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) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
0690		
5/27/2008	36.86	6545.20
12/4/2008	37.25	6544.81
0691		
5/27/2008	43.58	6545.23
12/4/2008	43.67	6545.14
0891		
5/27/2008	54.36	6526.76
1A		
11/4/2008	38.40	6547.03
1E		
11/4/2008	27.96	6556.35
1F		
11/5/2008	42.03	6545.35
1G		
11/4/2008	40.46	6546.61
1H		
11/4/2008	55.08	6531.31
1I		
2/27/2008	35.51	6562.84
1J		
2/26/2008	37.11	6548.29
8/5/2008	3.80	6581.60
1K		
8/5/2008	35.00	6549.13
12/3/2008	36.06	6548.07
1L		
11/4/2008	27.46	6551.15
1M		
11/4/2008	26.94	6548.59
1N		
5/27/2008	32.45	6558.40
1O		
5/27/2008	43.76	6551.18
1P		
5/27/2008	36.15	6549.09
8/5/2008	35.77	6549.47
12/3/2008	36.21	6549.03
1Q		
2/27/2008	36.54	6546.57
8/5/2008	34.70	6548.41
8/6/2008	34.70	6548.41
12/2/2008	38.28	6544.83
1R		
2/26/2008	37.51	6548.48
8/5/2008	35.95	6550.04
8/6/2008	35.95	6550.04
12/2/2008	37.20	6548.79
1S		
2/27/2008	35.04	6546.95
7/15/2008	15.58	6566.41
8/5/2008	5.40	6576.59
1T		
2/23/2008	36.49	6548.42
2/26/2008	36.49	6548.42
8/5/2008	34.38	6550.53
8/6/2008	34.38	6550.53
12/2/2008	35.94	6548.97
1U		
2/27/2008	37.81	6548.41
8/5/2008	36.36	6549.86
8/6/2008	36.36	6549.86
12/2/2008	37.54	6548.68
1V		
8/5/2008	34.81	6547.19
8/6/2008	34.81	6547.19
12/2/2008	36.21	6545.79
B		
1/2/2008	39.20	6531.70
1/7/2008	38.96	6531.94
1/14/2008	39.33	6531.57
1/21/2008	39.12	6531.78
1/28/2008	39.10	6531.80
2/4/2008	39.13	6531.77
2/11/2008	39.18	6531.72
2/18/2008	39.40	6531.50
2/25/2008	39.40	6531.50
3/3/2008	39.57	6531.33
3/10/2008	39.51	6531.39
3/17/2008	39.47	6531.43
3/24/2008	39.47	6531.43
3/31/2008	39.55	6531.35
4/7/2008	39.55	6531.35
4/14/2008	39.70	6531.20
4/21/2008	39.68	6531.22
4/28/2008	39.79	6531.11
5/5/2008	39.78	6531.12
5/12/2008	39.75	6531.15
5/19/2008	39.90	6531.00
5/27/2008	40.09	6530.81
6/2/2008	40.15	6530.75
6/10/2008	40.15	6530.75
6/15/2008	40.45	6530.45
6/17/2008	40.27	6530.63
6/23/2008	40.21	6530.69
6/30/2008	40.40	6530.50
7/7/2008	40.29	6530.61
7/14/2008	40.47	6530.43
7/21/2008	40.37	6530.53
7/28/2008	40.12	6530.78
8/4/2008	39.90	6531.00
8/11/2008	39.50	6531.40
8/18/2008	39.22	6531.68
8/25/2008	39.09	6531.81
9/2/2008	39.02	6531.88
9/8/2008	38.65	6532.25
9/15/2008	38.54	6532.36
9/22/2008	38.27	6532.63
9/29/2008	38.36	6532.54
10/6/2008	38.34	6532.56
10/13/2008	38.29	6532.61
10/20/2008	38.02	6532.88
10/27/2008	38.00	6532.90
11/3/2008	37.50	6533.40
11/10/2008	37.30	6533.60
11/17/2008	37.01	6533.89
11/24/2008	36.72	6534.18
12/1/2008	36.46	6534.44
12/8/2008	35.86	6535.04
12/15/2008	35.71	6535.19
12/22/2008	35.07	6535.83
12/29/2008	35.33	6535.57
B1		
12/3/2008	40.52	6615.92
B3		
7/14/2008	68.00	6590.98
B4		
7/14/2008	64.98	6597.39
B5		
7/14/2008	57.60	6607.48
B7		
7/14/2008	45.88	6625.81
B10		
7/14/2008	48.91	6527.86
B11		
7/14/2008	53.00	6612.94
B12		
6/17/2008	43.60	6529.42
12/3/2008	42.28	6530.74
B13		
6/17/2008	37.43	6532.61
12/3/2008	37.19	6532.85

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
BA		
1/2/2008	41.15	6530.43
1/7/2008	40.83	6530.75
1/14/2008	41.21	6530.37
1/21/2008	40.88	6530.70
1/28/2008	40.94	6530.64
2/4/2008	40.95	6530.63
2/11/2008	41.10	6530.48
2/18/2008	41.22	6530.36
2/25/2008	41.20	6530.38
3/3/2008	41.35	6530.23
3/10/2008	41.22	6530.36
3/17/2008	40.58	6531.00
3/24/2008	41.12	6530.46
3/31/2008	41.25	6530.33
4/7/2008	41.30	6530.28
4/14/2008	41.41	6530.17
4/21/2008	41.45	6530.13
4/28/2008	41.75	6529.83
5/5/2008	41.85	6529.73
5/12/2008	42.03	6529.55
5/19/2008	42.22	6529.36
5/27/2008	42.61	6528.97
6/2/2008	42.30	6529.28
6/10/2008	42.53	6529.05
6/15/2008	42.33	6529.25
6/23/2008	42.16	6529.42
6/30/2008	42.50	6529.08
7/7/2008	42.36	6529.22
7/14/2008	43.12	6528.46
7/21/2008	43.23	6528.35
7/28/2008	43.05	6528.53
8/4/2008	43.18	6528.40
8/11/2008	43.73	6527.85
8/18/2008	42.45	6529.13
8/25/2008	42.85	6528.73
9/2/2008	42.85	6528.73
9/8/2008	42.56	6529.02
9/15/2008	42.62	6528.96
9/22/2008	42.23	6529.35
9/29/2008	42.22	6529.36
10/6/2008	42.28	6529.30
10/13/2008	42.51	6529.07
10/20/2008	42.32	6529.26
10/27/2008	41.90	6529.68
11/3/2008	41.36	6530.22
11/10/2008	41.21	6530.37
11/17/2008	41.09	6530.49
11/24/2008	40.87	6530.71
12/1/2008	40.66	6530.92
12/8/2008	40.18	6531.40
12/15/2008	40.38	6531.20
12/22/2008	39.65	6531.93
12/29/2008	39.95	6531.63
BC		
6/17/2008	42.34	6532.27
12/3/2008	43.30	6531.31
C1		
10/27/2008	34.94	6621.83
C2		
10/27/2008	30.22	6629.94
C5		
10/24/2008	31.32	6639.82
C6		
6/17/2008	46.90	6624.01
C7		
6/17/2008	46.40	6624.11
C8		
6/17/2008	46.00	6625.80
C9		
6/17/2008	44.91	6626.51
C10		
6/17/2008	45.34	6627.05
C11		
6/17/2008	39.22	6627.38
C12		
6/17/2008	37.34	6543.21
D1		
3/10/2008	41.76	6616.47
7/2/2008	43.11	6615.12
DA3		
7/14/2008	54.10	6520.26
DC		
6/17/2008	40.18	6531.13
12/3/2008	39.98	6531.33
DD		
5/21/2008	53.90	6538.69
DD2		
6/4/2008	51.92	6538.08
12/4/2008	51.63	6538.37
DZ		
1/2/2008	51.00	6539.53
1/7/2008	50.28	6540.25
1/14/2008	50.94	6539.59
1/21/2008	51.51	6539.02
1/28/2008	50.40	6540.13
2/4/2008	50.37	6540.16
2/11/2008	50.67	6539.86
2/18/2008	50.71	6539.82
2/25/2008	50.66	6539.87
3/3/2008	50.69	6539.84
3/10/2008	50.80	6539.73
3/17/2008	50.25	6540.28
3/24/2008	50.15	6540.38
3/31/2008	49.94	6540.59
4/7/2008	50.25	6540.28
4/14/2008	50.50	6540.03
4/21/2008	50.32	6540.21
4/28/2008	50.61	6539.92
5/5/2008	50.59	6539.94
5/12/2008	50.40	6540.13
5/19/2008	50.70	6539.83
5/27/2008	51.02	6539.51
6/2/2008	50.70	6539.83
6/10/2008	50.93	6539.60
6/15/2008	50.56	6539.97
6/17/2008	50.84	6539.69
6/23/2008	50.57	6539.96
6/30/2008	50.74	6539.79
7/7/2008	50.54	6539.99
7/14/2008	52.30	6538.23
7/21/2008	52.61	6537.92
7/28/2008	52.87	6537.66
8/4/2008	53.60	6536.93
8/11/2008	51.80	6538.73
8/18/2008	51.41	6539.12
8/25/2008	51.30	6539.23
9/2/2008	51.18	6539.35
9/8/2008	51.03	6539.50
9/15/2008	51.14	6539.39
9/22/2008	50.82	6539.71
9/29/2008	50.85	6539.68
10/6/2008	51.10	6539.43
10/13/2008	51.43	6539.10
10/20/2008	51.51	6539.02
10/27/2008	51.50	6539.03
11/3/2008	51.30	6539.23
11/10/2008	51.20	6539.33
11/17/2008	51.70	6538.83
11/24/2008	51.61	6538.92
12/1/2008	51.57	6538.96
12/8/2008	50.82	6539.71
12/15/2008	51.10	6539.43
12/22/2008	50.62	6539.91
12/29/2008	51.15	6539.38
F		
3/10/2008	31.70	6533.12
9/8/2008	33.00	6531.82
12/3/2008	32.22	6532.60
FB		
3/10/2008	34.84	6530.82
9/8/2008	36.04	6529.62
GA		
12/3/2008	34.92	6527.87
GF		
12/3/2008	35.21	6530.80

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
GH		
3/10/2008	33.40	6529.36
9/8/2008	34.94	6527.82
12/3/2008	34.02	6528.74
GK		
4/22/2008	35.65	6531.11
12/3/2008	35.60	6531.16
GN		
4/22/2008	37.55	6530.42
10/27/2008	39.16	6528.81
GQ		
12/3/2008	1.38	6566.78
GV		
4/22/2008	51.00	6526.38
10/27/2008	52.56	6524.82
12/3/2008	50.91	6526.47
GW1		
12/3/2008	32.05	6533.22
GW2		
12/3/2008	32.26	6533.82
I		
6/16/2008	34.65	6532.55
K4		
1/14/2008	64.66	6537.36
4/21/2008	64.22	6537.80
7/15/2008	65.98	6536.04
10/22/2008	68.00	6534.02
K5		
1/14/2008	58.90	6542.83
4/21/2008	60.83	6540.90
7/15/2008	61.31	6540.42
10/22/2008	65.10	6536.63
K7		
1/14/2008	57.44	6544.09
4/21/2008	59.64	6541.89
7/15/2008	61.10	6540.43
10/22/2008	62.80	6538.73
K8		
1/14/2008	56.40	6544.09
4/21/2008	56.24	6544.25
7/15/2008	57.10	6543.39
10/22/2008	58.33	6542.16
K9		
1/14/2008	62.00	6538.34
4/21/2008	61.48	6538.86
7/15/2008	59.90	6540.44
10/22/2008	62.00	6538.34
K10		
1/14/2008	70.90	6529.91
4/21/2008	68.98	6531.83
7/15/2008	70.48	6530.33
10/22/2008	69.80	6531.01
K11		
1/14/2008	68.20	6532.41
4/21/2008	63.71	6536.90
7/15/2008	65.10	6535.51
10/22/2008	66.08	6534.53
KEB		
4/22/2008	23.61	6546.12
7/15/2008	24.38	6545.35
KF		
4/22/2008	27.74	6542.47
7/16/2008	28.76	6541.45
KZ		
1/2/2008	30.98	6540.74
1/7/2008	30.56	6541.16
1/14/2008	30.95	6540.77
1/21/2008	30.50	6541.22
1/28/2008	30.72	6541.00
2/4/2008	30.31	6541.41
2/11/2008	30.36	6541.36
2/18/2008	30.45	6541.27
2/25/2008	30.35	6541.37
3/3/2008	30.47	6541.25
3/10/2008	30.42	6541.30
3/17/2008	30.15	6541.57
3/24/2008	30.28	6541.44
3/31/2008	30.15	6541.57
4/7/2008	30.11	6541.61
4/14/2008	30.22	6541.50
4/21/2008	30.14	6541.58
4/22/2008	30.16	6541.56
4/28/2008	30.38	6541.34
5/5/2008	30.30	6541.42
5/12/2008	30.26	6541.46
5/19/2008	30.50	6541.22
5/27/2008	30.71	6541.01
6/2/2008	30.85	6540.87
6/10/2008	30.82	6540.90
6/15/2008	30.01	6541.71
6/23/2008	29.98	6541.74
6/30/2008	31.15	6540.57
7/7/2008	30.98	6540.74
7/14/2008	31.20	6540.52
7/16/2008	31.30	6540.42
7/21/2008	31.35	6540.37
7/28/2008	31.46	6540.26
8/4/2008	31.65	6540.07
8/11/2008	31.65	6540.07
8/18/2008	31.63	6540.09
8/25/2008	31.74	6539.98
9/2/2008	31.80	6539.92
9/8/2008	31.84	6539.88
9/15/2008	31.90	6539.82
9/22/2008	31.74	6539.98
9/29/2008	31.61	6540.11
10/6/2008	31.75	6539.97
10/13/2008	31.85	6539.87
10/20/2008	31.89	6539.83
10/27/2008	32.10	6539.62
11/3/2008	31.81	6539.91
11/10/2008	31.68	6540.04
11/17/2008	31.80	6539.92
11/24/2008	31.61	6540.11
12/1/2008	31.46	6540.26
12/8/2008	31.19	6540.53
12/15/2008	31.36	6540.36
12/22/2008	31.00	6540.72
12/29/2008	31.14	6540.58
L		
1/14/2008	47.86	6527.11
4/9/2008	42.96	6532.01
7/14/2008	50.34	6524.63
10/21/2008	47.70	6527.27
L5		
1/14/2008	30.00	6546.07
4/9/2008	52.18	6523.89
7/14/2008	23.60	6552.47
10/21/2008	58.00	6518.07
L6		
1/14/2008	27.12	6547.52
4/9/2008	26.49	6548.15
7/14/2008	26.15	6548.49
10/22/2008	27.50	6547.14
L7		
1/14/2008	48.56	6528.05
4/9/2008	51.60	6525.01
7/14/2008	38.65	6537.96
10/21/2008	46.68	6529.93
L8		
1/14/2008	71.00	6505.49
4/9/2008	55.62	6520.87
7/14/2008	54.50	6521.99
10/21/2008	54.00	6522.49
L9		
1/14/2008	54.18	6523.05
4/9/2008	50.47	6526.76
7/14/2008	47.64	6529.59
10/21/2008	46.30	6530.93
L10		
1/14/2008	48.70	6528.13
4/9/2008	47.61	6529.22
7/14/2008	46.04	6530.79
10/21/2008	45.98	6530.85

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
M3		
7/14/2008	60.23	6515.87
M5		
10/27/2008	44.90	6530.44
12/3/2008	44.17	6531.17
M6		
12/3/2008	64.42	6510.62
M7		
12/3/2008	59.36	6513.49
M9		
3/5/2008	63.86	6512.95
12/3/2008	65.05	6511.76
M10		
12/3/2008	56.60	6516.76
M16		
4/9/2008	65.70	6504.89
5/21/2008	65.80	6504.79
8/28/2008	63.51	6507.08
8/28/2008	63.51	6507.08
12/8/2008	63.41	6507.18
MA		
12/3/2008	44.63	6527.59
MC		
12/3/2008	46.75	6525.31
MF		
12/3/2008	50.22	6522.06
MH		
12/3/2008	54.56	6519.36
MJ		
12/3/2008	54.10	6518.84
MK		
12/3/2008	59.90	6513.89
ML		
11/3/2008	47.70	6525.00
12/3/2008	53.18	6519.52
MO		
3/10/2008	64.24	6508.65
4/9/2008	65.57	6507.32
4/10/2008	68.50	6504.39
5/21/2008	68.20	6504.69
8/24/2008	65.50	6507.39
8/28/2008	68.30	6504.59
8/28/2008	68.30	6504.59
12/8/2008	65.30	6507.59
MQ		
3/5/2008	64.94	6509.36
12/3/2008	66.30	6508.00
MR		
4/9/2008	66.14	6500.12
5/21/2008	68.40	6497.86
8/24/2008	68.10	6498.16
11/3/2008	7.30	6558.96
12/8/2008	67.67	6498.59
MS		
4/9/2008	66.00	6504.67
5/21/2008	65.90	6504.77
8/28/2008	65.80	6504.87
8/28/2008	65.80	6504.87
12/8/2008	62.95	6507.72
MT		
11/3/2008	60.90	6506.53
MU		
6/17/2008	37.84	6536.35
12/3/2008	37.52	6536.67
MV		
12/8/2008	67.55	6502.23
MW		
11/3/2008	64.20	6510.71
12/3/2008	68.21	6506.70
MX		
3/5/2008	53.05	6515.56
MY		
3/5/2008	58.36	6515.20
11/3/2008	59.34	6514.22
MZ		
12/3/2008	67.36	6509.28
N		
11/3/2008	44.48	6539.49
NA		
10/28/2008	49.67	6541.31
NB		
10/28/2008	48.31	6544.99
NC		
11/3/2008	45.06	6540.77
12/3/2008	45.42	6540.41
ND		
5/19/2008	46.38	6546.51
O		
10/28/2008	43.61	6544.22
P		
5/5/2008	48.56	6538.70
10/8/2008	44.71	6542.55
P2		
2/5/2008	58.31	6531.48
P3		
3/5/2008	49.58	6540.37
10/22/2008	60.28	6529.67
P4		
3/5/2008	46.68	6542.84
10/22/2008	56.14	6533.38
Q		
5/19/2008	47.31	6546.51
R		
5/19/2008	42.00	6562.03
S		
12/3/2008	46.85	6534.32

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
S1		
1/2/2008	45.02	6530.17
1/7/2008	44.81	6530.38
1/14/2008	45.10	6530.09
1/21/2008	45.23	6529.96
1/28/2008	45.44	6529.75
2/4/2008	45.54	6529.65
2/11/2008	46.65	6528.54
2/18/2008	45.71	6529.48
2/25/2008	45.49	6529.70
3/3/2008	45.41	6529.78
3/10/2008	45.40	6529.79
3/17/2008	45.29	6529.90
3/24/2008	45.28	6529.91
3/31/2008	45.30	6529.89
4/7/2008	45.23	6529.96
4/14/2008	45.21	6529.98
4/21/2008	45.09	6530.10
4/28/2008	45.06	6530.13
5/5/2008	44.98	6530.21
5/12/2008	44.55	6530.64
5/19/2008	44.50	6530.69
5/27/2008	44.56	6530.63
6/2/2008	44.40	6530.79
6/10/2008	44.22	6530.97
6/15/2008	44.23	6530.96
6/23/2008	44.38	6530.81
6/30/2008	44.35	6530.84
7/7/2008	44.12	6531.07
7/14/2008	44.14	6531.05
7/21/2008	44.10	6531.09
7/28/2008	44.12	6531.07
8/4/2008	44.10	6531.09
8/5/2008	44.06	6531.13
8/11/2008	44.00	6531.19
8/18/2008	43.61	6531.58
8/25/2008	44.15	6531.04
9/2/2008	44.20	6530.99
9/8/2008	44.25	6530.94
9/15/2008	44.36	6530.83
9/22/2008	44.14	6531.05
9/29/2008	43.91	6531.28
10/6/2008	43.65	6531.54
10/13/2008	43.83	6531.36
10/20/2008	43.81	6531.38
10/27/2008	43.55	6531.64
11/3/2008	43.41	6531.78
11/10/2008	43.38	6531.81
11/17/2008	43.48	6531.71
11/24/2008	43.45	6531.74
12/1/2008	43.42	6531.77
12/4/2008	43.40	6531.79
12/8/2008	43.29	6531.90
12/15/2008	43.40	6531.79
12/22/2008	43.20	6531.99
12/29/2008	43.20	6531.99
S2		
1/2/2008	43.55	6530.17
1/7/2008	43.34	6530.38
1/14/2008	43.60	6530.12
1/14/2008	43.57	6530.15
1/21/2008	43.67	6530.05
1/28/2008	43.75	6529.97
2/4/2008	43.86	6529.86
2/11/2008	43.98	6529.74
2/18/2008	44.05	6529.67
2/25/2008	43.95	6529.77
3/3/2008	43.91	6529.81
3/10/2008	43.80	6529.92
3/17/2008	43.70	6530.02
3/24/2008	43.72	6530.00
3/31/2008	43.71	6530.01
4/7/2008	43.66	6530.06
4/14/2008	43.68	6530.04
4/21/2008	43.59	6530.13
4/28/2008	43.53	6530.19
5/5/2008	43.42	6530.30
5/12/2008	43.12	6530.60
5/19/2008	43.11	6530.61
5/27/2008	43.17	6530.55
6/2/2008	43.18	6530.54
6/10/2008	43.00	6530.72
6/15/2008	43.10	6530.62
6/23/2008	43.38	6530.34
6/30/2008	43.30	6530.42
7/2/2008	43.12	6530.60
7/7/2008	43.04	6530.68
7/14/2008	43.00	6530.72
7/21/2008	42.91	6530.81
7/28/2008	43.00	6530.72
8/4/2008	43.02	6530.70
8/11/2008	42.95	6530.77
8/18/2008	42.91	6530.81
8/25/2008	43.14	6530.58
9/2/2008	43.18	6530.54
9/8/2008	43.20	6530.52
9/15/2008	43.31	6530.41
9/22/2008	43.16	6530.56
9/29/2008	43.08	6530.64
10/6/2008	42.95	6530.77
10/13/2008	43.03	6530.69
10/20/2008	42.95	6530.77
10/27/2008	42.80	6530.92
11/3/2008	42.62	6531.10
11/10/2008	42.52	6531.20
11/17/2008	42.61	6531.11
11/24/2008	42.50	6531.22
12/1/2008	42.37	6531.35
12/3/2008	42.36	6531.36
12/8/2008	42.22	6531.50
12/15/2008	42.35	6531.37
12/22/2008	42.10	6531.62
12/29/2008	42.14	6531.58
S3		
12/3/2008	44.44	6530.34
S4		
3/10/2008	45.21	6530.08
7/2/2008	44.03	6531.26
12/3/2008	43.27	6532.02
S5		
1/2/2008	50.90	6523.79
1/7/2008	50.71	6523.98
1/14/2008	51.10	6523.59
1/21/2008	51.50	6523.19
1/28/2008	51.72	6522.97
2/4/2008	51.71	6522.98
2/11/2008	51.90	6522.79
2/18/2008	51.90	6522.79
2/25/2008	51.75	6522.94
3/3/2008	51.48	6523.21
3/10/2008	51.46	6523.23
3/17/2008	51.30	6523.39
3/24/2008	51.28	6523.41
3/31/2008	51.25	6523.44
4/7/2008	50.90	6523.79
4/14/2008	51.03	6523.66
4/21/2008	50.84	6523.85
4/28/2008	50.62	6524.07
5/5/2008	50.35	6524.34
5/12/2008	50.25	6524.44
5/19/2008	50.33	6524.36
5/27/2008	50.21	6524.48
6/2/2008	50.50	6524.19
6/10/2008	49.83	6524.86
6/15/2008	50.51	6524.18
6/23/2008	50.57	6524.12
6/30/2008	50.36	6524.33
7/7/2008	50.10	6524.59
7/14/2008	50.25	6524.44
7/21/2008	50.16	6524.53
7/28/2008	50.12	6524.57
8/4/2008	50.15	6524.54
8/5/2008	50.03	6524.66
8/11/2008	49.98	6524.71
8/18/2008	49.52	6525.17
8/25/2008	49.80	6524.89
9/2/2008	49.87	6524.82
9/8/2008	48.83	6525.86
9/15/2008	49.96	6524.73
9/22/2008	49.05	6525.64
9/29/2008	48.45	6526.24
10/6/2008	48.78	6525.91
10/13/2008	49.12	6525.57
10/20/2008	49.15	6525.54
10/27/2008	48.70	6525.99
11/3/2008	49.10	6525.59
11/10/2008	49.16	6525.53
11/17/2008	49.38	6525.31
11/24/2008	49.35	6525.34
12/1/2008	49.31	6525.38
12/8/2008	49.04	6525.65
12/15/2008	49.32	6525.37
12/22/2008	48.95	6525.74
12/29/2008	49.15	6525.54
S11		
12/3/2008	31.66	6546.73
S12		
8/5/2008	48.80	6530.05
8/19/2008	48.52	6530.33
12/3/2008	47.95	6530.90
12/3/2008	47.95	6530.90
SA		
7/14/2008	71.13	6509.18
8/5/2008	69.74	6510.57
8/6/2008	69.48	6510.83
12/4/2008	59.43	6520.88

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
SB		
8/5/2008	50.13	6530.96
12/4/2008	49.34	6531.75
SD		
8/5/2008	41.50	6536.81
12/4/2008	41.50	6536.81
SD4		
8/5/2008	47.77	6531.00
12/4/2008	46.98	6531.79
SE		
8/5/2008	34.20	6543.79
12/3/2008	30.48	6547.51
SE4		
8/5/2008	47.28	6530.72
12/4/2008	46.91	6531.09
SE6		
8/5/2008	48.88	6530.12
12/3/2008	48.11	6530.89
SM		
5/19/2008	46.48	6532.26
12/3/2008	44.77	6533.97
SN		
12/3/2008	46.41	6532.85
SO		
1/2/2008	47.70	6531.09
1/7/2008	47.37	6531.42
1/14/2008	47.77	6531.02
1/21/2008	47.94	6530.85
1/28/2008	48.05	6530.74
2/4/2008	48.16	6530.63
2/11/2008	48.30	6530.49
2/18/2008	48.42	6530.37
2/25/2008	48.20	6530.59
3/3/2008	48.20	6530.59
3/10/2008	48.15	6530.64
3/17/2008	48.02	6530.77
3/24/2008	48.05	6530.74
3/31/2008	48.04	6530.75
4/7/2008	47.97	6530.82
4/14/2008	47.89	6530.90
4/21/2008	47.80	6530.99
4/28/2008	47.82	6530.97
5/5/2008	47.79	6531.00
5/12/2008	47.58	6531.21
5/19/2008	47.61	6531.18
5/19/2008	47.82	6530.97
5/27/2008	47.64	6531.15
6/2/2008	47.55	6531.24
6/10/2008	47.34	6531.45
6/15/2008	47.33	6531.46
6/23/2008	47.40	6531.39
6/30/2008	47.37	6531.42
7/7/2008	47.08	6531.71
7/14/2008	47.14	6531.65
7/21/2008	47.13	6531.66
7/28/2008	47.13	6531.66
8/4/2008	47.08	6531.71
8/11/2008	47.00	6531.79
8/18/2008	46.86	6531.93
8/25/2008	46.98	6531.81
9/2/2008	46.98	6531.81
9/8/2008	46.98	6531.81
9/15/2008	47.12	6531.67
9/22/2008	46.77	6532.02
9/29/2008	46.54	6532.25
10/6/2008	46.51	6532.28
10/13/2008	46.70	6532.09
10/20/2008	46.62	6532.17
10/27/2008	46.42	6532.37
11/3/2008	46.25	6532.54
11/10/2008	46.21	6532.58
11/17/2008	46.40	6532.39
11/24/2008	46.31	6532.48
12/1/2008	46.21	6532.58
12/8/2008	46.02	6532.77
12/15/2008	46.30	6532.49
12/22/2008	45.98	6532.81
12/29/2008	46.14	6532.65
SP		
1/2/2008	47.43	6531.23
1/7/2008	47.24	6531.42
1/14/2008	47.55	6531.11
1/21/2008	47.90	6530.76
1/28/2008	48.04	6530.62
2/4/2008	48.18	6530.48
2/11/2008	48.25	6530.41
2/18/2008	48.31	6530.35
2/25/2008	48.13	6530.53
3/3/2008	48.07	6530.59
3/10/2008	48.02	6530.64
3/17/2008	47.91	6530.75
3/24/2008	47.95	6530.71
3/31/2008	47.94	6530.72
4/7/2008	47.90	6530.76
4/14/2008	47.71	6530.95
4/21/2008	47.67	6530.99
4/28/2008	47.65	6531.01
5/5/2008	47.66	6531.00
5/12/2008	47.60	6531.06
5/19/2008	47.65	6531.01
5/27/2008	47.63	6531.03
6/2/2008	47.47	6531.19
6/10/2008	47.22	6531.44
6/15/2008	47.21	6531.45
6/23/2008	47.33	6531.33
6/30/2008	47.25	6531.41
7/7/2008	47.04	6531.62
7/14/2008	47.06	6531.60
7/21/2008	47.02	6531.64
7/28/2008	47.02	6531.64
8/4/2008	46.95	6531.71
8/11/2008	46.88	6531.78
8/18/2008	46.68	6531.98
8/25/2008	46.80	6531.86
9/2/2008	46.74	6531.92
9/8/2008	46.74	6531.92
9/15/2008	46.92	6531.74
9/22/2008	46.50	6532.16
9/29/2008	46.13	6532.53
10/6/2008	46.20	6532.46
10/13/2008	46.38	6532.28
10/20/2008	46.36	6532.30
10/27/2008	46.08	6532.58
11/3/2008	46.04	6532.62
11/10/2008	45.98	6532.68
11/17/2008	46.20	6532.46
11/24/2008	46.03	6532.63
12/1/2008	46.02	6532.64
12/8/2008	45.89	6532.77
12/15/2008	46.05	6532.61
12/22/2008	45.85	6532.81
12/29/2008	45.98	6532.68
SQ		
7/14/2008	59.67	6519.53
SS		
7/14/2008	54.00	6524.38
8/5/2008	51.20	6527.18
12/3/2008	50.00	6528.38
ST		
7/14/2008	50.32	6528.99
8/5/2008	50.58	6528.73
12/3/2008	49.71	6529.60
SUR		
7/14/2008	58.28	6522.44
SV		
7/14/2008	50.27	6528.98
SW		
5/19/2008	50.31	6530.98
SZ		
1/15/2008	38.39	6543.08
12/3/2008	38.31	6543.16
T		
3/5/2008	34.39	6544.84
10/24/2008	34.88	6544.35
T2		
9/10/2008	124.84	6539.98
T4		
9/10/2008	89.10	6568.64
T5		
9/10/2008	121.24	6536.09

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
T6		
1/16/2008	122.10	6536.67
T7		
1/16/2008	120.20	6539.47
T8		
9/10/2008	120.74	6540.87
T9		
9/10/2008	120.14	6543.81
T10		
9/10/2008	105.64	6554.32
T11		
9/12/2008	118.38	6538.43
T12		
9/16/2008	82.68	6574.55
T17		
2/13/2008	122.08	6534.83
T19		
9/16/2008	125.90	6541.86
T20		
9/16/2008	129.76	6540.93
T21		
1/16/2008	109.00	6561.00
T22		
9/16/2008	109.00	6558.19
T40		
9/16/2008	129.20	6541.07
T41		
9/10/2008	120.08	6539.88
TA		
9/10/2008	35.13	6545.17
TB		
9/10/2008	37.92	6545.65
W		
10/22/2008	48.29	6523.85
12/3/2008	47.24	6524.90
WR8		
11/10/2008	26.40	6546.20
X		
1/2/2008	24.30	6547.31
2/4/2008	23.98	6547.63
2/4/2008	23.88	6547.73
3/3/2008	23.91	6547.70
3/31/2008	23.40	6548.21
4/7/2008	23.26	6548.35
5/5/2008	22.98	6548.63
6/2/2008	24.30	6547.31
6/30/2008	24.00	6547.61
7/2/2008	23.74	6547.87
8/4/2008	24.00	6547.61
9/2/2008	25.51	6546.10
9/29/2008	26.40	6545.21
10/8/2008	26.26	6545.35
10/27/2008	26.95	6544.66
12/1/2008	25.40	6546.21
12/29/2008	25.00	6546.61
X18		
9/10/2008	39.06	6547.02

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
0482		
4/2/2008	58.50	6504.16
5/20/2008	58.20	6504.46
6/23/2008	57.80	6504.86
10/1/2008	52.80	6509.86
12/5/2008	38.00	6524.66
0483		
4/1/2008	38.26	6524.40
5/21/2008	47.80	6514.86
6/2/2008	49.10	6513.56
10/1/2008	50.70	6511.96
0490		
3/10/2008	38.15	6524.27
5/21/2008	50.00	6512.42
6/2/2008	51.00	6511.42
10/1/2008	51.10	6511.32
0491		
4/2/2008	42.93	6519.69
5/21/2008	44.59	6518.03
6/23/2008	46.30	6516.32
10/1/2008	52.70	6509.92
12/5/2008	40.10	6522.52
0496		
3/31/2008	54.51	6508.01
4/8/2008	79.70	6482.82
5/21/2008	79.80	6482.72
10/1/2008	80.80	6481.72
12/3/2008	59.83	6502.69
0497		
4/8/2008	68.40	6494.22
5/21/2008	69.70	6492.92
10/1/2008	73.00	6489.62
12/3/2008	59.14	6503.48
0498		
4/8/2008	90.80	6469.79
5/21/2008	126.60	6433.99
6/23/2008	131.30	6429.29
12/3/2008	62.62	6497.97
0688		
3/11/2008	61.39	6501.23
8/19/2008	62.26	6500.36
12/3/2008	62.40	6500.22
0802		
1/2/2008	39.60	6523.12
1/28/2008	39.50	6523.22
2/4/2008	39.41	6523.31
3/3/2008	89.19	6473.53
3/17/2008	89.17	6473.55
3/24/2008	89.25	6473.47
3/31/2008	88.27	6474.45
4/28/2008	89.21	6473.51
6/2/2008	88.20	6474.52
6/23/2008	89.20	6473.52
7/21/2008	88.75	6473.97
7/28/2008	88.18	6474.54
8/4/2008	88.20	6474.52
8/11/2008	89.50	6473.22
8/18/2008	89.15	6473.57
9/2/2008	89.24	6473.48
9/29/2008	88.10	6474.62
10/6/2008	89.25	6473.47
10/13/2008	89.22	6473.50
10/27/2008	81.08	6481.64
11/24/2008	77.45	6485.27
12/1/2008	75.70	6487.02
12/8/2008	63.65	6499.07
12/29/2008	86.10	6476.62
0804		
4/28/2008	47.00	6515.00
0844		
3/26/2008	35.20	6520.93
8/13/2008	35.28	6520.85
0845		
4/28/2008	36.04	6521.01
12/1/2008	36.54	6520.51
AW		
9/24/2008	37.06	6526.37
12/4/2008	36.20	6527.23
CW44		
3/31/2008	57.71	6503.03
4/8/2008	178.00	6382.74
5/21/2008	162.90	6397.84
10/1/2008	68.30	6492.44
12/5/2008	73.90	6486.84
Sub1		
10/9/2008	42.38	6518.62
Sub3		
4/7/2008	31.48	6525.59
10/9/2008	34.90	6522.17

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

0520

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/31/2008	53.52	6532.50
12/4/2008	52.21	6533.81

0521

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/14/2008	52.61	6531.83
3/31/2008	48.04	6536.40
7/15/2008	50.26	6534.18
10/24/2008	49.26	6535.18

0522

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/14/2008	50.54	6529.99
3/31/2008	52.32	6528.21
7/15/2008	51.58	6528.95
10/24/2008	51.19	6529.34

0538

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/31/2008	80.53	6468.41
10/1/2008	124.20	6424.74
12/4/2008	82.21	6466.73

0539

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
11/20/2008	78.90	6476.42
12/4/2008	86.77	6468.55

0540

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/8/2008	66.40	6489.51
5/20/2008	70.60	6485.31
6/25/2008	71.10	6484.81
12/4/2008	66.51	6489.40

0541

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/9/2008	96.80	6458.82
5/19/2008	99.10	6456.52
10/2/2008	105.00	6450.62
12/4/2008	93.60	6462.02

0631

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/31/2008	93.00	6448.10
4/9/2008	105.10	6436.00
12/4/2008	94.70	6446.40

0632

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/31/2008	92.56	6448.74
6/26/2008	101.80	6439.50
12/4/2008	94.16	6447.14

0633

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/8/2008	71.23	6486.33

0634

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/9/2008	74.20	6485.87
5/21/2008	73.70	6486.37
8/24/2008	75.80	6484.27
12/8/2008	71.13	6488.94

0636

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
11/17/2008	105.44	6468.00

0637

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
11/17/2008	11.43	6563.77

0638

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
10/24/2008	47.51	6538.05
12/4/2008	47.21	6538.35

0639

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/14/2008	54.32	6533.56
3/31/2008	55.50	6532.38
7/15/2008	55.04	6532.84
10/24/2008	53.74	6534.14

0640

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
10/15/2008	55.04	6524.93
12/4/2008	53.39	6526.58

0644

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/25/2008	96.00	6447.90
10/1/2008	102.20	6441.70
12/4/2008	85.95	6457.95

0646

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/1/2008	89.68	6453.67

0647

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/9/2008	110.90	6441.01
5/19/2008	112.20	6439.71
10/2/2008	112.90	6439.01
12/4/2008	106.65	6445.26

0648

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/2/2008	115.40	6432.39
4/10/2008	114.51	6433.28
12/4/2008	115.70	6432.09

0649

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/9/2008	108.90	6434.39
4/10/2008	113.54	6429.75
5/19/2008	113.50	6429.79
6/3/2008	113.54	6429.75
12/4/2008	102.82	6440.47

0650

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/4/2008	83.90	6463.21

0652

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/4/2008	86.16	6451.99

0653

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/25/2008	141.50	6403.47
10/1/2008	172.00	6372.97
12/4/2008	80.02	6464.95

0654

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/28/2008	73.80	6476.70
6/2/2008	73.60	6476.90
12/8/2008	73.26	6477.24

0655

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/2/2008	74.55	6483.63

0657

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/9/2008	103.70	6448.11
4/10/2008	103.52	6448.29
5/19/2008	105.20	6446.61
12/4/2008	104.88	6446.93

0658

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/9/2008	> 115.50	< 6434.68
6/3/2008	118.00	6432.18
12/4/2008	108.50	6441.68

0659

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/9/2008	72.30	6487.87
8/24/2008	74.20	6485.97
12/8/2008	71.11	6489.06

0682

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/2/2008	83.64	6470.33

0683

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/28/2008	91.16	6464.88
11/19/2008	93.76	6462.28

0684

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
11/24/2008	89.14	6464.14

0685

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/10/2008	97.69	6458.88
11/24/2008	101.09	6455.48
12/4/2008	100.17	6456.40

0686

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
11/17/2008	113.82	6464.98

0687

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/10/2008	96.70	6459.26
12/4/2008	99.05	6456.91

0689

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
11/24/2008	83.65	6458.37

0692

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
11/21/2008	67.14	6517.68

* Drawdown Tube Pressure, # Transducer Reading

0520 - 0692

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
0846		
3/26/2008	45.50	6503.42
8/13/2008	45.57	6503.35
12/3/2008	45.58	6503.34
0851		
12/1/2008	89.13	6457.31
0861		
11/21/2008	73.31	6486.54
0862		
1/14/2008	61.90	6494.28
4/8/2008	75.40	6480.78
5/20/2008	80.30	6475.88
10/1/2008	85.10	6471.08
12/4/2008	64.81	6491.37
0864		
5/27/2008	77.67	6469.05
11/20/2008	79.06	6467.66
0865		
4/8/2008	71.30	6485.48
10/1/2008	79.00	6477.78
0866		
4/8/2008	65.80	6492.32
5/20/2008	70.10	6488.02
0867		
11/20/2008	71.53	6484.37
12/4/2008	70.40	6485.50
0869		
3/31/2008	82.38	6462.11
10/1/2008	87.20	6457.29
12/4/2008	84.63	6459.86
0876		
12/4/2008	86.20	6458.06
0879		
12/4/2008	69.17	6475.38
0881		
4/1/2008	74.11	6490.93
4/9/2008	74.90	6490.14
5/21/2008	74.90	6490.14
8/24/2008	77.10	6487.94
8/24/2008	77.10	6487.94
12/8/2008	73.85	6491.19
0882		
11/18/2008	68.21	6492.95
0883		
4/28/2008	62.38	6494.75
11/18/2008	62.61	6494.52
0884		
4/28/2008	72.00	6494.10
11/19/2008	74.76	6491.34
0885		
4/1/2008	65.03	6499.61
11/18/2008	68.34	6496.30
12/8/2008	67.79	6496.85
0886		
4/9/2008	69.30	6495.25
8/24/2008	85.50	6479.05
12/8/2008	70.31	6494.24
0887		
1/18/2008	54.82	6512.91
4/1/2008	54.54	6513.19
0888		
4/28/2008	76.83	6480.50
11/19/2008	77.11	6480.22
12/8/2008	76.00	6481.33
0890		
4/9/2008	81.90	6476.53
5/21/2008	79.50	6478.93
8/20/2008	82.40	6476.03
8/24/2008	82.40	6476.03
12/8/2008	73.90	6484.53
0893		
11/18/2008	71.76	6492.21
12/8/2008	70.10	6493.87
0895		
11/19/2008	87.11	6466.73
0896		
11/19/2008	88.09	6467.52
0899		
6/2/2008	100.30	6470.54
0914		
5/6/2008	42.30	6599.70
0921		
5/6/2008	38.83	6585.17
0922		
5/6/2008	50.90	6570.80
0935		
11/24/2008	95.31	6462.81
0994		
3/26/2008	94.83	6460.17
4/22/2008	94.77	6460.23
5/16/2008	94.93	6460.07
6/16/2008	95.40	6459.60
7/15/2008	95.33	6459.67
9/17/2008	95.59	6459.41
10/15/2008	95.88	6459.12
11/14/2008	96.20	6458.80
0996		
4/9/2008	111.30	6441.22
5/19/2008	115.20	6437.32
12/4/2008	105.00	6447.52

* Drawdown Tube Pressure, # Transducer Reading

TABLE A.2-1 WATER LEVELS FOR CHINLE AQUIFERS

WATER LEVEL ELEVATION (FT-MSL)

3/13/2009

0457

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
7/2/2008	124.88	6446.12

0482

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/2/2008	58.50	6504.16
5/20/2008	58.20	6504.46
6/23/2008	57.80	6504.86
10/1/2008	52.80	6509.86
12/5/2008	38.00	6524.66

0483

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/1/2008	38.26	6524.40
5/21/2008	47.80	6514.86
6/2/2008	49.10	6513.56
10/1/2008	50.70	6511.96

0493

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2008	104.90	6455.38
6/2/2008	116.76	6443.52
6/23/2008	117.06	6443.22
10/1/2008	113.00	6447.28
12/5/2008	184.50	6375.78
12/23/2008	183.50	6376.78

0494

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
2/5/2008	35.84	6524.30
6/2/2008	43.11	6517.03
12/5/2008	36.25	6523.89

0498

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
4/8/2008	90.80	6469.79
5/21/2008	126.60	6433.99
6/23/2008	131.30	6429.29
12/3/2008	62.62	6497.97

0538

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/31/2008	80.53	6468.41
10/1/2008	124.20	6424.74
12/4/2008	82.21	6466.73

0539

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
11/20/2008	78.90	6476.42
12/4/2008	86.77	6468.55

0653

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/25/2008	141.50	6403.47
10/1/2008	172.00	6372.97
12/4/2008	80.02	6464.95

0850

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/4/2008	55.70	6493.45

0853

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/23/2008	82.90	6458.48
12/4/2008	83.00	6458.38

0859

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/23/2008	0.00	6552.76
12/4/2008	70.75	6482.01

0927

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
10/8/2008	160.00	6435.00

0929

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	39.70	6552.87
2/4/2008	39.50	6553.07
2/6/2008	40.04	6552.53
3/3/2008	40.08	6552.49
3/31/2008	65.30	6527.27
5/5/2008	49.65	6542.92
6/2/2008	55.50	6537.07
6/4/2008	53.04	6539.53
6/30/2008	56.15	6536.42
8/4/2008	41.20	6551.37
9/2/2008	52.28	6540.29
9/29/2008	55.70	6536.87
10/27/2008	49.70	6542.87
12/1/2008	45.50	6547.07
12/4/2008	45.92	6546.65
12/29/2008	45.30	6547.27

0930

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/4/2008	127.19	6471.35
12/4/2008	128.65	6469.89

0931

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/4/2008	72.31	6538.25
12/4/2008	65.87	6544.69

0933

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
3/4/2008	78.51	6522.00
3/10/2008	128.83	6471.68
3/24/2008	153.08	6447.43
3/31/2008	150.70	6449.81
4/7/2008	70.30	6530.21
4/14/2008	65.68	6534.83
4/21/2008	61.30	6539.21
5/5/2008	62.40	6538.11
5/12/2008	62.85	6537.66
5/19/2008	62.70	6537.81
5/27/2008	62.41	6538.10
6/10/2008	255.53	6344.98
6/16/2008	71.33	6529.18
6/23/2008	69.19	6531.32
6/30/2008	67.80	6532.71
7/7/2008	66.23	6534.28
7/14/2008	64.40	6536.11
7/21/2008	61.63	6538.88
7/28/2008	55.96	6544.55
8/4/2008	54.80	6545.71
8/11/2008	65.98	6534.53
8/18/2008	65.06	6535.45
8/25/2008	65.20	6535.31
9/8/2008	63.45	6537.06
9/15/2008	63.05	6537.46
9/22/2008	65.33	6535.18
9/29/2008	67.15	6533.36
10/13/2008	63.62	6536.89
10/27/2008	62.31	6538.20
11/17/2008	58.25	6542.26
11/24/2008	57.84	6542.67
12/1/2008	58.50	6542.01
12/8/2008	200.00	6400.51
12/15/2008	58.60	6541.91
12/22/2008	57.80	6542.71
12/29/2008	57.83	6542.68

0934

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	34.37	6551.22
2/4/2008	34.22	6551.37
2/6/2008	34.40	6551.19
3/3/2008	34.64	6550.95
3/31/2008	58.40	6527.19
5/5/2008	44.08	6541.51
6/2/2008	50.45	6535.14
6/4/2008	46.40	6539.19
6/30/2008	51.10	6534.49
8/4/2008	35.70	6549.89
9/2/2008	45.85	6539.74
9/29/2008	49.20	6536.39
10/27/2008	43.15	6542.44
12/1/2008	39.05	6546.54
12/4/2008	39.57	6546.02
12/29/2008	39.15	6546.44

0944

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	37.31	6551.30
2/4/2008	37.28	6551.33
3/3/2008	37.55	6551.06
3/31/2008	30.90	6557.71
5/5/2008	47.10	6541.51
6/2/2008	53.85	6534.76
6/30/2008	52.90	6535.71
8/4/2008	28.90	6559.71
9/29/2008	48.45	6540.16
12/1/2008	12.00	6576.61

ACW

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
9/24/2008	115.50	6448.30
12/4/2008	133.00	6430.80

AW

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
9/24/2008	37.06	6526.37
12/4/2008	36.20	6527.23

CE1

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
6/24/2008	48.25	6521.94
12/4/2008	47.88	6522.31

* Drawdown Tube Pressure, # Transducer Reading

0457 - CE1

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

CE2

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	81.58	6494.77
2/4/2008	82.70	6493.65
2/6/2008	81.67	6494.68
3/3/2008	113.40	6462.95
3/31/2008	80.18	6496.17
5/5/2008	80.60	6495.75
6/2/2008	75.60	6500.75
6/30/2008	78.00	6498.35
7/17/2008	78.62	6497.73
8/4/2008	80.40	6495.95
9/2/2008	78.17	6498.18
9/29/2008	78.00	6498.35
10/27/2008	80.20	6496.15
12/1/2008	80.30	6496.05
12/29/2008	71.96	6504.39

CE5

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	46.55	6522.00
2/4/2008	46.42	6522.13
2/6/2008	46.08	6522.47
3/3/2008	46.81	6521.74
3/31/2008	64.40	6504.15
5/5/2008	43.80	6524.75
6/2/2008	51.28	6517.27
6/30/2008	49.60	6518.95
7/17/2008	48.71	6519.84
8/4/2008	26.50	6542.05
9/2/2008	49.55	6519.00
9/29/2008	50.05	6518.50
10/27/2008	44.00	6524.55
12/1/2008	47.20	6521.35
12/29/2008	46.03	6522.52

CE6

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	67.98	6497.21
2/4/2008	66.80	6498.39
2/6/2008	63.65	6501.54
3/3/2008	68.08	6497.11
3/31/2008	65.78	6499.41
5/5/2008	70.65	6494.54
6/2/2008	124.80	6440.39
6/30/2008	125.20	6439.99
7/17/2008	125.22	6439.97
8/4/2008	125.10	6440.09
9/2/2008	125.00	6440.19
9/29/2008	125.60	6439.59
10/27/2008	125.25	6439.94
12/1/2008	124.90	6440.29
12/29/2008	124.95	6440.24

CE7

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	41.80	6534.19
2/4/2008	41.41	6534.58
2/6/2008	41.81	6534.18
3/3/2008	41.91	6534.08
3/31/2008	40.20	6535.79
5/5/2008	44.85	6531.14
6/2/2008	47.70	6528.29
6/30/2008	42.90	6533.09
8/4/2008	48.30	6527.69
9/2/2008	44.44	6531.55
9/29/2008	42.50	6533.49
10/20/2008	44.51	6531.48
10/27/2008	42.90	6533.09
12/1/2008	44.75	6531.24
12/4/2008	44.35	6531.64
12/29/2008	43.80	6532.19

CE8

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
10/20/2008	46.21	6523.49
12/4/2008	42.11	6527.59

CE9

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
10/20/2008	42.10	6521.02
12/5/2008	37.20	6525.92

CE10

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
10/20/2008	50.20	6520.66
12/4/2008	46.57	6524.29

CE11

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	77.56	6487.86
2/4/2008	82.10	6483.32
2/6/2008	77.60	6487.82
3/3/2008	88.06	6477.36
3/31/2008	81.80	6483.62
5/5/2008	88.15	6477.27
6/2/2008	85.75	6479.67
6/30/2008	86.10	6479.32
7/17/2008	87.40	6478.02
8/4/2008	85.20	6480.22
9/2/2008	84.72	6480.70
9/29/2008	85.60	6479.82
10/27/2008	86.80	6478.62
12/1/2008	80.60	6484.82
12/29/2008	78.10	6487.32

CE12

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	62.56	6509.67
2/4/2008	61.53	6510.70
2/6/2008	60.38	6511.85
3/3/2008	62.74	6509.49
3/31/2008	61.70	6510.53
5/5/2008	60.16	6512.07
6/2/2008	61.10	6511.13
6/30/2008	61.20	6511.03
7/17/2008	62.75	6509.48
8/4/2008	63.40	6508.83
9/2/2008	61.72	6510.51
9/29/2008	61.10	6511.13
10/27/2008	61.60	6510.63
12/1/2008	58.90	6513.33
12/29/2008	57.40	6514.83

CE13

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
10/20/2008	45.19	6529.45
12/4/2008	43.75	6530.89

CW1

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	129.40	6455.82
2/4/2008	156.10	6429.12
2/4/2008	156.00	6429.22
3/3/2008	156.05	6429.17
3/31/2008	155.51	6429.71
5/5/2008	165.90	6419.32
6/2/2008	168.40	6416.82
6/4/2008	167.20	6418.02
6/30/2008	168.40	6416.82
8/4/2008	116.30	6468.92
9/2/2008	155.70	6429.52
9/29/2008	154.55	6430.67
10/27/2008	170.60	6414.62
12/1/2008	173.60	6411.62
12/29/2008	168.85	6416.37

CW2

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	142.39	6443.09
2/4/2008	156.45	6429.03
2/4/2008	156.50	6428.98
3/3/2008	156.91	6428.57
3/31/2008	153.15	6432.33
5/5/2008	165.30	6420.18
6/2/2008	167.70	6417.78
6/4/2008	166.20	6419.28
6/30/2008	167.65	6417.83
8/4/2008	117.50	6467.98
8/11/2008	162.28	6423.20
9/2/2008	143.22	6442.26
9/29/2008	141.90	6443.58
10/27/2008	169.80	6415.68
12/1/2008	172.55	6412.93
12/29/2008	167.10	6418.38

CW2-1

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/4/2008	48.02	6537.46

CW3

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	56.60	6530.58
2/4/2008	56.59	6530.59
2/4/2008	56.38	6530.80
3/3/2008	56.65	6530.53
3/31/2008	57.20	6529.98
5/5/2008	57.05	6530.13
6/2/2008	58.85	6528.33
6/4/2008	58.38	6528.80
6/30/2008	58.85	6528.33
8/4/2008	57.40	6529.78
9/2/2008	58.28	6528.90
9/29/2008	58.85	6528.33
10/27/2008	57.35	6529.83
12/1/2008	56.80	6530.38
12/29/2008	56.45	6530.73

CW4R

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
1/2/2008	10.45	6558.28
3/31/2008	1.70	6567.03
5/5/2008	12.35	6556.38
6/2/2008	27.00	6541.73
6/30/2008	21.60	6547.13
8/4/2008	12.00	6556.73
10/27/2008	12.00	6556.73
12/1/2008	4.95	6563.78
12/29/2008	2.60	6566.13

CW6

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
12/4/2008	121.48	6454.16

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
CW9		
6/25/2008	63.70	6528.13
12/4/2008	62.70	6529.13
CW14		
1/2/2008	6.75	6559.34
5/5/2008	27.85	6538.24
10/27/2008	15.00	6551.09
CW15		
10/14/2008	100.04	6451.28
12/4/2008	102.12	6449.20
CW17		
10/10/2008	50.93	6538.39
12/4/2008	50.82	6538.50
CW18		
1/2/2008	7.55	6565.10
2/4/2008	7.46	6565.19
3/3/2008	7.95	6564.70
3/31/2008	14.80	6557.85
4/15/2008	20.22	6552.43
5/5/2008	20.40	6552.25
6/2/2008	38.31	6534.34
6/17/2008	25.10	6547.55
6/30/2008	28.56	6544.09
8/4/2008	9.00	6563.65
9/2/2008	25.15	6547.50
9/29/2008	31.85	6540.80
10/27/2008	21.12	6551.53
12/1/2008	17.90	6554.75
12/4/2008	18.10	6554.55
12/29/2008	17.80	6554.85
CW24		
10/10/2008	50.93	6537.74
12/4/2008	50.97	6537.70
CW25		
1/2/2008	5.33	6561.87
2/4/2008	3.59	6563.61
3/31/2008	2.85	6564.35
5/5/2008	5.33	6561.87
CW26		
10/14/2008	116.30	6445.13
12/4/2008	107.52	6453.91
CW27		
10/14/2008	74.66	6488.22
12/4/2008	70.55	6492.33
CW28		
1/2/2008	91.40	6480.28
2/4/2008	92.91	6478.77
3/3/2008	92.85	6478.83
3/31/2008	91.73	6479.95
4/15/2008	93.58	6478.10
5/5/2008	95.25	6476.43
6/2/2008	98.15	6473.53
6/17/2008	97.28	6474.40
6/30/2008	97.57	6474.11
8/4/2008	91.45	6480.23
9/2/2008	96.11	6475.57
9/29/2008	95.00	6476.68
10/27/2008	97.80	6473.88
12/1/2008	99.55	6472.13
12/4/2008	99.17	6472.51
12/29/2008	98.70	6472.98
CW29		
3/31/2008	93.28	6458.94
4/8/2008	162.30	6389.92
5/20/2008	195.40	6356.82
6/23/2008	98.20	6454.02
12/4/2008	95.90	6456.32
CW31		
10/14/2008	87.76	6472.50
12/4/2008	88.10	6472.16
CW32		
10/13/2008	140.04	6427.24
12/4/2008	140.10	6427.18
CW33		
10/13/2008	106.00	6468.89
12/4/2008	106.10	6468.79
CW35		
10/13/2008	53.11	6538.06
12/4/2008	52.81	6538.36
CW36		
10/14/2008	79.22	6471.87
12/4/2008	79.55	6471.54
CW37		
10/15/2008	65.03	6486.14
12/4/2008	64.71	6486.46
CW39		
10/15/2008	66.21	6484.50
12/4/2008	66.68	6484.03
CW40		
10/15/2008	42.40	6536.54
12/4/2008	23.25	6555.69
CW41		
10/14/2008	111.10	6444.31
12/4/2008	101.60	6453.81
CW42		
3/31/2008	85.50	6463.28
10/1/2008	200.20	6348.58
12/4/2008	87.60	6461.18
CW43		
12/4/2008	69.95	6478.84
CW44		
3/31/2008	57.71	6503.03
4/8/2008	178.00	6382.74
5/21/2008	162.90	6397.84
10/1/2008	68.30	6492.44
12/5/2008	73.90	6486.84
CW45		
3/31/2008	56.93	6504.38
4/8/2008	156.90	6404.41
5/21/2008	162.70	6398.61
12/5/2008	63.70	6497.61
CW50		
10/13/2008	51.28	6537.28
12/4/2008	50.86	6537.70
CW52		
10/13/2008	70.45	6521.95
12/4/2008	70.25	6522.15
CW53		
4/2/2008	128.90	6436.04
5/21/2008	116.30	6448.64
6/2/2008	111.10	6453.84
10/1/2008	111.30	6453.64
12/5/2008	12.94	6552.00
CW54		
10/20/2008	28.19	6530.36
12/5/2008	26.30	6532.25
CW55		
10/20/2008	41.51	6522.65
12/5/2008	40.95	6523.21
WCW		
4/28/2008	126.60	6440.77
10/14/2008	121.36	6446.01
12/4/2008	134.50	6432.87
WR25		
10/10/2008	48.30	6538.16
12/4/2008	48.28	6538.18

* Drawdown Tube Pressure, # Transducer Reading

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

WATER LEVEL ELEVATION (FT-MSL) 3/13/2009

Date	Water Level (ft-MP)	Water Level Elevation (ft+MSL)
0534		
12/4/2008	118.12	6434.45
0535		
12/4/2008	114.80	6425.20
0806R		
3/5/2008	134.71	6432.29
0822		
2/13/2008	135.60	6432.40
0907		
3/5/2008	113.16	6432.44
12/4/2008	116.90	6428.70
0928		
3/5/2008	164.40	6433.20
9/17/2008	171.93	6425.67
12/4/2008	155.15	6442.45
12/22/2008	169.30	6428.30
0938		
3/5/2008	136.30	6432.50
12/5/2008	140.46	6428.34
12/17/2008	136.50	6432.30
0943		
1/2/2008	129.20	6426.71
2/4/2008	129.79	6426.12
3/3/2008	128.83	6427.08
3/5/2008	128.64	6427.27
3/31/2008	129.70	6426.21
5/5/2008	131.10	6424.81
6/2/2008	131.60	6424.31
6/30/2008	132.85	6423.06
8/4/2008	133.60	6422.31
9/29/2008	131.10	6424.81
10/27/2008	193.60	6362.31
12/1/2008	133.30	6422.61
12/1/2008	138.80	6417.11
12/29/2008	133.30	6422.61
0949		
2/13/2008	130.60	6431.70
0951		
1/2/2008	146.37	6427.33
2/4/2008	146.66	6427.04
3/3/2008	146.15	6427.55
3/5/2008	146.19	6427.51
3/31/2008	147.10	6426.60
5/5/2008	148.30	6425.40
6/2/2008	148.73	6424.97
6/30/2008	150.30	6423.40
9/2/2008	151.60	6422.10
9/4/2008	151.05	6422.65
9/29/2008	150.80	6422.90
10/27/2008	147.10	6426.60
12/1/2008	152.10	6421.60
12/1/2008	150.00	6423.70
12/29/2008	150.28	6423.42
0986		
8/22/2008	124.00	6426.00
8/23/2008	124.00	6426.00
0991		
8/26/2008	126.82	6424.18

* Drawdown Tube Pressure, # Transducer Reading

APPENDIX B
WATER QUALITY

TABLE OF CONTENTS

GROUND-WATER MONITORING FOR HOMESTAKE'S GRANTS PROJECT

APPENDIX B

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	9/29/2008	ENER	---	---	---	---	---	---	573	5210	9950	* 12240	---
CN3	9/29/2008	ENER	---	---	---	---	---	---	1500	8770	18600	* 22670	---
CS7	1/24/2008	ENER	7.00	30.1	16.4	3290	1550	178	765	4510	9020	* 12800	0.997
EC4	9/30/2008	ENER	5.00	48.3	22.9	5930	3540	449	1320	7080	16100	* 20080	1.02
ED1	1/23/2008	ENER	---	---	---	---	---	---	202	1220	3240	* 5190	---
EE2	9/30/2008	ENER	< 2.00	< 0.700	19.1	5780	1800	1920	828	6050	15100	* 19160	1.04
EG3	10/1/2008	ENER	< 5.00	< 2.00	19.0	5340	2220	2110	560	5140	14000	* 17300	1.02
EG10	8/23/2008	ENER	3.00	1.80	6.70	1720	730	493	293	1660	4390	* 5230	1.06
EG12	9/30/2008	ENER	7.00	3.30	5.90	1410	651	314	296	1570	3830	* 5550	0.999
EH11	9/30/2008	ENER	3.00	0.900	13.9	3730	1460	1540	379	3410	9800	* 12700	1.04
EH13	10/1/2008	ENER	2.00	< 0.700	13.7	4680	1910	1900	490	4330	11900	* 15300	1.03
EH20	10/1/2008	ENER	---	---	---	---	---	---	391	3880	10800	* 13900	---
EN1	9/29/2008	ENER	---	---	---	---	---	---	1300	10800	23200	* 27060	---
EN2	9/29/2008	ENER	---	---	---	---	---	---	551	4470	11000	* 14570	---
EO17	5/20/2008	ENER	50.2	16.3	8.10	572	467	< 1.000	139	747	1660	* 2520	1.07
EO24	5/19/2008	ENER	---	---	---	---	---	---	129	610	1360	* 2170	---
EO26	5/20/2008	ENER	---	---	---	---	---	---	203	1180	2590	* 4070	---
EP13	9/30/2008	ENER	< 2.00	0.800	19.2	5350	2290	2490	554	4530	13600	* 17640	1.01
ES9	1/24/2008	ENER	---	---	---	---	---	---	417	2830	6630	* 9790	---
ET10	10/2/2008	ENER	---	---	---	---	---	---	156	971	2280	* 3632	---
NE Tails	3/4/2008	ENER	---	---	---	---	---	---	---	8170	18600	* 23170	---
	6/3/2008	ENER	---	---	---	---	---	---	---	5160	13200	* 17660	---
NE1	9/29/2008	ENER	4.00	1.60	12.0	2530	966	385	262	3050	6450	* 8840	1.11

* Signifies Specific Conductivity from HMC

TABLE B.1-1 WATER QUALITY ANALYSES FOR THE TAILINGS 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)
NW Tails	6/3/2008	ENER	---	---	---	---	---	---	---	4370	10600	* 14520	---
SE Tails	3/4/2008	ENER	---	---	---	---	---	---	---	4080	10800	* 14540	---
	6/3/2008	ENER	---	---	---	---	---	---	---	3950	9990	* 14160	---
SW Tails	6/3/2008	ENER	---	---	---	---	---	---	---	4300	10000	* 14260	---
SW1	9/29/2008	ENER	---	---	---	---	---	---	891	6970	17100	* 21360	---
SW2	9/29/2008	ENER	---	---	---	---	---	---	104	805	2230	* 3615	---
WA3	9/29/2008	ENER	---	---	---	---	---	---	362	2480	6720	* 9350	---
WA4	9/29/2008	ENER	---	---	---	---	---	---	226	1610	4080	* 6030	---
WB1	5/18/2008	ENER	---	---	---	---	---	---	278	1970	4650	* 7150	---
WB2	9/30/2008	ENER	5.00	4.50	8.70	2960	1220	808	439	3140	7940	* 10500	1.04
WB3	9/30/2008	ENER	10.9	5.20	2.80	818	577	70.0	145	988	2290	* 3430	1.00
WB9	9/30/2008	ENER	7.00	14.1	5.90	1560	828	426	194	1650	4240	* 6020	1.03
WC5	9/30/2008	ENER	9.00	8.40	7.30	2260	964	749	295	2210	5910	* 8230	1.05
WC15	5/21/2008	ENER	---	---	---	---	---	---	560	3120	8180	* 11200	---
WC16	9/30/2008	ENER	4.00	1.40	6.40	1840	724	627	259	1770	4880	* 6650	1.05
WC19	5/17/2008	ENER	1.70	< 0.500	3.50	1010	383	301	88.0	963	2240	* 4030	1.14
WD3	9/30/2008	ENER	11.0	29.0	16.8	3440	1710	261	994	4140	9490	* 12800	1.01
WD9	8/28/2008	ENER	8.20	12.1	6.20	966	578	124	172	1130	2630	* 3930	1.04
WE13	9/28/2008	ENER	28.3	14.0	5.00	649	525	3.00	163	817	1900	* 2890	1.02
WE14	9/28/2008	ENER	9.00	7.90	6.60	1560	696	224	375	1810	4160	* 6510	1.03
WF2	9/28/2008	ENER	8.00	5.90	7.90	1810	698	88.0	485	2260	4950	* 6860	1.06
WF8	9/30/2008	ENER	2.00	0.500	5.70	1830	747	494	321	1860	4940	* 6900	1.04

* Signifies Specific Conductivity from HMC

TABLE B.1-1 WATER QUALITY ANALYSES FOR THE TAILINGS 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)
WF14	9/30/2008	ENER	19.0	10.1	8.30	1260	719	70.0	299	1630	3620	* 5170	1.01
WF15	9/30/2008	ENER	19.0	10.1	8.30	1260	719	70.0	299	1630	3620	* 5170	1.01
WF16	9/30/2008	ENER	5.00	3.50	9.60	2500	874	682	472	2670	6670	* 9080	1.03
WN1	9/29/2008	ENER	---	---	---	---	---	---	1660	9080	18400	* 22710	---
WN2	9/29/2008	ENER	---	---	---	---	---	---	1030	6950	18000	* 22590	---
WO10	5/18/2008	ENER	---	---	---	---	---	---	382	4390	11100	* 15100	---
	9/29/2008	ENER	< 2.00	< 0.700	10.6	4460	1540	2010	351	3970	11200	* 14600	1.05
WO18	11/12/2008	ENER	---	---	---	---	---	---	277	1910	4420	* 6400	---
WP15	11/13/2008	ENER	---	---	---	---	---	---	123	842	2070	* 3150	---
WP17	9/28/2008	ENER	---	---	---	---	---	---	381	2930	7760	* 10500	---
WQ7	9/27/2008	ENER	13.0	9.70	6.90	1670	819	402	254	1840	4420	* 6340	1.03
WT6	5/17/2008	ENER	10.8	19.6	7.10	1340	534	111	285	1620	3350	* 5100	1.12
WT7	9/28/2008	ENER	---	---	---	---	---	---	308	1740	4400	* 6280	---
WT8	9/28/2008	ENER	---	---	---	---	---	---	289	1710	4100	* 5860	---
WT10	9/28/2008	ENER	2.00	1.60	4.30	1420	651	310	274	1470	3720	* 5400	1.05
WU2	9/28/2008	ENER	5.00	2.40	11.5	3310	1100	402	714	4260	9050	* 11900	1.03
WU6	5/16/2008	ENER	---	---	---	---	---	---	637	3110	6260	* 9230	---
WU7	9/28/2008	ENER	5.00	2.60	4.50	757	488	73.0	165	878	2140	* 3170	1.00
WW1	9/29/2008	ENER	---	---	---	---	---	---	761	7530	17000	* 21020	---
WW2	9/29/2008	ENER	---	---	---	---	---	---	265	3000	8350	* 11740	---

* 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)	V (mg/l)	Th230 (pCi/l)
CN1	9/29/2008	ENER	---	20.5	23.4	0.318	0.0700	---	---	---	---
CN3	9/29/2008	ENER	---	40.0	74.0	3.36	0.260	---	---	---	---
CS7	1/24/2008	ENER	8.98	20.2	32.6	0.386	< 0.100	85.4	---	---	---
EC4	9/30/2008	ENER	9.03	27.7	47.0	0.0680	---	---	---	---	---
ED1	1/23/2008	ENER	---	2.31	6.62	0.0750	1.80	---	---	---	---
EE2	9/30/2008	ENER	9.98	16.5	63.6	0.148	---	---	---	---	---
EG3	10/1/2008	ENER	10.00	26.5	66.1	0.0790	---	---	---	---	---
EG10	8/23/2008	ENER	9.83	2.43	8.74	0.140	2.50	64.0	---	---	---
EG12	9/30/2008	ENER	9.64	1.69	8.08	0.0290	---	---	---	---	---
EH11	9/30/2008	ENER	10.00	12.8	36.0	0.0720	---	---	---	---	---
EH13	10/1/2008	ENER	10.00	21.2	56.5	0.0770	---	---	---	---	---
EH20	10/1/2008	ENER	---	16.9	53.7	0.0790	3.42	---	---	---	---
EN1	9/29/2008	ENER	---	46.0	112	7.10	0.130	---	---	---	---
EN2	9/29/2008	ENER	---	12.6	53.6	0.160	0.0900	---	---	---	---
EO17	5/20/2008	ENER	8.24	0.366	0.920	< 0.0050	< 0.100	148	---	---	---
EO24	5/19/2008	ENER	---	0.248	0.980	0.0110	< 0.0500	---	---	---	---
EO26	5/20/2008	ENER	---	1.28	5.17	0.0270	< 0.0500	---	---	---	---
EP13	9/30/2008	ENER	9.96	21.8	67.2	0.126	---	---	---	---	---
ES9	1/24/2008	ENER	---	9.12	25.2	0.0400	< 0.100	---	---	---	---
ET10	10/2/2008	ENER	---	1.26	4.05	0.0130	0.180	---	---	---	---
NE Tails	3/4/2008	ENER	---	34.5	71.8	0.462	---	---	---	---	---
	6/3/2008	ENER	---	28.2	64.0	0.127	---	---	---	---	---
NE1	9/29/2008	ENER	9.46	4.29	34.9	0.0820	---	---	---	---	---

TABLE B.1-2 WATER QUALITY ANALYSES FOR THE TAILINGS 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)	V (mg/l)	Th230 (pCi/l)
NW Tails	6/3/2008	ENER	---	16.0	43.8	0.295	---	---	---	---	---
SE Tails	3/4/2008	ENER	---	14.2	55.1	0.108	---	---	---	---	---
	6/3/2008	ENER	---	17.6	49.3	0.189	---	---	---	---	---
SW Tails	6/3/2008	ENER	---	15.6	46.3	0.435	---	---	---	---	---
SW1	9/29/2008	ENER	---	29.9	59.7	0.195	0.110	---	---	---	---
SW2	9/29/2008	ENER	---	0.425	0.650	0.176	0.110	---	---	---	---
WA3	9/29/2008	ENER	---	6.80	21.2	0.182	0.0600	---	---	---	---
WA4	9/29/2008	ENER	---	2.45	9.92	0.166	< 0.0500	---	---	---	---
WB1	5/18/2008	ENER	---	3.43	11.1	0.208	0.920	---	---	---	---
WB2	9/30/2008	ENER	9.80	6.83	25.9	0.105	---	---	---	---	---
WB3	9/30/2008	ENER	8.95	1.95	2.79	1.50	---	---	---	---	---
WB9	9/30/2008	ENER	9.67	4.82	15.7	0.0610	---	---	---	---	---
WC5	9/30/2008	ENER	9.88	6.11	21.6	0.0690	---	---	---	---	---
WC15	5/21/2008	ENER	---	8.02	21.0	0.0900	4.94	---	---	---	---
WC16	9/30/2008	ENER	9.92	4.33	12.9	0.108	---	---	---	---	---
WC19	5/17/2008	ENER	9.93	1.28	3.86	0.130	< 0.100	98.1	---	---	---
WD3	9/30/2008	ENER	9.00	10.7	13.5	1.35	---	---	---	---	---
WD9	8/28/2008	ENER	9.17	0.508	4.58	0.0210	< 0.100	85.0	---	---	---
WE13	9/28/2008	ENER	8.37	0.452	1.25	0.0170	---	---	---	---	---
WE14	9/28/2008	ENER	9.47	2.38	10.4	0.0220	---	---	---	---	---
WF2	9/28/2008	ENER	9.04	3.70	15.8	1.72	---	---	---	---	---
WF8	9/30/2008	ENER	9.80	3.27	13.6	0.148	---	---	---	---	---

TABLE B.1-2 WATER QUALITY ANALYSES FOR THE TAILINGS 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)	V (mg/l)	Th230 (pCi/l)
WF14	9/30/2008	ENER	8.81	3.03	8.06	0.192	---	---	---	---	---
WF15	9/30/2008	ENER	8.81	3.03	8.06	0.192	---	---	---	---	---
WF16	9/30/2008	ENER	9.84	8.40	21.4	0.0920	---	---	---	---	---
WN1	9/29/2008	ENER	---	13.4	52.5	0.590	0.130	---	---	---	---
WN2	9/29/2008	ENER	---	29.8	75.5	0.119	0.100	---	---	---	---
WO10	5/18/2008	ENER	---	17.3	48.9	0.340	< 0.0500	---	---	---	---
	9/29/2008	ENER	10.2	15.2	51.0	0.341	---	---	---	---	---
WO18	11/12/2008	ENER	---	2.84	10.2	0.0770	< 0.0500	---	---	---	---
WP15	11/13/2008	ENER	---	0.136	1.23	0.0310	< 0.0500	---	---	---	---
WP17	9/28/2008	ENER	---	4.76	22.4	0.131	< 0.0500	---	---	---	---
WQ7	9/27/2008	ENER	9.68	3.76	12.1	0.0740	---	---	---	---	---
WT6	5/17/2008	ENER	9.21	1.37	7.37	0.0500	< 0.100	37.6	---	---	---
WT7	9/28/2008	ENER	---	1.90	12.0	0.138	< 0.0500	---	---	---	---
WT8	9/28/2008	ENER	---	5.04	10.6	0.0180	< 0.0500	---	---	---	---
WT10	9/28/2008	ENER	9.72	2.17	7.45	0.0440	---	---	---	---	---
WU2	9/28/2008	ENER	9.54	8.43	31.7	0.189	---	---	---	---	---
WU6	5/16/2008	ENER	---	5.63	21.9	0.0210	0.370	---	---	---	---
WU7	9/28/2008	ENER	9.10	0.414	1.65	0.0300	---	---	---	---	---
WW1	9/29/2008	ENER	---	43.6	64.5	7.24	0.100	---	---	---	---
WW2	9/29/2008	ENER	---	11.2	31.4	0.212	0.110	---	---	---	---

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	3/4/2008	ENER	---	---	---	---	---	---	---	11200	25100	* 29480	---
	11/20/2008	ENER	< 5.00	13.0	35.0	10500	3170	2520	1710	11900	26100	---	1.06
East 2 Sump	3/4/2008	ENER	---	---	---	---	---	---	---	13400	29500	* 33540	---
	11/20/2008	ENER	< 5.00	18.0	34.0	11600	4110	2520	1860	13200	29000	---	1.06
East Reclaim	3/4/2008	ENER	---	---	---	---	---	---	---	4290	9850	* 13430	---
	11/20/2008	ENER	5.00	8.70	16.7	4090	1700	964	572	4170	10500	---	1.10
North 1 Sump	3/4/2008	ENER	---	---	---	---	---	---	---	9680	20000	* 24180	---
	11/20/2008	ENER	11.0	16.4	20.4	7720	3470	1400	1130	8750	19600	---	1.07
South 1 Sump	3/4/2008	ENER	---	---	---	---	---	---	---	5900	12000	* 14960	---
	11/20/2008	ENER	17.0	53.7	28.4	5750	2110	693	1000	7540	15300	---	1.05
West 1 Sump	3/4/2008	ENER	---	---	---	---	---	---	---	8120	17700	* 21610	---
	11/20/2008	ENER	10.00	19.4	14.9	6530	2830	1570	664	6950	16400	---	1.09
West Reclaim	3/4/2008	ENER	---	---	---	---	---	---	---	5680	13000	* 16720	---
	11/20/2008	ENER	11.0	13.1	11.8	4840	1990	1030	722	5360	12500	---	1.07

* 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)	V (mg/l)	Th230 (pCi/l)
East 1 Sump	3/4/2008	ENER	---	42.9	108	3.91	---	---	---	---	---
	11/20/2008	ENER	9.79	50.8	112	2.67	< 0.100	125	---	---	---
East 2 Sump	3/4/2008	ENER	---	81.9	112	0.200	---	---	---	---	---
	11/20/2008	ENER	9.70	76.0	113	0.341	1.20	27.0	---	---	---
East Reclaim	3/4/2008	ENER	---	15.7	40.2	0.428	---	---	---	---	---
	11/20/2008	ENER	9.80	17.7	41.0	0.344	1.60	63.0	---	---	---
North 1 Sump	3/4/2008	ENER	---	38.9	71.8	3.22	---	---	---	---	---
	11/20/2008	ENER	9.59	39.4	78.8	1.38	1.40	25.0	---	---	---
South 1 Sump	3/4/2008	ENER	---	15.5	30.4	0.193	---	---	---	---	---
	11/20/2008	ENER	9.43	26.4	52.1	0.104	< 0.100	28.0	---	---	---
West 1 Sump	3/4/2008	ENER	---	29.9	41.9	0.333	---	---	---	---	---
	11/20/2008	ENER	9.75	27.8	67.7	0.608	2.60	75.0	---	---	---
West Reclaim	3/4/2008	ENER	---	19.5	49.5	0.274	---	---	---	---	---
	11/20/2008	ENER	9.73	9.16	47.0	0.200	0.600	27.0	---	---	---

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	2/4/2008	ENER	---	---	---	---	---	---	1250	9830	18200	* 22490	---
	4/7/2008	ENER	---	---	---	---	---	---	1330	10800	19800	* 23300	---
	8/11/2008	ENER	---	---	---	---	---	---	1740	14200	24800	* 28230	---
	8/11/2008	ENER	---	---	---	---	---	---	# 1830	# 14700	# 24300	---	---
	10/8/2008	ENER	---	---	---	---	---	---	1470	12100	22800	* 26470	---
Evap Pond 1	2/4/2008	ENER	17.0	490	196	26600	22400	4510	12000	16800	69700	* 68600	0.998
	4/7/2008	ENER	---	---	---	---	---	---	13200	23700	73200	* 74600	---
	8/11/2008	HMC	25.0	594	221	37600	12400	10900	13000	36500	93500	86000	0.999
	10/8/2008	ENER	---	---	---	---	---	---	13300	36300	96500	* 87500	---
Evap Pond 2	2/4/2008	ENER	15.0	186	40.8	10700	4920	970	1950	14700	29500	* 33780	1.02
	4/7/2008	ENER	---	---	---	---	---	---	2090	15500	30300	* 34020	---
	8/11/2008	HMC	22.0	253	44.0	12800	2930	2310	2670	20600	34200	37320	0.922
	10/8/2008	ENER	---	---	---	---	---	---	2360	18500	36300	* 38810	---
W Coll Pond	2/4/2008	ENER	---	---	---	---	---	---	301	2700	4500	* 6400	---
	4/7/2008	ENER	---	---	---	---	---	---	324	2720	4740	* 6520	---
	7/14/2008	ENER	120	73.7	5.60	1410	495	2.00	309	2560	4550	* 6270	1.05
	8/11/2008	ENER	---	---	---	---	---	---	366	3410	5940	* 8020	---
	10/8/2008	ENER	---	---	---	---	---	---	289	2990	5030	* 6760	---

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)	V (mg/l)	Th230 (pCi/l)
E Coll Pond	2/4/2008	ENER	---	31.7	66.7	1.98	7.30	69.5	< 1.000	---	---
	4/7/2008	ENER	---	40.7	66.3	1.93	7.96	---	---	---	---
	8/11/2008	ENER	---	24.6	39.4	1.66	10.8	---	---	---	---
	8/11/2008	ENER	---	# 57.4	# 78.0	# 3.77	# 10.9	---	---	---	---
	10/8/2008	ENER	---	44.0	80.1	1.42	3.66	---	---	---	---
Evap Pond 1	2/4/2008	ENER	9.64	379	664	1.90	< 0.100	119	21.0	0.900	978
	4/7/2008	ENER	---	462	726	1.80	0.440	---	---	---	---
	8/11/2008	HMC	9.63	520	848	1.80	< 0.200	127	0.600	0.750	950
	10/8/2008	ENER	---	421	645	1.25	0.700	---	---	---	---
Evap Pond 2	2/4/2008	ENER	9.63	69.4	130	1.51	2.60	116	< 1.000	0.300	227
	4/7/2008	ENER	---	65.7	124	1.32	1.43	---	---	---	---
	8/11/2008	HMC	9.66	77.5	153	0.985	< 0.100	5.20	0.200	0.210	213
	10/8/2008	ENER	---	67.3	125	0.740	0.240	---	---	---	---
W Coll Pond	2/4/2008	ENER	---	7.48	13.7	0.448	3.10	2.80	< 1.000	---	---
	4/7/2008	ENER	---	7.85	13.2	0.377	3.15	---	---	---	---
	7/14/2008	ENER	8.32	8.73	15.3	0.728	3.30	0.400	---	---	---
	8/11/2008	ENER	---	12.0	18.4	0.620	4.93	---	---	---	---
	10/8/2008	ENER	---	7.15	10.7	0.318	2.35	---	---	---	---

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)
0690	5/27/2008	ENER	---	---	---	---	---	---	74.0	289	816	* 1482	---
0691	5/27/2008	ENER	---	---	---	---	---	---	106	266	800	* 1323	---
0891	5/27/2008	ENER	---	---	---	---	---	---	90.0	300	867	* 1003	---
1A	11/4/2008	ENER	---	---	---	---	---	---	275	1100	2550	* 3500	---
1E	11/4/2008	ENER	---	---	---	---	---	---	240	751	2010	* 2877	---
1F	11/5/2008	ENER	---	---	---	---	---	---	269	1290	2840	* 3756	---
1G	11/4/2008	ENER	---	---	---	---	---	---	---	1270	2710	* 3770	---
1I	2/27/2008	ENER	---	---	---	---	---	---	574	562	1990	* 3208	---
1J	2/26/2008	ENER	378	68.3	6.50	737	231	9.00	1060	1120	3710	* 5370	0.990
1K	12/3/2008	ENER	238	51.8	4.30	804	465	< 1.000	511	1210	3220	* 4483	1.08
1M	11/4/2008	ENER	---	---	---	---	---	---	54.0	183	614	* 937	---
1N	5/27/2008	ENER	---	---	---	---	---	---	407	954	2310	* 3441	---
1P	5/27/2008	ENER	---	---	---	---	---	---	785	910	2900	* 4333	---
	12/3/2008	ENER	280	56.6	3.60	634	263	< 1.000	767	852	2940	* 4309	1.06
1Q	2/27/2008	ENER	498	92.4	6.40	976	370	< 1.000	1530	1370	4870	* 6880	0.965
	8/6/2008	ENER	---	---	---	---	348	---	---	1080	---	* 4103	---
	12/2/2008	ENER	143	29.0	3.60	450	376	< 1.000	262	707	1890	* 2714	1.03
1R	2/26/2008	ENER	161	29.6	3.10	669	270	< 1.000	608	857	2800	* 3566	1.01
	8/6/2008	ENER	---	---	---	---	253	---	---	706	---	* 3588	---
	12/2/2008	ENER	256	50.4	3.60	633	256	< 1.000	739	789	2830	* 4180	1.07
1S	2/27/2008	ENER	619	126	8.10	1190	491	< 1.000	1600	1990	5790	* 8080	0.985
1T	2/26/2008	ENER	426	78.4	6.90	833	321	< 1.000	1200	1230	4090	* 5950	0.990
	8/6/2008	ENER	---	---	---	---	366	---	---	747	---	* 2647	---
	12/2/2008	ENER	131	26.7	3.30	363	380	< 1.000	156	571	1510	* 2164	1.09

* 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)
1U	2/27/2008	ENER	444	92.3	8.50	1010	370	< 1.000	1430	1470	4710	* 6836	0.959
	8/6/2008	ENER	---	---	---	---	365	---	---	1170	---	* 4598	---
	12/2/2008	ENER	130	27.4	3.60	469	378	< 1.000	246	710	1860	* 2345	1.05
1V	8/6/2008	ENER	---	---	---	---	374	---	---	935	---	* 3323	---
	12/2/2008	ENER	170	37.9	3.60	468	402	< 1.000	285	776	2030	* 2888	1.04
B	6/17/2008	ENER	---	---	---	---	---	---	92.0	367	972	* 1544	---
B3	7/14/2008	ENER	295	117	7.50	3820	2030	< 1.000	770	6010	10900	* 13970	1.06
B4	7/14/2008	HMC	206	79.0	5.50	2540	1280	< 1.000	535	4200	7310	9930	1.03
B5	7/14/2008	ENER	350	112	5.10	1630	759	< 1.000	395	3300	5670	* 7500	1.06
B6	7/14/2008	ENER	338	105	4.30	1250	639	< 1.000	352	2740	4840	* 6290	1.03
B7	7/14/2008	ENER	348	107	4.60	1430	787	< 1.000	379	2950	5390	* 6600	1.04
B10	7/14/2008	ENER	126	48.4	4.20	1560	843	< 1.000	321	2470	4600	* 6470	1.05
B11	7/14/2008	ENER	226	69.0	9.20	866	543	< 1.000	183	1960	3410	* 4758	0.999
B12	6/17/2008	ENER	---	---	---	---	---	---	110	689	1510	* 2277	---
B13	6/17/2008	ENER	---	---	---	---	---	---	67.0	289	774	* 1238	---
BC	6/17/2008	ENER	---	---	---	---	---	---	103	1440	2550	* 3331	---
C1	10/27/2008	ENER	---	---	---	---	---	---	77.0	449	1030	* 1539	---
C2	10/27/2008	HMC	---	---	---	---	---	---	---	633	1530	2220	---
C5	10/24/2008	ENER	---	---	---	---	---	---	63.0	261	748	* 1137	---
D1	3/10/2008	ENER	---	---	---	---	---	---	---	1830	3280	* 4287	---
	7/2/2008	ENER	361	74.1	4.30	440	319	< 1.000	181	1520	2900	* 3424	1.03
DA3	7/14/2008	ENER	264	106	7.10	3400	1810	< 1.000	714	5110	9370	* 12450	1.09
DC	6/17/2008	ENER	---	---	---	---	---	---	202	905	1900	* 2625	---

* 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)
DD	5/21/2008	ENER	402	99.8	6.40	346	353	< 1.000	69.0	1620	2690	* 3155	1.05
DD2	6/4/2008	ENER	359	88.6	6.00	317	352	< 1.000	57.0	1430	2320	* 2889	1.05
	12/4/2008	ENER	326	81.2	5.70	308	368	< 1.000	65.0	1310	2420	* 2870	1.04
DZ	6/17/2008	ENER	---	---	---	---	---	---	461	3390	7100	* 9830	---
F	3/10/2008	ENER	---	---	---	---	---	---	---	692	1700	* 2463	---
	9/8/2008	ENER	---	---	---	---	---	---	178	679	1760	* 2458	---
FB	3/10/2008	ENER	---	---	---	---	---	---	---	724	1790	* 2505	---
	9/8/2008	ENER	---	---	---	---	---	---	202	717	1830	* 2425	---
GH	3/10/2008	ENER	---	---	---	---	---	---	---	555	1390	* 2040	---
	9/8/2008	ENER	---	---	---	---	---	---	181	599	1510	* 2208	---
	9/8/2008	ENER	---	---	---	---	---	---	# 181	# 598	# 1520	---	---
GN	4/22/2008	ENER	---	---	---	---	---	---	---	599	1490	* 2117	---
	10/27/2008	ENER	---	---	---	---	---	---	172	600	1550	* 2230	---
GV	10/27/2008	ENER	---	---	---	---	---	---	139	544	1430	* 2034	---
I	6/16/2008	ENER	---	---	---	---	---	---	156	594	1540	* 2143	---
K4	1/14/2008	ENER	---	---	---	---	---	---	80.0	361	931	* 1499	---
	7/15/2008	ENER	45.0	15.8	2.60	248	320	< 1.000	69.0	315	811	* 1389	1.04
K5	7/15/2008	ENER	61.2	17.7	2.30	371	315	< 1.000	74.0	596	1180	* 1879	1.05
K7	1/14/2008	ENER	---	---	---	---	---	---	82.0	426	1010	* 1555	---
	7/15/2008	ENER	68.2	19.1	2.90	272	339	< 1.000	73.0	397	938	* 1507	1.06
K9	1/14/2008	ENER	---	---	---	---	---	---	73.0	523	1120	* 1707	---
	7/15/2008	ENER	57.4	17.3	2.60	290	324	< 1.000	71.0	418	972	* 1574	1.06
K10	1/14/2008	ENER	---	---	---	---	---	---	123	1120	2120	* 2980	---
	7/15/2008	ENER	109	25.5	4.00	563	404	< 1.000	115	968	1870	* 2829	1.07

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)
K11	1/14/2008	ENER	---	---	---	---	---	---	85.0	604	1240	* 1887	---
	7/15/2008	ENER	53.0	12.6	3.10	353	310	< 1.000	78.0	525	1110	* 1790	1.05
KEB	4/22/2008	ENER	---	---	---	---	---	---	---	304	845	* 1222	---
	7/15/2008	ENER	---	---	---	---	---	---	64.0	271	758	* 1176	---
KF	4/22/2008	ENER	---	---	---	---	---	---	---	319	874	* 1255	---
	7/16/2008	ENER	---	---	---	---	---	---	58.0	233	646	* 1061	---
KZ	4/22/2008	ENER	---	---	---	---	---	---	---	275	786	* 1125	---
	7/16/2008	ENER	---	---	---	---	---	---	57.0	201	568	* 963	---
L	10/21/2008	ENER	---	---	---	---	---	---	136	524	1340	* 1855	---
L5	4/9/2008	ENER	---	---	---	---	---	---	---	386	930	* 1502	---
	10/21/2008	ENER	---	---	---	---	---	---	81.0	306	841	* 1304	---
L6	4/9/2008	ENER	---	---	---	---	---	---	---	185	610	* 905	---
	10/22/2008	ENER	---	---	---	---	---	---	51.0	164	573	* 910	---
L7	4/9/2008	ENER	---	---	---	---	---	---	---	265	747	* 1189	---
	10/21/2008	ENER	---	---	---	---	---	---	70.0	242	748	* 1169	---
L8	4/9/2008	ENER	---	---	---	---	---	---	---	308	797	* 1267	---
	10/21/2008	ENER	---	---	---	---	---	---	74.0	267	775	* 1218	---
L9	4/9/2008	ENER	---	---	---	---	---	---	---	388	961	* 1470	---
	10/21/2008	ENER	---	---	---	---	---	---	92.0	328	891	* 1384	---
L10	4/9/2008	ENER	---	---	---	---	---	---	---	321	882	* 1333	---
	10/21/2008	ENER	---	---	---	---	---	---	95.0	343	951	* 1450	---
M3	7/14/2008	ENER	351	109	6.20	1070	792	< 1.000	344	2380	4260	* 5650	1.01
M5	10/27/2008	ENER	---	---	---	---	---	---	161	749	1860	* 2544	---
M9	3/5/2008	ENER	---	---	---	---	---	---	181	1330	2570	* 3442	---

* 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)
M16	8/28/2008	ENER	---	---	---	---	---	---	195	1430	2780	* 3410	---
ML	11/3/2008	ENER	---	---	---	---	---	---	258	1920	3630	* 4249	---
MO	3/10/2008	ENER	---	---	---	---	---	---	---	1300	2420	* 3253	---
	8/28/2008	ENER	---	---	---	---	---	---	168	1390	2640	* 1310	---
MQ	3/5/2008	ENER	---	---	---	---	---	---	197	1350	2630	* 3380	---
MS	8/28/2008	ENER	---	---	---	---	---	---	189	767	1820	* 2530	---
MU	6/17/2008	ENER	---	---	---	---	---	---	188	1780	3270	* 4110	---
MW	11/3/2008	ENER	---	---	---	---	---	---	226	1910	3630	* 4161	---
MX	3/5/2008	ENER	---	---	---	---	---	---	---	710	1730	* 2485	---
MY	11/3/2008	ENER	---	---	---	---	---	---	179	721	1770	* 2464	---
N	11/3/2008	ENER	---	---	---	---	---	---	74.0	1340	2390	* 2939	---
NA	10/28/2008	ENER	---	---	---	---	---	---	595	5130	12200	* 15620	---
NB	10/28/2008	ENER	---	---	---	---	---	---	980	7820	17300	* 21270	---
NC	11/3/2008	ENER	---	---	---	---	---	---	44.0	640	1220	* 1690	---
ND	5/19/2008	ENER	86.9	22.7	1.50	652	325	< 1.000	92.0	1130	2010	* 2993	1.10
O	10/28/2008	ENER	---	---	---	---	---	---	196	1030	2140	* 2886	---
P	5/5/2008	ENER	248	53.4	4.90	260	237	< 1.000	47.0	1080	1750	* 2308	1.02
	5/5/2008	ENER	# 252	# 54.9	# 4.90	# 262	# 239	# < 1.000	# 46.0	# 1090	# 1760	---	# 1.02
	10/8/2008	ENER	---	---	---	---	---	---	---	1020	1830	* 2305	---
	10/8/2008	ENER	---	---	---	---	---	---	---	# 1000	# 1780	---	---
P2	2/5/2008	ENER	272	56.1	6.80	241	226	< 1.000	62.0	1230	1900	* 2455	0.928
P3	10/22/2008	ENER	222	42.9	5.10	244	203	< 1.000	49.0	935	1670	* 2153	1.05
P4	10/22/2008	ENER	204	34.5	3.30	228	179	< 1.000	41.0	844	1480	* 1975	1.06

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)
Q	5/19/2008	ENER	380	70.4	7.00	294	222	< 1.000	62.0	1390	2440	* 2875	1.10
R	5/19/2008	ENER	336	57.7	4.20	304	145	< 1.000	52.0	1320	2250	* 2681	1.11
S2	1/14/2008	ENER	---	---	---	---	---	---	---	1710	3350	* 4306	---
	1/14/2008	ENER	---	---	---	---	---	---	---	# 1720	# 3280	---	---
	7/2/2008	ENER	---	---	---	---	---	---	195	1380	2800	* 3726	---
	7/2/2008	ENER	---	---	---	---	---	---	# 202	# 1360	# 2760	---	---
S4	3/10/2008	ENER	---	---	---	---	---	---	---	834	1960	* 2738	---
	7/2/2008	ENER	253	67.0	5.10	299	574	< 1.000	209	771	1880	* 2616	0.996
S12	8/19/2008	ENER	---	---	---	---	613	---	---	938	---	* 3087	---
	12/3/2008	ENER	232	71.2	5.30	454	600	< 1.000	214	943	2340	* 3128	1.05
SA	7/14/2008	ENER	214	58.8	6.10	1370	930	< 1.000	285	2290	4410	* 5890	1.06
	8/6/2008	ENER	---	---	---	---	902	---	---	2300	---	* 5810	---
SE4	12/4/2008	ENER	242	71.8	4.40	462	685	< 1.000	210	913	2360	* 3155	1.06
SE6	8/6/2008	ENER	---	---	---	---	576	---	---	998	---	* 1789	---
	12/3/2008	ENER	227	70.5	5.20	440	560	< 1.000	214	941	2290	* 3086	1.04
SM	5/19/2008	ENER	---	---	---	---	---	---	560	4280	8350	* 10500	---
SO	5/19/2008	ENER	---	---	---	---	---	---	225	1390	2780	* 3874	---
SQ	7/14/2008	ENER	95.0	69.9	5.90	2820	1770	59.0	406	3860	7480	* 10080	1.09
SS	7/14/2008	ENER	233	72.4	4.90	461	573	< 1.000	228	1030	2200	* 3057	1.01
	8/6/2008	ENER	---	---	---	---	576	---	---	995	---	* 2959	---
ST	7/14/2008	ENER	263	75.2	5.60	428	542	< 1.000	221	1040	2240	* 3118	1.03
	8/6/2008	ENER	---	---	---	---	523	---	---	1060	---	* 3148	---
	12/3/2008	ENER	244	69.8	5.50	460	591	< 1.000	212	963	2370	* 3195	1.06
SUR	7/14/2008	ENER	308	83.0	5.90	1050	857	< 1.000	253	2080	3920	* 5250	1.05

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)
SV	7/14/2008	ENER	193	88.1	6.50	2180	1500	27.0	411	3180	6390	* 8640	1.08
SW	5/19/2008	ENER	---	---	---	---	---	---	264	1180	2450	* 3360	---
SZ	1/15/2008	ENER	78.0	111	11.9	6920	3470	22.0	1340	10000	20900	* 23600	1.04
T	3/5/2008	ENER	---	---	---	---	---	---	---	1170	2080	* 3225	---
	10/24/2008	ENER	---	---	---	---	---	---	257	1630	3020	* 4345	---
T2	9/10/2008	ENER	177	83.4	7.00	1490	1010	< 1.000	223	2550	4810	* 6320	1.06
T4	9/10/2008	ENER	7.00	5.70	9.20	1960	770	257	331	2270	4990	* 7100	1.11
T5	9/10/2008	ENER	< 5.00	9.00	7.00	5460	1990	1290	922	5840	14000	* 17450	1.07
T6	1/16/2008	ENER	206	117	9.60	2830	1970	< 1.000	707	4510	9820	* 12010	0.980
T7	1/16/2008	ENER	378	186	6.60	3810	1910	< 1.000	901	6900	13900	* 16020	0.998
T8	9/10/2008	ENER	8.00	9.00	21.0	6860	2380	1690	1090	7300	17000	* 21070	1.08
T9	9/10/2008	ENER	< 5.00	< 2.00	33.0	9980	3140	2700	1770	10700	25000	* 29230	1.05
T10	9/10/2008	ENER	< 5.00	2.00	33.0	12300	3750	4050	1760	12600	30600	* 34320	1.05
T11	9/12/2008	ENER	7.00	28.4	8.00	4300	2610	750	496	4470	11000	* 14010	1.09
T12	9/16/2008	ENER	5.00	28.0	17.7	5100	1380	770	1060	6330	13100	* 16820	1.07
T17	2/13/2008	ENER	4.00	63.4	7.70	4840	3610	101	425	6520	12900	* 14590	1.03
T19	9/16/2008	ENER	12.6	2.30	1.80	866	1010	162	102	470	2270	* 3215	1.11
T21	1/16/2008	ENER	< 1.000	< 0.500	15.6	2990	2310	870	405	2770	8400	* 11380	0.960
T22	9/16/2008	ENER	5.00	3.20	8.00	2410	819	626	378	2430	6090	* 8630	1.10
T40	9/16/2008	ENER	5.00	2.30	11.1	2690	924	994	272	2420	6580	* 9130	1.11
T41	9/10/2008	ENER	3.00	2.00	16.5	4150	1410	855	769	4550	10600	* 13920	1.08
TA	9/10/2008	ENER	---	---	---	---	---	---	212	923	1980	* 2840	---
TB	8/6/2008	ENER	---	---	---	---	356	---	---	610	---	* 2097	---

* 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)
TB	9/10/2008	ENER	---	---	---	---	---	---	132	522	1310	* 1888	---
W	10/22/2008	ENER	---	---	---	---	---	---	193	709	1760	* 2486	---
X	2/4/2008	ENER	---	---	---	---	---	---	48.0	168	511	* 830	---
	4/7/2008	ENER	---	---	---	---	---	---	132	189	566	* 881	---
	7/2/2008	ENER	64.6	7.90	1.40	61.0	198	< 1.000	27.0	96.0	384	* 586	1.09
	10/8/2008	ENER	---	---	---	---	---	---	90.0	267	728	* 1126	---
X18	9/10/2008	ENER	---	---	---	---	---	---	148	813	1920	* 2725	---

* 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)	V (mg/l)	Th230 (pCi/l)
0690	5/27/2008	ENER	---	0.163	1.99	0.398	1.46	---	---	---	---
0691	5/27/2008	ENER	---	0.0158	0.140	0.128	2.05	---	---	---	---
0891	5/27/2008	ENER	---	0.0389	0.280	0.147	1.68	---	---	---	---
1A	11/4/2008	ENER	---	0.503	0.0400	0.578	8.80	---	---	---	---
1E	11/4/2008	ENER	---	0.188	0.120	0.0890	1.38	---	---	---	---
1F	11/5/2008	ENER	---	4.73	< 0.0300	0.238	23.2	---	---	---	---
1G	11/4/2008	ENER	---	0.0613	---	0.424	18.6	---	---	---	---
1I	2/27/2008	ENER	---	24.4	10.1	6.70	13.6	---	---	---	---
1J	2/26/2008	ENER	7.10	6.88	1.65	3.42	23.1	0.200	---	---	---
1K	12/3/2008	ENER	7.39	7.65	4.21	1.86	11.0	0.0600	---	---	---
1M	11/4/2008	ENER	---	0.0130	< 0.0300	< 0.0050	0.700	---	---	---	---
1N	5/27/2008	ENER	---	0.0705	< 0.0300	0.131	2.81	---	---	---	---
1P	5/27/2008	ENER	---	0.0558	< 0.0300	1.14	24.5	---	---	---	---
	12/3/2008	ENER	7.30	0.0747	< 0.0300	0.964	13.7	0.160	---	---	---
1Q	2/27/2008	ENER	7.37	30.5	9.70	6.15	20.1	0.490	---	---	---
	8/6/2008	ENER	7.48	9.67	4.85	0.296	---	---	---	---	---
	12/2/2008	ENER	7.44	5.08	2.83	0.0840	0.400	0.120	---	---	---
1R	2/26/2008	ENER	7.46	0.165	0.0300	0.184	13.7	0.900	---	---	---
	8/6/2008	ENER	7.48	0.137	< 0.0300	0.339	---	---	---	---	---
	12/2/2008	ENER	7.41	0.149	< 0.0300	0.620	32.3	0.560	---	---	---
1S	2/27/2008	ENER	7.19	44.7	16.3	26.8	20.2	0.210	---	---	---
1T	2/26/2008	ENER	7.28	13.7	3.46	4.34	23.7	0.800	---	---	---
	8/6/2008	ENER	7.58	4.73	2.38	0.104	---	---	---	---	---
	12/2/2008	ENER	7.57	2.00	1.61	0.0200	< 0.100	0.0600	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
1U	2/27/2008	ENER	7.35	23.4	40.4	24.0	20.5	0.290	---	---	---
	8/6/2008	ENER	7.42	15.8	6.23	1.41	---	---	---	---	---
	12/2/2008	ENER	7.61	7.07	4.09	0.0330	< 0.100	0.270	---	---	---
1V	8/6/2008	ENER	7.51	8.04	4.93	0.0620	---	---	---	---	---
	12/2/2008	ENER	7.62	5.53	3.78	0.0080	< 0.100	0.230	---	---	---
B	6/17/2008	ENER	---	0.106	< 0.0300	0.0210	1.26	---	---	---	---
B3	7/14/2008	ENER	7.68	30.3	37.1	1.06	5.90	0.100	---	---	---
B4	7/14/2008	HMC	7.79	17.8	25.7	1.08	7.50	- 0.0030	---	---	---
B5	7/14/2008	ENER	7.55	13.4	11.9	0.914	10.7	0.0400	---	---	---
B6	7/14/2008	ENER	7.55	9.58	9.73	0.756	7.00	0.0400	---	---	---
B7	7/14/2008	ENER	7.71	11.8	9.56	0.744	7.50	0.0700	---	---	---
B10	7/14/2008	ENER	7.84	9.83	21.8	0.910	11.5	0.0100	---	---	---
B11	7/14/2008	ENER	7.65	5.60	12.1	0.716	12.7	0.200	---	---	---
B12	6/17/2008	ENER	---	1.03	2.10	0.0430	2.69	---	---	---	---
B13	6/17/2008	ENER	---	0.574	0.950	0.0210	0.860	---	---	---	---
BC	6/17/2008	ENER	---	1.39	0.370	0.128	7.73	---	---	---	---
C1	10/27/2008	ENER	---	0.203	0.250	0.0230	0.890	---	---	---	---
C2	10/27/2008	HMC	---	0.445	---	0.0950	1.20	---	---	---	---
C5	10/24/2008	ENER	---	0.214	0.100	0.0110	0.880	---	---	---	---
D1	3/10/2008	ENER	---	5.34	3.87	0.558	---	---	---	---	---
	7/2/2008	ENER	7.57	1.76	1.35	0.600	6.80	0.200	0.500	< 0.0100	0
DA3	7/14/2008	ENER	7.95	23.3	32.1	0.767	3.70	0.200	---	---	---
DC	6/17/2008	ENER	---	0.0814	< 0.0300	0.0270	4.00	---	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
DD	5/21/2008	ENER	7.37	0.173	< 0.0300	0.0260	4.00	-0.0100	---	---	---
DD2	6/4/2008	ENER	7.74	0.266	< 0.0300	< 0.0050	0.100	0.200	0.900	< 0.0100	0
	12/4/2008	ENER	7.33	0.233	< 0.0300	0.0130	0.200	0.360	0.600	< 0.0100	0.100
DZ	6/17/2008	ENER	---	14.4	21.5	0.734	6.83	---	---	---	---
F	3/10/2008	ENER	---	0.0786	< 0.0300	0.0100	---	---	---	---	---
	9/8/2008	ENER	---	0.0732	< 0.0300	0.0090	1.90	---	---	---	---
FB	3/10/2008	ENER	---	0.113	< 0.0300	0.0140	---	---	---	---	---
	9/8/2008	ENER	---	0.103	< 0.0300	0.0240	2.00	---	---	---	---
GH	3/10/2008	ENER	---	0.0681	< 0.0300	0.0130	---	---	---	---	---
	9/8/2008	ENER	---	0.0754	< 0.0300	0.0120	1.70	---	---	---	---
	9/8/2008	ENER	---	# 0.0744	# < 0.0300	# 0.0120	# 1.70	---	---	---	---
GN	4/22/2008	ENER	---	0.0354	< 0.0300	0.0110	---	---	---	---	---
	10/27/2008	ENER	---	0.0257	< 0.0300	0.0110	1.50	---	---	---	---
GV	10/27/2008	ENER	---	0.0157	< 0.0300	0.0280	3.88	---	---	---	---
I	6/16/2008	ENER	---	0.111	< 0.0300	0.0110	1.40	---	---	---	---
K4	1/14/2008	ENER	---	1.24	3.35	0.549	1.000	---	---	---	---
	7/15/2008	ENER	7.98	0.984	2.38	0.399	0.900	0.0200	---	---	---
K5	7/15/2008	ENER	7.96	0.446	2.49	0.0650	0.900	0.200	---	---	---
K7	1/14/2008	ENER	---	1.12	2.88	0.234	1.10	---	---	---	---
	7/15/2008	ENER	7.92	1.08	2.44	0.186	1.10	-0.0200	---	---	---
K9	1/14/2008	ENER	---	0.731	3.16	0.0740	1.000	---	---	---	---
	7/15/2008	ENER	8.01	0.905	2.56	0.262	0.900	-0.100	---	---	---
K10	1/14/2008	ENER	---	2.97	10.7	0.350	1.90	---	---	---	---
	7/15/2008	ENER	7.92	3.10	9.69	0.394	1.70	0.0500	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
K11	1/14/2008	ENER	---	1.30	3.70	0.160	1.60	---	---	---	---
	7/15/2008	ENER	7.95	1.08	2.67	0.116	1.50	0.0500	---	---	---
KEB	4/22/2008	ENER	---	0.0728	---	0.0100	0.900	---	---	---	---
	7/15/2008	ENER	---	0.0711	0.0600	0.0090	0.660	---	---	---	---
KF	4/22/2008	ENER	---	0.0772	---	0.0070	0.900	---	---	---	---
	7/16/2008	ENER	---	0.0502	0.0700	0.0060	0.740	---	---	---	---
KZ	4/22/2008	ENER	---	0.0825	---	0.0070	0.900	---	---	---	---
	7/16/2008	ENER	---	0.0676	0.0900	0.0070	0.740	---	---	---	---
L	10/21/2008	ENER	---	0.774	1.27	0.0640	1.54	---	---	---	---
L5	4/9/2008	ENER	---	0.374	---	0.107	1.10	---	---	---	---
	10/21/2008	ENER	---	0.228	1.06	0.153	1.08	---	---	---	---
L6	4/9/2008	ENER	---	0.173	---	0.0950	0.600	---	---	---	---
	10/22/2008	ENER	---	0.164	0.710	0.0940	0.650	---	---	---	---
L7	4/9/2008	ENER	---	0.232	---	0.154	0.900	---	---	---	---
	10/21/2008	ENER	---	0.191	0.990	0.147	0.810	---	---	---	---
L8	4/9/2008	ENER	---	0.224	---	0.0760	1.000	---	---	---	---
	10/21/2008	ENER	---	0.180	0.410	0.0570	0.860	---	---	---	---
L9	4/9/2008	ENER	---	0.258	---	0.111	1.20	---	---	---	---
	10/21/2008	ENER	---	0.239	0.820	0.116	1.16	---	---	---	---
L10	4/9/2008	ENER	---	0.349	---	0.0330	1.10	---	---	---	---
	10/21/2008	ENER	---	0.356	0.870	0.0330	1.22	---	---	---	---
M3	7/14/2008	ENER	7.57	7.18	6.19	0.618	7.10	0.100	---	---	---
M5	10/27/2008	ENER	---	1.09	1.87	0.0340	2.10	---	---	---	---
M9	3/5/2008	ENER	---	4.01	2.90	0.267	4.60	---	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
M16	8/28/2008	ENER	---	1.09	0.170	0.124	12.9	---	---	---	---
ML	11/3/2008	ENER	---	0.0710	< 0.0300	0.0820	39.2	---	---	---	---
MO	3/10/2008	ENER	---	0.352	< 0.0300	0.0860	---	---	---	---	---
	8/28/2008	ENER	---	0.474	< 0.0300	0.0880	19.5	---	---	---	---
MQ	3/5/2008	ENER	---	2.01	0.900	0.202	8.60	---	---	---	---
MS	8/28/2008	ENER	---	0.114	< 0.0300	0.0530	2.54	---	---	---	---
MU	6/17/2008	ENER	---	0.145	< 0.0300	0.0140	33.3	---	---	---	---
MW	11/3/2008	ENER	---	0.0970	< 0.0300	0.0140	21.6	---	---	---	---
MX	3/5/2008	ENER	---	0.0333	< 0.0300	0.0170	---	---	---	---	---
MY	11/3/2008	ENER	---	0.0186	< 0.0300	0.121	1.90	---	---	---	---
N	11/3/2008	ENER	---	0.115	0.0700	0.112	14.3	---	---	---	---
NA	10/28/2008	ENER	---	24.5	50.2	0.148	2.20	---	---	---	---
NB	10/28/2008	ENER	---	21.0	59.4	0.0550	0.900	---	---	---	---
NC	11/3/2008	ENER	---	0.0129	< 0.0300	0.0760	4.30	---	---	---	---
ND	5/19/2008	ENER	8.11	0.161	0.120	0.110	1.20	0.300	---	---	---
O	10/28/2008	ENER	---	0.0373	< 0.0300	0.264	19.7	---	---	---	---
P	5/5/2008	ENER	7.60	0.0281	< 0.0300	0.138	5.90	0.400	0.100	< 0.0100	0.100
	5/5/2008	ENER	# 7.60	# 0.0279	# < 0.0300	# 0.139	# 5.70	# 0.280	# 1.000	# < 0.0100	# 0.100
	10/8/2008	ENER	---	0.0248	< 0.0300	0.142	---	---	---	---	---
	10/8/2008	ENER	---	# 0.0249	# < 0.0300	# 0.142	---	---	---	---	---
P2	2/5/2008	ENER	7.79	0.0353	< 0.0300	0.235	10.00	< 0.200	---	---	---
P3	10/22/2008	ENER	7.81	0.0201	< 0.0300	0.158	5.40	-0.100	---	---	---
P4	10/22/2008	ENER	7.81	0.0222	< 0.0300	0.131	5.80	-0.0700	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
Q	5/19/2008	ENER	7.79	0.0529	< 0.0300	0.314	14.6	8.80	0.300	< 0.0100	0.200
R	5/19/2008	ENER	7.74	0.0197	< 0.0300	0.611	22.6	0.600	-0.0200	< 0.0100	0
S2	1/14/2008	ENER	---	7.18	7.79	0.411	---	---	---	---	---
	1/14/2008	ENER	---	# 6.96	# 7.84	# 0.396	---	---	---	---	---
	7/2/2008	ENER	---	6.43	7.11	0.313	3.40	---	---	---	---
	7/2/2008	ENER	---	# 6.33	# 7.08	# 0.310	# 3.40	---	---	---	---
S4	3/10/2008	ENER	---	0.840	1.03	0.0410	---	---	---	---	---
	7/2/2008	ENER	7.63	0.635	0.870	0.0350	1.70	0.300	0.300	< 0.0100	0.100
S12	8/19/2008	ENER	7.51	2.11	1.56	0.0050	---	---	---	---	---
	12/3/2008	ENER	7.47	1.35	1.23	0.0210	< 0.100	0.110	---	---	---
SA	7/14/2008	ENER	7.78	8.20	14.1	0.349	4.00	0.100	---	---	---
	8/6/2008	ENER	7.78	9.50	15.0	0.363	---	---	---	---	---
SE4	12/4/2008	ENER	7.55	0.988	0.380	0.0080	< 0.100	0.330	---	---	---
SE6	8/6/2008	ENER	7.53	2.50	2.42	0.0100	---	---	---	---	---
	12/3/2008	ENER	7.51	1.34	2.22	0.0100	< 0.100	0.300	---	---	---
SM	5/19/2008	ENER	---	17.5	25.5	0.877	2.75	---	---	---	---
SO	5/19/2008	ENER	---	5.28	6.38	0.217	5.71	---	---	---	---
SQ	7/14/2008	ENER	8.32	16.5	31.0	0.900	5.20	0.0800	---	---	---
SS	7/14/2008	ENER	7.53	2.67	2.93	0.196	1.80	0.0800	---	---	---
	8/6/2008	ENER	7.53	2.88	2.97	0.206	---	---	---	---	---
ST	7/14/2008	ENER	7.49	2.52	2.45	0.194	1.10	0.0200	---	---	---
	8/6/2008	ENER	7.48	2.68	2.83	0.159	---	---	---	---	---
	12/3/2008	ENER	7.49	2.46	2.40	0.0530	0.300	0.0700	---	---	---
SUR	7/14/2008	ENER	7.59	6.32	8.00	0.319	4.50	0.200	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
SV	7/14/2008	ENER	8.16	16.4	25.5	0.676	3.60	-0.0800	---	---	---
SW	5/19/2008	ENER	---	2.22	2.16	0.185	2.39	---	---	---	---
SZ	1/15/2008	ENER	8.07	52.5	78.6	1.17	1.80	0.900	---	---	---
T	3/5/2008	ENER	---	1.83	---	2.14	2.60	---	---	---	---
	10/24/2008	ENER	---	2.32	1.22	2.96	3.08	---	---	---	---
T2	9/10/2008	ENER	7.84	9.06	15.8	0.186	3.00	0.170	---	---	---
T4	9/10/2008	ENER	9.40	6.49	12.5	0.0830	1.30	76.0	---	---	---
T5	9/10/2008	ENER	9.79	12.2	63.1	0.0880	< 0.100	9.10	---	---	---
T6	1/16/2008	ENER	7.50	29.0	10.7	0.894	11.4	11.6	---	---	---
T7	1/16/2008	ENER	7.41	45.5	58.8	3.80	23.5	1.50	---	---	---
T8	9/10/2008	ENER	9.82	24.2	64.9	0.239	0.200	86.0	---	---	---
T9	9/10/2008	ENER	9.85	36.2	84.2	0.0300	3.00	234	---	---	---
T10	9/10/2008	ENER	9.95	51.1	128	0.182	2.30	325	---	---	---
T11	9/12/2008	ENER	9.37	4.93	48.3	0.210	2.00	1.000	---	---	---
T12	9/16/2008	ENER	9.66	20.9	54.3	0.0540	0.100	131	---	---	---
T17	2/13/2008	ENER	8.78	30.0	81.2	0.189	1.20	1.90	---	---	---
T19	9/16/2008	ENER	9.01	0.326	0.910	0.0210	0.100	5.10	---	---	---
T21	1/16/2008	ENER	9.91	8.66	34.8	0.108	< 0.100	196	---	---	---
T22	9/16/2008	ENER	9.80	2.89	17.3	0.0420	< 0.100	22.0	---	---	---
T40	9/16/2008	ENER	9.95	6.96	36.4	0.145	< 0.100	143	---	---	---
T41	9/10/2008	ENER	9.70	22.5	38.4	0.0630	2.70	82.0	---	---	---
TA	9/10/2008	ENER	---	1.31	0.430	0.867	2.76	---	---	---	---
TB	8/6/2008	ENER	7.63	3.20	3.09	1.14	---	---	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
TB	9/10/2008	ENER	---	0.591	0.550	0.290	1.67	---	---	---	---
W	10/22/2008	ENER	---	0.112	< 0.0300	0.0490	2.27	---	---	---	---
X	2/4/2008	ENER	---	0.0511	0.100	< 0.0050	0.600	0.500	< 1.000	---	---
	4/7/2008	ENER	---	0.0400	0.0900	< 0.0050	0.740	---	---	---	---
	7/2/2008	ENER	7.65	0.0250	0.120	< 0.0050	0.500	0.100	-0.400	< 0.0100	0
	10/8/2008	ENER	---	0.0368	0.0700	< 0.0050	0.790	---	---	---	---
X18	9/10/2008	ENER	---	1.78	0.940	0.174	17.7	---	---	---	---

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)
0482	6/23/2008	ENER	---	---	---	---	---	---	156	684	1620	* 2300	---
	10/1/2008	ENER	---	---	---	---	---	---	194	792	1930	* 2560	---
0483	6/2/2008	ENER	---	---	---	---	---	---	177	791	1730	* 2477	---
	10/1/2008	ENER	---	---	---	---	---	---	194	815	1950	* 2620	---
0490	6/2/2008	ENER	245	68.3	5.60	320	465	< 1.000	185	832	1970	* 2526	1.06
	6/2/2008	ENER	# 244	# 68.0	# 5.50	# 314	# 467	# < 1.000	# 183	# 837	# 1840	---	# 1.04
	10/1/2008	ENER	---	---	---	---	---	---	---	876	2030	* 2680	---
0491	6/23/2008	ENER	---	---	---	---	---	---	475	1180	2860	* 3608	---
	10/1/2008	ENER	---	---	---	---	---	---	123	495	1380	* 1970	---
0496	3/31/2008	ENER	---	---	---	---	---	---	167	671	1510	* 2163	---
0497	10/1/2008	HMC	73.0	---	---	---	---	---	* 186	* 721	* 1880	2083	---
0498	6/23/2008	ENER	---	---	---	---	---	---	149	637	1500	* 2179	---
	10/1/2008	ENER	---	---	---	---	---	---	157	613	1530	* 2192	---
0688	3/11/2008	ENER	---	---	---	---	---	---	---	749	1750	* 2393	---
	8/19/2008	HMC	262	55.8	5.40	276	489	< 1.000	183	761	1760	2288	1.03
0802	3/10/2008	ENER	---	---	---	---	---	---	---	712	1780	* 2478	---
	3/10/2008	ENER	---	---	---	---	---	---	---	# 717	# 1710	---	---
	8/11/2008	HMC	265	60.8	4.50	275	526	< 1.000	193	678	1740	2513	1.07
0844	3/26/2008	ENER	---	---	---	---	---	---	---	1050	2160	* 2905	---
	8/13/2008	ENER	---	---	---	---	---	---	222	1270	2720	* 3120	---
0845	12/1/2008	ENER	---	---	---	---	---	---	200	990	2240	* 2940	---
AW	9/24/2008	ENER	---	---	---	---	---	---	180	723	1750	* 2338	---
Sub1	10/9/2008	ENER	---	---	---	---	---	---	---	1290	2680	* 3455	---
Sub2	4/7/2008	ENER	163	48.7	4.10	235	463	< 1.000	136	489	1300	1920	1.04
	10/9/2008	ENER	---	---	---	---	---	---	---	381	1140	* 1707	---

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

TABLE B.4-3 WATER QUALITY ANALYSES FOR THE SUBDIVISION 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)
Sub3	4/7/2008	ENER	250	75.0	5.20	524	211	< 1.000	164	1640	2680	* 3437	0.984
	10/9/2008	ENER	---	---	---	---	---	---	---	1270	2400	* 3153	---

* 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)	V (mg/l)	Th230 (pCi/l)
0482	6/23/2008	ENER	---	0.144	0.0500	0.0260	2.80	---	---	---	---
	10/1/2008	ENER	---	0.121	0.0400	0.0280	3.20	---	---	---	---
0483	6/2/2008	ENER	---	0.167	0.0600	0.0300	2.80	---	---	---	---
	10/1/2008	ENER	---	0.130	0.0500	0.0350	3.20	---	---	---	---
0490	6/2/2008	ENER	7.60	0.337	0.0800	0.0400	4.20	0.100	-0.100	< 0.0100	0.100
	6/2/2008	ENER	# 7.54	# 0.329	# 0.0800	# 0.0390	# 4.00	# 0.0700	# 0.0200	# < 0.0100	# 0
	10/1/2008	ENER	---	0.287	0.0700	0.0420	---	---	---	---	---
0491	6/23/2008	ENER	---	0.328	< 0.0300	0.173	12.5	---	---	---	---
	10/1/2008	ENER	---	0.325	0.0500	0.0400	2.00	---	---	---	---
0496	3/31/2008	ENER	---	0.0629	< 0.0300	0.0610	2.36	---	---	---	---
0497	10/1/2008	ENER	---	0.911	< 0.0300	0.0330	2.20	---	---	---	---
0498	6/23/2008	ENER	---	0.420	< 0.0300	0.0630	2.20	---	---	---	---
	10/1/2008	ENER	---	0.236	< 0.0300	0.0580	1.80	---	---	---	---
0688	3/11/2008	ENER	---	0.0562	< 0.0300	0.0120	---	---	---	---	---
	8/19/2008	HMC	7.46	0.0508	< 0.0300	0.0180	1.30	0.0800	1.40	< 0.0100	- 0.200
0802	3/10/2008	ENER	---	0.432	< 0.0300	0.0220	---	---	---	---	---
	3/10/2008	ENER	---	# 0.421	# < 0.0300	# 0.0180	---	---	---	---	---
	8/11/2008	HMC	7.28	0.362	< 0.0300	0.0170	2.00	- 0.100	0.200	< 0.0100	0
0844	3/26/2008	ENER	---	0.118	< 0.0300	0.0380	---	---	---	---	---
	8/13/2008	ENER	---	0.150	< 0.0300	0.0490	4.60	---	---	---	---
0845	12/1/2008	ENER	---	0.0647	< 0.0300	0.0640	4.22	---	---	---	---
AW	9/24/2008	ENER	---	0.131	0.0800	0.0340	2.99	---	---	---	---
Sub1	10/9/2008	ENER	---	0.116	< 0.0300	0.0440	---	---	---	---	---
Sub2	4/7/2008	ENER	7.62	0.0480	< 0.0300	0.0210	3.30	0.250	0.600	< 0.0100	0
	10/9/2008	ENER	---	0.0360	< 0.0300	0.0140	---	---	---	---	---

Signifies Quality Control Sample

TABLE B.4-4 WATER QUALITY ANALYSES FOR THE SUBDIVISION 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)	V (mg/l)	Th230 (pCi/l)
Sub3	4/7/2008	ENER	7.48	0.0240	< 0.0300	0.0120	1.20	0.340	0.700	< 0.0100	0
	10/9/2008	ENER	---	0.0229	< 0.0300	0.0130	---	---	---	---	---

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)
0522	3/31/2008	ENER	---	---	---	---	---	---	---	738	1600	* 2371	---
0531	11/24/2008	ENER	---	---	---	---	---	---	129	719	1720	* 2284	---
0532	11/24/2008	ENER	85.4	32.3	2.40	30.9	250	< 1.000	18.0	139	483	* 740	1.11
0538	3/31/2008	ENER	---	---	---	---	---	---	---	770	1680	* 2244	---
0539	11/20/2008	ENER	---	---	---	---	---	---	166	873	1910	* 2560	---
0540	10/1/2008	ENER	---	---	---	---	---	---	174	915	2020	* 2667	---
0541	10/2/2008	ENER	---	---	---	---	---	---	95.0	554	1320	* 1802	---
0631	3/31/2008	ENER	---	---	---	---	---	---	---	869	1650	* 2366	---
0632	3/31/2008	ENER	---	---	---	---	---	---	146	855	1580	* 2287	---
0634	8/24/2008	ENER	---	---	---	---	---	---	---	751	1660	2220	---
0636	11/17/2008	ENER	---	---	---	---	---	---	---	392	1010	* 1426	---
0637	11/17/2008	ENER	---	---	---	---	---	---	---	430	1130	* 1671	---
0638	10/24/2008	ENER	---	---	---	---	---	---	224	649	1590	* 2299	---
0640	10/15/2008	ENER	---	---	---	---	---	---	169	655	1600	* 2255	---
0644	10/1/2008	ENER	---	---	---	---	---	---	174	826	1870	* 2551	---
0646	12/1/2008	ENER	---	---	---	---	---	---	---	944	1990	* 2623	---
0647	10/2/2008	ENER	---	---	---	---	---	---	85.0	557	1230	* 1672	---
0648	4/10/2008	ENER	181	44.4	5.00	202	369	< 1.000	78.0	622	1250	* 1784	1.02
0649	4/10/2008	ENER	---	---	---	---	---	---	---	656	1210	* 1708	---
	6/3/2008	ENER	---	---	---	---	---	---	---	610	1210	* 1740	---
	10/2/2008	ENER	168	42.6	4.50	192	317	< 1.000	92.0	583	1300	* 1781	1.02
0653	10/1/2008	ENER	---	---	---	---	---	---	---	745	1790	2370	---
0654	6/2/2008	ENER	---	---	---	---	---	---	74.0	526	1140	* 1621	---

* 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)
0655	6/2/2008	ENER	---	---	---	---	---	---	115	782	1540	* 2234	---
0657	4/10/2008	ENER	---	---	---	---	---	---	---	675	1490	* 2063	---
0658	6/3/2008	ENER	---	---	---	---	---	---	---	597	1180	* 1613	---
	10/2/2008	ENER	---	---	---	---	---	---	76.0	617	1300	* 1779	---
0659	10/1/2008	ENER	213	60.4	7.10	273	408	< 1.000	140	756	1700	* 2310	1.05
0683	11/19/2008	ENER	---	---	---	---	---	---	---	560	1210	* 1583	---
0684	11/24/2008	ENER	---	---	---	---	---	---	---	640	1580	* 2103	---
0686	11/17/2008	ENER	---	---	---	---	---	---	94.0	405	1040	* 1518	---
0846	3/26/2008	ENER	---	---	---	---	---	---	---	1890	3120	* 4070	---
	8/13/2008	HMC	394	103	5.80	603	318	< 1.000	207	1900	3370	4205	1.08
0861	11/21/2008	ENER	---	---	---	---	---	---	145	799	1700	* 2466	---
0862	1/14/2008	ENER	---	---	---	---	---	---	187	773	1870	* 2554	---
	10/1/2008	ENER	---	---	---	---	---	---	177	769	1840	* 2560	---
0864	5/27/2008	ENER	---	---	---	---	---	---	264	946	2010	* 2965	---
0865	10/1/2008	ENER	---	---	---	---	---	---	161	748	1630	* 2220	---
0866	10/1/2008	ENER	---	---	---	---	---	---	167	874	1940	* 2598	---
0867	11/20/2008	ENER	---	---	---	---	---	---	---	563	1300	* 1936	---
0869	3/31/2008	ENER	---	---	---	---	---	---	---	---	1760	* 2486	---
	10/1/2008	ENER	---	---	---	---	---	---	167	834	1820	* 2484	---
0881	4/1/2008	ENER	---	---	---	---	---	---	---	972	1950	* 2614	---
	8/24/2008	ENER	---	---	---	---	---	---	148	781	1780	* 2370	---
0882	11/18/2008	ENER	---	---	---	---	---	---	159	826	1720	* 2384	---
0883	11/18/2008	ENER	---	---	---	---	---	---	214	1060	2260	* 2973	---

* 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)
0884	4/28/2008	ENER	---	---	---	---	---	---	67.0	426	1040	* 1430	---
	11/19/2008	ENER	---	---	---	---	---	---	---	436	1060	* 1525	---
0885	11/18/2008	ENER	---	---	---	---	---	---	181	707	1780	* 2500	---
0886	8/24/2008	ENER	---	---	---	---	---	---	---	717	1530	* 2090	---
0887	4/1/2008	ENER	---	---	---	---	---	---	146	527	1170	* 1693	---
0888	4/28/2008	ENER	---	---	---	---	---	---	67.0	425	1070	* 1481	---
	11/19/2008	ENER	---	---	---	---	---	---	---	424	1060	* 1544	---
0890	8/20/2008	ENER	---	---	---	---	---	---	164	802	1790	* 2300	---
0893	11/18/2008	ENER	---	---	---	---	---	---	182	726	1790	* 2520	---
0895	11/19/2008	ENER	---	---	---	---	---	---	121	767	1570	* 2126	---
0896	11/19/2008	ENER	---	---	---	---	---	---	---	878	1780	* 2386	---
0899	6/2/2008	ENER	---	---	---	---	---	---	---	690	1340	* 1928	---
0910	5/6/2008	ENER	---	---	---	---	---	---	32.0	358	890	* 1248	---
0914	5/6/2008	ENER	94.8	22.1	2.10	341	34.0	< 1.000	81.0	832	1350	* 1964	1.06
0920	2/5/2008	ENER	---	---	---	---	---	---	---	1600	2430	* 2939	---
	8/18/2008	ENER	---	---	---	---	---	---	56.0	1480	2320	* 2970	---
0921	5/6/2008	ENER	386	73.9	7.90	338	223	< 1.000	60.0	1520	2610	* 3174	1.09
0922	5/6/2008	ENER	2.40	0.600	1.10	405	251	57.0	70.0	411	1060	* 1662	1.08
0935	11/24/2008	ENER	---	---	---	---	---	---	92.0	535	1300	* 1812	---
0942	2/5/2008	ENER	---	---	---	---	---	---	---	1430	2460	* 3569	---
	8/13/2008	ENER	---	---	---	---	---	---	226	1500	2880	* 3689	---
0947	7/15/2008	ENER	---	---	---	---	---	---	175	656	1600	* 2355	---
0950	5/6/2008	ENER	56.3	10.3	1.50	592	254	< 1.000	120	904	1870	* 2770	1.12

* 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)
0994	3/26/2008	ENER	240	62.1	4.40	80.9	---	---	107	620	1270	* 1773	---
	10/15/2008	ENER	---	---	---	---	---	---	113	623	1410	* 1866	---
	11/14/2008	ENER	250	61.3	4.60	111	299	< 1.000	105	594	1430	* 1863	1.11
0999	11/24/2008	ENER	102	32.0	2.80	41.8	257	< 1.000	18.0	196	569	* 843	1.09

* 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)	V (mg/l)	Th230 (pCi/l)
0522	3/31/2008	ENER	---	1.19	1.57	0.164	---	---	---	---	---
0531	11/24/2008	ENER	---	0.177	< 0.0300	0.0440	5.60	---	---	---	---
0532	11/24/2008	ENER	7.96	0.0045	< 0.0300	0.0080	2.60	-0.0100	---	---	---
0538	3/31/2008	ENER	---	0.222	---	0.0430	4.20	---	---	---	---
0539	11/20/2008	ENER	---	0.189	< 0.0300	0.0560	3.80	---	---	---	---
0540	10/1/2008	ENER	---	0.398	< 0.0300	0.0470	4.70	---	---	---	---
0541	10/2/2008	ENER	---	0.0748	< 0.0300	0.0290	4.30	---	---	---	---
0631	3/31/2008	ENER	---	0.0779	< 0.0300	0.162	---	---	---	---	---
0632	3/31/2008	ENER	---	0.0348	< 0.0300	0.212	3.00	---	---	---	---
0634	8/24/2008	ENER	---	0.215	---	0.0470	5.20	---	---	---	---
0636	11/17/2008	ENER	---	0.0351	---	0.0230	8.30	---	---	---	---
0637	11/17/2008	ENER	---	0.108	---	0.0190	12.5	---	---	---	---
0638	10/24/2008	ENER	---	0.0168	0.100	0.948	3.70	---	---	---	---
0640	10/15/2008	ENER	---	0.0545	< 0.0300	0.0480	2.42	---	---	---	---
0644	10/1/2008	ENER	---	0.0928	< 0.0300	0.0370	4.76	---	---	---	---
0646	12/1/2008	ENER	---	0.0540	---	0.110	4.90	---	---	---	---
0647	10/2/2008	ENER	---	0.0274	< 0.0300	0.0310	2.67	---	---	---	---
0648	4/10/2008	ENER	7.61	0.0131	< 0.0300	0.0370	2.20	-0.0500	-0.300	< 0.0100	0
0649	4/10/2008	ENER	---	0.0273	< 0.0300	0.0300	---	---	---	---	---
	6/3/2008	ENER	---	0.0219	---	0.0270	---	---	---	---	---
	10/2/2008	ENER	7.84	0.0254	< 0.0300	0.0320	2.30	-0.0400	-0.0700	< 0.0100	0.0600
0653	10/1/2008	ENER	---	0.471	---	0.0530	4.10	---	---	---	---
0654	6/2/2008	ENER	---	0.105	< 0.0300	0.0200	5.03	---	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
0655	6/2/2008	ENER	---	0.253	< 0.0300	0.0520	6.61	---	---	---	---
0657	4/10/2008	ENER	---	0.0497	< 0.0300	0.0300	---	---	---	---	---
0658	6/3/2008	ENER	---	0.0161	---	0.0370	---	---	---	---	---
	10/2/2008	ENER	---	0.0129	< 0.0300	0.0360	1.83	---	---	---	---
0659	10/1/2008	ENER	7.62	0.218	< 0.0300	0.0480	5.00	0.340	-0.100	< 0.0100	-0.300
0683	11/19/2008	ENER	---	0.0039	---	0.0150	2.50	---	---	---	---
0684	11/24/2008	ENER	---	0.0466	---	0.0390	4.30	---	---	---	---
0686	11/17/2008	ENER	---	0.0511	< 0.0300	0.0220	8.90	---	---	---	---
0846	3/26/2008	ENER	---	0.0552	< 0.0300	0.0800	---	---	---	---	---
	8/13/2008	HMC	7.33	0.0501	< 0.0300	0.0910	25.4	0.250	1.30	< 0.0100	0.500
0861	11/21/2008	ENER	---	0.187	< 0.0300	0.129	3.02	---	---	---	---
0862	1/14/2008	ENER	---	0.385	< 0.0300	0.0410	2.80	---	---	---	---
	10/1/2008	ENER	---	0.462	< 0.0300	0.0390	3.55	---	---	---	---
0864	5/27/2008	ENER	---	0.302	< 0.0300	0.255	8.28	---	---	---	---
0865	10/1/2008	ENER	---	0.128	< 0.0300	0.110	3.30	---	---	---	---
0866	10/1/2008	ENER	---	0.302	< 0.0300	0.0590	4.40	---	---	---	---
0867	11/20/2008	ENER	---	0.0274	---	0.111	2.90	---	---	---	---
0869	3/31/2008	ENER	---	0.302	< 0.0300	0.0700	5.81	---	---	---	---
	10/1/2008	ENER	---	0.312	< 0.0300	0.0660	5.00	---	---	---	---
0881	4/1/2008	ENER	---	0.435	0.0400	0.0860	---	---	---	---	---
	8/24/2008	ENER	---	0.276	0.0300	0.0580	5.70	---	---	---	---
0882	11/18/2008	ENER	---	0.0299	< 0.0300	< 0.0050	< 0.0500	---	---	---	---
0883	11/18/2008	ENER	---	0.0302	< 0.0300	0.0500	5.69	---	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
0884	4/28/2008	ENER	---	0.0254	< 0.0300	0.0150	5.31	---	---	---	---
	11/19/2008	ENER	---	0.0239	---	0.0200	7.00	---	---	---	---
0885	11/18/2008	ENER	---	0.0635	< 0.0300	0.0200	1.57	---	---	---	---
0886	8/24/2008	ENER	---	0.244	---	0.0490	6.60	---	---	---	---
0887	4/1/2008	ENER	---	0.0217	< 0.0300	0.0170	6.47	---	---	---	---
0888	4/28/2008	ENER	---	0.0915	< 0.0300	0.0140	4.31	---	---	---	---
	11/19/2008	ENER	---	0.0924	---	0.0210	4.40	---	---	---	---
0890	8/20/2008	ENER	---	0.196	< 0.0300	0.0530	3.97	---	---	---	---
0893	11/18/2008	ENER	---	0.0868	< 0.0300	0.0290	1.86	---	---	---	---
0895	11/19/2008	ENER	---	0.0105	< 0.0300	< 0.0050	0.380	---	---	---	---
0896	11/19/2008	ENER	---	0.0545	---	0.0820	4.30	---	---	---	---
0899	6/2/2008	ENER	---	0.0580	---	0.0610	7.30	---	---	---	---
0910	5/6/2008	ENER	---	0.0122	< 0.0300	0.0170	4.20	---	---	---	---
0914	5/6/2008	ENER	7.31	0.0009	< 0.0300	< 0.0050	0.100	-0.0300	---	---	---
0920	2/5/2008	ENER	---	0.209	< 0.0300	0.379	---	---	---	---	---
	8/18/2008	ENER	---	0.204	< 0.0300	0.473	12.4	---	---	---	---
0921	5/6/2008	ENER	7.43	0.224	< 0.0300	0.604	25.5	0.0400	---	---	---
0922	5/6/2008	ENER	9.42	0.0048	0.0400	< 0.0050	0.100	-0.100	---	---	---
0935	11/24/2008	ENER	---	0.0859	< 0.0300	0.0240	5.00	---	---	---	---
0942	2/5/2008	ENER	---	0.0660	< 0.0300	0.0460	---	---	---	---	---
	8/13/2008	ENER	---	0.0695	< 0.0300	0.0490	8.70	---	---	---	---
0947	7/15/2008	ENER	---	0.0562	< 0.0300	0.0300	2.10	---	---	---	---
0950	5/6/2008	ENER	8.03	0.164	< 0.0300	0.356	13.8	-0.0400	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
0994	3/26/2008	ENER	7.54	0.0060	< 0.0300	0.0480	7.50	-0.180	---	---	---
	10/15/2008	ENER	---	0.0055	< 0.0300	0.0510	7.42	---	---	---	---
	11/14/2008	ENER	7.57	0.0055	< 0.0300	0.0500	8.40	-0.0700	---	---	---
0999	11/24/2008	ENER	7.97	0.0041	< 0.0300	0.0110	3.20	-0.0030	---	---	---

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)
0457	7/2/2008	ENER	10.4	1.40	1.50	657	416	7.00	149	758	1640	* 2611	1.08
0482	6/23/2008	ENER	---	---	---	---	---	---	156	684	1620	* 2300	---
	10/1/2008	ENER	---	---	---	---	---	---	194	792	1930	* 2560	---
0483	6/2/2008	ENER	---	---	---	---	---	---	177	791	1730	* 2477	---
	10/1/2008	ENER	---	---	---	---	---	---	194	815	1950	* 2620	---
0493	2/5/2008	ENER	---	---	---	---	---	---	---	732	1510	* 2537	---
	6/23/2008	ENER	12.8	2.60	1.80	552	365	1.000	113	669	1560	* 2359	1.08
	10/1/2008	ENER	---	---	---	---	---	---	---	684	1500	* 2270	---
0494	2/5/2008	ENER	---	---	---	---	---	---	---	656	1490	* 2331	---
	6/2/2008	ENER	264	73.5	6.00	320	436	< 1.000	191	910	1940	* 2698	1.06
0498	6/23/2008	ENER	---	---	---	---	---	---	149	637	1500	* 2179	---
	10/1/2008	ENER	---	---	---	---	---	---	157	613	1530	* 2192	---
0538	3/31/2008	ENER	---	---	---	---	---	---	---	770	1680	* 2244	---
0539	11/20/2008	ENER	---	---	---	---	---	---	166	873	1910	* 2560	---
0653	10/1/2008	ENER	---	---	---	---	---	---	---	745	1790	2370	---
0853	6/23/2008	ENER	---	---	---	---	---	---	82.0	653	1270	* 1904	---
0929	2/6/2008	ENER	---	---	---	---	---	---	145	709	1640	* 2658	---
	6/4/2008	ENER	11.2	1.50	0.900	674	525	12.0	145	773	1750	* 2702	1.03
0930	6/4/2008	ENER	---	---	---	---	---	---	57.0	588	1150	* 1980	---
0931	6/4/2008	ENER	---	---	---	---	---	---	277	623	1410	* 2462	---
0934	2/6/2008	ENER	---	---	---	---	---	---	156	712	1660	* 2871	---
	6/4/2008	ENER	13.4	2.20	1.10	698	598	10.00	167	761	1770	* 2841	1.02
ACW	9/24/2008	ENER	---	---	---	---	---	---	165	645	1620	* 2552	---
AW	9/24/2008	ENER	---	---	---	---	---	---	180	723	1750	* 2338	---

* 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)
CE1	6/24/2008	ENER	---	---	---	---	---	---	60.0	223	788	* 1242	---
CE2	2/6/2008	ENER	---	---	---	---	---	---	110	599	1270	* 1948	---
	7/17/2008	ENER	123	33.0	3.00	267	336	< 1.000	106	532	1210	* 1778	1.05
CE5	1/3/2008	HMC	228	64.6	3.42	284	513	---	195	806	---	---	---
	2/6/2008	ENER	---	---	---	---	---	---	188	773	1720	* 2615	---
	6/27/2008	HMC	218	58.7	5.54	256	503	---	225	642	1870	---	---
	7/17/2008	ENER	236	68.1	5.10	331	521	< 1.000	195	783	1810	* 2609	1.05
	7/31/2008	HMC	217	58.8	7.25	279	506	---	205	813	1800	---	---
	9/28/2008	HMC	230	60.3	6.15	291	524	---	650	820	1790	---	---
CE6	2/6/2008	ENER	---	---	---	---	---	---	156	869	1800	* 2622	---
	7/17/2008	ENER	247	64.3	3.80	378	476	< 1.000	179	928	2050	* 2700	1.06
CE7	2/6/2008	ENER	---	---	---	---	---	---	869	6520	12100	* 15990	---
	10/20/2008	ENER	268	86.6	7.70	4570	2200	< 1.000	924	7190	13700	* 16020	1.04
CE8	10/20/2008	ENER	10.4	1.40	1.000	570	367	11.0	58.0	745	1580	* 2401	1.08
CE9	10/20/2008	ENER	220	58.1	5.60	294	490	< 1.000	183	693	1780	* 2461	1.04
CE10	10/20/2008	ENER	150	39.0	3.60	572	384	< 1.000	142	1150	2230	* 3106	1.04
CE11	2/6/2008	ENER	---	---	---	---	---	---	191	1040	2130	* 3081	---
	7/17/2008	ENER	272	74.2	4.10	374	535	< 1.000	203	1010	2180	* 2953	1.01
CE12	2/6/2008	ENER	---	---	---	---	---	---	170	1060	2050	* 2823	---
	7/17/2008	ENER	233	59.2	4.10	368	437	< 1.000	171	941	2000	* 2573	1.03
CE13	10/20/2008	ENER	518	204	9.00	3710	1910	< 1.000	981	6450	12400	* 14750	1.06
CW1	2/4/2008	ENER	---	---	---	---	---	---	57.0	661	1390	* 2145	---
	6/4/2008	ENER	8.10	1.40	1.30	541	348	6.00	51.0	712	1380	* 2157	1.09
CW2	2/4/2008	ENER	---	---	---	---	---	---	66.0	513	1100	* 1819	---
	2/4/2008	ENER	---	---	---	---	---	---	# 64.0	# 515	# 1070	---	---

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)
CW2	6/4/2008	ENER	5.70	0.900	1.10	436	331	5.00	64.0	539	1110	* 1810	1.04
	8/11/2008	ENER	---	---	---	---	---	---	---	506	1160	* 1840	---
CW3	2/4/2008	ENER	---	---	---	---	---	---	115	875	1700	* 2630	---
	6/4/2008	ENER	70.8	17.9	2.30	562	358	6.00	94.0	935	1660	* 2529	1.05
CW9	6/25/2008	ENER	---	---	---	---	---	---	27.0	236	516	* 885	---
CW15	10/14/2008	ENER	---	---	---	---	---	---	90.0	1310	2230	* 3124	---
CW17	10/10/2008	ENER	---	---	---	---	---	---	213	1800	3260	* 3951	---
CW18	4/15/2008	ENER	---	---	---	---	---	---	194	712	1980	* 2868	---
	6/17/2008	ENER	46.6	9.20	2.40	700	650	8.00	202	739	1930	* 3092	1.05
CW24	10/10/2008	ENER	---	---	---	---	---	---	71.0	1760	3110	* 3570	---
CW26	10/14/2008	ENER	---	---	---	---	---	---	147	661	1470	* 2169	---
CW27	10/14/2008	ENER	---	---	---	---	---	---	167	707	1680	* 2380	---
CW28	4/15/2008	ENER	---	---	---	---	---	---	116	556	1290	* 2026	---
	6/17/2008	ENER	8.10	1.40	1.20	491	299	< 1.000	117	591	1260	* 2124	1.07
CW29	3/31/2008	ENER	---	---	---	---	---	---	129	750	1500	* 2194	---
CW31	10/14/2008	ENER	---	---	---	---	---	---	63.0	934	1600	* 2217	---
CW32	10/13/2008	ENER	---	---	---	---	---	---	554	1610	3570	* 5080	---
CW33	10/13/2008	ENER	---	---	---	---	---	---	397	2260	4060	* 5660	---
CW35	10/13/2008	ENER	---	---	---	---	---	---	96.0	1270	2370	* 3016	---
CW36	10/14/2008	ENER	---	---	---	---	---	---	62.0	973	1720	* 2423	---
CW37	10/15/2008	ENER	---	---	---	---	---	---	74.0	989	1840	* 2451	---
CW39	10/15/2008	ENER	---	---	---	---	---	---	70.0	988	1840	* 2467	---
CW40	10/15/2008	ENER	---	---	---	---	---	---	195	671	1970	* 3012	---

* 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)
CW41	10/14/2008	ENER	---	---	---	---	---	---	82.0	296	888	* 1418	---
CW42	3/31/2008	ENER	---	---	---	---	---	---	---	741	1670	* 2417	---
	10/1/2008	ENER	---	---	---	---	---	---	134	676	1480	* 2093	---
CW45	3/31/2008	ENER	---	---	---	---	---	---	---	792	1600	* 2398	---
	10/1/2008	ENER	---	---	---	---	---	---	185	721	1810	* 2501	---
CW50	10/13/2008	ENER	204	53.6	4.20	308	324	< 1.000	71.0	909	1730	* 2316	1.07
CW52	10/13/2008	ENER	25.1	4.20	1.40	508	372	< 1.000	39.0	688	1400	* 2102	1.10
CW53	6/2/2008	ENER	---	---	---	---	---	---	195	745	1800	* 2894	---
WCW	10/14/2008	ENER	---	---	---	---	---	---	48.0	624	1210	* 1873	---
WR25	10/10/2008	ENER	---	---	---	---	---	---	132	2040	3610	* 4054	---

* 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)	V (mg/l)	Th230 (pCi/l)
0457	7/2/2008	ENER	8.22	0.239	< 0.0300	0.116	2.80	0.200	0.500	< 0.0100	0
0482	6/23/2008	ENER	---	0.144	0.0500	0.0260	2.80	---	---	---	---
	10/1/2008	ENER	---	0.121	0.0400	0.0280	3.20	---	---	---	---
0483	6/2/2008	ENER	---	0.167	0.0600	0.0300	2.80	---	---	---	---
	10/1/2008	ENER	---	0.130	0.0500	0.0350	3.20	---	---	---	---
0493	2/5/2008	ENER	---	0.292	< 0.0300	0.134	---	---	---	---	---
	6/23/2008	ENER	7.89	0.271	< 0.0300	0.135	2.00	0.100	0.100	< 0.0100	0
	10/1/2008	ENER	---	0.170	< 0.0300	0.133	---	---	---	---	---
0494	2/5/2008	ENER	---	0.153	0.0500	0.0250	---	---	---	---	---
	6/2/2008	ENER	7.56	0.191	0.0500	0.0400	5.40	-0.0100	0.700	< 0.0100	0.100
0498	6/23/2008	ENER	---	0.420	< 0.0300	0.0630	2.20	---	---	---	---
	10/1/2008	ENER	---	0.236	< 0.0300	0.0580	1.80	---	---	---	---
0538	3/31/2008	ENER	---	0.222	---	0.0430	4.20	---	---	---	---
0539	11/20/2008	ENER	---	0.189	< 0.0300	0.0560	3.80	---	---	---	---
0653	10/1/2008	ENER	---	0.471	---	0.0530	4.10	---	---	---	---
0853	6/23/2008	ENER	---	0.0403	< 0.0300	0.127	2.00	---	---	---	---
0929	2/6/2008	ENER	---	0.0403	< 0.0300	0.0180	1.000	---	---	---	---
	6/4/2008	ENER	8.12	0.0612	< 0.0300	0.0130	0.900	0.100	---	---	---
0930	6/4/2008	ENER	---	0.0046	< 0.0300	< 0.0050	< 0.100	---	---	---	---
0931	6/4/2008	ENER	---	0.0031	0.0400	< 0.0050	< 0.100	---	---	---	---
0934	2/6/2008	ENER	---	0.0577	0.0400	0.0150	1.40	---	---	---	---
	6/4/2008	ENER	8.03	0.0393	< 0.0300	0.0190	1.40	0.200	---	---	---
ACW	9/24/2008	ENER	---	0.0132	< 0.0300	0.0140	0.0900	---	---	---	---
AW	9/24/2008	ENER	---	0.131	0.0800	0.0340	2.99	---	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
CE1	6/24/2008	ENER	---	1.40	1.55	0.0240	< 0.100	---	---	---	---
CE2	2/6/2008	ENER	---	1.38	1.37	0.299	2.30	---	---	---	---
	7/17/2008	ENER	7.66	0.990	1.15	0.180	2.10	0.0600	-0.500	---	0
CE5	1/3/2008	HMC	7.66	284	0.347	---	---	---	---	---	---
	2/6/2008	ENER	---	0.528	0.260	0.0630	2.10	---	---	---	---
	6/27/2008	HMC	7.41	0.630	0.312	---	---	---	---	---	---
	7/17/2008	ENER	7.53	0.629	0.300	0.0700	2.10	-0.0500	---	---	---
	7/31/2008	HMC	7.78	0.602	0.255	---	---	---	---	---	---
	9/28/2008	HMC	7.72	0.483	0.231	---	---	---	---	---	---
CE6	2/6/2008	ENER	---	1.77	1.42	0.174	2.70	---	---	---	---
	7/17/2008	ENER	7.65	2.27	1.58	0.192	3.10	-0.100	---	---	---
CE7	2/6/2008	ENER	---	30.0	32.4	1.25	14.0	---	---	---	---
	10/20/2008	ENER	7.56	36.2	39.4	1.16	8.40	0.320	0.200	0.0200	0.400
CE8	10/20/2008	ENER	8.02	0.0321	< 0.0300	< 0.0050	< 0.100	-0.0400	0.200	< 0.0100	0
CE9	10/20/2008	ENER	7.32	0.201	0.0700	0.0270	2.00	0.260	---	---	---
CE10	10/20/2008	ENER	7.60	2.18	1.89	0.0080	< 0.100	1.10	---	---	---
CE11	2/6/2008	ENER	---	2.11	1.50	0.132	2.70	---	---	---	---
	7/17/2008	ENER	7.54	1.89	1.21	0.103	2.60	0.0060	---	---	---
CE12	2/6/2008	ENER	---	1.66	1.74	0.307	4.30	---	---	---	---
	7/17/2008	ENER	7.50	1.20	0.840	0.225	4.40	-0.100	---	---	---
CE13	10/20/2008	ENER	7.39	36.4	28.5	0.952	13.6	1.40	1.30	0.0100	0.300
CW1	2/4/2008	ENER	---	0.0840	< 0.0300	0.0450	1.20	---	---	---	---
	6/4/2008	ENER	8.11	0.0983	0.0400	0.0430	1.20	0.200	---	---	---
CW2	2/4/2008	ENER	---	0.0314	< 0.0300	0.0510	0.800	---	---	---	---
	2/4/2008	ENER	---	# 0.0300	# < 0.0300	# 0.0510	# 0.800	---	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
CW2	6/4/2008	ENER	8.05	0.0255	< 0.0300	0.0490	0.700	0.300	---	---	---
	8/11/2008	ENER	---	0.0231	< 0.0300	0.0490	---	---	---	---	---
CW3	2/4/2008	ENER	---	1.40	1.35	0.0130	< 0.100	---	---	---	---
	6/4/2008	ENER	8.22	1.19	1.14	0.0150	< 0.100	0.200	0.300	0.0300	0.200
CW9	6/25/2008	ENER	---	0.0111	< 0.0300	< 0.0050	< 0.100	---	---	---	---
CW15	10/14/2008	ENER	---	0.0303	< 0.0300	0.0560	10.7	---	---	---	---
CW17	10/10/2008	ENER	---	1.10	1.70	0.432	27.7	---	---	---	---
CW18	4/15/2008	ENER	---	0.0292	< 0.0300	0.0120	1.82	---	---	---	---
	6/17/2008	ENER	7.98	0.0289	< 0.0300	0.0130	1.90	0.300	---	---	---
CW24	10/10/2008	ENER	---	0.134	< 0.0300	0.0510	13.4	---	---	---	---
CW26	10/14/2008	ENER	---	0.0326	< 0.0300	0.103	2.40	---	---	---	---
CW27	10/14/2008	ENER	---	0.0313	< 0.0300	0.0730	4.40	---	---	---	---
CW28	4/15/2008	ENER	---	0.0250	< 0.0300	0.120	1.30	---	---	---	---
	6/17/2008	ENER	7.93	0.0228	< 0.0300	0.134	1.50	0.200	---	---	---
CW29	3/31/2008	ENER	---	0.264	< 0.0300	0.117	3.22	---	---	---	---
CW31	10/14/2008	ENER	---	0.0103	< 0.0300	< 0.0050	< 0.100	---	---	---	---
CW32	10/13/2008	ENER	---	0.0021	< 0.0300	< 0.0050	< 0.100	---	---	---	---
CW33	10/13/2008	ENER	---	0.0040	< 0.0300	< 0.0050	< 0.100	---	---	---	---
CW35	10/13/2008	ENER	---	0.192	< 0.0300	0.0750	8.00	---	---	---	---
CW36	10/14/2008	ENER	---	0.0031	< 0.0300	< 0.0050	< 0.100	---	---	---	---
CW37	10/15/2008	ENER	---	0.0258	< 0.0300	0.0690	5.90	---	---	---	---
CW39	10/15/2008	ENER	---	0.0315	< 0.0300	0.0490	5.60	---	---	---	---
CW40	10/15/2008	ENER	---	0.0177	< 0.0300	0.0100	1.70	---	---	---	---

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)	V (mg/l)	Th230 (pCi/l)
CW41	10/14/2008	ENER	---	0.0324	< 0.0300	0.0190	3.50	---	---	---	---
CW42	3/31/2008	ENER	---	0.579	< 0.0300	0.0650	---	---	---	---	---
	10/1/2008	ENER	---	0.249	< 0.0300	0.0980	3.10	---	---	---	---
CW45	3/31/2008	ENER	---	0.605	< 0.0300	0.0620	---	---	---	---	---
	10/1/2008	ENER	---	0.900	< 0.0300	0.0360	2.10	---	---	---	---
CW50	10/13/2008	ENER	7.60	0.0360	< 0.0300	< 0.0050	< 0.100	0.480	0.300	< 0.0100	0.100
CW52	10/13/2008	ENER	7.84	0.0114	< 0.0300	< 0.0050	< 0.100	-0.0200	0.0700	< 0.0100	0.100
CW53	6/2/2008	ENER	---	0.0461	< 0.0300	0.0120	1.80	---	---	---	---
WCW	10/14/2008	ENER	---	0.0044	< 0.0300	< 0.0050	< 0.100	---	---	---	---
WR25	10/10/2008	ENER	---	0.306	< 0.0300	0.0190	6.60	---	---	---	---

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	5/5/2008	ENER	249	83.7	13.0	320	---	---	229	769	1900	* 2689	---
	8/27/2008	ENER	244	80.6	12.8	318	585	< 1.000	224	738	1970	* 2751	1.05
#2 Deepwell	5/5/2008	ENER	225	76.6	11.5	256	---	---	194	709	1660	* 2412	---
	8/27/2008	ENER	251	81.8	12.1	272	512	< 1.000	216	719	1900	* 2549	1.06
0806R	9/24/2008	ENER	234	76.8	9.90	211	423	< 1.000	189	634	1630	* 2258	1.08
0911	8/25/2008	ENER	150	41.9	3.70	63.0	280	< 1.000	38.0	336	823	* 1165	1.08
0928	9/15/2008	ENER	31.7	7.50	1.60	422	319	< 1.000	39.0	599	1230	---	1.09
	9/16/2008	ENER	23.0	5.70	1.60	436	318	< 1.000	44.0	585	1210	* 1842	1.10
	9/17/2008	ENER	15.6	4.10	1.50	431	317	2.00	44.0	556	1180	* 1819	1.10
0943	3/5/2008	ENER	181	56.2	9.40	288	422	< 1.000	177	742	1640	* 2411	0.965
	9/16/2008	ENER	206	64.1	9.20	293	401	< 1.000	168	689	1650	* 2312	1.11
	12/1/2008	ENER	---	---	---	---	---	---	---	666	1700	* 2344	---
0949	8/25/2008	ENER	184	56.6	6.80	128	344	< 1.000	108	512	1200	1620	1.01
0951	3/5/2008	ENER	147	43.5	5.50	86.0	352	< 1.000	62.0	349	938	* 1348	0.998
	8/27/2008	ENER	170	50.0	5.70	98.0	339	< 1.000	74.0	382	976	* 1421	1.09
	12/1/2008	ENER	---	---	---	---	---	---	---	348	982	* 1401	---
	12/1/2008	ENER	---	---	---	---	---	---	---	# 355	# 982	---	---
0955	8/25/2008	ENER	165	53.8	6.30	103	320	< 1.000	70.0	438	1030	* 1460	1.06
0986	8/22/2008	ENER	166	50.7	5.70	119	328	< 1.000	71.0	468	1100	* 1290	1.04
	8/23/2008	ENER	178	52.5	5.90	114	328	< 1.000	78.0	474	1090	* 1310	1.05
	8/25/2008	ENER	173	54.5	6.20	118	337	< 1.000	81.0	476	1150	* 1300	1.04
	11/13/2008	ENER	196	51.7	3.70	319	385	< 1.000	66.0	876	1730	* 1640	1.06
	11/13/2008	ENER	192	50.6	3.70	322	384	< 1.000	65.0	876	1760	* 2270	1.05
0991	8/26/2008	ENER	162	52.3	6.10	101	320	< 1.000	71.0	427	1030	* 1430	1.05

Signifies Quality Control Sample

* 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)	V (mg/l)	Th230 (pCi/l)
#1 Deepwell	5/5/2008	ENER	7.22	0.0078	< 0.0300	< 0.0050	0.930	0.280	---	---	---
	8/27/2008	ENER	7.47	0.0073	< 0.0300	0.0130	1.000	0.0400	---	---	---
#2 Deepwell	5/5/2008	ENER	7.38	0.0110	< 0.0300	0.0080	2.43	0.230	---	---	---
	8/27/2008	ENER	7.51	0.0155	< 0.0300	0.0070	4.80	0.0700	---	---	---
0806R	9/24/2008	ENER	7.13	0.0178	< 0.0300	0.0080	4.10	0.410	---	---	---
0911	8/25/2008	ENER	7.80	0.0101	< 0.0300	0.0150	4.20	-0.0400	---	---	---
0928	9/15/2008	ENER	8.00	0.0400	< 0.0300	0.0140	0.200	0.130	---	---	---
	9/16/2008	ENER	8.24	0.0330	< 0.0300	0.0110	0.100	0.290	---	---	---
	9/17/2008	ENER	8.19	0.0285	< 0.0300	0.0100	0.100	0.720	---	---	---
0943	3/5/2008	ENER	7.48	0.0217	< 0.0300	0.0290	4.00	-0.0600	---	---	---
	9/16/2008	ENER	7.40	0.0182	< 0.0300	0.0220	4.20	1.20	---	---	---
	12/1/2008	ENER	---	0.0162	---	0.0220	---	---	---	---	---
0949	8/25/2008	ENER	7.63	0.0116	< 0.0300	0.0090	5.00	0.170	---	---	---
0951	3/5/2008	ENER	7.49	0.0400	< 0.0300	0.0060	4.50	7.60	---	---	---
	8/27/2008	ENER	7.66	0.0470	< 0.0300	0.0050	5.00	-0.200	---	---	---
	12/1/2008	ENER	---	0.0416	---	0.0060	---	---	---	---	---
	12/1/2008	ENER	---	# 0.0415	---	# 0.0050	---	---	---	---	---
0955	8/25/2008	ENER	7.65	0.0054	< 0.0300	0.0110	4.20	0.210	---	---	---
0986	8/22/2008	ENER	7.62	0.0111	< 0.0300	0.0100	4.30	0.350	---	---	---
	8/23/2008	ENER	7.60	0.0094	< 0.0300	0.0100	4.90	0.310	---	---	---
	8/25/2008	ENER	7.52	0.0087	< 0.0300	0.0100	4.60	-0.270	---	---	---
	11/13/2008	ENER	7.78	0.0573	< 0.0300	0.0240	5.10	0.0900	---	---	---
	11/13/2008	ENER	7.84	0.0534	< 0.0300	0.0240	5.10	-0.0500	---	---	---
0991	8/26/2008	ENER	7.73	0.0062	< 0.0300	0.0100	4.40	0.550	---	---	---

Signifies Quality Control Sample

APPENDIX C

ANNUAL ALARA AUDIT

Annual ALARA Audit

November 25-26, 2008

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

Prepared by:

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1.0 Introduction

On November 25-26, Kenneth R. Baker and Michael Schierman conducted the 2008 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." Other applicable references included USNRC Materials License Number SUA-1471 issued to Homestake Mining Company, and USNRC Regulatory Guides 8.10, 8.22, and 8.30.

The following topics were covered in the audit:

Follow up on prior ALARA audit
ALARA policy
Radiation exposures
Bioassay results
Environmental monitoring
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.

Continuing activities at the site during 2008 include the operation of a reverse osmosis (RO) unit that supports the groundwater restoration program, drilling additional wells on the Large Tailing Pile, operating and maintaining the dewatering system for the large tailings pile, and maintaining the groundwater restoration system. Work continues with flushing the large tailings pile which involves injecting water into wells and removing water from nearby collection wells. 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. Two pilot scale groundwater treatment experiments, one involving in-situ bioremediation using sulfate reducing bacteria, the other using zeolites as an adsorption media, were also conducted.

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 scheduled NRC audit occurred on July 30-August 1, 2008. The report indicated no findings or recommendations. The EPA's Five Year Review (September 2006) was reviewed for relevant information. No recommendations or criticisms related to radiation safety were made.

The last ALARA Audit occurred on November 7 and December 20, 2007. There report included no findings but two suggestions for improvement were noted. These were
1)Good photocopies of data forms should be used to improve readability and quality
2)Revise the format of the Monthly Audit Report.

Good photocopies of the forms were used in 2008 and therefore no further action is necessary. The basis for the recommendation regarding the Monthly Audit Report is that the report does not summarize what was accomplished and identify any problems with the radiation safety program. Mr. Al Cox, the Radiological Protection Administrator (RPA), started to revise the monthly ALARA report format but has not completed the task. Hopefully, this can be completed in 2009.

No action is required from prior audits.

2.2 ALARA Policy

The corporate ALARA policy statement is included in Standard Operating Procedure HP-6, revised October 14, 2003. This policy statement commits management and personnel to be continually vigilant for means to reduce exposures. This policy has been implemented as evidenced by discussions with HMC management and staff, and by the incorporation of ALARA principles in worker training and preparation of radiation work permits.

2.3 Radiation Exposures

2.3.1 External Exposures

Dosimetry data for the 2007 showed that seven HMC personnel and 12 contractor personnel people were monitored with the maximum individual receiving 31 mrem/y.

Data were available for the first two quarters of 2008. Exposures continue to be low with a maximum quarterly exposure of 11 mrem. Shallow and eye dose equivalents were similar to the deep doses.

Dosimeters are also placed at each of the perimeter hi-volume air particulate sampling stations and processed semiannually. The reported semiannual results for the first half of 2008 indicate exposure rates within 6 mrem of that at the background location.

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. The number of people monitored is approximately the same as last year and thus the collective dose equivalent is anticipated to be about the same.

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. RWP-1-2008 was issued in August 18, 2008 when drilling for well placement began on top of the large tailings pile. "Spot checks" were performed for surface contamination with all values being below detection limits. No personal air sampler data were collected during these "spot checks". At the time of the audit, no additional RWPs were issued in 2008.

A high volume air particulate sampler exists on top of the large tailings pile (Location HMC- 8) and continuous samples were taken. Data for 2007 and the first two quarters of 2008 indicate near background concentrations of uranium, Ra-226, and Th-230. Net concentrations above background were less than 1 percent of the respective DACs. This is a good indication that the average airborne particulate concentrations during work activities on top of the pile are low.

A review of the perimeter high volume sample results for the 2007 and the first half of 2008 indicate normal radioactive particulate concentrations in air.

2.3.3 Internal Exposure from Radon

The radon concentrations at seven locations on the site perimeter near the tailings pile are monitored by a semi-annual exchange of track-etch detectors. The highest concentration at a perimeter location for 2007 averaged 2.1 pCi/l, compared to the background location of 0.9 pCi/l. The maximum concentration at a perimeter location for the first half of 2008 was 2.2 pCi/l compared to 1.3 pCi/l at the background location. These values are typical of measured values at the site for several years.

HMC has been aware that the RO building presents a source of concern for radon exposure. Water from collection wells is exposed to the atmosphere in the RO building and dissolved radon will emanate into the building atmosphere. Ventilation fans in the building are operated twice daily prior to shift entry to exhaust this radiation source, and an additional exhaust fan operating continuously was added to the building sump in 2003 to reduce radon concentrations further. Two track-etch detectors were placed in the work areas and read monthly during 2003, where monthly averages ranged from 4.5 to 14.5 pCi/l. This was a significant decrease from the levels measured in 2001 and 2002 prior to full installation of the existing building exhaust system. Detectors are changed out quarterly at this time. Readings for the last quarter of 2007 were 7.6 and 7.9 pCi/l. The readings for the first three quarters of 2008 were 4.5, and 5.1pCi/l for the first quarter, 8.4 and 8.4 pCi/l for the second quarter, and 15.1 and 15.4 pCi/l, respectively for the third quarter. These concentrations are generally below the 2003 values and significantly less than that measured during the first half of 2002 (21 pCi/l) and in the year 2001 (47 pCi/l). This reduction in concentration is likely due to the aforementioned increased ventilation in the RO building.

HMC records the occupancy time employees are in the RO building. WL measurements from prior years showed very low radon daughter concentrations compared to the radon concentrations. In addition, occupancy times for workers are normally a few hours per week. Thus radiation exposures under these occupancy periods are very low.

HMC has made a considerable effort in reducing radiation exposure to workers in the RO building. The current concentrations are consistent with those made over the last few years. It is this auditor's opinion that no additional engineering and/or administration controls are necessary.

2.4 Bioassay Results

Procedures call for a semi-annual routine urine-sampling schedule for HMC employees. Contractor employees are sampled at the beginning and end of short-term projects. Semiannual samples for regular employees were reported in July and October for 2008.

Year to date, 64 individual samples have been submitted. A spike and blank sample were submitted with each shipment which accounted for 24 of the 64 samples. 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.

All results were below the LLD of 5 μg/l of uranium, except for the spikes. HMC obtained a uranium solution from the vendor laboratory and spikes one blank urine sample in each shipment with either 15 or 30 pCi/l. The laboratory estimates for all spiked samples were within 30% of the known amount, which is the allowable tolerance.

The results for the bioassay program support the conclusion that the worker uptake of uranium is low.

2.5 Self Audits

The RPA requires that the technicians (Venable/Vigil) prepare a monthly ALARA report. The report is intended to present data reflective of the operations as well as an accounting of the major activities for the month. In actuality, it contains most of the data forms that were generated for the month with no summary or interpretation. Any problems encountered are also to be presented although no problems were noted in those reviewed. The auditors agree with the RPA's assessment that the reports need to be reformatted to a more useful format. The reports, although less than ideal, provide the RPA with adequate information to assure that exposures are being maintained ALARA.

The auditors are comfortable that the RPA is aware of site operations, and because of limited activity at the site, would be made aware of any ALARA-related problems. However, as noted in prior ALARA Audit reports, time would be saved if the monthly ALARA reports were streamlined so that the RPA could quickly determine that the routine activities had been performed, that non-routine activities were properly monitored, and that the exposure data were within expected ranges.

2.6 ALARA Planning Activities

HMC conducts all invasive work (involving tailings) under a radiation work permit (RWP). Only one RWP was prepared on August 18, 2008 for drilling additional wells on the Large Tailings Pile. 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. Spot check records of personnel were maintained.

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 and Mike Schierman conducted the last annual training on November 25, 2008. The Radiation Protection Administrator (RPA) or Adrian Venable normally gives the contractor training. Use of videotapes and an examination developed for HMC by a consultant is incorporated into the contractor employee training.

Al Cox, the RPA, had the required refresher radiation safety officer training in May 2007.

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. The exception is that MSA

lapel air pumps are currently in the charger station in the office area but have no marking as to calibration status. Only one of the pumps is operable and none of the pumps have been used for years nor are the calibrations maintained. These pumps need to be removed or clearly tagged out of service. All equipment that can be used to evaluate workplace radiological conditions or worker exposure to radiation needs to have a current calibration or be clearly tagged out of service, or removed.

Clean area surveys are no longer required per license condition but HMC conducted surveys within the shop, lab, office, and change room were last conducted on October 20, 2007 as recommended in a prior ALARA audit. Seventeen locations were monitored where the removable alpha contamination was within a range considered acceptable for clean areas. Leak tests were also conducted on the radioactive sources currently in use on December 3, 2007. All values were within the normal range. While these activities are not required by the NRC license, the auditors believe they represent good practice.

The available release surveys were reviewed by the auditor. No items other than drilling equipment and vehicles were reported as being surveyed for release from the site. Adrian Venable and Joe Vigil indicated that there were no other items released during 2008.

2.9 Health Physics Staff
The current health physics staff consists of:

Alan D. Cox, Radiation Protection Administrator
Adrian Venable, Senior Health Physics Technician
Joe Vigil, Site Supervisor and Senior Environmental Technician

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 HMC Environmental Procedures Manual was reviewed. There is a requirement for these procedures to be reviewed annually and revised if necessary. The RPA had reviewed procedures all procedures (EM-1 through EM-4 and HP-1 through HP-16) in 2008 as required. No other procedures are currently under revision or preparation. Radiation dosimetry, bioassay, environmental monitoring, worker training, instrument maintenance, and other related radiation safety files maintained by Mr. Venable appeared to be complete.

3.0 Recommendations

The radiation protection program is effective in reducing exposures to as low as reasonably achievable. Results from external and internal dosimetry monitoring programs demonstrate that the doses received by the HMC staff and contractors are very low and well within the limits allowed by regulations. Additional engineering and administrative controls taken by the staff demonstrate adherence to the ALARA policy.

Some improvements that could be taken to improve the program include:

1. Revise the Monthly Audit Report format
2. Perform source leak checks and clean area surveys at a minimum annual frequency
3. Lapel air pumps or any other un-calibrated equipment that can be used to evaluate workplace radiological conditions or worker exposure should be labeled as out of calibration or disposed of.

This audit did not result in any further suggestions for improving the radiation protection program.

APPENDIX D

INSPECTION OF TAILINGS PILES AND PONDS

KLEINFELDER
Bright People. Right Solutions.

February 19, 2009
File No.: 16977.07.3-ALB09RP001

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

SUBJECT: REPORT OF 2008 ANNUAL INSPECTION OF TAILING IMPOUNDMENTS AND PONDS HOMESTAKE GRANTS PROJECT GRANTS, NEW MEXICO

Dear Mr. Cox:

On November 11, 2008 the undersigned performed the annual visual inspection of the tailing impoundments and evaporation ponds at the Homestake Grants Project located at Grants, New Mexico. Subsequent to my inspection, I reviewed additional information including:

- Impoundment piezometer readings taken by Homestake personnel during 2008
- Tailing impoundment phreatic level (August 2008) map provided by Hydro Engineering on February 18, 2009
- The settlement monument survey performed by Souder Miller in November 2008
- Sump discharges and large impoundment reinjection rates recorded by Homestake during the year.

This report addresses the observations and findings of my site inspection as well as assessment of the additional information listed above.

OBSERVATIONS

The undersigned performed a visual inspection of the tops and outslopes of both tailing impoundments and of the dikes, slopes, and liners of both evaporation ponds. The weather was partly sunny and temperatures were in the 40s.

Large Tailing Impoundment

The surface of the large impoundment was in good condition with no evidence of structural deformation or erosion of the outslopes. Volunteer vegetation provides some protection against erosion, especially on the top surface interim cover. Routine

maintenance has been adequate to control rilling of top surfaces, and the riprap cover on the outslopes was intact and in good condition.

Water has been injected into the large impoundment at an average rate of 220 gpm during the past year for flushing of residual contaminants (HydroEngineering, 12/18/08). Additional injection wells were being installed on the date of this site inspection. No visible effects of injection on the impoundment were observed.

During the 2007 annual inspection, water was observed along a horizontal distance of about 500 feet near the northeast corner at the toe of the north outslope of the large impoundment. Since then, four sumps have been installed in this location and connected to the toe drain collection system. The sumps are spaced about 100 feet apart starting from about 400 feet west of the northeast toe of the impoundment. Each sump includes a slotted HDPE pipe, 3.0 feet in diameter and extending about 7 feet below grade. These sumps have been effective in collecting the toe seepage, leaving wet soil with an alkali bloom but no standing water.

Small Tailing Impoundment/ Evaporation Pond #1 (EP1)

The small impoundment (location of evaporation pond #1, or EP1) is generally in good condition. The north and west outslopes have been recently groomed and are free of rills. The east outslope has some rills up to about 4 inches deep, and the southeast and southwest outslopes have occasional rills up to 8 inches deep. The two CMPs installed on the south corner have been effective in controlling runoff from the top surface of the small impoundment, preventing recurrence of the deep rilling observed in the 2006 inspection.

EP1 pond had a freeboard of about 5 feet. The wave dissipater booms were in place. Due to cool weather the evaporative spray system was not operating.

The liner damage along the south inslope of EP1 noted in the 2007 inspection remains in need of repair. The extent of the damage, apparently resulting from gradual wear due to wave action causing displacement of the tailing sand below the liner, has not noticeably increased during the past year. This damage extends along a horizontal strip 1-2 feet wide and 200-300 feet long and at about the midpoint of the slope.

The tear at the location of an exposed pipe flange on the north inslope of EP1, first noted in the 2006 inspection, was repaired but has once again opened (see Photos 1 and 2).

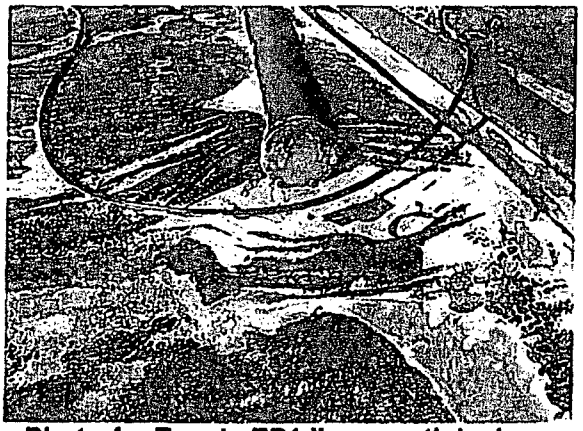


Photo 1 – Tear in EP1 liner, north inslope

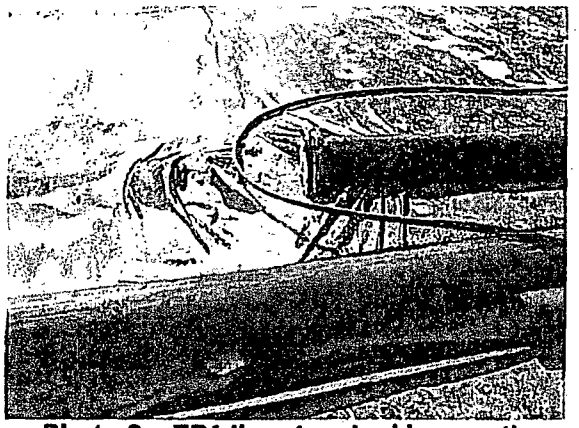


Photo 2 – EP1 liner tear looking south

Evaporation pond #2 (EP2)

EP2 liner and outslopes are in generally good condition. The north outslope has a few rills up to 8 inches deep. The south outslope has been covered with a gravel blanket for additional erosion protection. The pond water surface was about 5 feet below the dikes or about 3 feet below maximum pond level. Evaporation sprays were not operating. No water in the leak detection sumps has been reported by site personnel.

PIEZOMETER AND SETTLEMENT MONITORING

The impoundment-flushing program in the large impoundment has continued during 2008 and is expected to continue through 2011. Piezometer (phreatic surface) levels have increased substantially in some locations, apparently in response to changes in injection and pumping for impoundment flushing. The water level map of August 2008

provided by Hydro Engineering indicates that the water in the south slope of the west half of the large impoundment was approximately five feet below ground surface near the toe of the slope. No stability analyses for 2008 were available to assess the influence of this or other increased phreatic levels on the stability of the outslopes.

The settlement-point survey conducted in November 2008 indicates settlement across the top of the large impoundment of 0.07 feet to 0.21 feet. There is a clear settlement pattern in the southeast quadrant of the east cell, where points D10 and E10 both showed 0.21 feet of settlement since last year. This pattern is consistent with a lower phreatic surface in the same area. Settlements in the east cell were generally larger than in the west cell. Additional settlement is expected as long as injection continues and substantial drainable water remains in the pore spaces of the tailings.

CONCLUSIONS AND RECOMMENDATIONS

The tailing impoundments and the evaporation ponds are in generally good condition and are being maintained within the operating limits of the NRC license and the respective facility designs. Several conditions were observed that require repair or ongoing observation:

- The damage to the EP1 liner along the south inslope and north inslope should be repaired. The liner is not breached at this location, so this repair is not considered to be urgent but should be performed with better weather conditions in Spring 2009.

- The piezometers should be measured on a quarterly basis until the cessation of the injection program. If any piezometer indicates that the local phreatic surface is within 10 feet of the collar elevation, injection should be limited to prevent further rise of the saturated zone.

- The slope stability analysis of the large impoundment should be updated this year because of the substantial rise in the saturated zone within the tailings.

- Water levels in the large tailing impoundment slopes should not be allowed to rise to levels less than five feet below the slope surface. Higher water levels will create a higher risk of surface slumps in the slopes. The south slope of the west half of the large impoundment should be observed by site staff at least weekly for signs of water emerging from the slope, especially near the toe, and for visible evidence of slumps or other displacements in the slope surface. The undersigned should be notified immediately if seepage from the slopes or if surface slumps or other deformations in the slopes are observed.

LIMITATIONS

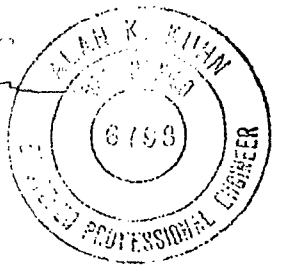
The recommendations contained in this report are based on Dr. Kuhn's field visit, evaluation of information generated by others and obtained from Homestake, and his understanding of the inspected facilities. If any conditions are encountered at this site which are significantly different than those described 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 WEST, INC.



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

APPENDIX E

GRANTS RECLAMATION PROJECT
LAND USE REVIEW / SURVEY

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GRANTS RECLAMATION PROJECT
LAND USE REVIEW / SURVEY

APPENDIX E

FIGURES

TABLES

Grants Reclamation Project

Land Use Review / Survey

Annual Report No. 6 - CY2007

1.0 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 seventh annual land use review / survey pursuant to (LC) 42.

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.

2.0 2008 – 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.

Several small lot / small acreage parcels [e.g. residential lot(s)] held by HMC in the general area of the reclamation site are idle and are essentially not in use except in certain instances where fresh water injection and water collection is underway as part of the ongoing groundwater restoration program. Consideration is being given to possible agricultural use on selected lot(s) in the future. Block 1 Lot 5 and Block 2 Lot 2 in Murray Acres were planted and irrigated in 2008.

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 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. In 2003, an additional 24 acres of flood irrigation was added to the irrigation system in Section 33. In 2005, the 60 acre center pivot irrigation system was expanded by 40 acres to a total of 100 acres.

For 2008, total HMC lands available for crop irrigation totaled 394 acres situated in Sections 28, 33 and 34 (see project location Figure 2.1-1 in report Section 2.1 of this annual report for location of the four areas under present irrigation) All four areas were irrigated in 2008.

3.0 2008 – Land Use – Pleasant Valley Estates, Murray Acres, Broadview Acres, Felice Acres and Valle Verde 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 in early 2009 to provide annual review of the present uses, occupancy and status for the various lots within these subdivisions. Over the years, permanent residential homes, modular homes and mobile homes have been established in the subdivision areas, and immediate adjacent 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.

This year, the annual review included an assessment of the residential areas adjacent to Felice Acres, Pleasant Valley Estates and the Valle Verde residential areas and adjacent lots as was done during 2006 and 2007.

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 during 2008. See Tables E-1 through E-5 for 2008 database information.

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 attached Figures E-1 through E-5.

Field review of the five subdivisions areas, along with follow-up inquiries as required to confirm the status of water use at each property, indicates that at present all occupied residential sites in, or immediately adjacent to the Felice Acres, Broadview Acres, Murray Acres, and Pleasant Valley subdivisions are on metered water service with the Village of Milan.

In the Valle Verde residential area and immediately adjacent to the subdivision, seven residences were identified that are not on the Village of Milan water supply system and are therefore obtaining domestic-use water from private well supplies. One of these seven residences that is located ¼ mile west of the Valle Verde subdivision hauled water and did not use their private well in 2008. Current information indicates that all other occupied residential lots in the Valle Verde area are on the Village water supply system.

The New Mexico Environment Department - Superfund Oversight Section continues to evaluate the Valle Verde area and a select area immediately east and southeast of Felice Acres and Highway 605 regarding private well supplies utilized for domestic household use and, were well water quality issues are identified, developing an action plan to get those residences on the Village of Milan water supply system. Communications continue with NMED regarding the identified residential well supplies in these two areas.

4.0 Conclusion

The review of land use for HMC properties and the five residential subdivision areas (which now includes the Valle Verde area) to the south and west of the Grants Reclamation Project site indicates that present land uses in the area have not changed significantly. AS a result of further refinement of the residential occupation information in the Valle Verde area during early 2009, coupled with an expansion of the residential area annual review scope, seven domestic potable water supplies were identified as being associated with private residential

well supplies. These private well supplies are located at residences in the Valle Verde subdivision or lots adjacent to the Valle Verde. Survey results indicate that all other water users in Valle Verde and in the other four subdivisions are currently being supplied by the Village of Milan water supply.

This land use survey / review is 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.

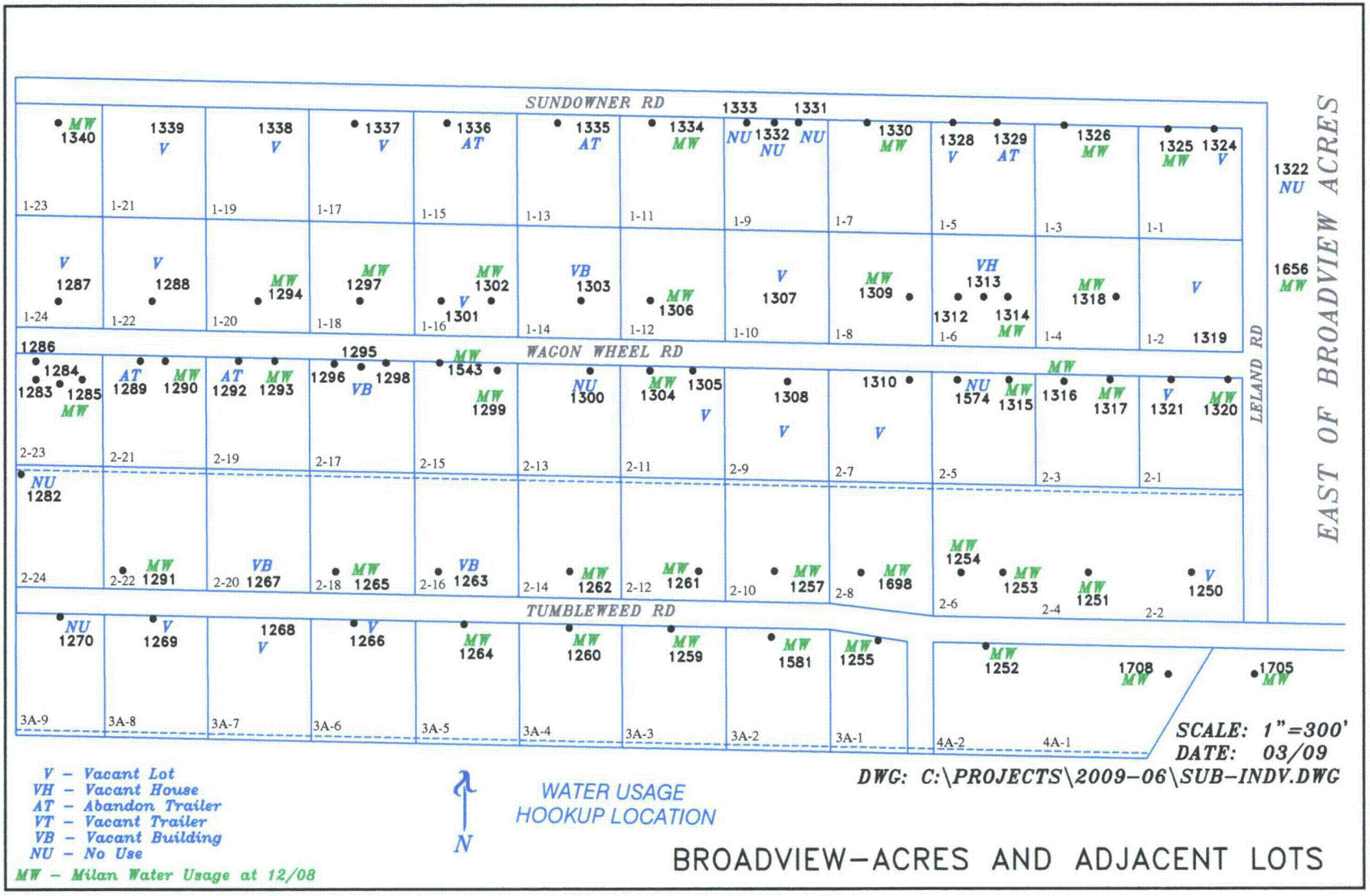

FIGURE E-1. BROADVIEW ACRES-LAND USE STATUS AND WATER USE

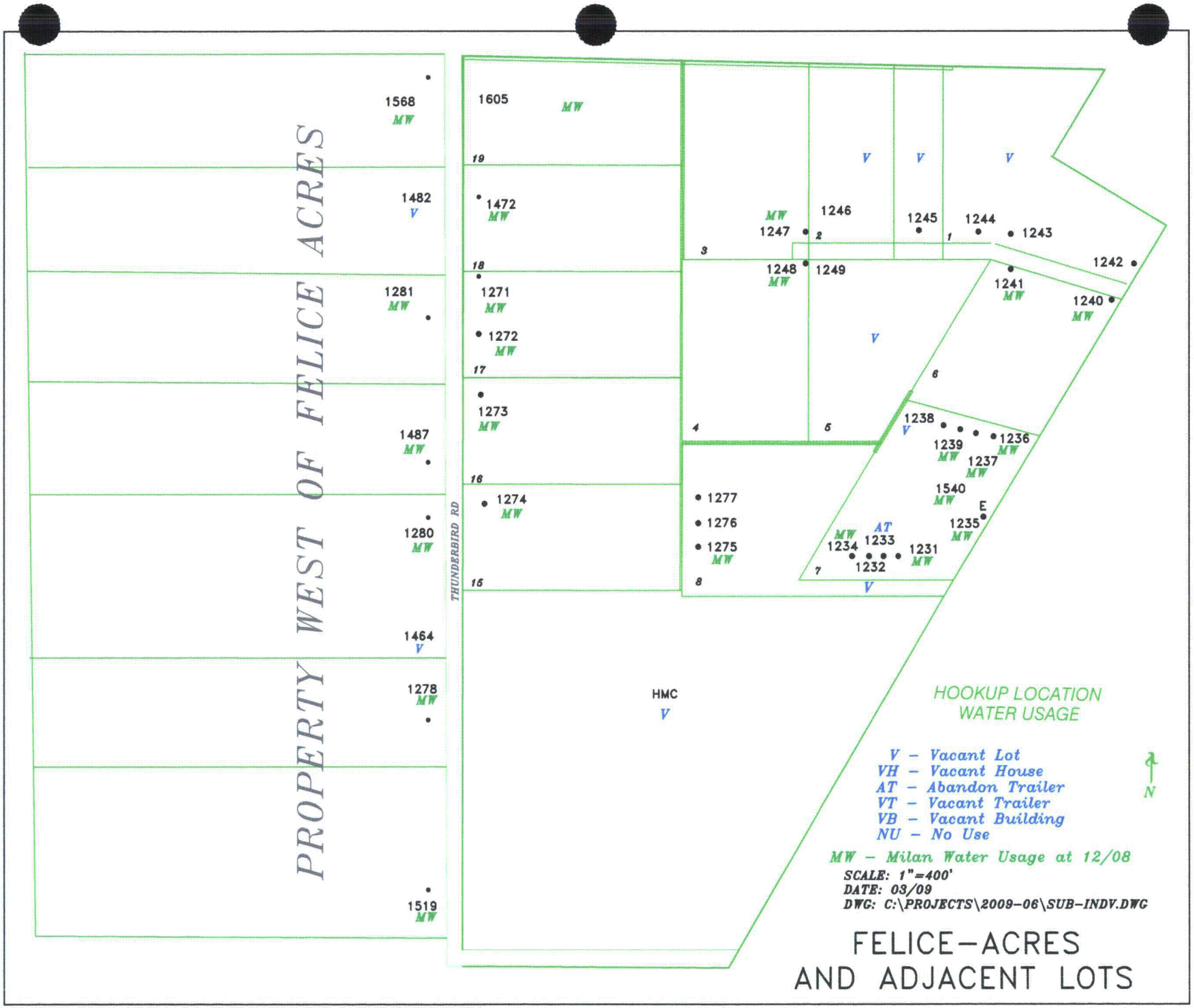

FIGURE E-2. FELICE ACRES - LAND USE STATUS AND WATER USE

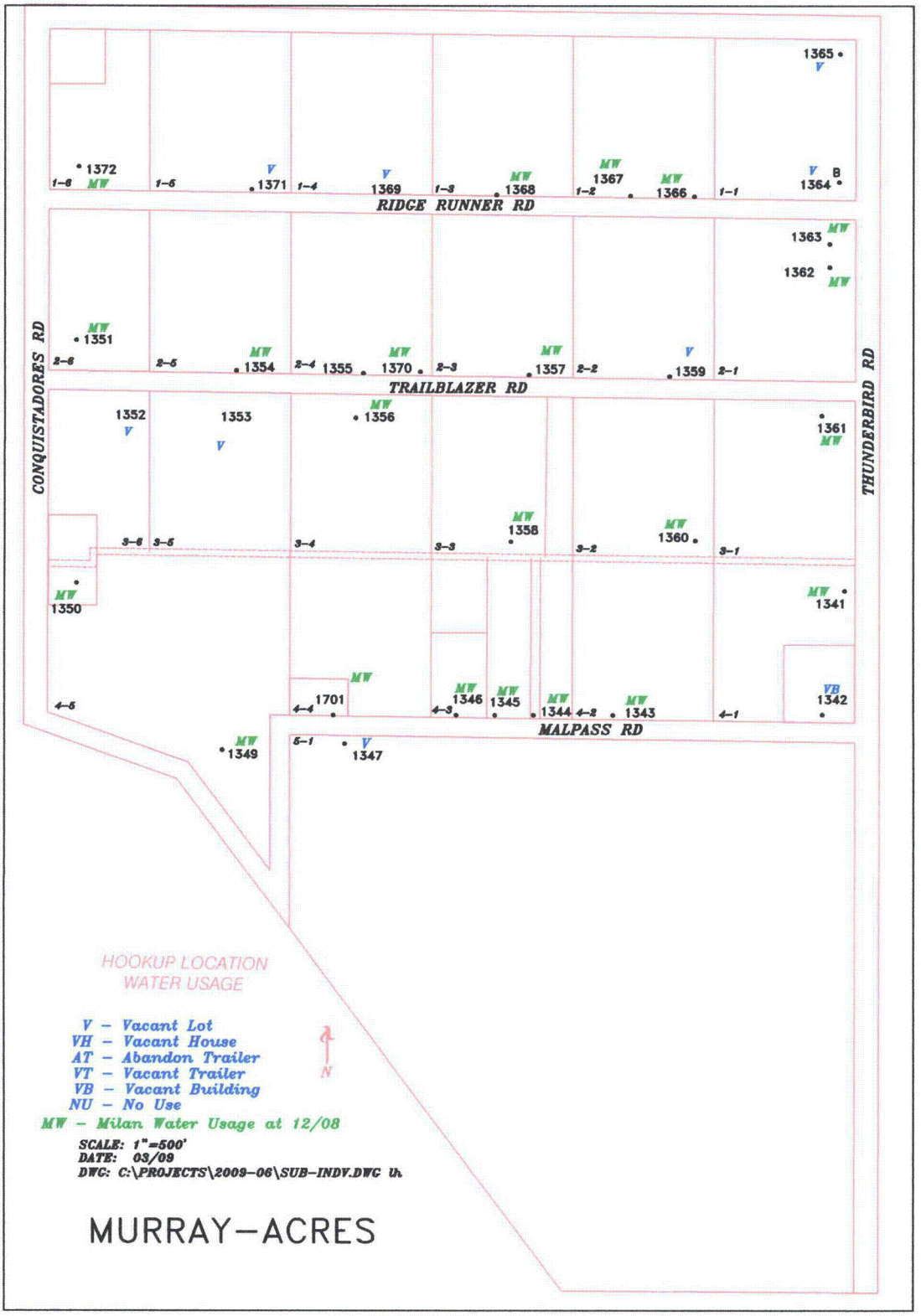

FIGURE E–3. MURRAY ACRES–LAND USE STATUS AND WATER USE

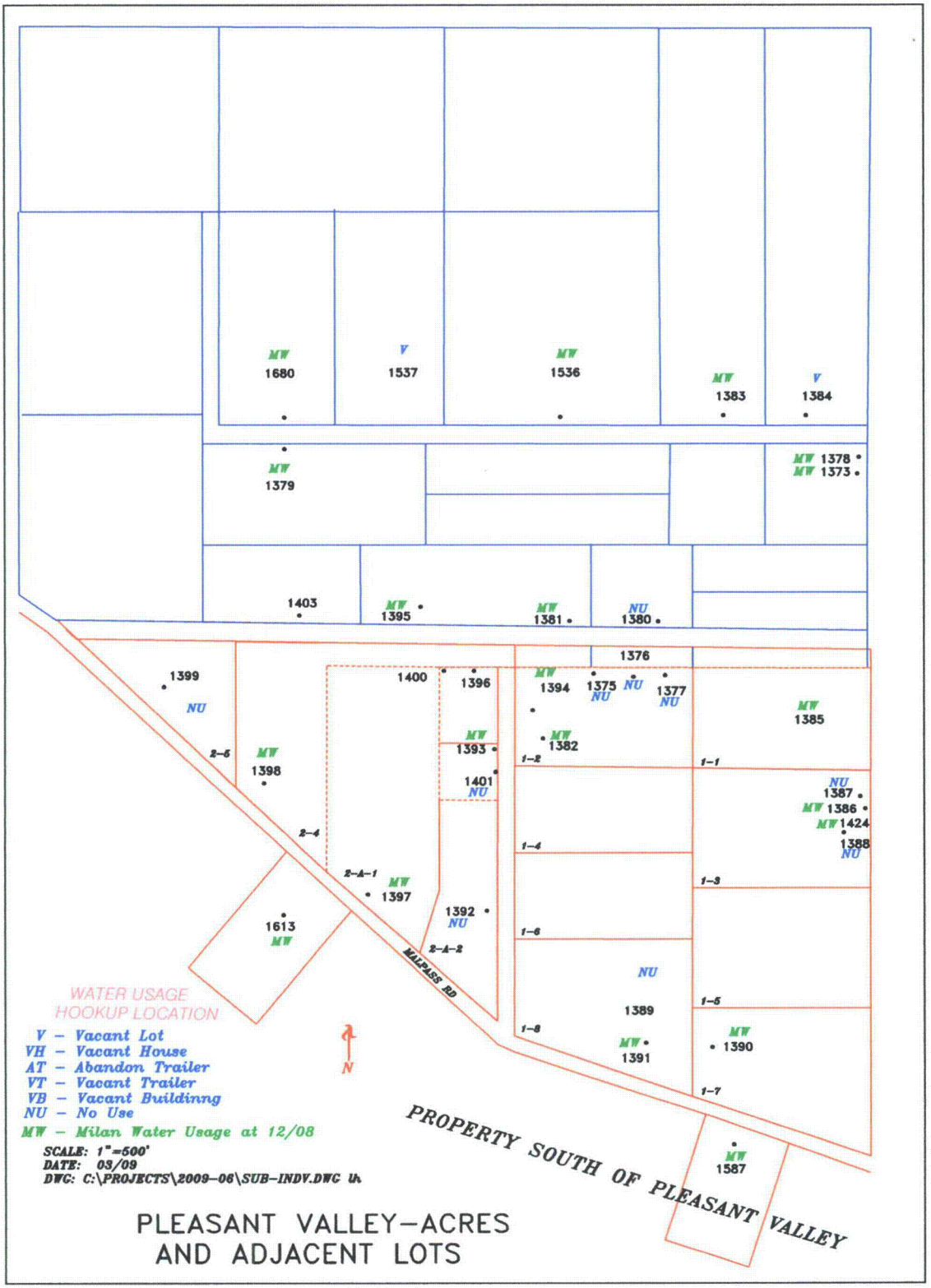

FIGURE E-4. PLEASANT VALLEY ESTATES-
LAND USE STATUS AND WATER USE

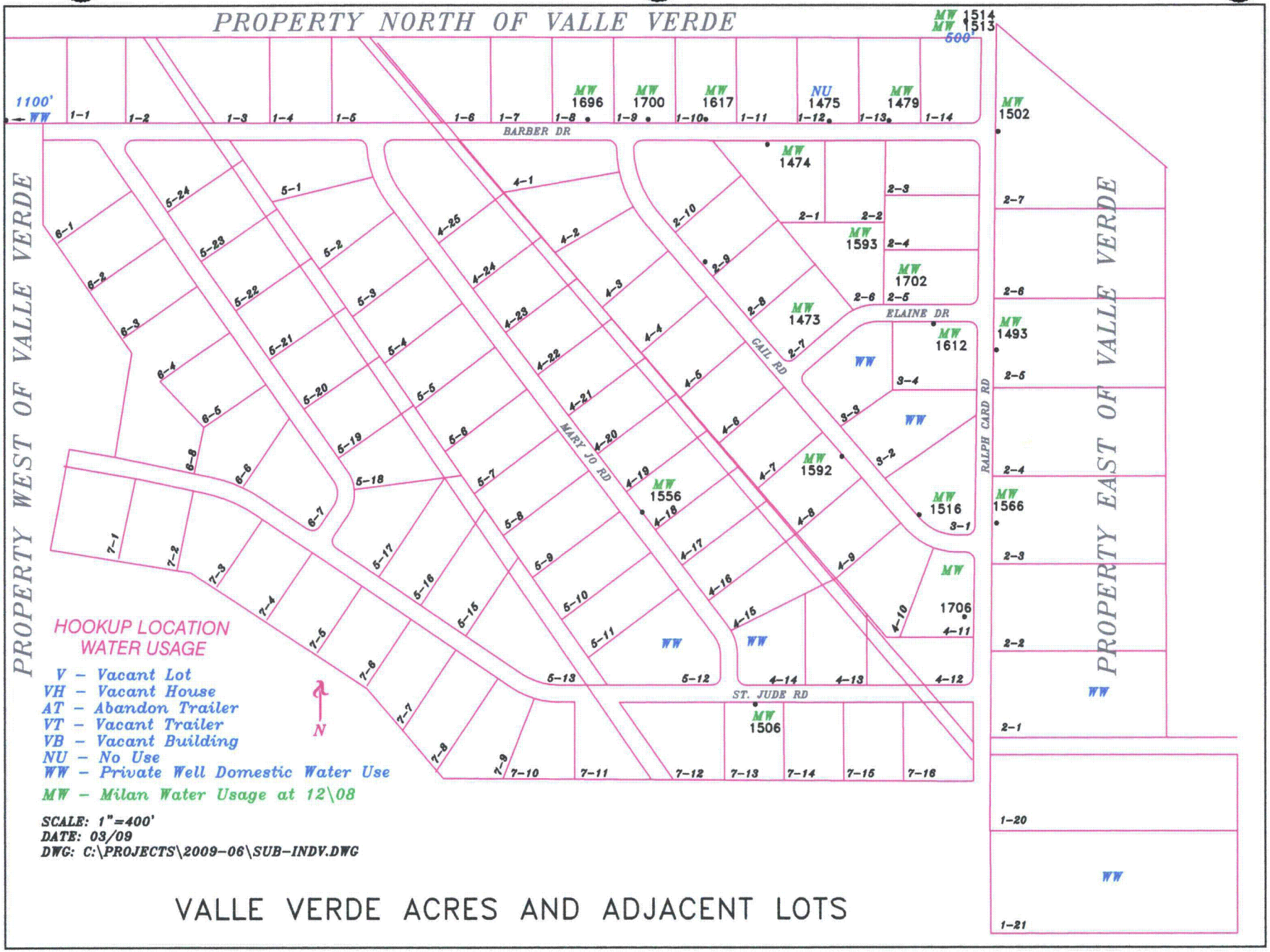

FIGURE E–5. VALLE VERDE ACRES–LAND USE STATUS AND WATER USE

TABLE E-1 WATER USE OF MILAN WATER IN BROADVIEW ACRES AND ADJACENT LOTS

SUBDIVISION BLOCK / LOT	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2007 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2008 WATER USAGE
1 / 1	1324		
1 / 1	1325	X	X
1 / 2	1319		
1 / 3	1326	X	X
1 / 4	1318	X	X
1 / 5	1328		
1 / 5	1329		
1 / 6	1312		
1 / 6	1313		
1 / 6	1314	X	X
1 / 7	1330	X	X
1 / 8	1309	X	X
1 / 9	1331		
1 / 9	1332		
1 / 9	1333		
1 / 10	1307		
1 / 11	1334	X	X
1 / 12	1306	X	X
1 / 13	1335		
1 / 14	1303		
1 / 15	1336		
1 / 16	1301		
1 / 16	1302	X	X
1 / 17	1337		
1 / 18	1297	X	X
1 / 19	1338		
1 / 20	1294	X	X
1 / 21	1339		
1 / 22	1288		
1 / 23	1340	X	X
1 / 24	1287		
2 / 1	1320	X	X
2 / 1	1321		
2 / 2	1250		
2 / 3	1316	X	X
2 / 3	1317	X	X
2 / 4	1251	X	X

TABLE E-1 WATER USE OF MILAN WATER IN BROADVIEW ACRES AND ADJACENT LOTS

SUBDIVISION BLOCK / LOT	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2007 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2008 WATER USAGE
2 / 5	1315		X
2 / 5	1574		
2 / 6	1253	X	X
2 / 6	1254	X	X
2 / 7	1310		
2 / 8	1698	X	X
2 / 9	1308		
2 / 10	1257	X	X
2 / 11	1304	X	X
2 / 11	1305		
2 / 12	1261	X	X
2 / 13	1300	X	
2 / 14	1262	X	X
2 / 15	1299	X	X
2 / 15	1543	X	X
2 / 16	1263		
2 / 17	1295		
2 / 17	1296		
2 / 17	1298		
2 / 18	1265	X	X
2 / 19	1292		
2 / 19	1293	X	X
2 / 20	1267		
2 / 21	1289		
2 / 21	1290		X
2 / 22	1291	X	X
2 / 23	1283		
2 / 23	1284		
2 / 23	1285	X	X
2 / 23	1286		
2 / 24	1282	X	
3A / 1	1255	X	X
3A / 2	1581	X	X
3A / 3	1259	X	X
3A / 4	1260	X	X
3A / 5	1264	X	X
3A / 6	1266		

TABLE E-1 WATER USE OF MILAN WATER IN BROADVIEW ACRES AND ADJACENT LOTS

SUBDIVISION BLOCK / LOT	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2007 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2008 WATER USAGE
3A / 7	1268		
3A / 8	1269		
3A / 9	1270		
4A / 1	1708	X	X
4A / 2	1252	X	X
EAST OF BROADVIEW ACRES			
	1322		
	1656	X	X
	1705		X

TABLE E-2 WATER USE OF MILAN WATER IN FELICE ACRES AND ADJACENT LOTS

SUBDIVISION BLOCK / LOT	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2007 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2008 WATER USAGE
1	1242		
1	1243		
1	1244		
2	1245		
2	1246		
3	1247	X	X
4	1248	X	X
5	1249		
6	1240	X	X
6	1241	X	X
7	1231	X	X
7	1232		
7	1233		
7	1234	X	X
7	1235	X	X
7	1236	X	X
7	1237	X	X
7	1238	X	
7	1239	X	X
7	1540	X	X
8	1275	X	X
8	1276		
8	1277		
9			
10			
11			
12			
13			
14			
15	1274	X	X
16	1273	X	X
17	1271	X	X
17	1272	X	X
18	1472	X	X
19	1605	X	X

PROPERTY WEST OF FELICE ACRES			
	1519	X	X
	1278	X	X

TABLE E-2 WATER USE OF MILAN WATER IN FELICE ACRES AND ADJACENT LOTS

SUBDIVISION BLOCK / LOT	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2007 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2008 WATER USAGE
	1280	X	X
	1464		
	1487	X	X
	1281	X	X
	1482		
	1568	X	X

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

SUBDIVISION BLOCK / LOT	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2007 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2008 WATER USAGE
1 / 1	1364		
1 / 1	1365		
1 / 2	1366	X	X
1 / 2	1367	X	X
1 / 3	1368	X	X
1 / 4	1369		
1 / 5	1371		
1 / 6	1372	X	X
2 / 1	1362	X	X
2 / 1	1363	X	X
2 / 2	1359		
2 / 3	1357	X	X
2 / 4	1355		
2 / 4	1370	X	X
2 / 5	1354	X	X
2 / 6	1351	X	X
3 / 1	1361	X	X
3 / 2	1360	X	X
3 / 3	1358	X	X
3 / 4	1356	X	X
3 / 5	1353		
3 / 6	1352		
4 / 1	1341	X	X
4 / 1	1342		
4 / 2	1343	X	X
4 / 3	1344	X	X
4 / 3	1345	X	X
4 / 3	1346	X	X
4 / 4	1701	X	X
4 / 5	1349	X	X
4 / 5	1350	X	X
5 / 1	1347		

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

SUBDIVISION BLOCK / LOT	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2007 WATER USAGE	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2008 WATER USAGE
1 / 1	1385	X	X
1 / 2	1375		
1 / 2	1376		
1 / 2	1377		
1 / 2	1382	X	X
1 / 2	1394	X	X
1 / 3	1386	X	X
1 / 3	1387		
1 / 3	1388	X	
1 / 3	1424	X	X
1 / 7	1390	X	X
1 / 8	1389		
1 / 8	1391	X	X
2 / 4	1398	X	X
2 / 5	1399		
2 / A1	1397	X	X
2 / A2	1392	X	
2 / A2	1393	X	X
2 / A2	1396		
2 / A2	1400		
2 / A2	1401		
	1373	X	X
	1378	X	X
	1379	X	X
	1380		
	1381	X	X
	1383	X	X
	1384		
	1395	X	X
	1403		
	1536	X	X
	1537		
	1680	X	X

PROPERTY SOUTH OF PLEASANT VALLEY ESTATES			
17 - 2	1587	X	X
11 - 2	1613	X	X

TABLE E-5 WATER USE IN VALLE VERDE AND ADJACENT LOTS

SUBDIVISION BLOCK / LOT	CUSTOMER NUMBER SITE ID	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2007 WATER USAGE	PRIVATE RESIDENTIAL WELL WATER 2007	VILLAGE OF MILAN WATER SUPPLY SYSTEM 2008 WATER USAGE	PRIVATE RESIDENTIAL WELL WATER 2008
1 / 8	1696	X		X	
1 / 9	1700	X		X	
1 / 10	1617	X		X	
1 / 12	1475	X			
1 / 13	1479	X		X	
2 / 1	1474	X		X	
2/5	1702	X		X	
2 / 6	1593		X	X	
2 / 7	1473	X		X	
2 / 8					
2 / 9					
3 / 1	1516	X		X	
3 / 2			X		X
3 / 3			X		X
3 / 4	1612	X		X	
4/11	1706		X	X	
4 / 8	1592	X		X	
4 / 14			X		X
4 / 18	1556	X		X	
5 / 12			X		X
7 / 13	1506	X		X	
PROPERTY NORTH OF VALLE VERDE					
	1513	X		X	
	1514	X		X	
PROPERTY EAST OF VALLE VERDE					
1/21			X		X
2 / 1			X		X
2 / 5	1493	X		X	
2 / 7	1502	X		X	
2 / 3	1566	X		X	
PROPERTY WEST OF VALLE VERDE					
			X		*

Note: * = This property is on hauled water. Figure E-5 shows private well symbol for the property but it was not used in 2008.

APPENDIX F

TAILINGS PILES RADON FLUX SURVEY / REPORT

Radon Flux Measurements for the HMC Tailings Piles

June 2008

Prepared for:

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

Prepared by:

Environmental Restoration Group, Inc.
8809 Washington St. NE, Suite 150
Albuquerque, NM 87113

Radon Flux Measurements for the HMC Tailings Piles

1. Introduction

Reclamation activities associated with the Large Tailings Pile (LTP) at the Grants Uranium Mill, owned by Homestake Mining Company of California (HMC), were completed in phases. The pile was contoured in 1994 at which time an interim cover was placed on the top of the pile to control the dispersal of tailings by wind and water erosion. Radon barrier was applied to the north, west, and south side slopes, with completion of the work in 1994. Radon flux measurements were made on these side slopes on October 24-25, 1994. Completion of the placement of radon barrier on the east side slope and aprons occurred just prior to making the radon flux measurements on July 24-25, 1995. An evaporation pond was constructed on the Small Tailings Pile (STP) and an interim cover placed on the remainder of the pile. Radon flux measurements were made on the top of the LTP and the interim cover of the Small Tailings Pile (STP) on August 18-19, 1995.

As part of a request for a license amendment extending the milestones in the NRC License, radon flux measurements were repeated in the areas with interim cover on October 21-22, 2003. This license amendment required HMC to repeat these measurements annually. This report presents the data for the Year 2008 flux measurements made on June 12-13, 2008.

2. Radon Flux and Gamma-Ray Exposure Results

The results of the flux measurements on the LTP and STP are presented in the Appendix as Table A-1 and Table A-2, respectively. One-hundred sample locations were established on the piles as shown in Figure 2-1. One flux measurement per location was made at 97 locations and one flux measurement and duplicate were made at three locations resulting in a total of 103 flux readings made on the two piles.

The distribution of canisters was allocated so that each canister represented an equal area of the total pile surface. Measurements are reported for 64 locations on the LTP and 36 locations on the STP. The average measured flux was 21.72 pCi/m^{2}s and 16.09 pCi/m^{2}s for the LTP and STP, respectively. For calculating average measured flux the results for canister duplicates (two canisters placed side by side) at each location and analysis duplicates (same canister counted twice) were averaged.

Exposure measurements were made at each canister location using a Ludlum Model 19 microR survey meter. Measurements were made with the survey meter held approximately one meter above the ground surface. Results for the LTP and STP are presented in Figure 2-2 and Table A-3.

3. Average Pile Flux

Since all but the top of the LTP has rock cover, canisters were placed on the top of the pile only. The average measured flux on the top of the pile was 21.72 pCi/m^{2}s. This compares to 42.1 pCi/m^{2}s measured in 1995. In the earlier data, the average flux on the sides of the pile was 3.27 pCi/m^{2}s, which constitutes 65 percent of the area. If one assumes that the flux on the side slopes remains constant, the average flux for the pile now is 9.73 pCi/m^{2}s. This is lower than the 14

Figure 2-1 Radon Flux Canister Locations

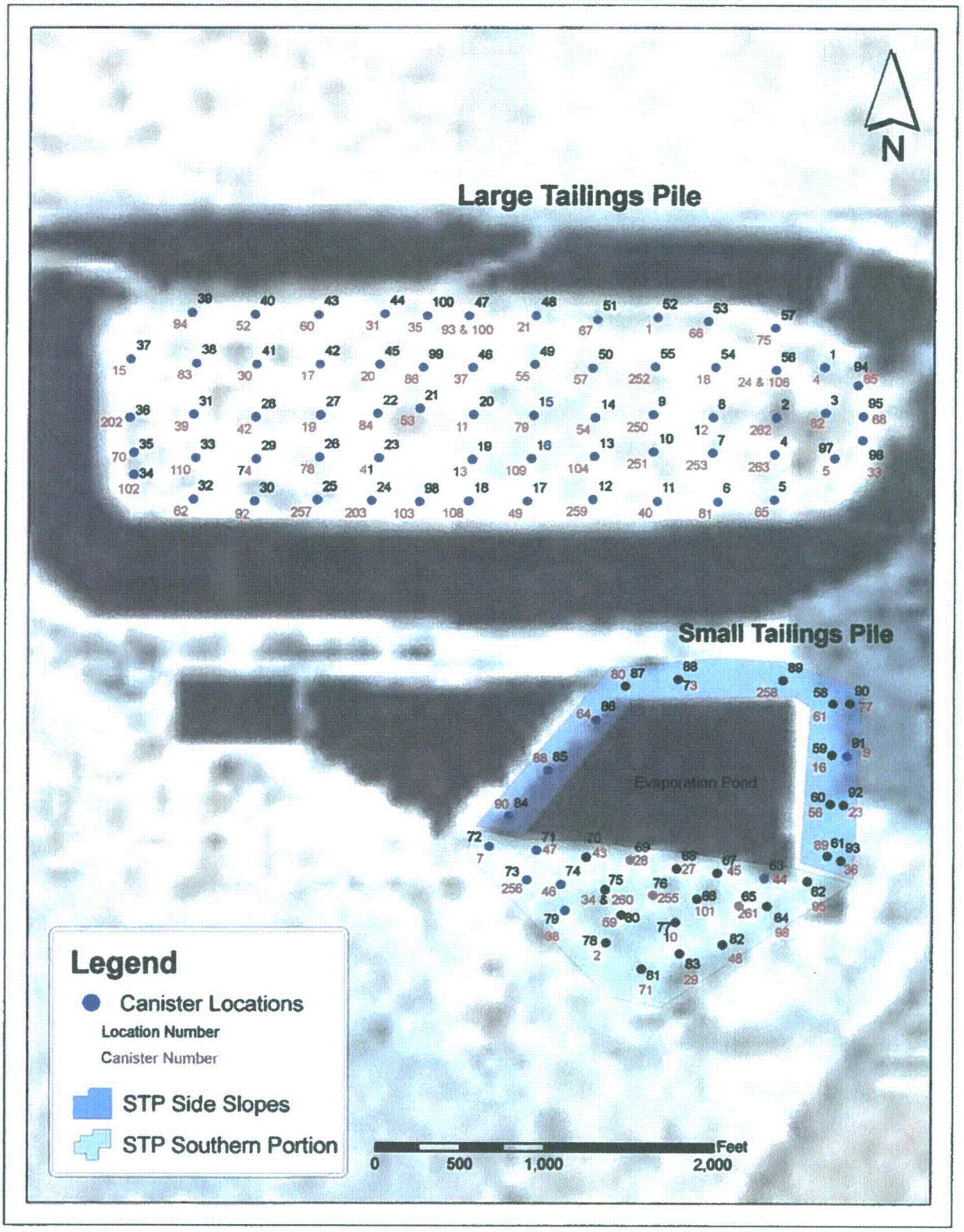

Figure 2-2 Gamma Exposure Readings at Radon Flux Canister Locations

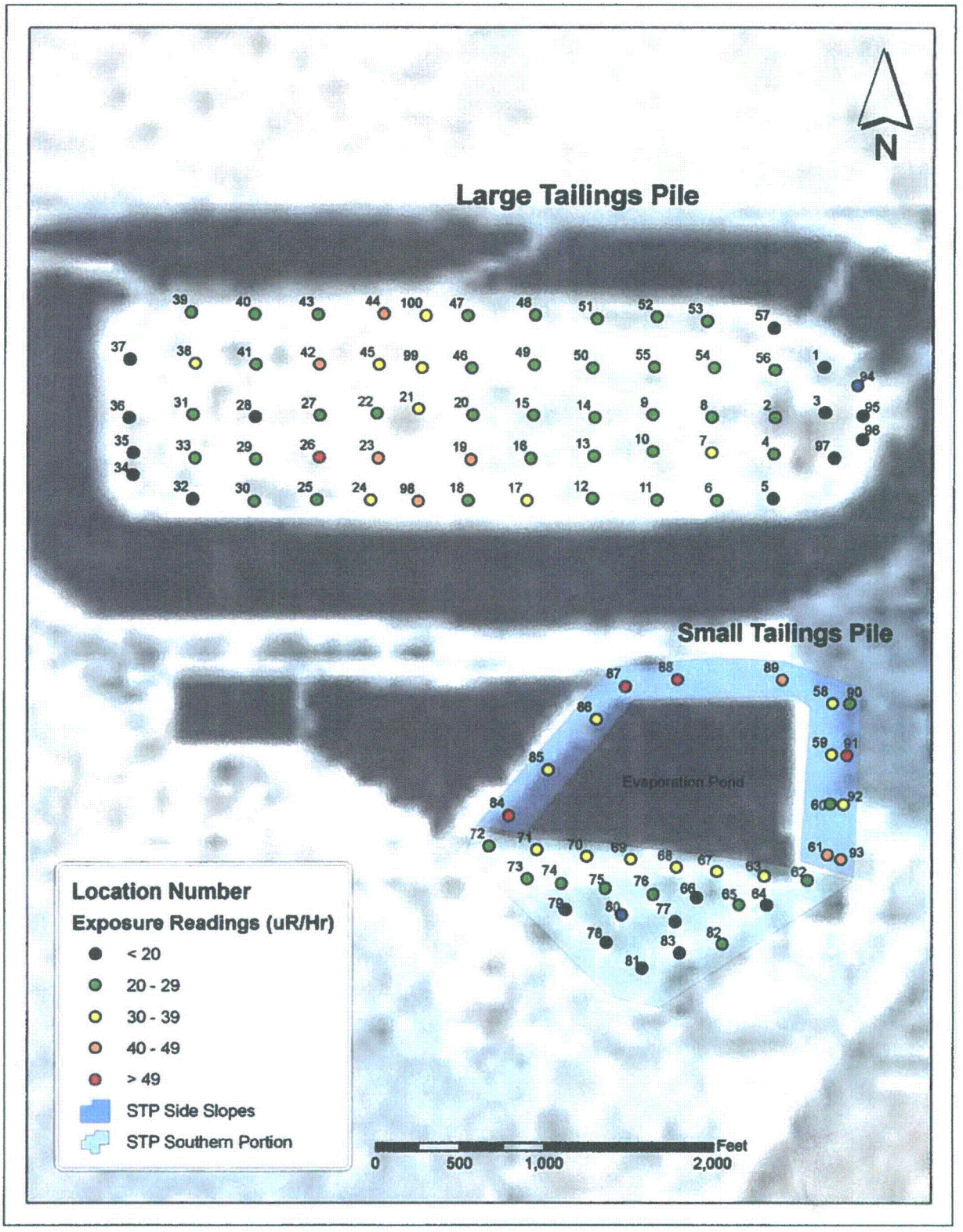

Table 4-1 Quality Assurance Results of Standard Analysis

Standard	Date	Count Time (seconds)	Standard (nCi)	Counts	Average Bkg Counts	Efficiency	Error (1.00 SD)
STD 1	06/14/08	1200	80	44737	3103	0.01172	0.00006
STD 3	06/14/08	1200	78.83	40169	3103	0.01059	0.00006
STD 1	06/15/08	1200	80	45527	3103	0.01194	0.00006
STD 3	06/15/08	1200	78.83	40148	3103	0.01058	0.00006
Mean						0.0112	

Table 4-2 Comparison Data of Every Tenth Sample Analyzed

Cannister	First Analysis (A) pCi/m^2s	Second Analysis (B) pCi/m2s	Difference
86	73.4	73.51	0.1%
35	37.49	37.58	0.2%
94	60.14	60.50	0.6%
41	12.18	11.77	3.4%
104	1.16	1.16	0.0%
103	39.11	39.69	1.5%
261	8.3	8.26	0.5%
77	30.03	29.57	1.5%
95	19.47	19.49	0.1%
47	1.74	1.79	2.9%
43	10.09	10.39	3.0%
2	2.82	2.81	0.4%

Table 4-3 Duplicate Sample Analysis

Location	Cannister 1	Rn Flux pCi/m^2s	Cannister 2	Rn Flux pCi/m^2s	Average Flux	Difference
47	93	16.24	100	10.21	13.23	37.1%
56	24	8.01	106	8.95	8.48	11.7%
75	34	14.80	260	5.16	9.98	65.1%

pCi/m^2 measured in 2003 as well as the measurements for the years 2004 (20.3 pCi/m^2s), 2005 (15.3 pCi/m^2s), 2006 (20.6 pCi/m^2s), and 2007 (14.1 pCi/m^2s). Note that in 2004 and 2006, additional interim cover was placed on the pile after the measurements and the flux was measured to demonstrate that the average flux was lower than 20 pCi/m^2s.

An evaporation pond is placed on the STP and therefore that portion of the pile has 0 pCi/m^2s flux. The flux values for the waypoints corresponding to the other portions of the pile (Side Slopes and Southern Portion) were averaged and the corresponding areas were used to obtain an area-weighted-average flux of 6.64 pCi/m^2s.

The areas for the side slopes, southern portion, and evaporation pond are 137,000, 874,000, and 1,331,000 square feet, respectively. These areas equate to a percent of total area for the side slopes, southern portion, and evaporation pond of 5.85 percent, 37.32 percent, and 56.83 percent, respectively. The corresponding average flux for these areas were 30.95, 7.68, and 0 pCi/m^2s, respectively.

The data show that the small tailings average (4.67 pCi/m^2s) and the large tailings average (9.73 pCi/m^2s) are below the 20 pCi/m^2s standard in 10 CFR 40 Appendix A.

4. Quality Assurance

The EPA Method 115 requirements were met for the measurements. No rainfall was reported during the 24 hours prior to the measurements. Also the temperature exceeded 35 degrees F.

Two independent sources were used to calibrate the spectrometer, using identical geometry conditions to that of the canisters. Agreement between calibration factors was within six percent of the mean. The results of these measurements are included in Table 4-1.

The comparative analysis of every 10th canister analyzed is shown in Table 4-2. Agreements between measurements were well within ten percent and consistent with state-of-the art gamma spectroscopy results.

Two locations on the LTP and one location on the STP were chosen for duplicate sample analysis. The results of the duplicate analyses are included in Table 4-3. The differences of duplicate sample results range from 11.7 percent to 65.1 percent. These results are not unexpected for radon flux from a tailings pile.

Three trip blanks were included in the batch and counted without exposing them to radon. The measured flux of 0.13, 0.14 and 0.11 pCi/m^2s for the canisters is near the expected 0 pCi/m^2s value. These results indicate that the canisters had not been exposed, confirming the integrity of the bags. The results of the trip blank flux measurements are presented in the Appendix as Table A-4.

Appendix A

Table A-1

Radon Flux Measurements for HMC Grants Site - LTP

Environmental Restoration Group, Inc.
8809 Washington St. NE Suite 150
Albuquerque, NM 87113

Canister Number	Lab Date	Start Count Time	Deploy Date	Deploy Time	Retrieve Date	Retrieve Time	Deployed Time (sec)	Count Time (sec)	Peak Counts	Bkg* counts	Detector Efficiency	Canister Activity(pCi)	Flux pCi/m2s	Flux Error 1.00 S.D.	LLD pCi/m2s	Remarks
106 & 24	06/14/08	06:37	06/12/08	10:35	06/13/08	16:10	106500	323	6031	3103	1.12E-02	2.19E+04	8.48	0.14	0.2	OK
66	06/14/08	06:44	06/12/08	10:29	06/13/08	16:11	106920	154	5137	3103	1.12E-02	3.18E+04	17.06	0.27	0.3	OK
81	06/14/08	06:50	06/12/08	08:07	06/13/08	16:17	115800	35	6275	3103	1.12E-02	2.19E+05	91.28	1.18	0.7	OK
18	06/14/08	06:51	06/12/08	10:26	06/13/08	16:13	107220	1200	3627	3103	1.12E-02	1.05E+03	0.24	0.04	0.1	OK
55	06/14/08	07:13	06/12/08	10:13	06/13/08	16:02	107340	53	6573	3103	1.12E-02	1.58E+05	67.42	0.86	0.6	OK
72	06/14/08	07:27	06/12/08	10:31	06/13/08	16:08	106620	180	5823	3103	1.12E-02	3.64E+04	16.64	0.25	0.3	OK
21	06/14/08	07:31	06/12/08	10:11	06/13/08	16:00	107340	115	6016	3103	1.12E-02	6.11E+04	27.68	0.38	0.4	OK
1	06/14/08	07:34	06/12/08	10:21	06/13/08	16:04	106980	234	5119	3103	1.12E-02	2.08E+04	10.77	0.18	0.3	OK
252	06/14/08	07:40	06/12/08	10:23	06/13/08	16:06	106980	1176	6128	3103	1.12E-02	6.20E+03	1.47	0.05	0.1	OK
57	06/14/08	08:06	06/12/08	10:15	06/13/08	16:04	107340	133	6960	3103	1.12E-02	6.99E+04	27.80	0.36	0.4	OK
67	06/14/08	08:10	06/12/08	10:18	06/13/08	16:02	107040	214	8847	3103	1.12E-02	6.47E+04	21.73	0.25	0.3	OK
100 & 93	06/14/08	08:18	06/12/08	10:08	06/13/08	15:55	107220	239	4970	3103	1.12E-02	1.88E+04	13.23	0.18	0.3	OK
37	06/14/08	08:23	06/12/08	09:55	06/13/08	15:57	108120	439	7213	3103	1.12E-02	2.26E+04	7.71	0.12	0.2	OK
86B	06/14/08	08:34	06/12/08	09:53	06/13/08	15:59	108360	52	7005	3103	1.12E-02	1.81E+05	73.46	0.90	0.6	OK
35B	06/14/08	08:38	06/12/08	09:50	06/13/08	15:55	108300	80	5602	3103	1.12E-02	7.53E+04	37.54	0.53	0.5	OK
17	06/14/08	08:40	06/12/08	09:43	06/13/08	15:40	107820	48	9497	3103	1.12E-02	3.21E+05	109.47	1.15	0.6	OK
20	06/14/08	08:42	06/12/08	09:45	06/13/08	15:46	108060	132	5533	3103	1.12E-02	4.44E+04	22.00	0.32	0.4	OK
31	06/14/08	08:45	06/12/08	09:42	06/13/08	15:49	108420	39	6610	3103	1.12E-02	2.17E+05	93.06	1.17	0.7	OK
83	06/14/08	08:47	06/12/08	09:33	06/13/08	15:42	108540	52	6034	3103	1.12E-02	1.36E+05	63.27	0.84	0.6	OK
60	06/14/08	08:48	06/12/08	09:40	06/13/08	15:47	108420	61	6134	3103	1.12E-02	1.20E+05	54.66	0.73	0.6	OK
30	06/14/08	08:50	06/12/08	09:35	06/13/08	15:40	108300	132	5662	3103	1.12E-02	4.67E+04	22.54	0.33	0.4	OK
94B	06/14/08	08:55	06/12/08	09:31	06/13/08	15:41	108600	78	8658	3103	1.12E-02	1.72E+05	60.32	0.67	0.5	OK
70	06/14/08	08:57	06/12/08	09:23	06/13/08	15:31	108480	557	5816	3103	1.12E-02	1.17E+04	4.40	0.09	0.2	OK

Reviewed by

Table A-1

Radon Flux Measurements for HMC Grants Site - LTP

Environmental Restoration Group, Inc
8809 Washington St. NE, Suite 150
Albuquerque, NM 87113

Canister Number	Lab Date	Start Count Time	Deploy Date	Deploy Time	Retrieve Date	Retrieve Time	Deployed Time (sec)	Count Time (sec)	Peak Counts	Bkg* counts	Detector Efficiency	Canister Activity(pCi)	Flux pCi/m2s	Flux Error 1.00 S.D.	LLD pCi/m2s	Remarks
52	06/14/08	09:07	06/12/08	07:34	06/13/08	15:44	115800	139	6742	3103	1.12E-02	6.31E+04	24.23	0.32	0.3	OK
102	06/14/08	09:10	06/12/08	09:19	06/13/08	15:33	108840	1070	6369	3103	1.12E-02	7.36E+03	1.88	0.05	0.1	OK
15	06/14/08	09:31	06/12/08	09:28	06/13/08	15:40	108720	197	5281	3103	1.12E-02	2.67E+04	13.57	0.22	0.3	OK
202	06/14/08	09:59	06/12/08	09:21	06/13/08	15:30	108540	237	6055	3103	1.12E-02	3.00E+04	12.94	0.19	0.3	OK
74	06/14/08	10:04	06/12/08	09:10	06/13/08	15:35	109500	471	5716	3103	1.12E-02	1.34E+04	5.34	0.10	0.2	OK
110	06/14/08	10:13	06/12/08	09:16	06/13/08	15:34	109080	90	6937	3103	1.12E-02	1.03E+05	41.85	0.53	0.5	OK
78	06/14/08	10:15	06/12/08	09:03	06/13/08	15:20	109020	316	5044	3103	1.12E-02	1.48E+04	7.54	0.14	0.2	OK
19	06/14/08	10:25	06/12/08	09:05	06/13/08	15:24	109140	1200	4009	3103	1.12E-02	1.82E+03	0.43	0.04	0.1	OK
41B	06/14/08	10:47	06/12/08	08:43	06/13/08	15:42	111540	215	5134	3103	1.12E-02	2.28E+04	11.98	0.19	0.3	OK
39	06/14/08	10:52	06/12/08	09:18	06/13/08	15:35	109020	139	5076	3103	1.12E-02	3.42E+04	19.17	0.30	0.4	OK
11	06/14/08	10:55	06/12/08	08:37	06/13/08	16:24	114420	695	5305	3103	1.12E-02	7.64E+03	2.72	0.07	0.2	OK
13	06/14/08	11:07	06/12/08	08:35	06/13/08	16:24	114540	90	8194	3103	1.12E-02	1.36E+05	47.62	0.55	0.4	OK
84	06/14/08	11:10	06/12/08	08:41	06/13/08	15:24	110580	1100	5161	3103	1.12E-02	4.51E+03	1.18	0.05	0.1	OK
53	06/14/08	11:29	06/12/08	08:39	06/13/08	16:23	114240	92	5192	3103	1.12E-02	5.47E+04	29.14	0.43	0.4	OK
250	06/14/08	11:31	06/12/08	08:12	06/13/08	15:00	110880	1108	5136	3103	1.12E-02	4.42E+03	1.15	0.05	0.1	OK
79	06/14/08	11:50	06/12/08	08:26	06/13/08	15:21	111300	1200	5222	3103	1.12E-02	4.26E+03	0.99	0.04	0.1	OK
109	06/14/08	12:15	06/12/08	08:28	06/13/08	15:22	111240	1200	4190	3103	1.12E-02	2.18E+03	0.51	0.04	0.1	OK
104B	06/14/08	12:56	06/12/08	08:22	06/13/08	15:10	110880	1200	5552	3103	1.12E-02	4.92E+03	1.16	0.04	0.1	OK
54	06/14/08	13:15	06/12/08	08:23	06/13/08	15:08	110700	1200	4477	3103	1.12E-02	2.76E+03	0.65	0.04	0.1	OK
263	06/14/08	13:38	06/12/08	08:02	06/13/08	15:14	112320	1200	5955	3103	1.12E-02	5.73E+03	1.34	0.04	0.1	OK
251	06/14/08	14:00	06/12/08	08:14	06/13/08	15:14	111600	82	7902	3103	1.12E-02	1.41E+05	53.26	0.62	0.5	OK
253	06/14/08	14:02	06/12/08	08:09	06/13/08	15:14	111900	1200	3861	3103	1.12E-02	1.52E+03	0.36	0.04	0.1	OK
4	06/14/08	14:26	06/12/08	07:38	06/13/08	14:58	112800	1200	8341	3103	1.12E-02	1.05E+04	2.47	0.05	0.1	OK

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Table A-1

Radon Flux Measurements for HMC Grants Site - LTP

Environmental Restoration Group Inc
8809 Washington St NE, Suite 150
Albuquerque, NM 87113

Canister Number	Lab Date	Start Count Time	Deploy Date	Deploy Time	Retrieve Date	Retrieve Time	Deployed Time (sec)	Count Time (sec)	Peak Counts	Bkg* counts	Detector Efficiency	Canister Activity (pCi)	Flux pCi/m2s	Flux Error 1.00 S.D.	LLD pCi/m2s	Remarks
262	06/14/08	14:47	06/12/08	07:59	06/13/08	15:06	112020	234	9075	3103	1.12E-02	6.15E+04	20.63	0.24	0.3	OK
85	06/14/08	14:53	06/12/08	07:50	06/13/08	15:02	112320	1200	3980	3103	1.12E-02	1.76E+03	0.42	0.04	0.1	OK
12	06/14/08	15:13	06/12/08	08:10	06/13/08	15:14	111840	1200	8012	3103	1.12E-02	9.86E+03	2.34	0.05	0.1	OK
33	06/14/08	15:34	06/12/08	07:42	06/13/08	15:00	112680	1099	17485	3103	1.12E-02	3.16E+04	7.61	0.07	0.1	OK
68	06/14/08	15:54	06/12/08	07:45	06/13/08	15:02	112620	1200	8817	3103	1.12E-02	1.15E+04	2.73	0.05	0.1	OK
5	06/14/08	16:24	06/12/08	07:52	06/13/08	15:03	112260	423	7449	3103	1.12E-02	2.48E+04	8.66	0.13	0.2	OK
82	06/14/08	16:31	06/12/08	07:55	06/13/08	15:00	111900	1200	7295	3103	1.12E-02	8.42E+03	2.02	0.05	0.1	OK
257	06/14/08	20:03	06/12/08	09:00	06/13/08	16:26	113160	932	5980	3103	1.12E-02	7.44E+03	2.23	0.06	0.1	OK
65	06/14/08	20:26	06/12/08	08:04	06/13/08	16:15	115860	549	5071	3103	1.12E-02	8.64E+03	3.81	0.08	0.2	OK
92	06/14/08	20:36	06/12/08	09:12	06/13/08	16:27	112500	90	5416	3103	1.12E-02	6.20E+04	33.82	0.49	0.5	OK
203	06/14/08	20:38	06/12/08	08:58	06/13/08	16:25	113220	129	5025	3103	1.12E-02	3.59E+04	21.25	0.33	0.4	OK
62	06/14/08	20:41	06/12/08	09:14	06/13/08	16:28	112440	1072	5341	3103	1.12E-02	5.03E+03	1.41	0.05	0.1	OK
103B	06/14/08	21:02	06/12/08	07:48	06/13/08	16:24	117360	90	6365	3103	1.12E-02	8.74E+04	38.90	0.51	0.5	OK
40	06/14/08	21:04	06/12/08	08:16	06/13/08	16:18	115320	94	5070	3103	1.12E-02	5.05E+04	29.64	0.45	0.5	OK
108	06/14/08	21:06	06/12/08	08:33	06/13/08	16:23	114600	404	5003	3103	1.12E-02	1.13E+04	5.69	0.11	0.2	OK
49	06/14/08	21:14	06/12/08	08:31	06/13/08	16:21	114600	90	10945	3103	1.12E-02	2.10E+05	69.15	0.68	0.5	OK
259	06/14/08	22:20	06/12/08	08:20	06/13/08	16:20	115200	489	5037	3103	1.12E-02	9.54E+03	4.50	0.09	0.2	OK
42	06/14/08	09:37	06/12/08	09:07	06/13/08	15:30	109380	1200	4453	3103	1.12E-02	2.71E+03	1.30	0.08	0.3	OK

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Table A-2

Radon Flux Measurements for HMC Grants Site - STP

Environmental Restoration Group, Inc.
8809 Washington St. NE, Suite 150
Albuquerque, NM 87113

Canister Number	Lab Date	Start Count Time	Deploy Date	Deploy Time	Retrieve Date	Retrieve Time	Deployed Time (sec)	Count Time (sec)	Peak Counts	Bkg* counts	Detector Efficiency	Canister Activity(pCi)	Flux pCi/m2s	Flux Error 1.00 S.D.	LLD pCi/m2s	Remarks
38	06/15/08	07:15	06/12/08	12 14	06/13/08	17:16	104520	1200	10615	3103	1.12E-02	1.51E+04	4.23	0.07	0.1	OK
256	06/15/08	08 08	06/12/08	12 13	06/13/08	17 14	104460	1022	9441	3103	1.12E-02	1.50E+04	4.53	0.07	0 2	OK
29	06/15/08	08 27	06/12/08	11:28	06/13/08	16:38	105000	1200	9012	3103	1.12E-02	1 19E+04	3.36	0.06	0.1	OK
101	06/15/08	08.48	06/12/08	11 43	06/13/08	16.55	105120	1200	5592	3103	1 12E-02	5.00E+03	1 42	0 05	0 1	OK
10	06/15/08	09:08	06/12/08	11:45	06/13/08	16:53	104880	1200	6167	3103	1 12E-02	6 16E+03	1 75	0 06	0 2	OK
45	06/15/08	09.29	06/12/08	11 40	06/13/08	16.56	105360	1200	12954	3103	1 12E-02	1 981 +04	5 62	0 07	0 1	OK
59	06/15/08	09:54	06/12/08	12.07	06/13/08	16:54	103o20	1200	20390	3103	1 12E-02	3 47E+04	10 04	0.09	0 2	OK
36	06/15/08	12:30	06/12/08	11:10	06/13/08	16 40	106200	440	8351	3103	1 12E-02	2.88E+04	11.41	0.15	0.3	OK
261B	06/15/08	12:57	06/12/08	11:22	06/13/08	16:50	106080	477	6872	3103	1 12E-02	1 91E+04	8 28	0 13	0 2	OK
98	06/15/08	13:06	06/12/08	11 16	06/13/08	16 50	106440	471	7323	3103	1 12E-02	2 16E+04	9 03	0 14	0 2	OK
48	06/15/08	13 15	06/12/08	11.23	06/13/08	16 37	105240	475	16581	3103	1 12E-02	6 84E+04	22 82	0 20	0 2	OK
16	06/15/08	13:24	06/12/08	11 03	06/13/08	16:40	106620	362	6497	3103	1 12E-02	2 26E +04	10 73	0 17	0 3	OK
56	06/15/08	13:31	06/12/08	11.06	06/13/08	16:43	106620.	116	9177	3103	1 12E-02	1 26E+05	53 46	0 59	0 5	OK
9	06/15/08	13:35	06/12/08	11 02	06/13/08	16.44	106920	804	7962	3103	1.12E-02	1 46E+04	5 10	0 09	0 2	OK
89	06/15/08	13:50	06/12/08	11:12	06/13/08	16:41	106140	134	8860	3103	1 12E-02	1.04E+05	44.68	0.50	0.5	OK
61	06/15/08	13:53	06/12/08	10 56	06/13/08	16 43	107220	125	7671	3103	1.12E-02	8 81E+04	40.97	0.50	0.5	OK
23	06/15/08	13:55	06/12/08	11 07	06/13/08	16 45	106680	121	10486	3103	1.12E-02	1.47E+05	58.86	0.60	0.5	OK
77B	06/15/08	14:01	06/12/08	10:58	06/13/08	16:44	107160	363	7327	3103	1 12E-02	6 25E+04	29 80	0 38	0 4	OK
95B	06/15/08	14:10	06/12/08	11.15	06/13/08	16:38	105780	352	10605	3103	1 12E-02	5 14E+04	19 48	0 22	0 3	OK
47B	06/14/08	17.11	06/12/08	12 23	06/13/08	17.10	103620	1200	6609	3103	1 12E-02	7 04E+03	1 77	0.05	0 1	OK
255	06/14/08	17:40	06/12/08	11.48	06/13/08	16:55	104820	829	5781	3103	1 12E-02	7 79E+03	2 66	0 07	0 2	OK
28	06/14/08	17.55	06/12/08	11:52	06/13/08	16:51	104340	627	5128	3103	1 12E-02	7 79E+03	3 41	0 08	0.2	OK
27	06/14/08	18.06	06/12/08	11:49	06/13/08	16:50	104460	411	5036	3103	1 12E-02	1 13E+04	5 18	0 10	0.2	OK
260 & 34	06/15/08	18:14	06/12/08	11:56	06/13/08	16:54	104280	529	5071	3103	1 12E-02	8 97E+03	9 98	0 11	0 2	OK
80	06/14/08	18 23	06/12/08	12:36	06/13/08	17:28	103920	90	11259	3103	1 12E-02	2 18E+05	75 09	0 73	0 5	OK

Reviewed by

Table A-2

Radon Flux Measurements for HMC Grants Site - STP

Environmental Restoration Group Inc
8809 Washington St NE Suite 150
Albuquerque, NM 87113

Canister Number	Lab Date	Start Count Time	Deploy Date	Deploy Time	Retrieve Date	Retrieve Time	Deployed Time (sec)	Count Time (sec)	Peak Counts	Bkg* counts	Detector Efficiency	Canister Activity(pCi)	Flux pCi/m2s	Flux Error 1.00 S.D.	LLD pCi/m2s	Remarks
44	06/14/08	18:30	06/12/08	11:37	06/13/08	16:54	105420	332	5021	3103	1.12E-02	1.39E+04	7.64	0.14	0.3	OK
71	06/14/08	18:36	06/12/08	12:08	06/13/08	17:14	104760	749	6621	3103	1.12E-02	1.13E+04	3.83	0.08	0.2	OK
7	06/14/08	18:49	06/12/08	12:27	06/13/08	17:13	103560	623	5791	3103	1.12E-02	9.63E+03	3.72	0.08	0.2	OK
43B	06/14/08	19:07	06/12/08	11:55	06/13/08	17:08	105180	346	6775	3103	1.12E-02	2.56E+04	10.24	0.15	0.3	OK
46	06/14/08	19:13	06/12/08	12:16	06/13/08	17:06	103800	598	6524	3103	1.12E-02	1.38E+04	5.17	0.09	0.2	OK
73	06/14/08	19:24	06/12/08	12:38	06/13/08	17:21	103380	1200	5910	3103	1.12E-02	5.64E+03	1.46	0.05	0.1	OK
64	06/14/08	19:45	06/12/08	12:34	06/13/08	17:30	104160	1053	5821	3103	1.12E-02	6.22E+03	1.83	0.05	0.1	OK
258	06/14/08	20:20	06/12/08	12:40	06/13/08	17:22	103320	348	6255	3103	1.12E-02	2.18E+04	9.67	0.15	0.3	OK
90	06/14/08	22:29	06/12/08	11:30	06/13/08	17:26	107760	90	13056	3103	1.12E-02	2.67E+05	87.53	0.79	0.5	OK
88	06/14/08	22:31	06/12/08	12:31	06/13/08	17:29	104280	1005	5148	3103	1.12E-02	4.91E+03	1.61	0.06	0.2	OK
2B	06/14/08	23:10	06/12/08	12:12	06/13/08	17:17	104700	1200	8410	3103	1.12E-02	1.07E+04	2.82	0.06	0.1	OK

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Table A-3 Gamma Exposure Measurement Results

Location	Canister Number	Exposure Reading (uR/Hr)
1	4	14
2	262	20
3	82	14
4	263	20
5	65	16
6	81	23
7	253	30
8	12	20
9	250	20
10	251	26
11	40	28
12	259	24
13	104	28
14	54	22
15	79	20
16	109	24
17	49	30
18	108	28
19	13	42
20	11	20
21	53	37
22	84	22
23	41	40
24	203	34
25	257	23
26	78	85
27	19	20
28	42	19
29	74	26
30	92	20
31	39	24
32	62	16
33	110	22
34	102	12
35	70	15
36	202	16
37	15	16
38	83	32
39	94	20
40	52	24
41	30	25
42	17	48
43	60	26
44	31	48
45	20	37
46	37	21
47	93 & 100	26
48	21	23
49	55	23
50	57	22
51	67	22
52	1	22
53	66	23
54	18	21
55	252	21
56	24 & 106	20
57	72	19
58	61	34
59	16	32
60	56	26
61	89	42
62	95	24
63	44	30
64	98	18
65	261	20
66	101	19
67	45	31
68	27	32
69	28	33
70	43	35
71	47	31
72	7	22
73	256	20
74	46	21
75	34 & 260	24
76	255	22
77	10	16
78	2	14
79	38	16
80	59	16
81	71	15
82	48	20
83	29	14
84	90	170
85	88	30
86	64	38
87	80	200
88	73	55
89	258	41
90	77	28
91	9	100
92	23	30
93	36	42
94	33	16
95	68	14
96	85	14
97	5	16
98	103	41
99	86	30
100	35	33

Table A-4

Radon Flux Measurements for HMC Grants Site - Trip Blanks

Environmental Restoration Group, Inc
8809 Washington St. NE, Suite 150
Albuquerque, NM 87113

Canister Number	Lab Date	Start Count Time	Deploy Date	Deploy Time	Retrieve Date	Retrieve Time	Deployed Time (sec)	Count Time (sec)	Peak Counts	Bkg* counts	Detector Efficiency	Canister Activity(pCi)	Flux pCi/m2s	Flux Error 1.00 S.D.	LLD pCi/m2s	Remarks
22	06/14/08	21:16	06/12/08	07:35	06/13/08	17.30	122100	1200	3392	3103	1.12E-02	5.81E+02	0.13	0.04	0.1	OK
63	06/14/08	21:36	06/12/08	07:35	06/13/08	17.30	122100	1200	3414	3103	1.12E-02	6.25E+02	0.14	0.04	0.1	OK
8	06/14/08	21:59	06/12/08	07:35	06/13/08	17.30	122100	1200	3339	3103	1.12E-02	4.74E+02	0.11	0.04	0.1	OK

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