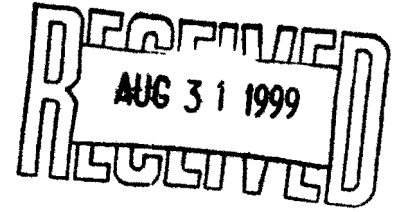


August 27, 1999



Mr. Art Riddle
NPDES Enforcement Supervisor
Water Division
Arkansas Department of Environmental Quality
P.O. Box 8913
Little Rock, AR 72219-8913

Re: Addendum to Final Report – CAO LIS 98-119

Dear Mr. Riddle:

On behalf of El Dorado Chemical Company, please find an addendum to the Final Report for the Wastewater Characterization and Water Quality Evaluation. These pages are to be inserted as replacements for the appropriate Appendix B pages. Should you have any questions, please feel free to call Byron Smith at (870) 863-1498.

Sincerely,
GBM^c & ASSOCIATES

Vince Blubaugh
Principal

cc: Belinda Colby, Enforcement Coordinator, Hazardous Waste Division
Keith Brown, Manager, State Permits, Water Division

Outfall 001 Data Summary and Comparison.

Parameter	Average	Minimum	Maximum	Number Measurements	Instream Standard (chronic)
Cadmium (mg/L)	0.003*	0.001	0.004	4	0.00043
Copper (mg/L)	0.012	0.005	0.018	4	0.00417
Lead (mg/L)	0.020*	0.003	0.025	4	0.00069
Nickel (mg/L)	0.018	0.010	0.030	4	0.05836
Selenium (mg/L)	0.027*	0.003	0.05	4	0.00500
Silver (mg/L)	0.003*	0.002	0.003	4	0.00046
Zinc (mg/L)	0.114	0.032	0.238	4	0.03874
Chromium VI (mg/L)	0.003*	0.003	0.003	4	0.01058
Mercury (µg/L)	0.0002*	0.0002	0.0002	4	0.01200
Cyanide (mg/L)	0.005*	0.005	0.005	4	0.00520
Chloride (mg/L)	60.53	41.90	72.20	4	14.0

[†] All standards for metals are chronic values.

* All analyses below detection limits, values in analysis set to MDL.

Outfall 004 Data Summary and Comparison.

Parameter	Average	Minimum	Maximum	Number Measurements	Instream Standard (chronic)
Cadmium (mg/L)	0.004	0.004	0.004	4	0.00043
Copper (mg/L)	0.003	0.002	0.004	4	0.00417
Lead (mg/L)	0.020*	0.003	0.025	4	0.00069
Nickel (mg/L)	0.029	0.020	0.040	4	0.05836
Selenium (mg/L)	0.038*	0.003	0.050	4	0.00500
Silver (mg/L)	0.003*	0.002	0.003	4	0.00046
Zinc (mg/L)	0.271	0.134	0.350	4	0.03874
Chromium VI (mg/L)	0.003*	0.003	0.003	4	0.01058
Mercury (µg/L)	0.0002*	0.0002	0.0002	4	0.01200
Cyanide (mg/L)	0.005*	0.005	0.005	4	0.00520
NO3-N (mg/L)	452.7	200.0	850.0	3	10.0
Chloride (mg/L)	19.2	4.3	53.8	4	14.0
SO4 (mg/L)	51.3	26.0	122.0	4	31.0
Acute Biomonitoring					
Fathead Minnow Tests	# Passed:	1	# Failed:	3	
<i>Daphnia pulex</i> Tests	# Passed:	1	# Failed:	3	

[†] All standards for metals are chronic values.

*All analyses below detection limits, values in analysis set to MDL.

Outfall 005 Data Summary and Comparison.

Parameter	Average	Minimum	Maximum	Number Measurements	Instream Standard (chronic)
Cadmium (mg/L)	0.002*	0.001	0.004	3	0.00043
Copper (mg/L)	0.053	0.041	0.065	3	0.00417
Lead (mg/L)	0.010*	0.003	0.025	3	0.00069
Nickel (mg/L)	0.013	0.010	0.020	3	0.05836
Selenium (mg/L)	0.019*	0.003	0.050	3	0.00500
Silver (mg/L)	0.002*	0.002	0.003	3	0.00046
Zinc (mg/L)	0.197	0.047	0.395	3	0.03874
Chromium VI (mg/L)	0.003*	0.003	0.003	3	0.01058
Mercury (mg/L)	0.0002*	0.0002	0.0002	3	0.01200
Cyanide (mg/L)	0.005	0.005	0.006	3	0.00520
NH3-N (mg/L)	9.4	5.9	12.8	3	-
NO3-N (mg/L)	6.1	0.1	12.0	2	10.0
Chloride (mg/L)	13.1	6.2	18.9	3	14.0
SO4 (mg/L)	20.3	11.0	30.0	3	31.0
Acute Bio-monitoring					
Fathead Minnow Tests	# Passed:	3	# Failed:	0	
<i>Daphnia pulex</i> Tests	# Passed:	3	# Failed:	0	

¹ All criteria for metals are chronic values. The nitrate value is the drinking water criterion. There is no water quality criterion for ammonia nitrogen promulgated in the State of Arkansas.

*All analyses below detection limits, values in analysis set to MDL.

Outfall 006 Data Summary and Comparison.

Parameter	Average	Minimum	Maximum	Number Measurements	Instream Standard (chronic ¹)
Cadmium (mg/L)	0.002	0.001	0.004	3	0.00043
Copper (mg/L)	0.183	0.012	0.379	3	0.00417
Lead (mg/L)	0.010*	0.003	0.025	3	0.00069
Nickel (mg/L)	0.031	0.014	0.060	3	0.05836
Selenium (mg/L)	0.019*	0.003	0.050	3	0.00500
Silver (mg/L)	0.002*	0.002	0.003	3	0.00046
Zinc (mg/L)	0.668	0.441	0.843	3	0.03874
Chromium VI (mg/L)	0.004	0.003	0.006	3	0.01058
Mercury (mg/L)	0.0003	0.0002	0.0006	3	0.01200
Cyanide (mg/L)	0.006	0.005	0.009	3	0.00520
NH3-N (mg/L)	168.4	72.2	326.6	3	-
NO3-N (mg/L)	324.1	122.1	526.0	2	10.0
Chloride (mg/L)	25.0	15.6	30.7	3	14.0
SO4 (mg/L)	33.3	12.0	55.0	3	31.0
Acute Biomonitoring					
Fathead Minnow Tests	# Passed:	2	# Failed:	1	
<i>Daphnia pulex</i> Tests	# Passed:	1	# Failed:	2	

¹ All criteria for metals are chronic values. The nitrate value is the drinking water criterion. There is no water quality criterion for ammonia nitrogen promulgated in the State of Arkansas.

*All analyses below detection limits, values in analysis set to MDL.

Outfall 007 Data Summary and Comparison.

Parameter	Average	Minimum	Maximum	Number Measurements	Instream Standard (chronic ¹)
Cadmium (mg/L)	0.002*	0.001	0.004	3	0.00043
Copper (mg/L)	0.007	0.002	0.012	3	0.00417
Lead (mg/L)	0.010*	0.003	0.025	3	0.00069
Nickel (mg/L)	0.011	0.010	0.012	3	0.05836
Selenium (mg/L)	0.019*	0.003	0.050	3	0.00500
Silver (mg/L)	0.002*	0.002	0.003	3	0.00046
Zinc (mg/L)	0.011	0.004	0.024	3	0.03874
Chromium VI (mg/L)	0.003*	0.003	0.003	3	0.01058
Mercury (mg/L)	0.0002*	0.0002	0.0002	3	0.01200
Cyanide (mg/L)	0.005*	0.005	0.005	3	0.00520
NH3-N (mg/L)	15.0	8.4	21.3	3	-
NO3-N (mg/L)	74.3	39.5	109.0	2	10.0
Chloride (mg/L)	23.8	12.7	30.2	3	14.0
SO4 (mg/L)	258.0	146.0	351.0	3	31.0
Acute Biomonitoring					
Fathead Minnow Tests	# Passed:	1	# Failed:	2	
<i>Daphnia pulex</i> Tests	# Passed:	1	# Failed:	2	

¹ All criteria for metals are chronic values. The nitrate value is the drinking water criterion. There is no water quality criterion for ammonia nitrogen promulgated in the State of Arkansas.

*All analyses below detection limits, values in analysis set to MDL.