

# Woodward-Clyde

# Memorandum

To: Jerry Delavan, P.G.

From: Ray A. Quick, P.G. *RAQ*

Office: Little Rock, AR

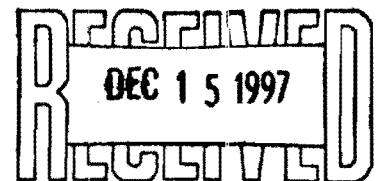
Date: December 12, 1997

Subject: October Groundwater Sampling at El Dorado Chemical Company  
WCIA File No. 97B061/13

Attached are the analytical results for the referenced sampling event. The four wells around the closed landfill and the wells listed in the risk assessment were sampled (i.e., total of eight). Also, attached is a water table map that was prepared from water table measurements obtained from all twenty-two wells located at the site. The general direction of groundwater flow remains to the southeast.

Please contact me at 223-2582 if you have any questions or comments regarding this transmittal.

cc: John Carver, LSB Industries, Inc.  
Byron Smith, El Dorado Chemical



**Table 1**  
**Groundwater Elevation Data**  
 El Dorado Chemical Company  
 October, 1997 Sampling Event

Monitoring Well Number	Well Elevation (ft. above MSL)	Depth to Groundwater (ft. from top of casing)	Groundwater Elevation (ft. above MSL)
MW-EDC-1	213.28	14.72	198.56
MW-EDC-2	196.25	0.85	195.40
MW-EDC-3	192.11	11.40	180.71
MW-EDC-4	194.84	11.36	183.48
MW-EDC-5	182.69	5.70	176.99
MW-EDC-6	191.87	5.34	186.53
MW-EDC-7	195.88	8.35	187.53
MW-EDC-8	197.34	8.66	188.68
MW-EDC-9	198.39	12.76	185.63
MW-EDC-10	205.75	15.18	190.57
MW-EDC-11	201.65	12.78	188.87
MW-EDC-12	184.97	6.40	178.57
MW-EDC-13	177.26	10.60	166.66
MW-EDC-14	178.48	16.30	162.18
MW-EDC-15	180.84	8.15	172.69
MW-EDC-16	180.14	7.75	172.39
MW-EDC-17	185.40	30.50	154.90
MW-EDC-18	155.46	8.95	146.51
MW-BA	214.53	14.50	200.03
MW-1	203.12	17.05	186.07
MW-2	197.85	12.50	185.35
MW-3	194.88	11.20	183.68

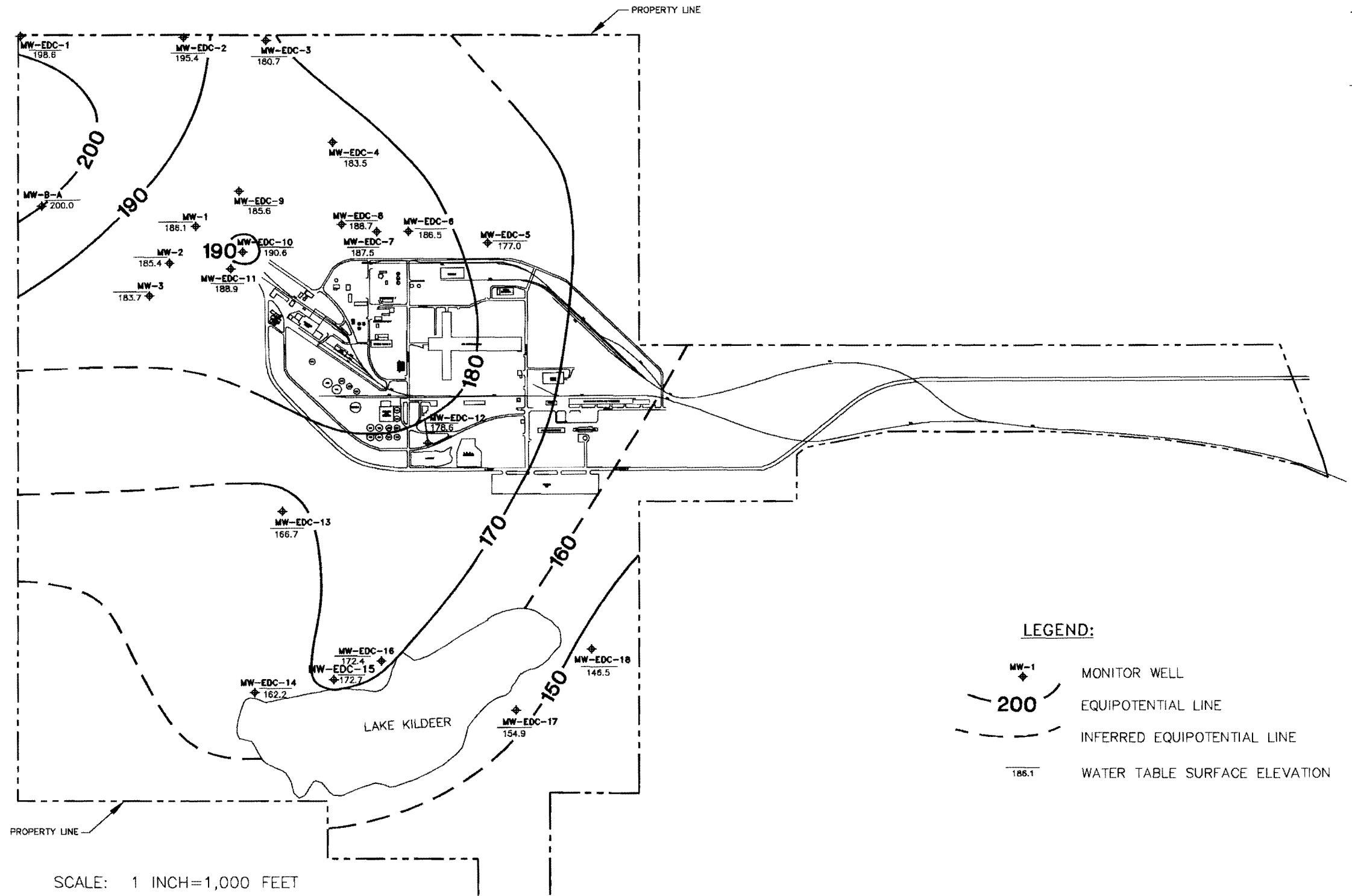
**Table 2**  
**Summary of Monitoring Well Data**  
 El Dorado Chemical Company  
 October 1997 Sampling Event

Monitoring Well	Nitrate (mg/L)	Sulfate (mg/L)	Total Chromium (ug/L)	Total Lead (ug/L)
MW-EDC-2	<0.1	18.8	5.0	3.0
MW-EDC-8	773	95.9	<5	18.0
MW-EDC-17	109	74.5	<5	4.2
MW-EDC-18	0.6	3.3	9.7	10.1
MW-BA	1.3	134	36.2	34.9
MW-1	<0.1	262	40.5	35.4
MW-2	<0.1	772	29.7	28.4
MW-3	<0.1	210	<5	<3
<b>QA/QC</b>				
MW-EDC-18 Duplicate	<0.1	3.2	11.0	11.4
Field Blank	<0.1	<0.2	<5.0	<3.0
Matrix Spike *	1.3	4.5	207	74.4
Matrix Spike Duplicate *	1.2	4.5	213	80.1

\* Matrix Spikes samples were taken at MW-EDC-18

Action Level	10	500	100	15
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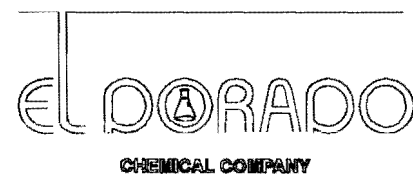
**LEGEND:**

- MW-1 MONITOR WELL
- 200 EQUIPOTENTIAL LINE
- INFERRED EQUIPOTENTIAL LINE
- 186.1 WATER TABLE SURFACE ELEVATION

SCALE: 1 INCH=1,000 FEET  
 1,000' 0 1,000'  
 CONTOUR INTERVAL = 10 FEET

NOTE: THIS DRAWING WAS CREATED USING THE FOLLOWING REFERENCES;  
 1. EL DORADO CHEMICAL CO. PLOT PLAN, DWG. NO. 7045-1.  
 2. SMITH-ROBERTS AND ASSOSSIATES TRACT LOCATION MAP (QUAD), SC31,663C DWG. NO. SHT.4.  
 3. BALL AND PAULUS SURVEYORS, INC. JOB NO. 181F-95, MONITORING WELLS.

REV	DESCRIPTION OF REVISION	BY	DATE



**Woodward-Clyde Consultants**  
 Engineering & sciences applied to the earth & its environment  
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SCALE  
 1"=1,000'  
 DESIGNED  
 DRAWN GAT  
 CHECKED DE  
 PEER REVIEWED  
 DATE 12/3/97

WATER TARIFF MAP  
 OCTOBER 1997

REVISION
PROJECT 97B061
DRAWING