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GROUND-WATER MONITORING FOR HOMESTAKE'S GRANTS PROJECT

7.0 LOWER CHINLE AQUIFER MONITORING

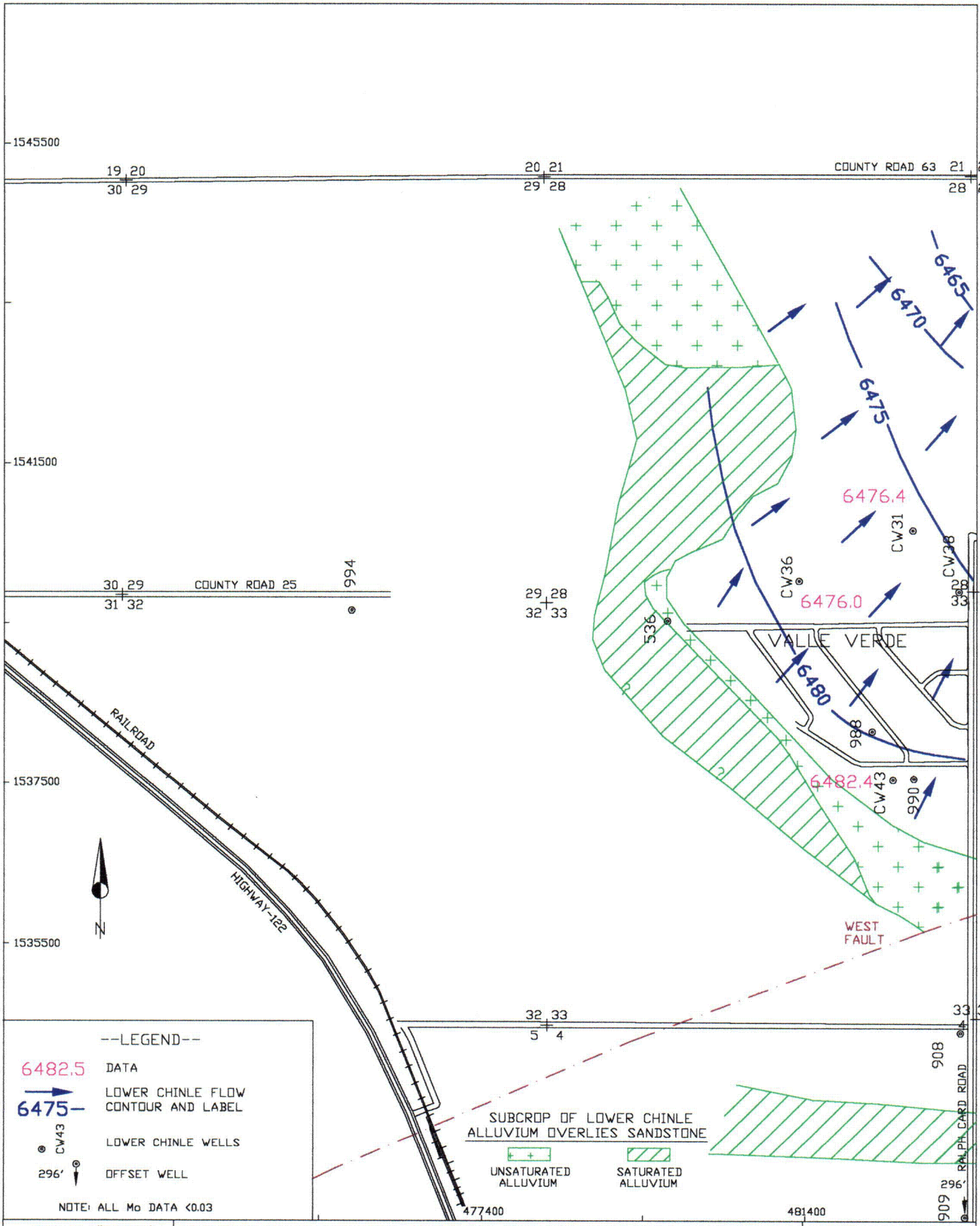
The Lower Chinle aquifer is a permeable zone in the Chinle shale below the Middle Chinle sandstone and above the San Andres aquifer. This aquifer becomes important west and southwest of the Homestake areas where this unit exists at shallower depths. The permeable zone in the Lower Chinle aquifer can vary greatly because the transmitting ability of this aquifer depends on secondary permeability being developed. Tables 5.1-1 through 5.1-4 present the Lower Chinle basic well data along with the other Chinle aquifer wells.

Water-level elevations for the Lower Chinle wells are presented with the remainder of the Chinle wells in Appendix A. Figures 7.0-1A and 7.0-1B present the location of the Lower Chinle wells and the Fall of 2002 water-level elevations. The West and East Faults are shown on Figures 7.0-1A and 7.0-1B. Flow west of the West Fault in the Lower Chinle is mainly to the northeast. Flow between the two faults is to the northwest, indicating that the Lower Chinle water moves across the West Fault. The approximate subcrop areas for the Lower Chinle aquifer are also shown on these two figures. Lower Chinle water levels in 2002 were generally four feet lower in Section 3 due to the irrigation supply pumped from this area and the drought.

The Lower Chinle water quality is presented on Figures 7.0-2A and 7.0-2B. These figures present the sulfate, uranium, selenium and TDS concentrations for each of the wells during the Fall of 2002. All molybdenum concentrations in all Lower Chinle wells are less than 0.03 mg/l. The sulfate concentrations are shown in the upper left quadrant by each well in blue. Sulfate concentrations varied from a low of 479 mg/l to a high of 1730 mg/l. A similar range in sulfate concentrations existed in the upgradient water quality in the alluvial aquifer. TDS concentrations varied from 1080 to 4180 mg/l. The TDS concentrations in the Lower Chinle increase substantially downgradient of the subcrop area west of the West Fault. These higher TDS concentrations are thought to be natural and a function of long travel times of the ground water in this shale.

Uranium concentrations are generally low in all of the Lower Chinle wells. A small area around Lower Chinle well CW42, which is located in Section 3, contained an elevated uranium concentration in the Fall of 2002. This concentration is due to the

connection with the alluvial aquifer to the west of this well in the subcrop area and should be reduced as the alluvial aquifer concentrations are reduced in this area from the use of water in the irrigation. Uranium concentrations in well CW42 declined from 1.18 to 1.01 mg/l during the last year. Selenium concentrations in most of the Lower Chinle wells are also low. All selenium concentrations in the Lower Chinle wells are below the upper limit of background.

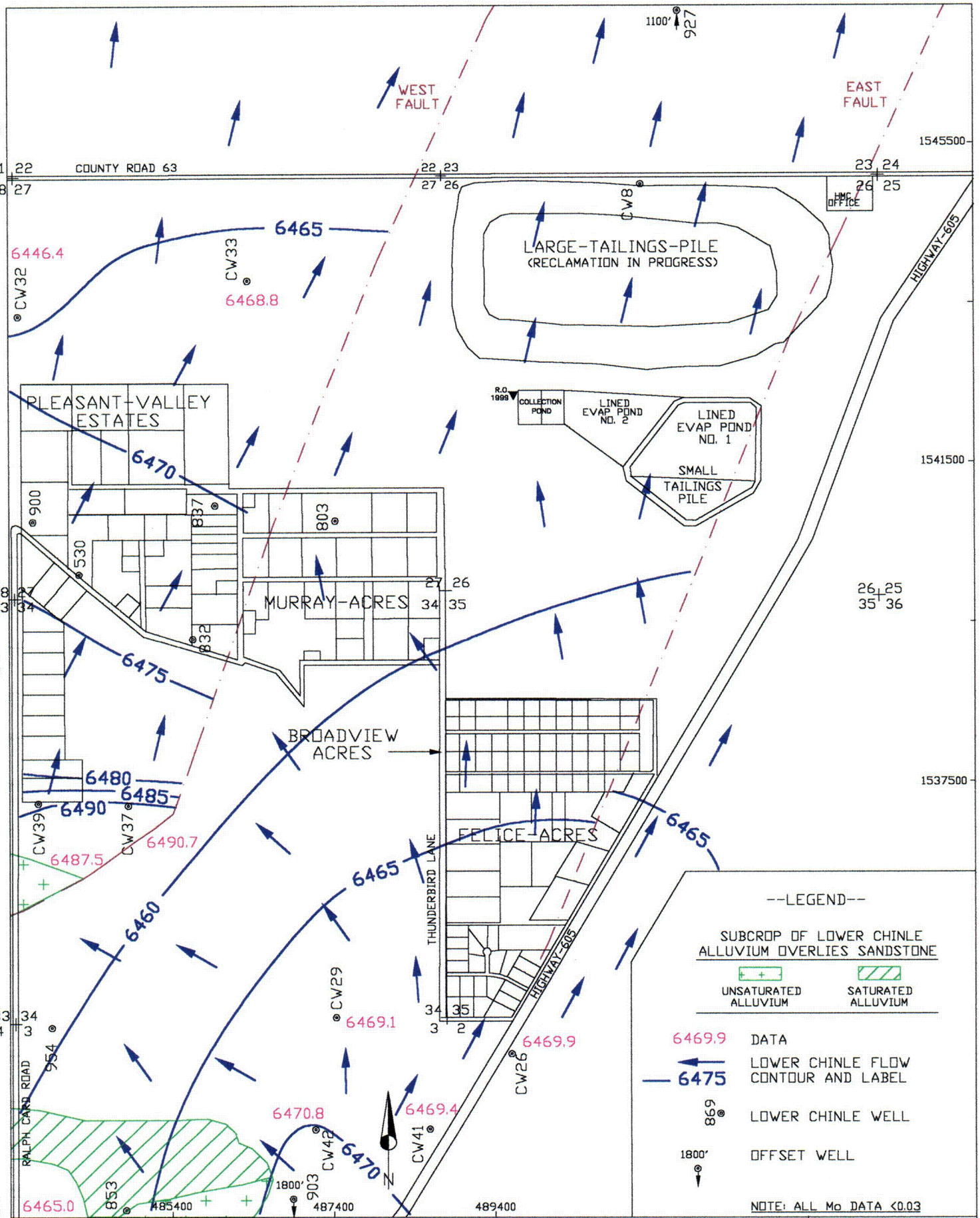


SCALE: 1"=1600' | HOMESTAKE-MILL-AND-ADJACENT-PROPERTIES GRANTS-NM-TOWNSHIP-11&12-N-RANGE-10-W | DATE: 02/10/03

FIGURE 7.0-1A. LOCATION OF LOWER CHINLE WELLS AND WATER-LEVEL ELEVATION (WEST AREA), FALL 2002, FT/MSL

D:\R13\HMC\LOW1600 LH

C01

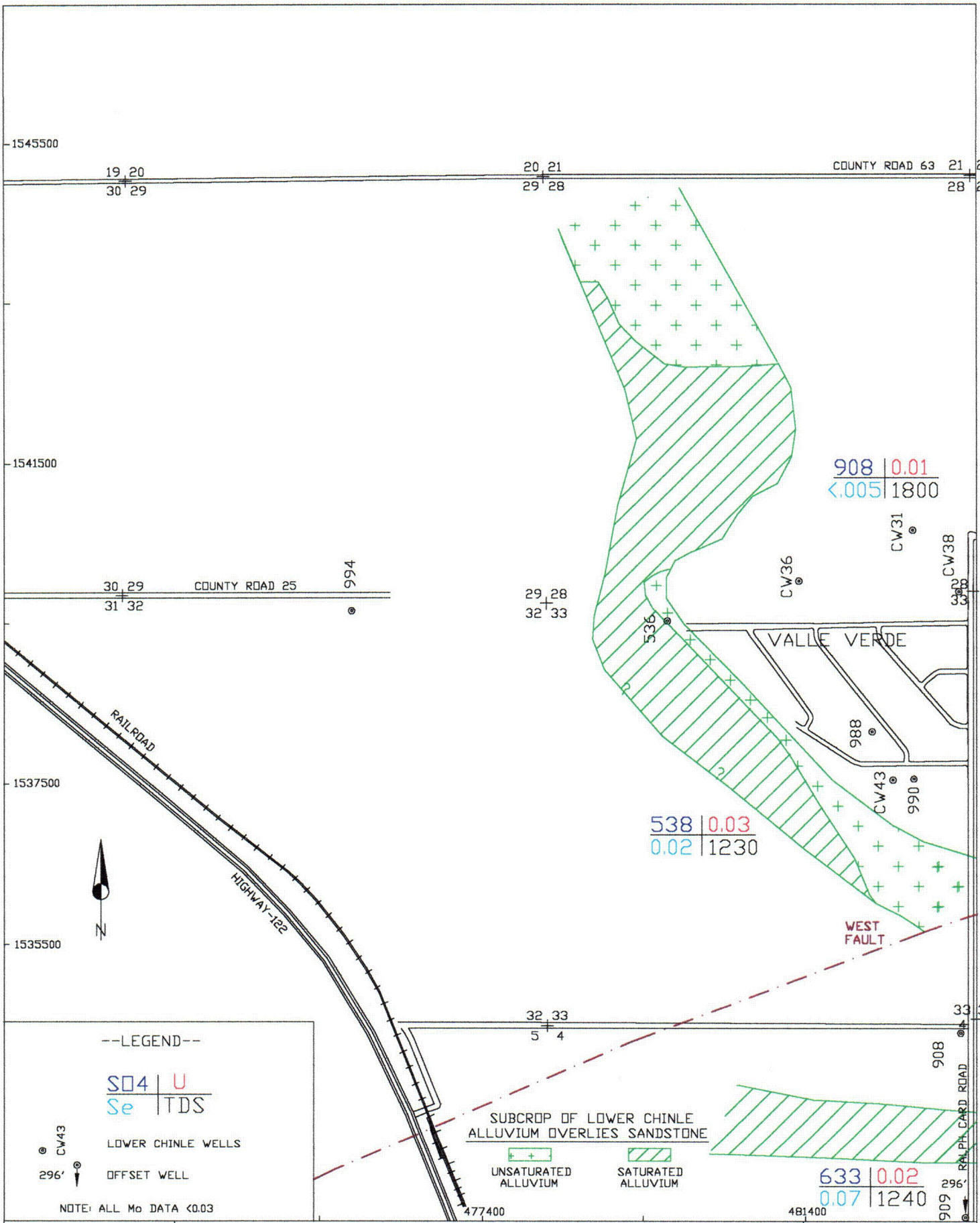


SCALE: 1"=1600'	HOMESTAKE-MILL-AND-ADJACENT-PROPERTIES GRANTS-NM-TOWNSHIP-11&12-N-RANGE-10-W	DATE: 02/10/03

FIGURE 7.0-1B. LOCATION OF LOWER CHINLE WELLS AND WATER-LEVEL ELEVATION, FALL 2002, FT-MSL

D:\R13\HMC\LOW1600 LH

C02

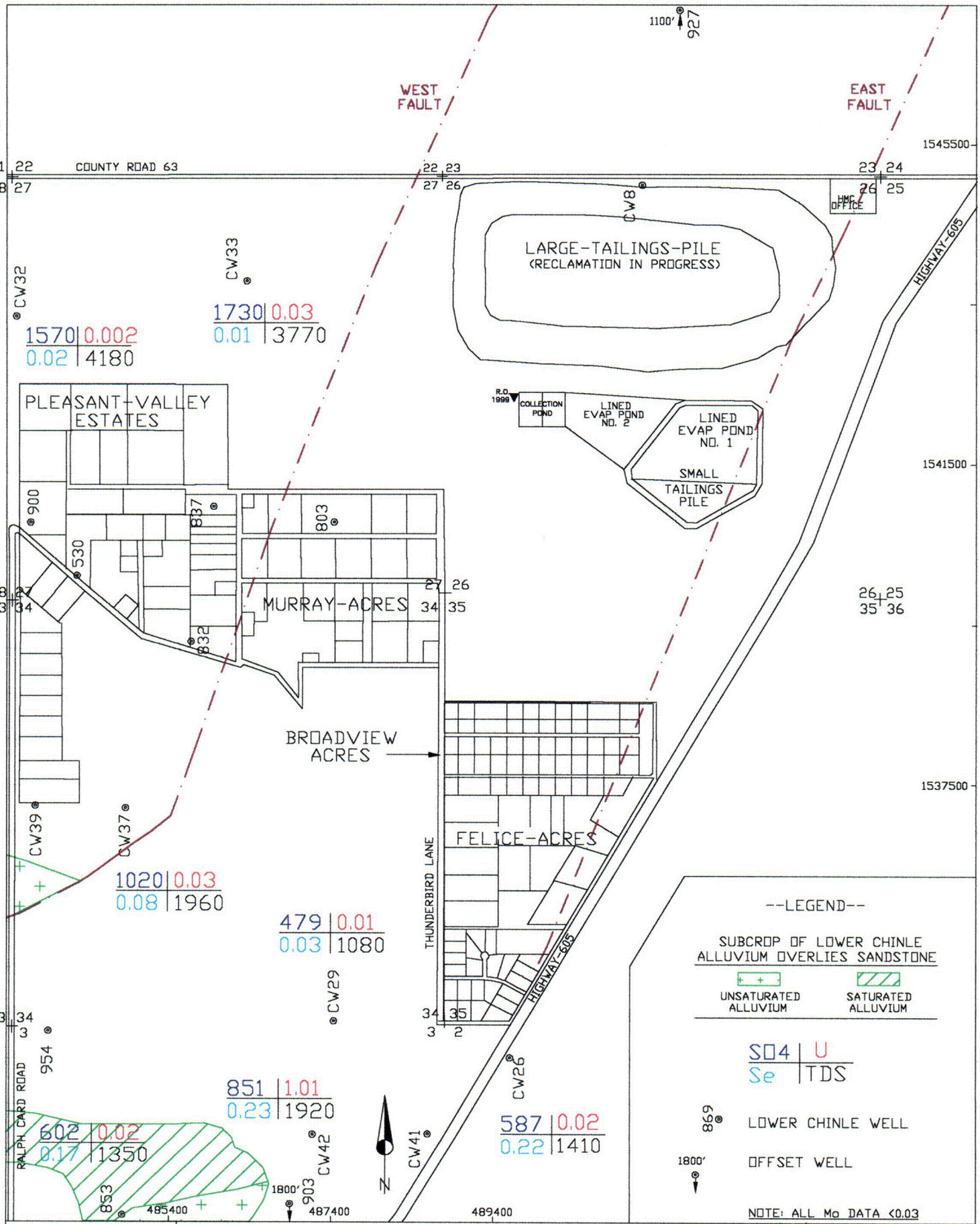


SCALE: 1"=1600' | HOMESTAKE-MILL-AND-ADJACENT-PROPERTIES GRANTS-NM-TOWNSHIP-11&12-N-RANGE-10-W | DATE: 02/10/03

FIGURE 7.0-2A. WATER QUALITY FOR THE LOWER CHINLE AQUIFER, (WEST AREA), FALL 2002, mg/l

D:\R13\HMC\LOW1600 LH

C03



SCALE: 1"=1600' | HOMESTAKE-MILL-AND-ADJACENT-PROPERTIES GRANTS-NM-TOWNSHIP-11&12-N-RANGE-10-W | DATE: 02/10/03

FIGURE 7.0-2B. WATER QUALITY FOR THE LOWER CHINLE AQUIFER, FALL 2002, mg/l

D:\R13\HMC\LOW1600 LH

C04

SECTION 8

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GROUND-WATER MONITORING FOR HOMESTAKE'S GRANTS PROJECT

8.0 SAN ANDRES AQUIFER MONITORING

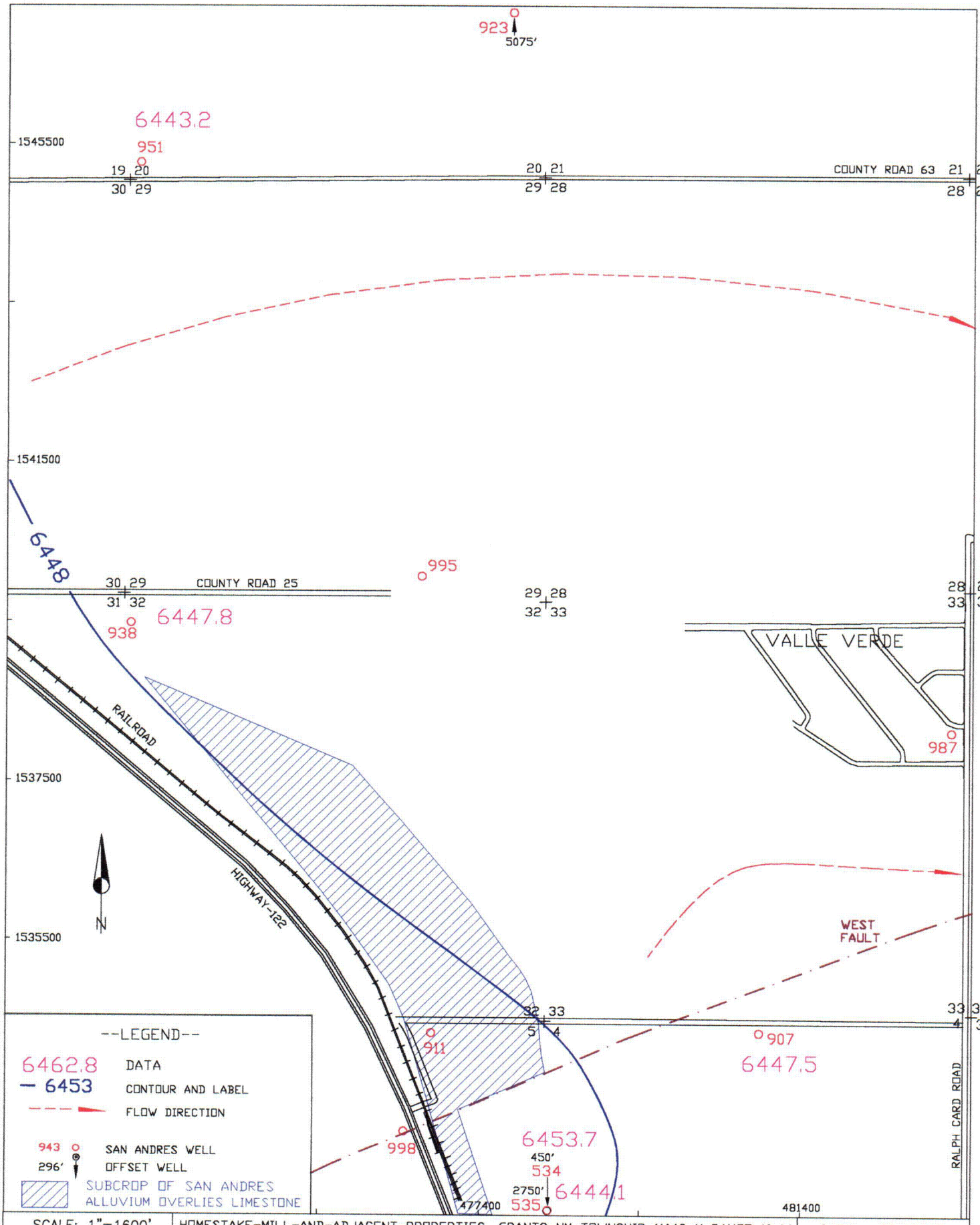
The San Andres aquifer is the most important regional aquifer in this area. The Chinle formation, which exists between the alluvium and the San Andres, is approximately 800 feet thick at the Homestake tailings site and consists of mainly shale with a few sandstone lenses. Therefore, the alluvial aquifer and the San Andres aquifer have a very thick aquitard separating them. The difference between the piezometric heads between the alluvial and San Andres aquifers is in the range of 70 to 80 feet, which indicates that the flow is highly retarded between these two systems. The San Andres and alluvial aquifers are only in direct connection in the western portion of the west area (see pattern on Figure 8.0-1A). Therefore, the San Andres aquifer is not as important to the evaluation of ground-water conditions at this site as the other aquifers. The San Andres aquifer has been used as the source for fresh-water injection into the alluvium and Chinle aquifers at the Grants Project, which has resulted in the San Andres monitoring program.

Table 8.0-1 presents well completion information for the San Andres wells in this area. Homestake has two deep wells, #1 Deep and #2 Deep, which are used to supply the fresh-water injection systems. San Andres well 951 is the fresh-water injection supply that is used for the Sections 28 and 29 injection system. Figures 8.0-1A and 8.0-1B show the locations of the San Andres wells in this area. Recharge to the San Andres aquifer is mainly west of Figure 8.0-1A and flow in the San Andres is deeper below the land surface as it moves to the east. The water-level elevations for 2002 (Figures 8.0-1A and 8.0-1B) show a very flat piezometric surface with a gradient from the west-northwest to the east-southeast. The gradient in the area indicates that the faults do not significantly affect the ground-water flow in the San Andres aquifer. The faults' displacements are not large enough to completely displace the entire thickness of this aquifer system.

Figures 8-02A and 8.0-2B also present the most recent water-quality data for the San Andres aquifer. Tables B.6-1 and B.6-2 in Appendix B present the tabulation of the 2002 water-quality data for the San Andres aquifer. This figure shows the 2002 data for the San Andres aquifer in a manner similar to the data presented on the Lower

Chinle aquifer figures. The sulfate concentrations are presented in the upper left quadrant, while the TDS data is presented in the lower right quadrant. This shows that the sulfate concentrations vary from 314 mg/l to 1080 mg/l in the San Andres aquifer. Sulfate concentrations are typically near 700 mg/l for the two Homestake wells (#1 Deep and #2 Deep). TDS concentrations have varied from 896 to 2010 mg/l and generally show an increase in a downgradient direction. The higher concentrations of sulfate and TDS to the east are natural and typical of a limestone aquifer due to dissolving of the rock as the water is in contact with the formation longer. This increase from the recharge area to down dip is expected. Uranium concentrations for all of the San Andres wells monitored in 2002 are low with the highest value being 0.09 at well 928. Well 928 typically contains slightly higher uranium concentrations. Selenium concentrations in the San Andres vary from less than 0.005 to 0.04 mg/l with the high also being from well 928. All molybdenum concentrations are less than 0.03 mg/l.

Figure 8.0-3 presents sulfate concentrations with time for Homestake's two deep wells at this site. This data shows that sulfate concentrations in 2002 in the two Homestake deep wells were similar to their historical average.

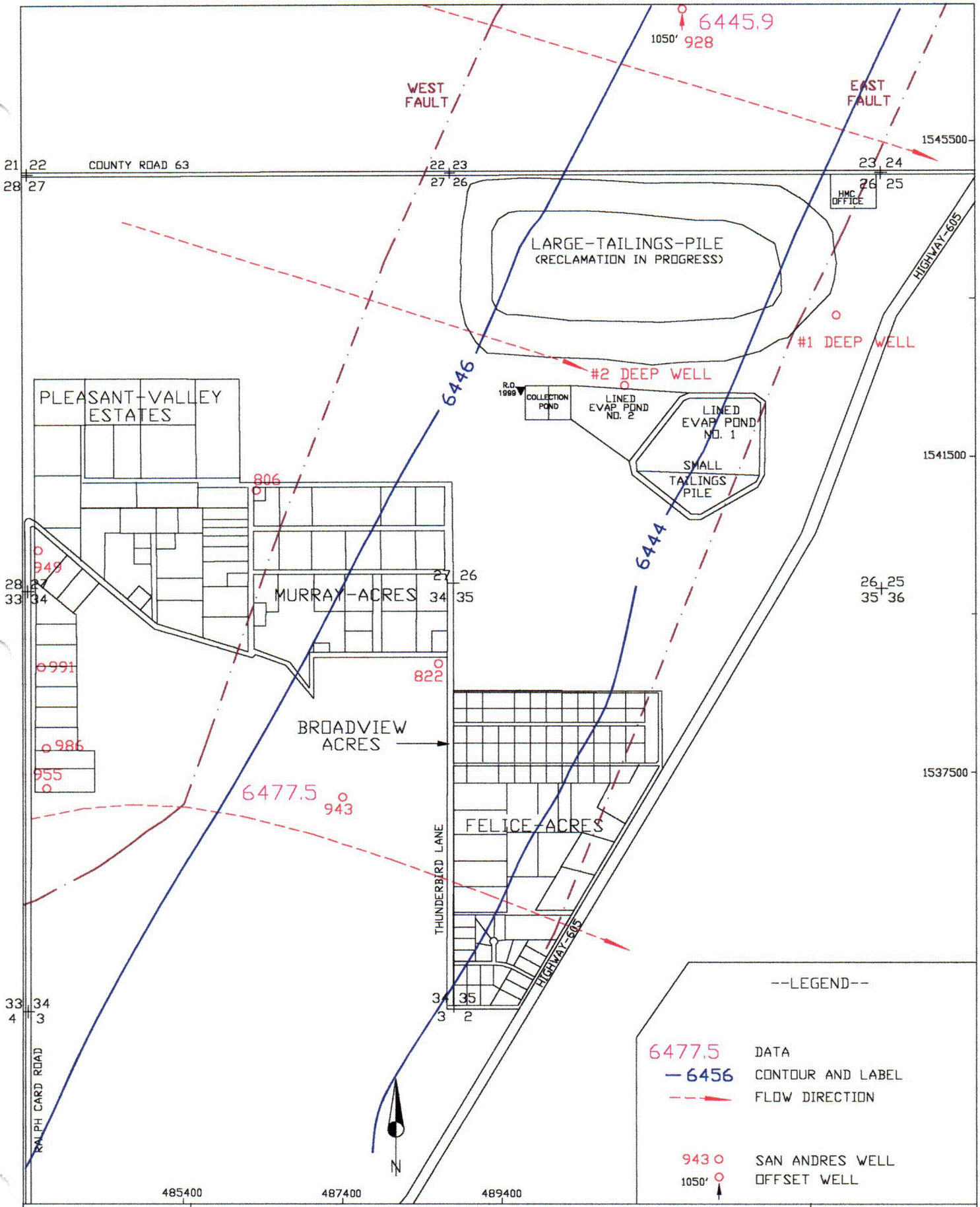


SCALE: 1"=1600' | HOMESTAKE-MILL-AND-ADJACENT-PROPERTIES GRANTS-NM-TOWNSHIP-11&12-N-RANGE-10-W | DATE: 02/10/03

FIGURE 8.0-1A. LOCATION OF SAN ANDRES WELLS AND WATER-LEVEL ELEVATION FOR THE SAN ANDRES AQUIFER (WEST AREA), FALL 2002, mg/l

D:\R13\HMC\SAN1600W_LH

C05

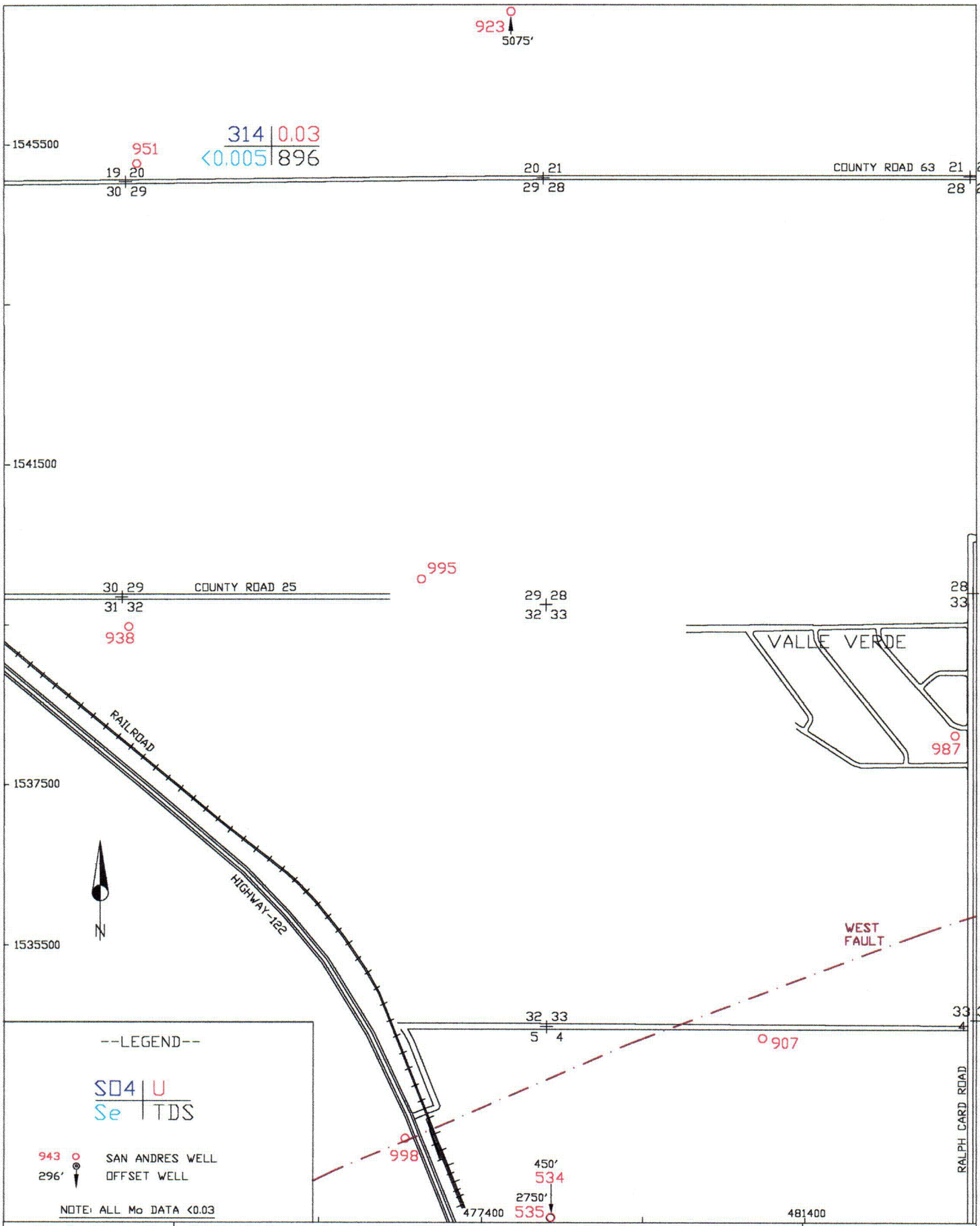


SCALE: 1"=1600'	HOMESTAKE-MILL-AND-ADJACENT-PROPERTIES GRANTS-NM-TOWNSHIP-11&12-N-RANGE-10-W	DATE: 02/10/03

FIGURE 8.0-1B. LOCATION OF SAN ANDRES WELLS AND WATER-LEVEL ELEVATION FOR THE SAN ANDRES AQUIFER, FALL 2002, FT-MSL

D:\R13\HMC\SAN1600 LH

C06

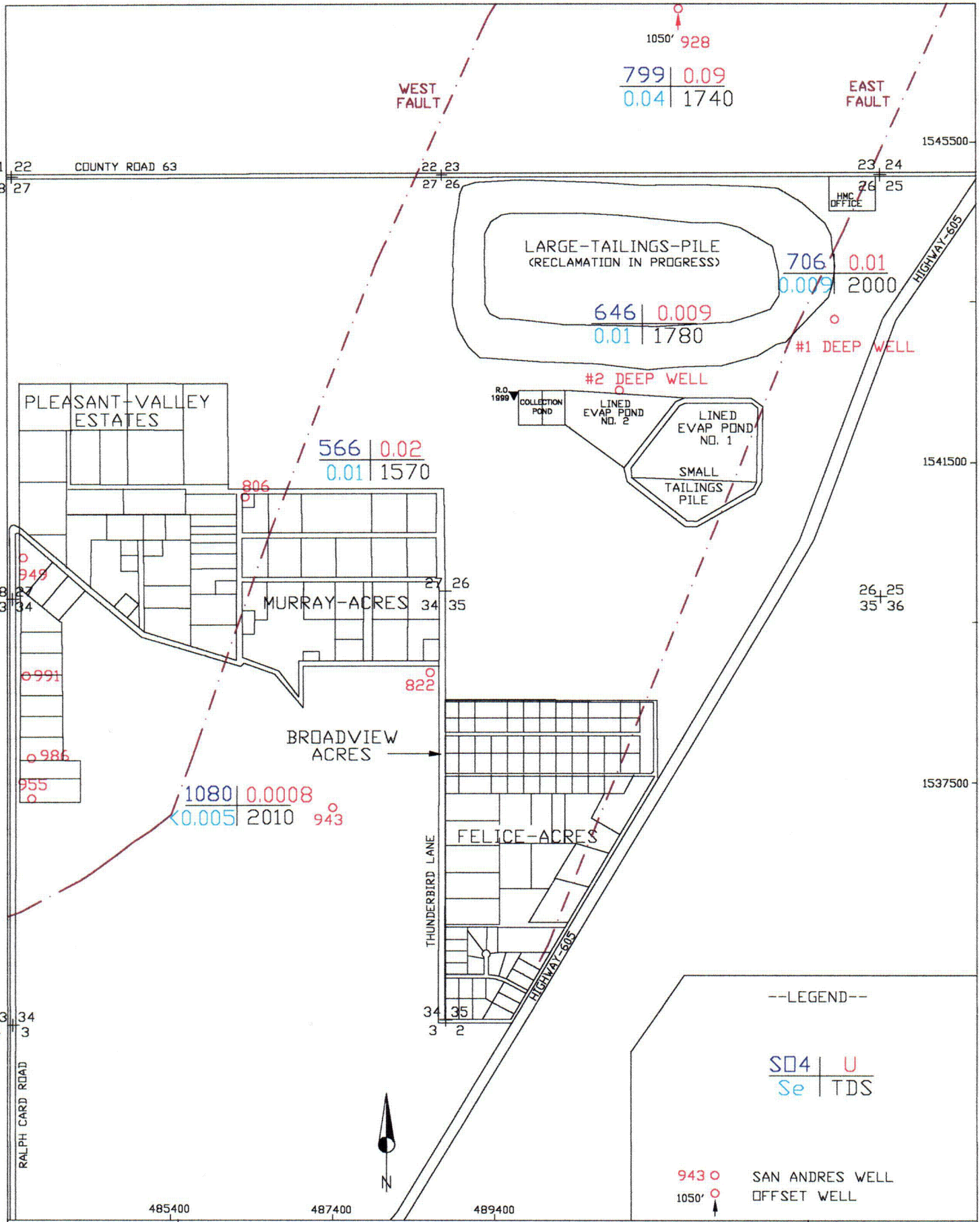


SCALE: 1"=1600' | HOMESTAKE-MILL-AND-ADJACENT-PROPERTIES GRANTS-NM-TOWNSHIP-11&12-N-RANGE-10-W | DATE: 02/10/03

FIGURE 8.0-2A. WATER QUALITY FOR THE SAN ANDRES AQUIFER (WEST AREA), FALL 2002, mg/l

D:\R13\HMC\SAN1600W LH

C07

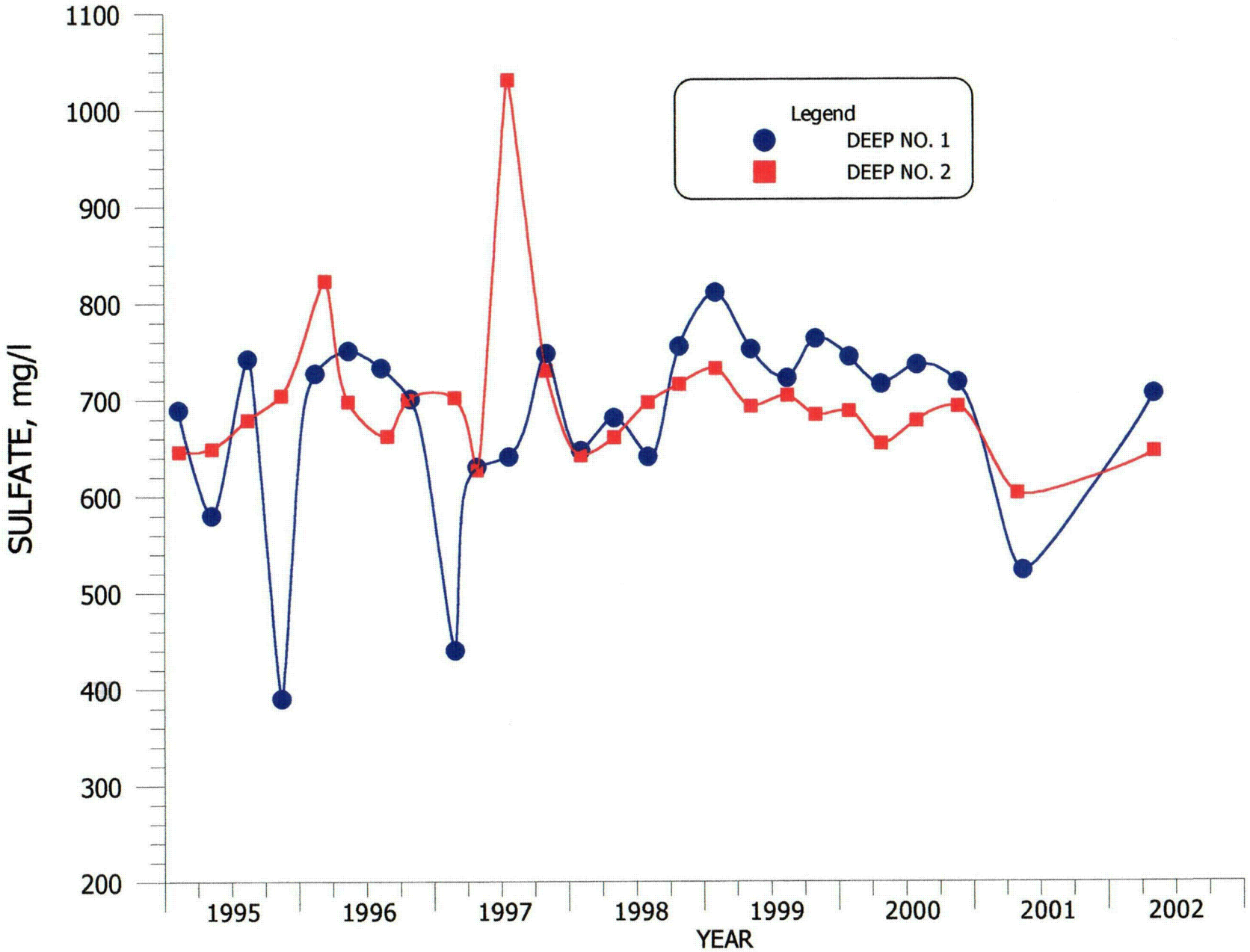


SCALE: 1"=1600' | HOMESTAKE-MILL-AND-ADJACENT-PROPERTIES GRANTS-NM-TOWNSHIP-11&12-N-RANGE-10-W | DATE: 02/10/03

FIGURE 8.0-2B. WATER QUALITY FOR THE SAN ANDRES AQUIFER, FALL 2002, mg/l

D:\R13\HMC\SAN1600 LH

C08



8.0-7

FIGURE 8.0-3. SULFATE CONCENTRATIONS FOR WELLS DEEP NO. 1 AND DEEP NO. 2.

C09

TABLE 8.0-1 BASIC WELL DATA FOR THE SAN ANDRES WELLS

WELL NAME	NORTH. COORD.	EAST. COORD.	WELL DEPTH (FT-MP)	CASING DIAM (IN)	WATER LEVEL DATE	WATER LEVEL DEPTH (FT-MP)	WATER LEVEL ELEV. (FT-MSL)	MP ABOVE LSD (FT)	MP ELEV. (FT-MSL)	DEPTH TO TOP OF SAN ANDRES (FT-LSD)	ELEV. TO TOP OF SAN ANDRES (FT-MSL)	CASING PERFOR-ATIONS (FT-LSD)
#1 Deep	1543307	493633	1000.0	10.0	2/15/96	80.00	6503.76	0.0	6583.76	130	6454	A —
										303	6281	U —
										433	6151	M —
										597	5987	L —
										955	5629	S 919-999
#2 Deep	1542424	490972	870.0	—	5/2/01	177.86	6397.80	0.0	6575.66	110	6466	A —
										800	5776	S -
0806	1541120	486320	584.0	16.0	—	—	—	0.0	6567.00	90	6477	A —
										520	6047	S -
0822	1538920	488630	980.0	7.0	—	—	—	0.0	6557.00	790	5767	S 790-875
0834	1534589	476549	1000.0	16.0	12/18/02	98.90	6453.67	0.0	6552.57	0	6553	S -
0835	1530100	478450	198.0	12.0	12/18/02	95.88	6444.12	0.0	6540.00	—	—	S -
0907	1534250	480800	360.0	16.0	12/18/02	98.10	6447.50	0.0	6545.60	123	6423	A —
										262	6284	S 295-360
0911	1534350	476800	188.0	—	—	—	—	0.0	6552.60	—	—	S -
0918	—	—	725.0	4.0	—	—	—	0.0	6702.40	620	6082	S 635-655
0919	—	—	628.0	5.0	—	—	—	0.0	6684.00	35	6649	A —
										356	6328	S 364-571
0923	1552400	487900	330.0	5.0	4/6/94	6464.97	157.63	0.0	6622.60	60	6563	A —
										229	6394	S 234-330
0928	1548250	491700	864.0	—	12/18/02	151.70	6445.90	1.2	6597.60	138	6458	A —
										801	5795	S -
0938	1539500	473040	—	—	12/18/02	120.95	6447.85	0.0	6568.80	95	6474	A —
										120	6449	S -
0943	1537222	487407	978.0	18.0	12/18/02	78.40	6477.51	0.0	6555.91	704	5852	S 703-978
0949	1540350	483600	551.0	—	—	—	—	0.0	6562.30	112	6450	A —
										155	6407	L —
										460	6102	S 400-493
										460	6102	S 505-551
0951	1545500	473200	275.0	10.0	12/30/02	130.51	6443.19	0.9	6573.70	110	6463	A —
										227	6346	S 241-275
0955	1537300	483700	498.0	5.0	11/3/95	78.05	6471.95	0.2	6550.00	40	6510	A —
										420	6130	S 385-498
0986	1537860	483750	467.0	5.0	11/2/95	80.75	6569.25	0.8	6650.00	65	6584	A —
										85	6564	L —
										415	6234	S 420-467
0987	1538120	483270	500.0	5.0	11/3/95	54.48	6595.52	1.0	6650.00	70	6579	A —
										385	6264	S 425-470
0991	1538880	483630	500.0	—	11/8/95	84.41	6566.59	1.4	6651.00	—	—	S -
0995	1540115	476594	—	—	—	—	—	0.0	6474.00	—	—	S -

TABLE 8.0-1 BASIC WELL DATA FOR THE SAN ANDRES WELLS

(cont'd.)

WELL NAME	NORTH. COORD.	EAST. COORD.	WELL DEPTH (FT-MP)	CASING DIAM (IN)	WATER LEVEL DATE	WATER LEVEL DEPTH (FT-MP)	WATER LEVEL ELEV. (FT-MSL)	MP ABOVE LSD (FT)	MP ELEV. (FT-MSL)	DEPTH TO TOP OF SAN ANDRES (FT-LSD)	ELEV. TO TOP OF SAN ANDRES (FT-MSL)	CASING PERFOR-ATIONS (FT-LSD)
0998	1533080	476450	145.0	16.0	—	—	—	0.0	6650.00	—	—	S -

NOTE: A = Base of Alluvium
L = Lower Chinle
S = San Andres Aquifer
r = Reported
* = Abandoned

SECTION 9

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GROUND-WATER MONITORING FOR HOMESTAKE'S GRANTS PROJECT

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APPENDIX A
WATER LEVELS

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GROUND-WATER MONITORING FOR HOMESTAKE'S GRANTS PROJECT

APPENDIX A

Table A.1-1 WATER LEVELS FOR HOMESTAKE'S ALLUVIAL WELLS

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
0690		
12/5/2002	36.83	6545.23
0691		
12/5/2002	48.03	6540.78
0891		
12/19/2002	30.51	6550.61
0892		
12/19/2002	41.96	6545.25
1A		
4/9/2002	39.64	6545.79
10/15/2002	14.30	6571.13
1D		
12/19/2002	29.23	6556.74
1F		
10/9/2002	44.60	6542.78
1G		
10/9/2002	42.81	6544.26
1H		
10/11/2002	34.82	6551.57
1I		
12/19/2002	34.08	6564.27
1J		
10/11/2002	34.01	6551.39
1K		
10/11/2002	32.49	6551.64
1L		
10/14/2002	25.84	6552.77
1M		
10/14/2002	20.36	6555.17
1O		
12/19/2002	43.82	6551.12
1P		
12/19/2002	34.34	6550.90
B		
1/2/2002	41.99	6528.91
1/7/2002	41.92	6528.98
1/14/2002	41.72	6529.18
1/21/2002	41.82	6529.08
1/28/2002	41.81	6529.09
2/4/2002	41.97	6528.93
2/11/2002	42.07	6528.83
2/18/2002	41.91	6528.99
2/25/2002	42.21	6528.69
3/4/2002	42.28	6528.62
3/12/2002	42.34	6528.56
3/18/2002	42.28	6528.62
3/25/2002	42.48	6528.42
4/1/2002	42.51	6528.39
4/8/2002	42.62	6528.28
4/15/2002	42.46	6528.44
4/22/2002	42.68	6528.22
4/29/2002	42.71	6528.19
5/6/2002	42.65	6528.25
5/13/2002	42.84	6528.06
5/20/2002	42.74	6528.16
5/28/2002	42.84	6528.06
6/4/2002	42.73	6528.17
6/10/2002	42.81	6528.09
6/12/2002	42.81	6528.09
6/18/2002	42.80	6528.10
6/24/2002	42.81	6528.09
7/1/2002	42.73	6528.17
7/8/2002	42.78	6528.12
7/15/2002	42.72	6528.18
7/22/2002	42.71	6528.19
7/29/2002	42.61	6528.29
8/5/2002	42.57	6528.33
8/12/2002	42.50	6528.40
8/19/2002	42.42	6528.48
8/26/2002	42.55	6528.35
9/3/2002	42.58	6528.32
9/9/2002	42.45	6528.45
9/16/2002	42.37	6528.53
9/23/2002	42.42	6528.48
9/30/2002	42.40	6528.50
10/7/2002	42.55	6528.35
10/14/2002	42.33	6528.57
10/21/2002	42.32	6528.58
10/29/2002	42.22	6528.68
11/5/2002	42.51	6528.39
11/11/2002	42.48	6528.42
11/18/2002	42.46	6528.44
11/25/2002	42.28	6528.62
12/2/2002	42.27	6528.63
12/9/2002	42.10	6528.80
12/16/2002	42.21	6528.69
12/23/2002	42.22	6528.68
12/30/2002	42.57	6528.33
B10		
6/26/2002	63.26	6513.51
B11		
2/13/2002	58.11	6519.28
6/26/2002	53.61	6523.78
10/1/2002	52.11	6525.28
B12		
4/29/2002	48.91	6524.09
12/5/2002	48.29	6524.71
B13		
4/29/2002	41.23	6526.77
12/5/2002	40.44	6527.56
BA		
1/2/2002	43.56	6528.02
1/7/2002	43.70	6527.88
1/14/2002	43.47	6528.11
1/21/2002	43.58	6528.00
1/28/2002	43.82	6527.76
2/4/2002	44.18	6527.40
2/11/2002	44.21	6527.37
2/18/2002	44.06	6527.52
2/25/2002	44.41	6527.17
3/4/2002	44.46	6527.12
3/12/2002	44.58	6527.00
3/18/2002	44.40	6527.18
3/25/2002	44.61	6526.97
4/1/2002	44.59	6526.99
4/8/2002	44.72	6526.86
4/15/2002	44.57	6527.01
4/22/2002	44.76	6526.82
4/29/2002	44.49	6527.09
5/6/2002	44.22	6527.36
5/13/2002	44.90	6526.68
5/20/2002	44.79	6526.79
5/28/2002	45.04	6526.54
6/4/2002	44.56	6527.02
6/10/2002	44.53	6527.05
6/18/2002	44.54	6527.04
6/24/2002	44.35	6527.23
7/1/2002	44.23	6527.35
7/8/2002	44.24	6527.34
7/15/2002	44.17	6527.41
7/22/2002	44.12	6527.46
7/29/2002	44.02	6527.56
8/5/2002	43.96	6527.62
8/12/2002	43.93	6527.65
8/19/2002	43.58	6528.00
8/26/2002	44.13	6527.45
9/3/2002	44.12	6527.46
9/9/2002	44.00	6527.58
9/16/2002	43.94	6527.64
9/23/2002	44.05	6527.53
9/30/2002	44.44	6527.14
10/7/2002	44.16	6527.42
10/14/2002	43.85	6527.93
10/21/2002	43.54	6528.04
10/29/2002	43.41	6528.17
11/5/2002	43.70	6527.88
11/11/2002	44.06	6527.52
11/18/2002	44.02	6527.56
11/25/2002	43.83	6527.75
12/2/2002	43.64	6527.94
12/9/2002	43.66	6527.92
12/16/2002	43.84	6527.74
12/23/2002	43.93	6527.65
12/30/2002	44.18	6527.40
BB2		
11/15/2002	53.36	6520.44
BC		
6/12/2002	49.36	6525.25
12/5/2002	48.52	6526.09

Table A.1-1 WATER LEVELS FOR HOMESTAKE'S ALLUVIAL WELLS (cont.)

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
BP		
7/16/2002	45.44	6526.86
C1		
2/13/2002	38.51	6533.35
8/21/2002	37.28	6534.58
C2		
2/13/2002	35.03	6529.99
8/21/2002	33.24	6531.78
C3R		
3/7/2002	18.00	6551.29
C5		
10/21/2002	33.06	6536.79
C6		
4/8/2002	48.71	6536.18
6/26/2002	66.77	6518.12
10/14/2002	60.58	6524.31
C7		
4/8/2002	49.86	6534.58
6/26/2002	70.24	6514.20
10/14/2002	59.44	6525.00
C8		
4/8/2002	49.60	6534.89
6/26/2002	76.00	6508.49
10/14/2002	68.90	6515.59
C9		
4/8/2002	51.00	6533.55
6/26/2002	72.60	6511.95
10/14/2002	65.50	6519.05
C10		
4/8/2002	49.02	6536.24
6/26/2002	65.90	6519.36
10/14/2002	63.43	6521.83
C11		
4/8/2002	64.00	6517.38
6/26/2002	64.10	6517.28
10/1/2002	63.90	6517.48
C12		
4/8/2002	44.94	6535.61
10/14/2002	37.48	6543.07
C14		
3/7/2002	1.50	6568.19
D1		
6/10/2002	46.89	6524.01
DA4		
6/26/2002	76.50	6497.47
DC		
6/12/2002	43.16	6528.15
11/15/2002	43.46	6527.85
DD		
5/14/2002	58.20	6534.39
DF		
5/23/2002	65.06	6525.53
DG		
5/23/2002	59.80	6531.98
DP		
6/26/2002	53.46	6526.25
DQ		
1/24/2002	54.11	6522.32
7/11/2002	48.10	6528.33
DV		
6/26/2002	83.45	6502.15
DZ		
7/2/2002	58.58	6531.95
7/8/2002	58.46	6532.07
7/15/2002	58.03	6532.50
7/22/2002	58.01	6532.52
7/29/2002	57.81	6532.72
8/5/2002	57.64	6532.89
8/12/2002	57.60	6532.93
8/19/2002	57.78	6532.75
8/26/2002	57.40	6533.13
9/3/2002	57.38	6533.15
9/9/2002	57.21	6533.32
9/16/2002	57.10	6533.43
9/23/2002	57.74	6532.79
9/30/2002	57.86	6532.67
10/7/2002	57.05	6533.48
10/14/2002	56.73	6533.80
10/21/2002	56.59	6533.94
10/29/2002	56.46	6534.07
11/5/2002	56.40	6534.13
11/11/2002	56.11	6534.42
11/18/2002	56.22	6534.31
11/25/2002	55.78	6534.75
12/2/2002	55.84	6534.69
12/9/2002	55.91	6534.62
12/16/2002	55.53	6535.00
12/23/2002	55.92	6534.61
12/30/2002	56.07	6534.46
F		
7/17/2002	31.34	6533.48
FB		
2/11/2002	35.41	6530.25
10/14/2002	35.37	6530.29
G		
12/5/2002	34.94	6528.15
GA		
12/5/2002	33.62	6529.17
GC		
12/5/2002	34.41	6530.76
GE		
12/5/2002	35.35	6530.92
GH		
3/20/2002	32.83	6529.93
GK		
12/5/2002	35.03	6531.73
GQ		
12/5/2002	1.77	6566.39
GU		
3/7/2002	15.00	6560.65
GV		
10/14/2002	49.52	6527.86
GW1		
12/5/2002	30.19	6535.08
GW2		
12/5/2002	31.54	6534.54
I		
6/18/2002	31.64	6535.56
J13		
2/5/2002	4.00	6564.40
J14		
2/5/2002	12.90	6556.08
J15		
2/5/2002	3.10	6566.53
K		
3/6/2002	7.55	6565.96
8/12/2002	2.00	6571.51

Table A.1-1 WATER LEVELS FOR HOMESTAKE'S ALLUVIAL WELLS (cont.)

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

K2

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/6/2002	14.90	6557.31
8/12/2002	14.90	6557.31

K4

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	62.16	6539.86
2/11/2002	63.80	6538.22
4/16/2002	73.26	6528.76
6/26/2002	72.60	6529.42
10/21/2002	61.90	6540.12

K5

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	> 82.50	< 6519.23
2/11/2002	79.91	6521.82
4/16/2002	82.70	6519.03
6/26/2002	62.94	6538.79
10/21/2002	65.68	6536.05

K6

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/6/2002	13.00	6557.07
3/6/2002	> 13.00	< 6557.07

K7

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	56.40	6545.13
2/11/2002	57.21	6544.32
4/16/2002	57.28	6544.25
6/26/2002	56.61	6544.92
10/21/2002	53.80	6547.73

K8

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	> 82.40	< 6518.09
2/11/2002	65.45	6535.04
4/16/2002	70.43	6530.06
6/26/2002	70.20	6530.29
10/21/2002	81.60	6518.89

K9

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	62.90	6537.44
2/11/2002	63.40	6536.94
4/16/2002	62.60	6537.74
6/26/2002	63.08	6537.26
10/21/2002	64.45	6535.89

K10

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	69.95	6530.86
2/11/2002	69.10	6531.71
4/16/2002	67.90	6532.91
6/26/2002	69.15	6531.66
10/21/2002	69.50	6531.31

K11

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	65.30	6535.31
2/11/2002	66.18	6534.43
4/16/2002	62.08	6538.53
6/26/2002	63.11	6537.50
10/21/2002	65.30	6535.31

KA

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/6/2002	2.10	6570.09
8/12/2002	13.00	6559.19

KB

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	1.00	6570.65
2/6/2002	5.50	6566.15
3/6/2002	8.10	6563.55
8/12/2002	0.60	6571.05

KC

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/6/2002	3.30	6567.01
3/6/2002	9.00	6561.31
8/12/2002	0.50	6569.81

KD

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/6/2002	4.65	6565.57
8/12/2002	1.10	6569.12

KE

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/6/2002	11.70	6560.58
8/12/2002	9.10	6563.18

KEB

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/13/2002	17.60	6552.13
5/9/2002	16.43	6553.30
8/13/2002	18.46	6551.27
11/22/2002	17.28	6552.45

KF

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2002	28.54	6541.67
1/7/2002	28.31	6541.90
1/14/2002	28.10	6542.11
1/21/2002	28.30	6541.91
1/28/2002	27.70	6542.51
2/4/2002	27.45	6542.76
2/11/2002	25.07	6545.14
2/18/2002	24.10	6546.11
2/25/2002	23.89	6546.32
2/28/2002	23.69	6546.52
3/4/2002	24.07	6546.14
3/12/2002	24.04	6546.17
3/18/2002	23.72	6546.49
3/25/2002	23.38	6546.83
4/1/2002	23.10	6547.11
4/8/2002	22.84	6547.37
4/15/2002	22.53	6547.68
4/16/2002	22.68	6547.53
4/22/2002	23.08	6547.13
4/29/2002	23.93	6546.28
5/6/2002	24.07	6546.14
5/13/2002	23.59	6546.62
5/20/2002	23.41	6546.80
5/28/2002	23.51	6546.70
6/4/2002	24.03	6546.18
6/10/2002	24.38	6545.83
6/18/2002	24.91	6545.30
6/24/2002	24.86	6545.35
7/1/2002	24.94	6545.27
7/8/2002	25.27	6544.94
7/15/2002	25.11	6545.10
7/22/2002	24.81	6545.40
7/22/2002	24.83	6545.38
7/29/2002	24.69	6545.52
8/5/2002	25.04	6545.17
8/12/2002	24.81	6545.40
8/19/2002	24.59	6545.62
8/26/2002	24.80	6545.41
9/3/2002	24.58	6545.63
9/9/2002	24.34	6545.87
9/16/2002	24.22	6545.99
9/23/2002	24.42	6545.79
9/30/2002	23.89	6546.32
10/7/2002	24.41	6545.80
10/14/2002	24.31	6545.90
10/21/2002	24.38	6545.83
10/21/2002	24.42	6545.79
10/29/2002	24.53	6545.68
11/5/2002	25.07	6545.14
11/11/2002	24.98	6545.23
11/18/2002	24.63	6545.58
11/25/2002	24.43	6545.78
12/2/2002	24.31	6545.90
12/9/2002	24.44	6545.77
12/16/2002	23.86	6546.35
12/23/2002	23.70	6546.51
12/30/2002	23.73	6546.48

KM

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/6/2002	3.00	6566.77
3/6/2002	12.00	6557.77
3/6/2002	12.20	6557.57

KN

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/6/2002	3.10	6566.49
3/6/2002	13.30	6556.29
3/6/2002	9.10	6560.49
4/8/2002	2.00	6567.59
8/12/2002	12.10	6557.49
10/11/2002	8.36	6561.23

* Drawdown Tube Pressure, # Transducer Reading

Table A.1-1 WATER LEVELS FOR HOMESTAKE'S ALLUVIAL WELLS (cont.)

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
KZ		
1/2/2002	32.03	6539.69
1/7/2002	31.80	6539.92
1/14/2002	31.48	6540.24
1/21/2002	31.70	6540.02
1/28/2002	31.20	6540.52
2/4/2002	31.11	6540.61
2/11/2002	28.68	6543.04
2/12/2002	28.20	6543.52
2/18/2002	27.64	6544.08
2/25/2002	27.55	6544.17
3/4/2002	27.65	6544.07
3/12/2002	27.71	6544.01
3/18/2002	27.18	6544.54
3/25/2002	26.90	6544.82
4/1/2002	26.64	6545.08
4/8/2002	26.44	6545.28
4/15/2002	26.12	6545.60
4/22/2002	26.64	6545.08
4/29/2002	27.43	6544.29
5/6/2002	27.45	6544.27
5/13/2002	26.95	6544.77
5/20/2002	26.70	6545.02
5/28/2002	26.72	6545.00
6/4/2002	27.54	6544.18
6/10/2002	27.72	6544.00
6/18/2002	28.05	6543.67
6/24/2002	28.26	6543.46
7/1/2002	28.40	6543.32
7/8/2002	28.78	6542.94
7/15/2002	28.54	6543.18
7/22/2002	28.30	6543.42
7/22/2002	28.28	6543.44
7/29/2002	28.14	6543.58
8/5/2002	28.44	6543.28
8/12/2002	28.18	6543.54
8/19/2002	27.98	6543.74
8/26/2002	27.94	6543.78
9/3/2002	27.90	6543.82
9/9/2002	27.67	6544.05
9/16/2002	27.47	6544.25
9/23/2002	27.62	6544.10
9/30/2002	27.23	6544.49
10/7/2002	27.96	6543.76
10/14/2002	28.00	6543.72
10/21/2002	28.08	6543.64
10/29/2002	28.10	6543.62
11/5/2002	28.45	6543.27
11/11/2002	28.33	6543.39
11/18/2002	28.24	6543.48
11/25/2002	27.90	6543.82
12/2/2002	27.93	6543.79
12/9/2002	27.94	6543.78
12/16/2002	27.40	6544.32
12/23/2002	27.22	6544.50
12/30/2002	27.23	6544.49
L		
4/16/2002	42.30	6532.67
7/22/2002	51.63	6523.34
L5		
4/15/2002	46.68	6529.39
7/22/2002	45.07	6531.00
11/11/2002	41.60	6534.47
L6		
11/11/2002	22.38	6552.26
L7		
4/15/2002	64.80	6511.81
5/22/2002	50.91	6525.70
11/11/2002	49.24	6527.37
L8		
4/15/2002	54.80	6521.69
5/22/2002	50.56	6525.93
11/11/2002	47.14	6529.35
L9		
4/15/2002	53.64	6523.59
5/22/2002	47.68	6529.55
11/11/2002	43.75	6533.48
L10		
4/15/2002	53.41	6523.42
7/22/2002	48.07	6528.76
11/11/2002	41.51	6535.32
M3		
6/26/2002	65.80	6510.30
M5		
2/12/2002	49.16	6526.18
8/12/2002	49.85	6525.49
M6		
12/5/2002	65.03	6510.01
M7		
12/5/2002	60.48	6512.37
M9		
12/5/2002	67.96	6508.85
M10		
11/15/2002	55.70	6517.66
MA		
12/5/2002	46.05	6526.17
MC		
12/5/2002	45.80	6526.26
MF		
12/5/2002	51.18	6521.10
MH		
12/5/2002	55.41	6518.51
MJ		
12/5/2002	54.23	6518.71
MK		
12/5/2002	60.10	6513.69
ML		
11/15/2002	49.24	6523.46
12/5/2002	49.24	6523.46
MO		
3/20/2002	64.75	6508.14
10/14/2002	65.62	6507.27
11/15/2002	65.63	6507.26
MQ		
10/17/2002	66.18	6508.12
12/5/2002	66.26	6508.04
MR		
11/11/2002	70.03	6496.23
MS		
11/11/2002	63.20	6507.47
MT		
11/13/2002	69.68	6497.75
MU		
11/12/2002	44.06	6530.13
12/5/2002	43.22	6530.97
MW		
11/15/2002	63.35	6511.56
MX		
11/12/2002	53.22	6515.39
MY		
11/12/2002	59.23	6514.33
N		
6/10/2002	53.09	6530.88
9/5/2002	52.98	6530.99
NA		
9/5/2002	57.00	6533.98
NB		
9/5/2002	49.53	6543.77

Table A.1-1 WATER LEVELS FOR HOMESTAKE'S ALLUVIAL WELLS (cont.)

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

NC

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
9/5/2002	52.93	6532.90

ND

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
5/14/2002	47.63	6545.26

NE5

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/28/2002	64.81	6602.19

NW5

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/28/2002	114.58	6543.00

O

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
9/5/2002	49.07	6538.76

P

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
7/15/2002	57.39	6529.87

P3

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/4/2002	54.80	6535.15

P4

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/4/2002	60.83	6528.69

PM

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/7/2002	15.00	6552.42
8/13/2002	34.93	6532.49

Q

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
5/14/2002	50.32	6543.50

R

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
5/14/2002	43.24	6560.79

S

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
5/14/2002	56.05	6525.12

S1

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2002	50.52	6524.67
1/7/2002	50.50	6524.69
1/14/2002	50.33	6524.86
1/21/2002	50.28	6524.91
1/28/2002	50.30	6524.89
2/4/2002	50.54	6524.65
2/11/2002	50.83	6524.36
2/18/2002	50.89	6524.30
2/25/2002	51.11	6524.08
3/4/2002	51.26	6523.93
3/12/2002	51.46	6523.73
3/18/2002	51.48	6523.71
3/25/2002	51.68	6523.51
4/1/2002	51.80	6523.39
4/8/2002	51.98	6523.21
4/15/2002	52.06	6523.13
4/22/2002	52.11	6523.08
4/29/2002	51.99	6523.20
5/6/2002	52.13	6523.06
5/13/2002	52.27	6522.92
5/20/2002	52.36	6522.83
5/28/2002	52.49	6522.70
6/4/2002	52.38	6522.81
6/10/2002	52.32	6522.87
6/18/2002	52.23	6522.96
6/24/2002	52.29	6522.90
7/1/2002	52.18	6523.01
7/8/2002	52.12	6523.07
7/15/2002	52.07	6523.12
7/22/2002	52.02	6523.17
7/29/2002	51.89	6523.30
8/5/2002	51.83	6523.36
8/12/2002	51.81	6523.38
8/19/2002	51.76	6523.43
8/26/2002	51.70	6523.49
9/3/2002	51.72	6523.47
9/9/2002	51.61	6523.58
9/16/2002	51.51	6523.68
9/23/2002	51.47	6523.72
9/30/2002	51.42	6523.77
10/7/2002	51.42	6523.77
10/14/2002	51.43	6523.76
10/21/2002	51.49	6523.70
10/29/2002	51.56	6523.63
11/5/2002	51.73	6523.46
11/11/2002	51.81	6523.38
11/18/2002	51.92	6523.27
11/25/2002	51.84	6523.35
12/2/2002	51.94	6523.25
12/9/2002	52.04	6523.15
12/16/2002	52.05	6523.14
12/23/2002	52.11	6523.08
12/30/2002	52.28	6522.91

S2

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2002	48.11	6525.61
1/7/2002	48.08	6525.64
1/14/2002	47.95	6525.77
1/21/2002	47.93	6525.79
1/28/2002	47.98	6525.74
2/4/2002	48.16	6525.56
2/11/2002	48.30	6525.42
2/11/2002	48.36	6525.36
2/18/2002	48.41	6525.31
2/25/2002	48.68	6525.04
3/4/2002	48.79	6524.93
3/12/2002	48.99	6524.73
3/18/2002	48.99	6524.73
3/25/2002	49.21	6524.51
4/1/2002	49.33	6524.39
4/8/2002	49.52	6524.20
4/15/2002	49.58	6524.14
4/22/2002	49.66	6524.06
4/29/2002	49.58	6524.14
5/6/2002	49.70	6524.02
5/13/2002	49.89	6523.83
5/20/2002	49.88	6523.84
5/28/2002	50.03	6523.69
6/4/2002	49.91	6523.81
6/10/2002	49.92	6523.80
6/18/2002	49.83	6523.89
6/24/2002	49.91	6523.81
7/1/2002	49.84	6523.88
7/8/2002	49.79	6523.93
7/15/2002	49.77	6523.95
7/17/2002	49.67	6524.05
7/22/2002	49.79	6523.93
7/29/2002	49.64	6524.08
8/5/2002	49.63	6524.09
8/12/2002	49.61	6524.11
8/19/2002	49.58	6524.14
8/26/2002	49.50	6524.22
9/3/2002	49.48	6524.24
9/9/2002	49.40	6524.32
9/16/2002	49.30	6524.42
9/23/2002	49.31	6524.41
9/30/2002	49.23	6524.49
10/7/2002	49.24	6524.48
10/14/2002	49.26	6524.46
10/21/2002	49.33	6524.39
10/29/2002	49.39	6524.33
11/5/2002	49.56	6524.16
11/11/2002	49.58	6524.14
11/18/2002	49.63	6524.09
11/25/2002	49.51	6524.21
12/2/2002	49.64	6524.08
12/9/2002	49.72	6524.00
12/16/2002	49.71	6524.01
12/23/2002	49.77	6523.95
12/30/2002	50.01	6523.71

S3

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
7/16/2002	51.36	6523.42

S4

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/20/2002	51.21	6524.08
7/16/2002	51.70	6523.59

S5

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/26/2002	62.50	6512.19

S11

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
11/11/2002	49.98	6528.41

S12

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/5/2002	57.10	6521.75

* Drawdown Tube Pressure, # Transducer Reading

Table A.1-1 WATER LEVELS FOR HOMESTAKE'S ALLUVIAL WELLS (cont.)

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
SO		
1/2/2002	54.11	6524.68
1/7/2002	54.04	6524.75
1/14/2002	53.85	6524.94
1/21/2002	53.88	6524.91
1/28/2002	53.90	6524.89
2/4/2002	54.05	6524.74
2/11/2002	54.22	6524.57
2/18/2002	54.24	6524.55
2/25/2002	54.51	6524.28
3/4/2002	54.64	6524.15
3/12/2002	54.84	6523.95
3/18/2002	54.81	6523.98
3/25/2002	55.06	6523.73
4/1/2002	55.11	6523.68
4/8/2002	55.29	6523.50
4/15/2002	55.22	6523.57
4/22/2002	55.38	6523.41
4/29/2002	55.57	6523.22
5/6/2002	55.41	6523.38
5/13/2002	55.59	6523.20
5/20/2002	55.58	6523.23
5/28/2002	55.59	6523.20
6/4/2002	55.52	6523.27
6/10/2002	55.51	6523.28
6/18/2002	55.54	6523.25
6/24/2002	55.53	6523.26
7/1/2002	55.43	6523.36
7/8/2002	55.43	6523.36
7/15/2002	55.31	6523.48
7/22/2002	55.28	6523.51
7/29/2002	55.21	6523.58
8/5/2002	55.11	6523.68
8/12/2002	55.03	6523.76
8/19/2002	54.91	6523.88
8/26/2002	54.94	6523.85
9/3/2002	54.95	6523.84
9/9/2002	54.78	6524.01
9/16/2002	54.74	6524.05
9/23/2002	54.61	6524.18
9/30/2002	54.34	6524.45
10/7/2002	54.52	6524.27
10/14/2002	54.67	6524.12
10/21/2002	54.75	6524.04
10/29/2002	54.74	6524.05
11/5/2002	55.10	6523.69
11/11/2002	55.04	6523.75
11/18/2002	55.14	6523.65
11/25/2002	55.08	6523.71
12/2/2002	55.14	6523.65
12/9/2002	55.25	6523.54
12/16/2002	55.19	6523.60
12/23/2002	55.26	6523.53
12/30/2002	55.44	6523.35
SP		
1/2/2002	54.37	6524.29
1/7/2002	54.30	6524.36
1/14/2002	54.10	6524.56
1/21/2002	54.08	6524.58
1/28/2002	54.16	6524.50
2/4/2002	54.40	6524.26
2/11/2002	54.58	6524.08
2/18/2002	54.78	6523.88
2/25/2002	55.07	6523.59
3/4/2002	55.26	6523.40
3/12/2002	55.46	6523.20
3/18/2002	55.44	6523.22
3/25/2002	55.71	6522.95
4/1/2002	55.79	6522.87
4/8/2002	55.98	6522.68
4/15/2002	56.00	6522.66
4/22/2002	56.03	6522.63
4/29/2002	55.21	6523.45
5/6/2002	56.07	6522.59
5/13/2002	56.20	6522.46
5/20/2002	56.26	6522.40
5/28/2002	56.11	6522.55
6/4/2002	56.13	6522.53
6/10/2002	56.08	6522.58
6/18/2002	56.07	6522.59
6/24/2002	56.04	6522.62
7/1/2002	55.84	6522.82
7/8/2002	55.86	6522.80
7/15/2002	55.67	6522.99
7/22/2002	55.53	6523.13
7/29/2002	55.46	6523.20
8/5/2002	55.37	6523.29
8/12/2002	55.36	6523.30
8/19/2002	55.03	6523.63
8/26/2002	55.06	6523.60
9/3/2002	55.06	6523.60
9/9/2002	54.87	6523.79
9/16/2002	54.86	6523.80
9/23/2002	54.57	6524.09
9/30/2002	54.28	6524.38
10/7/2002	54.66	6524.00
10/14/2002	55.03	6523.63
10/21/2002	55.13	6523.53
10/29/2002	55.08	6523.58
11/5/2002	55.50	6523.16
11/11/2002	55.48	6523.18
11/18/2002	55.62	6523.04
11/25/2002	55.55	6523.11
12/2/2002	55.64	6523.02
12/9/2002	55.70	6522.96
12/16/2002	55.71	6522.95
12/23/2002	55.88	6522.78
12/30/2002	55.99	6522.67
SQ		
6/26/2002	58.18	6521.02
SS		
6/26/2002	63.87	6514.51
ST		
6/26/2002	59.31	6520.00
SUR		
6/26/2002	62.86	6517.86
SV		
6/26/2002	64.60	6514.65
T		
3/25/2002	38.10	6541.13
5/7/2002	57.60	6521.63
10/1/2002	36.78	6542.45
T1		
12/6/2002	102.40	6561.51
T2		
4/11/2002	135.89	6528.93
12/6/2002	134.68	6530.14
T4		
12/6/2002	131.21	6526.53
T5		
12/6/2002	122.21	6535.12
T6		
12/6/2002	76.62	6582.15
T7		
12/6/2002	125.01	6534.66
T8		
12/6/2002	123.36	6538.25
T9		
12/6/2002	94.96	6568.99
T10		
12/6/2002	109.83	6550.13
T11		
12/6/2002	125.87	6530.94
T12		
12/6/2002	123.51	6533.72
T18		
12/6/2002	133.68	6531.48
T41		
12/6/2002	126.21	6533.75
TA		
2/13/2002	40.64	6539.66
10/1/2002	46.30	6534.00
TB		
2/13/2002	33.11	6550.46
10/1/2002	39.58	6543.99
W		
10/21/2002	49.06	6523.08
12/5/2002	49.18	6522.96

Table A.1-1 WATER LEVELS FOR HOMESTAKE'S ALLUVIAL WELLS (cont.)

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
WN4		
3/21/2002	94.96	6567.82
WR12		
12/5/2002	42.64	6525.55
X		
2/12/2002	17.76	6553.85
4/11/2002	15.91	6555.70
7/1/2002	16.00	6555.61
7/15/2002	17.60	6554.01
9/30/2002	14.92	6556.69
10/15/2002	15.68	6555.93
11/5/2002	16.70	6554.91
12/30/2002	14.84	6556.77
X1		
2/5/2002	7.00	6566.54
3/6/2002	11.30	6562.24
3/7/2002	11.50	6562.04
8/12/2002	7.50	6566.04
X2		
8/12/2002	2.50	6569.43
X3		
8/12/2002	2.50	6570.78
X4		
2/5/2002	16.80	6560.14
8/12/2002	13.10	6563.84
X5		
2/5/2002	12.10	6565.51
8/12/2002	7.80	6569.81
X6		
8/12/2002	8.00	6570.72
X10		
8/12/2002	4.00	6578.43
X13		
4/9/2002	40.76	6546.18
X14		
4/9/2002	39.80	6546.40
X15		
4/9/2002	40.54	6542.37
X16		
4/9/2002	40.64	6544.15
X17		
4/9/2002	41.06	6544.78
X18		
4/9/2002	29.06	6557.02
X19		
4/9/2002	45.56	6539.64
X20		
4/9/2002	47.00	6538.73
X28		
2/5/2002	5.10	6564.86
3/6/2002	13.00	6556.96
3/7/2002	12.02	6557.94
8/12/2002	8.30	6561.66
X29		
2/5/2002	5.30	6564.73
3/6/2002	9.35	6560.68
8/12/2002	4.00	6566.03
X30		
3/6/2002	9.25	6563.28
8/12/2002	3.00	6569.53
X31		
2/5/2002	14.20	6559.93
8/12/2002	8.00	6566.13
Y		
2/6/2002	4.00	6568.88
2/12/2002	5.00	6567.88
3/6/2002	10.40	6562.48
3/6/2002	8.80	6564.08
4/11/2002	7.80	6565.08
7/1/2002	6.00	6566.88
7/15/2002	12.30	6560.58
8/12/2002	11.40	6561.48
9/30/2002	7.88	6565.00
10/15/2002	15.20	6557.68

TABLE A.1-2 WATER LEVELS FOR THE SUBDIVISION ALLUVIAL WELLS

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
0453		
7/1/2002	34.93	6533.07
0482		
7/25/2002	39.80	6522.86
0490		
6/11/2002	37.23	6525.19
0491		
7/25/2002	39.22	6523.40
0492		
6/10/2002	34.70	6525.98
0496		
4/11/2002	76.15	6486.37
6/19/2002	75.32	6487.20
8/12/2002	62.29	6500.23
12/11/2002	56.45	6506.07
0497		
8/12/2002	58.70	6503.92
12/11/2002	56.30	6506.32
0525		
7/12/2002	55.36	6514.64
0688		
6/10/2002	61.61	6501.01
0804		
5/7/2002	46.60	6515.40
0844		
7/17/2002	34.28	6521.85
0845		
7/24/2002	34.90	6522.15
CW44		
3/28/2002	58.26	6502.48
4/11/2002	153.68	6407.06
5/8/2002	158.30	6402.44
6/19/2002	157.65	6403.09
10/2/2002	134.50	6426.24
12/12/2002	62.48	6498.26
SUB1		
4/29/2002	34.00	6527.00
SUB3		
4/24/2002	28.80	6528.27

TABLE A.1-3 WATER LEVELS FOR REGIONAL ALLUVIAL WELLS

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
0520		
7/22/2002	54.79	6531.23
10/16/2002	56.18	6529.84
11/13/2002	56.01	6530.01
0521		
6/24/2002	52.50	6531.94
7/22/2002	55.04	6529.40
9/10/2002	63.15	6521.29
10/16/2002	63.82	6520.62
11/13/2002	64.12	6520.32
0522		
1/24/2002	51.04	6529.49
6/24/2002	50.32	6530.21
7/22/2002	62.96	6517.57
9/10/2002	55.80	6524.73
10/16/2002	55.44	6525.09
11/13/2002	54.75	6525.78
0523		
3/21/2002	58.90	6527.89
9/10/2002	2.00	6584.79
0524		
3/21/2002	62.17	6528.18
9/10/2002	3.50	6586.85
11/13/2002	3.35	6587.00
0631		
4/11/2002	100.95	6440.15
5/8/2002	103.08	6438.02
6/19/2002	103.72	6437.38
10/2/2002	106.54	6434.56
12/11/2002	84.47	6456.63
0632		
4/11/2002	101.25	6440.05
6/19/2002	103.86	6437.44
10/2/2002	104.00	6437.30
12/11/2002	84.13	6457.17
0633		
12/5/2002	76.40	6481.16
0634		
10/9/2002	78.80	6481.27
12/5/2002	72.01	6488.06
0636		
10/3/2002	98.12	6475.32
0637		
10/3/2002	103.31	6471.89
0638		
12/5/2002	57.85	6527.71
0639		
6/24/2002	55.42	6532.46
7/22/2002	62.71	6525.17
9/10/2002	62.31	6525.57
9/11/2002	65.65	6522.23
10/16/2002	65.06	6522.82
11/13/2002	63.35	6524.53
0640		
7/23/2002	52.69	6527.28
0641		
7/17/2002	51.36	6522.00
11/12/2002	8.08	6565.28
0642		
7/17/2002	52.26	6519.62
11/13/2002	6.62	6565.26
0643		
10/16/2002	75.89	6475.44
0644		
10/16/2002	75.80	6468.10
0646		
10/16/2002	77.60	6465.75
0647		
4/11/2002	93.35	6458.56
6/19/2002	110.39	6441.52
8/12/2002	111.22	6440.69
12/11/2002	93.03	6458.88
0648		
4/11/2002	107.95	6439.84
5/8/2002	109.73	6438.06
6/19/2002	109.17	6438.62
8/12/2002	107.75	6440.04
12/11/2002	97.48	6450.31
0649		
4/11/2002	99.95	6443.34
6/19/2002	108.87	6434.42
8/12/2002	109.46	6433.83
12/11/2002	90.93	6452.36
0652		
10/16/2002	84.61	6453.54
0653		
4/11/2002	83.00	6461.97
5/8/2002	170.81	6374.16
6/19/2002	171.00	6373.97
10/10/2002	174.08	6370.89
12/11/2002	73.98	6470.99
0654		
10/10/2002	75.06	6475.44
12/5/2002	72.69	6477.81
0657		
4/11/2002	100.15	6451.66
5/8/2002	99.60	6452.21
6/19/2002	99.60	6452.21
10/2/2002	105.60	6446.21
12/11/2002	89.51	6462.30
0658		
6/19/2002	100.50	6449.68
10/2/2002	119.36	6430.82
12/11/2002	94.65	6455.53
0659		
10/9/2002	75.60	6484.57
12/5/2002	72.00	6488.17
0683		
10/11/2002	86.32	6469.72
0684		
10/9/2002	83.54	6469.74
0685		
7/24/2002	91.68	6464.89
0686		
10/3/2002	106.00	6472.80
0687		
7/24/2002	90.61	6465.35
0689		
7/23/2002	66.24	6475.78
0692		
7/23/2002	66.36	6518.46
0846		
7/17/2002	44.01	6504.91
0848		
7/23/2002	61.12	6511.37
11/13/2002	41.00	6531.49
0851		
8/19/2002	75.65	6470.79

TABLE A.1-3 WATER LEVELS FOR REGIONAL ALLUVIAL WELLS (cont.)

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
0855		
7/24/2002	85.83	6455.28
8/19/2002	86.38	6454.73
0861		
8/19/2002	73.33	6486.52
0862		
4/11/2002	90.18	6466.00
6/19/2002	77.68	6478.50
8/19/2002	86.11	6470.07
12/11/2002	65.95	6490.23
0863		
4/11/2002	91.16	6465.40
6/19/2002	90.00	6466.56
8/19/2002	92.00	6464.56
12/11/2002	74.30	6482.26
0864		
8/19/2002	73.36	6473.36
0865		
8/20/2002	71.43	6485.35
12/11/2002	71.98	6484.80
0866		
8/19/2002	68.44	6489.68
12/11/2002	65.25	6492.87
0867		
8/20/2002	71.40	6484.50
12/11/2002	72.58	6483.32
0868		
8/20/2002	62.24	6512.50
11/13/2002	5.30	6569.44
0869		
4/11/2002	89.35	6455.14
6/19/2002	88.51	6455.98
8/19/2002	92.60	6451.89
12/11/2002	75.00	6469.49
0876		
8/19/2002	74.59	6469.67
0881		
10/3/2002	84.53	6480.51
12/5/2002	75.37	6489.67
0882		
10/3/2002	69.26	6491.90
0883		
10/2/2002	60.74	6496.39
0884		
10/3/2002	80.36	6485.74
0885		
10/3/2002	69.38	6495.26
0886		
10/9/2002	73.08	6491.47
0888		
10/10/2002	79.30	6478.03
0890		
10/9/2002	87.90	6470.53
12/5/2002	74.95	6483.48
0893		
10/3/2002	74.92	6489.05
0894		
10/2/2002	77.12	6477.17
0895		
10/10/2002	81.21	6472.63
0896		
10/10/2002	82.24	6473.37
0899		
10/10/2002	96.06	6474.78
0914		
5/9/2002	40.41	6601.59
0921		
5/8/2002	38.43	6585.57
0922		
5/8/2002	52.28	6569.42
0935		
10/9/2002	88.08	6470.04
0979		
7/10/2002	57.56	6583.44
0994		
4/2/2002	88.80	6466.20
5/2/2002	88.90	6466.10
6/6/2002	89.10	6465.90
7/9/2002	89.35	6465.65
8/12/2002	89.70	6465.30
9/18/2002	89.78	6465.22
10/16/2002	90.04	6464.96
11/13/2002	90.47	6464.53
0996		
7/24/2002	96.26	6456.26

TABLE A.2-1 WATER LEVELS FOR CHINLE AQUIFERS

WATER LEVEL ELEVATION (FT-MSL)

2/14/2003

0482

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
7/25/2002	39.80	6522.86

0493

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/27/2002	98.39	6461.89
3/28/2002	98.82	6461.46
6/11/2002	110.36	6449.92
12/12/2002	111.50	6448.78

0494

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/11/2002	34.88	6525.26
12/12/2002	34.69	6525.45

0653

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/11/2002	83.00	6461.97
5/8/2002	170.81	6374.16
6/19/2002	171.00	6373.97
10/10/2002	174.08	6370.89
12/11/2002	73.98	6470.99

0820

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
5/9/2002	99.20	6458.80

0850

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/12/2002	55.98	6493.17

0853

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/25/2002	75.10	6466.28
12/12/2002	76.41	6464.97

0859

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/28/2002	74.97	6477.79
6/24/2002	75.41	6477.35
12/12/2002	75.69	6477.07

0929

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/6/2002	> 189.00	< 6403.57
2/7/2002	> 189.00	< 6403.57
2/26/2002	190.03	6402.54
3/4/2002	173.07	6419.50
3/6/2002	173.80	6418.77
3/6/2002	179.40	6413.17
3/7/2002	> 189.00	< 6403.57
4/1/2002	189.50	6403.07
4/29/2002	189.04	6403.53
6/4/2002	189.22	6403.35
7/1/2002	189.20	6403.37
8/5/2002	174.36	6418.21
8/21/2002	158.88	6433.69
9/3/2002	107.87	6484.70
9/11/2002	172.65	6419.92
9/30/2002	189.35	6403.22
11/5/2002	146.95	6443.62
11/14/2002	144.93	6447.64
12/2/2002	189.60	6402.97
12/12/2002	159.30	6433.27
12/30/2002	71.45	6521.12

0930

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/11/2002	133.60	6464.94

0931

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/12/2002	197.85	6412.71

0934

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/6/2002	> 194.30	< 6391.29
2/7/2002	193.45	6392.14
2/26/2002	186.61	6398.98
3/4/2002	180.67	6404.92
3/6/2002	180.85	6404.74
3/6/2002	183.10	6402.49
3/7/2002	189.28	6396.31
4/1/2002	200.00	6385.59
4/29/2002	195.38	6390.21
6/4/2002	192.67	6392.92
7/1/2002	175.43	6410.16
7/22/2002	49.17	6536.42
8/5/2002	163.72	6421.87
9/3/2002	103.26	6482.33
9/11/2002	162.67	6422.92
9/30/2002	188.33	6397.26
11/5/2002	199.66	6385.93
12/2/2002	199.52	6386.07
12/12/2002	191.10	6394.49
12/30/2002	61.24	6524.35

0944

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/6/2002	181.27	6407.34
3/28/2002	178.00	6410.61
6/10/2002	93.80	6494.81
7/1/2002	156.80	6431.81
8/5/2002	148.45	6440.16
9/3/2002	5.60	6583.01
9/30/2002	73.70	6514.91
11/5/2002	170.00	6418.61
12/2/2002	80.00	6508.61
12/12/2002	189.48	6399.13
12/30/2002	0.60	6588.01

0994

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/2/2002	88.80	6466.20
5/2/2002	88.90	6466.10
6/6/2002	89.10	6465.90
7/9/2002	89.35	6465.65
8/12/2002	89.70	6465.30
9/18/2002	89.78	6465.22
10/16/2002	90.04	6464.96
11/13/2002	90.47	6464.53

CE1

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/19/2002	50.96	6519.23
12/12/2002	45.91	6524.28

CE2

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/26/2002	62.88	6513.47
3/4/2002	58.72	6517.63
4/1/2002	62.73	6513.62
4/29/2002	62.38	6513.97
6/4/2002	64.00	6512.35
7/1/2002	64.30	6512.05
8/5/2002	63.90	6512.45
8/21/2002	60.16	6516.19
9/3/2002	68.23	6508.12
9/30/2002	68.48	6507.87
11/5/2002	56.34	6520.01
11/12/2002	66.83	6509.52
12/2/2002	65.90	6510.45
12/30/2002	65.54	6510.81

CE5

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/28/2002	41.31	6527.24
6/18/2002	40.71	6527.84
12/12/2002	40.83	6527.72

CW1

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/7/2002	137.54	6447.68
2/26/2002	143.26	6441.96
3/4/2002	145.47	6439.75
4/1/2002	144.92	6440.30
4/29/2002	140.41	6444.81
5/22/2002	140.13	6445.09
6/4/2002	163.97	6421.25
7/1/2002	165.38	6419.84
8/5/2002	163.73	6421.49
8/21/2002	160.40	6424.82
9/4/2002	146.20	6439.02
9/30/2002	167.25	6417.97
11/5/2002	166.95	6418.27
12/2/2002	167.80	6417.42
12/30/2002	167.58	6417.64

CW2

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/26/2002	125.23	6460.25
3/4/2002	128.89	6456.59
4/1/2002	132.97	6452.51
4/29/2002	124.00	6461.48
5/22/2002	137.50	6447.98
6/4/2002	159.61	6425.87
7/1/2002	161.20	6424.28
8/5/2002	163.03	6422.45
8/15/2002	63.08	6522.40
8/21/2002	157.24	6428.24
9/4/2002	143.28	6442.20
9/30/2002	164.59	6420.89
11/5/2002	164.75	6420.73
12/2/2002	166.20	6419.28
12/30/2002	166.11	6419.37

CW2-1

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/12/2002	62.73	6522.75

* Drawdown Tube Pressure, # Transducer Reading

TABLE A.2-1 WATER LEVELS FOR CHINLE AQUIFERS (cont.)

WATER LEVEL ELEVATION (FT-MSL)

2/14/2003

CW3

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/7/2002	194.90	6392.28
2/25/2002	193.58	6393.60
2/26/2002	193.58	6393.60
3/4/2002	194.35	6392.83
3/7/2002	190.44	6396.74
4/1/2002	195.17	6392.01
4/29/2002	195.14	6392.04
4/29/2002	191.48	6395.70
6/4/2002	172.50	6414.68
6/22/2002	151.15	6436.03
7/1/2002	169.47	6417.71
8/5/2002	165.98	6421.20
8/21/2002	169.88	6417.30
9/4/2002	168.48	6418.70
9/30/2002	169.78	6417.40
11/5/2002	169.70	6417.48
12/2/2002	166.55	6420.63
12/30/2002	169.64	6417.54

CW4R

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/11/2002	17.10	6551.63
6/12/2002	41.31	6527.42
9/4/2002	41.42	6527.31
11/5/2002	41.27	6527.46
12/2/2002	41.00	6527.73
12/12/2002	41.02	6527.71
12/30/2002	41.12	6527.61

CW5

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	7.10	6562.24
2/6/2002	> 49.00	< 6520.34
2/26/2002	8.90	6560.44
3/4/2002	4.40	6564.94
4/1/2002	1.20	6568.14
4/29/2002	1.00	6568.34
6/4/2002	0.60	6568.74
7/1/2002	5.00	6564.34
8/5/2002	1.00	6568.34
9/4/2002	5.00	6564.34
9/30/2002	1.00	6568.34
11/5/2002	3.00	6566.34
12/2/2002	2.04	6567.30
12/30/2002	0.60	6568.74

CW6

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/12/2002	127.14	6448.50

CW9

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/12/2002	65.56	6526.27

CW13

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	13.00	6563.70
2/26/2002	4.33	6572.37
3/4/2002	1.00	6575.70
3/7/2002	15.40	6561.30
4/1/2002	14.70	6562.00
4/29/2002	1.50	6575.20
5/21/2002	12.00	6564.70
6/4/2002	4.00	6572.70
7/1/2002	36.00	6540.70
8/5/2002	1.00	6575.70
9/4/2002	8.00	6568.70
9/10/2002	31.00	6545.70
9/30/2002	1.50	6575.20
11/5/2002	52.67	6524.03
12/2/2002	10.65	6566.05
12/30/2002	1.20	6575.50

CW14

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	6.70	6559.39
2/26/2002	12.48	6553.61
3/4/2002	7.48	6558.61
4/1/2002	32.76	6533.33
4/29/2002	35.60	6530.49
5/21/2002	12.00	6554.09
6/4/2002	5.06	6561.03
7/1/2002	24.00	6542.09
8/5/2002	50.38	6515.71
9/4/2002	5.00	6561.09
9/30/2002	32.04	6534.05
11/5/2002	34.17	6531.92
12/2/2002	21.46	6544.63
12/30/2002	39.55	6526.54

CW15

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/24/2002	75.00	6476.32
12/12/2002	75.98	6475.34

CW17

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/27/2002	60.20	6529.12

CW18

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/28/2002	53.47	6519.18
7/23/2002	27.54	6545.11
9/30/2002	69.78	6502.87
11/5/2002	153.43	6419.22
11/13/2002	95.79	6476.86
12/2/2002	106.04	6466.61
12/12/2002	166.70	6405.95
12/30/2002	49.94	6522.71

CW25

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2002	16.95	6550.25
2/26/2002	2.00	6565.20
3/4/2002	2.00	6565.20
4/1/2002	2.28	6564.92
4/29/2002	2.50	6564.70
6/4/2002	2.00	6565.20
7/1/2002	11.00	6556.20
8/5/2002	2.30	6564.90
9/4/2002	3.80	6563.40
9/10/2002	4.00	6563.20
9/30/2002	10.00	6557.20
11/5/2002	2.50	6564.70
12/2/2002	4.75	6562.45
12/30/2002	2.70	6564.50

CW26

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/28/2002	87.91	6473.52
6/26/2002	89.90	6471.53
12/12/2002	91.55	6469.88

CW27

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/28/2002	69.46	6493.42
6/26/2002	72.70	6490.18
12/12/2002	74.07	6488.81

CW28

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/28/2002	85.75	6485.93
7/23/2002	85.13	6486.55
9/30/2002	110.90	6460.78
11/5/2002	95.16	6476.52
11/13/2002	215.98	6355.70
12/2/2002	234.97	6336.71
12/12/2002	208.08	6363.60
12/30/2002	207.64	6364.04

CW29

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/24/2002	81.38	6470.84
12/12/2002	83.14	6469.08

CW30

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/25/2002	101.26	6457.05
12/12/2002	100.39	6457.92

CW31

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/26/2002	83.64	6476.62
12/12/2002	83.82	6476.44

CW32

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/26/2002	120.81	6446.47
12/12/2002	120.83	6446.45

CW33

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/26/2002	106.18	6468.71
12/12/2002	106.04	6468.85

CW35

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/27/2002	59.39	6531.78

CW36

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/12/2002	75.10	6475.99

CW37

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
7/1/2002	61.00	6490.17
12/12/2002	60.46	6490.71

CW39

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/12/2002	63.22	6487.49

CW40

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/28/2002	54.21	6524.73
7/23/2002	30.78	6548.16
12/12/2002	164.63	6414.31

TABLE A.2-1 WATER LEVELS FOR CHINLE AQUIFERS (cont.)

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)	Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)	Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)	Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
CW41											
12/12/2002	86.00	6489.41									
CW42											
10/2/2002	78.00	6470.78									
12/12/2002	78.02	6470.76									
CW43											
10/2/2002	67.11	6481.68									
12/12/2002	66.36	6482.43									
CW44											
3/28/2002	58.26	6502.48									
4/11/2002	153.68	6407.06									
5/8/2002	158.30	6402.44									
6/19/2002	157.65	6403.09									
10/2/2002	134.50	6426.24									
12/12/2002	62.48	6498.26									
CW45											
3/28/2002	55.56	6505.75									
10/2/2002	61.21	6500.10									
12/12/2002	58.56	6502.75									
12/12/2002	58.54	6502.77									
CW46											
3/28/2002	67.16	6495.08									
10/2/2002	73.18	6489.08									
12/12/2002	72.69	6489.57									
WCW											
12/12/2002	126.31	6441.06									

TABLE A.3-1 WATER LEVELS FOR THE SAN ANDRES AQUIFER

WATER LEVEL ELEVATION (FT-MSL) 2/14/2003

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
0534		
12/18/2002	98.90	6453.67
0535		
12/18/2002	95.88	6444.12
0907		
3/4/2002	93.66	6451.94
10/17/2002	100.20	6445.40
12/18/2002	98.10	6447.50
0928		
3/4/2002	145.57	6452.03
10/21/2002	152.80	6444.80
12/18/2002	151.70	6445.90
0938		
3/4/2002	116.44	6452.36
10/17/2002	122.84	6445.96
12/18/2002	120.95	6447.85
0943		
11/13/2002	78.00	6477.91
12/18/2002	78.40	6477.51
0951		
3/4/2002	125.96	6447.74
4/1/2002	122.76	6450.94
4/29/2002	128.50	6445.20
6/4/2002	130.12	6443.58
7/1/2002	131.48	6442.22
8/5/2002	132.61	6441.09
9/3/2002	132.88	6440.82
9/30/2002	132.78	6440.92
10/17/2002	132.36	6441.34
11/5/2002	131.05	6442.65
12/2/2002	130.85	6442.85
12/18/2002	130.54	6443.16
12/30/2002	130.51	6443.19

APPENDIX B

WATER QUALITY

TABLE OF CONTENTS

GROUND-WATER MONITORING FOR HOMESTAKE'S GRANTS PROJECT

APPENDIX B

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TABLE B.1-1 WATER QUALITY ANALYSES FOR THE TAILINGS WELLS

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.) (micromhos/	Ion_B (ratio)
CN1	5/9/2002	ENER	—	—	—	—	—	—	654	6100	12600	* 16110	—
CN2	4/17/2002	ENER	—	—	—	—	—	—	91.9	729	1560	—	—
CN3	4/17/2002	ENER	—	—	—	—	—	—	92.3	722	1550	—	—
	8/15/2002	ENER	—	—	—	—	—	—	85.0	697	1530	—	—
CS2	3/21/2002	ENER	—	—	—	—	—	—	277	1190	2930	—	—
CS3	3/21/2002	ENER	—	—	—	—	—	—	318	771	2320	—	—
ED1	8/22/2002	ENER	2.60	1.40	49.2	9700	6670	2220	1360	9130	25000	* 35019	1.03
EN2	5/9/2002	ENER	—	—	—	—	—	—	1220	10100	24500	* 28898	—
EN4A	4/17/2002	ENER	—	—	—	—	—	—	97.2	734	1630	—	—
	8/15/2002	ENER	—	—	—	—	—	—	86.4	737	1630	—	—
EN4B	4/17/2002	ENER	—	—	—	—	—	—	405	2080	5890	—	—
	8/5/2002	ENER	—	—	—	—	—	—	415	2530	7320	—	—
ES1	5/9/2002	ENER	—	—	—	—	—	—	320	1450	4330	* 7120	—
NE5	2/28/2002	ENER	23.3	40.0	11.5	1540	1210	358	194	1910	4670	* 8142	0.932
NE6	8/22/2002	ENER	2.30	1.40	83.2	11500	6900	2190	1760	13800	31500	* 44383	0.961
NW5	2/28/2002	ENER	5.90	1.40	3.90	832	672	162	108	1010	2410	* 4609	0.906
PW1	8/22/2002	ENER	27.0	163	73.0	9600	3280	97.1	1720	15900	30000	* 39046	0.995
PW2	3/21/2002	ENER	—	—	—	—	—	—	231	941	2820	—	—
WA3	8/22/2002	ENER	3.00	1.10	16.6	3090	2200	1010	386	2890	8430	* 13598	0.960
WC15	8/15/2002	ENER	—	—	—	—	—	—	556	3280	9760	—	—
WD3	8/15/2002	ENER	—	—	—	—	—	—	88.9	694	1650	—	—
WE2	8/22/2002	ENER	2.10	< 1.000	45.9	7740	4130	2220	1370	8970	21300	* 30740	0.921
WN4	3/21/2002	ENER	5.50	5.60	10.00	2610	1800	497	452	2930	7310	* 12193	0.956

* Signifies Specific Conductivity from HMC

TABLE B.1-2 WATER QUALITY ANALYSES FOR THE TAILINGS WELLS

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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
CN1	5/9/2002	ENER	—	27.0	41.2	0.301	—	—	—	—	—	—
CN2	4/17/2002	ENER	—	0.915	0.850	0.0220	—	—	—	—	—	—
CN3	4/17/2002	ENER	—	0.622	0.450	0.387	—	—	—	—	—	—
	8/15/2002	ENER	—	0.750	0.840	0.322	—	—	—	—	—	—
CS2	3/21/2002	ENER	—	0.515	2.34	0.0410	—	—	—	—	—	—
CS3	3/21/2002	ENER	—	3.49	1.81	0.0130	—	—	—	—	—	—
ED1	8/22/2002	ENER	9.77	34.0	72.5	0.798	4.27	160	—	—	—	—
EN2	5/9/2002	ENER	—	45.2	136	0.388	—	—	—	—	—	—
EN4A	4/17/2002	ENER	—	0.297	0.780	0.0820	—	—	—	—	—	—
	8/15/2002	ENER	—	0.495	0.770	0.0060	—	—	—	—	—	—
EN4B	4/17/2002	ENER	—	6.68	14.2	0.0780	—	—	—	—	—	—
	8/5/2002	ENER	—	9.00	16.4	0.0130	—	—	—	—	—	—
ES1	5/9/2002	ENER	—	4.08	10.4	21.5	—	—	—	—	—	—
NE5	2/28/2002	ENER	9.70	5.87	16.2	0.0490	0.300	122	—	—	—	—
NE6	8/22/2002	ENER	9.75	40.3	114	0.682	5.47	177	—	—	—	—
NW5	2/28/2002	ENER	9.60	1.61	4.68	0.0780	0.420	29.3	—	—	—	—
PW1	8/22/2002	ENER	8.72	56.5	47.3	7.44	0.810	10.6	—	—	—	—
PW2	3/21/2002	ENER	—	2.24	1.61	0.0230	—	—	—	—	—	—
WA3	8/22/2002	ENER	9.91	9.21	28.8	0.0750	1.36	95.1	—	—	—	—
WC15	8/15/2002	ENER	—	6.77	23.0	0.0720	—	—	—	—	—	—
WD3	8/15/2002	ENER	—	< 0.0003	0.610	0.656	—	—	—	—	—	—
WE2	8/22/2002	ENER	9.98	20.5	65.0	0.118	1.53	131	—	—	—	—
WN4	3/21/2002	ENER	9.69	7.86	22.3	< 0.0050	2.63	17.8	—	—	—	—

TABLE B.2-1 WATER QUALITY ANALYSES FOR THE TOE DRAIN SUMPS

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.) (micromhos/	Ion_B (ratio)
East 1 Sump	3/20/2002	ENER	—	—	—	—	—	—	—	10700	26900	* 34394	—
	8/22/2002	ENER	10.4	20.7	47.8	7180	4050	930	1120	9090	20200	* 28603	0.992
East 2 Sump	3/20/2002	ENER	—	—	—	—	—	—	—	13400	31200	* 38341	—
	8/22/2002	ENER	6.20	32.1	77.5	10900	5870	1320	1470	14100	30200	* 40010	1.01
East Reclaim	3/20/2002	ENER	—	—	—	—	—	—	—	9120	22400	* 29297	—
	8/22/2002	ENER	3.40	6.00	41.5	6210	3650	1270	1010	7090	17100	* 25326	0.977
North 1 Sump	3/20/2002	ENER	—	—	—	—	—	—	—	8750	22100	* 28535	—
	8/22/2002	ENER	4.90	10.8	48.5	8600	5380	1750	1020	10100	23300	* 33560	0.976
South 1 Sump	3/25/2002	ENER	—	—	—	—	—	—	—	9630	26300	* 37853	—
	8/22/2002	ENER	3.60	5.70	50.9	7070	4090	2250	757	7630	18800	* 26824	0.960
West 1 Sump	3/25/2002	ENER	—	—	—	—	—	—	—	9420	24600	* 34943	—
	8/22/2002	ENER	12.0	33.2	53.6	7990	5060	519	1280	10600	22300	* 30810	0.987
West Reclaim	3/25/2002	ENER	—	—	—	—	—	—	—	9370	24400	* 33781	—
	8/22/2002	ENER	8.50	16.0	25.0	5920	4330	1020	652	6900	16800	* 23603	0.973

* Signifies Specific Conductivity from HMC

TABLE B.2-2 WATER QUALITY ANALYSES FOR THE TOE DRAIN SUMPS

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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
East 1 Sump	3/20/2002	ENER	—	42.9	103	1.89	—	—	—	—	—	—
	8/22/2002	ENER	9.61	33.4	75.2	7.04	2.20	85.0	—	—	—	—
East 2 Sump	3/20/2002	ENER	—	95.8	113	0.261	—	—	—	—	—	—
	8/22/2002	ENER	9.60	79.1	102	0.269	3.31	6.70	—	—	—	—
East Reclaim	3/20/2002	ENER	—	36.0	80.5	0.460	—	—	—	—	—	—
	8/22/2002	ENER	9.79	29.8	74.7	0.494	2.86	35.2	—	—	—	—
North 1 Sump	3/20/2002	ENER	—	32.1	82.0	0.310	—	—	—	—	—	—
	8/22/2002	ENER	9.76	32.6	98.9	0.500	3.19	66.8	—	—	—	—
South 1 Sump	3/25/2002	ENER	—	27.9	130	0.212	—	—	—	—	—	—
	8/22/2002	ENER	9.99	24.8	92.7	0.696	5.77	105	—	—	—	—
West 1 Sump	3/25/2002	ENER	—	29.2	101	0.890	—	—	—	—	—	—
	8/22/2002	ENER	9.26	36.3	63.5	0.746	2.00	5.10	—	—	—	—
West Reclaim	3/25/2002	ENER	—	34.2	104	0.0900	—	—	—	—	—	—
	8/22/2002	ENER	9.62	29.0	84.5	0.456	0.940	19.4	—	—	—	—

TABLE B.3-1 WATER QUALITY ANALYSES FOR THE LINED PONDS

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.) (micromhos/	Ion_B (ratio)
E Coll Pond	2/25/2002	ENER	—	—	—	—	—	—	1300	9460	21200	* 29022	—
	4/11/2002	ENER	—	—	—	—	—	—	1360	11700	23900	* 31871	—
	4/11/2002	ENER	—	—	—	—	—	—	# 1350	# 11600	# 23400	—	—
	8/13/2002	ENER	—	—	—	—	—	—	1890	17200	34700	* 37489	—
	10/15/2002	ENER	29.5	114	49.4	8490	2140	152	1500	14500	26800	* 37963	0.992
Evap Pond 1	2/25/2002	ENER	—	—	—	—	—	—	3440	20100	46600	* 58754	—
	4/11/2002	ENER	—	—	—	—	—	—	4310	25300	56200	* 66728	—
	8/13/2002	ENER	—	—	—	—	—	—	4850	34900	76300	* 69977	—
	10/15/2002	ENER	11.4	479	182	24000	9560	2370	4550	37200	77600	* 86633	0.956
Evap Pond 2	2/25/2002	ENER	—	—	—	—	—	—	2340	19000	41000	* 50756	—
	4/11/2002	ENER	—	—	—	—	—	—	2810	20600	43200	* 55259	—
	8/13/2002	ENER	—	—	—	—	—	—	3460	25000	54000	* 55458	—
	10/15/2002	ENER	14.0	399	133	17800	8510	1060	3400	27400	58200	* 68623	0.964
W Coll Pond	2/25/2002	ENER	—	—	—	—	—	—	1260	9940	21000	* 29690	—
	4/11/2002	ENER	—	—	—	—	—	—	1260	10300	21900	* 30134	—
	8/12/2002	HMC	—	—	—	—	—	—	—	—	—	—	—
	8/13/2002	ENER	—	—	—	—	—	—	819	6340	14100	* 19089	—
	10/15/2002	ENER	7.60	96.7	20.0	3660	2260	562	669	4740	12000	* 19364	0.970
	12/11/2002	ENER	3.80	—	—	—	—	—	684	4710	10300	—	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.3-2 WATER QUALITY ANALYSES FOR THE LINED PONDS

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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
E Coll Pond	2/25/2002	ENER	—	39.7	59.0	2.90	—	50.0	< 1.000	—	—	—
	4/11/2002	ENER	—	33.5	66.2	3.58	—	—	—	—	—	—
	4/11/2002	ENER	—	# 33.7	# 77.6	# 3.58	—	—	—	—	—	—
	8/13/2002	ENER	—	36.8	94.4	4.35	—	—	—	—	—	—
	10/15/2002	ENER	9.10	46.9	94.2	3.58	10.3	17.2	< 1.000	—	< 0.0100	28.2
Evap Pond 1	2/25/2002	ENER	—	105	161	1.29	—	47.4	< 1.000	—	—	—
	4/11/2002	ENER	—	189	192	1.20	—	—	—	—	—	—
	8/13/2002	ENER	—	198	214	0.920	—	—	—	—	—	—
	10/15/2002	ENER	9.44	178	259	1.05	< 0.100	31.1	< 1.000	—	0.340	341
Evap Pond 2	2/25/2002	ENER	—	79.8	136	1.52	—	35.2	< 1.000	—	—	—
	4/11/2002	ENER	—	70.0	140	1.71	—	—	—	—	—	—
	8/13/2002	ENER	—	61.4	157	0.570	—	—	—	—	—	—
	10/15/2002	ENER	9.34	144	213	0.597	< 0.100	32.5	5.30	—	0.320	290
W Coll Pond	2/25/2002	ENER	—	40.0	77.9	3.06	—	55.0	< 1.000	—	—	—
	4/11/2002	ENER	—	32.2	76.5	2.90	—	—	—	—	—	—
	8/13/2002	ENER	—	41.1	55.5	1.06	—	—	—	—	—	—
	10/15/2002	ENER	9.64	34.5	45.1	0.992	0.600	2.90	< 1.000	—	0.210	2.10
	12/11/2002	ENER	9.66	25.0	35.4	1.04	—	—	—	—	—	—

Signifies Quality Control Sample

TABLE B.4-1 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS

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.) (micromhos/	Ion_B (ratio)
1A	4/9/2002	ENER	—	—	—	—	—	—	231	1440	3270	* 5432	—
1F	10/9/2002	ENER	—	—	—	—	—	—	—	1360	3130	* 4975	—
1G	10/9/2002	ENER	—	—	—	—	—	—	—	922	2350	* 4194	—
1H	10/11/2002	ENER	—	—	—	—	—	—	—	489	1740	* 3115	—
1J	10/11/2002	ENER	—	—	—	—	—	—	—	1400	5070	* 9993	—
1K	10/11/2002	ENER	—	—	—	—	—	—	—	509	1500	* 2592	—
1L	10/14/2002	ENER	—	—	—	—	—	—	—	827	2200	* 3997	—
1M	10/14/2002	ENER	—	—	—	—	—	—	—	56.3	365	* 738	—
B	6/12/2002	ENER	—	—	—	—	—	—	—	981	2240	* 3720	—
B10	6/26/2002	ENER	—	—	—	—	—	—	663	3800	8000	* 11231	—
B11	2/13/2002	ENER	—	—	—	—	—	—	350	3690	6910	* 10714	—
	6/26/2002	ENER	—	—	—	—	—	—	314	3140	6010	* 8545	—
	10/1/2002	ENER	—	—	—	—	—	—	—	2420	4830	* 7680	—
B12	4/29/2002	ENER	280	59.9	4.70	352	573	< 1.000	228	886	2130	* 3507	1.00
B13	4/29/2002	ENER	185	52.2	4.90	418	564	< 1.000	210	816	1980	* 3531	0.989
BC	6/12/2002	ENER	—	—	—	—	—	—	—	1090	2090	* 2873	—
BP	7/16/2002	ENER	216	56.0	4.90	369	470	< 1.000	193	912	2240	* 3757	0.981
C1	2/13/2002	ENER	—	—	—	—	—	—	176	794	1950	* 3549	—
	8/21/2002	ENER	—	—	—	—	—	—	74.8	373	1030	* 1988	—
C2	2/13/2002	ENER	—	—	—	—	—	—	204	589	1810	* 3305	—
	8/21/2002	ENER	—	—	—	—	—	—	60.8	274	935	* 1808	—
C5	10/21/2002	ENER	—	—	—	—	—	—	—	222	845	* 1569	—
C6	4/8/2002	ENER	—	—	—	—	—	—	294	2110	4590	* 7213	—

* Signifies Specific Conductivity from HMC

TABLE B.4-1 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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.) (micromhos/	Ion_B (ratio)
C6	6/26/2002	ENER	—	—	—	—	—	—	247	1910	4390	* 6157	—
	10/14/2002	ENER	225	54.5	6.70	790	691	< 1.000	178	1510	3020	* 5580	1.05
C7	6/26/2002	ENER	—	—	—	—	—	—	501	2040	5210	* 6367	—
	10/14/2002	ENER	464	92.6	9.50	1160	873	< 1.000	579	2440	4570	* 8564	1.00
C8	6/26/2002	ENER	—	—	—	—	—	—	471	1610	4140	* 5687	—
	10/14/2002	ENER	345	96.1	7.30	911	620	< 1.000	598	1760	3490	* 6981	1.02
C9	6/26/2002	ENER	—	—	—	—	—	—	467	2220	5290	* 7261	—
	10/14/2002	ENER	358	80.1	7.00	1220	681	< 1.000	486	2470	4820	* 8235	1.02
C10	4/8/2002	ENER	—	—	—	—	—	—	772	3000	6510	* 10584	—
	6/26/2002	ENER	—	—	—	—	—	—	672	3240	6910	* 9185	—
	10/14/2002	ENER	379	81.9	7.40	1680	862	< 1.000	645	3140	5460	* 10222	1.01
C11	4/8/2002	ENER	—	—	—	—	—	—	428	3060	6070	* 9495	—
	6/26/2002	ENER	—	—	—	—	—	—	377	2220	5470	* 7512	—
	10/1/2002	ENER	186	57.9	6.00	1410	824	< 1.000	303	2570	5180	* 8592	0.999
C12	4/8/2002	ENER	—	—	—	—	—	—	211	1700	3610	* 6284	—
	10/14/2002	ENER	71.1	20.9	3.60	821	737	< 1.000	192	1040	2600	* 4679	1.05
D1	6/10/2002	ENER	212	53.1	4.10	336	542	< 1.000	196	720	1920	* 3425	1.01
DA4	6/26/2002	ENER	—	—	—	—	—	—	606	4230	8770	* 12191	—
DC	6/12/2002	ENER	—	—	—	—	—	—	—	1140	2170	* 3028	—
DD	5/14/2002	ENER	360	87.7	6.20	297	376	< 1.000	69.4	1500	2680	* 3978	0.971
DP	5/23/2002	HMC	—	—	—	—	—	—	—	—	—	5499	—
	6/26/2002	ENER	—	—	—	—	—	—	163	687	1960	* 2315	—
DQ	1/24/2002	ENER	—	—	—	—	—	—	—	5060	10300	* 16208	—
	5/23/2002	HMC	—	—	—	—	—	—	—	—	—	10599	—
	7/11/2002	ENER	352	142	8.00	2120	1190	< 1.000	657	4130	8330	* 8490	0.981

* Signifies Specific Conductivity from HMC

TABLE B.4-1 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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.) (micromhos/	Ion_B (ratio)
DV	6/26/2002	ENER	—	—	—	—	—	—	702	5810	11800	* 15316	—
F	7/17/2002	ENER	—	—	—	—	—	—	—	637	1770	* 3135	—
FB	2/11/2002	ENER	—	—	—	—	—	—	—	750	1790	* 3068	—
	10/14/2002	ENER	—	—	—	—	—	—	—	692	1750	* 2987	—
GH	3/20/2002	ENER	—	—	—	—	—	—	—	709	1760	* 2607	—
GV	10/14/2002	ENER	—	—	—	—	—	—	—	651	1850	* 3103	—
I	6/18/2002	ENER	—	—	—	—	—	—	—	520	1510	* 2680	—
K4	2/11/2002	ENER	—	—	—	—	—	—	118	716	1780	* 3168	—
	4/16/2002	ENER	—	—	—	—	—	—	92.0	640	1600	* 11271	—
	6/26/2002	ENER	—	—	—	—	—	—	92.8	609	1620	* 2705	—
	10/21/2002	ENER	—	—	—	—	—	—	52.6	310	1020	* 1870	—
K5	2/11/2002	ENER	—	—	—	—	—	—	145	1810	3450	* 5613	—
	4/16/2002	ENER	—	—	—	—	—	—	136	1820	3450	* 5417	—
	6/26/2002	ENER	—	—	—	—	—	—	108	1750	3630	* 5492	—
	10/21/2002	ENER	—	—	—	—	—	—	114	2140	4240	* 6768	—
K7	2/11/2002	ENER	—	—	—	—	—	—	93.4	729	1680	* 3033	—
	4/16/2002	ENER	—	—	—	—	—	—	65.6	613	1420	* 2618	—
	6/26/2002	ENER	—	—	—	—	—	—	62.1	581	1430	* 2355	—
	10/21/2002	ENER	—	—	—	—	—	—	51.0	679	1570	* 2729	—
K8	2/11/2002	ENER	—	—	—	—	—	—	150	1200	2570	* 4396	—
	4/16/2002	ENER	—	—	—	—	—	—	122	1200	2490	* 4355	—
	4/16/2002	ENER	—	—	—	—	—	—	# 128	# 1210	# 2480	—	—
	6/26/2002	ENER	—	—	—	—	—	—	111	867	1990	* 3275	—
	10/21/2002	ENER	—	—	—	—	—	—	67.8	799	1910	* 3279	—
K9	2/11/2002	ENER	—	—	—	—	—	—	262	1780	3690	* 5594	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.4-1 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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.) (micromhos/	Ion_B (ratio)
K9	4/16/2002	ENER	—	—	—	—	—	—	188	1600	3290	* 5582	—
	6/26/2002	ENER	—	—	—	—	—	—	118	1170	2680	* 4103	—
	10/21/2002	ENER	—	—	—	—	—	—	92.2	1010	2410	* 4131	—
K10	2/11/2002	ENER	—	—	—	—	—	—	196	1550	3220	* 5343	—
	4/16/2002	ENER	—	—	—	—	—	—	141	1290	2750	* 4773	—
	6/26/2002	ENER	—	—	—	—	—	—	120	1060	2560	* 3984	—
	10/21/2002	ENER	—	—	—	—	—	—	102	830	2170	* 3774	—
K11	2/11/2002	ENER	—	—	—	—	—	—	147	1410	2980	* 4853	—
	4/16/2002	ENER	—	—	—	—	—	—	92.9	1120	2400	* 4206	—
	6/26/2002	ENER	—	—	—	—	—	—	73.9	796	1980	* 3282	—
	10/21/2002	ENER	—	—	—	—	—	—	38.6	454	1390	* 2541	—
KEB	2/13/2002	ENER	—	—	—	—	—	—	70.8	327	986	* 1805	—
	5/9/2002	ENER	—	—	—	—	—	—	54.8	272	859	* 1638	—
	8/13/2002	ENER	—	—	—	—	—	—	—	389	1070	* 2035	—
	11/22/2002	ENER	—	—	—	—	—	—	29.9	246	744	* 1476	—
KF	2/28/2002	ENER	—	—	—	—	—	—	117	357	1030	* 1832	—
	2/28/2002	ENER	—	—	—	—	—	—	# 119	# 352	# 1030	—	—
	4/16/2002	ENER	—	—	—	—	—	—	106	376	1120	* 1990	—
	7/22/2002	ENER	—	—	—	—	—	—	24.4	58.4	337	* 636	—
	10/21/2002	ENER	—	—	—	—	—	—	5.90	43.8	275	* 520	—
KZ	2/12/2002	ENER	—	—	—	—	—	—	87.0	475	1260	* 2409	—
	7/22/2002	ENER	—	—	—	—	—	—	14.6	19.8	175	* 335	—
L	4/16/2002	ENER	—	—	—	—	—	—	—	570	1580	* 2853	—
L5	4/15/2002	ENER	—	—	—	—	—	—	—	585	1490	* 2749	—
	11/11/2002	ENER	—	—	—	—	—	—	—	796	1520	* 2798	—
L6	11/11/2002	ENER	—	—	—	—	—	—	—	260	869	* 1669	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.4-1 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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.) (micromhos/	Ion_B (ratio)
L7	4/15/2002	ENER	—	—	—	—	—	—	—	762	1810	* 3227	—
	11/11/2002	ENER	—	—	—	—	—	—	—	557	1390	* 2690	—
L8	4/15/2002	ENER	—	—	—	—	—	—	—	488	1270	* 2388	—
	11/11/2002	ENER	—	—	—	—	—	—	—	418	1180	* 2221	—
L9	4/15/2002	ENER	—	—	—	—	—	—	—	497	1400	* 2593	—
	11/11/2002	ENER	—	—	—	—	—	—	—	352	1060	* 2114	—
L10	4/15/2002	ENER	—	—	—	—	—	—	—	624	1680	* 2967	—
	11/11/2002	ENER	—	—	—	—	—	—	—	474	1400	* 2685	—
M3	6/26/2002	ENER	—	—	—	—	—	—	268	1380	3340	* 5028	—
M5	2/12/2002	ENER	—	—	—	—	—	—	—	759	1970	* 3334	—
	8/12/2002	ENER	235	55.9	4.20	327	560	< 1.000	215	754	1960	* 3410	0.990
MO	3/20/2002	ENER	—	—	—	—	—	—	—	1180	2460	* 3880	—
	3/20/2002	ENER	—	—	—	—	—	—	—	# 1190	# 2460	—	—
	10/14/2002	ENER	—	—	—	—	—	—	—	1050	2460	* 3841	—
MQ	10/17/2002	ENER	—	—	—	—	—	—	—	1270	2850	* 4353	—
MR	11/11/2002	ENER	—	—	—	—	—	—	—	977	2380	* 3810	—
MS	11/11/2002	ENER	—	—	—	—	—	—	—	677	1890	* 3051	—
MT	11/13/2002	ENER	—	—	—	—	—	—	—	1130	2260	* 3547	—
MU	11/12/2002	ENER	—	—	—	—	—	—	—	1660	3670	* 5357	—
MX	11/12/2002	ENER	—	—	—	—	—	—	—	652	1840	* 3006	—
MY	11/12/2002	ENER	—	—	—	—	—	—	—	618	1750	* 2886	—
N	6/10/2002	ENER	—	—	—	—	—	—	—	1230	2390	* 36.0	—
	9/5/2002	ENER	—	—	—	—	—	—	—	1210	2130	* 3592	—
NA	9/5/2002	ENER	—	—	—	—	—	—	—	3400	6500	* 11831	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.4-1 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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.) (micromhos/	Ion_B (ratio)
NB	9/5/2002	ENER	—	—	—	—	—	—	—	12000	22300	* 34057	—
NC	9/5/2002	ENER	—	—	—	—	—	—	—	645	1320	* 2170	—
ND	5/14/2002	ENER	42.8	11.6	< 1.000	414	361	< 1.000	83.0	664	1480	* 2669	0.955
NE5	2/28/2002	ENER	23.3	40.0	11.5	1540	1210	358	194	1910	4670	* 8142	0.932
NW5	2/28/2002	ENER	5.90	1.40	3.90	832	672	162	108	1010	2410	* 4609	0.906
O	9/5/2002	ENER	—	—	—	—	—	—	—	913	1970	* 3223	—
P	7/15/2002	ENER	246	52.3	4.80	244	242	< 1.000	57.7	1010	1950	* 3023	1.02
P4	4/4/2002	ENER	198	33.4	3.70	212	189	< 1.000	48.4	836	1530	* 2312	1.00
PM	8/13/2002	ENER	—	—	—	—	—	—	—	310	891	* 1584	—
Q	5/14/2002	ENER	333	63.3	6.50	258	237	< 1.000	68.0	1330	2310	* 3481	0.991
R	5/14/2002	ENER	308	52.4	4.10	263	149	< 1.000	70.5	1300	2210	* 3362	0.990
S	5/14/2002	ENER	—	—	—	—	—	—	—	10200	20400	* 28620	—
S2	2/11/2002	ENER	—	—	—	—	—	—	—	2460	4950	* 7688	—
	7/17/2002	ENER	—	—	—	—	—	—	—	2200	4490	* 6924	—
S3	7/16/2002	ENER	231	56.1	6.20	649	655	< 1.000	223	1300	3020	* 5040	1.01
S4	3/20/2002	ENER	—	—	—	—	—	—	—	1420	2720	* 4286	—
	7/16/2002	ENER	366	81.6	6.40	406	398	< 1.000	148	1530	3090	* 4670	1.01
S5	6/26/2002	ENER	—	—	—	—	—	—	385	4040	8300	* 11532	—
S11	11/11/2002	ENER	—	—	—	—	—	—	—	1120	2480	* 4158	—
SQ	6/26/2002	ENER	—	—	—	—	—	—	230	2630	5930	* 8637	—
SS	6/26/2002	ENER	—	—	—	—	—	—	306	3000	6140	* 8900	—
ST	6/26/2002	ENER	—	—	—	—	—	—	204	1030	2690	* 3676	—
SUR	6/26/2002	ENER	—	—	—	—	—	—	290	1780	4220	* 6424	—

* Signifies Specific Conductivity from HMC

TABLE B.4-1 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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.) (micromhos/	Ion_B (ratio)
SV	6/26/2002	ENER	—	—	—	—	—	—	438	4100	9150	* 12791	—
T	3/25/2002	ENER	—	—	—	—	—	—	—	793	1890	* 2785	—
	3/25/2002	ENER	—	—	—	—	—	—	—	# 782	# 1860	—	—
	5/7/2002	ENER	—	—	—	—	—	—	—	746	1920	* 3506	—
	10/1/2002	ENER	—	—	—	—	—	—	70.6	529	1450	* 2618	—
T2	4/11/2002	ENER	—	—	—	—	—	—	377	3580	7160	* 11608	—
TA	2/13/2002	ENER	—	—	—	—	—	—	80.0	362	1060	* 2165	—
	10/1/2002	ENER	—	—	—	—	—	—	63.9	321	952	* 1838	—
TB	2/13/2002	ENER	—	—	—	—	—	—	18.9	98.8	435	* 857	—
	10/1/2002	ENER	—	—	—	—	—	—	22.9	129	467	* 898	—
W	10/21/2002	ENER	—	—	—	—	—	—	—	649	1740	* 2889	—
WN4	3/21/2002	ENER	5.50	5.60	10.00	2610	1800	497	452	2930	7310	* 12193	0.956
X	2/12/2002	ENER	—	—	—	—	—	—	26.6	55.9	341	* 707	—
	4/11/2002	ENER	—	—	—	—	—	—	13.2	29.0	188	* 457	—
	7/15/2002	ENER	25.6	5.40	1.40	14.9	101	< 1.000	15.9	16.0	155	* 265	0.974
	10/15/2002	ENER	—	—	—	—	—	—	8.40	13.7	132	* 283	—
X13	4/9/2002	ENER	—	—	—	—	—	—	254	1500	3290	* 5331	—
X14	4/9/2002	ENER	—	—	—	—	—	—	245	1660	3650	* 6019	—
X15	4/9/2002	ENER	—	—	—	—	—	—	267	1990	4190	* 6490	—
X16	4/9/2002	ENER	—	—	—	—	—	—	250	1610	3520	* 5638	—
X17	4/9/2002	ENER	—	—	—	—	—	—	264	1880	3820	* 6311	—
X18	4/9/2002	ENER	—	—	—	—	—	—	338	1990	5110	* 7955	—
X19	4/9/2002	ENER	—	—	—	—	—	—	273	2060	4610	* 7048	—
X20	4/9/2002	ENER	—	—	—	—	—	—	336	2200	4650	* 7320	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.4-2 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS

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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
1A	4/9/2002	ENER	—	5.60	6.90	0.716	—	—	—	—	—	—
1F	10/9/2002	ENER	—	12.4	< 0.0300	0.780	—	—	—	—	—	—
1G	10/9/2002	ENER	—	0.0430	< 0.0300	0.540	—	—	—	—	—	—
1H	10/11/2002	ENER	—	0.632	< 0.0300	0.943	—	—	—	—	—	—
1J	10/11/2002	ENER	—	46.7	13.1	12.0	—	—	—	—	—	—
1K	10/11/2002	ENER	—	2.12	4.66	0.395	—	—	—	—	—	—
1L	10/14/2002	ENER	—	0.0840	0.400	0.612	—	—	—	—	—	—
1M	10/14/2002	ENER	—	0.105	0.410	0.0690	—	—	—	—	—	—
B	6/12/2002	ENER	—	0.490	< 0.0300	0.365	—	—	—	—	—	—
B10	6/26/2002	ENER	—	24.4	35.6	4.02	—	—	—	—	—	—
B11	2/13/2002	ENER	—	14.5	17.5	2.34	—	—	—	—	—	—
	6/26/2002	ENER	—	11.2	18.3	1.79	—	—	—	—	—	—
	10/1/2002	ENER	—	9.34	17.7	1.10	—	—	—	—	—	—
B12	4/29/2002	ENER	8.06	0.0211	< 0.0300	< 0.0050	1.89	< 0.200	< 1.000	—	< 0.0100	< 0.200
B13	4/29/2002	ENER	7.90	1.04	0.550	0.0910	3.96	< 0.200	< 1.000	—	< 0.0100	< 0.200
BC	6/12/2002	ENER	—	0.263	0.0500	< 0.0050	—	—	—	—	—	—
BP	7/16/2002	ENER	8.04	1.15	0.150	0.231	3.49	< 0.200	< 1.000	—	< 0.0100	< 0.200
C1	2/13/2002	ENER	—	1.40	2.04	0.123	—	—	—	—	—	—
	8/21/2002	ENER	—	0.566	1.95	0.0550	—	—	—	—	—	—
C2	2/13/2002	ENER	—	0.441	0.225	0.0260	—	—	—	—	—	—
	8/21/2002	ENER	—	0.171	0.280	0.0110	—	—	—	—	—	—
C5	10/21/2002	ENER	—	0.629	1.13	0.0210	—	—	—	—	—	—
C6	4/8/2002	ENER	—	9.58	22.9	0.961	—	—	—	—	—	—

TABLE B.4-2 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
C6	6/26/2002	ENER	—	8.44	22.4	0.975	—	—	—	—	—	—
	10/14/2002	ENER	7.89	6.10	18.9	0.595	4.70	< 0.200	—	—	—	—
C7	6/26/2002	ENER	—	10.4	20.4	1.53	—	—	—	—	—	—
	10/14/2002	ENER	7.80	13.0	25.6	1.16	6.60	< 0.200	—	—	—	—
C8	6/26/2002	ENER	—	11.0	12.1	1.40	—	—	—	—	—	—
	10/14/2002	ENER	7.83	10.5	10.5	1.23	5.70	< 0.200	—	—	—	—
C9	6/26/2002	ENER	—	12.7	17.0	1.99	—	—	—	—	—	—
	10/14/2002	ENER	7.91	12.2	15.7	1.69	5.90	< 0.200	—	—	—	—
C10	4/8/2002	ENER	—	22.9	33.2	3.11	—	—	—	—	—	—
	6/26/2002	ENER	—	25.2	35.4	3.45	—	—	—	—	—	—
	10/14/2002	ENER	7.95	29.3	34.0	3.08	6.00	< 0.200	—	—	—	—
C11	4/8/2002	ENER	—	19.3	23.1	3.82	—	—	—	—	—	—
	6/26/2002	ENER	—	18.9	22.3	3.38	—	—	—	—	—	—
	10/1/2002	ENER	7.79	18.2	19.9	3.88	6.78	< 0.200	—	—	—	—
C12	4/8/2002	ENER	—	11.3	15.3	1.52	—	—	—	—	—	—
	10/14/2002	ENER	8.11	8.04	12.0	0.918	3.80	< 0.200	—	—	—	—
D1	6/10/2002	ENER	7.93	1.15	1.05	0.0890	2.58	< 0.200	< 1.000	—	< 0.0100	< 0.200
DA4	6/26/2002	ENER	—	22.6	31.1	0.966	—	—	—	—	—	—
DC	6/12/2002	ENER	—	0.0630	—	0.0630	—	—	—	—	—	—
DD	5/14/2002	ENER	7.94	0.178	< 0.0300	0.0350	3.73	< 0.200	—	—	—	—
DP	6/26/2002	ENER	—	3.19	17.2	0.448	—	—	—	—	—	—
DQ	1/24/2002	ENER	—	32.1	57.9	1.86	—	—	—	—	—	—
	7/11/2002	ENER	7.95	18.5	36.8	3.15	10.4	0.500	< 1.000	—	0.0100	< 0.200
DV	6/26/2002	ENER	—	39.2	19.2	1.01	—	—	—	—	—	—

TABLE B.4-2 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
F	7/17/2002	ENER	—	0.106	< 0.0300	0.0110	—	—	—	—	—	—
FB	2/11/2002	ENER	—	0.101	< 0.0300	0.124	—	—	—	—	—	—
	10/14/2002	ENER	—	0.114	< 0.0300	0.0700	—	—	—	—	—	—
GH	3/20/2002	ENER	—	0.0460	< 0.0300	0.0160	—	—	—	—	—	—
GV	10/14/2002	ENER	—	0.0360	< 0.0300	0.0150	—	—	—	—	—	—
I	6/18/2002	ENER	—	0.133	—	0.0090	—	—	—	—	—	—
K4	2/11/2002	ENER	—	3.57	8.08	1.43	—	—	—	—	—	—
	4/16/2002	ENER	—	3.22	7.80	1.29	—	—	—	—	—	—
	6/26/2002	ENER	—	2.65	6.70	1.18	—	—	—	—	—	—
	10/21/2002	ENER	—	1.68	4.84	0.780	—	—	—	—	—	—
K5	2/11/2002	ENER	—	1.62	9.32	0.337	—	—	—	—	—	—
	4/16/2002	ENER	—	1.27	8.90	0.287	—	—	—	—	—	—
	6/26/2002	ENER	—	1.04	8.17	0.229	—	—	—	—	—	—
	10/21/2002	ENER	—	0.869	8.57	0.198	—	—	—	—	—	—
K7	2/11/2002	ENER	—	1.49	5.88	0.494	—	—	—	—	—	—
	4/16/2002	ENER	—	1.18	5.10	0.384	—	—	—	—	—	—
	6/26/2002	ENER	—	1.03	4.67	0.377	—	—	—	—	—	—
	10/21/2002	ENER	—	1.19	5.34	0.375	—	—	—	—	—	—
K8	2/11/2002	ENER	—	2.66	10.3	1.08	—	—	—	—	—	—
	4/16/2002	ENER	—	2.44	10.8	0.877	—	—	—	—	—	—
	4/16/2002	ENER	—	# 2.45	# 10.8	# 0.884	—	—	—	—	—	—
	6/26/2002	ENER	—	2.14	8.75	0.770	—	—	—	—	—	—
	10/21/2002	ENER	—	2.08	8.15	0.593	—	—	—	—	—	—
K9	2/11/2002	ENER	—	3.67	13.0	0.634	—	—	—	—	—	—
	4/16/2002	ENER	—	3.21	13.5	0.493	—	—	—	—	—	—
	6/26/2002	ENER	—	2.43	10.7	0.349	—	—	—	—	—	—

Signifies Quality Control Sample

TABLE B.4-2 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
K9	10/21/2002	ENER	—	2.17	9.56	0.229	—	—	—	—	—	—
K10	2/11/2002	ENER	—	4.34	14.5	0.565	—	—	—	—	—	—
	4/16/2002	ENER	—	3.86	14.6	0.451	—	—	—	—	—	—
	6/26/2002	ENER	—	3.94	13.9	0.456	—	—	—	—	—	—
	10/21/2002	ENER	—	3.77	11.4	0.346	—	—	—	—	—	—
K11	2/11/2002	ENER	—	4.97	17.3	0.289	—	—	—	—	—	—
	4/16/2002	ENER	—	3.68	14.6	0.216	—	—	—	—	—	—
	6/26/2002	ENER	—	3.18	11.6	0.159	—	—	—	—	—	—
	10/21/2002	ENER	—	2.59	10.1	0.0950	—	—	—	—	—	—
KEB	2/13/2002	ENER	—	0.655	3.45	0.0680	—	—	—	—	—	—
	5/9/2002	ENER	—	0.303	0.600	0.0430	—	—	—	—	—	—
	8/13/2002	ENER	—	0.268	0.760	0.0370	—	—	—	—	—	—
	11/22/2002	ENER	—	0.206	0.590	0.0170	—	—	—	—	—	—
KF	2/28/2002	ENER	—	0.105	0.130	0.0080	—	—	—	—	—	—
	2/28/2002	ENER	—	# 0.102	# 0.130	# 0.0050	—	—	—	—	—	—
	4/16/2002	ENER	—	0.124	0.150	0.0340	—	—	—	—	—	—
	7/22/2002	ENER	—	0.0630	0.510	0.0060	—	—	—	—	—	—
	10/21/2002	ENER	—	0.0570	0.510	0.0060	—	—	—	—	—	—
KZ	2/12/2002	ENER	—	0.420	1.34	0.0870	—	—	—	—	—	—
	7/22/2002	ENER	—	0.0380	0.300	0.0050	—	—	—	—	—	—
L	4/16/2002	ENER	—	1.55	1.40	0.0220	—	—	—	—	—	—
L5	4/15/2002	ENER	—	1.03	2.24	0.528	—	—	—	—	—	—
	11/11/2002	ENER	—	0.786	1.88	0.422	—	—	—	—	—	—
L6	11/11/2002	ENER	—	0.466	1.43	0.210	—	—	—	—	—	—
L7	4/15/2002	ENER	—	1.12	4.67	1.49	—	—	—	—	—	—
	11/11/2002	ENER	—	0.764	3.33	0.761	—	—	—	—	—	—

Signifies Quality Control Sample

TABLE B.4-2 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
L8	4/15/2002	ENER	—	0.809	1.79	0.199	—	—	—	—	—	—
	11/11/2002	ENER	—	0.581	1.23	0.122	—	—	—	—	—	—
L9	4/15/2002	ENER	—	1.01	1.61	0.0770	—	—	—	—	—	—
	11/11/2002	ENER	—	0.473	0.960	0.0100	—	—	—	—	—	—
L10	4/15/2002	ENER	—	1.22	1.41	0.0360	—	—	—	—	—	—
	11/11/2002	ENER	—	0.895	1.41	0.0340	—	—	—	—	—	—
M3	6/26/2002	ENER	—	6.51	7.33	0.348	—	—	—	—	—	—
M5	2/12/2002	ENER	—	0.983	0.830	0.0560	—	—	—	—	—	—
	8/12/2002	ENER	7.96	1.97	2.02	0.0480	1.99	< 0.200	< 1.000	—	< 0.0100	< 0.200
MO	3/20/2002	ENER	—	0.336	< 0.0300	0.0770	—	—	—	—	—	—
	3/20/2002	ENER	—	# 0.342	# < 0.0300	# 0.0700	—	—	—	—	—	—
	10/14/2002	ENER	—	0.318	< 0.0300	0.0660	—	—	—	—	—	—
MQ	10/17/2002	ENER	—	1.88	0.560	0.320	—	—	—	—	—	—
MR	11/11/2002	ENER	—	0.458	—	0.126	6.70	—	—	—	—	—
MS	11/11/2002	ENER	—	0.0583	< 0.0300	0.0340	—	—	—	—	—	—
MT	11/13/2002	ENER	—	0.148	—	0.186	11.7	—	—	—	—	—
MU	11/12/2002	ENER	—	0.0850	—	0.0670	39.0	—	—	—	—	—
MX	11/12/2002	ENER	—	0.0300	< 0.0300	0.0100	—	—	—	—	—	—
MY	11/12/2002	ENER	—	0.0160	< 0.0300	0.0170	—	—	—	—	—	—
N	6/10/2002	ENER	—	0.0890	< 0.0300	0.102	—	—	—	—	—	—
	9/5/2002	ENER	—	0.0920	< 0.0300	0.100	—	—	—	—	—	—
NA	9/5/2002	ENER	—	12.9	33.3	0.126	—	—	—	—	—	—
NB	9/5/2002	ENER	—	67.5	91.1	0.519	—	—	—	—	—	—
NC	9/5/2002	ENER	—	0.0150	< 0.0300	0.0730	—	—	—	—	—	—

Signifies Quality Control Sample

TABLE B.4-2 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
ND	5/14/2002	ENER	8.06	0.0280	< 0.0300	0.109	1.39	< 0.200	—	—	—	—
NE5	2/28/2002	ENER	9.70	5.87	16.2	0.0490	0.300	122	—	—	—	—
NW5	2/28/2002	ENER	9.60	1.61	4.68	0.0780	0.420	29.3	—	—	—	—
O	9/5/2002	ENER	—	0.0450	< 0.0300	0.254	—	—	—	—	—	—
P	7/15/2002	ENER	7.99	0.0270	< 0.0300	0.179	8.00	< 0.200	—	—	—	—
P4	4/4/2002	ENER	8.05	0.0242	< 0.0300	0.111	4.64	< 0.200	—	—	—	—
PM	8/13/2002	ENER	—	1.56	0.180	0.0180	—	—	—	—	—	—
Q	5/14/2002	ENER	7.91	0.0521	< 0.0300	0.263	10.00	< 0.200	—	—	—	—
R	5/14/2002	ENER	7.84	0.0190	< 0.0300	0.505	14.7	< 0.200	—	—	—	—
S	5/14/2002	ENER	—	57.0	94.1	3.48	—	—	—	—	—	—
S2	2/11/2002	ENER	—	15.8	18.4	1.20	—	—	—	—	—	—
	7/17/2002	ENER	—	14.6	16.4	1.08	—	—	—	—	—	—
S3	7/16/2002	ENER	8.06	7.70	5.52	0.0240	1.73	0.400	3.80	—	< 0.0100	< 0.200
S4	3/20/2002	ENER	—	2.53	1.42	0.169	—	—	—	—	—	—
	7/16/2002	ENER	8.01	2.20	0.470	0.0150	< 0.100	1.20	< 1.000	—	< 0.0100	< 0.200
S5	6/26/2002	ENER	—	14.3	27.7	0.514	—	—	—	—	—	—
S11	11/11/2002	ENER	—	0.0170	—	0.387	50.0	—	—	—	—	—
SQ	6/26/2002	ENER	—	10.7	20.6	0.912	—	—	—	—	—	—
SS	6/26/2002	ENER	—	13.0	23.0	0.742	—	—	—	—	—	—
ST	6/26/2002	ENER	—	3.42	4.68	0.273	—	—	—	—	—	—
SUR	6/26/2002	ENER	—	8.20	10.4	0.350	—	—	—	—	—	—
SV	6/26/2002	ENER	—	19.6	35.5	1.04	—	—	—	—	—	—
T	3/25/2002	ENER	—	3.96	5.82	0.933	—	—	—	—	—	—

TABLE B.4-2 WATER QUALITY ANALYSES FOR HOMESTAKE'S ALLUVIAL WELLS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
T	3/25/2002	ENER	—	# 3.92	# 5.86	# 0.931	—	—	—	—	—	—
	5/7/2002	ENER	—	3.83	5.85	0.825	—	—	—	—	—	—
	10/1/2002	ENER	—	3.51	5.79	0.770	—	—	—	—	—	—
T2	4/11/2002	ENER	—	14.9	24.2	0.671	—	—	—	—	—	—
TA	2/13/2002	ENER	—	1.60	2.88	0.962	—	—	—	—	—	—
	10/1/2002	ENER	—	0.986	1.75	0.886	—	—	—	—	—	—
TB	2/13/2002	ENER	—	0.420	0.800	0.100	—	—	—	—	—	—
	10/1/2002	ENER	—	0.272	0.580	0.145	—	—	—	—	—	—
W	10/21/2002	ENER	—	0.0550	< 0.0300	0.0740	—	—	—	—	—	—
WN4	3/21/2002	ENER	9.69	7.86	22.3	< 0.0050	2.63	17.8	—	—	—	—
X	2/12/2002	ENER	—	0.0290	0.100	0.0060	—	< 0.200	< 1.000	—	—	—
	4/11/2002	ENER	—	0.0190	0.290	0.0060	—	—	—	—	—	—
	7/15/2002	ENER	7.94	0.0090	0.300	< 0.0050	0.620	< 0.200	< 1.000	—	0.0100	< 0.200
	10/15/2002	ENER	—	0.0100	0.230	< 0.0050	—	—	—	—	—	—
X13	4/9/2002	ENER	—	11.0	2.94	0.558	—	—	—	—	—	—
X14	4/9/2002	ENER	—	7.70	5.56	0.560	—	—	—	—	—	—
X15	4/9/2002	ENER	—	13.4	1.88	0.579	—	—	—	—	—	—
X16	4/9/2002	ENER	—	16.9	2.14	0.496	—	—	—	—	—	—
X17	4/9/2002	ENER	—	9.03	7.38	0.650	—	—	—	—	—	—
X18	4/9/2002	ENER	—	5.67	6.07	0.762	—	—	—	—	—	—
X19	4/9/2002	ENER	—	6.80	5.25	0.606	—	—	—	—	—	—
X20	4/9/2002	ENER	—	3.71	4.29	0.710	—	—	—	—	—	—

Signifies Quality Control Sample

TABLE B.4-3 WATER QUALITY ANALYSES FOR THE SUBDIVISION ALLUVIAL WELLS

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.) (micromhos/	Ion_B (ratio)
0446	6/10/2002	ENER	—	—	—	—	—	—	—	582	1430	* 2646	—
	6/10/2002	ENER	—	—	—	—	—	—	—	# 576	# 1420	—	—
0453	7/1/2002	ENER	—	—	—	—	—	—	—	609	1650	* 2640	—
0482	7/25/2002	ENER	—	—	—	—	—	—	—	671	1860	* 3188	—
0490	6/11/2002	ENER	—	—	—	—	—	—	—	715	1880	* 3215	—
0491	7/25/2002	ENER	—	—	—	—	—	—	—	937	2510	* 4227	—
0492	6/10/2002	ENER	—	—	—	—	—	—	—	785	1920	* 3260	—
0496	8/12/2002	ENER	—	—	—	—	—	—	—	690	1780	* 2487	—
	8/12/2002	ENER	—	—	—	—	—	—	—	# 698	# 1780	—	—
0497	8/12/2002	ENER	—	—	—	—	—	—	—	747	2000	* 3468	—
0688	6/10/2002	ENER	—	—	—	—	—	—	—	719	1840	* 3163	—
0802	6/26/2002	ENER	—	—	—	—	—	—	—	673	1880	* 3400	—
0804	5/7/2002	ENER	—	—	—	—	—	—	—	787	1930	* 3331	—
	5/7/2002	ENER	—	—	—	—	—	—	—	# 797	# 1920	—	—
0843	7/12/2002	ENER	249	58.0	6.20	256	593	< 1.000	198	682	1920	* 3125	0.965
0844	7/17/2002	ENER	—	—	—	—	—	—	—	1380	2860	* 4663	—
	7/17/2002	ENER	—	—	—	—	—	—	—	# 1360	# 2870	—	—
0845	7/24/2002	ENER	—	—	—	—	—	—	—	809	2080	* 3741	—
CW44	5/8/2002	ENER	—	—	—	—	—	—	—	822	1970	* 3510	—
	10/2/2002	ENER	—	—	—	—	—	—	—	783	1970	* 3088	—
SUB1	4/29/2002	ENER	—	—	—	—	—	—	—	842	2020	* 3505	—
SUB2	4/29/2002	ENER	—	—	—	—	—	—	—	676	1880	* 3264	—
SUB3	4/24/2002	ENER	—	—	—	—	—	—	—	1330	2560	* 3999	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.4-4 WATER QUALITY ANALYSES FOR THE SUBDIVISION ALLUVIAL WELLS

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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
0446	6/10/2002	ENER	—	0.0210	< 0.0300	0.0070	—	—	—	—	—	—
	6/10/2002	ENER	—	# 0.0220	# < 0.0300	# 0.0090	—	—	—	—	—	—
0453	7/1/2002	ENER	—	0.0150	< 0.0300	0.0130	—	—	—	—	—	—
0482	7/25/2002	ENER	—	0.297	0.0800	0.0230	—	—	—	—	—	—
0490	6/11/2002	ENER	—	0.254	0.120	0.0310	—	—	—	—	—	—
0491	7/25/2002	ENER	—	0.898	0.0700	0.0680	—	—	—	—	—	—
0492	6/10/2002	ENER	—	0.237	< 0.0300	0.0380	—	—	—	—	—	—
0496	8/12/2002	ENER	—	0.433	—	0.0920	—	—	—	—	—	—
	8/12/2002	ENER	—	# 0.435	—	# 0.0930	—	—	—	—	—	—
0497	8/12/2002	ENER	—	0.907	—	0.0670	—	—	—	—	—	—
0688	6/10/2002	ENER	—	0.0540	< 0.0300	0.0160	—	—	—	—	—	—
0802	6/26/2002	ENER	—	1.03	< 0.0300	0.0390	—	—	—	—	—	—
0804	5/7/2002	ENER	—	0.0550	< 0.0300	0.0610	—	—	—	—	—	—
	5/7/2002	ENER	—	# 0.0550	# < 0.0300	# 0.0600	—	—	—	—	—	—
0843	7/12/2002	ENER	7.71	0.0430	< 0.0300	0.0080	1.35	< 0.200	< 1.000	—	< 0.0100	< 0.200
0844	7/17/2002	ENER	—	0.0630	< 0.0300	0.0660	—	—	—	—	—	—
	7/17/2002	ENER	—	# 0.0640	# < 0.0300	# 0.0660	—	—	—	—	—	—
0845	7/24/2002	ENER	—	0.0620	—	0.0060	—	—	—	—	—	—
CW44	5/8/2002	ENER	—	0.846	—	0.0770	—	—	—	—	—	—
	10/2/2002	ENER	—	0.824	—	0.0750	—	—	—	—	—	—
SUB1	4/29/2002	ENER	—	0.174	< 0.0300	0.0210	—	—	—	—	—	—
SUB2	4/29/2002	ENER	—	0.120	< 0.0300	0.0080	—	—	—	—	—	—
SUB3	4/24/2002	ENER	—	0.0290	< 0.0300	0.0150	—	—	—	—	—	—

Signifies Quality Control Sample

TABLE B.4-5 WATER QUALITY ANALYSES FOR THE REGIONAL ALLUVIAL WELLS

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.) (micromhos/	Ion_B (ratio)
0520	7/22/2002	ENER	—	—	—	—	—	—	—	873	1940	* 3233	—
	10/16/2002	ENER	—	—	—	—	—	—	—	794	1850	* 3307	—
0521	7/22/2002	ENER	—	—	—	—	—	—	—	939	2150	* 3330	—
	10/16/2002	ENER	—	—	—	—	—	—	—	667	1760	* 3214	—
0522	1/24/2002	ENER	187	41.6	5.70	372	403	< 1.000	215	811	1930	* 3375	0.983
	7/22/2002	ENER	—	—	—	—	—	—	—	778	1870	* 3231	—
	10/16/2002	ENER	—	—	—	—	—	—	—	679	1790	* 3132	—
0523	3/21/2002	ENER	236	59.0	8.00	361	392	< 1.000	252	937	2080	* 3248	0.984
0524	3/21/2002	ENER	261	57.3	6.60	497	165	< 1.000	294	1460	2740	* 4362	0.954
0531	10/2/2002	ENER	—	—	—	—	—	—	—	821	1780	* 2923	—
0532	3/27/2002	ENER	88.2	32.2	2.60	33.5	250	< 1.000	23.6	171	490	* 900	1.03
0631	5/8/2002	ENER	—	—	—	—	—	—	—	819	1560	* 2734	—
	10/2/2002	ENER	—	—	—	—	—	—	—	743	1550	* 2698	—
0632	10/2/2002	ENER	—	—	—	—	—	—	—	746	1610	* 2647	—
0634	10/9/2002	ENER	—	—	—	—	—	—	—	984	2330	* 3585	—
0636	10/3/2002	ENER	—	—	—	—	—	—	—	509	1480	* 2603	—
0637	10/3/2002	ENER	—	—	—	—	—	—	—	486	1460	* 2623	—
0639	7/22/2002	ENER	—	—	—	—	—	—	—	991	2230	* 3597	—
	10/16/2002	ENER	—	—	—	—	—	—	—	791	1970	* 3461	—
0640	7/23/2002	ENER	—	—	—	—	—	—	—	666	1860	* 3181	—
0641	7/17/2002	ENER	—	—	—	—	—	—	—	696	1880	* 3257	—
0642	7/17/2002	ENER	—	—	—	—	—	—	—	708	1890	* 3223	—
0643	10/16/2002	ENER	—	—	—	—	—	—	—	757	1920	* 3325	—
0644	10/16/2002	ENER	—	—	—	—	—	—	—	879	1920	* 3264	—

* Signifies Specific Conductivity from HMC

TABLE B.4-5 WATER QUALITY ANALYSES FOR THE REGIONAL ALLUVIAL WELLS (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.) (micromhos/	Ion_B (ratio)
0646	10/16/2002	ENER	—	—	—	—	—	—	—	854	1780	* 2999	—
0647	8/12/2002	ENER	—	—	—	—	—	—	—	642	1460	* 2426	—
0648	5/8/2002	ENER	—	—	—	—	—	—	—	587	1210	* 2099	—
	8/12/2002	ENER	—	—	—	—	—	—	—	526	1200	* 2022	—
0649	8/12/2002	ENER	—	—	—	—	—	—	—	459	1090	* 1864	—
0652	10/16/2002	ENER	—	—	—	—	—	—	—	558	1180	* 1852	—
0653	5/8/2002	ENER	—	—	—	—	—	—	—	864	1910	* 3336	—
	10/10/2002	ENER	—	—	—	—	—	—	—	815	1940	* 3301	—
0654	10/10/2002	ENER	—	—	—	—	—	—	—	887	2250	* 3551	—
0657	5/8/2002	ENER	—	—	—	—	—	—	—	701	1550	* 2582	—
	10/2/2002	ENER	—	—	—	—	—	—	—	663	1530	* 2562	—
0658	10/2/2002	ENER	—	—	—	—	—	—	—	624	1300	* 2127	—
0659	10/9/2002	ENER	—	—	—	—	—	—	—	800	2070	* 3407	—
0683	10/11/2002	ENER	—	—	—	—	—	—	—	110	462	* 830	—
0684	10/9/2002	ENER	—	—	—	—	—	—	—	621	1530	* 2494	—
0685	7/24/2002	ENER	—	—	—	—	—	—	—	709	1750	* 2916	—
0686	10/3/2002	ENER	—	—	—	—	—	—	—	464	1360	* 2437	—
0687	7/24/2002	ENER	—	—	—	—	—	—	—	817	1880	* 3097	—
0689	7/23/2002	ENER	—	—	—	—	—	—	—	223	728	* 12.0	—
0692	7/23/2002	ENER	—	—	—	—	—	—	—	611	1520	* 2773	—
0846	7/17/2002	ENER	—	—	—	—	—	—	—	1660	3200	* 4557	—
0848	7/23/2002	ENER	—	—	—	—	—	—	—	612	1620	* 2837	—
0851	8/19/2002	ENER	—	—	—	—	—	—	—	1080	2020	* 3335	—

* Signifies Specific Conductivity from HMC

TABLE B.4-5 WATER QUALITY ANALYSES FOR THE REGIONAL ALLUVIAL WELLS (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.) (micromhos/	Ion_B (ratio)
0855	7/24/2002	ENER	—	—	—	—	—	—	—	791	1670	* 2936	—
	8/19/2002	ENER	—	—	—	—	—	—	—	793	1720	* 2955	—
0861	8/19/2002	ENER	—	—	—	—	—	—	—	807	1780	* 2910	—
0862	8/19/2002	ENER	—	—	—	—	—	—	—	766	1980	* 3430	—
0863	8/19/2002	ENER	—	—	—	—	—	—	—	761	1960	* 3131	—
0864	8/19/2002	ENER	—	—	—	—	—	—	—	799	1920	* 3042	—
0865	8/20/2002	ENER	—	—	—	—	—	—	—	790	1810	* 3045	—
0866	8/19/2002	ENER	—	—	—	—	—	—	—	748	1870	* 3143	—
0867	8/20/2002	ENER	—	—	—	—	—	—	—	626	1500	* 2570	—
0868	8/20/2002	ENER	—	—	—	—	—	—	—	640	1750	* 3049	—
0869	8/19/2002	ENER	—	—	—	—	—	—	—	862	1960	* 3255	—
0876	8/19/2002	ENER	—	—	—	—	—	—	—	900	1970	* 3271	—
0881	10/3/2002	ENER	—	—	—	—	—	—	—	871	2100	* 3464	—
0882	10/3/2002	ENER	—	—	—	—	—	—	—	853	1800	* 2821	—
0883	10/2/2002	ENER	—	—	—	—	—	—	—	945	2030	* 3294	—
0884	10/3/2002	ENER	—	—	—	—	—	—	—	1180	2460	* 3819	—
0885	10/3/2002	ENER	—	—	—	—	—	—	—	708	1850	* 3145	—
0886	10/9/2002	ENER	—	—	—	—	—	—	—	1050	2480	* 39.0	—
0888	10/10/2002	ENER	—	—	—	—	—	—	—	955	2470	* 3852	—
0890	10/9/2002	ENER	—	—	—	—	—	—	—	734	1920	* 3036	—
0893	10/3/2002	ENER	—	—	—	—	—	—	—	740	1860	* 3120	—
0895	10/10/2002	ENER	—	—	—	—	—	—	—	797	1850	* 2990	—
0896	10/10/2002	ENER	—	—	—	—	—	—	—	864	1950	* 3071	—

* Signifies Specific Conductivity from HMC

TABLE B.4-5 WATER QUALITY ANALYSES FOR THE REGIONAL ALLUVIAL WELLS (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.) (micromhos/	Ion_B (ratio)
0899	10/10/2002	ENER	—	—	—	—	—	—	—	364	1020	* 1714	—
0905	5/16/2002	ENER	—	—	—	—	—	—	—	446	1050	* 1765	—
0909	5/13/2002	ENER	—	—	—	—	—	—	—	633	1240	* 2151	—
0910	5/13/2002	ENER	—	—	—	—	—	—	—	320	951	* 1642	—
0914	5/9/2002	ENER	115	25.6	2.30	313	42.1	< 1.000	101	902	1480	* 2344	0.963
0916	5/13/2002	ENER	6.00	1.60	< 1.000	136	257	< 1.000	25.9	54.8	370	* 808	1.04
0920	2/25/2002	ENER	—	—	—	—	—	—	—	1550	2720	* 3863	—
	2/25/2002	ENER	—	—	—	—	—	—	—	# 1530	# 2700	—	—
	8/15/2002	ENER	—	—	—	—	—	—	—	1460	2700	* 3765	—
	8/15/2002	ENER	—	—	—	—	—	—	—	# 1470	# 2710	—	—
0921	5/8/2002	ENER	390	68.2	8.60	311	231	< 1.000	73.6	1460	2680	* 3958	1.07
0922	5/8/2002	ENER	3.20	< 1.000	2.20	381	409	42.0	78.3	360	1090	* 2095	0.947
0935	10/9/2002	ENER	—	—	—	—	—	—	—	572	1490	* 2423	—
0942	8/15/2002	ENER	—	—	—	—	—	—	—	693	2710	* 2493	—
0947	7/23/2002	ENER	—	—	—	—	—	—	—	652	1830	* 3187	—
0950	5/8/2002	ENER	48.1	8.40	2.30	532	267	< 1.000	135	865	1840	* 3278	1.00
0979	7/10/2002	ENER	243	55.1	5.00	334	413	< 1.000	193	1030	2200	* 3066	0.929
0994	4/2/2002	ENER	—	—	—	—	—	—	—	140	488	* 896	—
	7/9/2002	ENER	—	—	—	—	—	—	—	159	496	* 922	—
	9/18/2002	ENER	—	—	—	—	—	—	—	147	485	* 659	—
	11/13/2002	ENER	—	—	—	—	—	—	—	153	508	* 955	—
0996	7/24/2002	ENER	—	—	—	—	—	—	—	712	1570	* 2592	—
0999	3/27/2002	ENER	124	36.6	3.20	50.9	287	< 1.000	34.0	273	683	* 1207	1.01

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.4-6 WATER QUALITY ANALYSES FOR THE REGIONAL ALLUVIAL WELLS

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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
0520	7/22/2002	ENER	—	0.0380	4.81	0.194	—	—	—	—	—	—
	10/16/2002	ENER	—	0.115	4.98	0.178	—	—	—	—	—	—
0521	7/22/2002	ENER	—	2.27	3.84	0.390	—	—	—	—	—	—
	10/16/2002	ENER	—	2.67	2.92	0.142	—	—	—	—	—	—
0522	1/24/2002	ENER	7.90	0.618	2.09	0.236	1.67	< 0.200	< 1.000	—	0.0110	< 0.200
	7/22/2002	ENER	—	0.696	1.62	0.177	—	—	—	—	—	—
	10/16/2002	ENER	—	0.876	1.03	0.122	—	—	—	—	—	—
0523	3/21/2002	ENER	8.02	0.0150	0.0300	0.0240	< 0.100	1.70	< 1.000	—	< 0.0100	< 0.200
0524	3/21/2002	ENER	7.91	0.0110	4.72	0.665	2.98	< 0.200	< 1.000	—	0.0110	< 0.200
0531	10/2/2002	ENER	—	0.137	—	0.0440	2.46	—	—	—	—	—
0532	3/27/2002	ENER	8.06	0.0050	< 0.0300	0.0120	3.07	0.200	—	—	—	—
0631	5/8/2002	ENER	—	0.0240	—	0.211	—	—	—	—	—	—
	10/2/2002	ENER	—	0.0390	—	0.194	—	—	—	—	—	—
0632	10/2/2002	ENER	—	0.0260	—	0.248	—	—	—	—	—	—
0634	10/9/2002	ENER	—	0.396	—	0.113	7.10	—	—	—	—	—
0636	10/3/2002	ENER	—	0.0730	—	0.0200	14.2	—	—	—	—	—
0637	10/3/2002	ENER	—	0.111	—	0.0180	15.0	—	—	—	—	—
0639	7/22/2002	ENER	—	2.41	5.15	0.275	—	—	—	—	—	—
	10/16/2002	ENER	—	2.67	4.73	0.230	—	—	—	—	—	—
0640	7/23/2002	ENER	—	0.0360	< 0.0300	0.0120	—	—	—	—	—	—
0641	7/17/2002	ENER	—	0.108	< 0.0300	0.0140	—	—	—	—	—	—
0642	7/17/2002	ENER	—	0.471	< 0.0300	0.0160	—	—	—	—	—	—
0643	10/16/2002	ENER	—	0.913	—	0.112	—	—	—	—	—	—
0644	10/16/2002	ENER	—	0.0347	—	0.296	—	—	—	—	—	—

TABLE B.4-6 WATER QUALITY ANALYSES FOR THE REGIONAL ALLUVIAL WELLS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
0646	10/16/2002	ENER	—	0.0190	—	0.319	—	—	—	—	—	—
0647	8/12/2002	ENER	—	0.0200	—	0.0560	3.33	—	—	—	—	—
0648	5/8/2002	ENER	—	0.0250	—	0.0400	—	—	—	—	—	—
	8/12/2002	ENER	—	0.0230	—	0.0320	2.55	—	—	—	—	—
0649	8/12/2002	ENER	—	0.0150	—	0.0280	—	—	—	—	—	—
0652	10/16/2002	ENER	—	0.0350	—	0.0320	—	—	—	—	—	—
0653	5/8/2002	ENER	—	0.968	—	0.151	—	—	—	—	—	—
	10/10/2002	ENER	—	0.921	—	0.209	—	—	—	—	—	—
0654	10/10/2002	ENER	—	0.430	—	0.106	6.40	—	—	—	—	—
0657	5/8/2002	ENER	—	0.0560	—	0.0510	—	—	—	—	—	—
	10/2/2002	ENER	—	0.0480	—	0.0550	3.26	—	—	—	—	—
0658	10/2/2002	ENER	—	0.0110	—	0.0500	2.14	—	—	—	—	—
0659	10/9/2002	ENER	—	0.234	—	0.0730	3.90	—	—	—	—	—
0683	10/11/2002	ENER	—	0.0030	—	< 0.0050	4.60	—	—	—	—	—
0684	10/9/2002	ENER	—	0.0420	—	0.0300	7.60	—	—	—	—	—
0685	7/24/2002	ENER	—	0.126	—	0.0470	3.23	—	—	—	—	—
0686	10/3/2002	ENER	—	0.0570	—	0.0240	13.7	—	—	—	—	—
0687	7/24/2002	ENER	—	0.121	—	0.0870	7.33	—	—	—	—	—
0689	7/23/2002	ENER	—	0.0050	—	0.0090	—	—	—	—	—	—
0692	7/23/2002	ENER	—	0.0450	< 0.0300	0.0180	—	—	—	—	—	—
0846	7/17/2002	ENER	—	0.0580	< 0.0300	0.0890	—	—	—	—	—	—
0848	7/23/2002	ENER	—	0.0540	—	0.0590	—	—	—	—	—	—
0851	8/19/2002	ENER	—	0.0590	—	0.178	—	—	—	—	—	—

TABLE B.4-6 WATER QUALITY ANALYSES FOR THE REGIONAL ALLUVIAL WELLS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
0855	7/24/2002	ENER	—	0.0360	—	0.300	—	—	—	—	—	—
	8/19/2002	ENER	—	0.0370	—	0.307	—	—	—	—	—	—
0861	8/19/2002	ENER	—	0.116	—	0.287	—	—	—	—	—	—
0862	8/19/2002	ENER	—	0.600	—	0.0720	—	—	—	—	—	—
0863	8/19/2002	ENER	—	0.868	—	0.101	—	—	—	—	—	—
0864	8/19/2002	ENER	—	0.531	—	0.152	—	—	—	—	—	—
0865	8/20/2002	ENER	—	0.125	—	0.255	—	—	—	—	—	—
0866	8/19/2002	ENER	—	0.933	—	0.163	—	—	—	—	—	—
0867	8/20/2002	ENER	—	0.0250	—	0.249	—	—	—	—	—	—
0868	8/20/2002	ENER	—	0.0760	—	0.0390	—	—	—	—	—	—
0869	8/19/2002	ENER	—	0.427	—	0.242	—	—	—	—	—	—
0876	8/19/2002	ENER	—	0.455	—	0.362	—	—	—	—	—	—
0881	10/3/2002	ENER	—	0.242	—	0.0720	4.15	—	—	—	—	—
0882	10/3/2002	ENER	—	0.0210	—	< 0.0050	< 0.100	—	—	—	—	—
0883	10/2/2002	ENER	—	0.0220	—	0.0730	—	—	—	—	—	—
0884	10/3/2002	ENER	—	0.282	—	0.250	13.6	—	—	—	—	—
0885	10/3/2002	ENER	—	0.0690	—	0.0240	1.55	—	—	—	—	—
0886	10/9/2002	ENER	—	0.495	—	0.133	8.70	—	—	—	—	—
0888	10/10/2002	ENER	—	0.542	—	0.112	9.50	—	—	—	—	—
0890	10/9/2002	ENER	—	0.132	—	0.0460	2.70	—	—	—	—	—
0893	10/3/2002	ENER	—	0.0740	—	0.0250	1.33	—	—	—	—	—
0895	10/10/2002	ENER	—	0.0780	—	0.0660	8.80	—	—	—	—	—
0896	10/10/2002	ENER	—	0.0330	—	0.0910	6.60	—	—	—	—	—

TABLE B.4-6 WATER QUALITY ANALYSES FOR THE REGIONAL ALLUVIAL WELLS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
0899	10/10/2002	ENER	—	0.0330	—	0.0190	2.00	—	—	—	—	—
0905	5/16/2002	ENER	—	0.0150	—	0.0230	—	—	—	—	—	—
0909	5/13/2002	ENER	—	0.0220	—	0.0730	—	—	—	—	—	—
0910	5/13/2002	ENER	—	0.0090	—	0.0190	—	—	—	—	—	—
0914	5/9/2002	ENER	7.53	0.0010	< 0.0300	0.0070	< 0.100	< 0.200	—	—	—	—
0916	5/13/2002	ENER	8.25	0.0090	< 0.0300	0.0110	3.52	< 0.200	—	—	—	—
0920	2/25/2002	ENER	—	0.159	< 0.0300	0.386	—	—	—	—	—	—
	2/25/2002	ENER	—	# 0.161	# < 0.0300	# 0.389	—	—	—	—	—	—
	8/15/2002	ENER	—	0.182	0.0900	0.468	—	—	—	—	—	—
	8/15/2002	ENER	—	# 0.182	# 0.0600	# 0.478	—	—	—	—	—	—
0921	5/8/2002	ENER	8.02	0.211	< 0.0300	0.633	16.9	< 0.200	—	—	—	—
0922	5/8/2002	ENER	9.26	0.0050	0.0500	0.0070	< 0.100	< 0.200	—	—	—	—
0935	10/9/2002	ENER	—	0.247	—	0.0580	6.20	—	—	—	—	—
0942	8/15/2002	ENER	—	0.0530	< 0.0300	0.0230	—	—	—	—	—	—
0947	7/23/2002	ENER	—	0.0760	< 0.0300	0.0140	—	—	—	—	—	—
0950	5/8/2002	ENER	8.04	0.132	< 0.0300	0.333	9.72	< 0.200	—	—	—	—
0979	7/10/2002	ENER	7.71	0.0457	< 0.0300	0.0360	3.60	< 0.200	< 1.000	—	< 0.0100	< 0.200
0994	4/2/2002	ENER	—	0.0050	—	0.0070	1.94	—	—	—	—	—
	7/9/2002	ENER	—	0.0080	—	0.0070	2.11	—	—	—	—	—
	9/18/2002	ENER	—	0.0050	—	0.0050	2.31	—	—	—	—	—
	11/13/2002	ENER	—	0.0040	—	0.0050	1.90	—	—	—	—	—
0996	7/24/2002	ENER	—	0.0350	—	0.0940	5.15	—	—	—	—	—
0999	3/27/2002	ENER	8.03	0.0050	< 0.0300	0.0140	3.50	< 0.200	—	—	—	—

Signifies Quality Control Sample

TABLE B.5-1 WATER QUALITY ANALYSES FOR THE CHINLE AQUIFERS

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.) (micromhos/	Ion_B (ratio)
0434	3/27/2002	ENER	—	—	—	—	—	—	—	682	1660	* 2600	—
0446	6/10/2002	ENER	—	—	—	—	—	—	—	582	1430	* 2646	—
	6/10/2002	ENER	—	—	—	—	—	—	—	# 576	# 1420	—	—
0482	7/25/2002	ENER	—	—	—	—	—	—	—	671	1860	* 3188	—
0493	3/27/2002	ENER	—	—	—	—	—	—	—	719	1420	* 2826	—
	6/11/2002	ENER	—	—	—	—	—	—	—	668	1350	* 2620	—
0494	6/11/2002	ENER	—	—	—	—	—	—	—	728	1880	* 3138	—
0653	5/8/2002	ENER	—	—	—	—	—	—	—	864	1910	* 3336	—
	10/10/2002	ENER	—	—	—	—	—	—	—	815	1940	* 3301	—
0820	5/9/2002	ENER	—	—	—	—	—	—	—	1530	3090	* 4891	—
0853	6/25/2002	ENER	—	—	—	—	—	—	—	602	1350	* 2264	—
0859	6/24/2002	ENER	—	—	—	—	—	—	—	856	2010	* 2933	—
0909	5/13/2002	ENER	—	—	—	—	—	—	—	633	1240	* 2151	—
0929	2/26/2002	ENER	—	—	—	—	—	—	—	742	1660	* 1975	—
	2/26/2002	ENER	—	—	—	—	—	—	—	# 671	# 1700	—	—
	8/21/2002	ENER	9.20	—	—	—	—	—	—	708	1770	* 3256	—
0934	2/26/2002	ENER	—	—	—	—	—	—	—	629	1830	* 3407	—
	7/22/2002	ENER	25.9	—	—	—	—	—	—	691	1780	* 3037	—
0994	4/2/2002	ENER	—	—	—	—	—	—	—	140	488	* 896	—
	7/9/2002	ENER	—	—	—	—	—	—	—	159	496	* 922	—
	9/18/2002	ENER	—	—	—	—	—	—	—	147	485	* 659	—
	11/13/2002	ENER	—	—	—	—	—	—	—	153	508	* 955	—
CE1	6/19/2002	ENER	—	—	—	—	—	—	—	925	1990	* 3177	—
CE2	2/26/2002	ENER	—	—	—	—	—	—	—	735	2000	* 3577	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.5-1 WATER QUALITY ANALYSES FOR THE CHINLE AQUIFERS (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.) (micromhos/	Ion_B (ratio)
CE2	8/21/2002	ENER	—	—	—	—	—	—	—	733	1900	* 3065	—
CE5	2/28/2002	ENER	262	66.4	4.90	314	525	< 1.000	214	851	1990	* 3494	0.998
	6/18/2002	ENER	—	—	—	—	—	—	—	112	313	* 661	—
CW1	2/26/2002	ENER	—	—	—	—	—	—	—	552	1240	* 2327	—
	8/21/2002	ENER	—	—	—	—	—	—	—	616	1320	* 2448	—
CW2	2/26/2002	ENER	—	—	—	—	—	—	—	411	1040	* 1954	—
	8/15/2002	ENER	—	—	—	—	—	—	—	410	947	* 1897	—
	8/21/2002	ENER	—	—	—	—	—	—	—	441	1050	* 1978	—
CW3	2/25/2002	ENER	—	—	—	—	—	—	—	949	1960	* 3437	—
	2/25/2002	ENER	—	—	—	—	—	—	—	# 948	# 1950	—	—
	4/29/2002	ENER	—	—	—	—	—	—	—	906	1970	* 3490	—
	8/21/2002	ENER	—	—	—	—	—	—	—	921	1990	* 3432	—
CW15	6/24/2002	ENER	—	—	—	—	—	—	—	838	1690	* 3070	—
CW17	6/27/2002	ENER	—	—	—	—	—	—	—	1680	3020	* 4428	—
CW18	7/23/2002	ENER	19.8	—	—	—	—	—	—	678	1930	* 3770	—
CW26	6/26/2002	ENER	—	—	—	—	—	—	—	587	1410	* 2493	—
CW27	6/26/2002	ENER	—	—	—	—	—	—	—	701	1600	* 2664	—
CW28	7/23/2002	ENER	—	—	—	—	—	—	—	461	1360	* 2669	—
CW29	6/24/2002	ENER	—	—	—	—	—	—	—	479	1080	* 1952	—
CW30	6/25/2002	ENER	—	—	—	—	—	—	—	996	2200	* 4071	—
CW31	6/26/2002	ENER	—	—	—	—	—	—	—	908	1800	* 3040	—
CW32	6/26/2002	ENER	—	—	—	—	—	—	—	1570	4180	* 6784	—
CW33	6/26/2002	ENER	—	—	—	—	—	—	—	1730	3770	* 6258	—
CW35	6/27/2002	ENER	—	—	—	—	—	—	—	1220	2360	* 3591	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.5-1 WATER QUALITY ANALYSES FOR THE CHINLE AQUIFERS (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.) (micromhos/	Ion_B (ratio)
CW37	7/1/2002	ENER	—	—	—	—	—	—	—	1020	1960	* 3223	—
CW40	7/23/2002	ENER	22.2	—	—	—	—	—	—	687	1950	* 3718	—
CW42	10/2/2002	ENER	—	—	—	—	—	—	—	851	1920	* 3286	—
CW43	10/2/2002	ENER	—	—	—	—	—	—	—	538	1230	* 2099	—
CW44	5/8/2002	ENER	—	—	—	—	—	—	—	822	1970	* 3510	—
	10/2/2002	ENER	—	—	—	—	—	—	—	783	1970	* 3088	—
CW45	10/2/2002	ENER	—	—	—	—	—	—	—	720	1810	* 3126	—
CW46	10/2/2002	ENER	—	—	—	—	—	—	—	732	1640	* 2818	—

* Signifies Specific Conductivity from HMC

TABLE B.5-2 WATER QUALITY ANALYSES FOR THE CHINLE AQUIFERS

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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
0434	3/27/2002	ENER	—	0.225	< 0.0300	0.0390	—	—	—	—	—	—
0446	6/10/2002	ENER	—	0.0210	< 0.0300	0.0070	—	—	—	—	—	—
	6/10/2002	ENER	—	# 0.0220	# < 0.0300	# 0.0090	—	—	—	—	—	—
0482	7/25/2002	ENER	—	0.297	0.0800	0.0230	—	—	—	—	—	—
0493	3/27/2002	ENER	—	0.0560	< 0.0300	0.189	—	—	—	—	—	—
	6/11/2002	ENER	—	0.0530	< 0.0300	0.169	—	—	—	—	—	—
0494	6/11/2002	ENER	—	0.266	0.0800	0.0270	—	—	—	—	—	—
0653	5/8/2002	ENER	—	0.968	—	0.151	—	—	—	—	—	—
	10/10/2002	ENER	—	0.921	—	0.209	—	—	—	—	—	—
0820	5/9/2002	ENER	—	0.0600	< 0.0300	0.0500	—	—	—	—	—	—
0853	6/25/2002	ENER	—	0.0240	—	0.173	—	—	—	—	—	—
0859	6/24/2002	ENER	—	0.170	—	0.115	—	—	—	—	—	—
0909	5/13/2002	ENER	—	0.0220	—	0.0730	—	—	—	—	—	—
0929	2/26/2002	ENER	—	0.0230	< 0.0300	0.0130	—	—	—	—	—	—
	2/26/2002	ENER	—	# 0.0210	# < 0.0300	# 0.0110	—	—	—	—	—	—
	8/21/2002	ENER	—	0.0270	< 0.0300	0.0130	—	—	—	—	—	—
0934	2/26/2002	ENER	—	0.0510	< 0.0300	0.0260	—	—	—	—	—	—
	7/22/2002	ENER	—	0.361	0.230	0.0290	—	—	—	—	—	—
0994	4/2/2002	ENER	—	0.0050	—	0.0070	1.94	—	—	—	—	—
	7/9/2002	ENER	—	0.0080	—	0.0070	2.11	—	—	—	—	—
	9/18/2002	ENER	—	0.0050	—	0.0050	2.31	—	—	—	—	—
	11/13/2002	ENER	—	0.0040	—	0.0050	1.90	—	—	—	—	—
CE1	6/19/2002	ENER	—	1.69	0.570	0.116	—	—	—	—	—	—
CE2	2/26/2002	ENER	—	0.919	0.330	0.0750	—	—	—	—	—	—

Signifies Quality Control Sample

TABLE B.5-2 WATER QUALITY ANALYSES FOR THE CHINLE AQUIFERS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
CE2	8/21/2002	ENER	—	0.979	0.380	0.0620	—	—	—	—	—	—
CE5	2/28/2002	ENER	7.80	0.940	0.350	0.127	1.86	< 0.200	—	—	—	—
	6/18/2002	ENER	—	0.0208	0.100	< 0.0050	—	—	—	—	—	—
CW1	2/26/2002	ENER	—	0.0340	< 0.0300	0.0110	—	—	—	—	—	—
	8/21/2002	ENER	—	0.0400	< 0.0300	0.0190	—	—	—	—	—	—
CW2	2/26/2002	ENER	—	0.0690	0.0600	0.0130	—	—	—	—	—	—
	8/15/2002	ENER	—	0.0400	0.0500	0.0210	—	—	—	—	—	—
	8/21/2002	ENER	—	0.100	0.0900	0.0190	—	—	—	—	—	—
CW3	2/25/2002	ENER	—	1.33	1.19	0.0430	—	—	—	—	—	—
	2/25/2002	ENER	—	# 1.35	# 1.19	# 0.0460	—	—	—	—	—	—
	4/29/2002	ENER	—	1.34	1.26	0.0680	—	—	—	—	—	—
	8/21/2002	ENER	—	1.69	1.49	0.0600	—	—	—	—	—	—
CW15	6/24/2002	ENER	—	0.0170	—	0.0350	—	—	—	—	—	—
CW17	6/27/2002	ENER	—	0.131	—	0.0680	—	—	—	—	—	—
CW18	7/23/2002	ENER	—	0.0390	< 0.0300	0.0210	—	—	—	—	—	—
CW26	6/26/2002	ENER	—	0.0190	—	0.224	—	—	—	—	—	—
CW27	6/26/2002	ENER	—	0.0170	—	0.288	—	—	—	—	—	—
CW28	7/23/2002	ENER	—	0.0360	—	0.0830	—	—	—	—	—	—
CW29	6/24/2002	ENER	—	0.0150	—	0.0310	—	—	—	—	—	—
CW30	6/25/2002	ENER	—	0.144	—	0.173	—	—	—	—	—	—
CW31	6/26/2002	ENER	—	0.0100	—	< 0.0050	—	—	—	—	—	—
CW32	6/26/2002	ENER	—	0.0020	—	0.0180	—	—	—	—	—	—
CW33	6/26/2002	ENER	—	0.0260	—	0.0100	—	—	—	—	—	—
CW35	6/27/2002	ENER	—	0.181	—	0.0680	—	—	—	—	—	—

Signifies Quality Control Sample

TABLE B.5-2 WATER QUALITY ANALYSES FOR THE CHINLE AQUIFERS (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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
CW37	7/1/2002	ENER	—	0.0280	—	0.0800	—	—	—	—	—	—
CW40	7/23/2002	ENER	—	0.0280	—	0.0150	—	—	—	—	—	—
CW42	10/2/2002	ENER	—	1.01	—	0.232	—	—	—	—	—	—
CW43	10/2/2002	ENER	—	0.0300	—	0.0230	—	—	—	—	—	—
CW44	5/8/2002	ENER	—	0.846	—	0.0770	—	—	—	—	—	—
	10/2/2002	ENER	—	0.824	—	0.0750	—	—	—	—	—	—
CW45	10/2/2002	ENER	—	1.62	—	0.105	—	—	—	—	—	—
CW46	10/2/2002	ENER	—	0.0390	—	0.162	—	—	—	—	—	—

TABLE B.6-1 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.) (micromhos/	Ion_B (ratio)
#1 Deepwell	5/7/2002	ENER	225	73.8	12.8	300	—	—	229	706	2000	* 2958	—
#2 Deepwell	5/7/2002	ENER	215	69.7	11.6	236	—	—	198	646	1780	* 2792	—
0806	10/17/2002	ENER	—	—	—	—	—	—	—	566	1570	* 2673	—
0928	10/21/2002	ENER	—	—	—	—	—	—	—	799	1740	* 2973	—
0943	11/13/2002	ENER	—	—	—	—	—	—	—	1080	2010	* 3840	—
0951	10/17/2002	ENER	—	—	—	—	—	—	—	314	896	* 1623	—

* Signifies Specific Conductivity from HMC

TABLE B.6-2 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)	Cr (mg/l)	V (mg/l)	Th230 (pCi/l)
#1 Deepwell	5/7/2002	ENER	8.00	0.0110	< 0.0300	0.0090	0.500	0.600	—	< 0.0500	—	—
#2 Deepwell	5/7/2002	ENER	8.10	0.0090	< 0.0300	0.0100	2.58	< 0.200	—	< 0.0500	—	—
0806	10/17/2002	ENER	—	0.0150	—	0.0100	—	—	—	—	—	—
0928	10/21/2002	ENER	—	0.0870	—	0.0420	—	—	—	—	—	—
0943	11/13/2002	ENER	—	0.0010	—	< 0.0050	—	—	—	—	—	—
0951	10/17/2002	ENER	—	0.0280	—	< 0.0050	—	—	—	—	—	—

APPENDIX C

ANNUAL ALARA AUDIT

Annual ALARA Audit

October 28, 2002

Grants Operations
Homestake Mining Company
P. O. Box 98
Grants, New Mexico 87020

Prepared by:

Kenneth R. Baker, Ph. D.
Environmental Restoration Group, Inc.
12809 Arroyo de Vista NE
Albuquerque, NM 87111

1.0 Introduction

On October 28, 2002, Kenneth R. Baker, consultant to Homestake Mining Company (HMC), conducted the 2002 Annual ALARA Audit for the Grants Uranium Mill site. The audit was conducted in accordance with the United States Nuclear Regulatory Commission (NRC) Regulatory Guide 8.31, "Information Relevant to Ensuring That Occupational Exposure At Uranium Mills Will Be As Low As Reasonably Achievable."

The following topics were covered in the audit:

Follow up on prior ALARA audit
ALARA policy
Radiation exposures
Bioassay results
Self audits
ALARA planning activities
Worker training
Radiation safety meetings
Radiation surveys
Overexposures
Health physics staff
Procedures, Data Collection, and Management

All mill buildings have been removed and the off-pile tailings cleanup was completed in 1995. The side slopes of the main tailings pile and the mill yard area have a permanent radon barrier and an erosion protection cover. An interim cover is being maintained on the top of the large tailings pile and that portion of the small tailings pile that is not covered by the evaporation pond.

Activities at the site during 2002 include the operation of a reverse osmosis (RO) unit that supports the groundwater restoration program, dewatering the large tailings pile, some additional well drilling, repair of Evaporation Pond No. 1 liner, and maintaining the groundwater restoration system. The groundwater restoration consists of pumping the groundwater collection wells, operating the evaporation ponds, injecting clean water into the contaminated aquifer, and operating the RO plant. Expansion of the RO treatment capacity was completed in 2002.

The primary potential radiation exposure results from maintaining the pumps, valves, and piping associated with the tailings dewatering and groundwater collection systems, operating the RO plant, drilling new wells on the tailings pile, and maintaining the spray system on the evaporation ponds.

2. Discussion

The audit process involved scoping the audit, gathering relevant information, review of information, interviewing appropriate personnel, and writing the report. The reviews are briefly summarized below.

2.1 Follow-up on Previous Audit Recommendations

The last ALARA audit was conducted on December 5, 2001. A recommendation was made at that time to document low airborne particulate concentrations by taking periodic air samples while working on top of the pile. This recommendation is still open since no measurements were made since the last audit. It was also recommended that radon or working level measurements be made in the RO building. After review of the data from a track-etch cup that is placed in the building for six-month intervals, this recommendation is considered closed.

2.2 ALARA Policy

The corporate ALARA policy statement is included in Standard Operating Procedure HP-6. This policy has been implemented as evidenced by the incorporation of ALARA in discussions in worker training and radiation work permits.

2.3 Radiation Exposures

2.3.1 External Exposures

Dosimetry data for the fourth quarter 2001 and first three quarters 2002 were reviewed. Approximately 20 badges were issued each quarter. The maximum quarterly dose equivalent was reported as 40 mrem. The maximum year-to-date dose equivalent for the CY 2001 was reported as 40 mrem. Five lost badges were reported, three by the same person. This person is an electrician working for a contractor. Annual exposure reports for CY2001 were sent to all employees.

These low exposures reflect the effort that management and the workers have expended in maintaining exposures ALARA as well as the low radiation work environment.

2.3.2 Internal Exposures from Long-Lived Particulate Sources

HMC does not routinely require airborne particulate monitoring since there are no dry exposed tailings. Invasive activities normally involve the use of water to suppress any dust that may be generated. HMC has a "spot check program" where the most exposed individual working under an RWP will be monitored for a day, normally one per month. Occasionally, a personal air sampler will be placed on the most exposed individual. There were three RWPs issued in 2002 but no air samples were taken.

The following analysis was done for the CY2001 ALARA audit and is still relevant: *"A review of the records for 1998-2000 indicates that eight air samples were taken for work done within the controlled areas on top of the pile. The average gross alpha concentration for the samples is 6.5E-13 μCi/ml with a range of 0-1.34E-12 μCi/ml.*

Using the DAC for uranium of 2E-11 μCi/ml, the average and maximum concentrations represent 3 percent and 7 percent of the DAC. This data suggests that the intake of radionuclides would be 3 percent of an ALI for full-time workers. This is considered conservative since the DAC for Ra-226 is 3E-10 μCi/ml and may better represent tailings than uranium. Also since these workers work only a fraction of the year, the percent of the ALI would be reduced further, probably by a factor of 2 or more. The NRC requires that a worker be monitored for internal exposure (10 CFR Part 20, §20.1502(b)) if it is likely that the worker will receive 10 percent of the applicable ALI. This auditor believes that it is highly unlikely that these workers (drillers) in the controlled area receive ten percent of the ALI in a year, probably on the order of one percent of the ALI.

Spot check data exists for a worker who spends approximately 50 percent of his time on top of the tailings pile doing routine maintenance outside the controlled area. Data for 1998-2000 show that 8 air samples were taken during this period with an average and maximum gross alpha concentration of 3.5E-13 μCi/ml and 1.34E-12 μCi/ml. This represents 2 percent and 7 percent of the DAC. Since he worked approximately 50 percent of the time on the pile, the data would indicate that his annual intake was approximately 1 percent of the ALI."

Recommendation: While the existing data suggest that workers are exposed to very low levels of airborne particulate, periodic air samples should be taken to document the gross alpha air concentrations in controlled areas while working on top of the pile.

2.3.3 Internal Exposure from Radon

The radon concentrations on the site perimeter near the tailings pile indicate near-background levels. However, the RO building presents a source of concern for radon exposure. Worker occupancy is normally limited to one hour per day unless maintenance is required, seven days per week. Three workers currently share the responsibility of routine plant operations.

A track-etch detector is placed in the RO building and changed out every six months. The average radon concentrations in the building for the first half of the 2002 year was 21 pCi/l, compared to 47 pCi/l in 2001. HMC automated the large exhaust fans to come on for 10 minutes prior to entering in the morning and again in the afternoon. This may be responsible for the decrease in concentrations in 2002 relative to 2001. HMC was in the process of installing a smaller exhaust fan to continually remove air above the RO floor sump, believed to be the major source of radon. This should be operational within a few days.

The DAC for Rn-222 with daughters present is 30 pCi/l (ALI = 100 μCi). If one assumes that an employee works in the building for one hour per day for one-third of the days of the year (365/3=122 hours) in an environment equal to the average radon concentration of 21 pCi/l, the radon intake is equal to approximately (122/2000)*(21/30) ALI= 4 percent of the annual limit on intake (ALI). This does not require monitoring under 10 CFR Part

20, §20.1502(b), providing this was his/her only source for internal exposure. Considering the very small exposures from other radiation sources at this site, this small contribution may be ignored. However, minors or pregnant women would require monitoring. It is unlikely that minors or pregnant women would be working in this area although management should be aware of this requirement. The above analysis is considered conservative in that actual concentrations at the time of exposure should be much smaller than the average concentration.

Currently, only one RO plant is operating. Should HMC start the other plant, the radon levels could double, which would push the potential exposure to 8 percent of the ALI, or near the 10 percent at which monitoring is required under 10 CFR Part 20, §20.1502(b). This requires careful future consideration. A more frequent change out of the track-etch detector would provide better information and possibly alert the RPA that personal monitoring is required.

Recommendation: The track-etch detector results from the second half year exposure period should be reviewed and a decision made as to whether a monthly or quarterly changeout of the track-etch detectors is warranted rather than the 6-month exposure period. Compliance with 10 CFR Part 20, §20.1502(b) requirements is a primary concern. It is also recommended that a time log be maintained showing the amount of time spent in the RO building for the employees.

2.4 Bioassay Results

Procedures call for a semi-annual routine urine-sampling schedule for employees. This was done in December 2001 and July 2002. Contractor employees were sampled at the beginning and end of short-term projects. In addition, some HMC employees were sampled more frequently.

Bioassay results are reflective of the uptake of radionuclides in the body. HMC's urine-sampling program was reviewed. Since January 2002, 99 routine samples and 14 spiked samples were analyzed. The vendor laboratory is required to have a lower limit of detection (LLD) of 5 μg/l for uranium. Any measured value of 15 μg/l must be investigated and appropriate mitigation measures taken. Persons with urine samples exceeding 35 μg/l must be placed on work restrictions to limit further intakes of uranium. Two samples measured above the LLD with one sample at 17.7 μg/l. The spiked samples were within the 30 percent tolerance limit with the exception of two. There is evidence that these two samples were elevated prior to spiking. The analyses were repeated and in the case of the 17.7 μg/l value, the person was resampled and the results showed that the levels returned to less than 5μg/l.

HMC questioned the accuracy of their spike solution and have been requesting the vendor to spike one of the urine samples after it split. This does not conform to U. S. Regulatory Guide 8.22, Section 8.1. Attempts to obtain a new spiking solution have not been successful to date.

The results for the bioassay program support the conclusion that the worker uptake of uranium is low. The two measurable results may have arisen from local sources of drinking water in this area, many of which have resulted in positive urine bioassay results.

Recommendation: Obtain uranium-spiking solution and prepare a spiked sample to be sent to the laboratory with each batch.

2.5 Self Audits

The RPA requires that the technicians (Venable/Vigil) prepare a monthly ALARA report. The report consists of radiation protection data reflective of the operations as well as an accounting of the major activities for the month. Any problems encountered are also presented. After reviewing several of the reports, the auditor concluded that the reports provide the RPA with adequate detail to assure that exposures are being maintained ALARA.

2.6 ALARA Planning Activities

HMC conducts all invasive work (involving tailings) under a radiation work permit (RWP). The three RWPs issued in 2002 were evaluated. Requirements in the RWP are explained to the workers in morning meetings. When contract laborers are used, spot checks are conducted to assure that the requirements are appropriate and being followed. These spot checks include frisking working personnel and equipment to determine the levels of contamination, performing exposure rate measurements in the work area, and possibly taking air samples. Monthly safety meetings are held where radiation protection problems are addressed. Since the levels of exposure have been demonstrated to be low, the ALARA planning activities are adequate.

In the review, the auditor determined that some contractor personnel did not always strictly adhere to PPE requirements in the RWP. A group discussion was held on how to obtain better compliance through the use of contract requirements and other means. HMC intends to focus on this prior to initiating any major activity in the future.

ALARA planning examples are evident such as controlling exposures in the new RO building and controlling airborne emissions on top of the pile. HMC is committed to assuring that adequate clean cover exists on top of the large tailings pile to control the tailings and also reduce gamma exposure rates to workers. Beginning in CY2000, the pile has been divided into 12 segments where radiation surveys are done over the course of a year to reveal any areas requiring replacement of the temporary cover. Additional clean cover was applied to areas exhibiting an exposure rate of greater than 15 μR/h above background. In CY2001, approximately 50 percent of the cover was surveyed and additional cover material added as required. HMC will have surveyed the 12 segments by the end of CY2002.

2.7 Worker Training

All radiation workers receive formal classroom radiation safety training. Workers must pass a written examination. Annual refresher training is required and generally is a repeat of the course material given initially. Kenneth Baker conducted the last annual training on October 29, 2002. The Radiation Protection Administrator (RPA) or Adrian Venable normally gives the contractor training. Use of videotapes developed for HMC by a consultant is incorporated into the contractor employee training.

2.8 Radiation Surveys

A review of the instrument maintenance and calibration records was made. All instruments in use had been calibrated. A calibration schedule is prepared for use in tracking calibrations. The records were found in good order.

Radiation surveys are conducted on all personnel and equipment leaving the radiation control area. This has been defined as the boundary of areas where invasive work is being done. Work area radiation levels are reported in the RWPs and the spot checks reports.

Clean area surveys are no longer required per license condition. While no surveys were conducted in CY2001 or CY2002 (to date), plans are to conduct these surveys periodically. Prior years data show that the contamination is at near background levels.

A review of the release surveys was done. Procedures are being followed and all released items were within the release limits.

2.9 Health Physics Staff

The current health physics staff consists of:

Roy Cellan, Radiation Protection Administrator
Adrian Venable, Senior Health Physics Technician
Joe Vigil, Site Supervisor and Senior Environmental Technician

Alan D. Cox plans to assume the RPA duties when approved by the NRC. A review of the education and experience of the staff indicated that all meet or exceed the requirements of NRC Regulatory Guide 8.31 for working in uranium mills.

2.10 Overexposures

No personnel were overexposed to date during this audit period.

2.11 Procedures, Data Collection, and Management

The RPA hired a consultant to conduct an extensive review of all procedures. The recommendations were evaluated by HMC and decisions made on how to proceed. It was determined that none of the suggested changes indicated a violation of license conditions. HMC intends to incorporate most of the suggestions as time permits. A license condition requires this to be done at least annually. No procedures are currently under revision or preparation.

3.0 Recommendations

The radiation protection program is effective in reducing exposures to as low as reasonably achievable. The staff is continuing to take additional measures to assure that the ALARA policy is implemented. This auditor, however, recommends that periodic air particulate samples be taken in areas requiring RWPs even though not necessarily required by the regulations. Similarly, clean-area surveys are suggested. Shorter-term measurements of radon concentration in the RO building along with documenting employee exposure times should be considered to provide management with exposure information. Lastly, HMC should send a spike urine sample with each batch of samples.

APPENDIX D

INSPECTION OF TAILINGS PILES AND PONDS

KLEINFELDER
An employee owned company

November 26, 2002
Project No. 16977

Mr. Al Cox
Homestake Mining Company of California
P.O. Box 98
Grants, NM 87020

SUBJECT: REPORT OF INSPECTION OF TAILING PILES AND PONDS HOMESTAKE GRANTS PROJECT GRANTS, NEW MEXICO

Dear Mr. Cox:

In accordance with your verbal request of November 19, 2002, the undersigned performed a visual inspection of the tailing piles and evaporation ponds at the Homestake Grants Project located at Grants, New Mexico. This report addresses the observations and findings of the requested inspection, which was performed on November 22, 2002.

On this date, Dr. Alan Kuhn of Kleinfelder, Inc. performed a visual inspection of the tops and outslopes of both tailing impoundments and of the dike, slopes, and liners of both evaporation ponds. The weather was clear, calm, and temperatures were near freezing.

OBSERVATIONS

The tailing impoundment slopes appear to be stable and free of any visible signs of mass movement. The outslopes of the small pile, which are not yet covered with riprap, are slightly rilled. However, the rills are shallow (a few inches at most) and appear to have been bladed occasionally to prevent them from entrenching. Impoundment top surfaces are also slightly rilled. All rilled surfaces on the impoundments will be regarded, then covered with a filter layer and riprap as part of their final closures. Therefore, only routine maintenance is needed to identify and fill in any rills that might deepen due to concentrated runoff. The outslopes of the large impoundment are covered with final riprap; these slopes and the riprap cover are in good condition.

Based on information related to recent settlement point surveys, made available by Homestake, settlement on the large impoundment continues. The largest settlement over the last year, 0.31 feet, shows that dewatering and consolidation of the slimes is still progressing at a rate substantial enough that additional settlement of the top of the impoundment can be expected. This consolidation and the resulting settlement have been ongoing for at least eight years and are normal and desirable processes that gradually increase the overall stability of the impoundment. Factors of safety for both impoundments are higher than the values used (>1.5 and >1.0 for static and pseudostatic loading, respectively) for reclaimed slope design.

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The evaporation ponds appear to be in good condition. No liner breaks or other defects were observed. No evaporation spray equipment was operating at the time of this inspection; however, the pipes and other visible components of the evaporation spray systems appeared to be in good repair.

CONCLUSIONS

The foregoing observations indicate that the tailing impoundments (piles) and the evaporation ponds are in good condition and are being maintained within the operating limits of the NRC license and the respective facility designs. No correctives actions are required.

LIMITATIONS

The recommendations contained in this report are based on Dr. Kuhn's field visit and his understanding of the inspected facilities. If any conditions are encountered at this site which are significantly different than those described in this report, Kleinfelder should be immediately notified so that we may make any necessary revisions to findings or recommendations contained in this report.

This report was prepared in accordance with generally accepted standards of practice at the time the report was written. No warranty, express or implied, is made. It is the Client's responsibility to see that all parties to the project are made aware of this report in its entirety. The information contained in this report should be used at the Owner's and Contractor's option and risk.

We appreciate the opportunity to work with you on this project. If you have any questions or need additional information, please contact this office.

Respectfully submitted,

KLEINFELDER, INC.

Alan K. Kuhn, Ph.D., P.E., R.P.G.
Senior Consultant

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Appendix E:

Grants Reclamation Project
Land Use Review / Survey

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GRANTS RECLAMATION PROJECT
LAND USE REVIEW / SURVEY

APPENDIX E

FIGURES

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Grants Reclamation Project

Land Use Review / Survey

E.1 Background

As part of Amendment 34 to the Grants Reclamation Project Radioactive Materials License – SUA-1471-Docket 40-8903 approved June 19, 2002, License Condition (LC) 42 was amended to require submittal of a land use survey with the License annual report to NRC. This report is the first of the annual land use review / surveys that will be included annually to the agency.

The general focus of the land use survey is to document and summarize the current land uses and any identified changes to land use in proximity to the Grants Reclamation Project, in particular those areas that are proximal to the tailings pile areas undergoing reclamation and closure and immediate surrounding areas where ongoing ground-water restoration continues.

E.2 2002 – Land Use – Homestake Properties

Homestake Mining Company of California (HMC) owns and controls a sizeable land area in and around the Grants Reclamation project. Over the last number of years, additional lands have been acquired as opportunity has arisen and acquisition of such lands are deemed appropriate in relation to ongoing ground-water remediation and restoration activities and final reclamation / closure of the site.

Much of the HMC lands held in the area that are not in immediate proximity to the tailings pile complex have been, and are continuing to be, utilized for livestock grazing on a lessor/lessee tenant arrangement. Most of the current land area within the present Site Boundary has been excluded from livestock grazing and other land use except those directly related to the ongoing ground-water restoration activities. Livestock grazing is not currently allowed in the immediate tailings pile areas, evaporation pond areas, or the office/maintenance shop locations. These areas have been livestock fenced to exclude grazing; certain small areas in the southern and western portions of land within the Site Boundary are, however, utilized for livestock grazing.

A number of small lot and small acreage parcels [e.g. residential lot(s)] held by HMC in the general area of the reclamation site are idle and not under a current land use activity.

The other significant land use activity situated on HMC-held lands in the area includes land irrigation utilized for crop production. Water used for irrigation is an

integral part of the ongoing ground-water restoration and cleanup program for the project. Prior to 2002, HMC had 270 acres of land under irrigation consisting of a two-field flood irrigation area comprising 120 acres and a center pivot spray irrigation area comprising 150 acres. During 2002, an additional center pivot irrigation system was commissioned that comprises 60 acres.

HMC lands now under irrigation totals 330 acres situated in Sections 28, 33 and 34 (please refer to project location Figures 2.1-1A and 2.1-1B in Section 2 of this annual report for location of the three areas under present irrigation).

E.3 2002 – Land Use – Pleasant Valley Estates, Murray Acres, Broadview Acres and Felice Acres Residential Subdivisions

Aside from the land uses on HMC land in the Grants Reclamation Project area described in the previous section above, the other major land use immediately proximal to the Site consists of residential development located in the Pleasant Valley Estates, Murray Acres, Broadview Acres and Felice Acres Residential subdivisions. By way of background, HMC provided these subdivision areas with a potable water supply system as an extension of the Village of Milan water supply in the mid-1980's. The Village of Milan water supply extension to these areas was provided at that time to address a concern over the quality of ground-water used for domestic purposes in these adjacent subdivision areas.

An assessment of current land use in the four subdivision areas was undertaken during the 1st quarter of 2003 to ascertain present uses, occupancy and status for the various lots within the subdivisions. Over the years, permanent residential homes, modular homes and mobile homes have been established in the subdivision areas as would typify a rural residential neighborhood. A number of lots remain vacant, or are utilized for uses such as horse barns, corrals, equipment storage, etc. In some cases, dwellings are present on several lots throughout the subdivisions but are currently vacant or have been permanently abandoned and in various states of disrepair.

The primary issue of concern in the subdivision areas is to determine whether current occupied dwellings are utilizing water service from the Village of Milan system for potable water consumption and not private wells, particularly private domestic wells that are completed into the underlying shallow alluvial aquifer.

The survey conducted in early 2003 consisted of first obtaining the records and customer database from the Village of Milan water district. This information was reviewed to prepare a separate residential customer database for the four subdivisions that would reflect the lot number, customer, water meter customer ID number and whether the customer utilized Milan water for the 2001 and 2002 years. See Tables E-1 through E-4 for the constructed database.

A lot-by-lot reconnaissance was made in each of the subdivisions to determine whether each lot was occupied or vacant, contained a residence(s), and which residences are currently occupied. This information was then checked against the database to determine whether each occupied residence is supplied and metered through the Village of Milan water supply system. Results of this reconnaissance effort are summarized on the subdivision plat maps; see Figures E-1 through E-4. The green MW shows which lot is connected to the Milan water supply in November 2002 while the black four digit number is the Milan water meter customer ID number. The lots with a V, VH, AT, VT or VB are not presently using Milan water.

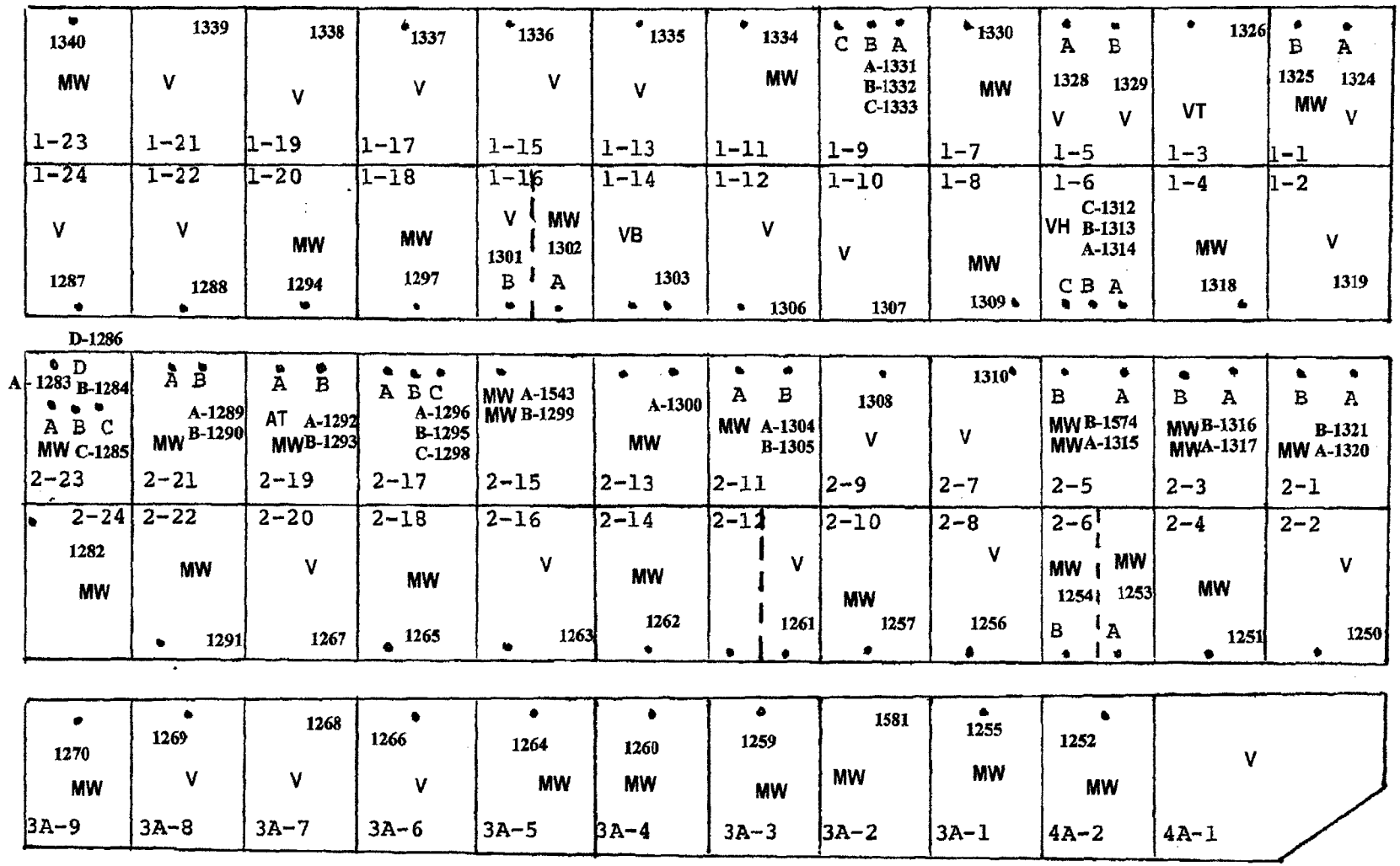
Field review of the subdivisions areas, along with follow-up inquiries as required to confirm the status of water use at each property, indicates that at present all known and identified occupied residential sites in the four subdivisions are on metered water service with the Village of Milan.

E.4 Conclusion

The review of land use for HMC properties and the four residential subdivision areas to the immediate south and west of the Grants Reclamation Project site indicates that present land uses in the area do not present a new or increased concern in relation to the underlying ground-water quality and related project remediation / restoration activities. Residential domestic potable water supplies in the subdivisions are currently being supplied by the Village of Milan water supply and there are no known or identified cases where it is suspected that residential drinking water supply is being obtained from private alluvial well sources.

It is anticipated that a land use survey / review, similar to that conducted and documented above, will be completed on an annual basis to meet annual reporting requirements under the NRC License. This will help in assuring that land use activities in the immediate area surrounding the Grants project are regularly reviewed and assist in determining that those uses do not present a new concern with local ground-water usage until project ground-water restoration activities are completed.

FIGURE E-1 BROADVIEW ACRES LAND USE STATUS AND WATER USE



V - Vacant Lot, No Structure
VH - Vacant House
AT - Abandon Trailer
VT - Vacant Trailer
VB - Abandon Building

BROADVIEW ACRES

MW - Milan Water Usage at 11/02

N

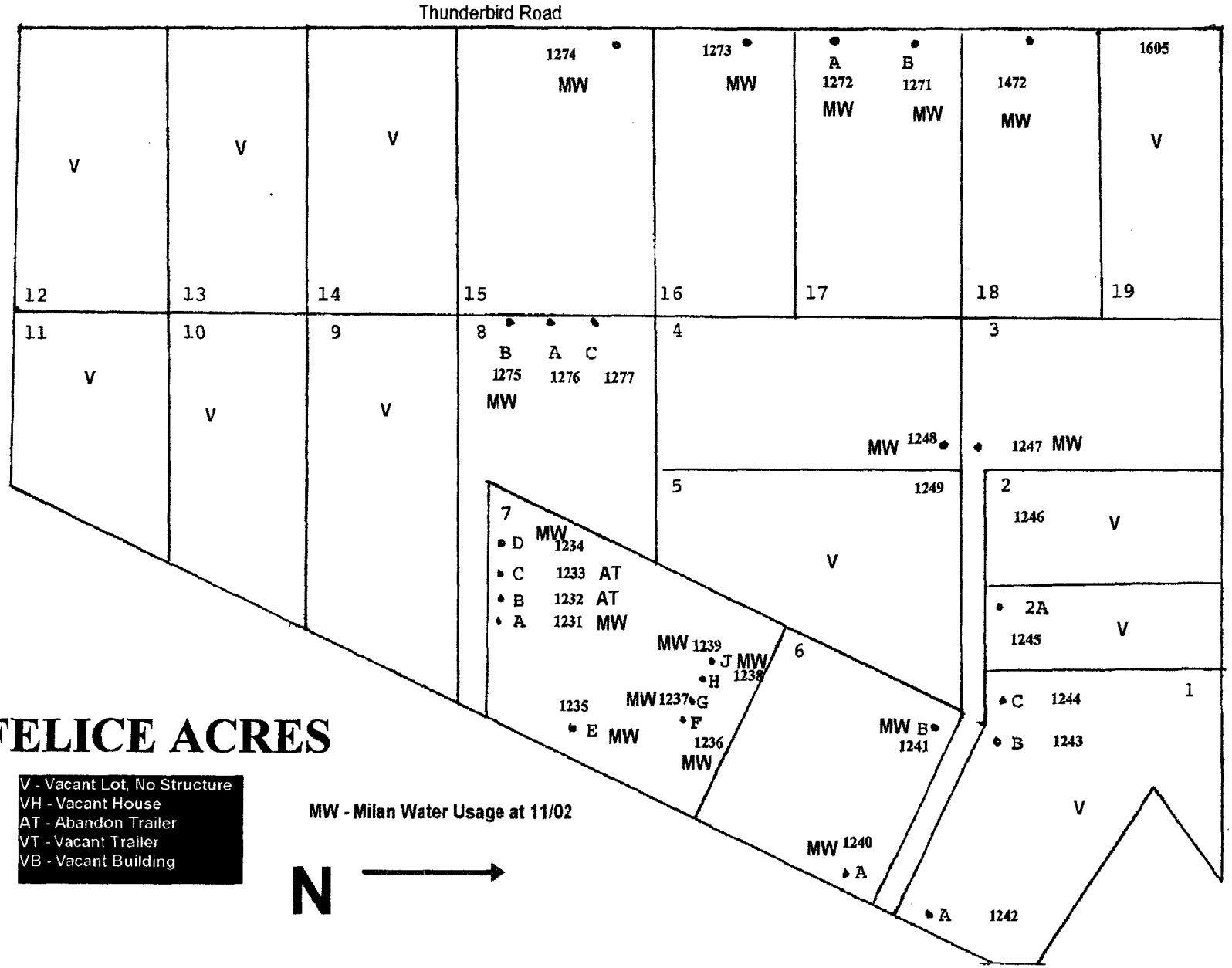


FIGURE E-2 FELICE ACRES LAND USE STATUS AND WATER USE

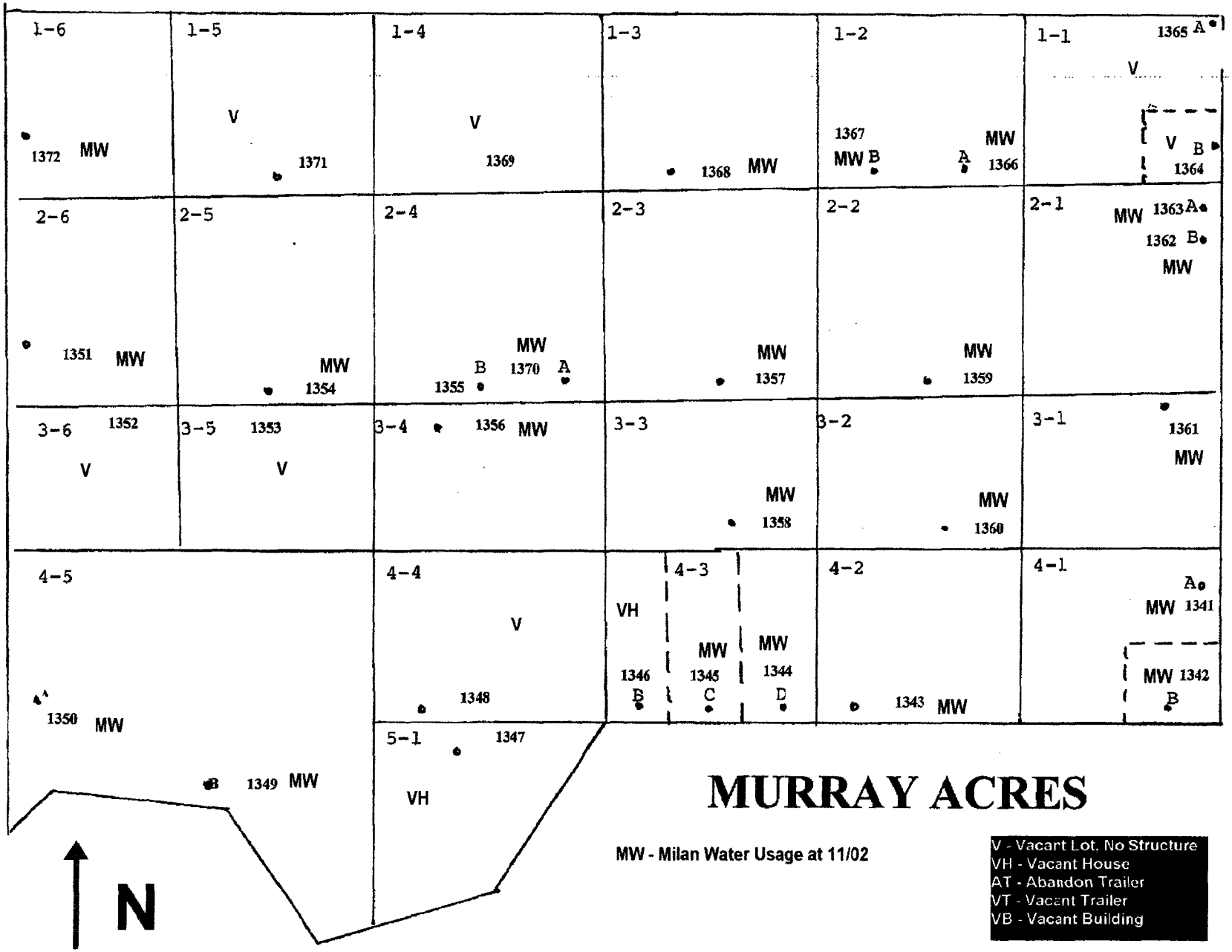


FIGURE E-3 MURRAY ACRES LAND USE STATUS AND WATER USE

PLEASANT VALLEY ESTATES

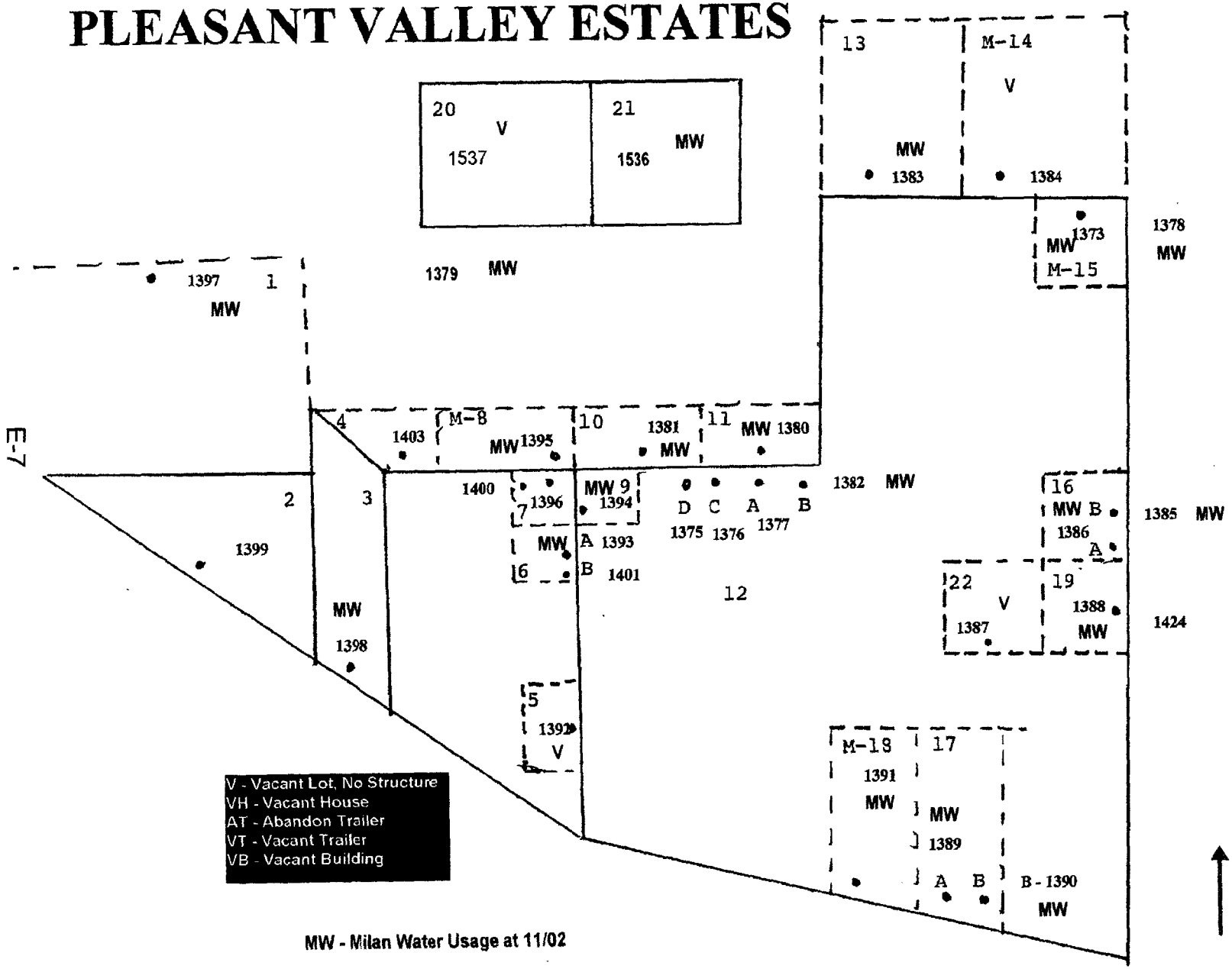


FIGURE E-4 PLEASANT VALLEY ACRES LAND USE STATUS AND WATER USE

TABLE E-1 WATER USE OF MILAN WATER IN BROADVIEW ACRES

SUBDIVISION LOT / BLOCK	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2001 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2002 WATER USAGE
2-2	1250		
2-4	1251	☑	☑
4A-2	1252	☑	☑
2-6A	1253	☑	☑
2-6B	1254	☑	☑
3A-1	1255	☑	☑
2-8	1256	☑	
2-10	1257	☑	☑
3A-3	1259	☑	☑
3A-4	1260	☑	☑
2-12	1261		
2-14	1262	☑	☑
2-16	1263		
3A-5	1264	☑	☑
2-18	1265	☑	☑
3A-6	1266		
2-20	1267		
3A-7	1268		
3A-8	1269		
3A-9	1270		☑
2-24	1282	☑	☑
2-23A	1283		
2-23B	1284		
2-23C	1285	☑	☑
2-23D	1286		
1-24	1287		
1-22	1288		
2-21A	1289		
2-21B	1290	☑	☑
2-22	1291	☑	☑
2-19A	1292		
2-19B	1293	☑	☑
1-20	1294	☑	☑
2-17B	1295		
2-17A	1296		
1-18	1297	☑	☑
2-17C	1298		
2-15B	1299	☑	☑
2-13A	1300	☑	☑

TABLE E-1 WATER USE OF MILAN WATER IN BROADVIEW ACRES

SUBDIVISION LOT / BLOCK	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2001 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2002 WATER USAGE
1-16B	1301		
1-16A	1302	☑	☑
1-14	1303		
2-11A	1304	☑	☑
2-11B	1305		
1-12	1306		
1-10	1307		
2-9	1308		
1-8	1309		☑
2-7	1310		
1-6C	1312		
1-6B	1313		
1-6A	1314		
2-5A	1315	☑	☑
2-3A	1316	☑	☑
2-3B	1317	☑	☑
1-4	1318	☑	☑
1-2	1319		
2-1A	1320	☑	☑
2-1B	1321		
	1322	☑	☑
1-1A	1324		
1-1B	1325	☑	☑
1-3	1326		
1-5A	1328		
1-5B	1329		
1-7	1330	☑	☑
1-9A	1331		
1-9B	1332	☑	
1-9C	1333	☑	
1-11	1334	☑	☑
1-13	1335		
1-15	1336		
1-17	1337		
1-19	1338		
1-21	1339		
1-23	1340	☑	☑
2-15A	1543	☑	☑
2-5B	1574	☑	☑
3A-2	1581	☑	☑
4A-1	no meter		

TABLE E-2 WATER USE OF MILAN WATER IN FELICE ACRES

SUBDIVISION LOT / BLOCK	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2001 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2002 WATER USAGE
7A	1231	☑	☑
7B	1232		
7C	1233		
7D	1234	☑	☑
7E	1235	☑	☑
7F	1236	☑	☑
7G	1237	☑	☑
7H	1238	☑	☑
7J	1239	☑	☑
6A	1240	☑	☑
6B	1241	☑	☑
1A	1242		
1B	1243		
1C	1244		
2A	1245		
2	1246		
3	1247	☑	☑
4	1248	☑	☑
5	1249		
17B	1271	☑	☑
17A	1272	☑	☑
16	1273	☑	☑
15	1274	☑	☑
8B	1275	☑	☑
8A	1276		
8C	1277		
18	1472	☑	☑
19	1605		
9			
10			
11			
12			
13			
14			

TABLE E-3 WATER USE OF MILAN WATER IN MURRAY ACRES

SUBDIVISION LOT / BLOCK	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2001 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2002 WATER USAGE
4-1A	1341		☑
4-1B	1342		☑
4-2	1343		☑
4-3D	1344	☑	☑
4-3C	1345	☑	☑
4-3B	1346		
5-1	1347		
4-4	1348		
4-5B	1349	☑	☑
4-5A	1350	☑	☑
2-6	1351	☑	☑
3-6	1352		
3-5	1353		
2-5	1354	☑	☑
2-4B	1355		
3-4	1356	☑	☑
2-3	1357	☑	☑
3-3	1358	☑	☑
2-2	1359	☑	☑
3-2	1360	☑	☑
3-1	1361	☑	☑
2-1B	1362	☑	☑
2-1A	1363	☑	☑
1-1B	1364		
1-1A	1365		
1-2A	1366	☑	☑
1-2B	1367	☑	☑
1-3	1368	☑	☑
1-4	1369		
2-4A	1370	☑	☑
1-5	1371		
1-6	1372	☑	☑

TABLE E-4 WATER USE OF MILAN WATER IN PLEASANT VALLEY ESTATES

SUBDIVISION LOT / BLOCK	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2001 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2002 WATER USAGE
M-15B	1373	☑	☑
M-15A	1378	☑	☑
12D	1375		
12C	1376		
12A	1377		
	1379	☑	☑
11	1380	☑	☑
10	1381	☑	☑
12B	1382	☑	☑
13	1383	☑	☑
M-14	1384		
16B	1385	☑	☑
16A	1386	☑	☑
22	1387		
19	1388	☑	☑
17A	1389	☑	☑
17B	1390	☑	☑
M-18	1391	☑	☑
5	1392	☑	
6A	1393	☑	☑
9	1394	☑	☑
M-8	1395	☑	☑
7	1396		
1	1397	☑	☑
3	1398	☑	☑
2	1399		
7	1400		
6B	1401		
4	1403		
	1424		
21	1536	☑	☑
20	1537		