

Table 5-9
Human Health Risk Screening Evaluation for Contaminants in Surface Water Samples - WS-001

Bellows OU1 EE/CA, Bellows AFS, Hawaii

Chemical Name	Chemical Class	Concentration in Surface Water (mg/L)	Kp (cm/hour)	Chemical Intake (mg/kg-day)				Oral RfD (mg/kg-day)	Oral SF (kg-day/mg)	Ingestion HQ	Dermal HQ	Ingestion ILCR	Dermal ILCR	Chemical-specific HI	% Contribution	Chemical-specific ILCR	% Contribution
				Ingestion (non-carcinogen exposure)	Dermal contact (non-carcinogen exposure)	Ingestion (carcinogen exposure)	Dermal contact (carcinogen exposure)										
Heptachlor Epoxid	PEST/PCB	1.90E-04	2.63E-05	1.46E-07	2.71E-10	1.25E-08	2.32E-11	0.000013	9.1	1.12E-02	2.08E-05	1.14E-07	2.11E-10	1.12E-02	82.15	1.14E-07	100.00
d-BHC	PEST/PCB	1.50E-05	3.00E-03	1.15E-08	2.44E-09	9.85E-10	2.09E-10										
Aluminum	METALS	5.00E-02	1.00E-03	3.83E-05	2.71E-06	3.28E-06	2.32E-07	1		3.83E-05	2.71E-06			4.10E-05	0.30		
Barium	METALS	1.54E-02	1.00E-03	1.18E-05	8.34E-07	1.01E-06	7.15E-08	0.07		1.69E-04	1.19E-05			1.80E-04	1.32		
Manganese	METALS	7.41E-02	1.00E-03	5.68E-05	4.01E-06	4.86E-06	3.44E-07	0.0467		1.22E-03	8.59E-05			1.30E-03	9.53		
Nickel	METALS	8.00E-03	1.00E-03	6.13E-06	4.33E-07	5.25E-07	3.71E-08	0.02		3.06E-04	2.17E-05			3.28E-04	2.40		
Vanadium	METALS	5.00E-03	1.00E-03	3.83E-06	2.71E-07	3.28E-07	2.32E-08	0.007		5.47E-04	3.87E-05			5.86E-04	4.29		

EXPOSURE ASSUMPTIONS

Exposure Setting	Recreational User
Exposure Case	RME
Surface Water Ingestion Rate - (L/day)	0.05
Exposed Skin Surface Area (cm ²)	1360
Dermal permeability coefficient (cm/hr)	chemical-specific
Body Weight - (kilograms)	46.5
Exposure Time (hr/day)	2.6
Number of Days/Year Exposed	260
Number of Years Exposed	6
Averaging Time - Noncancer (yrs)	6
Averaging Time - Noncancer (yrs)	70
Ingestion (Noncancer) (L/kg-day)	7.66E-04
Ingestion (Cancer) (L/kg-day)	6.57E-05
Dermal (Noncancer) (cm ² -hr/kg-day)	5.42E-02
Dermal (Cancer) (cm ² -hr/kg-day)	4.64E-03

Total Hazard Index **1.37E-02** Total Risk **1.14E-07**