

**KENNECOTT URANIUM COMPANY  
ANNUAL CORRECTIVE ACTION PROGRAM REVIEW**

**January 2006 through December 2006**

**EXCURSION PUMPBACK SYSTEM**

Perched Wells

All perched wells around the tailings impoundment were essentially dry as of the fall of 1989 and are no longer pumped.

Two (2) perched wells, TMW-90 and TMW-105, were pumped during 2005. These wells are located west of the Catchment Basin and were pumped to remove previously spilled fluid perched on a clay layer approximately forty (40) feet below ground surface, in part, to prepare the area for future excavation.

These two wells were not considered part of the ground water Corrective Action Program (CAP) since their purpose was to recover spilled fluid as opposed to recovering contaminated ground water from the Battle Spring Aquifer, which is what the CAP regulates.

The recovery of these fluids was authorized by the site's Safety and Environmental Review Panel (SERP) under Safety and Environmental Evaluation (SEE) #6, approved on September 9, 2003, and an amendment to that document approved on March 26, 2004. These documents were inspected by the Nuclear Regulatory Commission (NRC) during an inspection on July 21, 2004. The inspector concluded that:

“The SEEs were found to be technically adequate. The SERP had made decisions in accordance with the conditions of the performance based license.”

The table below summarizes the performance of these wells:

WELL #	DATE STARTED	DATE SHUT DOWN	FLOW RATE (Gallons per Minute)	VOLUME PUMPED (Gallons)
TMW-90	03/01/05	11/14/05	0.01	3,693
TMW-105	03/15/05	11/14/05	0.02	7,123

Water sample data, flow information and salts removed data for these wells are included in the 2005 report. The wells were pumped by venturi pumps installed at the well bottom, driven by surface feed pumps, and a reservoir barrel, which overflowed into a tank that was pumped periodically to the tailings impoundment.

The pumping of these wells was successful in that when the Catchment Basin excavation attained its complete depth (essentially the bottoms of these wells), no substantial amounts of free perched fluid were encountered. Pumping of these wells allowed for a dry excavation bottom. These wells were removed once the excavation attained bottom (approximately 6585 feet above mean sea level) in the area around these wells. The area around TMW-90 was excavated deeper than the planned depth of 6590 feet above mean sea level to remove some hydrocarbon contamination around the well.

Aquifer Wells

Tails Monitor Wells (TMW-) 7, 17, 18, 57, 58, 59 and 75 and TMW-96 and 97 (pumpback wells west of the Catchment Basin) were pumped into the tails cell during 2006 at the following annualized rates:

WELL #	PUMP HORSEPOWER	ANNUAL AVG. RATE
TMW-7	½ HP	3.9 GPM
TMW-17	1/3 HP	3.6 GPM
TMW-18	¾ HP	9.1 GPM
TMW-57	½ HP	6.4 GPM
TMW-58	¾ HP	4.6 GPM
TMW-59	1/3 HP	4.5 GPM

WELL #	PUMP HORSEPOWER	ANNUAL AVG. RATE
TMW-75	½ HP	2.7 GPM
TMW-96		8.4 GPM
TMW-97		9.2 GPM
<b>TOTAL</b>		<b>52.4 GPM</b>

*Note: Extended periods of down time are not included in well operating time for computation of flow rates.*

TMW-75 and TMW-17 were pumped to collect the portion of the excursion along the cell's north wall. Wells 7, 18 and 59 maintained a cone of depression along the west side of the tailings cell intercepting the major portion of the excursion. TMW-57 and TMW-58 maintained a cone of depression extending 560 feet west of the western side of the cell.

TMW-96 and TMW-97, located along the east wall of the Solvent Extraction Building, were pumped to collect the highest levels of uranium in the Catchment Basin plume. TMW-96 and 97 have shown a remarkable drop in contaminant concentrations since pumping started. TMW-96 has gone from a Total Dissolved Solids (TDS) concentration of 2430 mg/L (9/20/04) to 806 mg/L (10/7/06) and a uranium concentration of 760 pCi/L (9/20/04) to 16.6 pCi/L (10/7/06). TMW-97 has gone from a TDS concentration of 2210 mg/L (3/7/05) to 648 mg/L (11/9/06) and a uranium concentration of 548 pCi/L (3/7/05) to 19.2 pCi/L (11/9/06). Kennecott Uranium Company believes that these declines indicate that the plume associated with the Catchment Basin is of limited extent.

TMW-16 was replaced with a new well, TMW-7, completed approximately sixty (60) feet south of it, on August 18, 2003. TMW-16 exhibited continuing problems and would not, in spite of repeated attempts to clean, acidize or bleach it, yield sufficient water to support a pump. When operating it would yield water; however, the well would frequently cease pumping and be down for extended periods while being cleaned. TMW-7 was screened at a depth (100-150 feet) that fully overlapped the completion interval (120-145 feet) of TMW-16. TMW-16 ceased pumping on May 15, 2003. Pumping was initiated in TMW-7 on December 1, 2003. Completion of this replacement well was discussed with Elaine Brummett in a telephone conversation at 1:50 pm on August 20, 2003, and a follow-up email message on that date. The well produces 3.9 gallons per minute of water and has not required any of the maintenance or cleaning that its predecessor, TMW-16, required.

A pump was installed and started in TMW-58 in late June of 1994. The well was completed in July 1985. TMW-58 continues to yield water at an excellent rate, 4.6 gallons per minute, in 2006. Installation of the pump followed receipt of a letter dated April 8, 1994 from NRC/URFO which stated, "We find that the proposed changes to your Corrective Action Program (CAP) are responsive to our review findings submitted to your company on September 3, 1992. We also consider that specific seepage collection locations are no longer required. Rather, Kennecott should use its discretion in maintaining the CAP, and all changes should be described in routine annual progress reports."

This letter was in response to a review prepared by Kennecott Uranium Company and submitted in response to a letter dated September 3, 1992 which was received from NRC/URFO requesting Kennecott Uranium Company to review the most recent monitoring data from the Corrective Action Program (CAP) and propose modifications to the program. The review dated December 4, 1992 and submitted to NRC/URFO contained the following conclusions:

1. The contaminant plume is confined solely to the upper fifty (50) feet of the saturated zone of the Battle Springs Formation. This conclusion is based on the sample results from three (3) monitor wells completed in a deeper sand in 1991, which show no evidence of contamination.
2. The existing five (5) pumpback wells are adequate to recover the groundwater contaminated by past leakage.

Kennecott Uranium Company, in order to accelerate the remediation process, had requested an amendment to SUA-1350 in the December 4, 1992 review to install a pump of at least 1/3 horsepower in TMW-58. Upon receipt of the letter dated December 4, 1992, however, it became clear that such an amendment was not required.

A pump was installed in TMW-57 on May 17, 2001. This well performs well, yielding an average of 6.4 gallons per minute.

The observed TDS values in TMW-63 and TMW-18 are identical. (See *Comparison of TMW-18 and TMW-63* on the following page.) There is little difference in Total Dissolved Solids concentrations vertically across the upper fifty-feet of the aquifer.

# COMPARISON OF TMW-18 AND TMW-63

MAJOR IONS mg/l:	TMW-18 4/10/06	TMW-63 5/4/06	Reporting Limit (4/10/06)
Ca	665	625	0.6
Mg	52.0	45.0	0.5
Na	92.2	93.4	0.5
K	7.1	6.8	0.5
CO3	<1	<1	1.0
HCO3	580	587	1.0
SO4	1340	1320	1.0
Cl	102	86	1.0
NO3	<0.1	<0.1	0.10
F	<0.1	<0.1	0.10
SiO2	25	24	1.0
TDS @ 180° C.	2530	2530	10
Cond (umho/cm)	2900	2890	1.0
Alk-CaCO3	475	481	1.0
pH (units)	7.23	7.10	0.01
<b>TRACE METALS mg/l:</b>			
Al	<0.10	<0.10	0.10
As	<0.001	<0.001	0.001
Ba	<0.10	<0.10	0.10
Be	<0.01	<0.01	0.01
B	<0.10	<0.10	0.10
Cd	<0.005	<0.005	0.005
Cr	<0.01	<0.01	0.01
Co	0.001	<0.001	0.001
Cu	<0.01	<0.01	0.01
CN	<0.005	<0.005	0.005
Fe	8.21	1.77	0.05
Pb	<0.01	<0.01	0.01
Mn	1.30	0.58	0.01
Hg	<0.0002	<0.0002	0.0002
Mo	<0.01	<0.01	0.01
Ni	<0.01	<0.01	0.01
Se	0.002	<0.001	0.001
Ag	<0.01	<0.01	0.01
Tl	<0.010	<0.010	0.010
V2O5	<0.10	<0.10	0.10
Zn	<0.01	<0.01	0.01
<b>RADIOMETRIC pCi/L:</b>			
U	0.9	1.4	0.2
Ra226	2.7 ± 0.6	4.6 ± 1.0	0.2
Ra228	13.1 ± 1.1	12.6 ± 1.5	1.0
Th230	<0.2	<0.2	0.2
Pb210	<1.0	<1.0	1.0
Gross Alpha	8.9 ± 1.6	4.5 ± 1.1	1.0
<b>Q.A. DATA:</b>			
Anion/Cation Bal:	0.98	1.02	0.80-1.20

In the summer of 1991, TMW-8, TMW-24 and TMW-47 were completed in the Battle Springs Aquifer at depths below 200 feet to test saturated sands beneath a clay layer separating them from the upper fifty (50) feet of the saturated zone. Samples from wells TMWs 8, 24 and 47 (shown on the following pages, *Lower Saturated Sand Monitor Well Sampling Results*) however, clearly show that the contaminants have not penetrated the sands beneath the upper fifty (50) feet of the saturated zone since the TDS concentrations in 2004 are all below 250 parts per million.

During 1995, Shepherd Miller, Inc. completed a background groundwater study for the area around the Sweetwater Uranium Project. The object of this study was to define background in groundwater around the Sweetwater Uranium Project for a number of chemical and radiological constituents. The study examined the results of over 1000 groundwater samples collected in the vicinity of the project including samples from TMWs 8, 24 and 47 and concluded, "*Water quality sampling of three wells completed within the lower saturated sand, TMWs 8, 24 and 47, shows it to be unaffected by seepage from the cell, indicating that flow from the upper to lower saturated sands is retarded by the claystone layer.*" Thus samples from TMWs 8, 24, and 47 show that the contamination is confined to, and distributed in, the upper fifty (50) feet of the saturated zone of the Battle Spring Aquifer and penetrates no deeper.

# **LOWER SATURATED SAND MONITOR WELL SAMPLING RESULTS**

<b>MAJOR IONS mg/l:</b>	<b>TMW-8 8/23/06</b>	<b>TMW-24 8/23/06</b>	<b>TMW-47 8/22/06</b>	<b>Reporting Limit (8/22/06)</b>
Ca	23.9	21.0	20.0	0.5
Mg	0.8	0.9	0.7	0.5
Na	35.1	28.5	30.9	0.5
K	1.3	1.3	1.2	0.5
CO3	<1	<0.1	<1	1.0
HCO3	102	105	104	1.0
SO4	56	37	37	1.0
Cl	3	3	2	1.0
NO3	<0.1	<0.1	<0.1	0.10
F	0.2	0.2	0.2	0.10
SiO2	14	14	15	1.0
TDS @ 180° C.	180	160	150	10
Cond (umho/cm)	310	266	265	1.0
Alk-CaCO3	84	86	85	1.0
pH (units)	8.10	8.20	8.16	0.01
<b>TRACE METALS, mg/l:</b>				
Al	<0.1	<0.1	<0.1	0.10
As	0.002	0.001	0.001	0.001
Ba	<0.1	<0.1	<0.1	0.10
Be	<0.01	<0.01	<0.01	0.01
B	<0.1	<0.1	<0.1	0.10
Cd	<0.005	<0.005	<0.005	0.005
Cr	<0.01	<0.01	<0.01	0.01
Co	<0.001	<0.001	<0.001	0.001
Cu	<0.01	<0.01	<0.01	0.01
CN	<0.005	<0.005	<0.005	0.005
Fe	<0.05	0.05	<0.05	0.05
Pb	<0.01	<0.01	<0.01	0.01
Mn	0.04	0.01	<0.01	0.01
Hg	<0.0002	<0.0002	<0.0002	0.0002
Mo	<0.01	<0.01	<0.01	0.01
Ni	<0.01	<0.01	<0.01	0.01
Se	<0.001	<0.001	<0.001	0.001
Ag	<0.01	<0.01	<0.01	0.01
Tl	<0.010	<0.01	<0.01	0.010
V2O5	<0.1	<0.1	<0.1	0.10
Zn	<0.01	<0.01	<0.01	0.01
<b>RADIOMETRIC pCi/L:</b>				
U	<0.2	0.4	0.3	0.2
Ra226	0.6 ± 0.3	0.9 ± 0.3	5.2 ± 0.7	0.2
Ra228	<1	2.6 ± 1.2	<1	1.0
Th230	<0.2	<0.2	<0.2	0.2
Pb210	<1.0	<1.0	<1.0	1.0
Gross Alpha	<1.0	1.3 ± 0.9	4.7 ± 1.4	1.0
<b>Q.A. DATA:</b>				
A/C Balance	0.95	1.03	0.95	0.80-1.20

Kennecott Uranium Company submitted a study entitled "Addendum to the Revised Environmental Report Background Ground Water Quality and Detection Standards" on February 2, 1996. This study examined the results of over 1000 water samples, with the intent of defining background parameters for chemical and radiological constituents in the Battle Springs Aquifer around the site. The study proposed new Groundwater Protection Standards (GPS) for the site based upon these newly developed background values. This study was submitted with a request to amend SUA-1350 to change the Groundwater Protection Standards to the levels proposed in the study as well as to eliminate some groundwater protection standards (GPS).

By license amendment dated May 28, 1998, the NRC amended the Groundwater Protection Standards in SUA-1350 to those values requested by Kennecott Uranium Company in an amendment request dated January 1996 entitled "Addendum to the Revised Environmental Report - Background Ground Water Quality and Detection Standards". In addition, Groundwater Protection Standards for barium, cyanide, lead, mercury, molybdenum, silver and thallium were deleted from the license. The table below outlines the changes to the Groundwater Protection Standards in SUA-1350. The control charts reflect these Groundwater Protection Standards.

Constituent	Former NRC Ground Water Protection Standard, License SUA-1350	Revised NRC Ground Water Protection Standard, License SUA-1350 (Revised May 28, 1998)
Arsenic	0.05 mg/l	0.05 mg/l
Barium	1.0	Deleted
Beryllium	0.01	0.01 mg/l
Cadmium	0.01	0.01 mg/l
Chromium	0.05	0.05 mg/l
Cyanide	0.005	Deleted
Lead	0.05	Deleted
Lead <sup>210</sup>	1.4 pCi/l	8.9 pCi/l
Mercury	0.002	Deleted
Molybdenum	0.04	Deleted
Nickel	0.01	0.01 mg/l
Ra <sup>226</sup> /Ra <sup>228</sup>	2.8 pCi/l	5.8 pCi/l
Selenium	0.01	0.01 mg/l
Silver	0.05	Deleted
Thallium	0.01	Deleted
Thorium <sup>230</sup>	10.0 pCi/l	7.0 pCi/l
Natural Uranium	1.7 pCi/l	36.0 pCi/l
Gross Alpha	6.6 pCi/l	15 pCi/l
		<b>Added May 26, 2005</b>
Aluminum	None	1.8 mg/l
Iron	None	0.6 mg/l
Manganese	None	0.2 mg/l
1,1-dichloroethane	None	3.0 mg/l
1,1-dichloroethene	None	0.007 mg/l
DRO	None	10 mg/l
GRO	None	10 mg/l
Naphthalene	None	1.5 mg/l
Toluene	None	1 mg/l
1,1,1-Trichloroethane	None	0.20 mg/l
1,2,4-Trimethylbenzene	None	0.012 mg/l
1,3,5-Trimethylbenzene	None	0.012 mg/l
M+p xylenes	None	10 mg/l

In a submittal dated December 15, 2004 Kennecott Uranium Company proposed groundwater protection standards (GPS) for aluminum, iron, manganese and ten (10) organic constituents. These proposed standards are also based on the background ground water study. They have been approved. They were proposed in response to the contamination of the aquifer found around the Catchment Basin. These are shown in the table above.

The ground water Corrective Action Program was revised to include the groundwater plume around the Catchment Basin by a license amendment dated May 26, 2005. This amendment was granted following these submittals and an Environmental Assessment (EA):

- Source Material License SUA-1350 Request for Amendment to License Condition 11.3 – Groundwater Corrective Action Program – May 12, 2004
- Response to Comments – July 22, 2004
- Response to Request for Additional Information – October 28, 2004
- Environmental Assessment for Amendment of Source Material License SUA-1350 for the Catchment Basin Reclamation – May 5, 2005

This report includes the plume around the tailings impoundment and the Catchment Basin.

Maps of the natural uranium, combined radium 226/228 and total dissolved solids plumes are included in this report. The table on the following page entitled Monitor Well Coordinates shows the screened intervals for the wells around the tailings impoundment and Catchment Basin. The plume exists in the upper saturated fifty (50) feet of the Battle Springs Formation, roughly from 100 to 150 feet below surface.

When wells are sampled the pump is run to the bottom of the well and then retracted several feet and the sample collected. If the well is deeper than the length of hose on the sampling truck reel (approximately 238 feet) the pump is lowered until several wraps of hose remain on the drum and the sample is collected. Provided that the screen is not plugged the water sample will generally come from the section of screen nearest the pump.

TMWs 8, 24 and 47 were intentionally completed solely in the range of 197 to 240 feet below surface to sample the sands beneath the plume. Samples from these wells have never been used to construct natural uranium, combined radium 226/228 or total dissolved solids plume maps. However, in the past, data from TMWs 1, 2, 3, 4, 5 and 6 were used in the construction of plume maps since, except in the case of TMW-1 which is completed from 160 to 260 and 280 to 300, they were screened in the plume and also in the sands beneath the plume. Beginning with this review, TMWs 1, 2, 3, 4, 5 and 6 are not being used to define the plume since the water being sampled from these wells could come from sands beneath the plume, given how the sample pump is set in the wells as described in the paragraph above.

Kennecott Uranium Company  
Sweetwater Facility  
**MONITOR WELL COORDINATES**

WELL #:	NORTHIN G	EASTING	SURFACE ELEVATION	CASING HEIGHT	CASING ELEVATION	T.D. ELEVATION	PERCH (P/ AQUIFER(A)	SCREEN INTERVAL
TMW 1	150,107.66	324,536.42	6,648.22	0.00	6,648.22	300.00	A	160-260, 280-300
TMW 2	147,133.96	324,360.13	6,626.32	0.77	6,627.09	300.00	A	135-295, 295-300
TMW 3	145,984.03	324,361.03	6,624.74	1.53	6,626.27	300.00	A	100-267
TMW 4	147,141.81	323,176.55	6,625.74	1.15	6,626.89	267.00	A	100-267
TMW 5	149,053.50	328,102.80	6,656.49	2.10	6,658.59	270.00	A	100-267
TMW 6	145,356.25	327,464.50	6,640.26	1.40	6,641.66	267.00	A	100-267
TMW 7	149,339.63	325,014.08	6,652.96	1.44	6,654.40	150.00	A	100-150
TMW 8	149,912.15	324,561.80	6,645.64	0.83	6,646.47	260.00	A	220-240
TMW 15	147,910.39	325,006.29	6,642.09	1.17	6,643.26	128.00	A	78-120
TMW 16	149,397.99	325,023.08	6,654.35	1.27	6,655.62	145.00	A	95-145
TMW 17	149,602.14	325,994.00	6,660.19	0.68	6,660.87	150.00	A	100-150
TMW 18	148,922.42	325,018.57	6,654.91	1.07	6,655.98	146.00	A	96-146
TMW 19	149,601.80	326,095.60	6,660.36	1.18	6,661.54	38.00	P (DRY)	20-38
TMW 20	149,700.99	325,592.79	6,659.62	1.67	6,661.29	59.00	P (DRY)	39-59
TMW 21	149,700.09	325,793.65	6,658.05	1.35	6,659.40	53.00	P (DRY)	33-53
TMW 22	149,701.66	325,893.48	6,658.27	1.41	6,659.68	48.00	P (DRY)	28-48
TMW 23	149,703.49	325,993.59	6,658.32	0.96	6,659.28	44.50	P (DRY)	15-44.5
TMW 24	150,307.90	325,992.24	6,659.20	2.01	6,661.21	245.00	A	215-235
TMW 29	150,108.27	326,786.49	6,655.98	0.66	6,656.64	150.00	A	100-150
TMW 30	149,708.73	326,995.29	6,658.41	0.81	6,659.22	38.50	P (DRY)	18.5-38.5
TMW 31	149,901.61	327,194.15	6,660.04	1.05	6,661.09	149.50	A	99.5-149.5
TMW 34	149,487.48	326,987.78	6,656.35	1.57	6,657.92	35.70	P (DRY)	24.7-35.7
TMW 35	149,509.35	327,198.92	6,656.54	1.21	6,657.75	147.00	A	97-147
TMW 36	149,108.62	327,007.02	6,656.48	1.27	6,657.75	146.00	A	96-146
TMW 37	148,455.68	326,999.77	6,649.39	1.34	6,650.73	138.50	A	88.5-138.5
TMW 38	149,353.55	326,798.27	6,656.78	2.07	6,658.85	97.00	P (DRY)	67-97
TMW 44	147,612.17	325,588.96	6,636.84	0.68	6,637.52	135.00	A	85-135
TMW 45	147,619.66	326,196.14	6,640.37	0.63	6,641.00	135.00	A	85-135
TMW 47	147,310.10	326,491.24	6,638.73	1.62	6,640.35	230.00	A	197-217
TMW 48	147,312.58	326,482.99	6,638.50	1.22	6,639.72	160.00	A	100-150
TMW 49	147,708.93	324,836.10	6,639.23	0.96	6,640.19	150.00	A	100-150
TMW 50	148,198.81	324,697.71	6,646.76	1.04	6,647.80	150.00	A	100-150
TMW 51	147,995.26	324,449.18	6,648.40	1.60	6,650.00	170.00	A	110-160
TMW 52	148,316.56	324,221.64	6,643.25	1.45	6,644.70	150.00	A	100-150
TMW 53	147,849.28	323,913.72	6,640.03	1.44	6,641.47	160.00	A	100-150
TMW 54	149,122.85	324,827.05	6,650.73	1.33	6,652.06	58.51	P (DRY)	43.5-58.5
TMW 55	149,098.35	324,587.76	6,648.10	1.38	6,649.48	75.00	P (DRY)	49-75
TMW 56	149,105.02	324,418.67	6,646.15	1.57	6,647.72	137.00	A	87-137
TMW 57	149,296.82	324,590.47	6,647.74	2.12	6,649.86	137.00	A	87-137
TMW 58	148,915.74	324,570.92	6,645.75	1.21	6,646.96	137.00	A	87-137
TMW 59	148,403.85	325,013.86	6,647.46	0.69	6,648.15	138.00	A	90-138
TMW 61	148,422.32	324,592.68	6,648.30	1.06	6,649.36	150.00	A	100-150
TMW 62	148,789.00	324,277.11	6,645.12	1.01	6,646.13	150.00	A	100-150
TMW 63	148,924.39	325,009.90	6,653.83	0.94	6,654.77	130.00	A	110-130
TMW 64	149,797.71	324,991.71	6,651.55	0.70	6,652.25	150.00	A	97-147
TMW 65	149,805.22	325,191.36	6,653.48	1.40	6,654.88	77.85	P (DRY)	54.7-77.7
TMW 66	149,799.18	325,392.21	6,656.76	1.29	6,658.05	68.00	P (DRY)	58-68
TMW 67	150,003.26	325,192.80	6,655.02	1.61	6,656.63	72.00	P (DRY)	54-72
TMW 68	150,203.84	325,189.90	6,653.60	1.44	6,655.04	93.00	P (DRY)	76-91
TMW 69	149,649.27	324,659.43	6,653.46	1.01	6,654.47	150.00	A	100-150
TMW 70	149,309.09	324,369.82	6,649.83	1.23	6,651.06	160.00	A	100-150
TMW 71	149,835.18	324,420.67	6,652.59	1.93	6,654.52	160.00	A	100-150
TMW 72	149,020.47	322,991.15	6,640.35	1.06	6,641.41	114.00	A	90-114
TMW 73	149,055.70	322,896.82	6,643.31	1.54	6,644.85	115.00	A	90-115
TMW 74	149,799.32	325,791.92	6,659.23	0.95	6,660.18	62.50	P (DRY)	42.5-62.5
TMW 75	149,801.01	325,992.80	6,658.93	1.25	6,660.18	150.00	A	97-147
TMW 76	149,703.72	326,194.12	6,657.24	1.24	6,658.48	76.00	P (DRY)	46-76
TMW 77	149,705.25	326,394.40	6,656.93	1.35	6,658.28	30.50	P (DRY)	15.5-30.5
TMW 78	149,900.26	325,592.38	6,657.66	0.84	6,658.50	150.00	A	99-149
TMW 79	149,905.36	326,388.81	6,659.70	1.82	6,661.52	53.00	P (DRY)	48-60
TMW 80	150,100.82	325,989.30	6,660.04	1.48	6,661.52	83.00	P (DRY)	57-82
TMW 81	150,107.59	326,384.61	6,658.50	1.46	6,659.96	47.50	P (DRY)	37.5-47.5
TMW 82	150,302.15	325,987.47	6,659.56	1.08	6,660.64	150.00	A	100-150
TMW 83	150,307.20	326,379.40	6,657.86	1.01	6,658.87	65.00	P (DRY)	40-65
TMW 84	150,506.27	326,376.61	6,660.36	1.50	6,661.86	147.00	A	97-147
TMW 85			6,657.31	1.81	6,659.12	94.00	P (DRY)	50-90
TMW 86	150,502.85	325,986.77	6,658.16	1.92	6,660.08	89.50	P (DRY)	71.5-89.5
TMW 87	150,200.92	325,789.12	6,658.49	2.11	6,660.60	88.00	P (DRY)	64-88
TMW 88	149,998.44	325,792.37	6,658.71	1.78	6,660.49	85.50	P (DRY)	62.5-85.5
TMW 89	150,809.67	326,137.13	6,659.33	1.42	6,660.75	160.00	A	100-150
TMW 90	148,611.25	323,958.92	6,638.27	1.55	6,639.82	55.00	P (DRY)	35-55
TMW 91	148,518.38	323,956.86	6,638.18	1.43	6,639.61	110.00	A	90-110
TMW 92	148,504.47	323,951.33	6,638.32	1.83	6,640.15	130.00	A	110-130
TMW 93	148,399.92	324,099.96	6,638.62	2.40	6,641.02	145.00	A	95-145
TMW 94	148,400.13	324,000.02	6,638.57	1.96	6,640.53	145.00	A	95-145
TMW 95	148,399.94	323,900.08	6,638.57	2.00	6,640.57	143.00	A	93-143
TMW 96	148,500.01	323,807.75	6,639.26	1.07	6,640.33	145.00	A	95-145
TMW 97	148,599.86	323,799.93	6,639.64	1.75	6,641.39	145.00	A	95-145
TMW 98	148,699.84	323,810.19	6,642.39	1.21	6,643.60	145.00	A	95-145
TMW 99	148,707.32	323,898.85	6,712.42	1.42	6,713.84	145.00	A	95-145
TMW 100	148,799.77	324,004.42	6,638.60	1.25	6,639.85	150.00	A	95-145
TMW 101	148,800.10	324,100.06	6,639.58	2.06	6,641.64	145.00	A	95-145
TMW 102	148,600.02	323,968.63	6,638.18	1.56	6,639.74	150.00	A	130-150
TMW 104	148,508.55	324,122.60	6,637.96	1.75	6,639.71	145.00	A	95-145
TMW 105	148,581.02	323,943.82	6,638.28	1.90	6,640.18	40.00	P (DRY)	20-40
TMW 111	148,800.06	324,200.03	6,642.39	1.56	6,643.95	145.00	A	95-145
TMW 112	148,700.09	324,199.95	6,641.49	1.75	6,643.24	145.00	A	95-145
TMW 113	148,600.06	324,199.95	6,641.55	1.96	6,643.51	145.00	A	95-145
TMW 115	148,499.96	324,199.79	6,640.92	2.00	6,642.92	145.00	A	95-145



A large quantity of diesel contaminated soil was excavated at the Sweetwater Uranium Project between November 2001 and March of 2003. This operation was reported to the Nuclear Regulatory Commission. Two (2) monitor wells, TMW-72 and 73, were completed immediately down gradient of the excavation and are shown on the maps in blue as Contaminated Soil Excavation Monitor Wells. TMW-72 and 73 were completed into the very top of the saturated portion of the Battle Spring Aquifer at 90 – 114 and 90 – 115 feet below surface, respectively. These wells are completed approximately ten feet above and fifteen feet into the saturated zone.

The purpose of these wells was to sample the top of the aquifer for hydrocarbons that may float on top of the aquifer surface. Since these wells were completed solely for monitoring of organics, the sampling/analysis instructions for these wells included only sampling and analyzing for organics. In several instances, however, the wells were sampled and analyzed for inorganics (Guideline 8 plus radiometrics), but since the wells were completed for hydrocarbon monitoring, the inorganic results were never checked and were filed separately from the organic results that were checked. During a review of water sample data these inorganic results were discovered and are presented in the Section entitled Diesel Excavation Monitor Wells. TMW-72, the easternmost well, exhibited elevated, but declining uranium concentrations. The current concentration (10/26/06) is 194 pCi/L (0.287 ppm). TMW-73, the westernmost well, currently exhibits a concentration (11/8/06) of 5690 pCi/L (8.40 ppm).

Upon discovery of this information, the following was done:

- TMW-72 was re-sampled and the sample analyzed for inorganics on October 26, 2006
- TMW-73 was also re-sampled on October 26, 2006 and on November 8, 2006. On November 8, 2006 the well was pumped and samples collected after 59, 450 and 932 gallons had been pumped, to determine if the uranium extended substantially beyond the well bore.
- The results of this sampling are attached in the section entitled Diesel Excavation Monitor Wells.

The sample results were reported verbally to Stephen Cohen of the NRC in two telephone conversations on February 7 and 14, 2007.

These results are puzzling for the following reasons:

- TMW-72 and 73 are approximately 106 feet apart and completed to the same depths.
- The wells exhibit vastly different natural uranium concentrations (194 pCi/L – TMW 72 and 5690 pCi/L – TMW 73).

The source of uranium in these wells is unclear. A number of potential sources have been considered and rejected. The primary concern was that the uranium present was related to the two other sources of groundwater contamination on site, specifically the tailings impoundment and the Catchment Basin. These locations as potential sources of the uranium as well as other potential uranium sources are discussed below.

### **Tailings Impoundment**

It is extremely unlikely (almost impossible) that the uranium is derived from the tailings impoundment leak. TMW 63 is completed in the upper portion (110-1300 feet below surface) of the Battle Spring Aquifer immediately adjacent to TMW 18 and does not show the levels of uranium observed in TMW 73. In addition, uranium levels drop as one moves west of the impoundment, so the high levels of uranium observed in TMW 73 are inconsistent with this westerly drop in uranium concentrations. TMW 73 is 2126 feet west of TMW 18, which is against the western impoundment embankment. The fact that uranium concentrations vary markedly between TMW 72 and 73, which are close together, points to a localized source and not a distant one, since if the source was as distant as the tailings impoundment the wells should exhibit similar uranium concentrations since at that distance the uranium should be fairly uniformly distributed in the aquifer.

The actual tailings impoundment fluids when the leak occurred (1984) only contained 3047 pCi/L of natural uranium, which is below the current concentration of 5690 pCi/L in TMW 73 on 11/8/06. Please see the tailings impoundment fluid analysis results included in the Diesel Excavation Monitor Wells section.

In addition, no monitor wells in the upper portion of the Battle Spring Aquifer around the tailings impoundment, specifically TMWs 15, 16, 18 and 59, which are immediately against the west embankment of the impoundment, ever exhibited uranium concentrations in excess of 1286.3 pCi/L (TMW 18 on July 12, 1984).

Given the above, it is extremely unlikely (almost impossible) that the uranium observed in TMW 73 is derived from the tailings impoundment.

### **Catchment Basin**

It is unlikely that the elevated uranium present in TMW 73 is derived from the Catchment Basin since it is 1188 feet from TMW 91, which was completed into the upper portion of the Battle Spring Aquifer (90-110 feet below surface) immediately west of the Catchment Basin (contaminant source). TMW 91 does not exhibit the elevated levels of uranium observed in TMW 73. TMW 91 had a maximum uranium concentration of 110 pCi/L (8/26/03). Clearly if TMW 91 never had high uranium concentrations and was immediately adjacent to the west side of the Catchment Basin, the Catchment Basin plume could not be the source of the uranium in TMW 73.

Also, the extremely rapid reduction of uranium contamination in TMWs 96 and 97 indicates contamination of limited areal extent. The fact that contaminant levels vary markedly between TMW 72 and 73 which are close together, points to a localized source and not a distant one. If the source was distant, the wells should exhibit similar uranium levels since at that distance the uranium should be fairly uniformly distributed in the aquifer.

### **Sweetwater Pit**

While the pit was being excavated the dewatering system made it a hydrologic sink, so the pit could not have been a source at that distance. Following cessation of dewatering the pit began to fill and the water contained significant concentrations of uranium, a high of 9478 pCi/L on April 3, 1987. This uranium was dissolved out of the backfill in the C-1 pit by the infiltrating ground water.

The water level in the pit only attained steady state by 1997 or 1998 at which point it became an evaporative sink, so it could not have been a source of uranium. Groundwater contour mapping of the pit and its environs based on the dewatering wells as well as modeling performed by Shepherd Miller, Inc. in 1999 as part of the reclamation plan revision clearly demonstrate that the pit is a continuing evaporative sink. During its life the pit was either dewatered, recharging, or of late, an evaporative sink, so it could not be a source of groundwater contamination. This eliminates the pit as a source of the uranium.

### **Barium Chloride Discharge Area**

The barium chloride ponds were treatment ponds where mine discharge water was treated with barium chloride to precipitate radium and discharged into Battle Spring Draw. The discharge created (by seepage of clean discharged water through uraniferous and seleniferous overlying soils) a groundwater mound in the Battle Spring Aquifer beneath the discharge point containing uranium and selenium. This is documented in the following two reports that were submitted to the State of Wyoming Department of Environmental Quality to explain elevated uranium and selenium concentrations in North Camp Well:

- Interim Report – Groundwater Investigation in the Vicinity of the Barium Chloride Treatment Ponds – February 1983
- Groundwater Investigation in the Vicinity of the Barium Chloride Treatment Ponds – July 1984

Natural uranium persists in the North Camp Well (NCW) to this day (1370 pCi/L – June 5, 2006). Some of this fluid could have migrated toward the diesel contaminated soil excavation when the dewatering and discharge system was operating and a sharp cone of depression was present around the pit due to the action of the dewatering wells as well as a discharge/injection water mound beneath the barium chloride ponds. This is, however, highly unlikely since TMWs 72 and 73 are not in direct line between the barium chloride ponds and the pit dewatering wells. The distance between the barium chloride ponds and TMWs 72 and 73 is 1½ miles and the uranium and selenium bearing water should distribute uniformly; both wells would show approximately the same uranium and selenium concentrations, which they do not. The westernmost well (TMW 73) has the highest uranium and selenium concentrations and is closest (but by only 106 feet) to any hypothetical line between the barium chloride ponds and a dewatering well. The great distance from the barium chloride ponds to these two wells (1½ miles) makes the barium chloride ponds as a uranium source unlikely.

### **Localized Naturally Occurring Uranium in Soils Leaching into Groundwater**

The Geology of the Lost Creek Schroeckingerite Deposits Sweetwater County, Wyoming (Geological Survey Bulletin 1087-J) by Charles Maxwell et al reported uranium concentrations in water samples collected in bore holes ranging from 0.010 to 46 parts per million. Clearly, very high naturally occurring uranium concentrations in ground water can exist in the Red Desert. The uranium encountered in the water in this borehole may be entirely natural. The levels of uranium in ground water reported in the Survey Bulletin tended to be very spotty, which is similar to the spotty nature of the uranium observed in TMWs 72 and 73.

A test pit was excavated by Union Oil Company of California prior to the start of operations near the southeast corner of Section 16, Township 24 North, Range 93 West, that was 68 feet deep (bottom elevation was approximately 6540 feet above mean sea level). It was excavated to obtain samples of uranium mineralization above the water table. A bulk sample of mineralized sand above the water table was removed that contained 0.011%  $U_3O_8$  and a bulk sample from below the water table was also removed that contained 0.033%  $U_3O_8$ . (Recovery of Uranium from Red Desert Sandstone Ore by  $H_2SO_4$  Leach and Solvent Extraction – Hazen Research, Inc. February 18, 1976) This test pit was approximately 0.9 miles southwest of TMW 73. Some soil samples were collected in the diesel contaminated soil excavation along the south wall closest to TMWs 72 and 73. One sample contained 43.3 milligrams per kilogram uranium. It was collected from a depth of approximately 35 feet below ground surface. Background for uranium in surface soils around the project is 2.44 milligrams per kilogram. The concentrations discovered in the above described sample are substantially above background and represent mineralized sands. Localized bodies of mineralized sands could be the source of the elevated uranium in TMWs 72 and 73. A map entitled Background Radionuclide Sample Locations – West End Diesel Contaminated Soil Excavation, showing the locations of four soil samples collected in the excavation as well as the analytical results are included in the section entitled Diesel Excavation Monitor Wells.

The fact that the discharge of water onto the surface at the Barium Chloride Ponds was able to mobilize naturally occurring uranium in surface soils and elevate uranium concentrations in the underlying aquifer shows that uranium mobilized by downward percolating surface water can elevate uranium concentrations in underlying aquifers. Surface water (rainfall, snowmelt) percolating through mineralized sands may be the cause of the elevated uranium concentrations in TMWs 72 and 73.

Kennecott Uranium Company plans to complete three pairs of monitor wells as shown on the map entitled Proposed Well Locations to further investigate this issue. Each monitor well pair will consist of a below surface (the same depth as TMW 72 and 73 were completed) and one well completed from approximately 100 to 150 feet below surface to sample the entire upper saturated fifty feet of the aquifer into which most of the wells around the Catchment Basin and tailings impoundment. In addition soil samples will be collected from these wells as drilled to check for anomalous uranium concentrations in the subsurface. These six wells, when completed at the depths and locations described, should provide critical water sample data for the area between TMWs 72 and 73 and the Catchment Basin and tailings impoundment.

Consideration is also being given to excavating one or more holes in the deepest part of that diesel contaminated soil excavation (elevation 6554 above mean sea level), which is 12.46 feet above the elevation of the piezometric surface in TMW 72 (6541.54 – December 2006). These holes would be excavated into the aquifer using a trackhoe. Samples could be collected of the soil as the hole is excavated for testing for uranium. Once the hole is excavated perforated PVC pipe would be placed vertically in it and gravel packed so water samples could be collected. This would provide another sampling point into the upper portion of the Battle Spring Aquifer in the vicinity of TMW 72 and 73. This sampling location would be approximately 131 feet north of TMW 72.

Stephen Cohen, in an email dated Thursday, February 15, 2007, requested a plan to investigate this contamination, including sampling of TMWs 72 and 73 in conjunction with other site wells, specifically TMW 91, which is completed at the same depth, and simultaneous collection of water level data. Water levels are collected from site wells monthly and usually on the same date, so this is being done already. The simultaneous collection of samples from TMWs 72, 73 and 91 is scheduled for a day in April 2007.

The *Uranium (U-nat) Contour Map* (see Maps) shows the 36.0 pCi/L uranium contour in red, based on the 36.0 pCi/L uranium GPS, based on samples taken in 2006 for the tailings and Catchment Basin monitor wells. The highest uranium concentration for 2006 for each well was used to prepare this map. The area encompassed by the 36.0 pCi/L uranium contour on the 2006 map is 39.6 acres. This is more than the 28.9 acres estimated for the end of 2005 and about the same as the estimated 35.7 acres calculated for 2004. This acreage estimate depends upon the inferred outline of the plume beneath the tailings impoundment, an area for which there is no sample data. This plume area may vary from year to year based upon differing interpretations of the plume outline position. The plume outline includes the uranium contamination around the Catchment Basin.

The *Combined Radium-226/228 Contour Map* (see Maps) shows the areal extent of the 5.8 pCi/L radium 226/228 plume boundary in green. This map shows the combined radium 226/228 plumes in 2006. The plume as drawn encompasses a total area of 148.6 acres on the 2006 map. This is more than the 136.8 acres estimated for the end of 2005 and close to the estimated 146.2 acre area calculated for 2004. This acreage estimate is subject to interpretation since the actual outline of the plume beneath the tailings impoundment is unknown because no monitor wells penetrate the impoundment.

The *Total Dissolved Solids - TDS Contour Map* (see Maps) shows the TDS plume in the vicinity of the tailings impoundment and Catchment Basin in 2006. The area encompassed by the 500 parts per million contour is 170.2 acres on the 2006 map. This is greater than the estimated 148.3 acre area calculated for 2005.

In November 1996, as part of the field work program to develop a final design for tailings management for the Sweetwater Uranium Project, eighteen control points (section corners, quarter corners, etc.) covering a nine square mile area around the mill were surveyed with a global positioning system. The original elevation of the southeast corner of Section 15, Township 24 North, Range 93 West was found to be wrong. Please see the memo submitted as Appendix A of the 1996 Corrective Action Program (CAP) Review from Kent Bruxvoort of Shepherd Miller, Inc. This point was used to establish ground surface and casing elevations for the tailings monitor wells (TMW) around the tailings impoundment.

As a result of this discovery, all of the casing elevations for all of the tailings monitor wells and potable water wells (PWW) were resurveyed by Inberg-Miller Engineers, Inc. of Riverton, Wyoming. A mark was filed into the top of the casing in each well and the casing elevation was surveyed at that mark. All water level measurements will now be taken from that mark as well, to insure accuracy and consistency of results. In addition, the casing heights of each well were measured so accurate ground elevations for each well could be obtained. These elevations are listed in Table 2.3 of "Evaluation of Aquifer Test Data", submitted as Appendix B of the 1996 Corrective Action Program (CAP) Review. The correction of the casing heights has affected the piezometric contours for the aquifer.

In December of 1996 a pump test was conducted in the area north of the tailings impoundment as part of the final tailings design field work program. The results of this test were documented in Appendix B, Evaluation of Aquifer Test Data (1996 CAP Review).

As of December 31, 2006, pumping from wells TMW-7, 17, 18, 57, 58, 59 and 75 did not exceed the 25 million gallons allowed under "TOP-1 - General Tailings and Evaporation Impoundment Procedures". On December 31, 2006 a total of 24,348,650 gallons of Battle Spring Aquifer water had been pumped back into the tails cell since the beginning of the year. This represents an 18% increase over the 2005 volume. This increase in volume is largely due to the two new Catchment Basin pumpback wells (TMW-96 and TMW0-97).

As part of the process of obtaining an operating performance based license for the facility, which was granted on August 18, 1999, Elaine Brummett requested in a telephone conversation on July 7, 1999 that a Standard Operating Procedure (SOP) be prepared limiting annual pumpback to no more than 25 million gallons per year and to an annual amount that would cause no net rise in the fluid level in the tailings impoundment, minor seasonal fluctuations excepted. This SOP would extend the 25 million gallon per year pumpback limit that was a pre-existing requirement in License Condition 10.7A of the old license. This language is included in the Standard Operating Procedure entitled "TOP-1 - General Tailings and Evaporation Impoundment Procedures". *Table 1 – Gallons Pumped to Tailings Impoundment* (see Tables) lists the wells pumped, the volumes pumped and the cumulative gallons pumped for years 1986 - 2006. The flow from some wells was reduced and some shut down near the end of the year to keep the total pumped volume below 25 million gallons. It is planned for 2007 to operate the pumpback wells at the following approximate flow rates:

WELL #	Gallons per Minute
TMW-96	5
TMW-97	5
TMW-59	4
TMW-75	5
TMW-17	4
TMW-7	5
TMW-57	4
TMW-18	8
TMW-58	4
<b>Total:</b>	<b>44</b>

TMWs 59, 18 and 58 have the highest Total Dissolved Solids concentrations (2450 ppm, 2510 ppm and 1000 ppm) so they will be operated at the highest flow rates with the other less contaminated wells pumped at lower rates so that the total pumped volume does not exceed 45 gallons per minute.

Problems with iron bacteria growth continued in 2006; however, a chlorination program, instituted in 1996, has helped control the bacteria. In addition, an increased effort was made during 2005 to clean and maintain the wells and pumps. With the replacement of TMW-16 with TMW-7, less repair/maintenance/cleaning was required to operate the pumpback system. The Well Repair Table has been eliminated since most of the references in it were devoted to TMW-16. Chlorination, acidization and pump cleaning were performed as required.

The following groundwater contour maps are included with this report:

- *March 2006 Piezometric Contour Map* shows the groundwater contours around the tailings impoundment and Catchment Basin in March of 2006.
- *September 2006 Piezometric Contour Map* shows the groundwater contours around the tailings impoundment and Catchment Basin in September of 2006.

Five (5) foot contours are in red while one (1) foot contours are in dashed black on both maps. These maps show the extent of the cone of depression created by the pumpback wells. These maps were created using groundwater elevation data from all of the aquifer monitor wells regardless of the completion depth, since the piezometric surface is believed to be a property of the aquifer as a whole.

The March 2006 Piezometric Contour Map shows a small cone of depression between the tailings impoundment cone of depression and the one related to the Catchment Basin pumpback wells. This cone is related to pumping of a water supply well, PWW-2, not shown on the map. This water supply well draws water from deeper zones down to a depth of 400 feet. Water level data from all wells was included on the piezometric contour map, regardless of the depth at which the well was completed. This well was pumped intermittently to supply water for dust control for the excavation around the Catchment Basin.

The September 2006 Piezometric Contour Map shows a cone of depression by the south edge of the Ore Pad. This cone is related to the pumping of a water supply well, PWW-1, not shown on the map. This water supply well draws water from deeper zones down to a depth of 400 feet. Water level data from all wells was included on the piezometric contour map, regardless of the depth at which the well was completed. This well was pumped intermittently to supply water for dust control for the excavation around the Catchment Basin.

A total of 3,121,682 gallons was pumped from these two wells in 2006, which is much larger than the 734,120 gallons pumped in 2005; hence the appearance of the cones of depression. These should diminish in 2007 since the demand for water will not be as large as in 2006.

#### Salts/Contaminants Removed from the Battle Springs Aquifer

*Table 2 – Mass of Salts and Other Constituents Removed from the Perched and Battle Springs Aquifers and Pumped Back into the Tailings Cell* lists the cumulative quantities of salts (contaminants) pumped back from the Battle Springs Aquifer into the tailings cell via the pumpback system. Charts showing the quantities of salts returned to the tailings cell are also included for each of the wells pumped back into the cell in 2006.

TMWs 90 and 105 were removed during the course of the excavation of the contaminated soils around the Catchment Basin in 2006. They were not pumped during 2006.

### **TAILINGS CELL WATER EVAPORATION SYSTEM**

The tails cell delta spray and evaporation systems were returned to service by April 4, 2006. The systems were shut down for winter on December 4, 2006. Four (4) artificial, bermed lagoons created on the surface of the exposed beach against the western side of the cell, as well as other lagoons, were in operation in 2006. These lagoons serve to hasten evaporation from the cell and reduce dusting. The northernmost of the four lagoons along the western embankment was drained in 2006 so excavation work could be done in the area. The lagoons, as they were in August 2006, are shown in blue on the maps.

Operation of the evaporative drip system, which allows tailings fluid to drip down exposed portions of the liner on the western embankment of the impoundment, was suspended in 2000. Two sections of liner used as surfaces on which tailings fluid was allowed to drip were damaged by high winds by April 10, 2000. This situation was examined by the Safety and Environmental Review Panel (SERP) and a Safety and Environmental Evaluation (SEE) regarding this situation was prepared. The Safety and Environmental Evaluation (SEE) concluded that operation of the evaporative drip system should be suspended until the liner damage is repaired or remain suspended and then be permanently terminated if extra (replacement) evaporative capacity on the exposed tailings in the amount of 1.87 acres is constructed. Liner damage along the western embankment was not repaired in 2005. Additional lagoon area was maintained to provide replacement evaporation.

## TAILINGS IMPOUNDMENT FLUID LEVEL

The fluid level on September 19, 2006 was 6608.7 feet above MSL. This represents an increase of 3.20 feet from the level of 6605.5 feet above MSL on September 20, 2005. This elevation is taken in the deepest pool in the impoundment's southeast corner. This fluid level was subject to rapid fluctuation during 2006 due to the addition of approximately 220,000 cubic yards of material from the Catchment Basin excavation. This material filled some pool areas along the impoundment's eastern embankment driving fluid levels higher in the southeastern pool.

A certain portion of evaporation is due to the spray system, which sprays pool water onto the sand beaches, saturating them. Some of the pool water becomes tied up in the sands causing a drop in the pool level not due to evaporation when the sprays are operating. Current saturated area (pool area plus lagoons) is estimated to be approximately 510,958.5 square feet (2006 Method 115 Report). The saturated area has increased from the 2005 area (495,712.5 square feet) in spite of evaporative losses from the main pool due to the construction of lagoons on the exposed tailings surface. This area is based on a ground survey of the impoundment conducted by Robert Jack Smith and Associates on August 14 to 15, 2006.

Fluid levels drop during the spring and summer months due to evaporation from the free standing pool, the sprays and the drips. While they rise slightly during the winter months because the sprays and drips are not operating, the freestanding pool is frozen and fluids continue to be added to the impoundment from the pumpback wells. This accounts for the "sawtooth" appearance of the tailings impoundment fluid levels graph.

## BATTLE SPRINGS AQUIFER WATER LEVELS

Recovery of the cone of depression caused by dewatering operations around the Sweetwater Pit was complete by 1998. The current water level in the pit stands at 6538.28 feet above MSL on November 20, 2006, a drop of 0.58 feet from a level of 6538.86 feet above MSL on October 17, 2005. Please see attached chart entitled *Sweetwater Pit Water Levels*. Kennecott Uranium Company believes that water levels in the pit have reached "steady state". This 0.58 foot drop in pit lake surface elevation observed during 2006 is a normal fluctuation in the lake level. The wells closest to the pit have shown the greatest recoveries, while those farthest from the pit are the least affected. TMWs 7, 17, 18, 57, 58, 59, 75, 96 and 97 showed decreased water levels since they are being actively pumped. The greatest decrease in water level was in the area of TMWs 96 and 97. This is logical since TMW-97 yields the highest pumpback rate, 9.2 gpm. The spreadsheet *Groundwater Elevations 11/96 to Present* is included at the end of this section.

The reclaimed pit remains as a lake and evaporative sink. Water loss via evaporation from the pit lake surface creates a slight permanent cone of depression around the pit, meaning that the potentiometric surface of the aquifer in that area will never return to pre-mining levels.

## GROUNDWATER DIRECTION AND VELOCITY

The groundwater in the immediate vicinity of the tailings impoundment and Catchment Basin is flowing toward TMWs 7, 17, 18, 57, 58, 59, 75, 96 and 97, as these wells have overcome regional groundwater flows toward the southwest due to pumping in 2006. The piezometric contour maps show the potentiometric surface of the Battle Springs Aquifer around the tailings impoundment and Catchment Basin in March and September 2006. The cone of depression created by the pumpback wells encompasses the existing plume. The groundwater contour maps for March and September 2006 clearly show a cone of depression by the western edge of the tailings impoundment and around the Solvent Extraction (SX) Building by the Catchment Basin pumpback wells TMW 96 and TMW 97.

## PROGRESS TOWARD ATTAINING GROUNDWATER PROTECTION STANDARDS

The pumping of aquifer wells TMW-7, 17, 18, 58, 59 and 75 at the toe, north and west of the tails cell, will continue to intercept any contaminated water coming through. The capture of contaminated water at the toe of the tails cell will prevent any hazardous constituents that may be present from migrating away from the cell and thus, in time, attain groundwater protection standards (GPS). A pump was installed in TMW-57 in May 2001. A new well, TMW-7, was completed on August 18, 2003. A pump was installed and started in it on December 1, 2003.

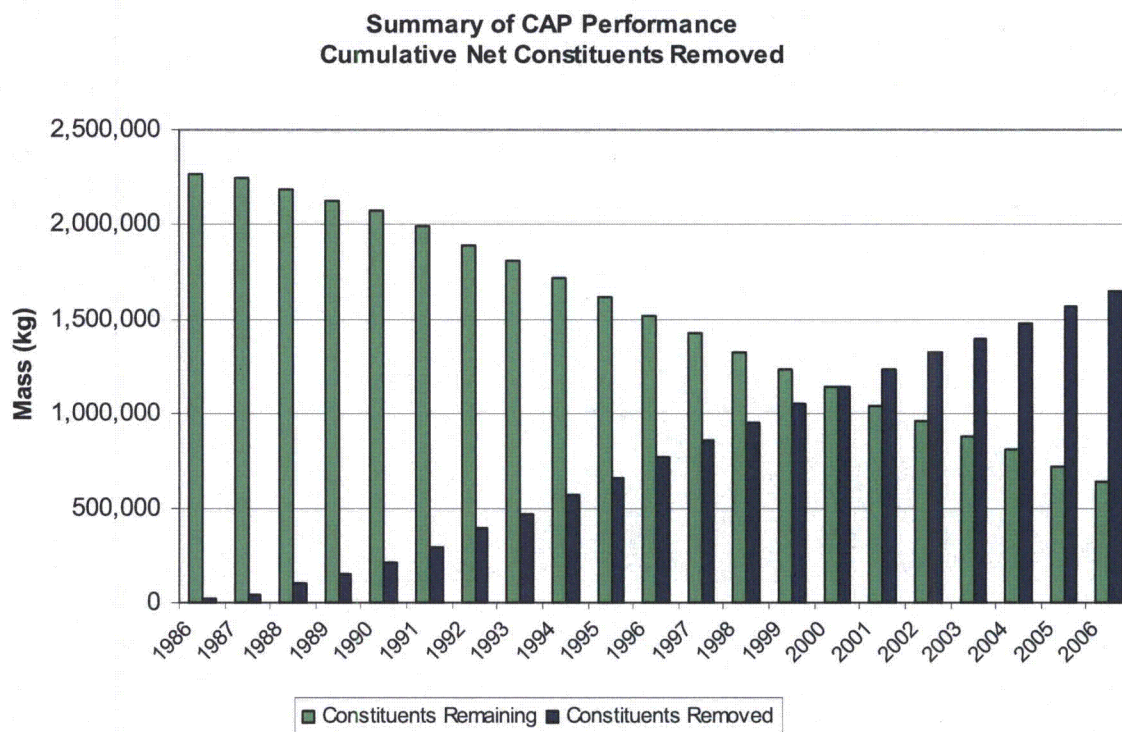
The major portion of the excursion lies beneath the tailings impoundment, as seen on the respective contour maps. This makes sense given the fact that the fluids leaked from the impoundment's northeast corner and flowed to the west under the impoundment to the sink created by the then mostly dewatered Sweetwater Pit. The impacted fluids beneath the tailings impoundment can only be collected from wells at or near the edge of the impoundment since wells cannot be drilled through the bottom of the lined



impoundment. This limitation greatly hinders removal of impacted fluids from the aquifer. The most impacted fluids lie beneath the impoundment as shown on the TDS Contour Maps. The pumpback well with the highest TDS (2430 ppm – October 5, 2006), for example, is TMW-18, which lies immediately against the western embankment. Being forced to recover impacted fluids from the edge of the plume and being unable to recover fluids from the area of highest concentration, the plume's core, prolongs any attempt to attain groundwater protection standards (GPS).

The following italicized text (February 7, 2004) and a bar graph (updated on February 21, 2006) are from an internal consultant's report prepared by Kent Bruxvoort Consulting dated February 7, 2004. *"The CAP has been successful in containing and reducing quantities and concentrations of hazardous constituents beneath the impoundment. As of the fourth quarter of 2002, about 248.4 million gallons of groundwater had been pumped back into the impoundment. A cumulative net amount of 1,323,500 kg of contaminants has been pumped back, representing 58 percent of the estimated total amount released. In calculating this net amount, background quantities of constituents, as defined by concentrations in the background monitoring well, TMW-5, were subtracted from the total mass of constituents pumped. The following plot compares the cumulative net mass of contaminants removed to the cumulative amount of released contaminants remaining in the aquifer. The average pumpback volume from 1993 through 2002 was 93,000 kg/year."*

The plot has been updated with 2006 data and is shown below. The mass of salts recovered for 2006 also includes salts recovered from the plume around the Catchment Basin. The volume of fluids leaked from the Catchment Basin and the mass of salts associated with that fluid is unknown. As such, no adjustment was made to the mass of constituents remaining to reflect constituents leaked from the Catchment Basin.



#### AREAL EXTENT AND CONCENTRATION OF HAZARDOUS CONSTITUENTS

The areal extent of the excursion at this time is shown by the Uranium, Combined Radium and TDS Contour Maps. All hazardous constituents (except for Uranium, Combined Ra226/228 and Gross Alpha) have stabilized below groundwater protection standards in the majority of aquifer wells. TDS values of over 500 ppm, Natural Uranium values of over 36.0 pCi/L and Radium 226/228 values 5.8 pCi/L show a plume north, northeast and west of the tails cell and around the Catchment Basin. The surface area underlain by the plume varies depending upon the constituent in question. The Combined Radium 226/228 plume covers approximately 148.6 acres, as drawn. The 500 ppm TDS contour shown defines an area of approximately 170.2 acres. The 36 pCi/L Uranium plume covers an area of 39.6 acres. These areas are from the 2006 maps.

## VERTICAL EXTENT OF CONTAMINATION

TMW-8, 24 and 47 (see page 5) were each completed in a deeper sand than the other monitor wells. The sample results from these wells clearly show that groundwater contamination from the cell has not migrated into deeper sands. These results show that the contamination is confined to the upper fifty (50) feet of the saturated portion of the Battle Springs Formation.

This was substantiated by Shepherd Miller, Inc. when they completed the groundwater background study. In the study they concluded, *"Water quality sampling of three wells completed within the lower saturated sand, TMW's 8, 24 and 47, shows it to be unaffected by seepage from the cell, indicating that flow from the upper to lower saturated sands is retarded by the clay stone layer."*

## ESTIMATE OF TIME NEEDED TO OBTAIN COMPLIANCE

For the purposes of generating a surety estimate for the site, an estimate of ten (10) years (from July 1999) to terminate the Corrective Action Program (CAP) for the plume around the tailings impoundment was made. This was discussed in a letter to the NRC dated July 29, 1999, which stated; "In the eleven years of CAP operation (1988 through 1998), 47 percent of the estimated mass of released contaminants have been removed via pumping." Based upon this estimate of the mass of released contaminants removed by pumpback operations, an estimate of ten (10) years to terminate the Corrective Action Program (CAP) was made. This estimate was revised and updated by Kent Bruxvoort Consulting on February 7, 2004. This update concludes that 58% of the estimated total amount of the contaminants had been returned to the tailings impoundment by the end of 2002. This February 7, 2004 update has been subsequently revised and now shows that 72% of the estimated total amount of the contaminants has been removed by the end of 2006.

However, the scope of the CAP has changed with the license amendment request granted on May 26, 2005 to include the contaminated plume in the aquifer around the Catchment Basin. The volume of fluid released through the unlined bottom of the Catchment Basin is unknown, so the mass of salts added to the aquifer from the Catchment Basin cannot be accurately estimated. It is notable that with relatively low total volumes of pumping from TMWs 96 and 97 to date, substantial changes in total dissolved solids concentrations occurred, as shown on the table below:

	Well	Date	TDS (mg/l)
Pre-pumping sample	TMW-96	3/3/05	2430
Pumping sample	TMW-96	10/07/06	806
Pre-pumping sample	TMW-97	3/7/05	2210
Pumping sample	TMW-97	11/09/06	648

Substantial drops in uranium as well as total dissolved solids have been achieved since commencement of pumping. Also, organic contamination in both wells has dropped to non-detect since pumping began. This may indicate that the total volume of contaminated water in the Battle Spring Aquifer is not large.

This estimate of ten (10) years for the tailings impoundment plume is, of course, subject to change depending upon future plans. For example, should operations at the mill resume, use of pumpback fluids as a source of mill feed water has been considered as a means to hasten removal of the impacted fluids. In addition, contaminants entering the Battle Spring Aquifer from the Catchment Basin are not included in this estimate, since their volume is unknown.

## AQUIFER WATER QUALITY

Water quality (as judged by a decreasing trend in TDS values) in aquifer monitor wells TMWs 4, 15, 16, 29, 31, 37, 44, 56, 57, 59, 78, 89, 93, 97, 101, 112 and 113 is improving. An increasing trend in TDS values is observed in TMWs 36, 58 and 102. TMWs 7 and 58 are pumping wells. TMW-4 has shown anomalous total dissolved solids (TDS) concentrations, manganese, iron and nickel values in the 2005 samples, as well as a depressed pH. In the most recent sample (July 25, 2006) the TDS has dropped to 462 mg/l below the 500 mg/l threshold. The anomalous nickel concentration has dropped to 0.1 mg/l in the sample, which is below the Groundwater Protection Standard. The increased TDS in this well is clearly due to factors other than the tailings impoundment plume, since wells with lower TDS values and no anomalous nickel values (TMW-2 and -53) lie between TMW-4 and the plume. TMW-4 was sampled five (5) times instead of two in 2003 in an effort to better understand this problem. (Please see Control Charts.) The anomalous total dissolved solids values observed in TMW 6 in 2005 have begun to decline. TMWs 45 and 48 (both with lower TDS concentrations) lay between TMW-6 and the plume. The elevated total dissolved solids concentrations in these two wells and anomalous iron, manganese and nickel values in TMW-4 may be due to mobilization of materials used to complete



the wells. Kennecott Uranium Company will continue to provide a specific discussion regarding these wells until it is clear that the situation is fully understood or resolved.

TMW 4 no longer exhibits nickel values that exceed the Groundwater Protection Standard (GPS). TMWs 59, 91, 99, 102 and 112 exhibit nickel values that exceed the GPS. TMW 59 is a pumpback well located in the contaminated area of the plume, so anomalous nickel values are expected. TMWs 91, 99, 102 and 112 are in the immediate vicinity of the Catchment Basin. The groundwater plume is primarily a Total Dissolved Solids, Natural Uranium and Combined Radium-226/228 plume, with some localized exceedances of other metals, primarily nickel.

Kennecott Uranium Company believes that an increase in TDS followed by a decrease in pH is the first sign of seepage in a monitor well. An increase in TDS appears first because the native soils are alkaline and neutralize the low pH tails cell water. Most metals will not migrate through these soils until the buffering capacity of the soil has been exhausted. This is clearly shown in the Uranium Contour Map, which shows the limited areal extent of the Uranium plume when compared to the areal extent of groundwater with TDS in excess of 500 ppm shown in the TDS Contour Map. The Combined Radium 226/228 plume appears to mimic the shape and size of the TDS plume.

The Battle Spring Aquifer pumpback wells around the Catchment Basin exhibit anomalous TDS, radium, uranium, iron and manganese values, with four wells (TMWs 91, 99, 112 and 102) currently exhibiting anomalous nickel values. TMWs 102, 112, 113 and 115 showed small quantities of chloromethane (methyl chloride) in the 2006 samples. These chloromethane analysis results were investigated by the laboratory as potentially related to the sample preservation method. (Please see attached report from Jim Yocum of Energy Laboratories, Inc.) In summation, the laboratory believes that the anomalous chloromethane (methyl chloride) results are due to organic contamination in the sample preservative (hydrochloric acid).

April 26, 2006

Mr. Oscar Paulson  
Kennecott Uranium Company  
43 Miles NW of Rawlins  
Rawlins, WY 82301-1500

**RE: Chloromethane Study Results & Status**

Dear Oscar:

This correspondence is a record detailing ELI Casper's activities in regard to determine the source for chloromethane detected in Kennecott Uranium's ground-water samples. Chloromethane had intermittently been detected in Kennecott's and other ELI client samples submitted for analysis by 8260B, GC/MS purge & trap technique.

Most chloromethane results were between 0.5 and 3.0 ug/L in concentration, had a clearly defined chromatographic peak on the instrument output, and also had a near perfect match on the quant ID from the MS. These detections were reported out to clients due to the above factors, the lack of chloromethane results in similarly prepared method blanks, and acceptable performance for chloromethane in other QC sample types.

Due to several client conversations, including with yourself, ELI began investigation potential sources for the chloromethane in laboratory bottles, equipment and reagents. In addition, an internet search turned up several references to chloromethane being a potential disinfection by-product. After exploring this possibility, ELI thought that there was the potential for the HCL preservatives to be interacting with naturally occurring TOC, forming chloromethane in the process. At this point several clients including Kennecott were contacted for additional samples to field test this hypothesis. The results of this sampling are detailed below:

	<u>TMW 112</u> TOC=0.199		<u>TMW 113</u> TOC=0.184	
ACID	FIELD	LAB	FIELD	LAB
NONE	0	0	0	0
1 DROP	0	0	0	0
2 DROP	0	0	25.9	0
4 DROP	0	14.1	49.6	17
8 DROP	14.7	35.8	63.5	27

(Values indicate chloromethane concentration in ug/L. TOC values are in mg/L)

The results of this study clearly showed that there was a direct and linear relationship to acid concentration and chloromethane concentration. With one exception, chloromethane was present in all samples at four drops of acid preservation, and has the appearance of increasing linearly in the FIELD TMW 113 sample. The study however, showed a significantly lower TOC concentration that we expected would be present and ELI did not believe that this level of TOC would result in a HCL-TOC reaction to chloromethane.

While this potential does still exist, it is unlikely to occur when the TOC is several magnitudes of order below ten mg/L or greater.

The HCL/TOC theory was now an unlikely source for the chloromethane so ELI initiated another review of the acid as the acid is clearly related to the occurrence of chloromethane. After talking with several manufacturers and reviewing their detailed spec sheets, it was determined that manufactures list in their impurities, "organic compounds" at up to three percent by volume. This value for organic impurities occurs in every grade of acid from tech grade level to the ultra pure pharmaceutical grade acids. With this in mind, we decided to purge the HCL acid prior to use to see if chloromethane occurs in purged acid.

ELI purchased specialized purging apparatus and purged a liter of HCL acid with ultra pure nitrogen gas for four hours. This acid has been tested in laboratory blanks with no chloromethane results and is ready for experimentation in client samples. ELI would like to obtain a set of five blank vials from TWM 112 and TMW 113 for further analysis. If the samples subjected to the same spiking regiment come back negative for the follow-up analysis, additional testing should be done to pin down absolutely that the chloromethane was in the acid as a trace contaminant.

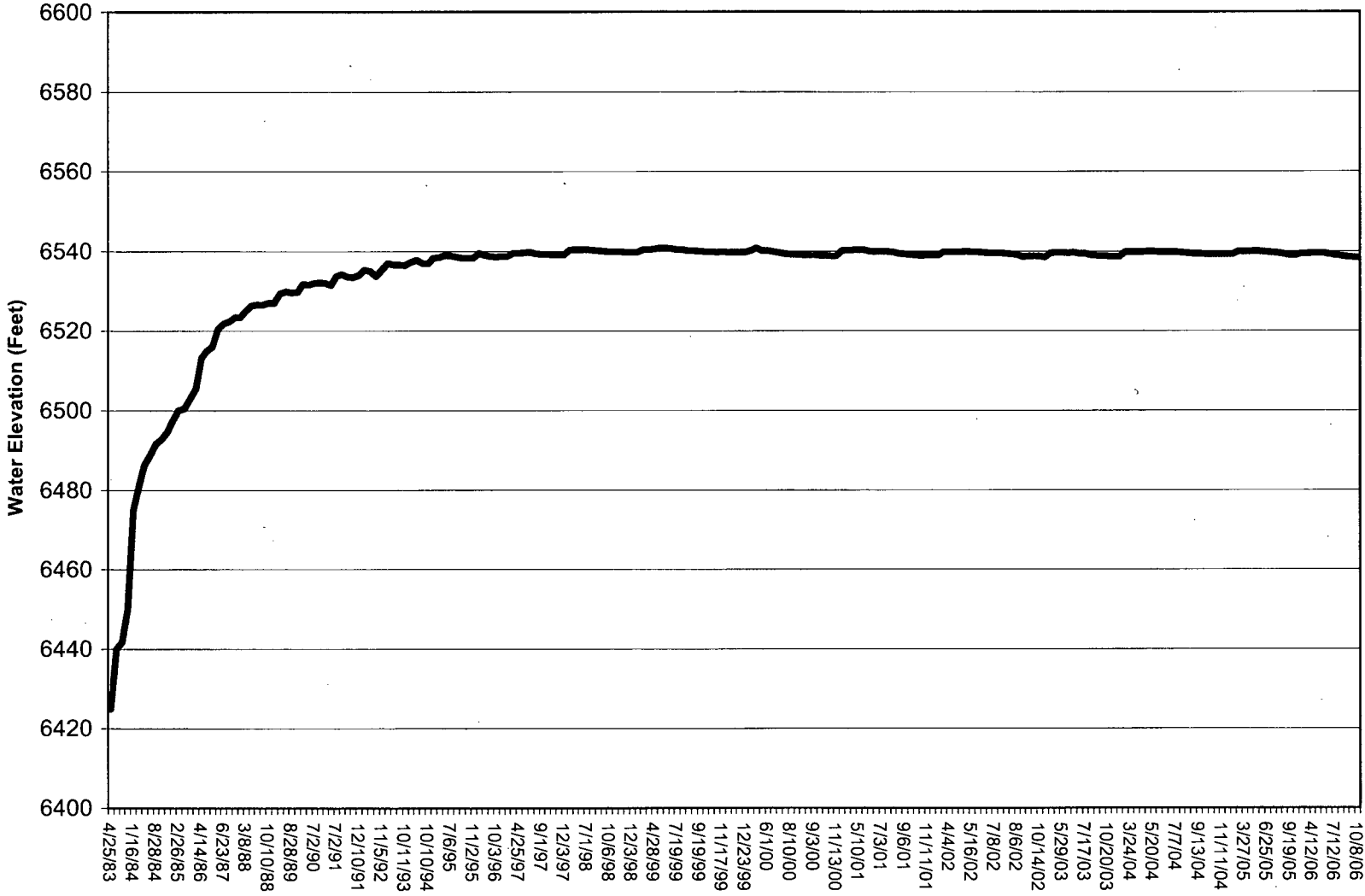
If the purging process strips out the chloromethane from the HCL and we never see this compound in most samples again, the problem is solved. Chloromethane should easily be stripped by the infusion of nitrogen into the HCL if it is present. However, if this does not seem to be the problem, then we are in a quandary as we have looked at all potential sources of the compound. The chloromethane peak detected by the instrumentation is real. It is just the question of where it is coming from.

An interesting side note on this issue was a discussion that I had with a data validator in Denver last week. During discussions of general business issues, he mentioned that he was going crazy with false chloromethane detections from projects in Texas and New Mexico. These results were not provided by any ELI laboratory, so it would appear that this chloromethane issue extends into other laboratories. In discussing this issue with this client, I asked what remedies the laboratories had tried in solving this issue. He stated that most were just turning off the result and reporting an ND to the client. The problem with doing this is that turning off a result that has no chromatographic issues, good quant match, no blank contamination, and no other QC sample failure rises to the level of laboratory fraud. This has the potential to cause problems for not only the laboratory but the clients also, so you can understand I am sure, my aversion to taking the "I don't believe it's real, so I am going to turn off the result" approach. Hopefully though, this latest step will solve the issue.

Respectfully,

James E. Yocum  
Quality Assurance Director

**KENNECOTT URANIUM COMPANY**  
**Sweetwater Pit Water Levels**  
April 25, 1983 through October 8, 2006



KENNECOTT URANIUM COMPANY  
Sweetwater Pit Water Levels  
Recovery of water level after suspension of dewatering activities  
in May, 1983

DATE	ELAPSED TIME DAYS	WATER ELEVATION	WATER LEVEL CHANGE
04/25/83	0	6425.00	0.00
06/27/83	63	6440.00	15.00
07/04/83	70	6441.70	16.70
08/03/83	100	6450.00	25.00
01/16/84	266	6475.00	50.00
02/27/84	308	6481.00	56.00
05/07/84	378	6486.10	61.10
06/26/84	428	6488.60	63.60
08/28/84	491	6491.50	66.50
10/01/84	525	6492.80	67.80
11/19/84	574	6494.60	69.60
01/03/85	619	6497.30	72.30
02/26/85	673	6500.00	75.00
03/06/85	681	6500.40	75.40
05/14/85	750	6502.90	77.90
08/15/85	843	6505.39	80.39
04/14/86	1085	6513.19	88.19
06/23/86	1155	6514.87	89.87
09/26/86	1250	6515.93	90.93
04/14/87	1450	6520.42	95.42
06/23/87	1520	6521.80	96.80
09/16/87	1605	6522.33	97.33
11/01/87	1651	6523.41	98.41
11/19/87	1669	6523.41	98.41
03/08/88	1779	6525.00	100.00
06/06/88	1869	6526.31	101.31
07/25/88	1918	6526.54	101.54
08/30/88	1954	6526.55	101.55
10/10/88	1995	6526.88	101.88
10/31/88	2016	6526.88	101.88
04/03/89	2170	6529.29	104.29
07/24/89	2282	6529.77	104.77
08/28/89	2317	6529.51	104.51
09/25/89	2345	6529.63	104.63
04/23/90	2555	6531.67	106.67
06/11/90	2604	6531.48	106.48
07/02/90	2625	6531.99	106.99
10/08/90	2723	6532.02	107.02
11/11/90	2757	6531.98	106.98
04/17/91	2914	6531.44	106.44
07/02/91	2990	6533.64	108.64
08/14/91	3033	6534.17	109.17
09/05/91	3055	6533.49	108.49
10/07/91	3087	6533.36	108.36
12/10/91	3151	6533.84	108.84
04/29/92	3292	6535.24	110.24
05/26/92	3319	6534.96	109.96
09/14/92	3430	6533.70	108.70
11/05/92	3482	6535.34	110.34
05/04/93	3662	6536.93	111.93
06/30/93	3719	6536.51	111.51
08/18/93	3768	6536.55	111.55
10/11/93	3822	6536.38	111.38
06/06/94	4060	6537.20	112.20
07/05/94	4089	6537.69	112.69
09/21/94	4167	6536.90	111.90
10/10/94	4186	6536.80	111.80
04/05/95	4363	6538.23	113.23
05/01/95	4389	6538.37	113.37
06/10/95	4429	6538.86	113.86
07/06/95	4455	6538.78	113.78
08/02/95	4482	6538.57	113.57
09/07/95	4518	6538.31	113.31

KENNECOTT URANIUM COMPANY  
Sweetwater Pit Water Levels  
Recovery of water level after suspension of dewatering activities  
in May, 1983

DATE	ELAPSED TIME DAYS	WATER ELEVATION	WATER LEVEL CHANGE
10/03/95	4544	6538.24	113.24
11/02/95	4574	6538.21	113.21
05/13/96	4767	6539.40	114.40
08/09/96	4855	6538.90	113.90
09/03/96	4880	6538.70	113.70
10/03/96	4910	6538.50	113.50
10/08/96	4915	6538.60	113.60
12/03/96	4971	6538.66	113.66
03/31/97	5089	6539.44	114.44
04/25/97	5114	6539.43	114.43
05/29/97	5148	6539.55	114.55
06/11/97	5161	6539.70	114.70
07/28/97	5208	6539.30	114.30
09/01/97	5243	6539.20	114.20
09/22/97	5264	6539.16	114.16
10/15/97	5287	6539.01	114.01
11/25/97	5328	6539.00	114.00
12/03/97	5336	6538.99	113.99
05/04/98	5488	6540.25	115.25
05/18/98	5502	6540.40	115.40
06/11/98	5526	6540.38	115.38
07/01/98	5546	6540.40	115.40
07/29/98	5574	6540.26	115.26
08/20/98	5596	6540.10	115.10
09/29/98	5636	6539.92	114.92
10/06/98	5643	6539.84	114.84
11/05/98	5673	6539.80	114.80
11/10/98	5678	6539.78	114.78
11/30/98	5698	6539.72	114.72
12/03/98	5701	6539.72	114.72
12/16/98	5714	6539.71	114.71
03/31/99	5819	6540.43	115.43
04/02/99	5821	6540.40	115.40
04/28/99	5847	6540.56	115.56
05/22/99	5871	6540.70	115.70
06/09/99	5889	6540.72	115.72
06/27/99	5907	6540.64	115.64
07/19/99	5929	6540.41	115.41
08/08/99	5949	6540.32	115.32
08/29/99	5970	6540.17	115.17
09/08/99	5980	6540.12	115.12
09/19/99	5991	6540.01	115.01
10/21/99	6023	6539.82	114.82
10/27/99	6029	6539.80	114.80
11/10/99	6043	6539.76	114.76
11/17/99	6050	6539.81	114.81
11/22/99	6055	6539.76	114.76
12/06/99	6069.020202	6539.76	114.76
12/14/99	6077	6539.76	114.76
12/23/99	6086	6539.67	114.67
04/28/00	6213	6540.15	115.15
05/03/00	6218	6540.82	115.82
05/26/00	6241	6540.17	115.17
06/01/00	6247	6540.12	115.12
06/30/00	6276	6539.79	114.79
07/17/00	6293	6539.54	114.54
07/30/00	6306	6539.37	114.37
08/10/00	6317	6539.24	114.24
06/17/00	6263	6539.18	114.18
08/28/00	6335	6539.03	114.03
08/30/00	6337	6539.04	114.04
09/03/00	6341	6539.03	114.03
09/17/00	6355	6538.88	113.88

KENNECOTT URANIUM COMPANY  
Sweetwater Pit Water Levels  
Recovery of water level after suspension of dewatering activities  
in May, 1983

DATE	ELAPSED TIME DAYS	WATER ELEVATION	WATER LEVEL CHANGE
10/04/00	6372	6538.86	113.86
10/22/00	6390	6538.83	113.83
11/13/00	6412	6538.75	113.75
04/05/01	6555	6540.07	115.07
04/16/01	6566	6540.13	115.13
04/24/01	6574	6540.30	115.30
05/10/01	6590	6540.22	115.22
05/16/01	6596	6540.20	115.20
06/21/01	6632	6539.89	114.89
07/02/01	6643	6539.83	114.83
07/03/01	6644	6539.84	114.84
07/16/01	6657	6539.78	114.78
07/20/01	6661	6539.68	114.68
08/21/01	6693	6539.35	114.35
09/06/01	6709	6539.22	114.22
09/26/01	6729	6539.11	114.11
10/18/01	6751	6538.98	113.98
11/05/01	6769	6538.84	113.84
11/11/01	6775	6538.90	113.90
11/27/01	6791	6538.98	113.98
12/03/01	6797	6538.98	113.98
03/31/02	6915	6539.75	114.75
04/04/02	6919	6539.75	114.75
04/08/02	6923	6539.77	114.77
04/15/02	6930	6539.77	114.77
04/29/02	6944	6539.82	114.82
05/16/02	6961	6539.76	114.76
05/28/02	6973	6539.74	114.74
06/27/02	7003	6539.53	114.53
07/03/02	7009	6539.44	114.44
07/08/02	7014	6539.40	114.40
07/09/02	7015	6539.40	114.40
07/17/02	7023	6539.28	114.28
07/29/02	7035	6539.13	114.13
08/06/02	7043	6539.07	114.07
09/03/02	7071	6538.51	113.51
09/29/02	7097	6538.63	113.63
10/09/02	7107	6538.65	113.65
10/14/02	7112	6538.61	113.61
11/06/02	7135	6538.43	113.43
03/16/03	7265	6539.42	114.42
04/21/03	7301	6539.54	114.54
05/29/03	7339	6539.61	114.61
06/17/03	7358	6539.49	114.49
06/26/03	7367	6539.55	114.55
07/16/03	7387	6539.34	114.34
07/17/03	7388	6539.33	114.33
08/31/03	7433	6538.91	113.91
09/30/03	7463	6538.74	113.74
10/07/03	7470	6538.75	113.75
10/20/03	7483	6538.63	113.63
11/16/03	7510	6538.49	113.49
12/03/03	7527	6538.57	113.57
03/21/04	7636	6539.65	114.65
03/24/04	7639	6539.65	114.65
03/28/04	7643	6539.75	114.75
04/05/04	7651	6539.65	114.65
04/18/04	7664	6539.80	114.80
05/20/04	7696	6539.84	114.84
06/15/04	7722	6539.70	114.70
06/21/04	7728	6539.73	114.73
07/04/04	7741	6539.76	114.76
07/07/04	7744	6539.70	114.70

KENNECOTT URANIUM COMPANY  
Sweetwater Pit Water Levels  
Recovery of water level after suspension of dewatering activities  
in May, 1983

DATE	ELAPSED TIME DAYS	WATER ELEVATION	WATER LEVEL CHANGE
07/26/04	7763	6539.52	114.52
08/10/04	7778	6539.40	114.40
08/24/04	7792	6539.26	114.26
09/13/04	7812	6539.26	114.26
09/20/04	7819	6539.17	114.17
10/04/04	7833	6539.15	114.15
11/07/04	7867	6539.16	114.16
11/11/04	7871	6539.18	114.18
11/22/04	7882	6539.20	114.20
12/13/04	7903	6539.21	114.21
03/16/05	7996	6539.78	114.78
03/27/05	8007	6539.82	114.82
04/05/05	8016	6539.82	114.82
05/18/05	8059	6539.95	114.95
06/08/05	8080	6539.82	114.82
06/25/05	8097	6539.70	114.70
07/06/05	8108	6539.58	114.58
07/18/05	8120	6539.47	114.47
08/17/05	8150	6539.18	114.18
09/19/05	8183	6538.90	113.90
10/17/05	8211	6538.86	113.86
04/02/06	8378	6539.37	114.37
04/03/06	8379	6539.27	114.27
04/12/06	8388	6539.45	114.45
04/18/06	8394	6539.45	114.45
05/10/06	8416	6539.40	114.40
06/19/06	8456	6539.14	114.14
07/12/06	8479	6538.94	113.94
07/26/06	8493	6538.84	113.84
08/30/06	8528	6538.50	113.50
09/13/06	8542	6538.40	113.40
10/08/06	8567	6538.26	113.26



KENNECOTT URANIUM COMPANY  
Groundwater Elevations 11/96 to Present

Well No.	Location	Elevation	Monitoring Point	Time	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011	3012	3013	3014	3015	3016	3017	3018	3019	3020	3021	3022	3023	3024	3025	3026	3027	3028	3029	3030	3031	3032	3033	3034	3035	3036	3037	3038	3039	3040	3041	3042	3043	3044	3045	3046	3047	3048	3049	3050	3051	3052	3053	3054	3055	3056	3057	3058	3059	3060	3061	3062	3063	3064	3065	3066	3067	3068	3069	3070	3071	3072	3073	3074	3075	3076	3077	3078	3079	3080	3081	3082	3083	3084	3085	3086	3087	3088	3089	3090	3091	3092	3093	3094	3095	3096	3097	3098	3099	3100	3101	3102	3103	3104	3105	3106	3107	3108	3109	3110	3111	3112	3113	3114	3115	3116	3117	3118	3119	3120	3121	3122	3123	3124	3125	3126	3127	3128	3129	3130	3131	3132	3133	3134	3135	3136	3137	3138	3139	3140	3141	3142	3143	3144	3145	3146	3147	3148	3149	3150	3151	3152	3153	3154	3155	3156	3157	3158	3159	3160	3161	3162	3163	3164	3165	3166	3167	3168	3169	3170	3171	3172	3173	3174	3175	3176	3177	3178	3179	3180	3181	3182	3183	3184	3185	3186	3187	3188	3189	3190	3191	3192	3193	3194	3195	3196	3197	3198	3199	3200	3201	3202	3203	3204	3205	3206	3207	3208	3209	3210	3211	3212	3213	3214	3215	3216	3217	3218	3219	3220	3221	3222	3223	3224	3225	3226	3227	3228	3229	3230	3231	3232	3233	3234	3235	3236	3237	3238	3239	3240	3241	3242	3243	3244	3245	3246	3247	3248	3249	3250	3251	3252	3253	3254	3255	3256	3257	3258	3259	3260	3261	3262	3263	3264	3265	3266	3267	3268	3269	3270	3271	3272	3273	3274	3275	3276	3277	3278	3279	3280	3281	3282	3283	3284	3285	3286	3287	3288	3289	3290	3291	3292	3293	3294	3295	3296	3297	3298	3299	3300	3301	3302	3303	3304	3305	3306	3307	3308	3309	3310	3311	3312	3313	3314	3315	3316	3317	3318	3319	3320	3321	3322	3323	3324	3325	3326	3327	3328	3329	3330	3331	3332	3333	3334	3335	3336	3337	3338	3339	3340	3341	3342	3343	3344	3345	3346	3347	3348	3349	3350	3351	3352	3353	3354	3355	3356	3357
----------	----------	-----------	------------------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------



KENNECOTT URANIUM COMPANY  
Groundwater Elevations 11/96 to Present[illegible]



KENNECOTT URANIUM COMPANY  
Groundwater Elevations 11/96 to Present[illegible]

## Tables

TABLE 1

## GALLONS PUMPED TO TAILINGS IMPOUNDMENT

WELL:	TYPE:	April 1, 1986 to April 1, 1987	April 1, 1987 to April 1, 1988	April 1, 1988 to April 1, 1989	April 1, 1989 to April 1, 1990	April 1, 1990 to January 1, 1991	January 1, 1991 to December 1, 1991	December 1, 1991 to December 31, 1992	December 31, 1992 to December 31, 1993
TMW 7	Aquifer								
TMW 16	Aquifer		973,474.00	1,669,570.00	1,012,740.00	824,139.00	375,942.00	825,270.00	1,202,150.00
TMW 17	Aquifer	3,652,911.00	3,699,987.00	3,096,627.00	2,289,813.00	2,526,771.00	5,248,474.00	5,988,820.00	4,284,690.00
TMW 18	Aquifer	743,540.00	1,612,795.00	3,125,776.00	4,329,036.00	4,286,378.00	5,905,911.00	5,262,910.00	5,019,830.00
TMW 55	Perch				<b>101,875.00</b>				
TMW 57	Aquifer								
TMW 58	Aquifer								
TMW 59	Aquifer			277,190.00	1,035,242.00	1,262,117.00	2,237,358.00	2,478,090.00	1,528,780.00
TMW 65	Perch		*						
TMW 75	Aquifer			2,296,870.00	1,898,236.00	1,161,418.00	2,228,506.00	6,747,830.00	2,031,570.00
TMW 76	Perch	43,293.00	*						
TMW 79	Perch	39,875.00							
TMW 80	Perch	56,675.90	*	<b>53,655.00</b>					
TMW 83	Perch		<b>241,028.00</b>	*	*				
TMW 85	Perch	2,266.30							
TMW 91	Aquifer								
TMW 96	Aquifer								
TMW 97	Aquifer								
Bison Basin	Disposal				561,120.00				
GMIX	Disposal								
Subtotal:		4,538,561.20	6,527,284.00	10,519,688.00	11,228,062.00	10,060,823.00	15,996,191.00	21,302,920.00	14,067,020.00
Cumulative Gallons Pumped:			11,065,845.20	21,585,533.20	32,813,595.20	42,874,418.20	58,870,609.20	80,173,529.20	94,240,549.20

\* **Bold** number is combined total of this well plus wells marked by asterisk.

**TABLE 1****GALLONS PUMPED TO TAILINGS IMPOUNDMENT**

<b>WELL:</b>	<b>TYPE:</b>	December 31, 1993 to December 31, 1994	December 31, 1994 to December 31, 1995	December 31, 1995 to December 31, 1996	December 31, 1996 to December 31, 1997	December 31, 1997 to December 31, 1998	December 31, 1998 to December 31, 1999	December 31, 1999 to December 31, 2000
TMW 7	Aquifer							
TMW 16	Aquifer	976,840.00	1,916,500.00	2,114,160.00	1,821,300.00	1,819,410.00	1,500,750.00	1,234,950.00
TMW 17	Aquifer	4,387,290.00	3,875,680.00	3,534,560.00	2,406,940.00	1,882,910.00	1,597,310.00	3,436,750.00
TMW 18	Aquifer	5,307,990.00	3,760,740.00	4,577,190.00	3,945,330.00	5,361,630.00	5,454,370.00	5,449,610.00
TMW 55	Perch							
TMW 57	Aquifer							
TMW 58	Aquifer	2,713,490.00	3,853,980.00	3,450,330.00	3,680,030.00	2,558,000.00	3,081,960.00	2,854,470.00
TMW 59	Aquifer	2,356,260.00	2,307,730.00	2,048,600.00	2,099,550.00	2,236,360.00	2,148,390.00	2,231,660.00
TMW 65	Perch							
TMW 75	Aquifer	2,761,170.00	2,434,410.00	2,837,230.00	2,211,080.00	2,076,280.00	1,792,490.00	2,782,610.00
TMW 76	Perch							
TMW 79	Perch							
TMW 80	Perch							
TMW 83	Perch							
TMW 85	Perch							
TMW 91	Aquifer							
TMW 96	Aquifer							
TMW 97	Aquifer							
Bison Basin	Disposal							
GMIX	Disposal							
Subtotal:		18,503,040.00	18,149,040.00	18,562,070.00	16,164,230.00	15,934,590.00	15,575,270.00	17,990,050.00
Cumulative Gallons Pump		112,743,589.20	130,892,629.20	149,454,699.20	165,618,929.20	181,553,519.20	197,128,789.20	215,118,839.20

**TABLE 1****GALLONS PUMPED TO TAILINGS IMPOUNDMENT**

<b>WELL:</b>	<b>TYPE:</b>	December 31, 2000 to December 31, 2001	December 31, 2001 to December 31, 2002	December 31, 2002 to December 31, 2003	December 31, 2003 to December 31, 2004	December 31, 2004 to December 31, 2005	January 1, 2006 to December 31, 2006
TMW 7	Aquifer			262,880.00	3,371,090.00	2,638,080.00	2,011,900.00
TMW 16	Aquifer	1,939,100.00	955,970.00	1,008,140.00			
TMW 17	Aquifer	1,530,080.00	991,590.00	1,440,200.00	2,196,440.00	2,121,860.00	1,475,180.00
TMW 18	Aquifer	5,669,760.00	6,099,470.00	5,356,710.00	4,085,050.00	4,150,670.00	4,326,090.00
TMW 55	Perch						
TMW 57	Aquifer	1,958,380.00	2,165,880.00	1,364,700.00	1,907,680.00	2,066,070.00	2,619,800.00
TMW 58	Aquifer	2,312,330.00	1,738,740.00	2,122,770.00	2,705,370.00	1,912,700.00	2,170,120.00
TMW 59	Aquifer	1,953,690.00	1,654,000.00	1,754,410.00	1,741,170.00	2,233,710.00	2,312,760.00
TMW 65	Perch						
TMW 75	Aquifer	2,734,650.00	2,551,680.00	2,249,480.00	2,175,390.00	2,351,240.00	1,088,240.00
TMW 76	Perch						
TMW 79	Perch						
TMW 80	Perch						
TMW 83	Perch						
TMW 85	Perch						
TMW 91	Aquifer					4,702.00	
TMW 96	Aquifer					1,490,620.00	3,969,900.00
TMW 97	Aquifer					1,606,540.00	4,374,660.00
Bison Basin	Disposal						
GMIX	Disposal	15,000.00					
Subtotal:		18,112,990.00	16,157,330.00	15,559,290.00	18,182,190.00	20,576,192.00	24,348,650.00
Cumulative Gallons Pump		233,231,829.20	249,389,159.20	264,948,449.20	283,130,639.20	303,706,831.20	<b>328,055,481.20</b>

## KENNECOTT URANIUM COMPANY

**TABLE 2**  
**MASS OF SALTS AND OTHER CONSTITUENTS REMOVED FROM THE PERCHED AND BATTLE SPRINGS AQUIFERS**  
**AND PUMPED BACK INTO THE TAILINGS CELL**  
**AS OF DECEMBER 31, 2006**

SALTS (KG)	TMW-7 (KG)	TMW-16 (KG)	TMW-17 (KG)	TMW-18 (KG)	TMW-55 (KG)	TMW-57 (KG)	TMW-58 (KG)	TMW-59 (KG)	TMW-65 (KG)	TMW-75 (KG)	TMW-76 (KG)	TMW-79 (KG)	TMW-80 (KG)	TMW-83 (KG)	TMW-85 (KG)	TMW-91 (KG)	TMW-96 (KG)	TMW-97 (KG)	TAILS CELL (KG)
<b>MAJOR IONS</b>																			
Bicarbonate	6504.67	27851.82	38106.90	193370.58	0.00	6001.70	27767.25	53963.83	0.00	33249.11	0.00	0.00	0.00	0.00	0.00	2.49	2837.49	2796.86	392,452.70
Calcium	5556.57	33391.21	31829.05	211178.44	0.00	6131.88	30585.66	76350.51	0.00	31790.73	0.00	0.00	0.00	0.00	0.00	6.33	3727.24	3492.87	434,040.49
Carbonate	0.00	576.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	576.92
Chloride	823.93	5014.43	5486.22	33137.79	0.00	709.26	3544.86	10858.20	0.00	4650.79	0.00	0.00	0.00	0.00	0.00	1.01	561.86	491.26	65,279.61
Fluoride	1.43	2.42	28.82	6.17	0.00	7.46	13.18	12.81	0.00	24.73	0.00	0.00	0.00	0.00	0.00	0.00	2.07	3.09	102.18
Magnesium	387.59	2572.42	1992.12	13592.49	0.00	486.13	2341.62	8801.49	0.00	2467.33	0.00	0.00	0.00	0.00	0.00	0.49	259.98	257.47	33,159.13
Nitrate(NO3)	0.00	29.88	118.86	173.01	0.00	0.00	4.52	15.74	0.00	34.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	376.28
Potassium	117.12	481.94	815.37	2362.96	0.00	157.40	567.38	917.64	0.00	647.00	0.00	0.00	0.00	0.00	0.00	0.08	74.98	76.02	6,217.89
Silica	560.19	1430.36	3128.95	8043.10	0.00	609.76	2025.30	2751.31	0.00	2714.84	0.00	0.00	0.00	0.00	0.00	0.23	296.90	316.98	21,877.92
Sodium	1562.49	7454.19	10422.23	31079.23	0.00	1878.65	7062.75	12088.34	0.00	8969.46	0.00	0.00	0.00	0.00	0.00	1.28	1013.69	1021.81	82,554.12
Sulfate	11803.66	76973.64	73182.65	423517.26	281.43	14839.76	70698.51	192188.82	407.23	70114.72	2509.88	274.72	966.02	848.22	18.02	16.37	9021.56	7647.31	955,309.78
TDS	24199.12	148300.36	144589.33	852627.24	456.46	28236.62	134276.74	350201.74	673.46	143732.40	4529.50	531.92	1651.65	1423.79	33.85	28.12	16476.04	15872.69	1,867,841.03
<b>TRACE METALS</b>																			
Aluminum	0.00	1.04	0.00	59.53	0.00	0.20	0.00	1.48	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.69
Arsenic	0.01	0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.16
Barium	0.00	0.22	1.53	0.48	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.44
Beryllium	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
Boron	0.19	0.57	0.40	2.30	0.00	0.25	0.21	3.19	0.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	8.72
Cadmium	0.00	0.01	0.00	0.12	0.00	0.00	0.00	0.03	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24
Chromium	0.00	0.43	0.59	1.90	0.00	0.04	0.22	0.22	0.04	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.48
Cobalt	0.00	0.03	0.00	0.39	0.00	0.47	0.21	1.52	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.64
Copper	0.00	0.22	0.70	0.62	0.00	0.00	0.00	0.14	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76
Cyanide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iron	16.86	51.35	21.16	2138.58	0.00	18.92	51.92	3805.73	0.00	26.73	0.00	0.00	0.00	0.00	0.00	0.00	0.72	1.29	6,133.26
Lead	0.00	0.00	0.00	1.57	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.69
Manganese	6.30	35.54	19.00	310.28	0.00	7.66	25.26	384.40	0.00	21.21	0.00	0.00	0.00	0.00	0.00	0.00	2.15	2.27	814.07
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Molybdenum	0.00	0.02	0.17	0.06	0.00	0.00	0.00	0.26	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77
Nickel	0.00	0.32	0.81	2.06	0.00	0.57	0.26	2.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.47
Selenium	0.00	0.06	0.11	0.38	0.07	0.01	0.12	0.14	0.18	0.12	0.41	0.03	0.25	0.22	0.00	0.00	0.01	0.00	2.11
Silver	0.00	0.27	0.56	0.48	0.00	0.00	0.00	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.39
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vanadium	0.00	0.00	0.55	2.36	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.94
Zinc	0.08	2.94	7.32	7.38	0.00	0.80	3.97	2.62	0.00	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	27.73
<b>RADIOMETRICS</b>																			
Uranium (mg/l)	0.14	24.09	3.39	1.93	0.00	0.38	1.82	0.94	0.00	10.81	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.62	44.77



KENNECOTT URANIUM COMPANY

TMW-7															
CONTAMINANTS REMOVED															
(Started pumping 12/01/03)															
DATE FS:	07-Nov-05			11-Jan-06			10-Apr-06			03-Jul-06			05-Oct-06		
GALLONAGE		VOLUME 2005	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE
		659,520.00	6,272,050.00		502,975.00	6,775,025.00		502,975.00	7,278,000.00		502,975.00	7,780,975.00		502,975.00	8,283,950.00
CONSTITUENTS	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED
MAJOR IONS	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)
Bicarbonate	207.00	516.79	4922.48	214.00	407.45	5329.92	209.00	397.93	5727.85	203.00	386.51	6114.36	205.00	390.31	6504.67
Calcium	156.00	389.46	4223.79	171.00	325.58	4549.37	178.00	338.91	4888.28	171.00	325.58	5213.85	180.00	342.71	5556.57
Carbonate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloride	22.00	54.92	624.01	22.00	41.89	665.90	24.00	45.70	711.60	32.00	60.93	772.52	27.00	51.41	823.93
Fluoride	0.00	0.00	1.24	0.00	0.00	1.24	0.10	0.19	1.43	0.00	0.00	1.43	0.00	0.00	1.43
Magnesium	11.80	29.46	284.97	12.60	23.99	308.96	12.80	24.37	333.33	12.90	24.56	357.89	15.60	29.70	387.59
Nitrate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Potassium	3.30	8.24	89.32	3.60	6.85	96.17	3.60	6.85	103.03	3.70	7.04	110.07	3.70	7.04	117.12
Silica	17.00	42.44	428.81	17.00	32.37	461.18	18.00	34.27	495.45	18.00	34.27	529.72	16.00	30.46	560.19
Sodium	46.40	115.84	1189.89	49.20	93.68	1283.56	45.60	86.82	1370.38	48.50	92.34	1462.73	52.40	99.77	1562.49
Sulfate	340.00	848.83	8943.90	364.00	693.04	9636.95	369.00	702.56	10339.51	386.00	734.93	11074.44	383.00	729.22	11803.66
TDS	753.00	1879.91	18323.48	764.00	1454.63	19778.11	734.00	1397.51	21175.62	798.00	1519.37	22694.99	790.00	1504.13	24199.12
TRACE METALS															
Al	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
As	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01
Ba	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.19	0.19	0.00	0.00	0.19
Cd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fe	0.64	1.60	10.94	0.65	1.24	12.18	0.72	1.37	13.55	1.22	2.32	15.87	0.52	0.99	16.86
Pb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mn	0.21	0.52	4.28	0.21	0.40	4.68	0.20	0.38	5.07	0.29	0.55	5.62	0.36	0.69	6.30
Hg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Se	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ag	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tl	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Zn	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	0.01	0.02	0.08
RADIOMETRICS															
U mg/l	0.01	0.01	0.10	0.00	0.01	0.10	0.01	0.01	0.12	0.01	0.01	0.13	0.01	0.01	0.14

## KENNECOTT URANIUM COMPANY

TMW-17															
BATTLE SPRING AQUIFER															
CONTAMINANTS REMOVED															
DATE FS	07-Nov-05			16-Jan-06			10-Apr-06				03-Jul-06			05-Oct-06	
(Started pumping 7/1/86)		VOLUME 2005	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE
GALLONAGE		530,465.00	60,189,703.00		368,795.00	60,558,498.00		368,795.00	60,927,293.00		368,795.00	61,296,088.00		368,795.00	61,664,883.00
CONSTITUENTS	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED
	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)
MAJOR IONS															
Bicarbonate	134.00	269.08	37326.51	137.00	191.26	37,517.77	142.00	198.24	37,716.01	134.00	187.07	37,903.08	146.00	203.82	38,106.90
Calcium	82.90	166.47	31327.31	88.40	123.41	31,450.72	92.90	129.69	31,580.41	87.60	122.29	31,702.70	90.50	126.34	31,829.05
Carbonate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloride	10.00	20.08	5430.38	9.00	12.56	5,442.94	9.00	12.56	5,455.51	14.00	19.54	5,475.05	8.00	11.17	5,486.22
Fluoride	0.10	0.20	28.26	0.00	0.00	28.26	0.10	0.14	28.40	0.10	0.14	28.54	0.20	0.28	28.82
Magnesium	5.60	11.24	1960.43	5.80	8.10	1,968.53	5.90	8.24	1,976.76	5.20	7.26	1,984.02	5.80	8.10	1,992.12
Nitrate(NO3)	0.00	0.00	118.86	0.00	0.00	118.86	0.00	0.00	118.86	0.00	0.00	118.86	0.00	0.00	118.86
Potassium	2.60	5.22	799.18	3.00	4.19	803.37	2.90	4.05	807.41	2.80	3.91	811.32	2.90	4.05	815.37
Silica	15.00	30.12	3039.60	16.00	22.34	3,061.94	16.00	22.34	3,084.27	17.00	23.73	3,108.01	15.00	20.94	3,128.95
Sodium	34.90	70.08	10219.24	36.20	50.54	10,269.78	34.80	48.58	10,318.36	36.00	50.26	10,368.62	38.40	53.61	10,422.23
Sulfate	183.00	367.47	72103.51	192.00	268.04	72,371.55	194.00	270.83	72,642.38	197.00	275.02	72,917.40	190.00	265.25	73,182.65
TDS	422.00	847.39	142277.49	414.00	577.96	142,855.45	418.00	583.55	143,439.00	430.00	600.30	144,039.29	394.00	550.04	144,589.33
TRACE METALS															
Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arsenic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barium	0.00	0.00	1.53	0.00	0.00	1.53	0.00	0.00	1.53	0.00	0.00	1.53	0.00	0.00	1.53
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boron	0.00	0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.26	0.10	0.14	0.40	0.00	0.00	0.40
Cadmium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chromium	0.00	0.00	0.59	0.00	0.00	0.59	0.00	0.00	0.59	0.00	0.00	0.59	0.00	0.00	0.59
Cobalt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Copper	0.00	0.00	0.70	0.00	0.00	0.70	0.00	0.00	0.70	0.00	0.00	0.70	0.00	0.00	0.70
Cyanide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iron	0.00	0.00	21.05	0.00	0.00	21.05	0.00	0.00	21.05	0.00	0.00	21.05	0.08	0.11	21.16
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manganese	0.05	0.10	18.77	0.04	0.06	18.83	0.04	0.06	18.88	0.04	0.06	18.94	0.04	0.06	19.00
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Molybdenum	0.00	0.00	0.17	0.00	0.00	0.17	0.00	0.00	0.17	0.00	0.00	0.17	0.00	0.00	0.17
Nickel	0.00	0.00	0.81	0.00	0.00	0.81	0.00	0.00	0.81	0.00	0.00	0.81	0.00	0.00	0.81
Selenium	0.00	0.00	0.11	0.00	0.00	0.11	0.00	0.00	0.11	0.00	0.00	0.11	0.00	0.00	0.11
Silver	0.00	0.00	0.56	0.00	0.00	0.56	0.00	0.00	0.56	0.00	0.00	0.56	0.00	0.00	0.56
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vanadium	0.00	0.00	0.55	0.00	0.00	0.55	0.00	0.00	0.55	0.00	0.00	0.55	0.00	0.00	0.55
Zinc	0.00	0.00	7.30	0.00	0.00	7.30	0.00	0.00	7.30	0.00	0.00	7.30	0.01	0.01	7.32
RADIOMETRICS															
Uranium (mg/l)	0.01	0.01	3.35	0.01	0.01	3.36	0.01	0.01	3.37	0.01	0.01	3.38	0.01	0.01	3.39

## KENNECOTT URANIUM COMPANY

TMW-18															
BAITTE SPRING AQUIFER															
CONTAMINANTS REMOVED															
DATE FS	08-Nov-05			11-Jan-06			10-Apr-06				03-Jul-06			05-Oct-06	
(Started pumping 10/8/86)		VOLUME 2005	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE
GALLONAGE		1,037,667.50	89,504,696.00		1,081,522.50	90,586,218.50		1,081,522.50	91,667,741.00		1,081,522.50	92,749,263.50		1,081,522.50	93,830,786.00
CONSTITUENTS	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED
	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)
MAJOR IONS															
Bicarbonate	558.00	2191.82	184142.69	573.00	2345.87	186488.55	580.00	2374.52	188863.08	541.00	2214.86	191077.93	560.00	2292.64	193370.58
Calcium	632.00	2482.50	201103.09	607.00	2485.06	203588.15	665.00	2722.52	206310.67	593.00	2427.75	208738.41	596.00	2440.03	211178.44
Carbonate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloride	82.00	322.10	31688.51	75.00	307.05	31995.56	102.00	417.59	32413.15	96.00	393.02	32806.18	81.00	331.61	33137.79
Fluoride	0.00	0.00	6.17	0.00	0.00	6.17	0.00	0.00	6.17	0.00	0.00	6.17	0.00	0.00	6.17
Magnesium	51.00	200.33	12810.54	44.00	180.14	12990.67	52.00	212.89	13203.56	46.90	192.01	13395.57	48.10	196.92	13592.49
Nitrate(NO3)	0.00	0.00	173.01	0.00	0.00	173.01	0.00	0.00	173.01	0.00	0.00	173.01	0.00	0.00	173.01
Potassium	7.10	27.89	2248.74	6.50	26.61	2275.35	7.10	29.07	2304.42	7.40	30.30	2334.72	6.90	28.25	2362.96
Silica	24.00	94.27	7662.36	21.00	85.97	7748.33	25.00	102.35	7850.68	25.00	102.35	7953.03	22.00	90.07	8043.10
Sodium	101.00	396.73	29517.77	94.20	385.66	29903.43	92.20	377.47	30280.89	94.00	384.84	30665.73	101.00	413.49	31079.23
Sulfate	1240.00	4870.72	403129.10	1120.00	4585.29	407714.39	1340.00	5485.97	413200.36	1280.00	5240.33	418440.70	1240.00	5076.57	423517.26
TDS	2510.00	9859.28	811523.40	2540.00	10398.78	821922.18	2530.00	10357.84	832280.02	2540.00	10398.78	842678.80	2430.00	9948.44	852627.24
TRACE METALS															
Aluminum	0.00	0.00	59.53	0.00	0.00	59.53	0.00	0.00	59.53	0.00	0.00	59.53	0.00	0.00	59.53
Arsenic	0.00	0.00	0.04	0.00	0.00	0.04	0.00	0.00	0.04	0.00	0.00	0.04	0.00	0.00	0.04
Barium	0.00	0.00	0.48	0.00	0.00	0.48	0.00	0.00	0.48	0.00	0.00	0.48	0.00	0.00	0.48
Beryllium	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.08
Boron	0.00	0.00	1.89	0.00	0.00	1.89	0.00	0.00	1.89	0.10	0.41	2.30	0.00	0.00	2.30
Cadmium	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12
Chromium	0.00	0.00	1.90	0.00	0.00	1.90	0.00	0.00	1.90	0.00	0.00	1.90	0.00	0.00	1.90
Cobalt	0.00	0.00	0.38	0.00	0.00	0.38	0.00	0.00	0.38	0.00	0.00	0.39	0.00	0.00	0.39
Copper	0.00	0.00	0.62	0.00	0.00	0.62	0.00	0.00	0.62	0.00	0.00	0.62	0.00	0.00	0.62
Cyanide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iron	7.44	29.22	2023.21	6.56	26.86	2050.07	8.21	33.61	2083.68	6.03	24.69	2108.37	7.38	30.21	2138.58
Lead	0.00	0.00	1.57	0.00	0.00	1.57	0.00	0.00	1.57	0.00	0.00	1.57	0.00	0.00	1.57
Manganese	1.29	5.07	290.17	1.17	4.79	294.96	1.30	5.32	300.29	1.20	4.91	305.20	1.24	5.08	310.28
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Molybdenum	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06
Nickel	0.00	0.00	2.06	0.00	0.00	2.06	0.00	0.00	2.06	0.00	0.00	2.06	0.00	0.00	2.06
Selenium	0.00	0.00	0.35	0.00	0.00	0.36	0.00	0.01	0.36	0.00	0.00	0.37	0.00	0.01	0.38
Silver	0.00	0.00	0.48	0.00	0.00	0.48	0.00	0.00	0.48	0.00	0.00	0.48	0.00	0.00	0.48
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vanadium	0.00	0.00	2.36	0.00	0.00	2.36	0.00	0.00	2.36	0.00	0.00	2.36	0.00	0.00	2.36
Zinc	0.00	0.00	7.33	0.00	0.00	7.33	0.00	0.00	7.33	0.00	0.00	7.33	0.01	0.04	7.38
RADIOMETRICS															
Uranium (mg/l)	0.00	0.01	1.91	0.00	0.01	1.91	0.00	0.01	1.92	0.00	0.01	1.92	0.00	0.01	1.93

## KENNECOTT URANIUM COMPANY

TMW-57															
CONTAMINANTS REMOVED															
PERCHED AQUIFER WELL															
DATE FS	11/8/05			1/12/06			4/10/06			7/3/06			10/5/06		
(Started pumping May 2001)		VOLUME 2005	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE
GALLONAGE		516517.50	9462710.00		654950.00	10117660.00		654950.00	10772610.00		654950.00	11427560.00		654950.00	12082510.00
CONSTITUENTS	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED
MAJOR IONS	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)
Bicarbonate	134.00	262.00	4690.18	131.00	324.78	5014.96	140.00	347.10	5362.05	126.00	312.39	5674.44	132.00	327.26	6001.70
Calcium	125.00	244.40	4917.04	126.00	312.39	5229.43	123.00	304.95	5534.38	119.00	295.03	5829.41	122.00	302.47	6131.88
Carbonate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloride	12.00	23.46	558.03	13.00	32.23	590.26	15.00	37.19	627.45	19.00	47.11	674.55	14.00	34.71	709.26
Fluoride	0.20	0.39	6.47	0.00	0.00	6.47	0.20	0.50	6.97	0.10	0.25	7.22	0.10	0.25	7.46
Magnesium	9.10	17.79	398.86	9.50	23.55	422.42	8.70	21.57	443.99	8.20	20.33	464.32	8.80	21.82	486.13
Nitrate(NO3)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Potassium	3.10	6.06	126.16	3.10	7.69	133.85	3.10	7.69	141.53	3.20	7.93	149.47	3.20	7.93	157.40
Silica	15.00	29.33	463.48	14.00	34.71	498.19	15.00	37.19	535.38	16.00	39.67	575.05	14.00	34.71	609.76
Sodium	42.90	83.88	1466.10	41.80	103.63	1569.73	40.30	99.91	1669.65	42.50	105.37	1775.02	41.80	103.63	1878.65
Sulfate	294.00	574.84	11948.94	302.00	748.74	12697.68	287.00	711.55	13409.23	298.00	738.82	14148.04	279.00	691.71	14839.76
TDS	563.00	1100.80	22742.59	586.00	1452.84	24195.43	550.00	1363.59	25559.02	564.00	1398.30	26957.32	516.00	1279.30	28236.62
TRACE METALS															
Aluminum	0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.20
Arsenic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.25	0.25	0.00	0.00	0.25
Cadmium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chromium	0.00	0.00	0.04	0.00	0.00	0.04	0.00	0.00	0.04	0.00	0.00	0.04	0.00	0.00	0.04
Cobalt	0.00	0.01	0.44	0.01	0.01	0.46	0.00	0.00	0.46	0.00	0.00	0.47	0.00	0.00	0.47
Copper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cyanide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iron	0.21	0.41	17.36	0.48	1.19	18.55	0.00	0.00	18.55	0.09	0.22	18.77	0.06	0.15	18.92
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manganese	0.11	0.22	6.74	0.11	0.27	7.02	0.08	0.20	7.22	0.09	0.22	7.44	0.09	0.22	7.66
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Molybdenum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nickel	0.00	0.00	0.57	0.00	0.00	0.57	0.00	0.00	0.57	0.00	0.00	0.57	0.00	0.00	0.57
Selenium	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01
Silver	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vanadium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Zinc	0.00	0.00	0.77	0.00	0.00	0.77	0.00	0.00	0.77	0.00	0.00	0.77	0.01	0.02	0.80
RADIOMETRICS															
Uranium (mg/l)	0.01	0.01	0.31	0.01	0.02	0.33	0.01	0.02	0.35	0.01	0.01	0.36	0.01	0.01	0.38

KENNECOTT URANIUM COMPANY

TMW-58															
BATTLE SPRING AQUIFER															
CONTAMINANTS REMOVED															
DATE FS	08-Nov-05			11-Jan-06			10-Apr-06			03-Jul-06			05-Oct-06		
(Started pumping 6/20/94)	VOLUME 2005	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE	
GALLONAGE	444177.50	32848180.01		542530.00	33390710.01		542530.00	33933240.01		542530.00	34475770.01		542530.00	35018300.01	
CONSTITUENTS	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED
MAJOR IONS	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)
Bicarbonate	201.00	337.96	25857.31	220.00	451.81	26309.12	230.00	472.35	26781.47	234.00	480.57	27262.04	246.00	505.21	27767.25
Calcium	230.00	386.72	28503.21	238.00	488.78	28991.99	246.00	505.21	29497.20	253.00	519.59	30016.78	277.00	568.87	30585.66
Carbonate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloride	32.00	53.80	3247.07	31.00	63.66	3310.74	40.00	82.15	3392.88	36.00	73.93	3466.82	38.00	78.04	3544.86
Fluoride	0.10	0.17	12.57	0.00	0.00	12.57	0.10	0.21	12.77	0.10	0.21	12.98	0.10	0.21	13.18
Magnesium	20.00	33.63	2168.09	20.70	42.51	2210.60	22.00	45.18	2255.78	19.40	39.84	2295.62	22.40	46.00	2341.62
Nitrate(NO3)	0.00	0.00	4.52	0.00	0.00	4.52	0.00	0.00	4.52	0.00	0.00	4.52	0.00	0.00	4.52
Potassium	4.40	7.40	531.24	4.00	8.21	539.45	4.70	9.65	549.10	4.40	9.04	558.14	4.50	9.24	567.38
Silica	15.00	25.22	1895.92	14.00	28.75	1924.67	17.00	34.91	1959.58	16.00	32.86	1992.44	16.00	32.86	2025.30
Sodium	55.40	93.15	6598.41	54.40	111.72	6710.13	53.20	109.26	6819.39	58.20	119.53	6938.91	60.30	123.84	7062.75
Sulfate	554.00	931.49	65843.56	549.00	1127.48	66971.05	613.00	1258.92	68229.96	587.00	1205.52	69435.48	615.00	1263.03	70698.51
TDS	1000.00	1681.39	124685.97	1130.00	2320.68	127006.65	1120.00	2300.14	129306.79	1140.00	2341.22	131648.01	1280.00	2628.74	134276.74
TRACE METALS															
Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arsenic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.21	0.21	0.00	0.00	0.21
Cadmium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chromium	0.00	0.00	0.22	0.00	0.00	0.22	0.00	0.00	0.22	0.00	0.00	0.22	0.00	0.00	0.22
Cobalt	0.00	0.01	0.18	0.01	0.01	0.20	0.00	0.01	0.20	0.00	0.00	0.21	0.00	0.00	0.21
Copper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cyanide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iron	0.54	0.91	47.40	0.33	0.68	48.08	0.30	0.62	48.70	0.83	1.70	50.40	0.74	1.52	51.92
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manganese	0.24	0.40	23.29	0.26	0.53	23.82	0.23	0.47	24.29	0.23	0.47	24.77	0.24	0.49	25.26
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Molybdenum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nickel	0.00	0.00	0.24	0.01	0.02	0.26	0.00	0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.26
Selenium	0.00	0.00	0.11	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12
Silver	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vanadium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Zinc	0.00	0.00	3.93	0.00	0.00	3.93	0.00	0.00	3.93	0.00	0.00	3.93	0.02	0.04	3.97
RADIOMETRICS															
Uranium (mg/l)	0.02	0.03	1.66	0.02	0.05	1.71	0.02	0.04	1.74	0.02	0.04	1.78	0.02	0.04	1.82

## KENNECOTT URANIUM COMPANY

TMW-59															
CONTAMINANTS REMOVED															
DATE FS	7-Nov-05			11-Jan-06			10-Apr-06				3-Jul-06			5-Oct-06	
(Started pumping 9/1/88)		VOLUME 2005	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE
GALLONAGE		558427.50	33584307.00		578190.00	34162497.00		578190.00	34740687.00		578190.00	35318877.00		578190.00	35897067.00
CONSTITUENTS	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED
	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)
MAJOR IONS															
Bicarbonate	372.00	786.36	51177.63	320.00	700.38	51878.01	372.00	814.19	52692.20	300.00	656.61	53348.81	281.00	615.02	53963.83
Calcium	465.00	982.95	71889.96	489.00	1070.27	72960.23	548.00	1199.40	74159.63	480.00	1050.57	75210.20	521.00	1140.31	76350.51
Carbonate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloride	82.00	173.34	10122.80	80.00	175.09	10297.89	96.00	210.11	10508.01	78.00	170.72	10678.72	82.00	179.47	10858.20
Fluoride	0.20	0.42	11.50	0.00	0.00	11.50	0.20	0.44	11.94	0.20	0.44	12.37	0.20	0.44	12.81
Magnesium	66.50	140.57	8213.60	63.30	138.54	8352.15	71.00	155.40	8507.54	64.10	140.29	8647.84	70.20	153.65	8801.49
Nitrate(NO3)	0.00	0.00	15.74	0.00	0.00	15.74	0.00	0.00	15.74	0.00	0.00	15.74	0.00	0.00	15.74
Potassium	6.90	14.59	853.07	6.80	14.88	867.96	7.10	15.54	883.50	8.20	17.95	901.44	7.40	16.20	917.64
Silica	19.00	40.16	2593.72	16.00	35.02	2628.74	20.00	43.77	2672.51	18.00	39.40	2711.91	18.00	39.40	2751.31
Sodium	92.00	194.48	11265.40	90.40	197.86	11463.25	91.60	200.48	11663.74	93.00	203.55	11867.29	101.00	221.06	12088.34
Sulfate	1260.00	2663.49	180741.98	1200.00	2626.42	183368.41	1380.00	3020.39	186388.79	1300.00	2845.29	189234.09	1350.00	2954.73	192188.82
TDS	2450.00	5179.00	329146.56	2430.00	5318.51	334465.07	2430.00	5318.51	339783.58	2410.00	5274.74	345058.32	2350.00	5143.42	350201.74
TRACE METALS															
Aluminum	0.00	0.00	1.48	0.00	0.00	1.48	0.00	0.00	1.48	0.00	0.00	1.48	0.00	0.00	1.48
Arsenic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barium	0.00	0.00	0.21	0.00	0.00	0.21	0.00	0.00	0.21	0.00	0.00	0.21	0.00	0.00	0.21
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boron	0.10	0.21	2.75	0.10	0.22	2.97	0.10	0.22	3.19	-0.10	-0.22	2.97	0.10	0.22	3.19
Cadmium	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.03
Chromium	0.00	0.00	0.22	0.00	0.00	0.22	0.00	0.00	0.22	0.00	0.00	0.22	0.00	0.00	0.22
Cobalt	0.01	0.03	0.94	0.13	0.28	1.23	0.11	0.24	1.47	0.01	0.03	1.49	0.01	0.03	1.52
Copper	0.00	0.00	0.14	0.00	0.00	0.14	0.00	0.00	0.14	0.00	0.00	0.14	0.00	0.00	0.14
Cyanide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iron	45.60	96.39	3390.32	42.40	92.80	3483.12	48.40	105.93	3589.05	51.20	112.06	3701.11	47.80	104.62	3805.73
Lead	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12
Manganese	3.80	8.03	352.23	3.63	7.94	360.17	3.42	7.49	367.66	3.75	8.21	375.87	3.90	8.54	384.40
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Molybdenum	0.00	0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.26
Nickel	0.02	0.04	1.83	0.02	0.04	1.87	0.02	0.04	1.92	0.02	0.04	1.96	0.02	0.04	2.00
Selenium	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.13	0.00	0.00	0.13	0.00	0.00	0.14
Silver	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vanadium	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.03
Zinc	0.00	0.00	2.60	0.00	0.00	2.60	0.00	0.00	2.60	0.00	0.00	2.60	0.01	0.02	2.62
RADIOMETRICS															
Uranium (mg/l)	0.01	0.02	0.84	0.01	0.02	0.87	0.01	0.03	0.89	0.01	0.02	0.92	0.01	0.02	0.94

## KENNECOTT URANIUM COMPANY

TMW-75																	
CONTAMINANTS REMOVED																	
DATE FS	7-Nov-05			16-Jan-06			10-Apr-06			3-Jul-06				5-Oct-06			
(Started pumping 5/1/88)		VOLUME 2005	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		
GALLONAGE		587810.00	45322140.00		272060.00	45594200.00		272060.00	45866260.00		272060.00	46138320.00		272060.00	46410380.00		
CONSTITUENTS	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED		
	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)		
MAJOR IONS																	
Bicarbonate	156.00	347.12	32631.19	156.00	160.66	32791.85	152.00	156.54	32948.39	145.00	149.33	33097.72	147.00	151.39	33249.11		
Calcium	134.00	298.16	31220.19	135.00	139.03	31359.22	137.00	141.09	31500.31	139.00	143.15	31643.46	143.00	147.27	31790.73		
Carbonate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Chloride	19.00	42.28	4582.81	17.00	17.51	4600.32	18.00	18.54	4618.86	14.00	14.42	4633.28	17.00	17.51	4650.79		
Fluoride	0.10	0.22	24.31	0.00	0.00	24.31	0.20	0.21	24.52	0.10	0.10	24.62	0.10	0.10	24.73		
Magnesium	11.60	25.81	2422.94	11.10	11.43	2434.37	10.70	11.02	2445.39	10.30	10.61	2456.00	11.00	11.33	2467.33		
Nitrate(NO3)	0.00	0.00	34.27	0.00	0.00	34.27	0.00	0.00	34.27	0.00	0.00	34.27	0.00	0.00	34.27		
Potassium	3.20	7.12	633.10	3.50	3.60	636.71	3.20	3.30	640.00	3.40	3.50	643.50	3.40	3.50	647.00		
Silica	15.00	33.38	2653.05	15.00	15.45	2668.50	15.00	15.45	2683.95	16.00	16.48	2700.43	14.00	14.42	2714.84		
Sodium	44.50	99.02	8780.79	44.20	45.52	8826.31	44.20	45.52	8871.83	48.00	49.43	8921.26	46.80	48.20	8969.46		
Sulfate	322.00	716.48	68769.72	315.00	324.41	69094.13	320.00	329.55	69423.68	342.00	352.21	69775.89	329.00	338.82	70114.72		
TDS	658.00	1464.12	141149.51	600.00	617.92	141767.43	618.00	636.45	142403.88	652.00	671.47	143075.35	638.00	657.05	143732.40		
TRACE METALS																	
Aluminum	0.00	0.00	0.44	0.00	0.00	0.44	0.00	0.00	0.44	0.00	0.00	0.44	0.00	0.00	0.44		
Arsenic	0.00	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.07		
Barium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Boron	0.00	0.00	1.13	0.00	0.00	1.13	0.00	0.00	1.13	0.10	0.10	1.23	0.00	0.00	1.23		
Cadmium	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.08		
Chromium	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01		
Cobalt	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02		
Copper	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.08		
Cyanide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Iron	0.15	0.33	26.02	0.14	0.14	26.17	0.11	0.11	26.28	0.27	0.28	26.56	0.17	0.18	26.73		
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Manganese	0.11	0.24	20.80	0.11	0.11	20.91	0.10	0.10	21.01	0.10	0.10	21.12	0.09	0.09	21.21		
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Molybdenum	0.00	0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.26		
Nickel	0.00	0.00	0.45	0.00	0.00	0.45	0.00	0.00	0.45	0.00	0.00	0.45	0.00	0.00	0.45		
Selenium	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.00	0.12		
Silver	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02		
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Vanadium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Zinc	0.00	0.00	2.56	0.00	0.00	2.56	0.00	0.00	2.56	0.00	0.00	2.56	0.02	0.02	2.58		
RADIOMETRICS																	
Uranium (mg/l)	0.03	0.08	10.70	0.03	0.03	10.73	0.03	0.03	10.76	0.03	0.03	10.79	0.03	0.03	10.81		

## KENNECOTT URANIUM COMPANY

TMW-96															
CONTAMINANTS REMOVED															
DATE FS	31-Oct-05			23-Jan-06			10-Apr-06			3-Jul-06			7-Oct-06		
Started pumping June 30, 2005		VOLUME 2005	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE		VOLUME 2006	CUMULATIVE
GALLONAGE		745310.00	1490620.00		992475.00	2483095.00		992475.00	3475570.00		992475.00	4468045.00		992475.00	5460520.00
CONSTITUENTS	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED	ANALYSIS	QUANTITY REMOVED	QUANTITY REMOVED
	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)
MAJOR IONS															
Bicarbonate	138.00	389.34	789.97	137.00	514.70	1304.66	137.00	514.70	1819.36	134.00	503.43	2322.79	137.00	514.70	2837.49
Calcium	175.00	493.73	1018.49	168.00	631.16	1649.65	183.00	687.52	2337.17	183.00	687.52	3024.69	187.00	702.55	3727.24
Carbonate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloride	26.00	73.35	152.35	24.00	90.17	242.52	27.00	101.44	343.95	33.00	123.98	467.93	25.00	93.92	561.86
Fluoride	0.10	0.28	0.56	0.10	0.38	0.94	0.10	0.38	1.32	0.10	0.38	1.69	0.10	0.38	2.07
Magnesium	12.40	34.98	75.89	11.90	44.71	120.60	12.60	47.34	167.94	11.70	43.96	211.89	12.80	48.09	259.98
Nitrate(NO3)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Potassium	3.70	10.44	20.88	3.50	13.15	34.03	3.50	13.15	47.18	3.80	14.28	61.45	3.60	13.52	74.98
Silica	14.00	39.50	79.00	14.00	52.60	131.59	15.00	56.35	187.95	15.00	56.35	244.30	14.00	52.60	296.90
Sodium	46.60	131.47	272.82	47.00	176.58	449.40	48.20	181.08	630.48	50.60	190.10	820.58	51.40	193.11	1013.69
Sulfate	417.00	1176.48	2386.82	417.00	1566.64	3953.46	446.00	1675.59	5629.05	460.00	1728.19	7357.24	443.00	1664.32	9021.56
TDS	754.00	2127.26	4435.09	757.00	2843.99	7279.09	814.00	3058.14	10337.22	828.00	3110.74	13447.96	806.00	3028.08	16476.04
TRACE METALS															
Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arsenic	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01
Barium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.38	0.38	0.00	0.00	0.38
Cadmium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chromium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cobalt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Copper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cyanide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iron	0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.20	0.14	0.53	0.72	0.00	0.00	0.72
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manganese	0.11	0.31	0.54	0.11	0.41	0.95	0.10	0.38	1.33	0.11	0.41	1.74	0.11	0.41	2.15
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Molybdenum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nickel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Selenium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01
Silver	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vanadium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Zinc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.04
RADIOMETRICS															
Uranium (mg/l)	0.03	0.09	0.28	0.02	0.08	0.36	0.03	0.11	0.47	0.02	0.09	0.56	0.02	0.09	0.65



## KENNECOTT URANIUM COMPANY

TMW-97															
CONTAMINANTS REMOVED															
DATE FS	31-Oct-05			15-Mar-06				6-Jun-06					11-Sep-06		9-Nov-06
Started pumping September 6, 2005	VOLUME 2005	CUMULATIVE		VOLUME 2006	CUMULATIVE			VOLUME 2006	CUMULATIVE			VOLUME 2006	CUMULATIVE		VOLUME 2006
GALLONAGE	803270.00	1606540.00		1093665.00	2700205.00			1093665.00	3793870.00			1093665.00	4887535.00		1093665.00
	QUANTITY	QUANTITY		QUANTITY	QUANTITY			QUANTITY	QUANTITY			QUANTITY	QUANTITY		QUANTITY
CONSTITUENTS	ANALYSIS	REMOVED	REMOVED	ANALYSIS	REMOVED	REMOVED	ANALYSIS	REMOVED	REMOVED	ANALYSIS	REMOVED	REMOVED	ANALYSIS	REMOVED	REMOVED
	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)	(PPM)	(KG)	(KG)
<b>MAJOR IONS</b>															
Bicarbonate	131.00	398.33	817.95	123.00	509.22	1327.17	121.00	500.94	1828.10	115.00	476.10	2304.20	119.00	492.66	2796.86
Calcium	180.00	547.33	1137.22	140.00	579.60	1716.82	148.00	612.72	2329.54	140.00	579.60	2909.13	141.00	583.74	3492.87
Carbonate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloride	25.00	76.02	164.20	20.00	82.80	247.00	21.00	86.94	333.94	19.00	78.66	412.60	19.00	78.66	491.26
Fluoride	0.10	0.30	0.61	0.20	0.83	1.44	0.20	0.83	2.26	0.10	0.41	2.68	0.10	0.41	3.09
Magnesium	13.00	39.53	84.84	9.80	40.57	125.41	11.90	49.27	174.67	9.60	39.74	214.42	10.40	43.06	257.47
Nitrate(NO3)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Potassium	3.70	11.25	22.20	3.00	12.42	34.62	3.70	15.32	49.93	3.10	12.83	62.77	3.20	13.25	76.02
Silica	14.00	42.57	85.14	14.00	57.96	143.10	14.00	57.96	201.06	14.00	57.96	259.02	14.00	57.96	316.98
Sodium	46.30	140.78	290.69	45.20	187.13	477.82	44.50	184.23	662.05	43.70	180.92	842.96	43.20	178.85	1021.81
Sulfate	439.00	1334.87	1921.73	329.00	1362.05	3283.78	368.00	1523.51	4807.29	347.00	1436.57	6243.86	339.00	1403.45	7647.31
TDS	756.00	2298.78	4992.84	624.00	2583.34	7576.18	650.00	2690.98	10267.17	598.00	2475.70	12742.87	756.00	3129.82	15872.69
<b>TRACE METALS</b>															
Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arsenic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cadmium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chromium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cobalt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Copper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cyanide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iron	0.18	0.55	0.55	0.00	0.00	0.55	0.00	0.00	0.55	0.00	0.00	0.55	0.18	0.75	1.29
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manganese	0.11	0.33	0.70	0.08	0.33	1.03	0.10	0.41	1.44	0.09	0.37	1.82	0.11	0.46	2.27
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Molybdenum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nickel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Selenium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silver	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vanadium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Zinc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>RADIOMETRICS</b>															
Uranium (mg/l)	0.02	0.07	0.20	0.02	0.07	0.27	0.04	0.15	0.42	0.02	0.08	0.50	0.03	0.12	0.62

## Maps