PERMIT ATTACHMENT C
FORESTVILLE WATER DISTRICT
WASTE DISCHARGE REQUIREMENTS ORDER NO. R1-2004-0027
FINAL COPPER EFFLUENT LIMITATIONS

Hardness-Dependent Effluent Limitations for Copper
Total Recoverable Copper (in ug/l)

	Copper Concentration Limitations			
Hardness mg/l as CaCO3	**CCC 4-Day Ave. (ug/l)**	**CMC 1-Hour Ave. (ug/l)**	**AMEL (ug/l)**	**MDEL (ug/l)**
5	0.7	0.8	0.3	0.8
10	1.3	1.6	0.6	1.6
15	1.8	2.3	0.9	2.3
20	2.4	3.1	1.2	3.1
25	2.9	3.8	1.5	3.8
30	3.3	4.5	1.8	4.5
35	3.8	5.2	2.0	5.2
40	4.3	5.9	2.3	5.9
45	4.7	6.6	2.6	6.6
50	5.2	7.3	2.9	7.3
55	5.6	8.0	3.1	8.0
60	6.0	8.7	3.4	8.6
65	6.5	9.3	3.7	9.3
70	6.9	10.0	3.9	10.0
75	7.3	10.7	4.2	10.7
80	7.7	11.3	4.4	11.3
85	8.1	12.0	4.7	12.0
90	8.5	12.7	5.0	12.7
95	8.9	13.3	5.2	13.3
100	9.3	14.0	5.5	14.0
105	9.7	14.7	5.7	14.6
110	10.1	15.3	6.0	15.3
115	10.5	16.0	6.3	15.9
120	10.9	16.6	6.5	16.6
125	11.3	17.3	6.8	17.2
130	11.7	17.9	7.0	17.9
135	12.1	18.6	7.3	18.5
140	12.4	19.2	7.5	19.2
145	12.8	19.9	7.8	19.8
150	13.2	20.5	8.0	20.5
155	13.6	21.2	8.3	21.1
160	13.9	21.8	8.5	21.8
165	14.3	22.4	8.8	22.4
170	14.7	23.1	9.0	23.0
175	15.0	23.7	9.3	23.7
180	15.4	24.4	9.5	24.3
185	15.8	25.0	9.8	24.9
190	16.1	25.6	10.0	25.6
195	16.5	26.3	10.3	26.2
200	16.9	26.9	10.5	26.8
205	17.2	27.5	10.8	27.5
210	17.6	28.2	11.0	28.1
215	17.9	28.8	11.3	28.7
220	18.3	29.4	11.5	29.4
225	18.7	30.1	11.8	30.0
230	19.0	30.7	12.0	30.6
235	19.4	31.3	12.3	31.3
240	19.7	31.9	12.5	31.9
245	20.1	32.6	12.8	32.5
250	20.4	33.2	13.0	33.1
255	20.8	33.8	13.3	33.7
260	21.1	34.4	13.5	34.4
265	21.5	35.1	13.7	35.0
270	21.8	35.7	14.0	35.6
275	22.1	36.3	14.2	36.2
280	22.5	36.9	14.5	36.9
285	22.8	37.6	14.7	37.5
290	23.2	38.2	15.0	38.1
295	23.5	38.8	15.2	38.7
300	23.9	39.4	15.5	39.3
310	24.5	40.6	15.9	40.6
320	25.2	41.9	16.4	41.8
330	25.9	43.1	16.9	43.0
340	26.5	44.3	17.4	44.3
350	27.2	45.6	17.9	45.5
360	27.9	46.8	18.3	46.7
370	28.5	48.0	18.8	47.9
380	29.2	49.2	19.3	49.1
400	30.5	51.7	20.3	51.6
>400	30.5	51.7	20.3	51.6

CV = 1.02

CCC = Criteria Continuous Concentration
$= e^{\{0.8545[\ln(hardness)] - 1.702\}}$

CMC = Criteria Maximum Concentration
$= e^{\{0.9422[\ln(hardness0] - 1.700\}}$

AMEL = Average Monthly Effluent Limitation
= 1.96[min(0.367CCC,0.200CMC)]

MDEL = Maximum Daily Effluent Limitation
= 4.99[min(0.367CCC,0.200CMC)]

Hardness – hardness of the receiving water at the time the discharge is sampled.