I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Specific Limitations and Monitoring Requirements.

1. During the period beginning on the effective date of this permit, and lasting until the expiration date, discharges from outfalls #001 and #002 shall be limited and monitored by the permittee as specified below:

Effluent Parameter	Effluent Limitation Daily Avg. (mg/l)	Daily Max. (mg/l)	Monitoring Requirements Frequency	Sample Type
Flow	---	---	Daily	----
Total Suspended Solids (TSS)	20.0	30.0	Weekly	Grab
Arsenic	---	0.490	Monthly	Grab
Cadmium	---	0.0053	Monthly	Grab
Lead	---	0.0589	Monthly	Grab
Mercury	---	non-detectable	Monthly	Grab
Copper	---	0.0245	Monthly	Grab
Zinc	---	0.165	Monthly	Grab

(NOTE: All metals shall be analyzed as total recoverable.)

a. The pH shall not be less than 6.0 standard units, nor greater than 9.0 standard units, and shall be monitored weekly by grab samples.

b. There shall be no discharge of floating solids or visible foam in other than trace amounts.

c. Samples taken in compliance with the monitoring requirements specified above shall be taken in the effluent stream below the settling basins.

2. During the period beginning on the effective date of this permit, and lasting until the expiration date, discharges from outfall #003 is authorized. The permittee shall monitor turbidity (above and below the Bruno Creek access road stormwater settling ponds) weekly during February 1 to June 30, and monthly for the other months of the year. This monitoring shall be performed in accordance with requirements of the water quality monitoring program as required by Part I.A.3. below.

3. In addition to the above referenced effluent monitoring requirements, the permittee shall continue to provide for water quality monitoring in accordance with the program agreed upon by the U.S. Forest Service (USFS), Idaho Department of Health and Welfare - Division of Environment (IDHW-DOE) and Cyprus, and such future modifications as may be mutually agreed upon by the parties. Instream monitoring results shall be reported quarterly (in March, June, September and December) to EPA and IDHW-DOE at the address given in Part II.C. below.

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Parameter: Arsenic

Acute Wasteload Allocation (WLA,acute) = 0.72 mg/l
Chronic Wasteload Allocation (WLA,chronic) = 3.10 mg/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/month

Back calculate the long term average (LTA) that will meet the above WLAs:

	Acute	Chronic
est s	0.555	0.555
est u, 4d	NA	0.449
est u, 1d	-1.618	0.338
LTA	0.231	1.635 mg/l

Lowest LTA = 0.231 mg/l

Using the LTA and CV from above, derive the Maximum Daily and Average Monthly permit limits

	Percentile Basis 95th %'ile	99th %'ile
est s2	0.31	0.31
est u	-1.62	-1.62
Maximum Daily =	0.49	0.72 mg/l
Monthly n =	1.00	
est s2,n	0.31	0.31
est u,n	-1.62	-1.62
Monthly Average =	0.49	0.72 mg/l

Parameter: Cadmium

Acute Wasteload Allocation (WLA,acute) = 7.80 ug/l
Chronic Wasteload Allocation (WLA,chronic) = 17.98 ug/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/month

Back calculate the long term average (LTA) that will meet the above WLAs:

	Acute	Chronic
est s	0.555	0.555
est u, 4d	NA	2.206
est u, 1d	0.764	2.095
LTA	2.504	9.483 ug/l
Lowest LTA =		2.504 ug/l

Using the LTA and CV from above, derive the Maximum Daily and Average Monthly permit limits

	Percentile Basis 95th %'ile	99th %'ile
est s2	0.31	0.31
est u	0.76	0.76
Maximum Daily =	5.35	7.80 ug/l
Monthly n =	1.00	
est s2,n	0.31	0.31
est u,n	0.76	0.76
Monthly Average =	5.35	7.80 ug/l

Parameter: Lead

Acute Wasteload Allocation (WLA,acute) = 164.00 ug/l
Chronic Wasteload Allocation (WLA,chronic) = 52.32 ug/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/month

Back calculate the long term average (LTA) that will meet the above WLAs:

	Acute	Chronic	
est s	0.535	0.555	
est u, 4d	NA	3.275	
est u, 1d	3.810	3.164	
LTA	52.658	27.595	ug/l
Lowest LTA =		27.595	ug/l

Using the LTA and CV from above, derive the Maximum Daily and Average Monthly permit limits

	Percentile Basis 95th %'ile	99th %'ile	
est s2	0.31	0.31	
est u	2.16	3.16	
Maximum Daily =	58.91	85.94	ug/l
Monthly n =	1.00		
est s2,n	0.31	0.31	
est u,n	3.16	3.16	
Monthly Average =	58.91	85.94	ug/l

Parameter: Mercury

Acute Wasteload Allocation (WLA,acute) = 4.80 ug/l
Chronic Wasteload Allocation (WLA,chronic) = 0.20 ug/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/month

Back calculate the long term average (LTA) that will meet the above WLAs:

	Acute	Chronic
est s	0.555	0.555
est u, 4d	NA	-2.292
est u, 1d	0.279	-2.403
LTA	1.541	0.105 ug/l

Lowest LTA = 0.105 ug/l

Using the LTA and CV from above, derive the Maximum Daily and Average Monthly permit limits

	Percentile Basis 95th %'ile	99th %'ile
est s2	0.31	0.31
est u	-2.40	-2.40
Maximum Daily =	0.23	0.33 ug/l
Monthly n =	1.00	
est s2,n	0.31	0.31
est u,n	-2.40	-2.40
Monthly Average =	0.23	0.33 ug/l

Parameter: Copper

Acute Wasteload Allocation (WLA,acute) = 36.00 ug/l
Chronic Wasteload Allocation (WLA,chronic) = 196.20 ug/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/month

Back calculate the long term average (LTA) that will meet the above WLAs:

	Acute	Chronic
est s	0.555	0.555
est u, 4d	NA	4.596
est u, 1d	2.294	4.486
LTA	11.559	103.482 ug/l

Lowest LTA = 11.559 ug/l

Using the LTA and CV from above, derive the Maximum Daily and Average Monthly permit limits

	Percentile Basis 95th %'ile	99th %'ile
est s2	0.31	0.31
est u	2.29	2.29
Maximum Daily =	24.68	36.00 ug/l
Monthly n =	1.00	
est s2,n	0.31	0.31
est u,n	2.29	2.29
Monthly Average =	24.68	36.00 ug/l

Parameter: Zinc

Acute Wasteload Allocation (WLA,acute) = 0.24 mg/l
Chronic Wasteload Allocation (WLA,chronic) = 1.79 mg/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/month

Back calculate the long term average (LTA) that will meet the above WLAs:

	Acute	Chronic
est s	0.555	0.555
est u, 4d	NA	-0.101
est u, 1d	-2.717	-0.211
LTA	0.077	0.944 mg/l

Lowest LTA = 0.077 mg/l

Using the LTA and CV from above, derive the Maximum Daily and Average Monthly permit limits

	Percentile Basis 95th %'ile	99th %'ile
est s2	0.31	0.31
est u	-2.72	-2.72
Maximum Daily =	0.16	0.24 mg/l
Monthly n =	1.00	
est s2,n	0.31	0.31
est u,n	-2.72	-2.72
Monthly Average =	0.16	0.24 mg/l

Cyprus Mine

5/9/88

Summary Table [Compare w/ Att #7 of Fact Sheet]

Dilution Factor = $\frac{132 + 8.6}{8.6}$ = 16.35

numbers in mg/l

	CMC Acute	CCC Chronic	WLA_a	WLA_c	LTA_a	LTA_c	95% Daily Max
As	.36	.19	.72	3.10	.231	1.635	.49 (.49)
Cd	.0039	.0011	.0078	0.01798	.0025	.0094	.00535 (.0053)
Pb	.082	.0032	.164	.05232	.052	.0276	.0589 (.017)
Hg	.0024	.000012	.00048	.0002	.0015	.0001	.00022 (non-detc.)
Cu	.018	.012	.036	.1962	.0115	.103	.02468 (.0245)
Zn	.120	.11	.24	1.79	.077	.944	.16 (.165)

number in parenthesis is what was in draft permit w/ mixing zone = 25% D.F. = 4.8. Note only difference is in Pd #!!!