Weyerhaeuser

Corporate Headquarters
Tacoma, Washington 98477
Tel (206) 924 2345

January 23, 1992

Mr. Greg Speer
Alaskan Copper and Brass
P.O. Box 3546
Seattle WA 98124

Dear Mr. Speer:

Re: Your Request of January 8, 1992 – PO #M23006

Three 96 hour static acute rainbow trout (*Oncorhynchus mykis*) bioassays were conducted on waste samples submitted to the Aquatic Toxicology Laboratory on January 8, 1992 for hazardous waste designation.

The three samples tested were:

1) M23006A - SAND BLAST BOOTH WASTE
2) M23006B - EAST PLASMA BURN TABLE
3) M23006C - WEST PLASMA BURN TABLE

The fish bioassays were completed in triplicate concentrations of 100 and 1000 ppm. Testing resulted in 100 percent fish survival in all concentrations for all samples tested. The samples are NONHAZARDOUS as defined by the WDOE bioassay criteria. The bioassay results are summarized on the Aquatic Toxicology Laboratory data sheet (enclosed).

The bioassay procedure used for these tests followed guidelines established by the Washington State Department of Ecology (WDOE 80-12, June 1991), "Static Acute Fish Toxicity Tests." This procedure was applied to your samples to determine designation under the Washington State Dangerous Waste Regulation (WAC 173-303).

Please contact me at 924-6455 if you have any questions.

Sincerely,

Steve Moon
Environmental Technician

SM:pd/207.DOC

Enclosure

WEYERHAEUSER FIFTY YEARS America's First Tree Farm

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Environmental Sciences & Technology
Aquatic Toxicology Laboratory
Data Sheet for Static Acute Fish Bioassay Toxicity Test

Sample Originator: ALASKAN COPPER & BRASS
Address:
Collector: Greg Speer
Date Sample Collected:

Beginning Date: 1/13/92 Time: 1615
Ending Date: 1/17/92 Time: 1615
Test Organism: Rainbow Trout Analyst: SM
Required Test Temperature Range: 12°C ± 1°C Test Method: DOE 80-12 6/91

Sample Reference Number/Name	Test Container No.	Conc. (mg/l)	Number of Cumulative Deaths					Dissolved Oxygen (mg/l)					pH 25 C					Temperature (C)					Total Alkalinity (mg/l as $CaCO_3$) 96		Total Hardness (mg/l as $CaCO_3$) 96		Conductivity uMHOS/cm	
			0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	~~24~~	0	~~24~~	0	24
IN 23006 B	A	100	0	0	0	0	0	10.8	8.6	8.3	8.4	8.3	7.8	7.7	7.7	8.0	7.9	12	13	13	12	12		90		76	165	
East Plasma	B	100	0	0	0	0	0	10.9	8.7	8.4	8.6	8.4	7.9	7.7	7.7	8.0	7.9	12	↓	↓	↓	↓					165	
Burn table	C	100	0	0	0	0	0	11.0	8.8	8.5	8.2	8.2	7.9	7.7	7.7	7.9	7.9	12	↓	↓	↓	↓					165	
	A	1000	0	0	0	0	0	10.9	8.8	8.5	8.2	8.2	8.0	7.8	7.7	7.9	7.9	12	13	13	12	12		100		76	166	
	B	1000	0	0	0	0	0	10.9	8.7	8.4	8.3	8.1	8.0	7.8	7.7	7.9	7.9	12	↓	↓	↓	↓					166	
	C	1000	0	0	0	0	0	11.1	8.8	8.7	8.6	8.4	8.0	7.8	7.8	7.9	7.9	12	↓	↓	↓	↓					166	
CONTROL	A		0	0	0	0	0	10.8	8.5	8.6	8.2	8.4	8.2	7.8	7.7	7.9	8.1	12	13	13	12	13		92		80	162	
	B		0	0	0	0	0	10.5	8.4	8.5	8.4	8.2	8.2	7.8	7.7	7.9	8.0	11.5	13	↓	↓	↓					164	
	C		0	0	0	0	0	10.5	8.4	8.7	8.7	8.5	8.2	7.8	7.7	7.9	8.0	11.8	13	↓	↓	↓					164	
			M	T	W	T	F																					

Sample Description(s): Dust collar sludge
Average Weight: .140g Mean Length: 38 mm Longest: 45 mm Shortest: 32 mm Ratio (long/short):
Number of organisms per chamber: 10 Test organism loading density: .140 g/L
Comments:

Data Verified By: Carl Backman Date: 1/23/92

EHW > 10/30 DW > 11/30

AKC-0014167

Weyerhaeuser

Environmental Sciences & Technology
Aquatic Toxicology Laboratory

Data Sheet for Static Acute Fish Bioassay Toxicity Test

Sample Originator: ALASKAN COPPER & BRASS
Address: BOX 3546, Seattle WA
Collector: Greg Speer
Date Sample Collected: unknown

Beginning Date: 1/13/92 Time: 1615
Ending Date: 1/17/92 Time: 1615
Test Organism: Rainbow Trout Analyst: SM
Required Test Temperature Range: 12°C ± 1°C Test Method: WDOE 80-12 6/91

Sample Reference Number/Name	Test Container No.	Conc. (mg/l)	Number of Cumulative Deaths					Dissolved Oxygen (mg/l)					pH 25 C					Temperature (C)					Total Alkalinity (mg/l as $CaCO_3$) 96		Total Hardness (mg/l as $CaCO_3$) 96		Conductivity uMHOS/cm	
			0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	~~24~~	0	~~24~~	0	24
M23006 A	A	100	0	0	0	0	0	10.4	8.3	8.5	8.7	8.6	8.3	7.9	7.8	8.1	8.0	12	13	13	12	12		96		76	169	
Sand Blast	B	100	0	0	0	0	0	10.5	8.6	8.8	8.9	8.5	8.3	7.9	7.8	8.0	7.9	12	12	13	↓	↓					169	
booth waste	C	100	0	0	0	0	0	10.3	8.6	9.0	8.5	8.7	8.1	7.7	7.8	8.0	7.9	12	12	12	↓	↓					165	
	A	1000	0	0	0	0	0	10.6	8.8	8.6	8.7	8.5	7.9	7.7	7.7	8.1	7.9	12	12	12	12	12		96		80	166	
	B	1000	0	0	0	0	0	10.8	8.8	8.4	8.9	8.5	7.9	7.7	7.7	7.9	7.9	12	12	12	↓	↓					166	
	C	1000	0	0	0	0	0	10.6	8.8	8.8	8.8	8.6	7.8	7.7	7.7	7.9	7.9	12	12	12	↓	↓					166	
CONTROL	A		0	0	0	0	0	10.4	8.5	8.6	8.2	8.4	8.2	7.8	7.7	7.9	8.1	12	13	13	12	13		92		80	162	
	B		0	0	0	0	0	10.5	8.4	8.5	8.4	8.2	8.2	7.8	7.7	7.9	8.0	11.5	13	↓	↓	↓					164	
	C		0	0	0	0	0	10.5	8.8	8.7	8.7	8.5	8.2	7.8	7.7	7.9	8.0	11.8	13	↓	↓	↓					164	
			M	T	W	T	F																					

Sample Description(s): Sand/dirt
Average Weight: 0.40 g Mean Length: 38 mm Longest: 43 mm Shortest: 32 mm Ratio (long/short):
Number of organisms per chamber: 10 Test organism loading density: .40 g/L
Comments:

Data Verified By: Carl Beckman Date: 1/23/92

EHW > 10/30 DW > 11/30

AKC-0014168

Weyerhaeuser

Environmental Sciences & Technology
Aquatic Toxicology Laboratory

Data Sheet for Static Acute Fish Bioassay Toxicity Test

Sample Originator: ALASKAN COPPER & BRASS
Address:
Collector: Greg Speer
Date Sample Collected:

Beginning Date: 1/13/92 Time: 1615
Ending Date: 1/17/92 Time: 1615
Test Organism: Rainbow Trout Analyst: SM
Required Test Temperature Range: 12°C ± 1°C Test Method: DOE 80-12 6/91

Sample Reference Number/Name	Test Container No.	Conc. (mg/l)	Number of Cumulative Deaths					Dissolved Oxygen (mg/l)					pH 25 C					Temperature (C)					Total Alkalinity (mg/l as $CaCO_3$)		Total Hardness (mg/l as $CaCO_3$)		Conductivity uMHOS/cm	
			0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	0	24	0	24
M23006 C	A	100	0	0	0	0	0	10.5	8.7	9.0	8.6	8.3	7.9	7.8	7.8	8.0	7.9	12	13	12	12	12		96		76	165	
West Plasma	B	100	0	0	0	0	0	10.7	8.7	8.9	8.6	8.5	8.0	7.8	7.8	8.0	7.9	↓	12	12	↓	12					165	
Burn table	C	100	0	0	0	0	0	10.9	8.8	8.7	8.5	8.5	8.0	7.8	7.8	7.9	7.9	↓	12	12	↓	12					165	
	A	1000	0	0	0	0	0	10.7	8.8	9.2	8.6	8.3	8.0	7.8	7.8	7.9	7.9	12	12	12	12	12		92		76	166	
	B	1000	0	0	0	0	0	10.7	8.9	9.2	8.6	8.4	8.0	7.8	7.8	7.9	7.9	↓	↓	↓	↓	12					166	
	C	1000	0	0	0	0	0	10.4	8.8	8.8	8.3	8.2	7.8	7.8	7.7	7.9	7.9	↓	↓	↓	↓	12					166	
CONTROL	A		0	0	0	0	0	10.4	8.5	8.6	8.2	8.4	8.2	7.8	7.7	7.9	8.1	12	13	13	12	13		92		80	162	
	B		0	0	0	0	0	10.5	8.4	8.5	8.4	8.2	8.2	7.8	7.7	7.9	8.0	11.5	13	↓	↓	↓					164	
	C		0	0	0	0	0	10.5	8.8	8.7	8.7	8.5	8.2	7.8	7.7	7.9	8.0	11.8	13	↓	↓	↓					164	
			M	T	W	T	F																					

Sample Description(s): Dark colored sludge
Average Weight: .40g Mean Length: 38mm Longest: 45mm Shortest: 32mm Ratio (long/short):
Number of organisms per chamber: 10 Test organism loading density: .40g/L
Comments:

Data Verified By: Carl Backman Date: 1/23/92

EHW > 10/30 DW > 11/30

AKC-0014169