HOMESTAKE
Grants Office

Alan D. Cox
Project Manager

27 January 2009

Mr. John Buckley, Sr. Project Manager
c/o Document Control Desk
Fuel Cycle Facilities Branch (Mailstop T8-A33)
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Materials Safety and Safeguards
U. S. Nuclear Regulatory Commission
11545 Rockville Pike
Two White Flint North
Rockville, MD 20852-2738

RE: **Grants Reclamation Project**
Docket No. 40-8903
License No. SUA-1471
Pump Test – Hydrologic / Water Quality Evaluation Report
For Well 986

Dear Mr. Buckley:

Pursuant to previous questions raised concerning Well 986, enclosed please find an evaluation of the status of this San Andres well situated near Ralph Card Road and across from the Valle Verde residential subdivision. By way of background, past water quality sampling of this well indicated slightly higher levels of Unat than those observed in other San Andres wells in this area. Consequently, you requested that we undertake a study to evaluate whether the water quality observations are indicative of possible contamination of the San Andres aquifer, and if verified, what the potential source(s) might be.

The attached report contains our findings of the pump and sampling testwork that we did during the latter part of 2008. As you recall, the study methodology and work plan was discussed and agreed to with NRC, NMED and Homestake prior to initiation of work in the field.

Thank you for your time and attention on this matter. If you have any questions regarding the report or associated observations/conclusions, please contact me in our Grants office at (505) 287-4456 Ext. 25 or via cell phone at (505) 400-2794.

Sincerely yours,

Alan D. Cox

HOMESTAKE MINING COMPANY OF CALIFORNIA
Alan D. Cox
Project Manager / RSO

Enclosures (2 copies Well 986 report)

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NMSS01

HYDRO - ENGINEERING, LLC

WELL 986 URANIUM EVALUATION
FOR
HOMESTAKE'S GRANTS PROJECT
PURSUANT TO
NRC LICENSE SUA-1471

FOR:

U.S. NUCLEAR REGULATORY COMMISSION

BY:

HOMESTAKE MINING COMPANY OF CALIFORNIA
GRANTS, NEW MEXICO

AND

HYDRO-ENGINEERING, LLC
CASPER, WYOMING

January 2009

GEORGE L. HOFFMAN, P.E.
5831 N.M. HYDROLOGIST

1/28/09

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1.0 Introduction and Pump Test Objective

San Andres well 986 contained an elevated uranium concentration of 0.05 mg/l in a sample collected in May 2006. Well 986 is located east of the southeast corner of Valle Verde (VV) across Ralph Card Road. Figure 1 shows the location of well 986 and the location of other San Andres wells in the area near the Homestake Grants project. Table 1 presents the well information for wells that are near well 986. This table presents the block and lot number for the wells that are located in the La Siembra Estates residential subdivision (LS) near well 986. San Andres well 987 is located in the Valle Verde residential subdivision (VV). This table shows that well 986 has casing perforations from 425-470 feet below the land surface.

The objective of the 986 Uranium Evaluation was to pump well 986 for three days to determine if the uranium concentration in this well decreases with continuous pumping. If leakage from the alluvial aquifer has caused the elevated uranium concentration observed in well 986, it is expected that the uranium concentration will gradually decrease with additional pumping of well 986 during the Evaluation test.

2.0 Pumping and Sampling

Table 2 presents the pumping data collected on well 986 during this test. The static water level for well 986 was 124 feet below the top of the casing prior to commencement of the pump test. On August 22 the well was turned on by opening two outside spigots which were connected to five garden hoses at 5:21 pm. The water level dropped 0.64 feet in the first 10 minutes and then was fairly steady. A total pumping rate of 13 gpm was being produced from well 986. The first sample was collected at 5:55 pm from well 986. Table 2 shows that second and third samples were collected on August 23 and August 25 from well 986 during the continuous pumping period. Two additional samples were collected from well 986 on November 13, 2008 by turning on two outside spigots. The samples were collected after 4 and 9 minutes after the valves were opened.

2.1 Water Level Changes

Figure 2 presents the depths to water levels for well 986 during this pump test. The water levels in well 986 varied each day which is thought to be mainly due to variable pumping from some large unidentified stresses in the San Andres aquifer. The average amount of drawdown in well 986 over the three day period was approximately 0.6 feet. Water levels in 986 were highest near noon each day and declined in the afternoon.

Water levels were also monitored in San Andres well 991 which is immediately north of well 986 (see Figure 1 for location). Table 3 presents the water level data collected from well 991 and the plot of the depth to water for well 991 is shown on Figure 2 with the red squares. The water-level changes in well 991 were declining prior to the start of pumping well 986. Water levels in well 991 shows a very similar pattern as those from well 986 and are thought to be mainly governed by a variation of large water use at some other location in the San Andres aquifer. No measurable effect on the 991 water level is thought to have occurred from pumping

well 986. The pump in well 991 was turned on August 26 at 1:55 pm and a sample was collected from this well at 3:45 pm.

2.2 Water Quality Changes

San Andres well 955, which is south of San Andres well 986, was sampled on August 25 after pumping for 38 minutes at a rate of approximately 8.5 gpm. Tables 4 and 5 present the water quality data for San Andres wells for 2006 through 2008 that are tracked and/or monitored by Homestake.

The location of alluvial well 993 was indicated to be in the same lot as well 986, but the owner was not aware of a second well and no visual surface indication could be found for well 993. Tables 6 and 7 present the water quality data for alluvial well 942 which is the closest alluvial well to 986. The uranium concentration in well 942 is typically slightly greater than 0.5 mg/l.

Figure 1 shows the San Andres wells that have been sampled recently to update the water quality database for this aquifer. This figure shows the August 2008 TDS, sulfate, uranium and selenium concentrations for the San Andres aquifer. The uranium concentrations are presented in the upper right quadrant by each well in red with concentrations varying from 0.01 to 0.05 mg/l. All of the uranium concentrations in the area of well 986 are 0.01 mg/l or less. TDS concentrations are presented in the lower right quadrant for the San Andres aquifer with typical concentrations less than 800 mg/l in the outcrop area west of Highway 122 and increasing to nearly 2000 mg/l near the Homestake Large Tailings Pile. TDS concentrations in this limestone aquifer naturally increase as the water moves downgradient to the east.

Figure 3 shows the uranium concentrations for wells 986, 991 and 955. The concentrations in well 986 declined slightly over the pumping period. The uranium concentrations in wells 991 and 955 are very similar to the 986 values. The decline in the uranium concentrations in well 986, while evident, are not large enough to definitely conclude that the higher concentration that was observed in well 986 in 2006 was due to the alluvial water leakage into this well. Two additional samples were collected from well 986 after the 4 and 9 minutes of pumping on 11/13/08 to define the uranium concentration shortly after the pump is turned on after being off for a long period of time. The well was not used for 10 hours prior to this sampling. The uranium concentrations from these two samples were 0.057 and 0.053 mg/l. This data, coupled with the 2006 data, indicates alluvial water may well be leaking into this well. The sample on August 22, 2008, collected after 24 minutes of continuous pumping, shows that this suspected leakage is not significantly affecting the uranium concentration in the San Andres aquifer.

TDS concentrations in the San Andres aquifer naturally increased from the western area near its outcrop to the downgradient area to the east. Uranium concentrations are low in the all of the San Andres aquifer except for 2 wells north of County Road 63.

3.0 Conclusions

All three of the uranium concentrations in well 986 in August 2008 were very low, near 0.01 mg/l. The changes in concentrations in uranium in well 986 during the pump test are not large

enough to conclusively indicate that the higher value in 2006 was due to leakage from the alluvial aquifer. The higher value in 2006 could as easily be due to a laboratory analytical variability or error. A fourth and fifth sample for this well were collected on 11/13/08 after 4 and 9 minutes of pumping to determine if the uranium value is elevated shortly after the pump is turned on. This data coupled with the 2006 observed data indicates that alluvial water may well be leaking into well 986. The uranium concentration from the 986 pump test, however, shows that this suspected leakage is not significantly affecting the San Andres aquifer water quality.

TABLE 1. WELL INFORMATION FOR WELLS NEAR WELL 986.

WELL NO.	LOCATION	WELL DEPTH	MP ELEVATION	ESTIMATED DEPTH TO WATER	CASING PERFORATION
986	LS B2L1	467	6550	120	425-470
955	LS B1L21	498	6550	120	385-498
987	VV B4L11	500	6550	120	425-470
991	LS B2L5	500	6551	120	-
993	LS B2L1	102	6550	55	85-98
942	LS B2L3	102	6551	55	85-95

TABLE 2. AQUIFER-TEST DATA FOR SAN ANDRES WELL 986.

DATE	TIME	TIME SINCE PUMPING STARTED (t, min)	TIME SINCE PUMPING STOPPED (t', min)	t/t'	WATER LEVEL ft below MP	DRAWDOWN (ft)	DISCHARGE (gpm)	WATER TEMP. (deg C)	CONDUCTIVITY (umhos/cm @ 25 deg C)	pH (units)
08/22/08	17:18:00	-3	--	--	124.00	0.00	--	--	--	--
	17:21:00	PUMP ON								
	17:31:00	10	--	--	124.64	0.64	--	--	--	--
	17:34:00	13	--	--	124.63	0.63	--	--	--	--
	17:38:00	17	--	--	124.66	0.66	13.00	--	--	--
	17:55:00	34	--	--	--	--	--	16.9	1290	--
	17:55:00	SAMPLE TAKEN								
08/23/08	8:02:00	881	--	--	124.36	0.36	12.90	--	--	--
	17:07:00	1426	--	--	124.85	0.85	12.90	--	--	--
	17:25:00	1444	--	--	--	--	--	17.1	1310	--
	17:25:00	SAMPLE TAKEN								
08/24/08	11:12:00	2511	--	--	124.32	0.32	12.80	--	--	--
	18:04:00	2923	--	--	124.72	0.72	--	--	--	--
08/25/08	10:11:00	3890	--	--	124.41	0.41	--	--	--	--
	10:20:00	3899	--	--	--	--	--	16.3	1300	--
	10:20:00	SAMPLE TAKEN								
11/13/08	17:35:00	PUMP ON								
	17:39:00	SAMPLE TAKEN								
	17:44:00	9	--	--	--	--	--	11.0	2270	--
	17:44:00	SAMPLE TAKEN								

TABLE 3. AQUIFER-TEST DATA FOR SAN ANDRES WELL 991.

DATE	TIME	TIME SINCE PUMPING STARTED (t, min)	TIME SINCE PUMPING STOPPED (t', min)	t/t'	WATER LEVEL ft below MP	DRAWDOWN (ft)	DISCHARGE (gpm)	WATER TEMP. (deg C)	CONDUCTIVITY (umhos/cm @ 25 deg C)	pH (units)
08/22/08	16:05:00	-5630	–	–	126.82	0.05	–	–	–	–
	16:21:00	-5614	–	–	126.86	0.09	–	–	–	–
	16:25:00	-5610	–	–	126.87	0.10	–	–	–	–
	16:33:00	-5602	–	–	126.88	0.11	–	–	–	–
	16:47:00	-5588	–	–	126.91	0.14	–	–	–	–
08/23/08	8:18:00	-4657	–	–	126.66	-0.11	–	–	–	–
	17:03:00	-4132	–	–	127.17	0.40	–	–	–	–
08/24/08	11:08:00	-3047	–	–	126.62	-0.15	–	–	–	–
	18:01:00	-2634	–	–	127.02	0.25	–	–	–	–
08/25/08	11:30:00	-1585	–	–	126.70	-0.07	–	–	–	–
08/26/08	8:07:00	-348	–	–	126.76	-0.01	–	–	–	–
	9:58:00	-237	–	–	126.77	0.00	–	–	–	–
	13:55:00	PUMP ON								
	14:39:00	44	–	–	133.37	6.60	10.70	–	–	–
	14:56:00	61	–	–	133.89	7.12	–	–	–	–
	15:05:00	70	–	–	133.98	7.21	10.70	–	–	–
	15:20:00	85	–	–	133.73	6.96	–	16.7	1420	–
	15:23:00	88	–	–	–	–	–	16.4	1440	–
	15:45:00	110	–	–	–	–	11.50	16.4	1430	–
	15:45:00	SAMPLE TAKEN								

TABLE 4. WATER QUALITY ANALYSES FOR THE SAN ANDRES AQUIFER.

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
#1 Deepwell	5/23/2006	ENER	234	76.0	14.2	320	---	---	307	759	2140	* 2870	---
	10/10/2006	ENER	---	---	---	---	---	---	---	726	1950	* 2852	---
	5/7/2007	ENER	243	82.0	12.8	304	---	---	232	763	1980	* 2755	---
	10/1/2007	ENER	---	---	---	---	---	---	---	682	1950	---	---
	5/5/2008	ENER	249	83.7	13.0	320	---	---	229	769	1900	* 2689	---
	8/27/2008	ENER	244	80.6	12.8	318	585	< 1.000	224	738	1970	* 2751	1.05
#2 Deepwell	5/23/2006	ENER	206	67.6	12.0	240	---	---	237	653	1970	* 2434	---
	10/10/2006	ENER	---	---	---	---	---	---	---	681	1770	* 2670	---
	5/7/2007	ENER	230	75.1	12.0	251	---	---	210	706	1780	* 2426	---
	10/1/2007	ENER	---	---	---	---	---	---	---	612	1720	* 2389	---
	5/5/2008	ENER	225	76.6	11.5	256	---	---	194	709	1660	* 2412	---
	8/27/2008	ENER	251	81.8	12.1	272	512	< 1.000	216	719	1900	* 2549	1.06
0806	10/4/2006	ENER	---	---	---	---	---	---	162	555	1530	* 2259	---
	10/2/2007	ENER	---	---	---	---	---	---	---	605	1570	---	---
0911	8/25/2008	ENER	150	41.9	3.70	63.0	280	< 1.000	38.0	336	823	* 1165	1.08
0928	12/10/2006	ENER	---	---	---	---	---	---	---	863	1680	* 2335	---
	12/3/2007	ENER	---	---	---	---	---	---	---	806	1650	* 2321	---
	9/15/2008	ENER	31.7	7.50	1.60	422	319	< 1.000	39.0	599	1230	---	1.09
	9/16/2008	ENER	23.0	5.70	1.60	436	318	< 1.000	44.0	585	1210	* 1842	1.10
	9/17/2008	ENER	15.6	4.10	1.50	431	317	2.00	44.0	556	1180	* 1819	1.10
0943	3/16/2006	ENER	167	54.8	10.2	261	412	< 1.000	161	695	1670	* 2551	0.948
	12/19/2006	ENER	191	62.4	9.80	282	298	< 1.000	188	716	1710	---	1.08
	3/8/2007	ENER	178	58.5	9.20	310	403	< 1.000	175	753	1790	* 2420	1.01
	12/3/2007	ENER	---	---	---	---	---	---	---	649	1700	* 2356	---
	3/5/2008	ENER	181	56.2	9.40	288	422	< 1.000	177	742	1640	* 2411	0.965
	9/16/2008	ENER	206	64.1	9.20	293	401	< 1.000	168	689	1650	* 2312	1.11
0949	8/25/2008	ENER	184	56.6	6.80	128	344	< 1.000	108	512	1200	* 1620	1.01

* Signifies Specific Conductivity from HMC

TABLE 4. WATER QUALITY ANALYSES FOR THE SAN ANDRES AQUIFER. (cont'd)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0949	8/25/2008	ENER	184	56.6	6.80	128	344	< 1.000	108	512	1200	* 1620	1.01
0951	3/16/2006	ENER	145	43.4	5.60	79.9	342	< 1.000	83.0	356	912	* 1459	0.937
	3/9/2007	ENER	154	47.2	5.30	83.6	354	< 1.000	62.0	360	916	* 1318	1.02
	12/3/2007	ENER	---	---	---	---	---	---	---	325	932	* 1346	---
	3/5/2008	ENER	147	43.5	5.50	86.0	352	< 1.000	62.0	349	938	* 1348	0.998
	8/27/2008	ENER	170	50.0	5.70	98.0	339	< 1.000	74.0	382	976	* 1421	1.09
0955	5/1/2006	ENER	164	51.8	6.60	107	336	< 1.000	68.0	461	1030	* 891	1.01
	8/25/2008	ENER	165	53.8	6.30	103	320	< 1.000	70.0	438	1030	* 1460	1.06
0986	5/2/2006	ENER	139	39.5	3.10	268	410	< 1.000	48.0	606	1330	---	1.06
	8/22/2008	ENER	166	50.7	5.70	119	328	< 1.000	71.0	468	1100	* 1290	1.04
	8/23/2008	ENER	178	52.5	5.90	114	328	< 1.000	78.0	474	1090	* 1310	1.05
	8/25/2008	ENER	173	54.5	6.20	118	337	< 1.000	81.0	476	1150	* 1300	1.04
	11/13/2008	ENER	196	517	3.70	319	385	< 1.000	66.0	876	1730	* 1640	2.51
	11/13/2008	ENER	192	50.6	3.70	322	384	< 1.000	65.0	876	1760	* 2270	1.05
0987	5/10/2007	ENER	172	51.2	6.00	116	366	< 1.000	59.0	547	1170	---	0.943
0991	8/26/2008	ENER	162	52.3	6.10	101	320	< 1.000	71.0	427	1030	* 1430	1.05

* Signifies Specific Conductivity from HMC

TABLE 5. WATER QUALITY ANALYSES FOR THE SAN ANDRES AQUIFER.

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
#1 Deepwell	5/23/2006	ENER	8.19	0.0095	< 0.0300	0.0050	0.800	1.50	---	---	---
	10/10/2006	ENER	---	0.0081	< 0.0300	0.0050	---	---	---	---	---
	5/7/2007	ENER	7.16	0.0082	< 0.0300	0.0050	0.800	0.500	---	---	---
	10/1/2007	ENER	---	0.0100	< 0.0300	0.0060	---	---	---	---	---
	5/5/2008	ENER	7.22	0.0078	< 0.0300	< 0.0050	0.930	0.280	---	---	---
	8/27/2008	ENER	7.47	0.0073	< 0.0300	0.0130	1.000	0.0400	---	---	---
#2 Deepwell	5/23/2006	ENER	8.36	0.0108	< 0.0300	0.0090	2.60	< 0.200	---	---	---
	10/10/2006	ENER	---	0.0118	< 0.0300	0.0090	---	---	---	---	---
	5/7/2007	ENER	7.29	0.0115	< 0.0300	0.0080	2.40	< 0.200	---	---	---
	10/1/2007	ENER	---	0.0114	< 0.0300	0.0090	---	---	---	---	---
	5/5/2008	ENER	7.38	0.0110	< 0.0300	0.0080	2.43	0.230	---	---	---
	8/27/2008	ENER	7.51	0.0155	< 0.0300	0.0070	4.80	0.0700	---	---	---
0806	10/4/2006	ENER	---	0.0182	< 0.0300	0.0110	3.80	---	---	---	---
	10/2/2007	ENER	---	0.0184	---	0.0090	---	---	---	---	---
0911	8/25/2008	ENER	7.80	0.0101	< 0.0300	0.0150	4.20	-0.0400	---	---	---
0928	12/10/2006	ENER	---	0.0853	---	0.0320	---	---	---	---	---
	12/3/2007	ENER	---	0.0823	---	0.0290	---	---	---	---	---
	9/15/2008	ENER	8.00	0.0400	< 0.0300	0.0140	0.200	0.130	---	---	---
	9/16/2008	ENER	8.24	0.0330	< 0.0300	0.0110	0.100	0.290	---	---	---
	9/17/2008	ENER	8.19	0.0285	< 0.0300	0.0100	0.100	0.720	---	---	---
0943	3/16/2006	ENER	7.80	0.0179	< 0.0300	0.0290	4.00	0.400	---	---	---
	12/19/2006	ENER	7.12	0.0149	< 0.0300	0.0220	3.80	< 0.200	---	---	---
	3/8/2007	ENER	7.57	0.0184	< 0.0300	0.0280	4.20	0.600	---	---	---
	12/3/2007	ENER	---	0.0185	---	0.0230	---	---	---	---	---
	3/5/2008	ENER	7.48	0.0217	< 0.0300	0.0290	4.00	-0.0600	---	---	---
	9/16/2008	ENER	7.40	0.0182	< 0.0300	0.0220	4.20	1.20	---	---	---
0949	8/25/2008	ENER	7.63	0.0116	< 0.0300	0.0090	5.00	0.170	---	---	---

TABLE 5. WATER QUALITY ANALYSES FOR THE SAN ANDRES AQUIFER. (cont'd)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0949	8/25/2008	ENER	7.63	0.0116	< 0.0300	0.0090	5.00	0.170	---	---	---
0951	3/16/2006	ENER	7.91	0.0372	< 0.0300	0.0060	4.20	0.800	---	---	---
	3/9/2007	ENER	7.79	0.0317	< 0.0300	< 0.0050	4.50	< 0.200	---	---	---
	12/3/2007	ENER	---	0.0406	---	0.0060	---	---	---	---	---
	3/5/2008	ENER	7.49	0.0400	< 0.0300	0.0060	4.50	7.60	---	---	---
	8/27/2008	ENER	7.66	0.0470	< 0.0300	0.0050	5.00	-0.200	---	---	---
0955	5/1/2006	ENER	7.84	0.0054	< 0.0010	0.0110	3.60	1.000	1.30	0.0020	< 1.000
	8/25/2008	ENER	7.65	0.0054	< 0.0300	0.0110	4.20	0.210	---	---	---
0986	5/2/2006	ENER	7.92	0.0458	0.0020	0.0180	2.90	< 1.000	< 1.000	0.0010	< 1.000
	8/22/2008	ENER	7.62	0.0111	< 0.0300	0.0100	4.30	0.350	---	---	---
	8/23/2008	ENER	7.60	0.0094	< 0.0300	0.0100	4.90	0.310	---	---	---
	8/25/2008	ENER	7.52	0.0087	< 0.0300	0.0100	4.60	-0.270	---	---	---
	11/13/2008	ENER	7.78	0.0570	< 0.0300	0.0240	5.10	0.0900	---	---	---
	11/13/2008	ENER	7.84	0.0530	< 0.0300	0.0240	5.10	- 0.0500	---	---	---
0987	5/10/2007	ENER	7.60	0.0091	0.0010	0.0110	3.60	< 0.200	2.60	0.0020	< 0.200
0991	8/26/2008	ENER	7.73	0.0062	< 0.0300	0.0100	4.40	0.550	---	---	---

TABLE 6. WATER QUALITY ANALYSES FOR ALLUVIAL WELL 942.

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0942	2/14/2006	ENER	---	---	---	---	---	---	---	1080	2380	* 3029	---
	8/8/2006	ENER	260	68.5	6.00	392	387	< 1.000	191	1150	2370	* 3119	1.00
	8/20/2007	ENER	---	---	---	---	---	---	183	1330	2700	* 3406	---
	2/5/2008	ENER	---	---	---	---	---	---	---	1430	2460	* 3569	---
	8/13/2008	ENER	---	---	---	---	---	---	226	1500	2880	* 3689	---

* Signifies Specific Conductivity from HMC

TABLE 7. WATER QUALITY ANALYSES FOR ALLUVIAL WELL 942.

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0942	2/14/2006	ENER	---	0.0620	< 0.0300	0.0430	---	---	---	---	---
	8/8/2006	ENER	7.74	0.0657	< 0.0300	0.0430	7.50	---	---	< 0.0100	---
	8/20/2007	ENER	---	0.0683	< 0.0300	0.0450	8.30	---	---	---	---
	2/5/2008	ENER	---	0.0660	< 0.0300	0.0460	---	---	---	---	---
	8/13/2008	ENER	---	0.0695	< 0.0300	0.0490	8.70	---	---	---	---

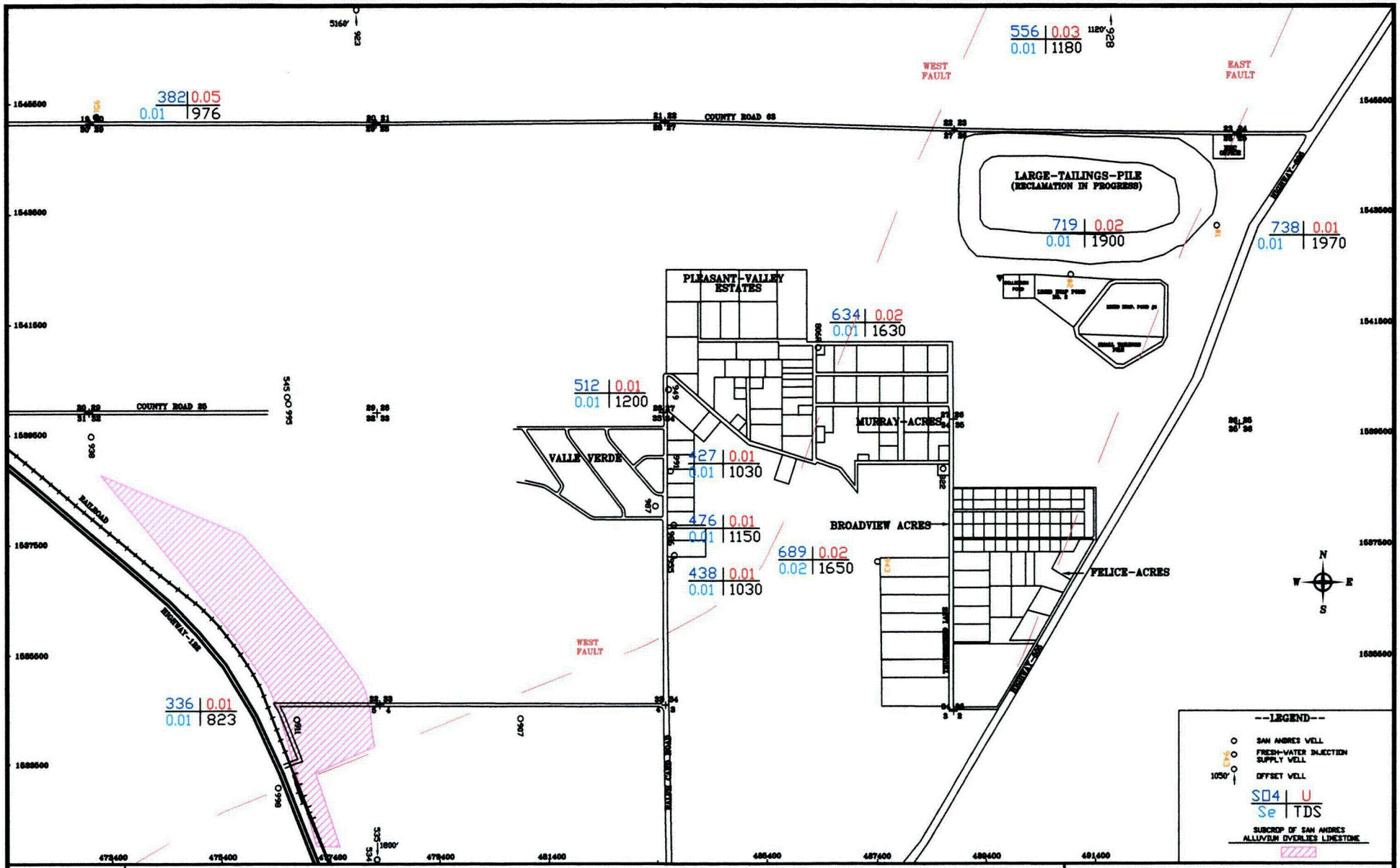

FIGURE 1. LOCATION OF SAN ANDRES WELLS AND WATER QUALITY DATA FOR THE SAN ANDRES AQUIFER, 2008, mg/l

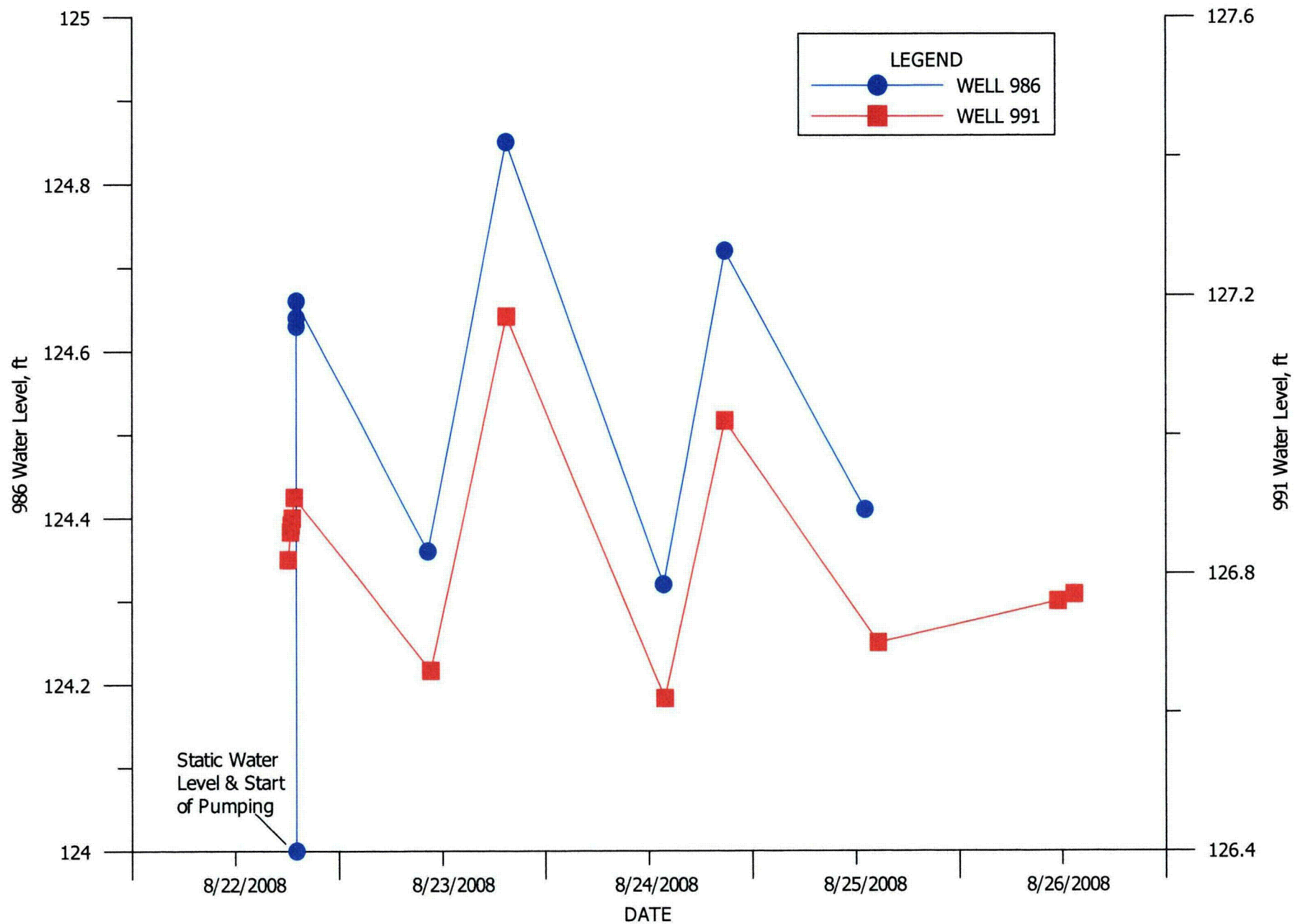

FIGURE 2. WATER LEVEL VERSUS TIME FOR WELLS 986 & 991.

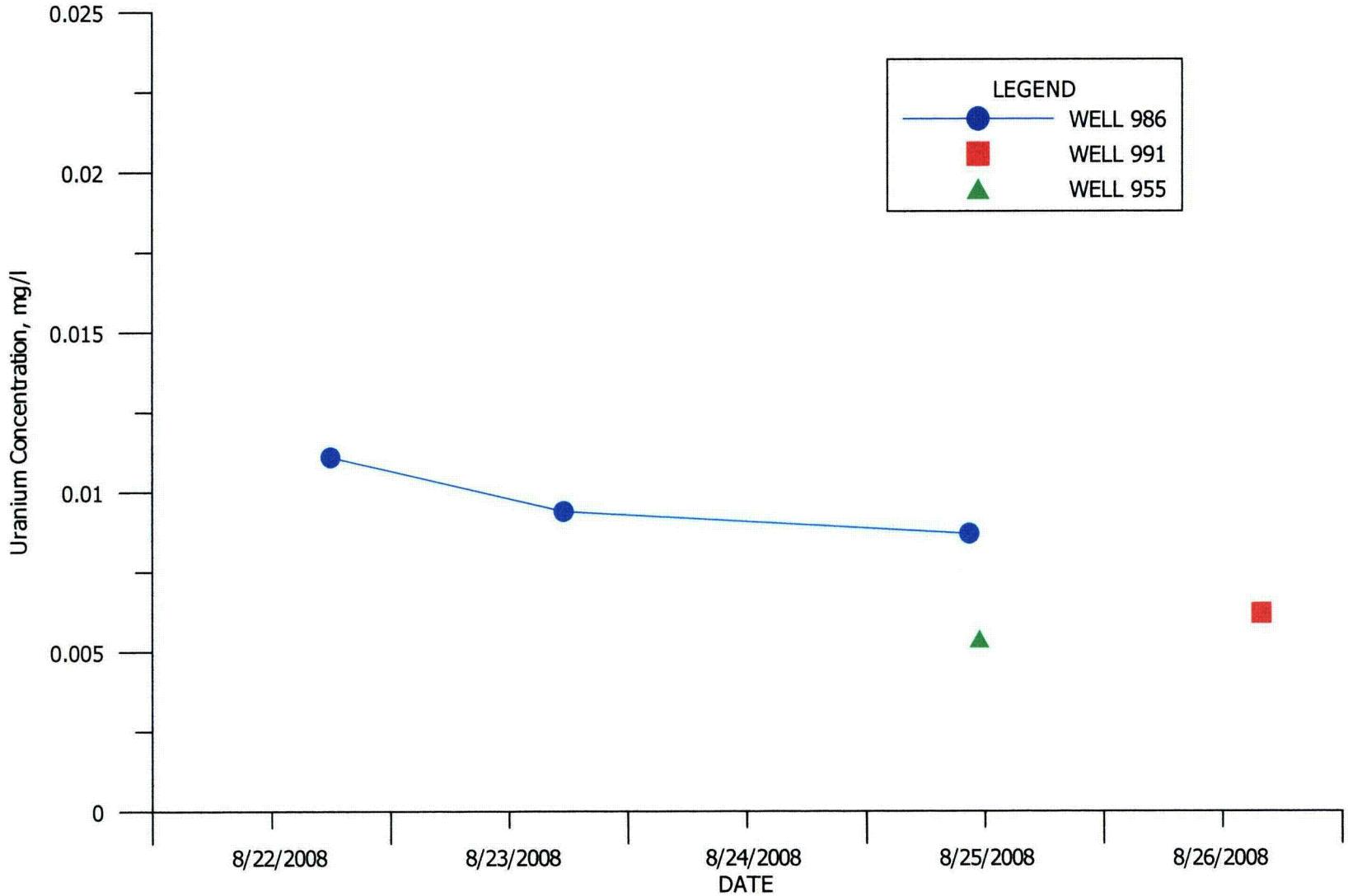

FIGURE 3. URANIUM CONCENTRATION VERSUS TIME FOR WELLS 986, 991 AND 955.