

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

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

Hardness mg/l as CaCO ₃	CCC 4-Day Ave. (ug/l)	CMC 1-Hour Ave. (ug/l)	AMEL (ug/l)	MDEL (ug/l)	CV=0.60
5	0.1	1.8	0.1	0.1	
10	0.2	4.4	0.1	0.3	
15	0.3	7.3	0.2	0.5	
20	0.4	10.5	0.3	0.7	
25	0.5	14.0	0.4	0.9	CCC = Criteria Continuous Concentration {0.8545[ln(hardness)] - 1.702} = e
30	0.7	17.6	0.6	1.1	
35	0.8	21.5	0.7	1.4	
40	1.0	25.4	0.8	1.6	
45	1.2	29.5	0.9	1.9	CMC = Criteria Maximum Concentration {0.9422[ln(hardness)] - 1.700} = e
50	1.3	33.8	1.1	2.2	
55	1.5	38.1	1.2	2.4	
60	1.7	42.6	1.4	2.7	
65	1.8	47.2	1.5	3.0	AMEL = Average Monthly Effluent Limitation = 1.55[min(0.527CCC,0.321CMC)]
70	2.0	51.8	1.7	3.3	
75	2.2	56.6	1.8	3.6	
80	2.4	61.5	2.0	3.9	MDEL = Maximum Daily Effluent Limitation = 3.11[min(0.527CCC,0.321CMC)]
85	2.6	66.4	2.1	4.2	
90	2.8	71.4	2.3	4.6	
95	3.0	76.5	2.4	4.9	Hardness - the hardness of the receiving water at the time the discharge is sampled.
100	3.2	81.6	2.6	5.2	
105	3.4	86.9	2.8	5.5	
110	3.6	92.2	2.9	5.9	
115	3.8	97.5	3.1	6.2	
120	4.0	103.0	3.3	6.6	
125	4.2	108.5	3.5	6.9	
130	4.4	114.0	3.6	7.3	
135	4.7	119.6	3.8	7.6	
140	4.9	125.3	4.0	8.0	
145	5.1	131.0	4.2	8.4	
150	5.3	136.8	4.4	8.7	
155	5.6	142.6	4.5	9.1	
160	5.8	148.5	4.7	9.5	
165	6.0	154.4	4.9	9.9	
170	6.3	160.4	5.1	10.2	
175	6.5	166.5	5.3	10.6	
180	6.7	172.5	5.5	11.0	
185	7.0	178.7	5.7	11.4	
190	7.2	184.8	5.9	11.8	
195	7.4	191.0	6.1	12.2	
200	7.7	197.3	6.3	12.6	
205	7.9	203.6	6.5	13.0	
210	8.2	209.9	6.7	13.4	
215	8.4	216.3	6.9	13.8	
220	8.7	222.8	7.1	14.2	
225	8.9	229.2	7.3	14.6	
230	9.2	235.7	7.5	15.1	
235	9.4	242.3	7.7	15.5	
240	9.7	248.9	7.9	15.9	
245	10.0	255.5	8.1	16.3	
250	10.2	262.1	8.3	16.7	
255	10.5	268.8	8.6	17.2	
260	10.7	275.5	8.8	17.6	
265	11.0	282.3	9.0	18.0	
270	11.3	289.1	9.2	18.5	
275	11.5	295.9	9.4	18.9	
280	11.8	302.8	9.6	19.3	
285	12.1	309.7	9.9	19.8	
290	12.3	316.6	10.1	20.2	
295	12.6	323.6	10.3	20.7	
300	12.9	330.6	10.5	21.1	
310	13.4	344.7	11.0	22.0	
320	14.0	358.9	11.4	22.9	
330	14.5	373.2	11.9	23.8	
340	15.1	387.7	12.3	24.8	
350	15.7	402.3	12.8	25.7	
360	16.2	417.0	13.3	26.6	
370	16.8	431.8	13.7	27.6	
380	17.4	446.7	14.2	28.5	
390	18.0	461.7	14.7	29.5	
400	18.6	476.8	15.2	30.5	
>400	18.6	476.8	15.2	30.5	