All Exposure Routes/Pathways											8E-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.C1
CALCULATION OF CANCER RISK
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.4E-09
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.3E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	2.7E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	2.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.0E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	4.7E-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	3.4E+02	mg/kg	3.4E+02	mg/kg	M	2.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	1.5E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	4.6E-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)										4.2E-07
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-06	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-06	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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.4E-06	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.6E-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	6.1E+00	mg/kg	6.1E+00	mg/kg	M	7.4E-08	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.R
 CALCULATION OF CANCER RISK
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

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	1.8E+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	4.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.4E-07
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.8E-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	3.5E+00	mg/kg	3.5E+00	mg/kg	M	5.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	4.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.5E-06
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	9.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	5.7E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	5.6E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	3.2E-04	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	9.8E-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-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										9.0E-06
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	1.8E+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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-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	1.6E+00	(mg/kg-day) ⁻¹	1.8E-06
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	8.3E-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.C
CALCULATION OF CANCER
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.3E-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	3.5E+00	mg/kg	3.5E+00	mg/kg	M	7.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Arsenic	2.8E+01	mg/kg	2.8E+01	mg/kg	M	5.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.1E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	7.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	7.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	4.0E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	1.2E-08	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)										1.1E-06
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	1.5E+00	mg/kg	1.5E+00	mg/kg	M	8.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.9E-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	2.8E+01	mg/kg	2.8E+01	mg/kg	M	2.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.1E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	2.1E-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 RISK
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: Welland
 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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.9E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.1E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.7E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.5E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.2E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.0E-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)										1.5E-08
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.0E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.2E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.0E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.6E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.2E-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	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-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										8.6E-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.3-8.19.CT
 CALCULATION OF CANCER RISK
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	9.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.1E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	8.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.9E-08
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.1E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.2E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	3.0E-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
	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-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.5E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.2E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.3E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.7E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	9.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.6E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.2E-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	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)											2.5E-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.3-8.20.R1
 CALCULATION OF CANCER RISK
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.1E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.3E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.5E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	2.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.8E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	3.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.9E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	6.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.1E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	4.8E-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	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-08	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-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										3.4E-06
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.0E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	4.3E-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	1.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.1E-07
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.5E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.2E-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	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)										2.1E-08
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.3-8.20
CALCULATION OF CANCER RISK
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.9E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.6E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.0E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	6.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.8E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.4E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	7.9E-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-08	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)										5.7E-07
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	5.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.1E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	4.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.4E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.5E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.6E-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	1.7E-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	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)									
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.3-8.21.RME
 CALCULATION OF CANCER
 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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ¹	1.0E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ¹	1.6E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ¹	3.1E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	6.7E-07	mg/kg-day	7.3E-02	(mg/kg-day) ¹	4.9E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ¹	8.7E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.2E-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	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-08	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-08	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	9.0E+01	mg/kg	9.0E+01	mg/kg	M	6.9E-08	mg/kg-day	N/A	(mg/kg-day) ¹	N/A
	(Total)										5.9E-06
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ¹	2.0E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.3E-07	mg/kg-day	7.3E+00	(mg/kg-day) ¹	1.7E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.4E-07	mg/kg-day	7.3E-01	(mg/kg-day) ¹	3.2E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	6.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) ¹	5.1E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ¹	9.0E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.5E-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)										3.4E-06
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.3-8.21.01
CALCULATION OF CANCER RISKS
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUG

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.8E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.4E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	7.3E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.5E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.9E-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)										6.4E-07
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.4E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.7E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.0E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-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)										7.4E-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.3-8.22.R111
 CALCULATION OF CANCER RISK
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OJ3

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.5E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.8E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.2E-07
	Benzo(k)fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.8E-06	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.1E-07
	Dibenz(a,h)anthracene	3.6E-01	mg/kg	3.6E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-07
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.9E-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-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.5E-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	3.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	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	1.8E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	
	(Total)										1.4E-05
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.0E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.7E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.1E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.1E-06	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.8E-07
	Benzo(k)fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.7E-06	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.2E-07
	Dibenz(a,h)anthracene	3.6E-01	mg/kg	3.6E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.2E-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-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	(Total)										8.3E-06
Total Risk Across All Exposure Routes/Pathways											2E-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.C
 CALCULATION OF CANCER RISK
 CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUG

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	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.7E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.7E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.0E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.0E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.4E-08
	Dibenz(a,h)anthracene	3.6E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.5E-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-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A
	Lead										N/A
	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)										1.7E-06
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.0E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	4.3E-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	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.5E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.2E-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	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)										2.1E-06
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.3-8.23.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	
	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	
	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	8.1E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
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	1.1E-07 N/A N/A N/A N/A N/A N/A 1.1E-07
	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	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	7.4E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	2.1E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.9E-10	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	(Total)										
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	1.8E-06 N/A N/A N/A N/A N/A N/A 1.8E-06
	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	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	6.3E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	2.7E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Lead								N/A	(mg/kg-day) ⁻¹	
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	3.4E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	2.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹		
	(Total)										
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 OUS

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	3.0E-07
	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	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.0E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.1E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	4.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	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	
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.5E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	(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	3.1E-06
	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	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	4.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	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	
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.6E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	(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	3.4E-07
	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	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.2E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.2E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	5.0E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	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	
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.9E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹		
	(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	7.3E-06
	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	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.7E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Chromium	1.8E+02	mg/kg	1.8E+02	mg/kg	M	2.5E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
	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	
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.7E-08	mg/kg-day	N/A	(mg/kg-day) ⁻¹	
Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	8.4E-06	mg/kg-day	N/A	(mg/kg-day) ⁻¹		
	(Total)										N/A
											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 0U3

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	9.1E-07
	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	N/A
	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										N/A
	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	9.1E-07
	(Total)										
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