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Fibers Public Supply Wells Superfund Site

Evaluation of Treated Groundwater Discharge Alternatives

July 2011

Table 1-2
April 2011 Effluent Analysis Results- Pesticides/Herbicides
Fibers Public Supply Wells Site
Guayama, Puerto Rico

Location	Freshwater		Saltwater		Human health for the		Out-1
Field Sample ID	CMC	CCC	CMC	CCC	water+	organism	20876171
Sample Date	(acute)	(chronic)	(acute)	(chronic)	organism	only	4/11/2011
Dilution Factor	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	1
Pesticides							
Aldrin	3.0 G		1.3 G		0.000049 B,C	0.000050 B,C	0.05U
alpha-BHC					0.0026 B,C	0.0049 B,C	0.05U
beta-BHC					0.0091 B,C	0.017 B,C	0.05U
delta-BHC							0.05U
gamma-BHC (Lindane)	0.95 K		0.16 G		0.98	1.8	0.05U
alpha-Chlordane	2.4 G	0.0043 G,aa	0.09 G	0.004 G,aa	0.0008 B,C	0.00081 B,C	0.05U
gamma-Chlordane	2.4 G	0.0043 G,aa	0.09 G	0.004 G,aa	0.0008 B,C	0.00081 B,C	0.05U
4,4'-DDD					0.00031 B,C	0.00031 B,C	0.1U
4,4'-DDE					0.00022 B,C	0.00022 B,C	0.1U
4,4'-DDT	1.1 G,ii	0.001 G,aa,ii	0.13 G,ii	0.001 G,aa,ii	0.00022 B,C	0.00022 B,C	0.1U
Dieldrin	0.24 K	0.056 K, O	0.71 G	0.0019 G,aa	0.000052 B,C	0.000054 B,C	0.1U
Endosulfan I	0.22 G,Y	0.056 G,Y	0.034 G,Y	0.0087 G,Y	62 B	89 B	0.05U
Endosulfan II	0.22 G,Y	0.056 G,Y	0.034 G,Y	0.0087 G,Y	62 B	89 B	0.1U
Endosulfan sulfate					62 B	89 B	0.1U
Endrin	0.086 K	0.036 K,O	0.037 G	0.0023 G,aa	0.059	0.06	0.1U
Endrin aldehyde					0.29 B	0.30 B,H	0.1U
Endrin ketone							0.1U
Heptachlor	0.52 G	0.0038 G,aa	0.053 G	0.0036 G,aa	0.000079 B,C	0.000079 B,C	0.05U
Heptachlor epoxide	0.52 G,V	0.0038 G,V,aa	0.053 G,V	0.0036 G,V,aa	0.000039 B,C	0.000039 B,C	0.05U
Methoxychlor		0.03 F		0.03 F		100 A,C	0.5U
Toxaphene	0.73	0.0002 aa	0.21	0.0002 aa	0.00028 B,C	0.00028 B,C	2U
Bolstar							1U
Chlorpyrifos	0.083 G	0.041 G	0.011 G	0.0056 G			1U
Coumaphos							1U
Demeton		0.1 F		0.1 F			2U
Diazinon	0.17	0.17	0.82	0.82			1U
Dichlorvos							1U
Disulfoton							2U
EPN (ENT)							1U
Ethoprop							1U
Famphur							1U
Fensulfothion							1U
Fenthion							1U
Malathion		0.1 F		0.1 F			1U
Merphos							1U
Methyl Azinphos		0.01 F		0.01 F			1U
Methyl parathion							2U
Mevinphos							1U
O,O,O-Triethylphosphorothioate							1U
Parathion (Ethyl parathion)	0.065 J	0.013 J					2U
Phorate							2U
Ronnel							1U
Sulfotepp							2U
Tetrachlorovinphos							1U
Thionazin							1U
Tokuthion (Prothiofos)							2U
Trichloronate							2U
Herbicides							
2,4-D					100 A,C		2U
2,4-DB							5U
Dicamba							2U
Dichloroprop							2U
MCPA							250U
MCPP							250U
Pentachlorophenol	19 F,K	15 F,K	13 bb	7.9 bb	0.27 B,C	3.0 B,C,H	0.05U
2,4,5-T							2U
2,4,5-TP (Silvex)							2U

See last page for footnotes

Table 1-2
April 2011 Effluent Analysis Results - Metals
Fibers Public Supply Wells Site
Guayama, Puerto Rico

Location	Freshwater		Saltwater		Human health for the		Out-1
Field Sample ID	CMC (acute)	CCC (chronic)	CMC (acute)	CCC (chronic)	water+ organism	organism only	20875910
Sample Date							4/11/2011
Dilution Factor	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	1
Metals							
Antimony					5.6 B	640 B	60U
Arsenic	340 A,D,K	150 A,D,K	69 A,D, bb	36 A,D,bb	0.018 C,M,S	0.14 C,M,S	10U
Cadmium	2.0 D,E,K,bb	0.25 D,E,K,bb	40 D,bb	8.8 D,bb	Z		5U
Calcium							47000
Chromium	570 D,E,K	74 D,E,K			Z total		10U
Cobalt							10U
Copper	Freshwater criteria calculated using the BLM mm		4.8 D,cc,ff	3.1 D,cc,ff	1,300 U*		10U
Iron		1000 F			300 A		116
Lead	65 D,E,bb,gg	2.5 D,E,bb,gg	210 D,bb	8.1 D,bb			5U
Nickel	470 D,E,K	52 D,E,K	74 D,bb	8.2 D,bb	610 B	4600 B	40U
Potassium							5000U
Selenium	L,R,T	5.0 T	290 D,bb,dd	71 D,bb,dd	170 Z	4200	35U
Silver	3.2 D,E,G		1.9 D,G				10U
Sodium							41400
Vanadium							50U
Mercury							0.2U
Other Parameters							
Phosphorus				0.1 F,K			0.0774
Cyanide	22 K,Q	5.2 K,Q	1 Q,bb	1 Q,bb	140 jj	140 jj	0.01U
Nitrogen, Ammonia	FRESHWATER CRITERIA ARE pH, Temperature and Life-stage DEPENDENT — SEE DOCUMENT D SALTWATER CRITERIA ARE pH AND TEMPERATURE DEPENDENT						0.1U
Sulfide		2.0 F		2.0 F			0.02U

See last page for footnotes