

**FLORENCE COPPER INC.  
FLORENCE COPPER PROJECT  
THIRD QUARTER 2004 MONITORING REPORT  
U.I.C. PERMIT AZ396000001  
AND  
A.P.P. PERMIT 101704**

**October 28, 2004**

**MERRILL MINING, LLC**  
975 Johnson Ferry Road, Suite 450  
Atlanta, Georgia 30342  
404-495-9577 Fax: 404-495-9578

**HUGH NOWELL  
CORPORATE COUNSEL**

**October 28, 2004**

Mr. Martin Zeleznik  
Ground Water Office WTR-0  
US Environmental Protection Agency Region IX  
Water Management Division (WTR-9)  
75 Hawthorne Street  
San Francisco, California 94105-3901

**RE: MONITORING REPORT FOR UIC PERMIT NUMBER AZ396000001  
THIRD QUARTER 2004 REPORT**

Dear Mr. Zeleznik,

This report is submitted in accordance with the reporting requirements of Parts II.G.2.(a) through (j) of the referenced permit. It pertains to monitoring activities conducted at the Florence In-Situ Mine Site from July 1 through September 30, 2004. Copies of records required by Part II.G.1 are maintained at the Mine Site along with other information that is summarized below.

The report reflects changes in the operation of recovery wells. Florence Copper is subject to the requirements of UIC Permit No. AZ396000001 issued by the United States Environmental Protection Agency (USEPA) on May 1, 1997, and APP No. 101704 issued by the Arizona Department of Environmental Quality (ADEQ) on June 9, 1997. On April 21, 2004, Florence Copper requested permission from ADEQ and USEPA to suspend the rinsing operations for 90 days as part of a pre-closure test in accordance with Part II.H.2 of the APP and Part II.I.2 of the UIC Permit. On August 24 and 25, 2004, ADEQ and USEPA authorized Florence Copper to perform a 90-day shut down test of the wellfield to determine if rinsing of the field is complete. The recovery wells were shut off on September 1, 2004. Sampling will occur in December of 2004 to verify that the wellfield rinsing is complete.

**(a) A map showing the current status of the mine.**

Figure 1 shows the current monitoring area including the Point of Compliance (POC) wells and the wellfield. Figure 2 shows the approximate layout of the wellfield and denotes the four well pairs. There are four injection/recovery wells and nine pumping wells. Five observation wells were installed to demonstrate net inward hydraulic gradient for the 90 days required by the permit. Solution injection began on October 31, 1997, and ceased on February 8, 1998.

- (b) A table and graph showing daily cumulative injection flows and extraction flows in each active mine block over the reporting period.**

Daily flowrates for each well have been recorded to show the relationship of flow into and out of the wellfield. The flow rates have been combined and are shown in Figure 1 of Attachment 1. Note that injection last occurred in early 1998 and that water has been continuously withdrawn until the start of the 90-day shut down test on September 1, 2004.

- (c) A table and graph comparing average daily head in the four observation wells.**

Figures 2 through 5 of Attachment 1 and the supporting data compare the average daily water levels in the five observation wells with their nearest inward neighbor. Readings are either taken by continuous down-hole measurements recorded on the system computer or done manually. The figures show the hydraulic gradients were maintained prior to the September 1, 2004, shut down meeting the permit conditions.

- (d) A table showing POC monitoring wells analytical results and alert levels.**

The attached report *Florence Project Quarterly Compliance Monitoring Report - Third Quarter 2004* by Brown and Caldwell and sealed by Ms. Tekla King, Registered Professional Geologist (Attachment 2), contains the POC monitoring records and results. Brown and Caldwell, along with Project personnel, conducted compliance sampling during the period July 13 through July 15, 2004.

Quarterly and biennial parameters were conducted for 29 of the 31 POC monitoring wells. POC monitoring wells M32-UBF and M33-UBF were dry and could not be sampled. All results were below the Alert Levels (ALs) or Aquifer Quality Limits (AQLs). The results are discussed in the report.

- (e) Results of the monthly analyses of organic in the injectate**

Organic analyses are not required because no solution was injected during the reporting period.

- (f) Results of monitoring required by 40 CFR 146.33 (b)(1)**

No solution was injected.

- (g) Results of the mechanical integrity tests**

No mechanical integrity test was required.

**(b) Results of the annular conductivity monitoring**

Although injection ceased in early 1998, annular conductivity measurements have continued to the present time. A graph showing measurement results for this reporting period is presented in Attachment 1, Figure 6. No unusual conditions were noted.

**(i) Well and core hole plugging and abandonment.**

None of the existing wells and core holes were abandoned during the report period.

**(j) A summary of closure operations during the reporting period.**

There were no closure operations during the reporting period.

Florence Copper, Inc., believes that you will find this report complete and in compliance with all permit conditions. Please contact me at (404) 495-9577 should you have any questions regarding this report.

Sincerely,



Hugh Nowell  
Corporate Counsel

BAS:lld  
Attachments

cc: Florence Copper File



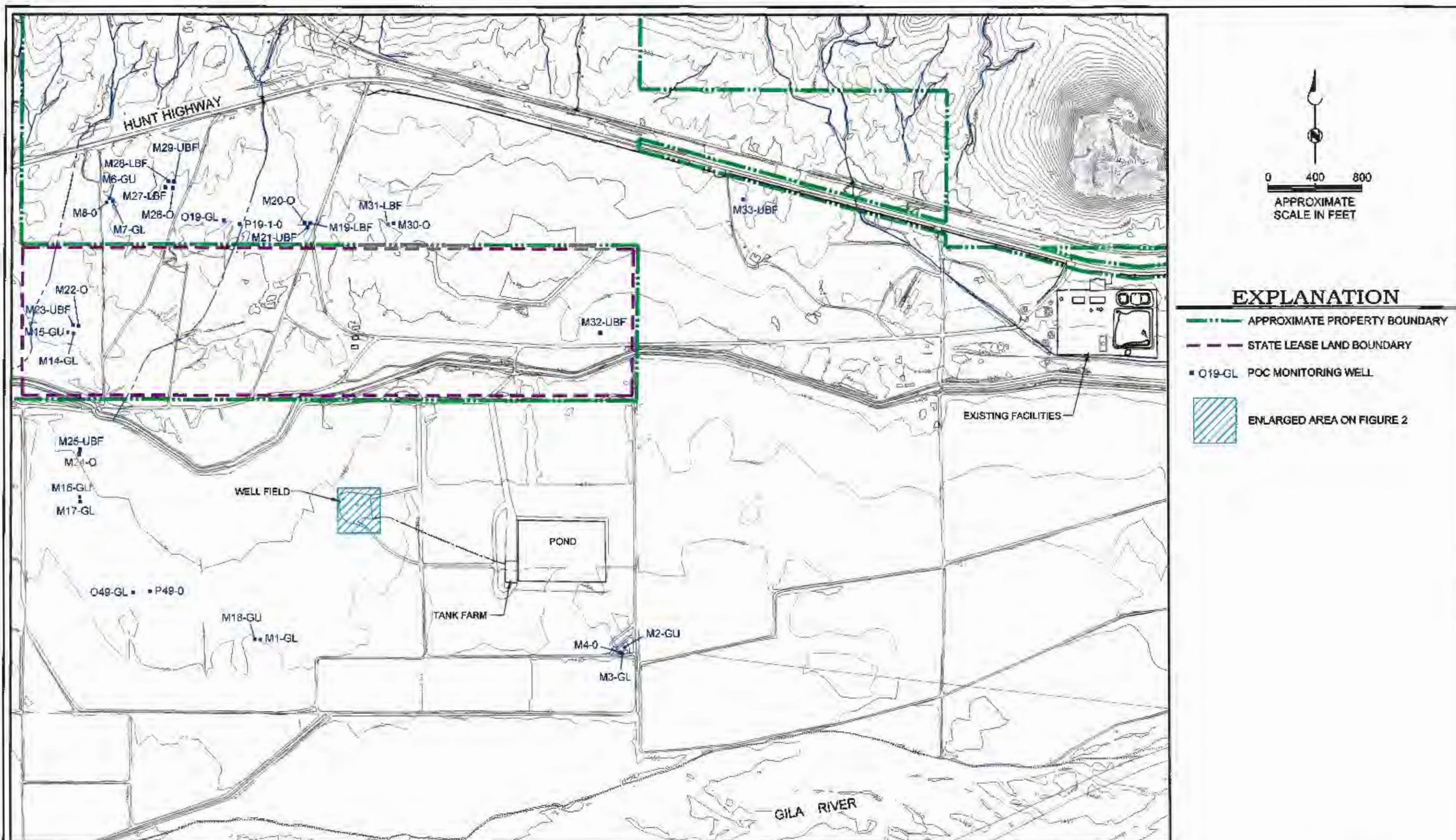
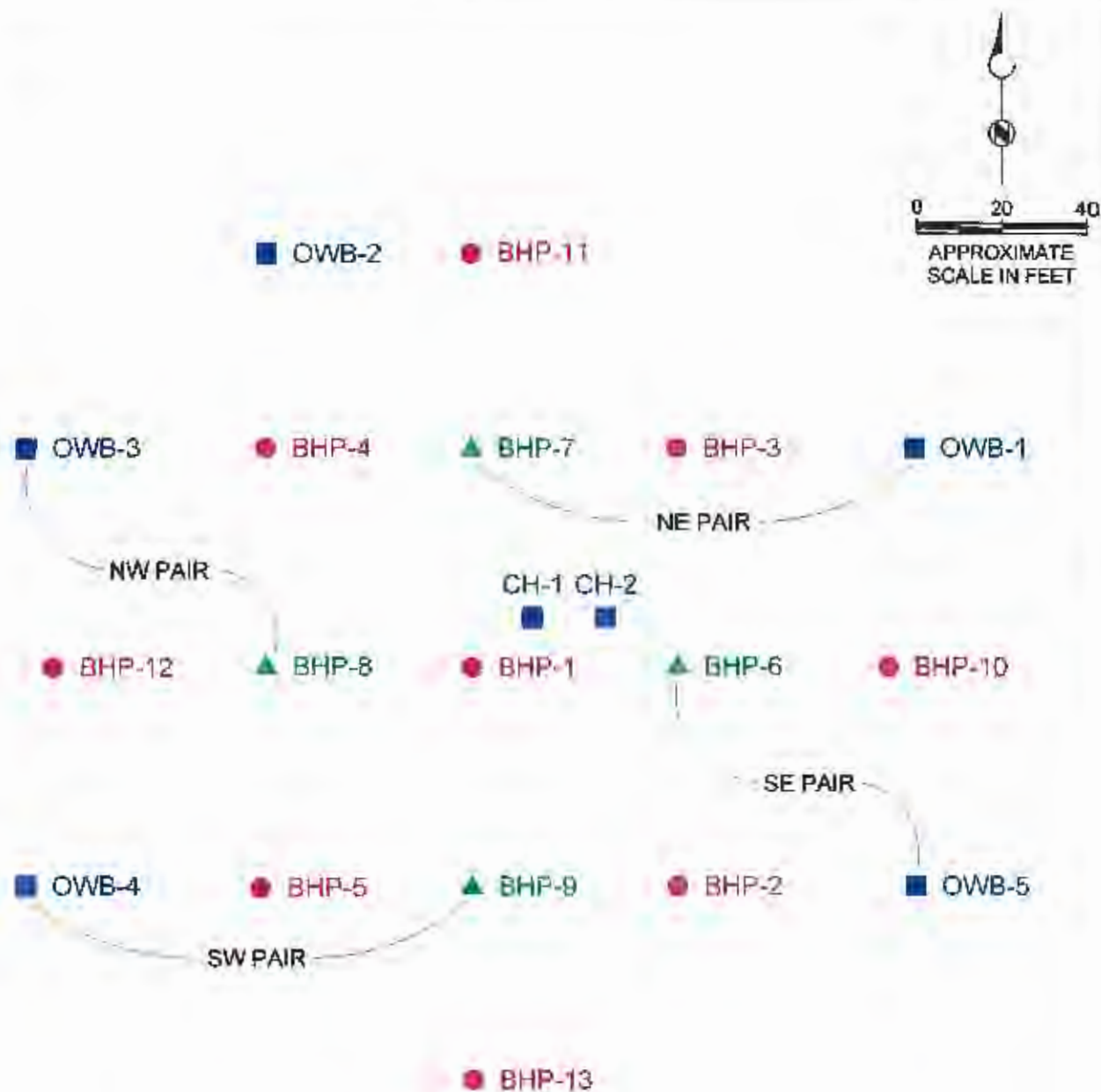


Figure 1  
**MONITORING AREA**  
 MERRILL MINING, L.L.C.  
 FLORENCE, ARIZONA

BROWN AND  
 CALDWELL





## EXPLANATION

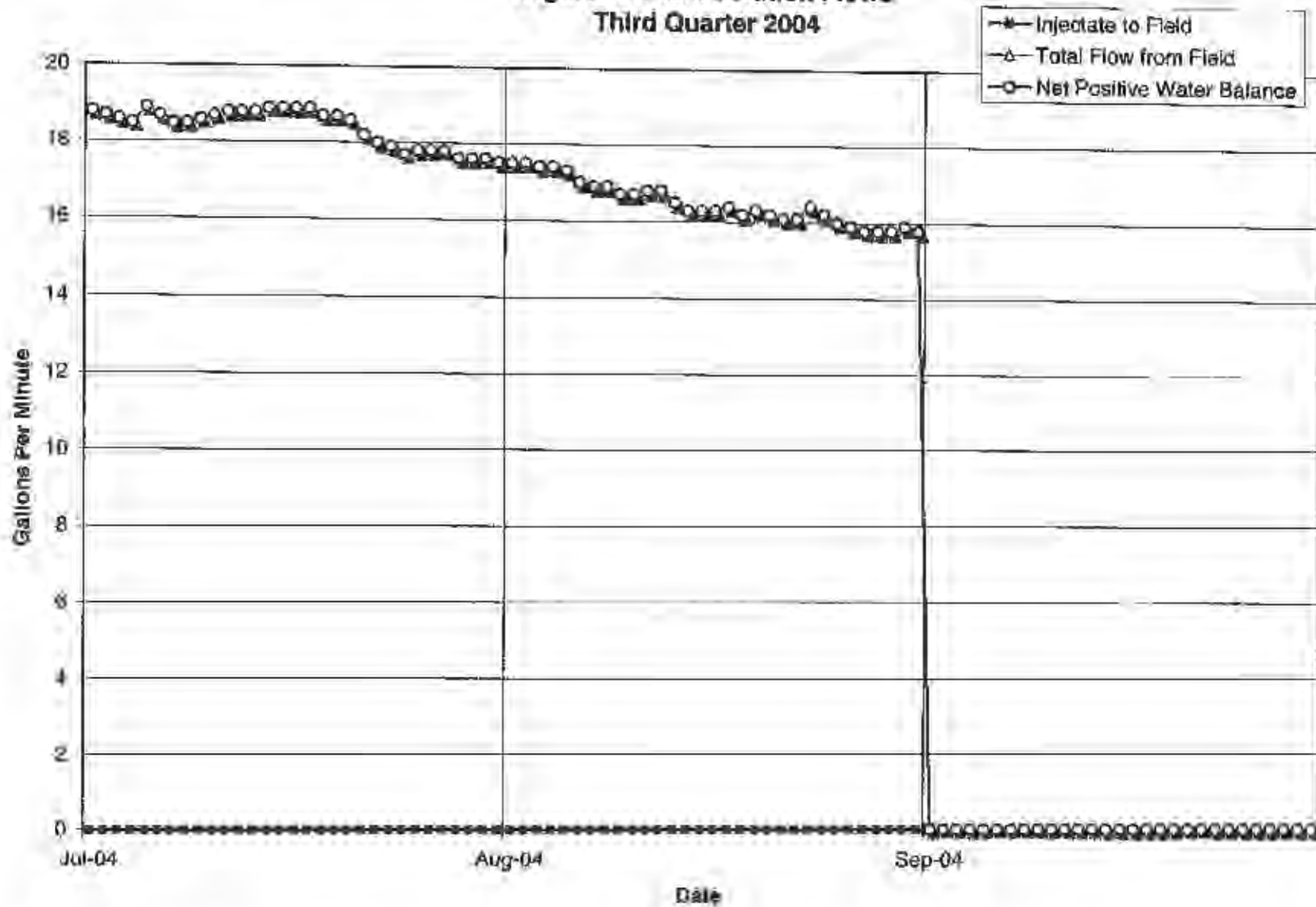
- BHP-10 PUMPING WELL (CURRENTLY INACTIVE)
- OWB-2 OBSERVATION WELL
- ▲ BHP-8 INJECTION / RECOVERY WELL  
(RECOVERY MODE SINCE 1988)

BROWN AND  
CALDWELL

Figure 2  
**WELLFIELD LAYOUT**  
MERRILL MINING, L.L.C.  
FLORENCE, ARIZONA

**ATTACHMENT 1**  
**MINE OPERATIONS MONITORING**

Figure 1 - Plant Solution Flows  
Third Quarter 2004





**Plant Solution Flows - Daily Averages**  
**Third Quarter 2004**

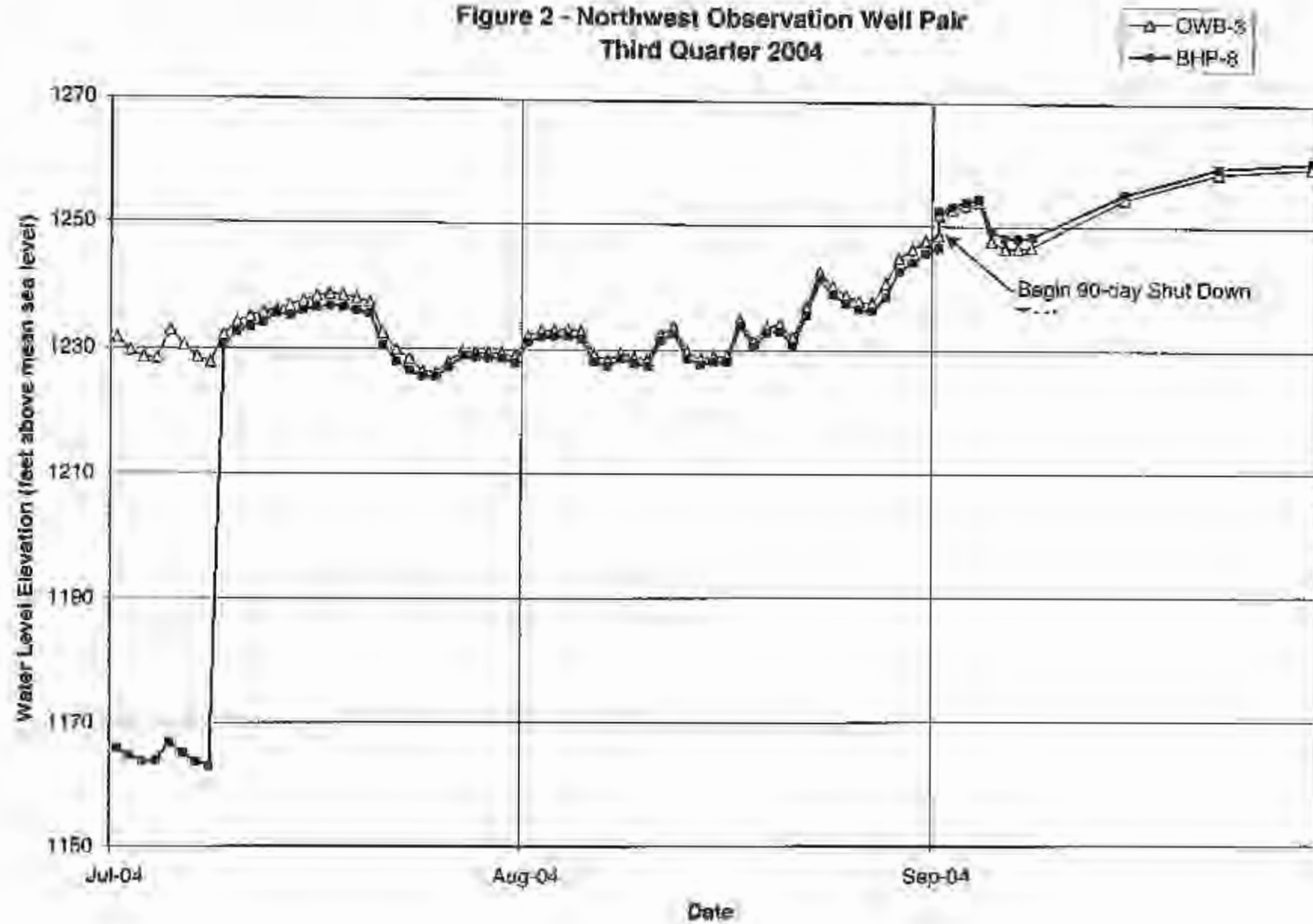
Date	Injectate to Field (gpm)	BHP-6 (gpm)	BHP-7 (gpm)	BHP-8 (gpm)	BHP-9 (gpm)	Total Flow from Field (gpm)	Net Positive Water Balance (gpm)	Maintained Hydrologic Control (Yes/No)
7/1/2004	0	0.0	0.0	7.0	11.8	18.8	18.8	Yes
7/2/2004	0	0.0	0.0	6.9	11.8	18.7	18.7	Yes
7/3/2004	0	0.0	0.0	6.9	11.7	18.6	18.6	Yes
7/4/2004	0	0.0	0.0	6.8	11.7	18.5	18.5	Yes
7/5/2004	0	0.0	0.0	7.0	11.9	18.9	18.9	Yes
7/6/2004	0	0.0	0.0	6.9	11.8	18.7	18.7	Yes
7/7/2004	0	0.0	0.0	6.8	11.7	18.5	18.5	Yes
7/8/2004	0	0.0	0.0	6.8	11.7	18.5	18.5	Yes
7/9/2004	0	0.0	6.7	0.0	11.9	18.6	18.6	Yes
7/10/2004	0	0.0	6.8	0.0	11.9	18.7	18.7	Yes
7/11/2004	0	0.0	6.8	0.0	12.0	18.8	18.8	Yes
7/12/2004	0	0.0	6.8	0.0	12.0	18.8	18.8	Yes
7/13/2004	0	0.0	6.8	0.0	12.0	18.8	18.8	Yes
7/14/2004	0	0.0	6.8	0.0	12.1	18.9	18.9	Yes
7/15/2004	0	0.0	6.8	0.0	12.1	18.9	18.9	Yes
7/16/2004	0	0.0	6.7	0.0	12.2	18.9	18.9	Yes
7/17/2004	0	0.0	6.7	0.0	12.2	18.9	18.9	Yes
7/18/2004	0	0.0	6.6	0.0	12.1	18.7	18.7	Yes
7/19/2004	0	0.0	6.6	0.0	12.1	18.7	18.7	Yes
7/20/2004	0	0.0	6.5	0.0	12.1	18.6	18.6	Yes
7/21/2004	0	0.0	6.3	0.0	11.9	18.2	18.2	Yes
7/22/2004	0	0.0	6.2	0.0	11.8	18.0	18.0	Yes
7/23/2004	0	0.0	6.1	0.0	11.8	17.9	17.9	Yes
7/24/2004	0	0.0	6.0	0.0	11.7	17.7	17.7	Yes
7/25/2004	0	0.0	6.0	0.0	11.8	17.8	17.8	Yes
7/26/2004	0	0.0	6.0	0.0	11.8	17.8	17.8	Yes
7/27/2004	0	0.0	5.9	0.0	11.9	17.8	17.8	Yes
7/28/2004	0	0.0	5.8	0.0	11.8	17.6	17.6	Yes
7/29/2004	0	0.0	5.7	0.0	11.9	17.6	17.6	Yes
7/30/2004	0	0.0	5.7	0.0	11.9	17.6	17.6	Yes
7/31/2004	0	0.0	5.6	0.0	11.9	17.5	17.5	Yes
8/1/2004	0	0.0	5.5	0.0	12.0	17.5	17.5	Yes
8/2/2004	0	0.0	5.5	0.0	12.0	17.5	17.5	Yes
8/3/2004	0	0.0	5.4	0.0	12.0	17.4	17.4	Yes
8/4/2004	0	0.0	5.4	0.0	12.0	17.4	17.4	Yes
8/5/2004	0	0.0	5.3	0.0	12.0	17.3	17.3	Yes
8/6/2004	0	0.0	5.1	0.0	11.9	17.0	17.0	Yes
8/7/2004	0	0.0	5.0	0.0	11.9	16.9	16.9	Yes
8/8/2004	0	0.0	5.0	0.0	11.9	16.9	16.9	Yes
8/9/2004	0	0.0	4.9	0.0	11.8	16.7	16.7	Yes
8/10/2004	0	0.0	4.8	0.0	11.9	16.7	16.7	Yes
8/11/2004	0	0.0	4.8	0.0	12.0	16.8	16.8	Yes
8/12/2004	0	0.0	4.7	0.0	12.1	16.8	16.8	Yes
8/13/2004	0	0.0	4.5	0.0	12.0	16.5	16.5	Yes
8/14/2004	0	0.0	4.5	0.0	11.8	16.3	16.3	Yes
8/15/2004	0	0.0	4.5	0.0	11.8	16.3	16.3	Yes
8/16/2004	0	0.0	4.5	0.0	11.8	16.3	16.3	Yes
8/17/2004	0	0.0	4.4	0.0	12.0	16.4	16.4	Yes

**Plant Solution Flows - Daily Averages  
Third Quarter 2004**

Date	Injectate to Field (gpm)	BHP-6 (gpm)	BHP-7 (gpm)	BHP-8 (gpm)	BHP-9 (gpm)	Total Flow from Field (gpm)	Net Positive Water Balance (gpm)	Maintained Hydrologic Control (Yes/No)
8/18/2004	0	0.0	4.2	0.0	12.0	16.2	16.2	Yes
8/19/2004	0	0.0	4.2	0.0	12.1	16.3	16.3	Yes
8/20/2004	0	0.0	4.1	0.0	12.1	16.2	16.2	Yes
8/21/2004	0	0.0	4.0	0.0	12.1	16.1	16.1	Yes
8/22/2004	0	0.0	4.0	0.0	12.1	16.1	16.1	Yes
8/23/2004	0	0.0	4.0	0.0	12.4	16.4	16.4	Yes
8/24/2004	0	0.0	3.9	0.0	12.3	16.2	16.2	Yes
8/25/2004	0	0.0	3.7	0.0	12.3	16.0	16.0	Yes
8/26/2004	0	0.0	3.6	0.0	12.3	15.9	15.9	Yes
8/27/2004	0	0.0	3.5	0.0	12.3	15.8	15.8	Yes
8/28/2004	0	0.0	3.5	0.0	12.3	15.8	15.8	Yes
8/29/2004	0	0.0	3.4	0.0	12.4	15.8	15.8	Yes
8/30/2004	0	0.0	3.3	0.0	12.6	15.9	15.9	Yes
8/31/2004	0	0.0	3.2	0.0	12.6	15.8	15.8	Yes
9/1/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/2/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/3/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/4/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/5/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/6/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/7/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/8/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/9/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/10/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/11/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/12/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/13/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/14/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/15/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/16/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/17/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/18/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/19/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/20/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/21/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/22/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/23/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/24/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/25/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/26/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/27/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/28/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/29/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required
9/30/2004	0	0.0	0.0	0.0	0.0	0.0	0.0	Not Required

Note: Recovery wells shut off for 90-day rest on September 1, 2004.

Figure 2 - Northwest Observation Well Pair  
Third Quarter 2004



**Northwest Observation Well Pair  
Third Quarter 2004**

Date	BHP-8	OWB-3	Difference in Gradient	Maintained Hydrologic Control
	Water Level Elevation (feet AMSL)	Water Level Elevation (feet AMSL)	(feet)	(Yes/No)
7/1/2004	1166	1231.8	-65.8	Yes
7/2/2004	1164.8	1229.7	-64.9	Yes
7/3/2004	1163.8	1228.6	-64.8	Yes
7/4/2004	1163.9	1228.5	-64.6	Yes
7/5/2004	1166.8	1233	-66.2	Yes
7/6/2004	1165.2	1230.6	-65.4	Yes
7/7/2004	1163.8	1228.7	-64.9	Yes
7/8/2004	1163.1	1227.8	-64.7	Yes
7/9/2004	1230.5	1232.2	-1.7	Yes
7/10/2004	1232.6	1234.3	-1.7	Yes
7/11/2004	1233.5	1235.2	-1.7	Yes
7/12/2004	1234.2	1235.8	-1.6	Yes
7/13/2004	1235.7	1236.3	-0.6	Yes
7/14/2004	1235.3	1236.9	-1.6	Yes
7/15/2004	1236.1	1237.7	-1.6	Yes
7/16/2004	1236.5	1238.4	-1.9	Yes
7/17/2004	1236.9	1238.8	-1.9	Yes
7/18/2004	1236.7	1238.6	-1.9	Yes
7/19/2004	1236.2	1238.1	-1.9	Yes
7/20/2004	1235.6	1237.5	-1.9	Yes
7/21/2004	1230.7	1232.6	-1.9	Yes
7/22/2004	1228	1229.9	-1.9	Yes
7/23/2004	1226.6	1228.5	-1.9	Yes
7/24/2004	1225.6	1226.4	-0.8	Yes
7/25/2004	1225.5	1226.3	-0.8	Yes
7/26/2004	1227.2	1228	-0.8	Yes
7/27/2004	1228.9	1229.7	-0.8	Yes
7/28/2004	1228.7	1229.5	-0.8	Yes
7/29/2004	1228.6	1229.4	-0.8	Yes
7/30/2004	1228.6	1229.4	-0.8	Yes
7/31/2004	1227.8	1228.8	-1	Yes
8/1/2004	1231.2	1232.2	-1	Yes
8/2/2004	1232	1233	-1	Yes
8/3/2004	1232.1	1233.1	-1	Yes
8/4/2004	1232.1	1233.2	-1.1	Yes
8/5/2004	1231.8	1232.9	-1.1	Yes
8/6/2004	1228.1	1229.2	-1.1	Yes
8/7/2004	1227.4	1228.3	-0.9	Yes
8/8/2004	1228.6	1229.5	-0.9	Yes
8/9/2004	1227.9	1228.8	-0.9	Yes
8/10/2004	1227.3	1228.3	-1	Yes
8/11/2004	1231.4	1232.4	-1	Yes
8/12/2004	1232.7	1233.7	-1	Yes
8/13/2004	1228.7	1229.7	-1	Yes
8/14/2004	1227.6	1228.6	-1	Yes
8/15/2004	1228.1	1229	-0.9	Yes

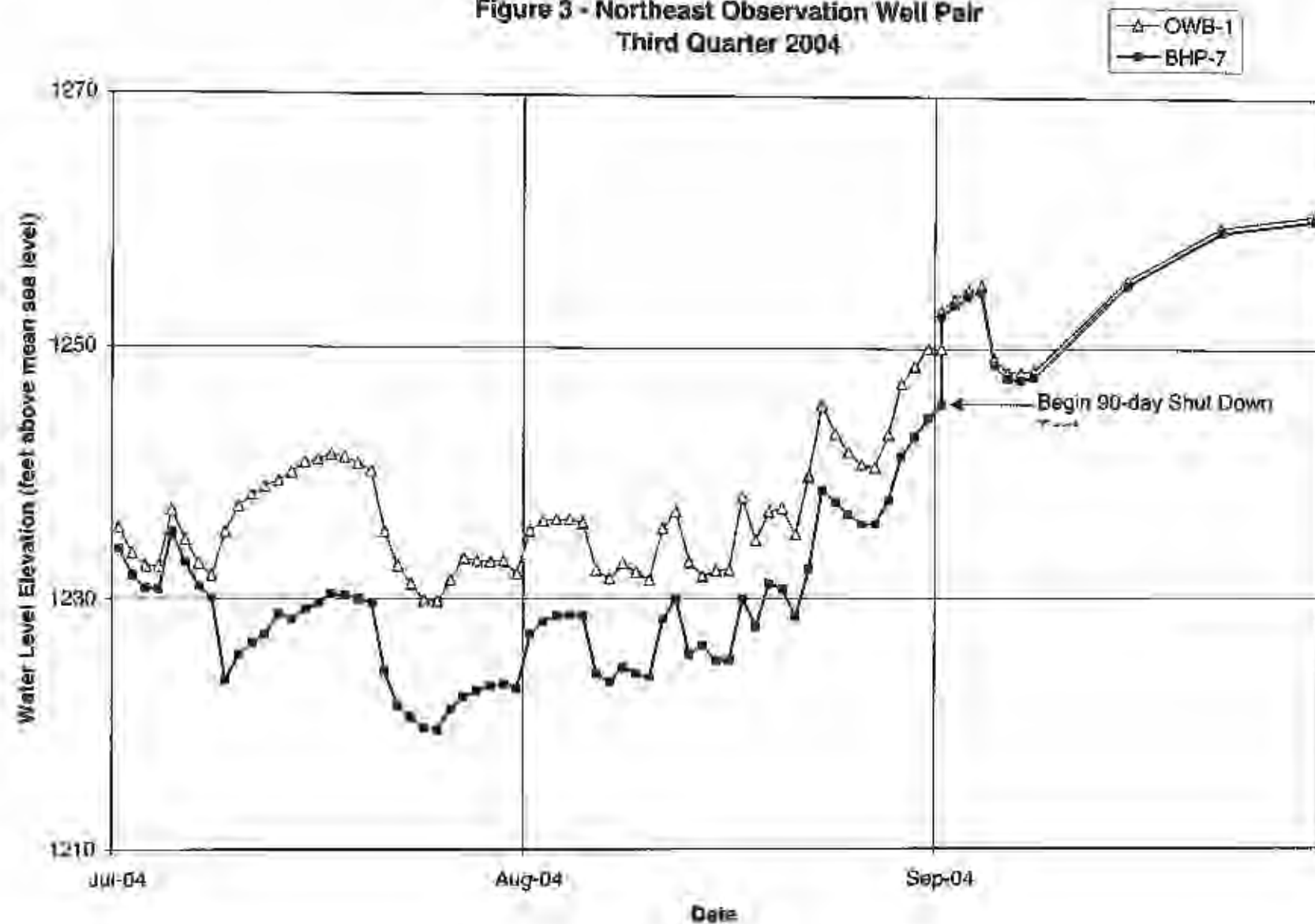


Northwest Observation Well Pair  
Third Quarter 2004

Date	BHP-8	OWB-3	Difference in Gradient	Maintained Hydrologic Control
	Water Level Elevation (feet AMSL)	Water Level Elevation (feet AMSL)	(feet)	(Yes/No)
8/16/2004	1228.1	1228.9	-0.8	Yes
8/17/2004	1234	1234.9	-0.9	Yes
8/18/2004	1230.5	1231.4	-0.9	Yes
8/19/2004	1232.8	1233.7	-0.9	Yes
8/20/2004	1233.1	1234.2	-1.1	Yes
8/21/2004	1230.9	1232.1	-1.2	Yes
8/22/2004	1235.7	1236.9	-1.2	Yes
8/23/2004	1241.4	1242.6	-1.2	Yes
8/24/2004	1239.1	1240.4	-1.3	Yes
8/25/2004	1237.6	1238.9	-1.3	Yes
8/26/2004	1236.6	1237.9	-1.3	Yes
8/27/2004	1236.4	1237.7	-1.3	Yes
8/28/2004	1238.7	1240.8	-2.1	Yes
8/29/2004	1242.8	1244.9	-2.1	Yes
8/30/2004	1244.2	1246.3	-2.1	Yes
8/31/2004	1245.6	1247.7	-2.1	Yes
9/1/2004	1246.5	1248.5	-2	Yes
9/1/2004	1252.4	1251.8	0.6	Not Required
9/2/2004	1253.2	1252.7	0.5	Not Required
9/3/2004	1254	1253.4	0.6	Not Required
9/4/2004	1254.5	1253.9	0.6	Not Required
9/5/2004	1249.3	1247.7	1.6	Not Required
9/6/2004	1248.2	1246.5	1.7	Not Required
9/7/2004	1248	1246.5	1.5	Not Required
9/8/2004	1248.3	1246.7	1.6	Not Required
9/15/2004	1255.3	1254.5	0.8	Not Required
9/22/2004	1259.7	1258.8	0.9	Not Required
9/29/2004	1260.7	1259.8	0.9	Not Required

Note: Recovery wells shut off for 90-day test on September 1, 2004.

Figure 3 - Northeast Observation Well Pair  
Third Quarter 2004



**Northeast Observation Well Pair  
Third Quarter 2004**

Date	BHP-7	OWB-1	Difference in Gradient	Maintained Hydrologic Control
	Water Level Elevation (feet AMSL)	Water Level Elevation (feet AMSL)	(feet)	(Yes/No)
7/1/2004	1234	1235.7	-1.7	Yes
7/2/2004	1231.9	1233.6	-1.7	Yes
7/3/2004	1230.9	1232.6	-1.7	Yes
7/4/2004	1230.8	1232.6	-1.8	Yes
7/5/2004	1235.3	1237.1	-1.8	Yes
7/6/2004	1232.9	1234.7	-1.8	Yes
7/7/2004	1231	1232.8	-1.8	Yes
7/8/2004	1230.1	1231.9	-1.8	Yes
7/9/2004	1223.5	1235.3	-11.8	Yes
7/10/2004	1225.6	1237.4	-11.8	Yes
7/11/2004	1226.5	1238.3	-11.8	Yes
7/12/2004	1227.2	1239	-11.8	Yes
7/13/2004	1228.8	1239.4	-10.6	Yes
7/14/2004	1228.4	1240.1	-11.7	Yes
7/15/2004	1229.2	1240.9	-11.7	Yes
7/16/2004	1229.7	1241.1	-11.4	Yes
7/17/2004	1230.4	1241.5	-11.1	Yes
7/18/2004	1230.3	1241.3	-11	Yes
7/19/2004	1230	1240.8	-10.8	Yes
7/20/2004	1229.7	1240.2	-10.5	Yes
7/21/2004	1224.2	1235.3	-11.1	Yes
7/22/2004	1221.5	1232.6	-11.1	Yes
7/23/2004	1220.6	1231.2	-10.6	Yes
7/24/2004	1219.7	1229.9	-10.2	Yes
7/25/2004	1219.6	1229.8	-10.2	Yes
7/26/2004	1221.2	1231.5	-10.3	Yes
7/27/2004	1222.2	1233.2	-11	Yes
7/28/2004	1222.7	1233	-10.3	Yes
7/29/2004	1223	1232.9	-9.9	Yes
7/30/2004	1223.2	1233	-9.8	Yes
7/31/2004	1222.8	1232	-9.2	Yes
8/1/2004	1227.2	1235.4	-8.2	Yes
8/2/2004	1228.2	1236.2	-8	Yes
8/3/2004	1228.6	1236.3	-7.7	Yes
8/4/2004	1228.7	1236.3	-7.6	Yes
8/5/2004	1228.6	1236	-7.4	Yes
8/6/2004	1224	1232.3	-8.3	Yes
8/7/2004	1223.4	1231.6	-8.2	Yes
8/8/2004	1224.5	1232.8	-8.3	Yes
8/9/2004	1224	1232.1	-8.1	Yes
8/10/2004	1223.7	1231.5	-7.8	Yes
8/11/2004	1228.4	1235.6	-7.2	Yes
8/12/2004	1230	1236.9	-6.9	Yes
8/13/2004	1225.6	1232.9	-7.3	Yes
8/14/2004	1226.3	1231.8	-5.5	Yes
8/15/2004	1225.1	1232.2	-7.1	Yes

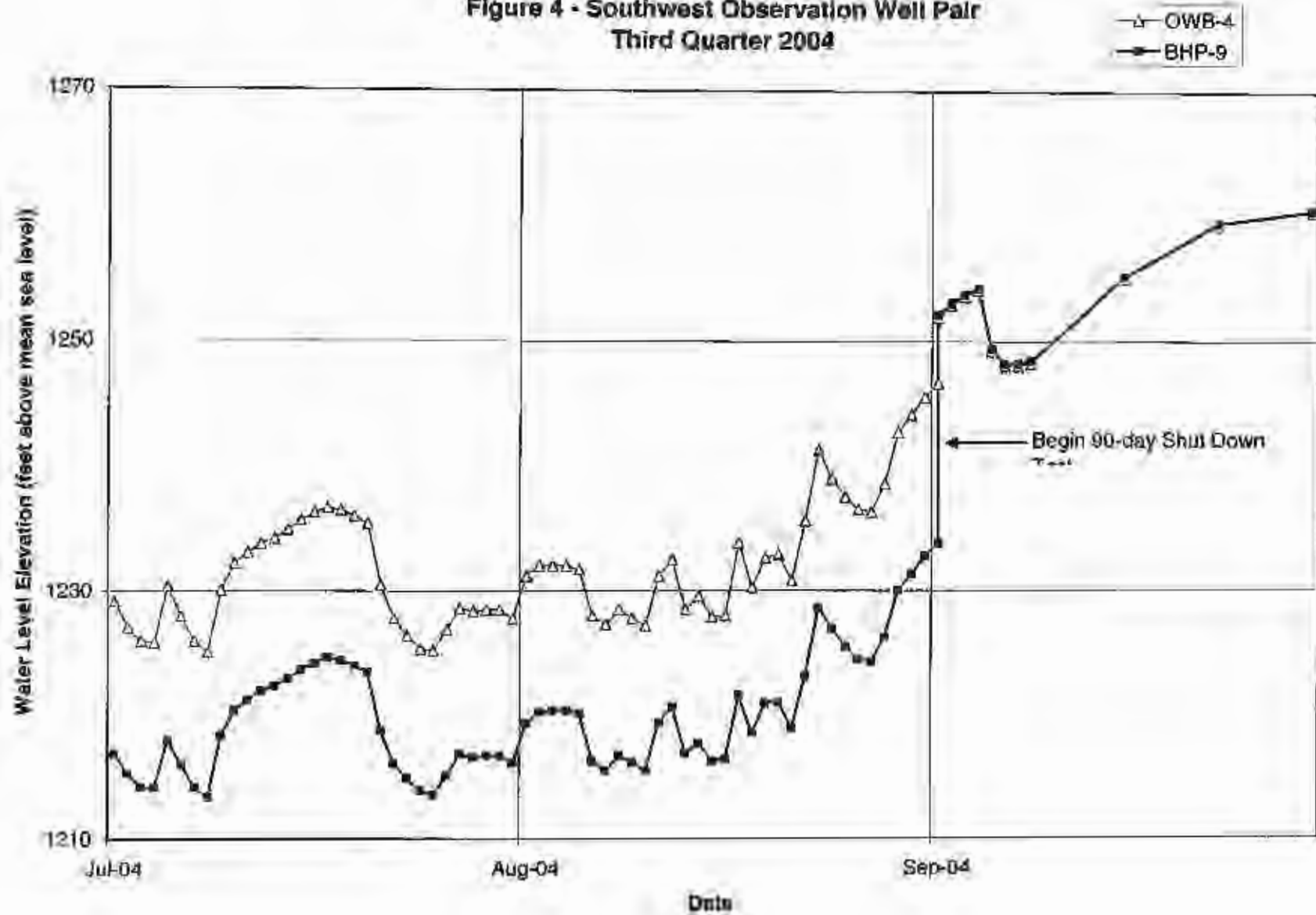
**Northeast Observation Well Pair  
Third Quarter 2004**

Date	BHP-7	OWB-1	Difference in Gradient	Maintained Hydrologic Control
	Water Level Elevation (feet AMSL)	Water Level Elevation (feet AMSL)	(feet)	(Yes/No)
8/16/2004	1225.1	1232.3	-7.2	Yes
8/17/2004	1230	1238.1	-8.1	Yes
8/18/2004	1227.8	1234.6	-6.8	Yes
8/19/2004	1231.2	1236.9	-5.7	Yes
8/20/2004	1230.8	1237.2	-6.4	Yes
8/21/2004	1228.6	1235.1	-6.5	Yes
8/22/2004	1232.3	1239.8	-7.5	Yes
8/23/2004	1238.6	1245.5	-6.9	Yes
8/24/2004	1237.7	1243.2	-5.5	Yes
8/25/2004	1236.7	1241.7	-5	Yes
8/26/2004	1235.9	1240.7	-4.8	Yes
8/27/2004	1235.9	1240.5	-4.6	Yes
8/28/2004	1237.8	1243.1	-5.3	Yes
8/29/2004	1241.4	1247.2	-5.8	Yes
8/30/2004	1242.9	1248.6	-5.7	Yes
8/31/2004	1244.4	1250	-5.6	Yes
9/1/2004	1245.5	1250	-4.5	Yes
9/1/2004	1252.6	1253	-0.4	Not Required
9/2/2004	1253.4	1253.9	-0.5	Not Required
9/3/2004	1254.1	1254.6	-0.5	Not Required
9/4/2004	1254.5	1255	-0.5	Not Required
9/5/2004	1248.7	1249.2	-0.5	Not Required
9/6/2004	1247.6	1248.1	-0.5	Not Required
9/7/2004	1247.5	1248.1	-0.6	Not Required
9/8/2004	1247.7	1248.2	-0.5	Not Required
9/15/2004	1255.1	1255.5	-0.4	Not Required
9/22/2004	1259.3	1259.7	-0.4	Not Required
9/29/2004	1260.3	1260.7	-0.4	Not Required

Note: Recovery wells shut off for 90-day test on September 1, 2004.



**Figure 4 - Southwest Observation Well Pair  
Third Quarter 2004**



**Southwest Observation Well Pair  
Third Quarter 2004**

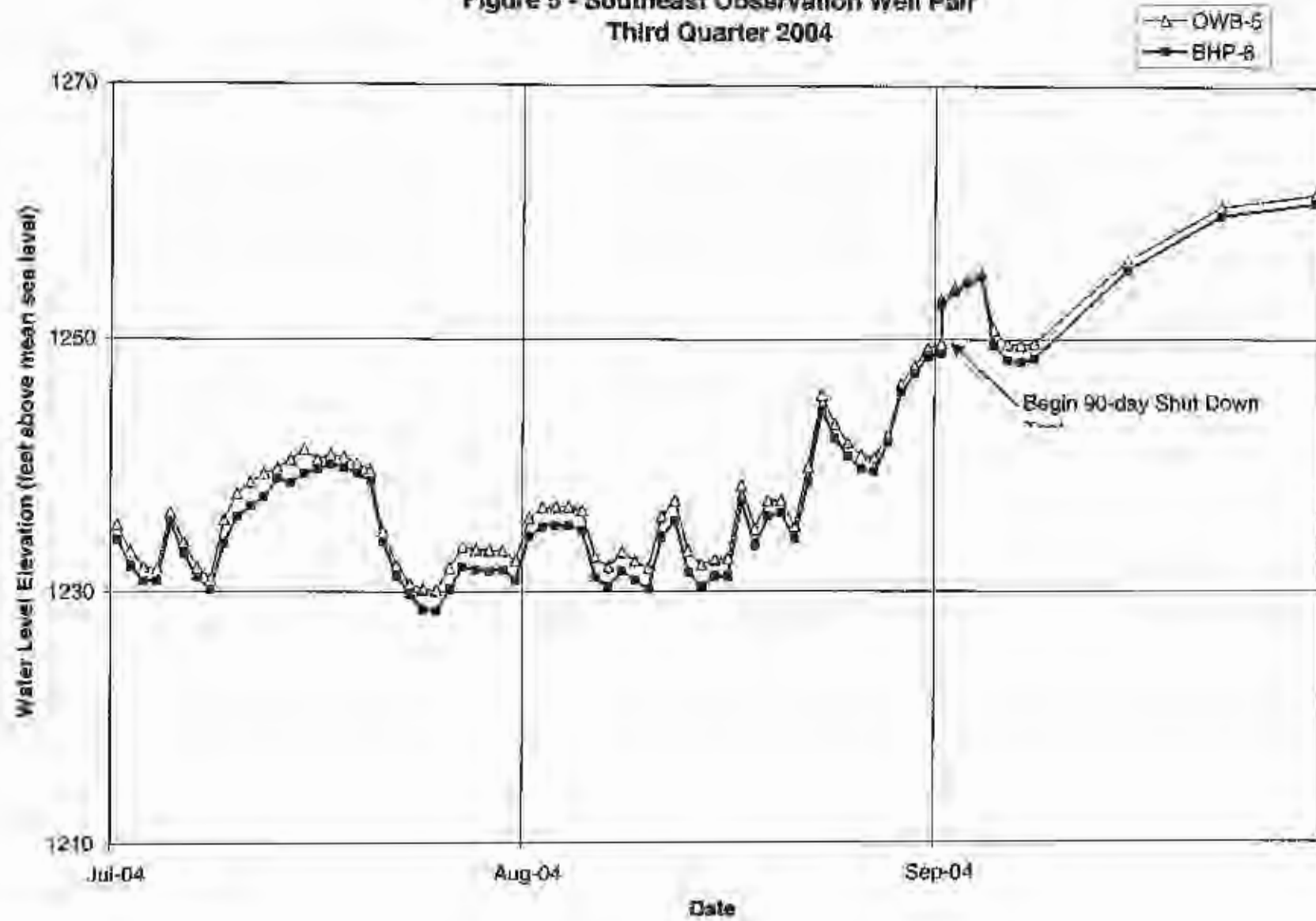
Date	BHP-9	OWB-4	Difference in Gradient	Maintained Hydrologic Control
	Water Level Elevation (feet AMSL)	Water Level Elevation (feet AMSL)	(feet)	(Yes/No)
7/1/2004	1216.9	1229.2	-12.3	Yes
7/2/2004	1215.3	1227.1	-11.8	Yes
7/3/2004	1214.2	1226	-11.8	Yes
7/4/2004	1214.2	1225.9	-11.7	Yes
7/5/2004	1218	1230.4	-12.4	Yes
7/6/2004	1216.1	1228	-11.9	Yes
7/7/2004	1214.2	1226	-11.8	Yes
7/8/2004	1213.4	1225.1	-11.7	Yes
7/9/2004	1218.4	1230.1	-11.7	Yes
7/10/2004	1220.4	1232.2	-11.8	Yes
7/11/2004	1221.2	1233.1	-11.9	Yes
7/12/2004	1222	1233.8	-11.8	Yes
7/13/2004	1222.4	1234.2	-11.8	Yes
7/14/2004	1223.9	1234.9	-12	Yes
7/15/2004	1223.7	1235.7	-12	Yes
7/16/2004	1224.2	1236.3	-12.1	Yes
7/17/2004	1224.7	1236.7	-12	Yes
7/18/2004	1224.4	1236.5	-12.1	Yes
7/19/2004	1224	1236	-12	Yes
7/20/2004	1223.5	1235.4	-11.9	Yes
7/21/2004	1218.7	1230.5	-11.8	Yes
7/22/2004	1216.1	1227.8	-11.7	Yes
7/23/2004	1214.9	1226.4	-11.5	Yes
7/24/2004	1213.9	1225.3	-11.4	Yes
7/25/2004	1213.6	1225.2	-11.6	Yes
7/26/2004	1215.1	1226.9	-11.8	Yes
7/27/2004	1216.8	1228.6	-11.8	Yes
7/28/2004	1216.6	1228.4	-11.8	Yes
7/29/2004	1216.7	1228.5	-11.8	Yes
7/30/2004	1216.7	1228.5	-11.8	Yes
7/31/2004	1216.1	1227.8	-11.7	Yes
8/1/2004	1219.3	1231.2	-11.9	Yes
8/2/2004	1220.2	1232	-11.8	Yes
8/3/2004	1220.3	1232	-11.7	Yes
8/4/2004	1220.3	1232	-11.7	Yes
8/5/2004	1220.1	1231.7	-11.6	Yes
8/6/2004	1216.3	1228	-11.7	Yes
8/7/2004	1215.5	1227.3	-11.8	Yes
8/8/2004	1216.7	1228.5	-11.8	Yes
8/9/2004	1216.1	1227.8	-11.7	Yes
8/10/2004	1215.5	1227.2	-11.7	Yes
8/11/2004	1219.4	1231.2	-11.8	Yes
8/12/2004	1220.6	1232.5	-11.9	Yes
8/13/2004	1216.9	1228.5	-11.6	Yes
8/14/2004	1217.7	1229.6	-11.9	Yes
8/15/2004	1216.3	1227.9	-11.6	Yes

**Southwest Observation Well Pair  
Third Quarter 2004**

Date	BHP-9	OWB-4	Difference in Gradient	Maintained Hydrologic Control
	Water Level Elevation (feet AMSL)	Water Level Elevation (feet AMSL)	(feet)	(Yes/No)
8/16/2004	1216.4	1228	-11.6	Yes
8/17/2004	1221.5	1233.8	-12.3	Yes
8/18/2004	1213.5	1230.3	-11.8	Yes
8/19/2004	1220.9	1232.6	-11.7	Yes
8/20/2004	1221	1232.9	-11.9	Yes
8/21/2004	1218.9	1230.8	-11.9	Yes
8/22/2004	1223.1	1235.6	-12.5	Yes
8/23/2004	1228.6	1241.3	-12.7	Yes
8/24/2004	1227	1239	-12	Yes
8/25/2004	1225.5	1237.5	-12	Yes
8/26/2004	1224.4	1236.5	-12.1	Yes
8/27/2004	1224.3	1236.3	-12	Yes
8/28/2004	1226.3	1238.6	-12.3	Yes
8/29/2004	1230	1242.7	-12.7	Yes
8/30/2004	1231.3	1244.1	-12.8	Yes
8/31/2004	1232.7	1245.5	-12.8	Yes
9/1/2004	1233.7	1246.6	-12.9	Yes
9/1/2004	1252.2	1251.9	0.3	Not Required
9/2/2004	1253.1	1252.9	0.2	Not Required
9/3/2004	1253.8	1253.6	0.2	Not Required
9/4/2004	1254.3	1254.1	0.2	Not Required
9/5/2004	1249.4	1249.2	0.2	Not Required
9/6/2004	1248.2	1248	0.2	Not Required
9/7/2004	1248.2	1248	0.2	Not Required
9/8/2004	1248.4	1248.2	0.2	Not Required
9/15/2004	1255.3	1255.1	0.2	Not Required
9/22/2004	1259.6	1259.4	0.2	Not Required
9/29/2004	1260.6	1260.5	0.1	Not Required

Note: Recovery wells shut off for 90-day test on September 1, 2004.

Figure 5 - Southeast Observation Well Pair  
Third Quarter 2004





**Southeast Observation Well Pair  
Third Quarter 2004**

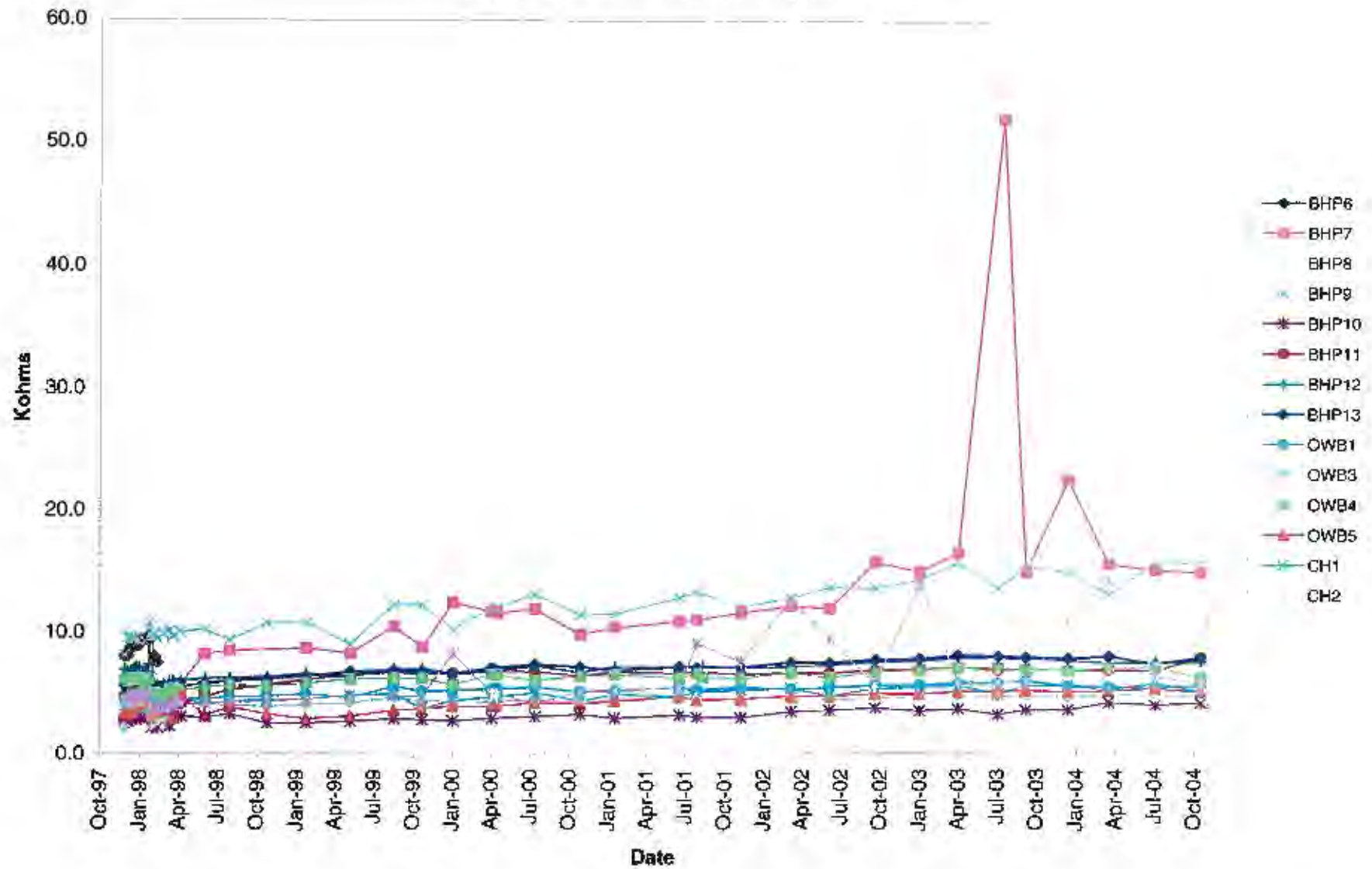
Date	BHP-6	OWB-5	Difference in Gradient	Maintained Hydrologic Control
	Water Level Elevation (feet AMSL)	Water Level Elevation (feet AMSL)	(feet)	(Yes/No)
7/1/2004	1234.1	1235.3	-1.2	Yes
7/2/2004	1232	1233.2	-1.2	Yes
7/3/2004	1230.9	1231.9	-1	Yes
7/4/2004	1230.9	1231.8	-0.9	Yes
7/5/2004	1235.4	1236.3	-0.9	Yes
7/6/2004	1233	1233.9	-0.9	Yes
7/7/2004	1231.1	1231.9	-0.8	Yes
7/8/2004	1230.2	1231	-0.8	Yes
7/9/2004	1233.8	1235.7	-1.9	Yes
7/10/2004	1235.9	1237.8	-1.9	Yes
7/11/2004	1236.8	1238.7	-1.9	Yes
7/12/2004	1237.5	1239.4	-1.9	Yes
7/13/2004	1239	1239.8	-0.8	Yes
7/14/2004	1238.6	1240.5	-1.9	Yes
7/15/2004	1239.4	1241.3	-1.9	Yes
7/16/2004	1239.7	1240.5	-0.8	Yes
7/17/2004	1240.1	1240.9	-0.8	Yes
7/18/2004	1239.9	1240.7	-0.8	Yes
7/19/2004	1239.4	1240.2	-0.8	Yes
7/20/2004	1238.8	1239.6	-0.8	Yes
7/21/2004	1233.9	1234.7	-0.8	Yes
7/22/2004	1231.2	1232	-0.8	Yes
7/23/2004	1229.8	1230.6	-0.8	Yes
7/24/2004	1228.6	1230.2	-1.6	Yes
7/25/2004	1228.5	1230.1	-1.6	Yes
7/26/2004	1230.2	1231.8	-1.6	Yes
7/27/2004	1231.9	1233.5	-1.6	Yes
7/28/2004	1231.7	1233.3	-1.6	Yes
7/29/2004	1231.6	1233.2	-1.6	Yes
7/30/2004	1231.7	1233.2	-1.5	Yes
7/31/2004	1230.9	1232.4	-1.5	Yes
8/1/2004	1234.3	1235.8	-1.5	Yes
8/2/2004	1235.1	1236.6	-1.5	Yes
8/3/2004	1235.2	1236.7	-1.5	Yes
8/4/2004	1235.2	1236.7	-1.5	Yes
8/5/2004	1234.8	1236.4	-1.6	Yes
8/6/2004	1231.1	1232.7	-1.6	Yes
8/7/2004	1230.4	1231.9	-1.5	Yes
8/8/2004	1231.6	1233.1	-1.5	Yes
8/9/2004	1230.9	1232.4	-1.5	Yes
8/10/2004	1230.2	1231.8	-1.6	Yes
8/11/2004	1234.3	1235.9	-1.6	Yes
8/12/2004	1235.6	1237.2	-1.6	Yes
8/13/2004	1231.5	1233.2	-1.7	Yes
8/14/2004	1230.4	1232.1	-1.7	Yes
8/15/2004	1231.2	1232.5	-1.3	Yes

**Southeast Observation Well Pair  
Third Quarter 2004**

Date	BHP-6	OWB-5	Difference in Gradient	Maintained Hydrologic Control
	Water Level Elevation (feet AMSL)	Water Level Elevation (feet AMSL)	(feet)	(Yes/No)
8/16/2004	1231.2	1232.6	-1.4	Yes
8/17/2004	1237.1	1238.4	-1.3	Yes
8/18/2004	1233.6	1234.9	-1.3	Yes
8/19/2004	1235.9	1237.2	-1.3	Yes
8/20/2004	1236.2	1237.2	-1	Yes
8/21/2004	1234.1	1235.1	-1	Yes
8/22/2004	1238.7	1239.9	-1.2	Yes
8/23/2004	1244.4	1245.6	-1.2	Yes
8/24/2004	1242.2	1243.3	-1.1	Yes
8/25/2004	1240.7	1241.8	-1.1	Yes
8/26/2004	1239.7	1240.8	-1.1	Yes
8/27/2004	1239.5	1240.6	-1.1	Yes
8/28/2004	1241.8	1242.4	-0.6	Yes
8/29/2004	1245.9	1246.5	-0.6	Yes
8/30/2004	1247.3	1247.9	-0.6	Yes
8/31/2004	1248.7	1249.3	-0.6	Yes
9/1/2004	1248.9	1249.7	-0.8	Yes
9/1/2004	1252.8	1253.1	-0.3	Not Required
9/2/2004	1253.7	1254	-0.3	Not Required
9/3/2004	1254.4	1254.7	-0.3	Not Required
9/4/2004	1254.9	1255.2	-0.3	Not Required
9/5/2004	1249.5	1250.7	-1.2	Not Required
9/6/2004	1248.3	1249.6	-1.3	Not Required
9/7/2004	1248.2	1249.5	-1.3	Not Required
9/8/2004	1248.5	1249.7	-1.2	Not Required
9/15/2004	1255.5	1256.2	-0.7	Not Required
9/22/2004	1259.8	1260.5	-0.7	Not Required
9/29/2004	1260.8	1261.5	-0.7	Not Required

Note: Recovery wells shut off for 90-day test on September 1, 2004.

Figure 6 - Annular Resistivity in Kohms



**ATTACHMENT 2**

**POC QUARTERLY COMPLIANCE MONITORING REPORT**



**FLORENCE COPPER PROJECT  
QUARTERLY COMPLIANCE MONITORING REPORT  
THIRD QUARTER 2004**

***Primary Sampling Activities***

Quarterly compliance monitoring was conducted for the Florence Copper project on July 13 through July 15 and August 18, 2004 (Third Quarter 2004). Groundwater sampling and analysis was conducted in accordance with the requirements of Aquifer Protection Permit (APP) Permit Number 101704, Part IIE.3.d (Compliance Monitoring). Quarterly parameters, as listed in Part IV Table IILB of the APP were analyzed from the designated Point of Compliance (POC) wells. The quarterly parameters are magnesium, sulfate, fluoride, and total dissolved solids (TDS).

During the Third Quarter 2004 sampling event, 29 POC wells were sampled and a total of 116 constituents were analyzed. Two POC wells, M32-UBF and M33-UBF, were dry and could not be sampled. Of the 116 constituents analyzed, none had reported concentrations exceeding the approved alert levels (ALs).

Analyses of the samples were conducted by Aerotech Environmental Laboratories (Aerotech). Analytical results for the POC wells for the quarterly parameters are provided in Table 1 and field parameters measured during sampling are indicated in Table 2.

***AL Exceedances and Verification Sampling***

Part IIF.4 of the APP (AL, Aquifer Quality Limit [AQL], and Discharge Limit [DL] Contingencies) requires verification sampling for an AL exceedance. There were no AL exceedances during this quarterly sampling. No verification sampling was required.

***Contingency Sampling Plan to be Implemented During Fourth Quarter 2004***

There were no AL exceedances verified during this quarterly sampling. No contingency sampling plan is required during the Fourth Quarter of 2004.

***Results of Contingency Sampling Plan Implemented from Second Quarter 2004***

There were no AL exceedances during the Second Quarter 2004. Therefore, no contingency sampling plan was implemented.

***Issues***

There were no other issues to report during the Third Quarter 2004.



TABLE 1. SUMMARY OF ANALYTICAL RESULTS, QUARTERLY PARAMETERS

Well ID	Sample Date	Magnesium		Sulfate		Fluoride		Total Dissolved Solids	
		Concentration	Alert Level	Concentration	Alert Level	Concentration	Alert Level	Concentration	Alert Level
M1-GL	Jul 15 2004	20.0	31	98	109	0.83	1.3	630	1028
M2-GU	Jul 14 2004	22.0	39	150	275	1.0	1.4	740	1496
M3-GL	Jul 14 2004	22.0	36	130	187	0.87	1.3	640	1157
M4-O	Jul 14 2004	4.2	15	56	405	2.6	5.1	360	1072
M6-GU	Aug 18 2004	2.8	5.1	52	86	0.8	1.3	290	620
M7-GL	Jul 14 2004	<0.25	1	36	82	0.97	1.7	280	464
M8-O	Jul 14 2004	<0.25	1	75	122	2.0	3.6	360	609
M14-GL	Jul 14 2004	1.9	23	57	144	0.74	1.4	360	874
M14-GL (Dup)	Jul 14 2004	1.9	23	57	144	0.75	1.4	370	874
M15-GU	Jul 14 2004	24.0	44	73	126	0.65	1.2	800	1359
M16-GU	Jul 15 2004	30.0	52	160	248	0.68	1.1	990	1635
M17-GL	Jul 15 2004	5.6	9.3	120	209	0.86	1.6	410	831
M18-GU	Jul 15 2004	17.0	36	160	288	1.1	1.6	650	1323
M19-LBF	Jul 13 2004	12.0	21	55	89	0.63	1	460	794
M20-O	Jul 13 2004	9.0	14	69	112	0.89	1.7	440	809
M21-UBF	Jul 13 2004	30.0	87	240	487	0.8	1.1	1000	2867
M22-O	Jul 14 2004	5.8	8.6	51	86	0.81	1.3	350	1094
M23-UBF	Jul 14 2004	40.0	69	250	411	0.79	1.3	1400	2392
M24-O	Jul 15 2004	11.0	19	790	1364	1.2	2.5	1200	2363
M25-UBF	Jul 15 2004	38.0	76	260	387	0.81	1.6	1200	2683
M26-O	Aug 18 2004	<0.25	1	64	105	1.7	3.4	270	556
M27-LBF	Aug 18 2004	30.0	51	130	179	0.52	1	1000	1745
M28-LBF	Jul 13 2004	1.5	2.6	48	81	0.9	1.6	340	610
M28-LBF (Dup)	Jul 13 2004	1.6	2.6	48	81	0.87	1.6	370	610
M29-UBF	Jul 13 2004	42.0	84	290	465	0.79	1.1	1300	2751
M30-O	Jul 13 2004	11.0	18	60	102	0.85	1.6	430	824
M31-LBF	Jul 13 2004	25.0	46	220	330	0.88	1.3	870	1665
O19-GL	Jul 15 2004	10.0	17	58	99	0.73	1.4	430	770
O19-GL (Dup)	Jul 15 2004	10.0	17	58	99	0.77	1.4	430	770
Q49-GL	Jul 13 2004	12.0	18	93	159	0.67	1	580	849
P19-I-O	Jul 15 2004	5.9	12	66	107	1.6	2.8	390	767
P49-O	Jul 13 2004	3.4	6.2	100	181	1.1	2	430	801
Laboratory Detection Limit		0.25		2		0.4		10	
Arizona Aquifer Water Quality Standard		-		-		4		-	
All results in milligrams per liter (mg/l)									
< = less than the laboratory practical quantitation limit									

TABLE 2. SUMMARY OF QUARTERLY FIELD PARAMETERS

Well ID	Sample Date	Temperature (°C)	Temperature (°F)	pH	Conductivity (µmhos/cm)
M1-GL	Jul 15 2004	22.1	71.8	7.73	1055
M2-GU	Jul 14 2004	20.2	68.4	7.97	1131
M3-GL	Jul 14 2004	21.9	71.4	7.67	1080
M4-O	Jul 14 2004	23.7	74.7	7.61	636
M6-GU	Aug 18 2004	25.4	77.7	8.45	686
M7-GL	Jul 14 2004	25.0	77.0	9.10	495
M8-O	Jul 14 2004	29.5	85.1	8.79	664
M14-GL	Jul 14 2004	27.2	81.0	8.33	791
M15-GU	Jul 14 2004	25.0	77.0	7.55	1247
M16-GU	Jul 15 2004	24.2	75.6	7.41	1564
M17-GL	Jul 15 2004	28.6	83.5	8.16	844
M18-GU	Jul 15 2004	19.9	67.8	7.56	986
M19-LBF	Jul 13 2004	23.3	73.9	7.53	780
M20-O	Jul 11 2004	24.0	75.2	7.38	751
M21-UBF	Jul 13 2004	22.7	72.9	7.21	1520
M22-O	Jul 13 2004	28.8	83.8	7.98	775
M23-UBF	Jul 14 2004	22.4	72.3	7.16	2116
M24-O	Jul 15 2004	30.8	87.4	7.72	1988
M25-UBF	Jul 15 2004	21.2	70.2	7.29	1879
M26-O	Aug 18 2004	29.4	84.9	8.59	594
M27-LBF	Aug 18 2004	24.2	75.6	7.57	1549
M28-LBF	Jul 13 2004	26.3	79.3	8.23	669
M29-UBF	Jul 15 2004	22.8	73.0	7.23	2070
M30-O	Jul 13 2004	24.4	75.9	7.40	787
M31-LBF	Jul 13 2004	22.6	72.7	7.28	1336
O19-GL	Jul 15 2004	23.9	75.0	7.78	755
O49-GL	Jul 13 2004	25.9	78.6	7.64	1047
P19-I-O	Jul 15 2004	24.7	76.5	7.85	732
P49-O	Jul 13 2004	28.6	83.5	7.55	808