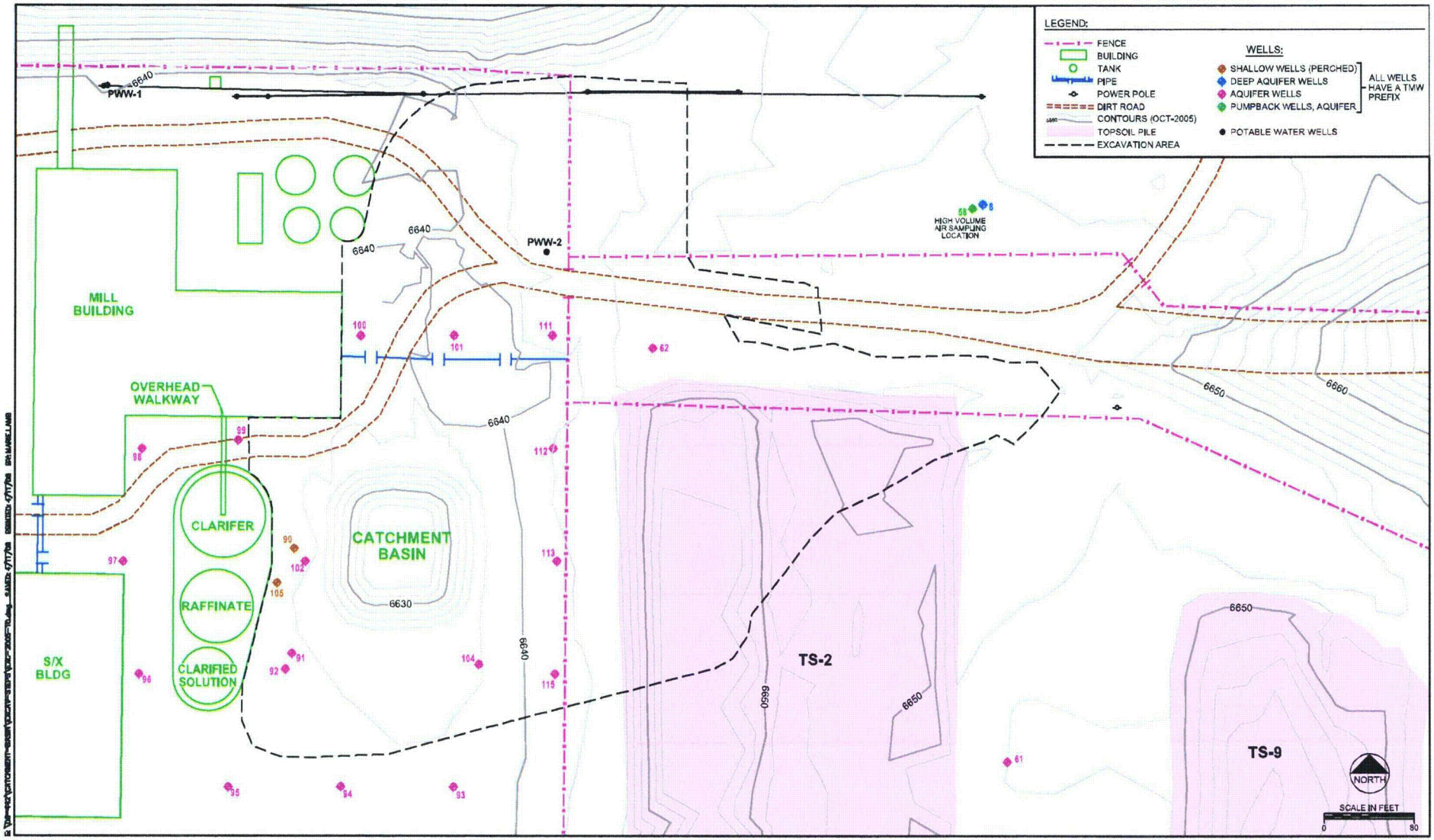
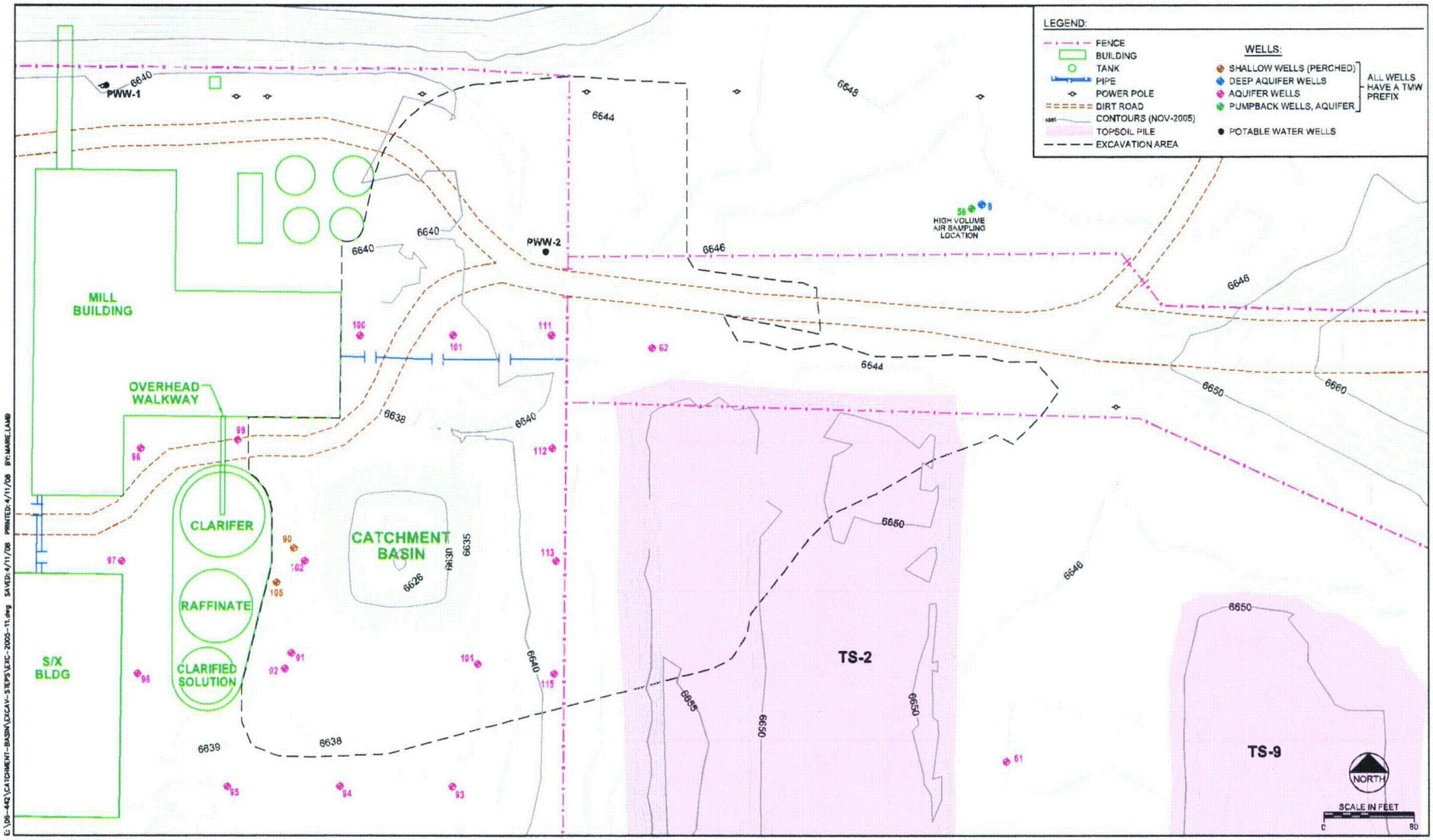


Project No. 180889

April 2008

HISTORICAL MAP
EXCAVATION PROGRESS
PRE-EXCAVATION LAYOUT (OCTOBER-2005)



Project No. 180889

April 2008

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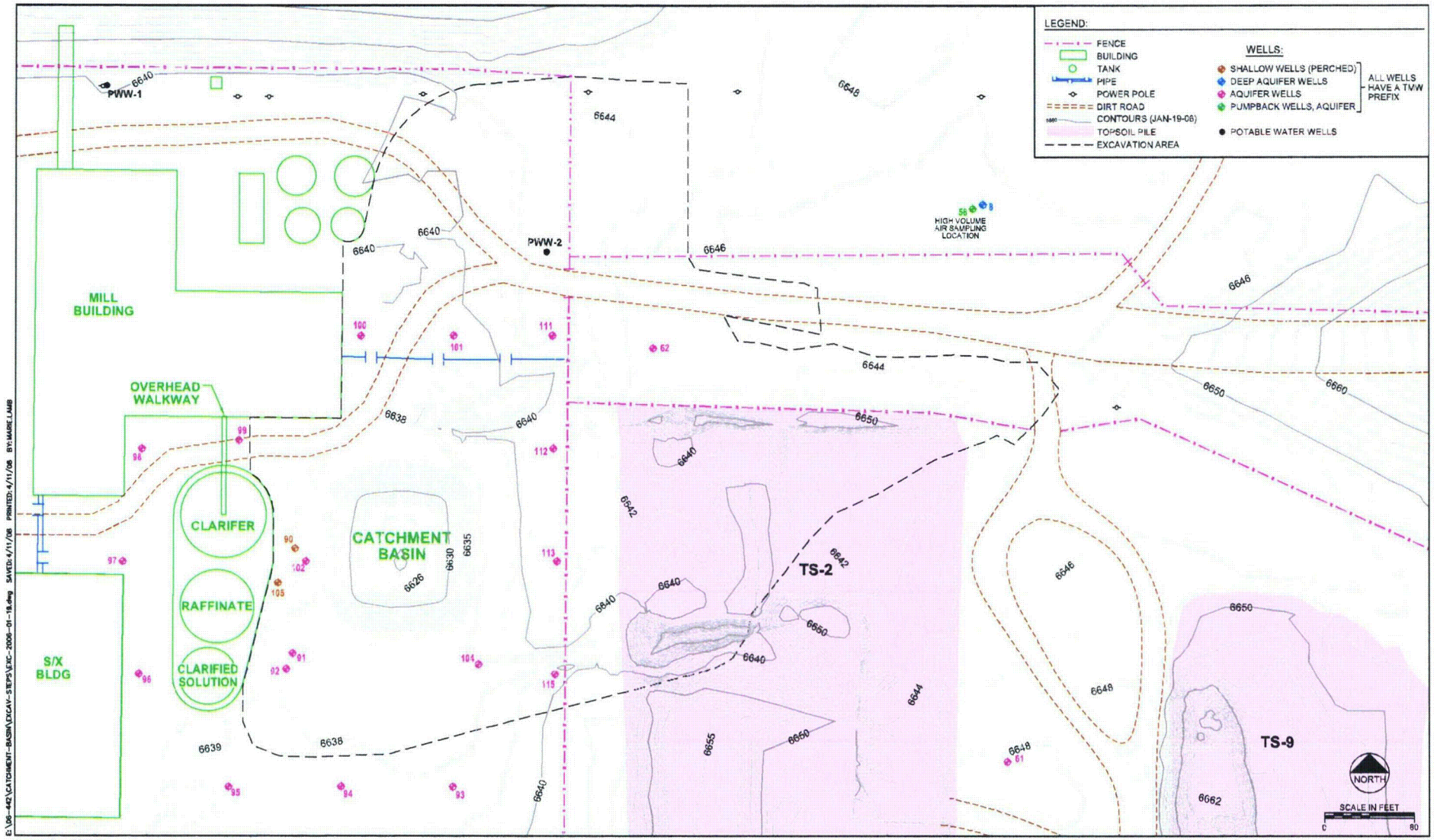

Project No. 180889

April 2008

HISTORICAL MAP
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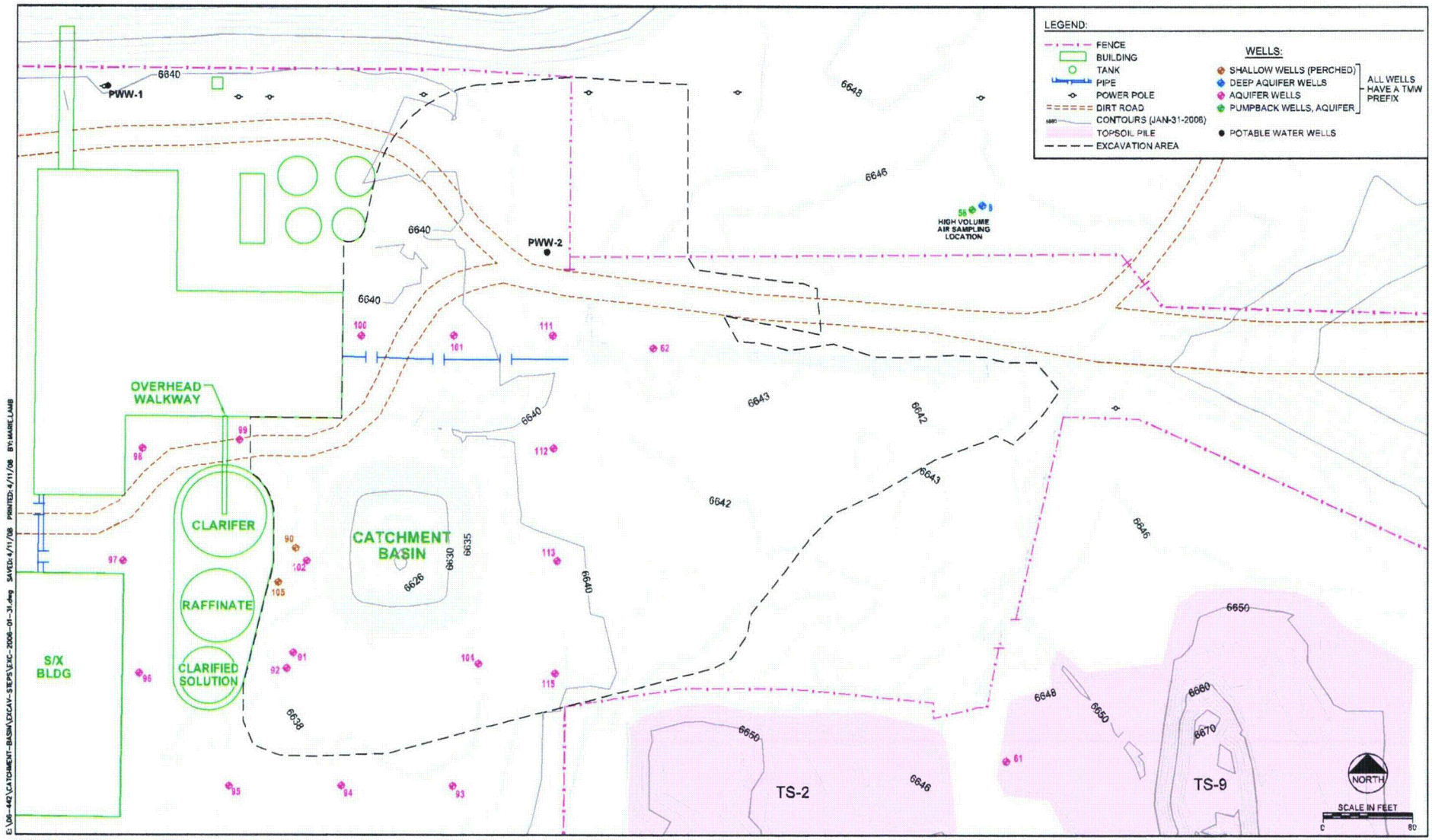

Project No. 180889

April 2008

HISTORICAL MAP
EXCAVATION PROGRESS
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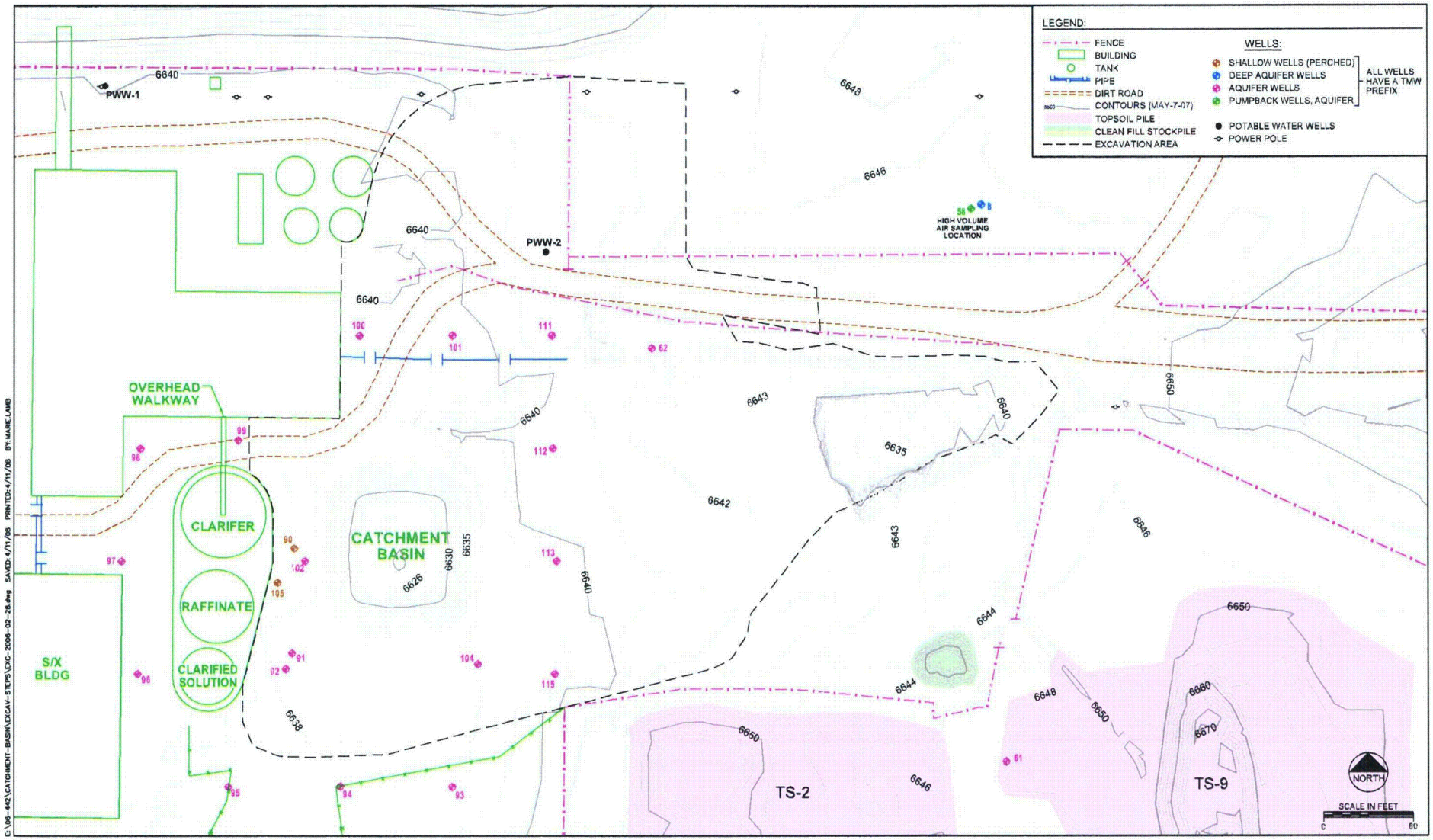

Project No. 160889

April 2008

HISTORICAL MAP
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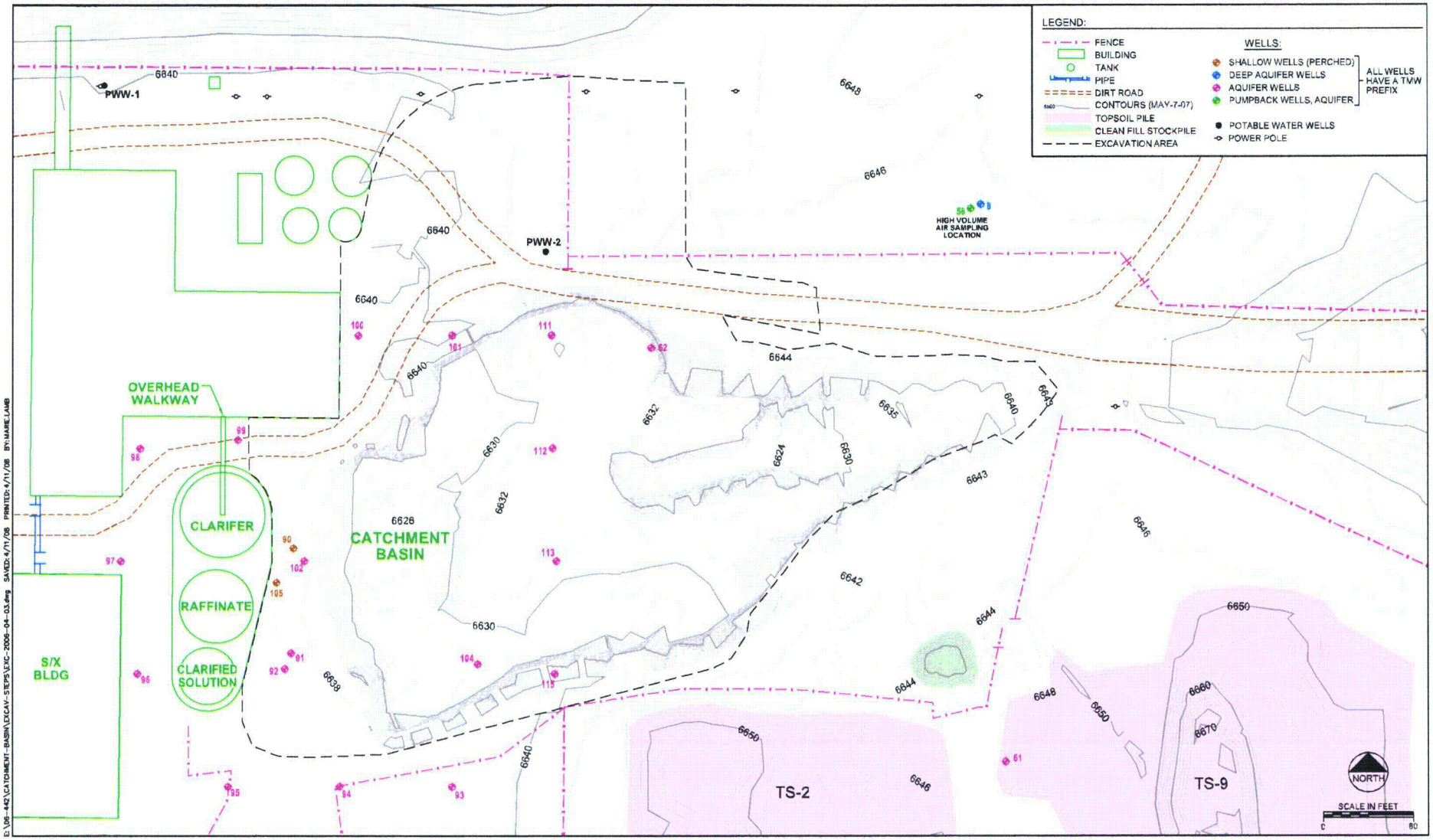

Project No. 180889

April 2008

HISTORICAL MAP
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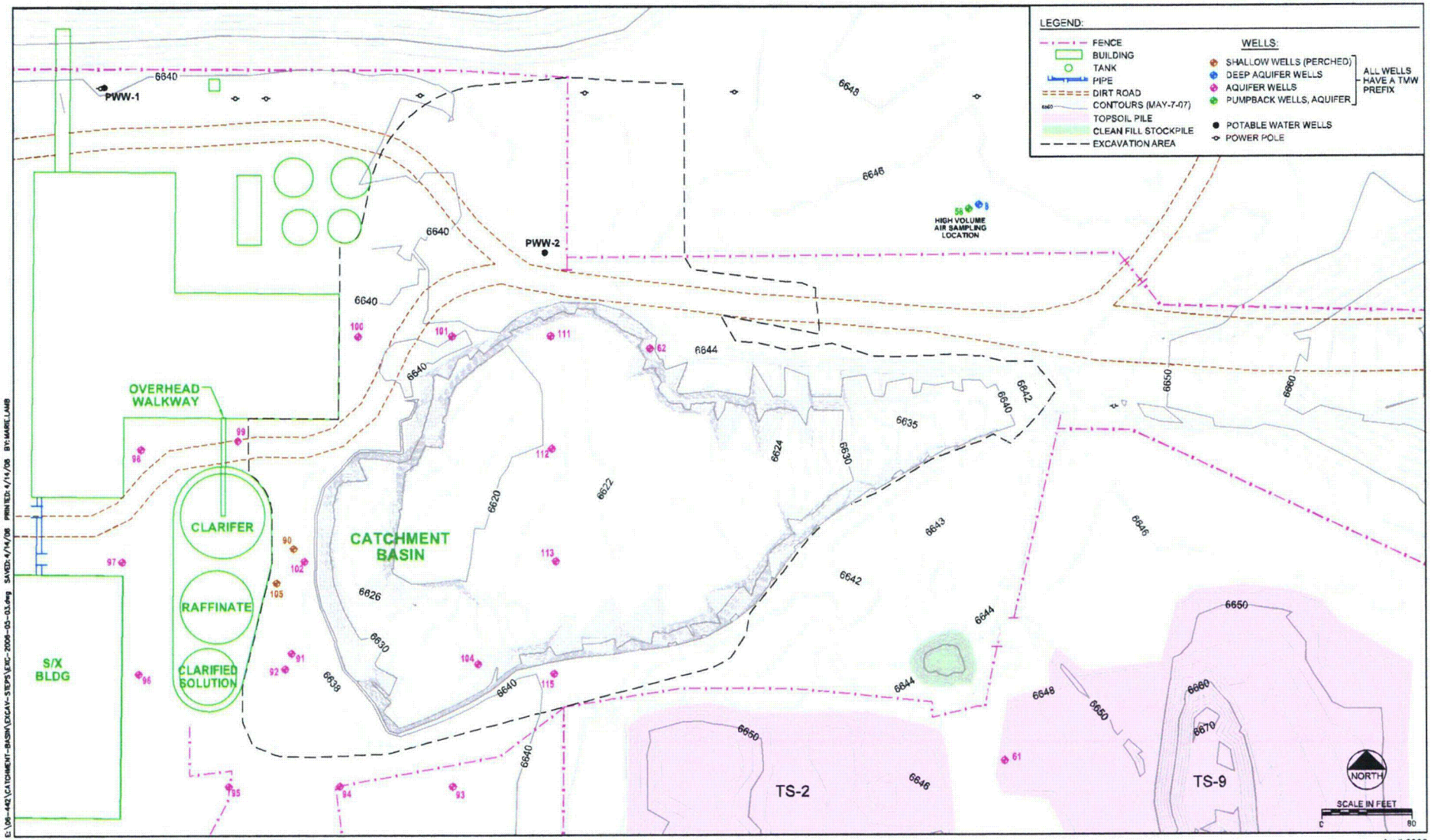

Project No. 180889

April 2008

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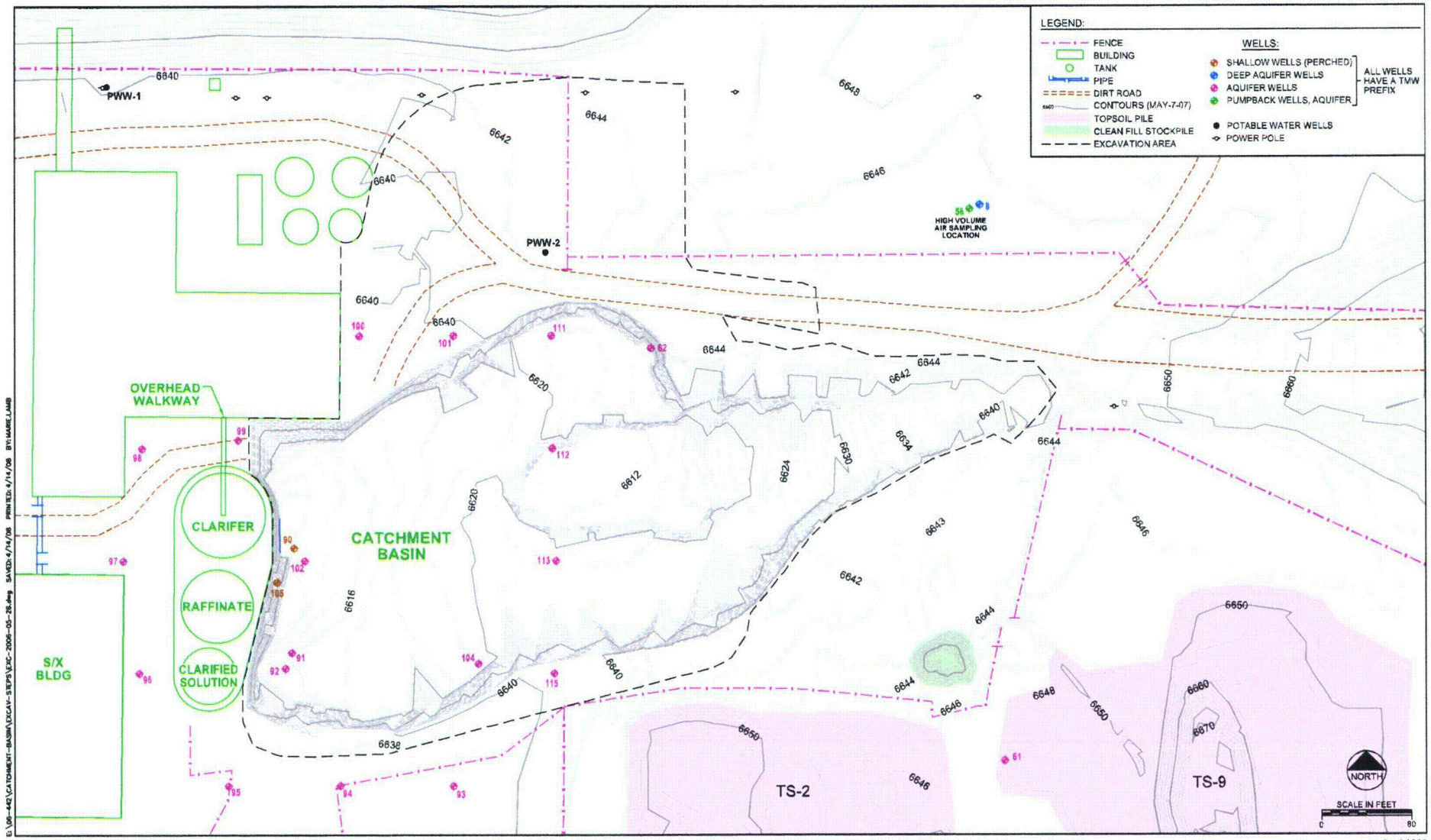

Project No. 180889

April 2008

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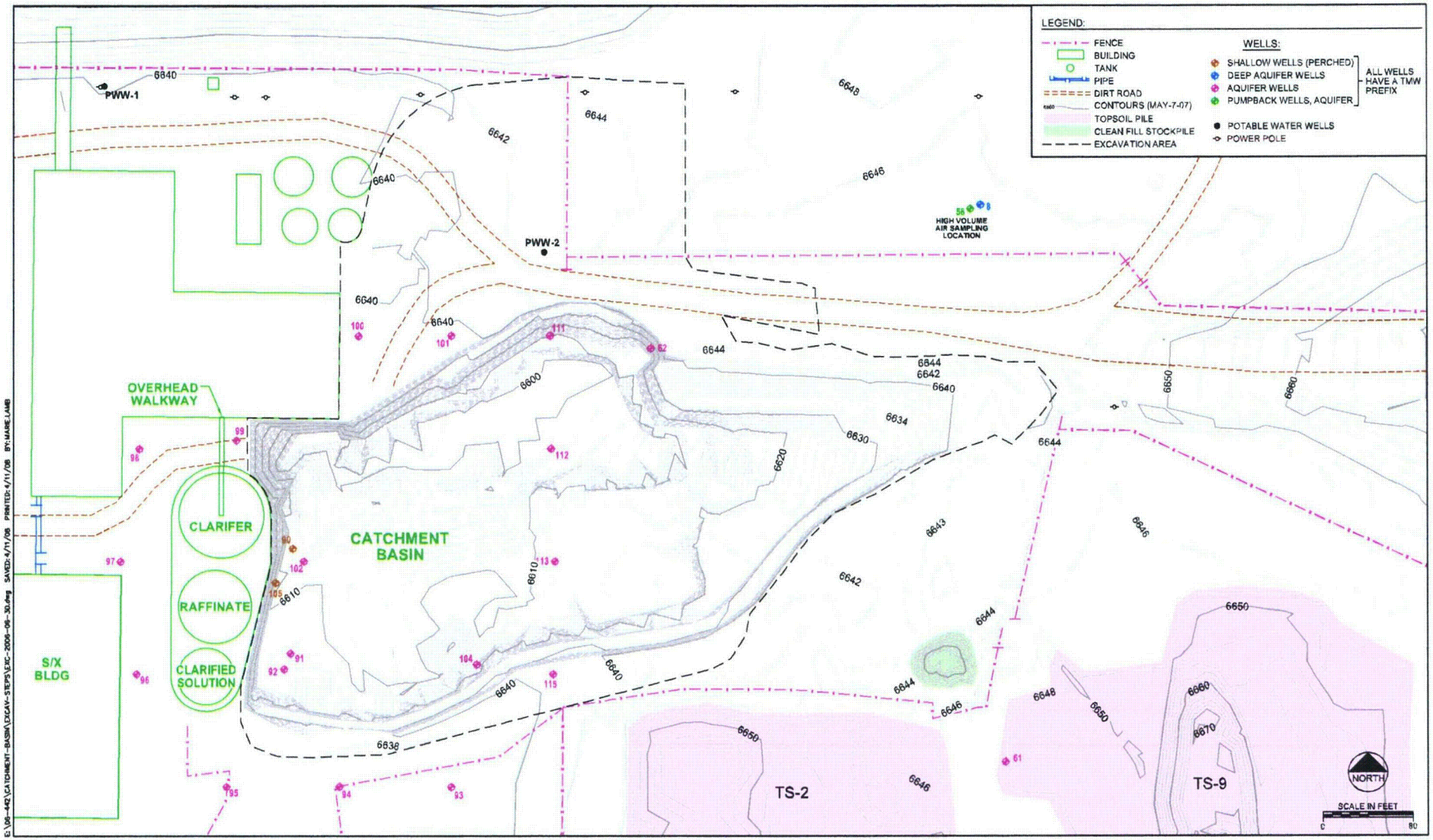

Project No. 180889

April 2008

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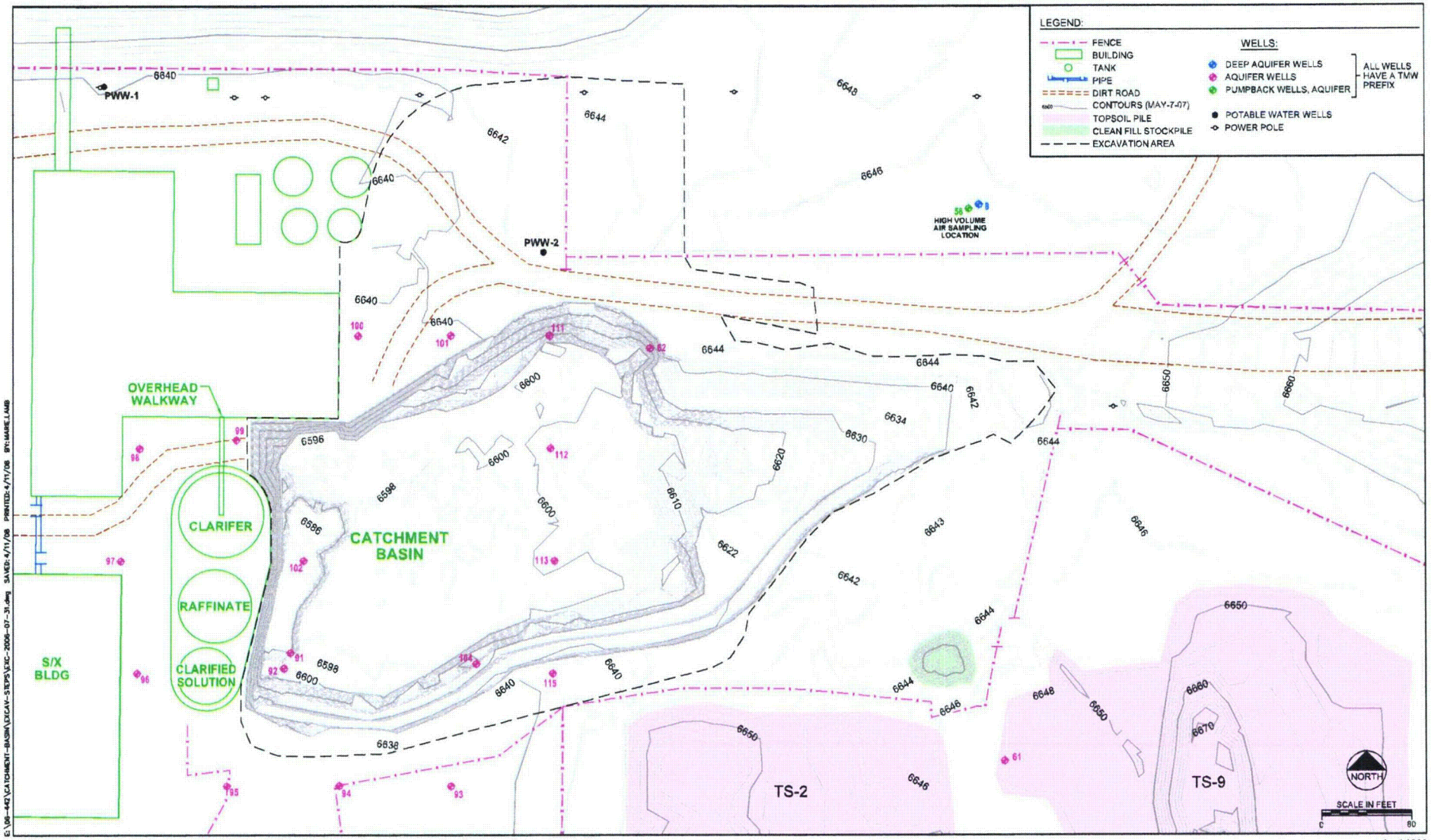

Project No. 180889

April 2008

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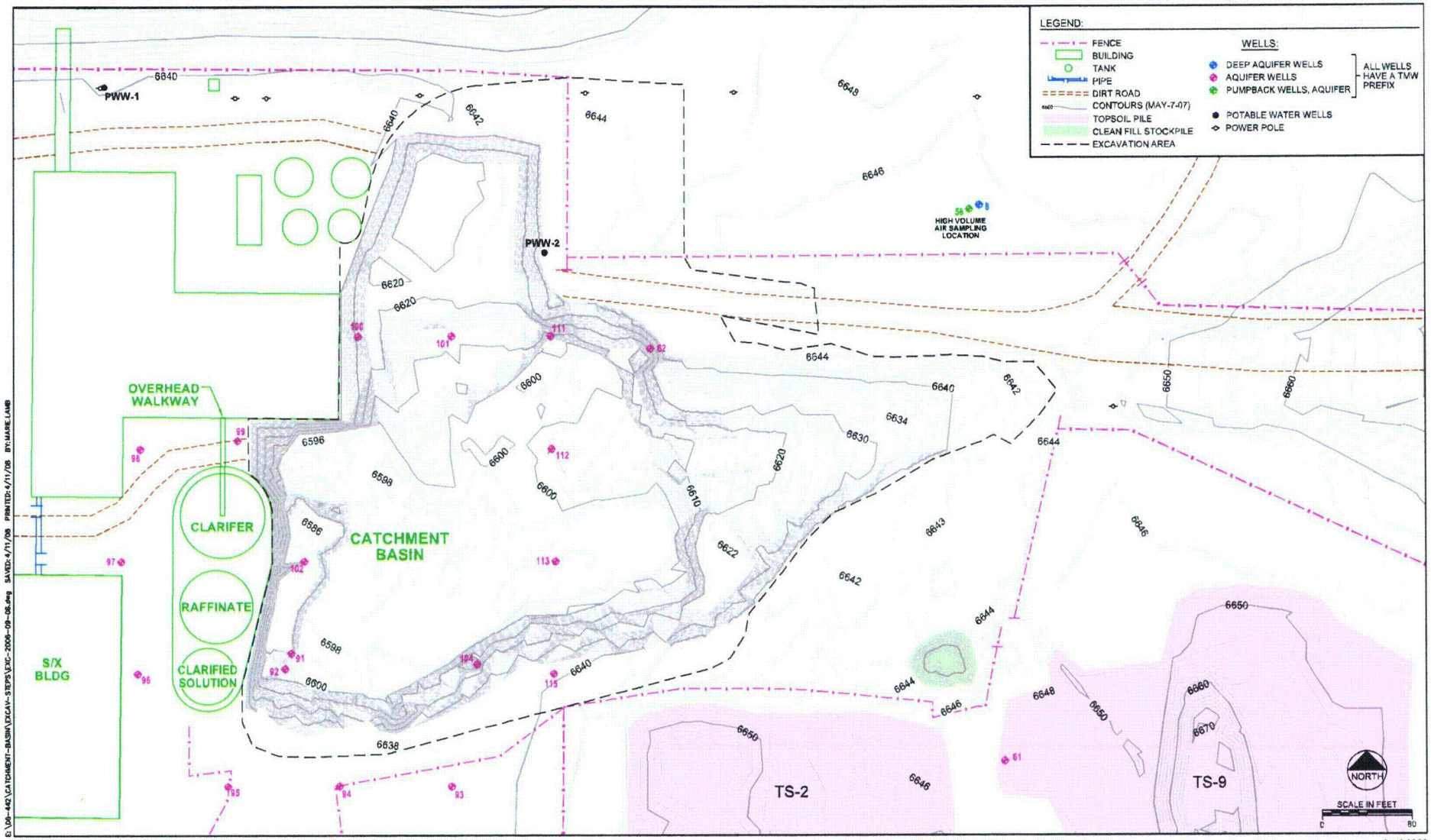

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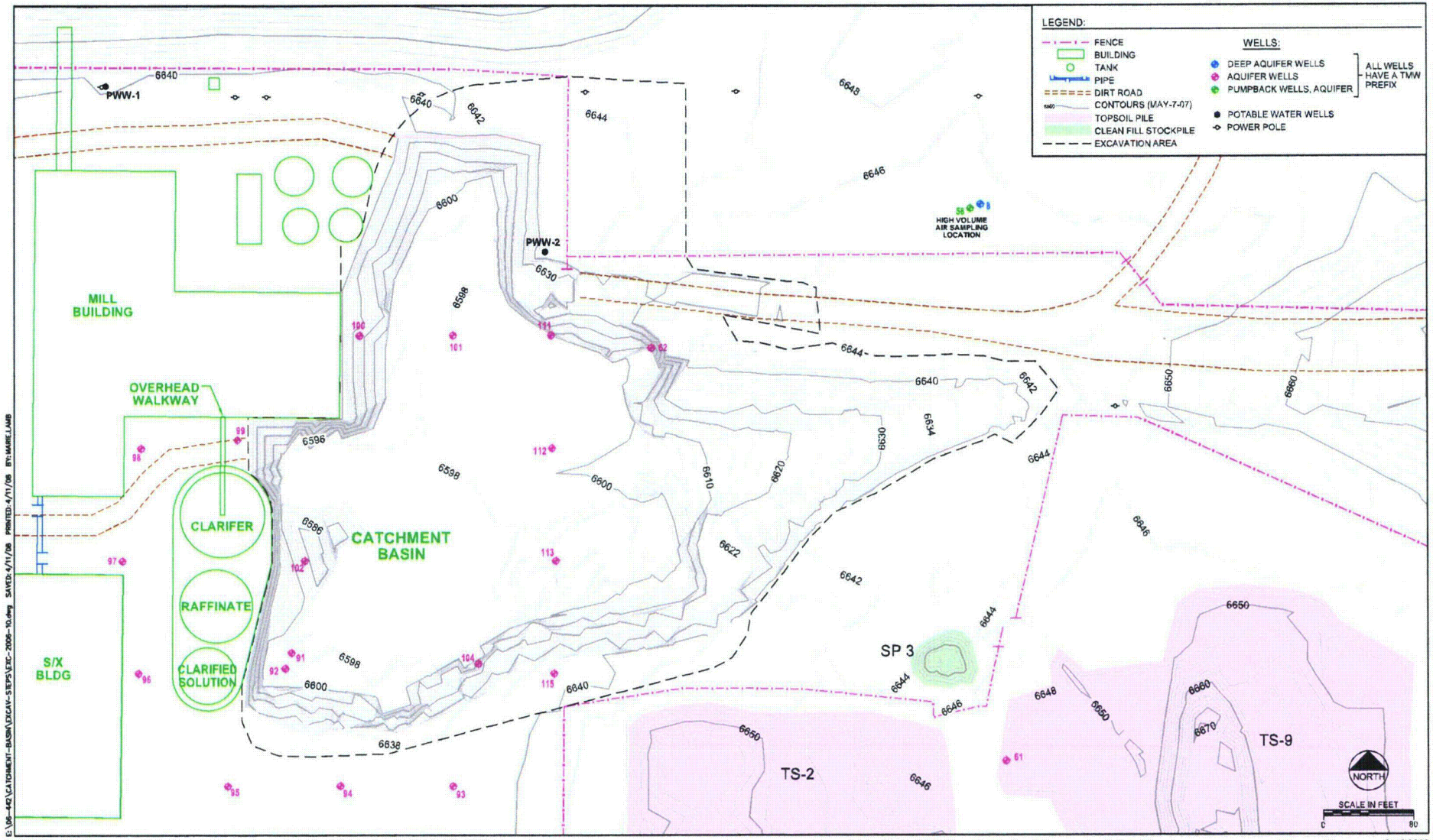
Project No. 180889

April 2008

HISTORICAL MAP
EXCAVATION PROGRESS
LAYOUT (SEPTEMBER-6-2006)



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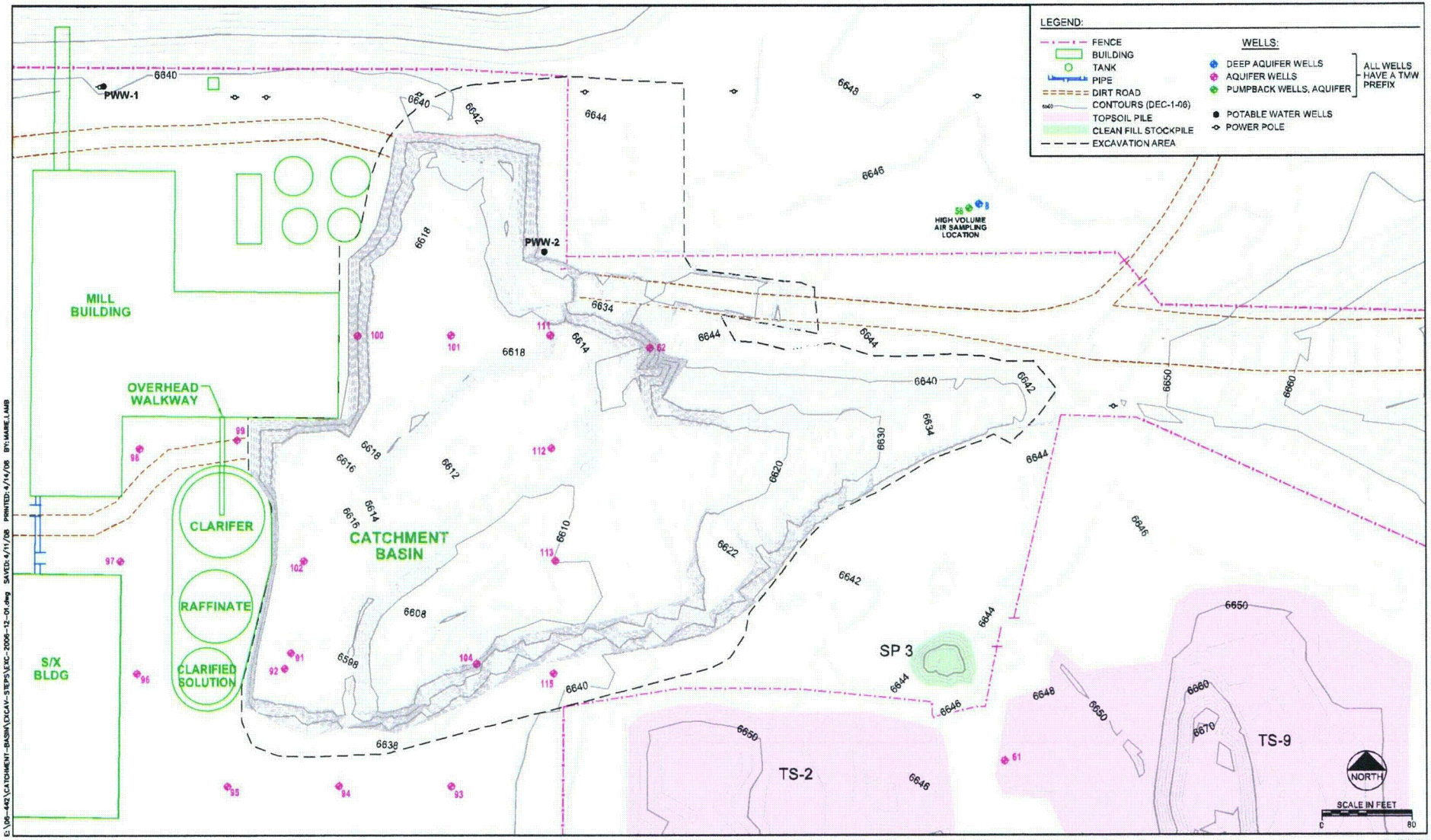
Project No. 180889

April 2008

HISTORICAL MAP
EXCAVATION PROGRESS
LAYOUT (OCTOBER-2006)



Project No. 180889

April 2008

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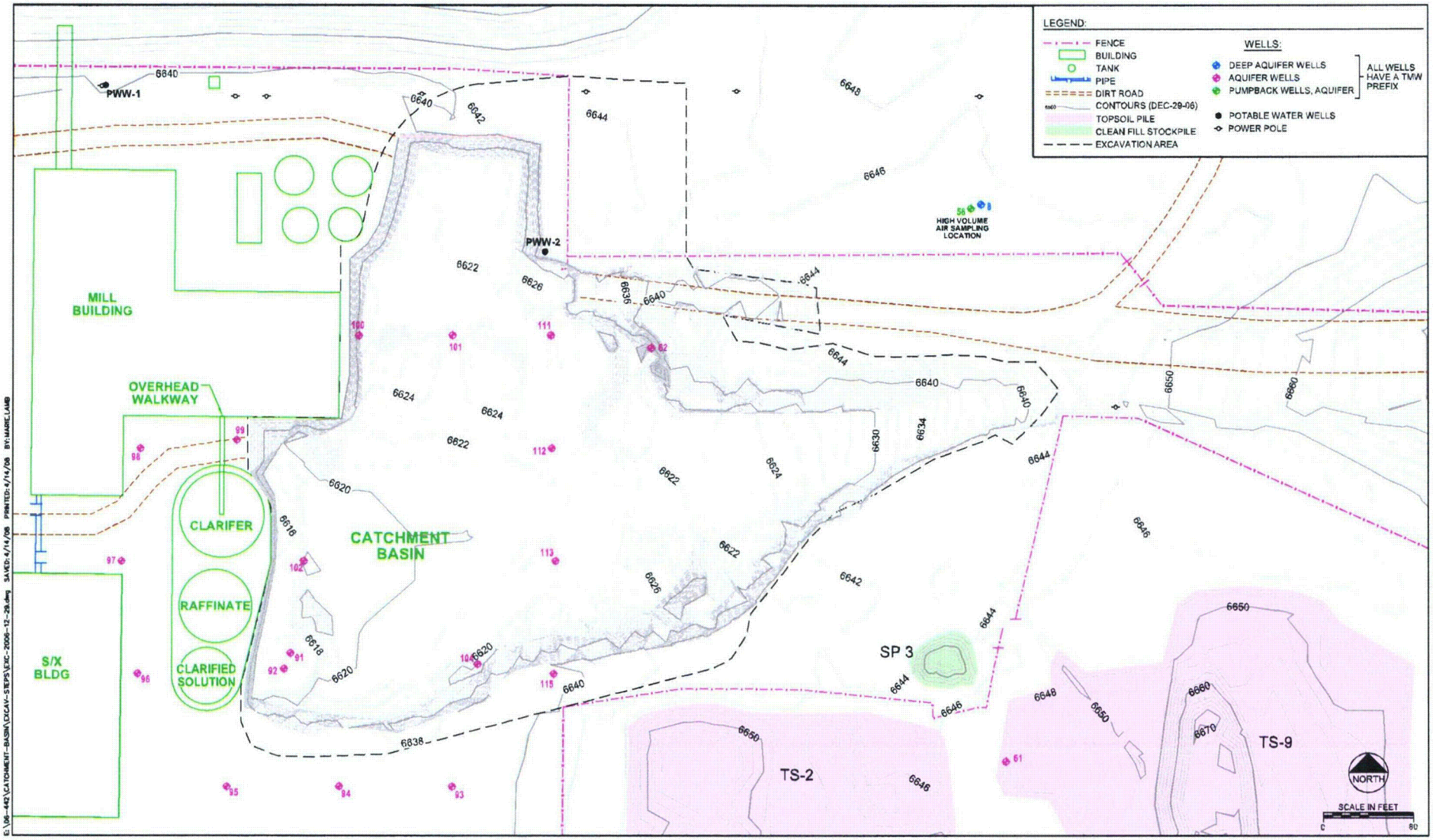
LAYOUT (DECEMBER-1-2006)



Project No. 180889

April 2008

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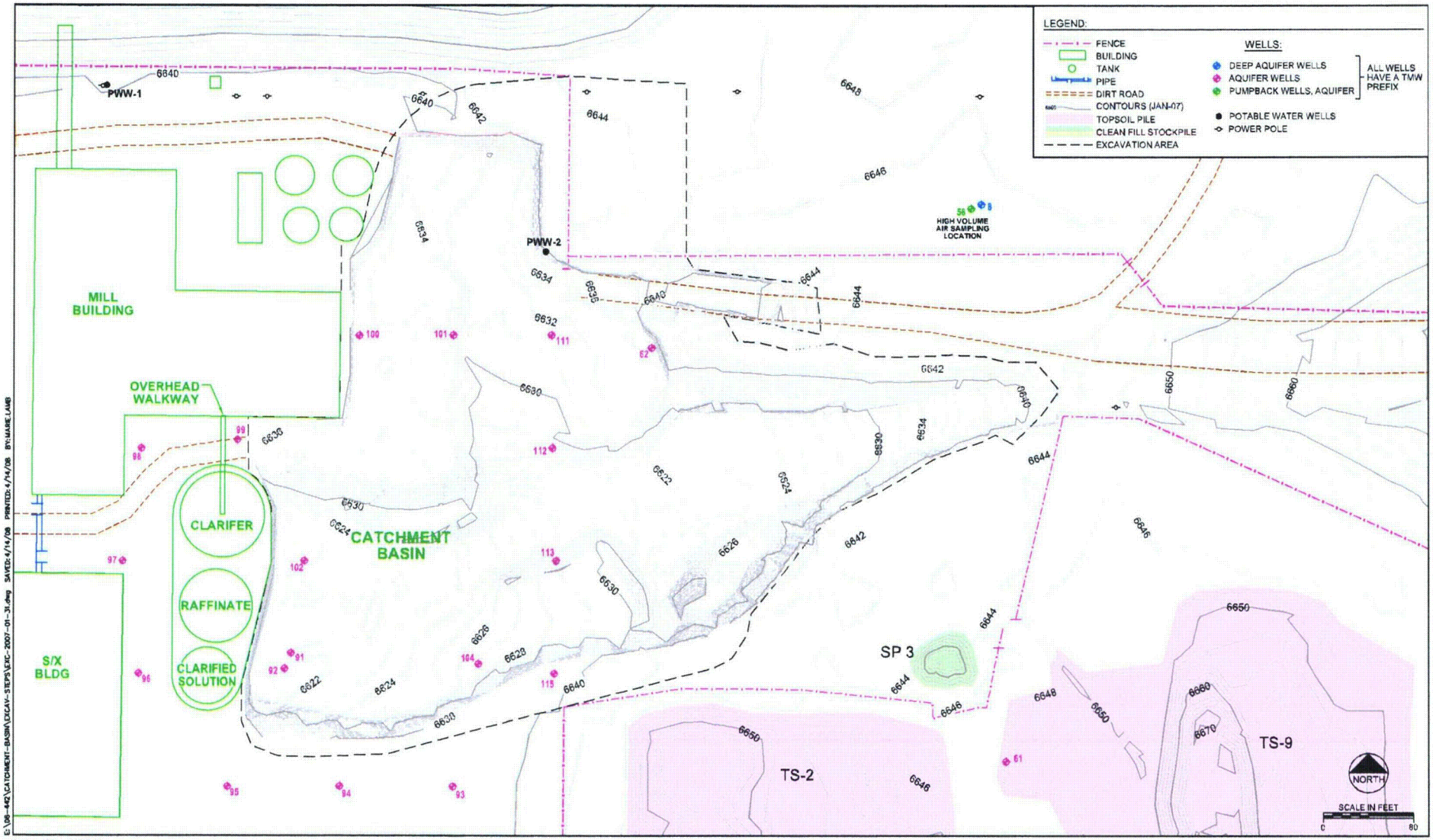
LAYOUT (DECEMBER-29-2006)



Project No. 180889

April 2008

HISTORICAL MAP
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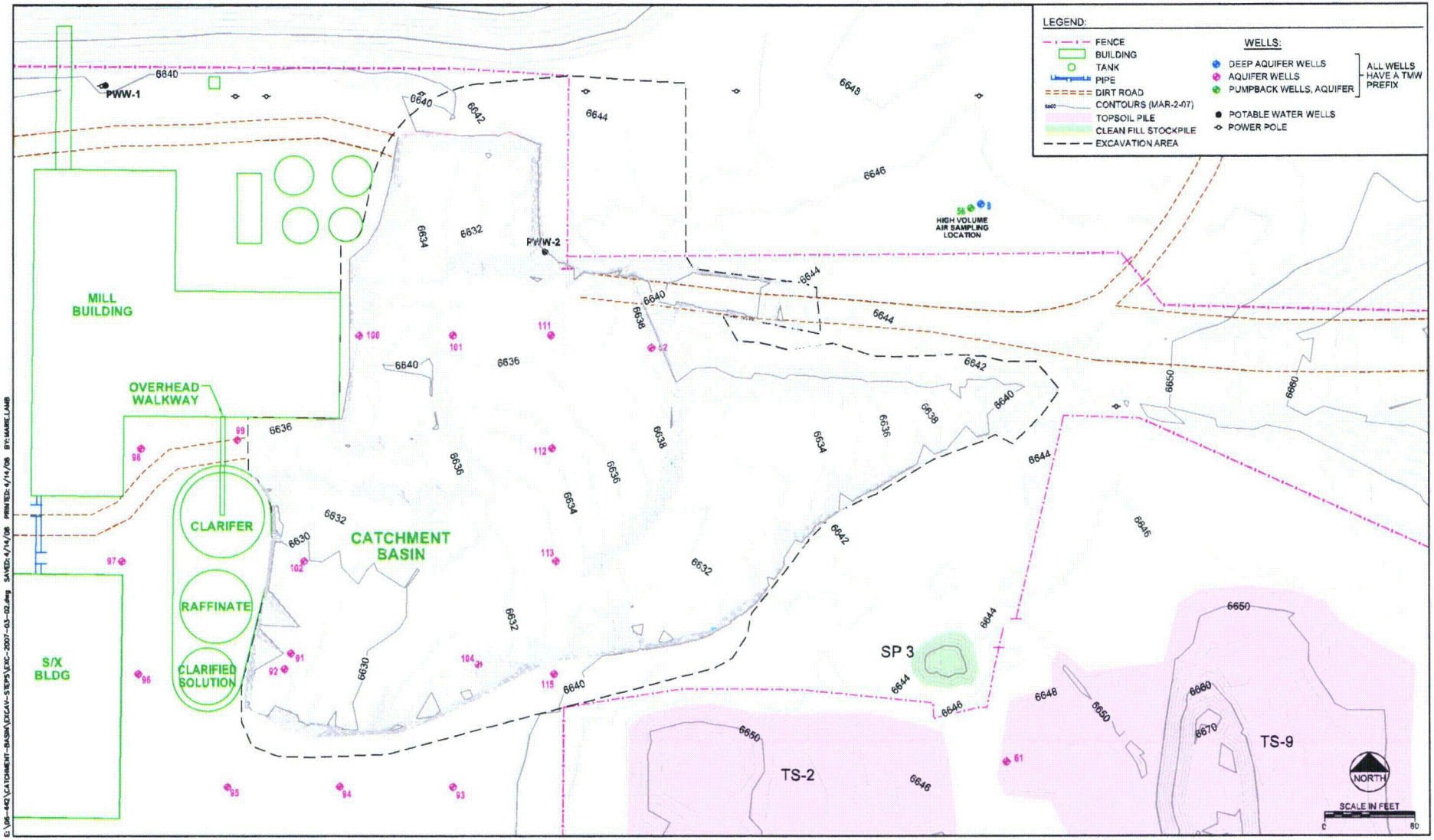
LAYOUT (JANUARY-2007)



Project No. 180889

April 2008

HISTORICAL MAP
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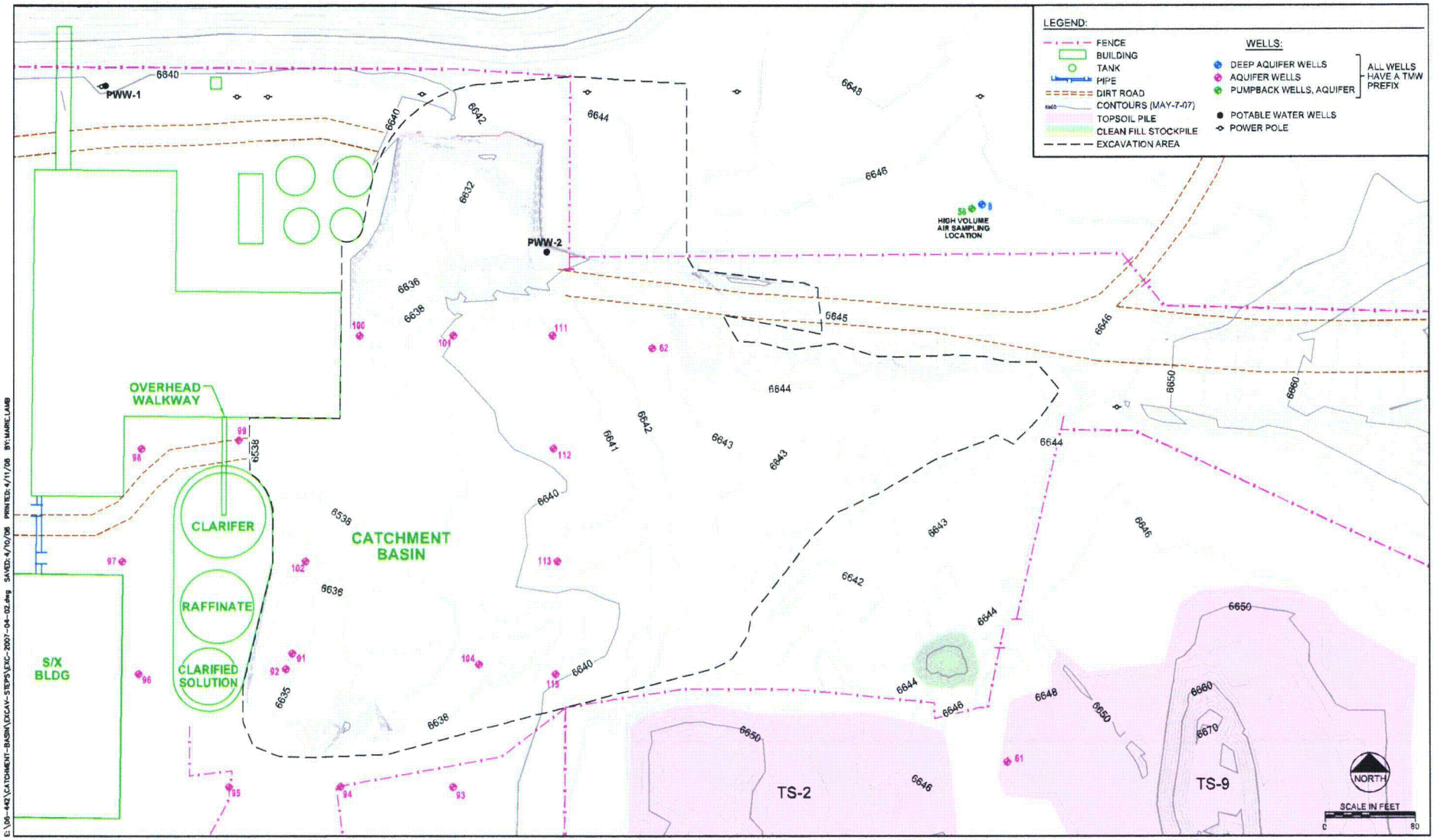
LAYOUT (MARCH-2-2007)



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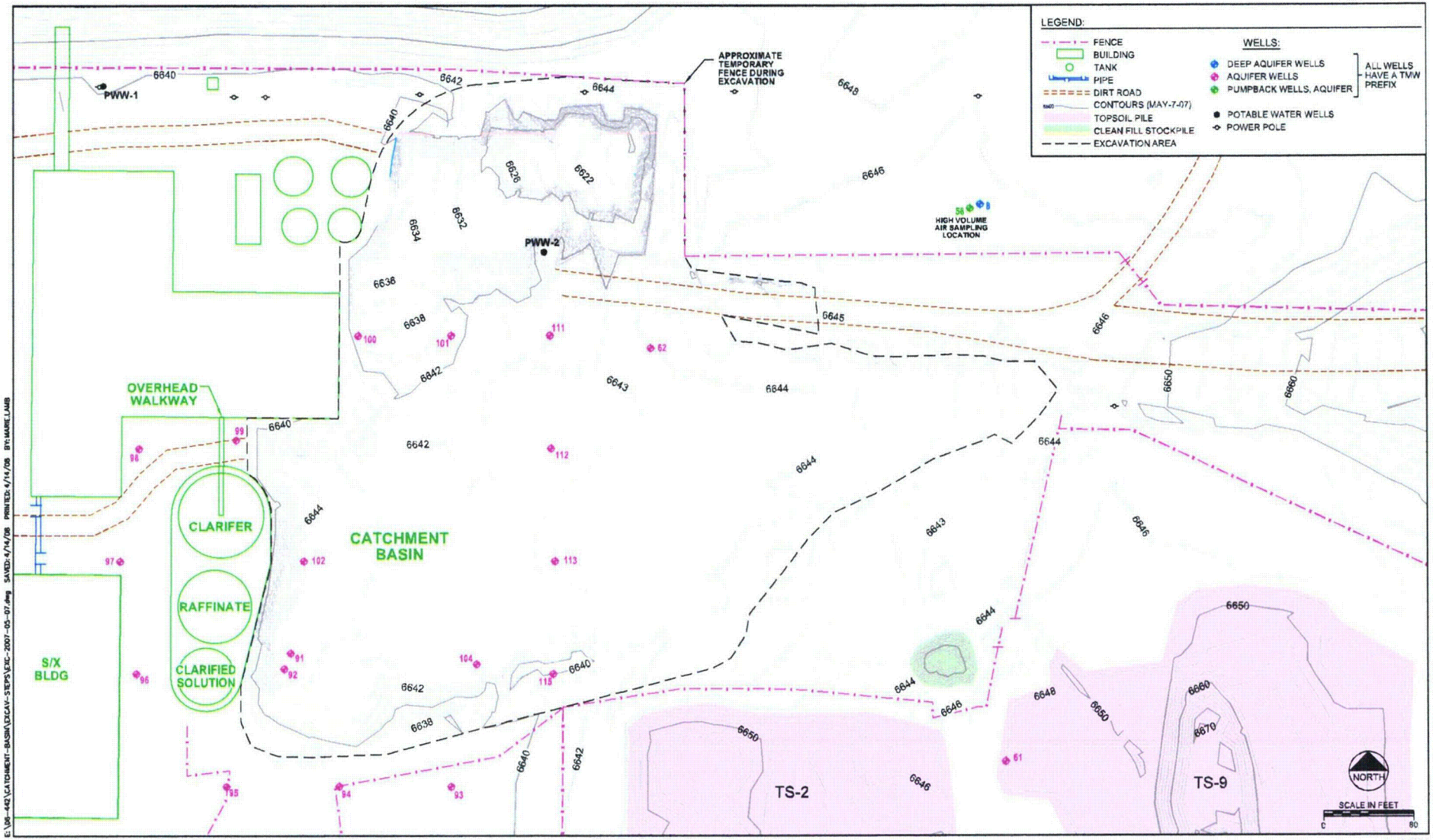
Project No. 180889

April 2008

HISTORICAL MAP
EXCAVATION PROGRESS
LAYOUT (APRIL-2-2007)



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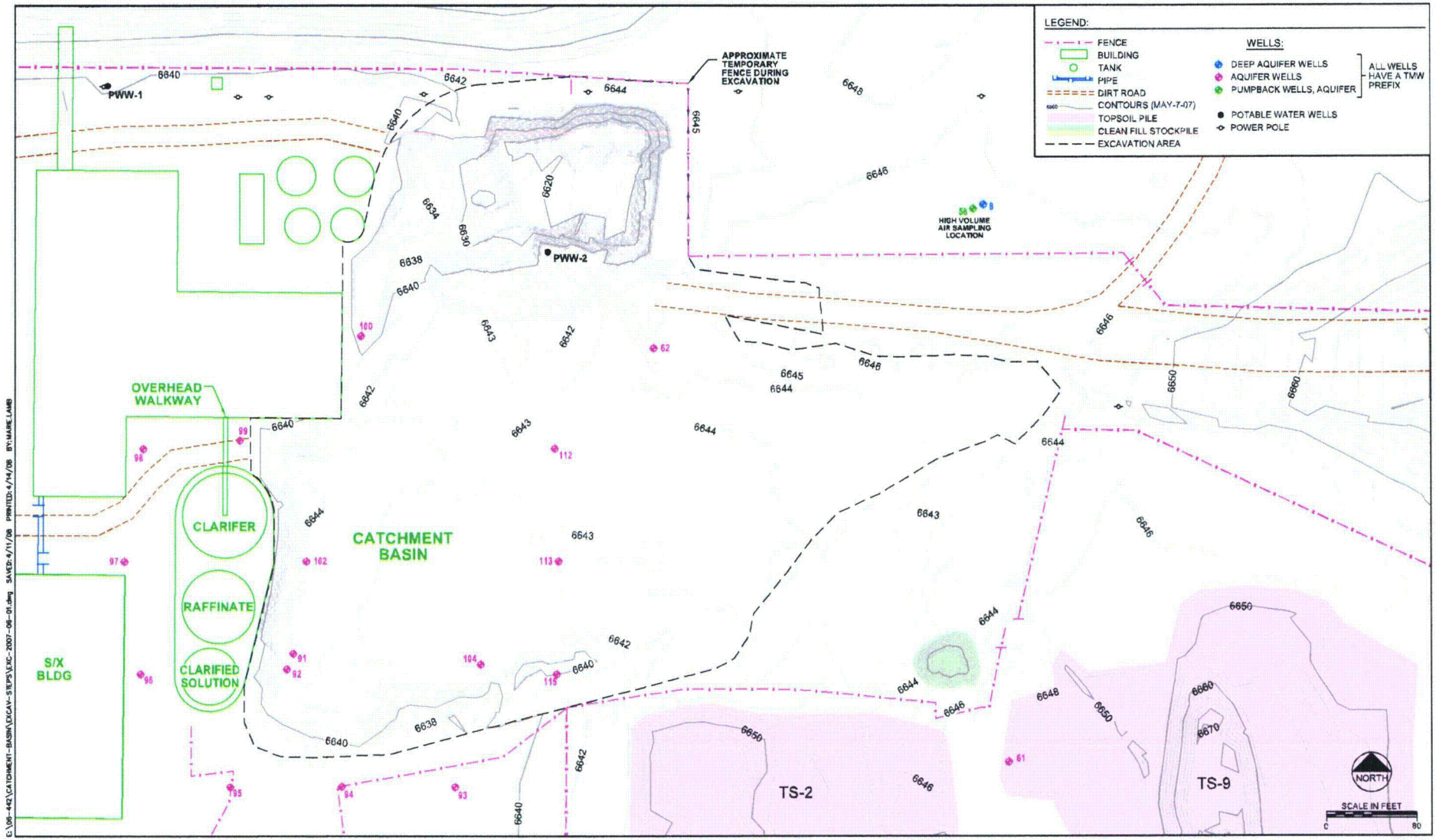
Project No. 180889

April 2008

HISTORICAL MAP
EXCAVATION PROGRESS
LAYOUT (MAY-7-2007)



Project No. 180889

April 2008

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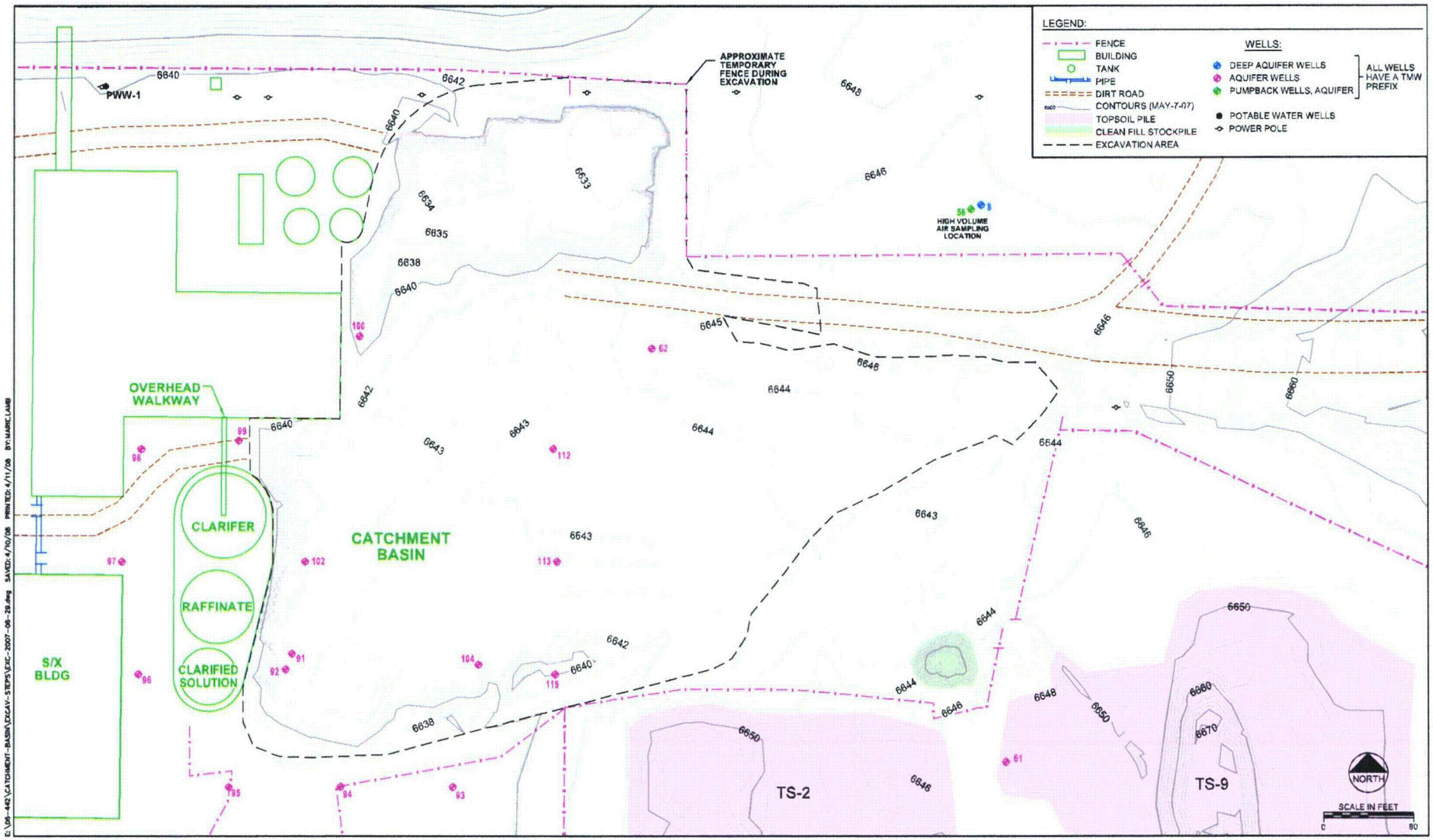

Project No. 180889

April 2008

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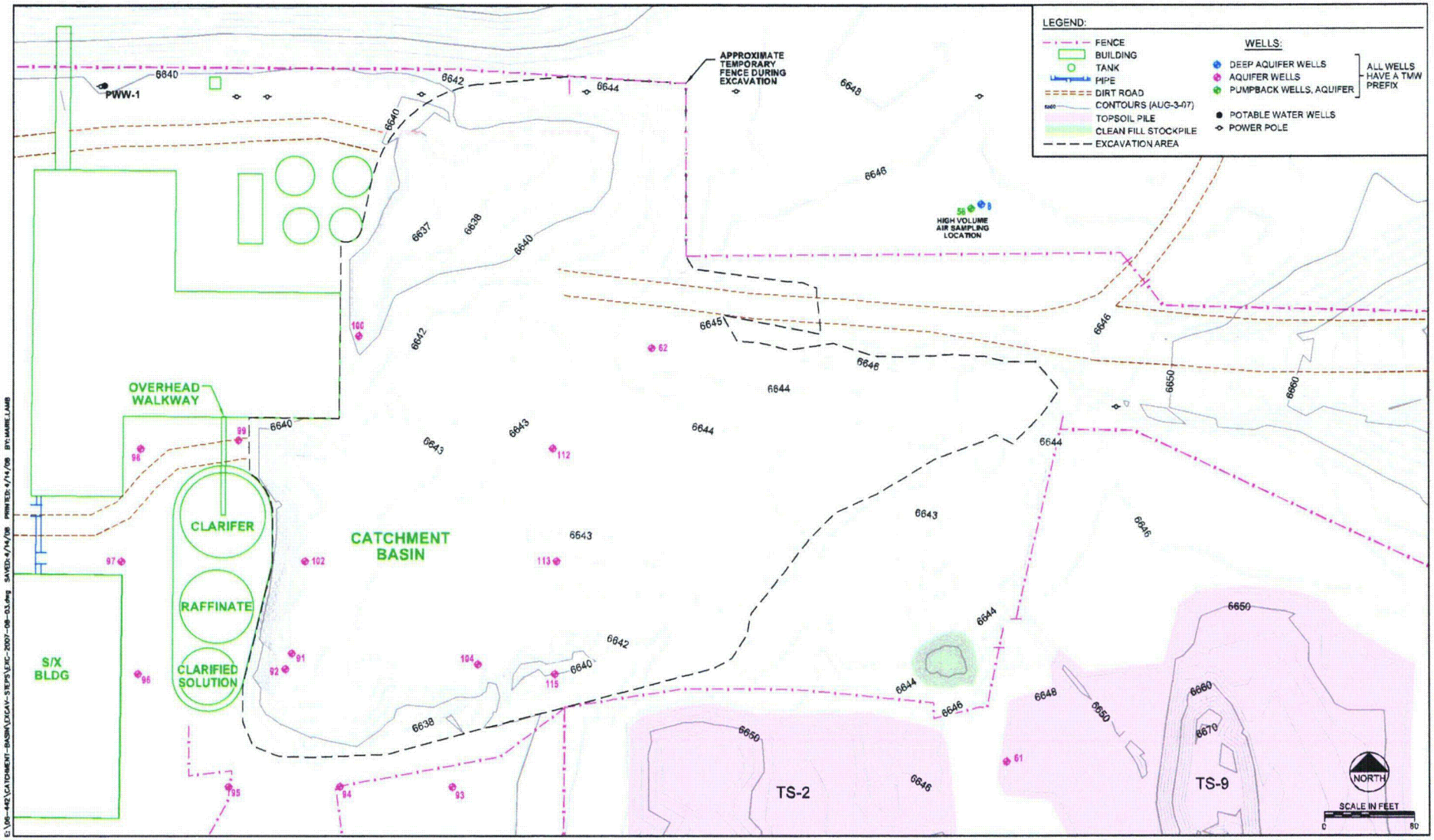

Project No. 180889

April 2008

HISTORICAL MAP
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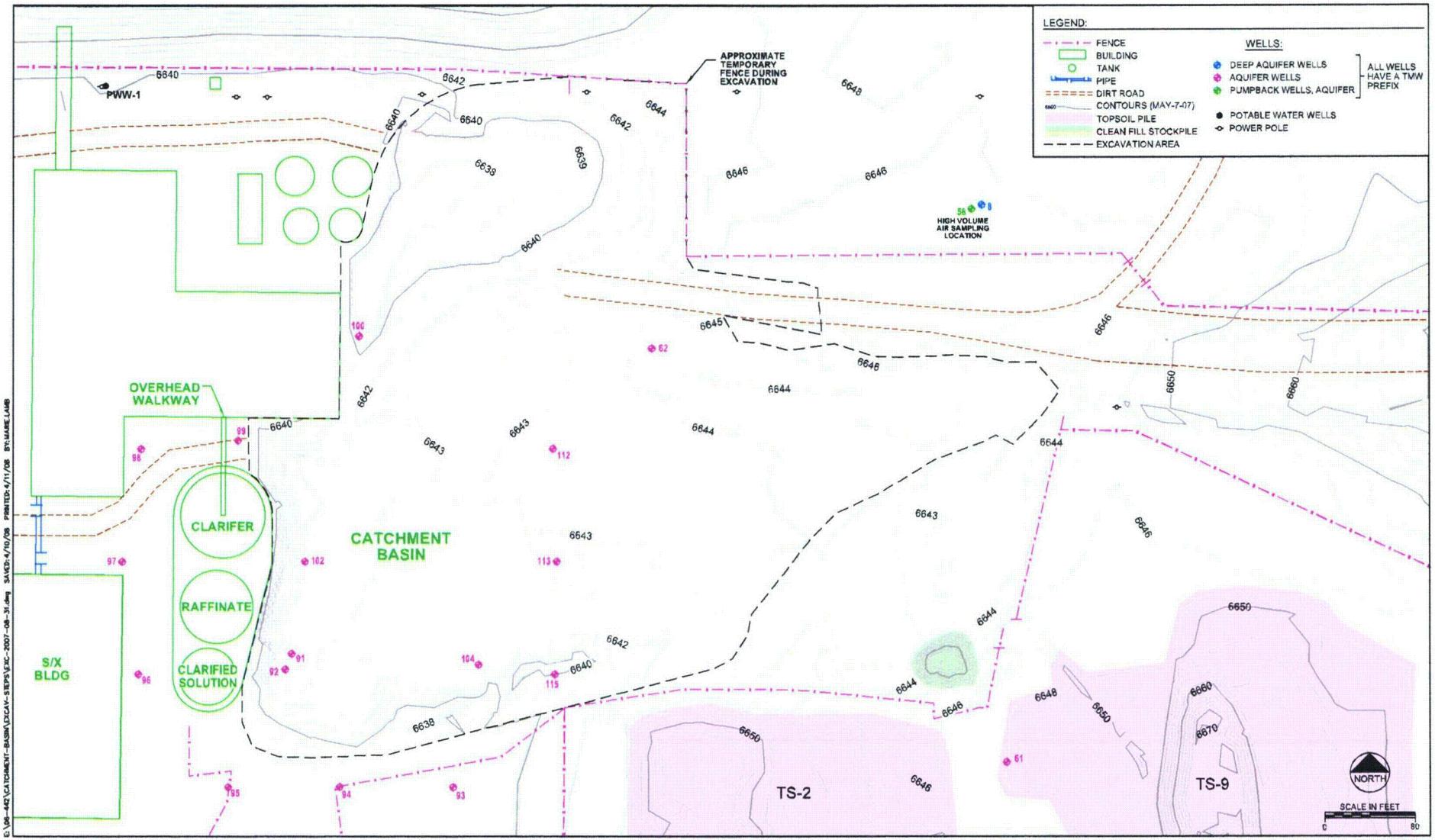
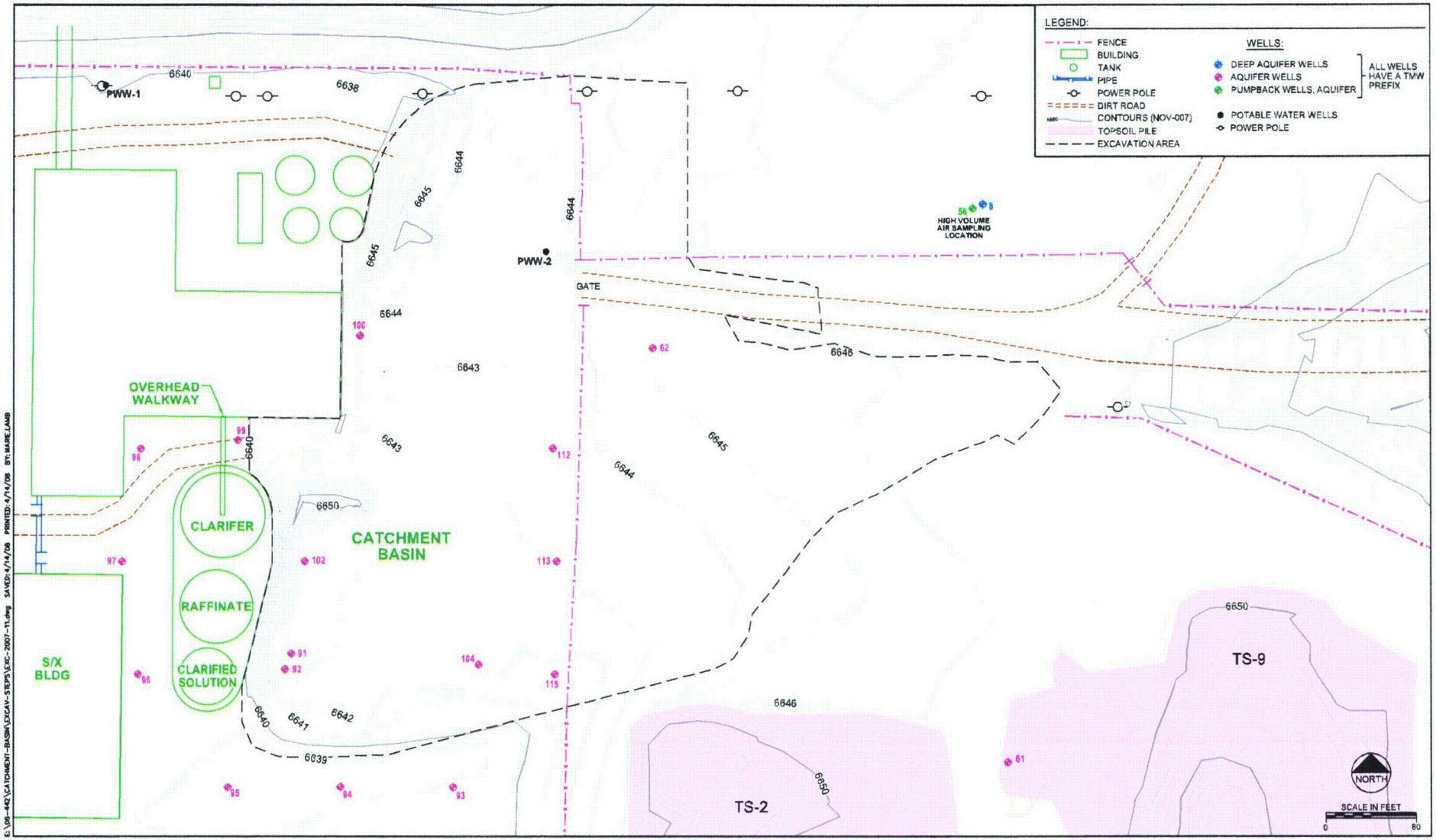
LAYOUT (AUGUST-3-2007)



Project No. 180889

April 2008

HISTORICAL MAP
EXCAVATION PROGRESS
LAYOUT (AUGUST-31-2007)



Project No. 180889

April 2008

HISTORICAL MAP
EXCAVATION PROGRESS
LAYOUT (NOVEMBER-2007)

Kennecott Uranium Company				
Sweetwater Uranium Project				
Topsoil Volumes				
Date	**Fill TS-9**	**Cut TS-2**	**Scraped from Ground**	
6-Jan-06	20,606	18,871	1,033	
31-Jan-06	17,413	15,079		
8-Sep-06	6081			From Ore Pad Area
7-May-07	647		647	From K minus 3 Area
	44,747	33,950	1,680	
OAP:10/12/2006				
topsoils_volumes_01.xls				

Kennecott Uranium Company			
Sweetwater Uranium Project			
Catchment Basin Excavation			
Contaminated Volumes			
Month	**Year**	**Volume**	
December	2005	-	-
January	2006	-	-
February	2006	2,555	2,555
March	2006	41,421	43,976
April	2006	27,201	71,177
May	2006	31,958	103,135
June	2006	38,913	142,048
July	2006	26,717	142,048
August	2006	27,376	196,141
September	2006	16,634	212,775
October	2006	6,490	219,265
April	2007	10,221	229,486
May	2007	3,782	233,268
		233,268	

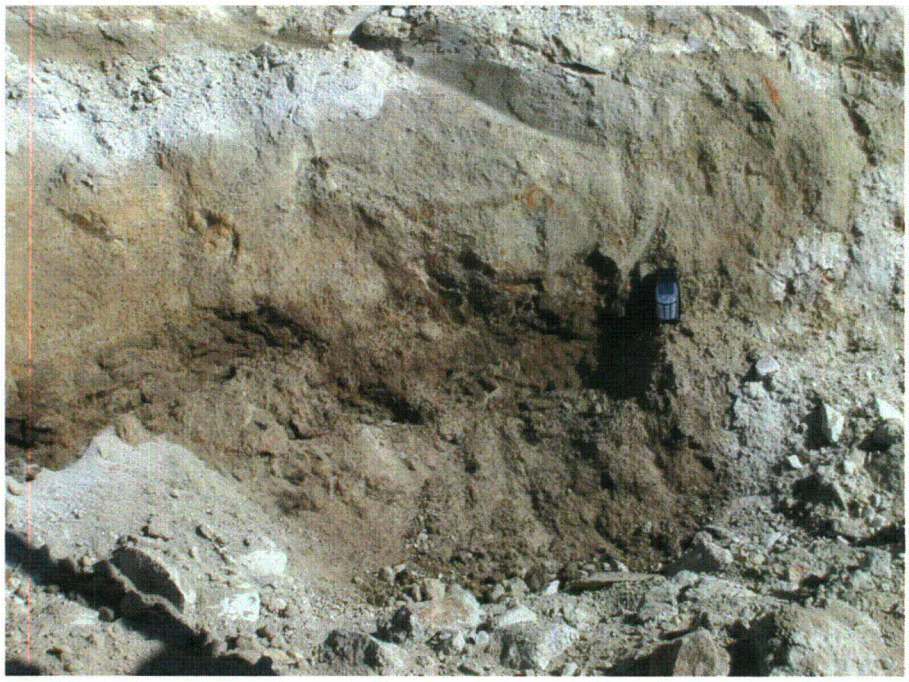
Excavation/Grid Release

The excavation attained its initial planned size of approximately 120,000 cubic yards as described and shown in the map in Appendix 2 of "Amendment Request to be Added as Appendix B to the Final Design Volume VI, Part 2 – Mill Decommissioning Addendum to the Existing Impoundment Reclamation Plan Referenced in License Condition 9.10", by July 17, 2006.

Excavation bottom and side sampling of known cleaned areas was performed beginning on Monday, July 17, 2006, when the original planned excavation was completed. It was known at this time that the excavation would have to be extended north along the east side of the Mill Building to remediate hydrocarbon contaminated soils in that area as demonstrated by the following samples:

Location	Sample Type	Northing	Easting	Elevation
HOT SPOT #1	Spot	148726.71	324047.21	6601.53
SE Corner Mill Bldg	45' EAST	148725.06	324047.06	6605.00
SE Corner Mill Bldg	50' EAST	148725.06	324052.06	6605.00
L 2	Hot spot in wall-10' east TMW-111	148798.69	324195.42	6610.00

Sample data for this seep is included in the sample spreadsheet included in Appendix 4 – Samples Removed by Excavation. This seep is shown below in an image taken on July 5, 2006 at 9:00 a.m. The dark staining is due to seeping kerosene and is reflected by sample. This seep and the material north of it were excavated later (between July 17 and October 4, 2006) and sampled following excavation. The main excavated area had, however, been completely cleaned and was ready for sampling.



Ten-meter by ten-meter grids were surveyed over the excavated area by Robert Jack Smith and Associates, a licensed professional surveyor, each grid being identified by the Letter/Number designation of its northwest corner. These grids are clearly shown on all of the sampling maps. These grids were later extended north to cover newly excavated areas east of the Mill Building. Sampling of the grids was accomplished as follows:

A composite sample consisting of nine (9) samples collected from 0 to 6 inches in depth in random locations in each grid was collected for each grid.

- The samples were collected either by:
  - Direct collection with a trowel and pan, with the individual samples mixed/composited in the pan.
  - Coring a sample with a battery operated hand drill with a hole saw attachment or
  - Collected from a six (6) inch deep hole excavated with a backhoe. This method was required in very hard ground.
- Stephen Cohen approved collection of samples to a depth of six (6) inches.
- The nine-sample composite samples were split.
- One portion of the sample was immediately placed in a steel sample can (counting can) and sealed. Electric tape was used to seal the can lid as directed by the laboratory (Energy Laboratories, Inc.).
- Another portion of the sample was placed in an eight (8) ounce clear glass jar with a plastic lid with a Teflon seal.
- The samples were placed in coolers, iced and shipped to the laboratory for analysis with completed Chain of Custody (COC) forms.
- An immediate count was taken upon arrival of each steel counting can to obtain a preliminary radium-226 activity. This was done to obtain a rapid preliminary result, knowing that such a result would not be definitive since the sample had not been dried, sealed in a can and allowed to sit to allow full ingrowth of radon-222 and its decay products. This was only done to get a rapid preliminary result.
- Once the preliminary result was obtained the can was opened, the contents weighed and dried and recanned and allowed to ingrow for final counting. This final count would provide a final Radium-226 result. This is why each sample has a final Radium-226 result and uncertainty and most also have a preliminary Radium-226 result.
- The split in the bottle was tested for:
  - Diesel Range Organics (DRO)
  - Oil Range Organics (ORO)
  - Total Extractable Hydrocarbons (TEH)
  - pH
  - Sulfate
  - Natural uranium
  - Thorium-230

A spot sample (six (6) inches deep) was collected at each grid corner and in the center of each grid. These samples were split as described above and tested for:

- Radium-226 (preliminary and final)
- The bottled split was held for further testing should it be required. Further testing was performed in cases where the grid composite was high.
- All accessible grid corners and centers in the excavation proper also have, at a minimum, associated final Radium-226 values. These are spot samples of the actual point on the grid.
- If these samples were elevated, or if the composites for the grid were elevated, the samples in the jars were analyzed for:
  - Diesel Range Organics (DRO)
  - Oil Range Organics (ORO)
  - Total Extractable Hydrocarbons (TEH)
  - pH
  - Sulfate
  - Natural uranium
  - Thorium-230

Thus there is spot sample data for a number of grid intersections (nodes) and centers, as well as grid composites.

Discussion of Grid Sampling Results

Sampling results are shown in two (2) forms in this report, which are as follows:

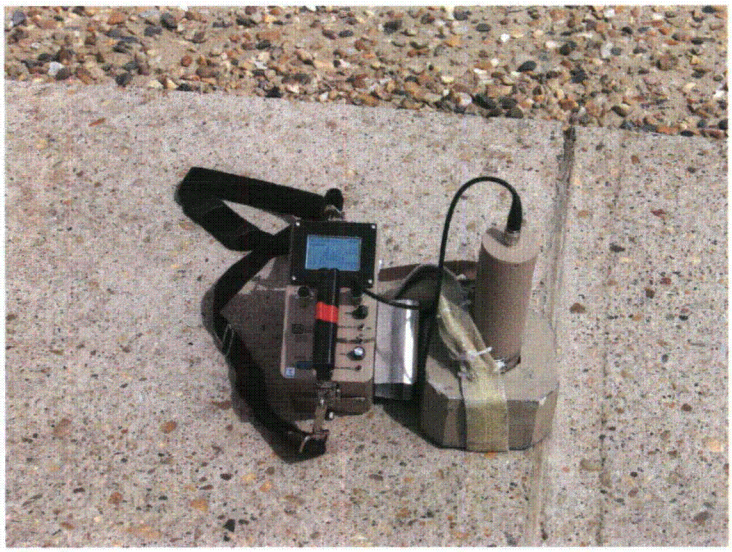
1. Sampling Result Maps

- The following maps containing the following sampling results are provided:
  - Total Extractable Hydrocarbons (milligrams per kilogram)
  - Diesel Range organics (milligrams per kilogram)

- Oil Range Hydrocarbons (milligrams per kilogram)
- Radium-226 Final Results
- Thorium Data (picoCuries per gram)
- Natural Uranium Data (picoCuries per gram)
- pH (Standard Units)
- Sulphate (milligrams per kilogram)

- All of these maps show the following items:
  - Final excavation contours
  - Buildings and tanks
  - Fences
  - Wells (monitor (TMW) and potable water (PWW))
  - Seep areas
  - Seepage collectors
  - Areas with liner placed on the highwall
  - Large/broad naturally occurring radioactive material areas (individual/isolated grids determined to contain naturally occurring radioactive material are discussed in the text but not colored)
  - Sampling grid
  - Composite sample results for a given parameter in bold **RED** with a RED symbol in the center of each grid for which composite data is provided
  - Spot sample results for points from which spot samples were collected with the spot sample results for a given parameter in BLUE with a small BLUE cross marking the sample location

- In addition, the following additional maps are provided:
  - Sample Point Locations and I.D.
    This map shows all of the collected samples. Composite sample locations are shown as RED circles and the sample names shown in bold **RED** letters. Spot/point sample locations are shown with BLUE crosses with the sample names in BLUE letters. These sample names correspond to the names in the **Location** column of the sample spreadsheet.
  - Gamma Reading Map
    This map shows gamma readings collected in the excavation. These readings represent data collected at discrete points and are exposure rates based on a one (1) minute count. The readings are color coded by collection date. Gamma readings were not used in any way to determine releasability of a given grid. Releasability was determined solely based on sample results; however, since the data was collected, it is being provided. The image below shows the Ludlum Model 2350-1 ratemeter, with attached Ludlum Model 44-10 gamma detector and the lead collimator used to collect gamma counts and exposure rates. A drawing of the collimator is included in Appendix 1.



- Radium-226 Final Results Contour Map
  This map is a contour map of all of the point/spot samples with an associated final Radium-226 value.
- Gamma Reading Contours (microR/hour)
  This map shows contours of the gamma exposure rates for the completed excavation bottom.

2. Sampling Result Spreadsheets

All sampling results are also provided in spreadsheet form as follows:

- Final Sample Results – Appendix 2
  This sheet has the final sample results for the grid composite samples and spot samples of the final excavation.

- Superseded Samples – Appendix 3
  This sheet has grid composite and spot sample results for grids and points from which additional material was removed. Following removal of the additional material these grids or points were resampled and the final results are included in the Final Results sheet.

- Samples Removed by Excavation – Appendix 4
  This sheet contains sample results of spot samples collected during the excavation process, usually of areas containing visible contamination that were later removed.

- Samples with No Locational Data – Appendix 5
  This sheet contains data for two (2) samples collected one (1) and ten (10) feet below surface in the I-minus-1 grid area. While the approximate location of these samples is known they never were surveyed. They are not included on any maps since the material they represented was removed by excavation of the I-minus-1 Grid.

- Ore Pad Radiometrics – Appendix 6
  This sheet contains data for the samples collected of the Ore Pad fill material.

- Natural Material K-minus-3 Grid – Appendix 7
  This sheet contains data for the samples collected of the naturally occurring radioactive material (NORM) along the south edge of the M-minus-2 Grid.

All of the above sheets provide the following data for sample locations:

- Location
- Sample Type – Spot or Composite
- Coordinates – Northing and Easting on the facility survey grid. Please note that the center coordinate for each grid was used for the grid's composite sample.
- Elevation – if taken
- Diesel Range Organics (DRO) – milligrams per kilogram
- Oil Range Hydrocarbons (ORH) – milligrams per kilogram
- Total Extractable Hydrocarbons (TEH) – milligrams per kilogram
- pH – standard units
- Sulphate – milligrams per kilogram
- Natural Uranium (mass concentration) – milligrams per kilogram
- Natural Uranium (activity concentration) – picoCuries per gram
- Uranium-238 Activity – picoCuries per gram
- Thorium-230 – picoCuries per gram
- Thorium-230 Uncertainty – picoCuries per gram
- Preliminary Radium-226
  - Result – picoCuries per gram
  - Uncertainty – picoCuries per gram
- Final Radium-226
  - Result – picoCuries per gram
  - Uncertainty – picoCuries per gram

- Equilibrium
  - Uranium 238/Thorium 230 Ratio
  - Thorium 230/Radium 226 Ratio
  - Uranium 238/Radium 226 Ratio
- Moisture – percent
- Gamma Reading – Exposure rate in microR/hr at points checked
- Gamma Reading – Counts per minute for a one-minute count at points so measured

Some of the values used in these sheets are calculated values. The following describes how these calculated values were derived.

- Natural Uranium – activity concentration
  This was calculated using an activity for natural uranium of 677 picoCuries per milligram as stated in 10CFR20 Appendix B, Tables 1, 2 and 3, Footnote 3.

- Uranium 238 activity
  This was calculated by multiplying the natural uranium mass concentration by 0.99283 (99.2830% U-238 in natural uranium – Handbook of Chemistry and Physics) and multiplying the result by an activity of 340 pCi/milligram for U-238 (49CFR173.435 – Table of A_1 and A_2 values for radionuclides). This value was used because it is an accepted, published, generally available value. Values such as 334 and 336 picoCuries per milligram are used by others.

- Equilibrium
  These are just simple ratios.

In addition the following other spreadsheets are provided:

- Gamma Reading – Appendix 8
  Contains gamma readings collected at a number of surveyed points on the excavation floor on July 31, 2006. These are shown in red on the **Gamma Reading Map**.

- 8483 Oct Gamma Readings – Appendix 9
  Contains gamma readings collected at a number of surveyed points on the excavation floor on October 4, 2006. These are shown in cyan on the **Gamma Reading Map**.

- Gamma Instrument – Appendix 10
  This sheet provides information on the gamma instruments used to perform the surveys. It also provides conversion information in counts per minute to microR/hour for the instruments developed by Energy Laboratories Inc. from calibrations using a Radium 226 needle.

Individual grids and release standards are discussed in the text that follows. The release values for each grid based upon the nine-point composite sample, as discussed in the pre-excavation submittals, are as follows:

- Total Extractable Hydrocarbons (TEH): 2300 milligrams per kilogram
- Radium-226: 16.4 picoCuries per gram (1.4 picoCuries per gram (background) plus 15 picoCuries per gram)
- Natural uranium: 35 picoCuries/gram
- Thorium-230: 15 picoCuries/gram above background (in subsurface soils)

Some grids did not strictly meet release criteria for either Radium-226, natural uranium or Thorium-230. While not directly pertinent for release, some spot samples did not meet the release limits for Radium-226, natural uranium or Thorium-230. These grids or spot samples belong to the following six (6) categories of grids or samples for which justification is provided later in the text:

- Grids or spot samples where when analytical uncertainty is considered, could be at or below the release limit:

This consideration applies to some grids and spot samples slightly above the release limit for Radium-226, and in the case of grid N4, this justification was considered acceptable by Commission staff in an email dated October 10, 2006, included in Appendix 13.

- Grids or spot samples in which the Uranium-238/Radium-226 ratio is at or near the average ratio for the pre-operational background sample set:

  This applies to some grids and spot samples in the excavation

- Grids or spot samples within the documented K minus 3 naturally occurring radioactive material (NORM) area:

  This applies to grids and spot samples in the reddish brown shaded area on the sampling maps. This area defined roughly by anomalous high background gamma radiation (Please see **Gamma Reading Map**) from which the sample described in Appendix 1 of Section I - Background, was collected.

- Grids or spot samples within the documented T5 naturally occurring radioactive material (NORM) area:

  This applies to grids and spot samples in the blue shaded T5 NORM area. This area is also defined roughly by anomalous high background gamma radiation (**Gamma Reading Map**) and by the fact that the elevation of this area is too high for the area to have been contaminated by seepage from the Catchment Basin. This justification was accepted by Commission staff for Grids S5 and S6 in an email dated October 10, 2006, included in Appendix 13.

- Grids or spot samples in the area east of Grid T5 with naturally occurring radioactive material (NORM):

  These grids and spot samples are in an area east of Grid T5 which is at a higher elevation than Grid T5. This area is also at an elevation that is too high to have been contaminated by seepage from the Catchment Basin.

- Grids in unexcavatable areas (beneath the Raffinate Slab, beneath the east wall of the Mill Building, beneath the water and/or sulphuric acid tanks, or approaching the facility power line), which are covered by a synthetic liner curtain:

  These grids and spot samples are in areas that could not be excavated since excavation would damage or destroy site infrastructure. These grids were covered with liner material to isolate them from the clean backfill. These areas will be remediated upon final facility decommissioning reclamation and closure.

These six categories of grids and spot samples are summarized in the following two (2) tables:

Kenecott Uranium Company

Sweetwater Uranium Project

Catchment Basin Excavation

Grid Release Matrix

This matrix lists grids whose composite samples did not meet release limits for either Radium-226, Natural Uranium and/or Thorium-230 and why they were not excavated further.

These grids are discussed in detail in the text that follows

Parameter	When Analytical Uncertainty is Considered Grid Could be at or Below Release Limit	Grid Uranium-238/Radium-226 Ratio is at or Near the Average Ratio for the Pre-operational Background Sample Set	Grid is Within the Documented Kminus3 Naturally Occurring Radioactive Material (NORM) Area	Grid is Within the Documented T5 Naturally Occurring Radioactive Material (NORM) Area	Grid is in Area East of Grid T5 with Naturally Occurring Radioactive Material (NORM)	Grid is Within an Unexcavatable Area (Beneath the Raffinate Tank Slab, Beneath the East Wall of the Mill Building, Beneath the Water and/or Sulphuric Acid Tanks or Approaching the Facility Power Line) and is Behind a Synthetic Liner Curtain	Release Limit
Total Extractable Hydrocarbons (TEH)	**None**	**None**	**None**	**None**	**None**	**None**	**2300 milligrams per kilogram**
Radium-226	**H0, I1, J2, J3, N4, P7**	**H0, I1, J2, J3, N4, P7**	**L1, M minus 1, M minus 2, M minus 4**	**T5**	**None**	**D5, G1, G0, G minus 1, F0, H minus 1, I minus 3**	**16.4 picoCuries per gram (Background of 1.4 picoCuries per gram plus 15.0 picoCuries per gram)**
Natural Uranium	**None**	**None**	**M minus 2**	**T5**	**X4**	**G minus 1, G0**	**35 picoCuries per gram**
Thorium-230	**None**	**None**	**L minus 1, M minus 1, M minus 2, M minus 4**	**T5**	**None**	**D5, G0, I minus 3**	**16.57 picoCuries per gram (Background of 1.57 picoCuries per gram plus 15.0 picoCuries per gram)**

OAP:04/23/2008

Grid_Release_Matrix.xls

Kenecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation
Point Sample Release Matrix

This matrix lists grids whose composite samples did not meet release limits for either Radium-226, Natural Uranium and/or Thorium-230 and why they were not excavated further.

These grids are discussed in detail in the text that follows

Parameter	When Analytical Uncertainty is Considered Grid Could be at or Below Release Limit	Grid Uranium-238/Radium-226 Ratio is at or Near the Average Ratio for the Pre-operational Background Sample Set	Grid is Within the Documented Kminus3 Naturally Occurring Radioactive Material (NORM) Area	Grid is Within the Documented T5 Naturally Occurring Radioactive Material (NORM) Area	Grid is in Area East of Grid T5 with Naturally Occurring Radioactive Material (NORM)	Grid is Within an Unexcavatable Area (Beneath the Raffinate Tank Slab, East Wall of the Mill Building, Beneath the Water and/or Sulphuric Acid Tanks or Approaching the Facility Power Line) and is Behind a Synthetic Liner Curtain	Release Limit
Total Extractable Hydrocarbons (TEH)		**None**	**None**	**None**	**None**	**Hot Spots #2, 3, 4, and 5, Hot Spot In Wall, Under Tails Line Pit Bottom and 45 feet N of SE Corner Mill Building**	**2300 milligrams per kilogram**
Radium-226		**J1, J4, M7, O6 and Q7**	**K minus 3, L minus 3, M minus 2, M minus 1, N minus 1, and N minus 3,**	**T5 and S6 center**	**W4 center and Y4**	**I minus 1, Under Tails Line Pit Bottom and 45 feet N of SE Corner Mill Building**	**16.4 picoCuries per gram (Background of 1.4 picoCuries per gram plus 15.0 picoCuries per gram)**
Natural Uranium				**S7, T5, and T6**		**Hot Spot #3, Under Tails Line Pit Bottom and 45 feet N of SE Corner Mill Building**	**35 picoCuries per gram**
Thorium-230				**T5, U5 and S6 Center**	**X4 Center and Y4 center**		**16.57 picoCuries per gram (Background of 1.57 picoCuries per gram plus 15.0 picoCuries per gram)**

The following discussion provides detailed explanations of the grid and point samples that did not strictly meet the release limits and why these sample results are still acceptable.

Diesel Range Organics (DRO)/Total Extractable Hydrocarbons (TEH):

Grid Composite Samples

- No grid composite sample exceeded 2,300 milligrams per kilogram Total Extractable Hydrocarbons. The entire excavation is releasable for hydrocarbons without further explanation.

Spot Samples

- A single spot sample in the released portion of the excavation approached the limit with a result of 2,150 milligrams per kilogram

M 2	Hot spot in wall-10' above pit floor	148795.00	324218.00	6610.00

- Four (4) spot samples in the organic seep between grid points E8 and E9 exceeded the limit:

HOT SPOT #2	Spot	148592.45	323950.13	6598.00
HOT SPOT #3	Spot	148595.45	323950.13	6598.00
HOT SPOT #4	Spot	148603.45	323950.13	6598.00
HOT SPOT #5	Spot	148616.45	323950.13	6598.00

  - These samples were sealed off from the backfill by the synthetic liner curtain installed to isolate areas of elevated by unremoveable contamination (due to the presence of the Raffinate Tank or Mill Building slabs)
  - An eighty (80) foot long seepage collector was installed by these samples behind the synthetic liner curtain
  - These materials will be removed at final site decommissioning when these slabs and the equipment on them are removed.
- Two (2) hot spot samples in two (2) organic seeps between grid points H3 and H4

Under Tails Line Pit Bottom	West wall	148783.13	324039.57	6599.43
45' N of SE Corner Mill Bldg	1' above bottom	148776.26	324038.52	6600.64

  - A seepage collector (Seepage Collector #1) was constructed by these seeps and they were placed behind synthetic liner material to separate them from the clean fill. The composite for this grid, G3, is non-detect. Every effort was made to remove contaminated soils from the seep areas prior to sampling. The material represented by these spot samples will be removed at final decommissioning.

All grid composites were below 2300 milligrams per kilogram Total Extractable Hydrocarbons (TEH). Any spot samples exceeding 2300 milligrams per kilogram TEH were in unexcavatable areas and covered by synthetic liner.

Radium-226:

Grid Composite Samples

Some grids had composite results that exceeded the 16.4 picoCurie/gram limit (1.4 picoCurie/gram background plus 15 picoCuries/gram) for soils 15 centimeters or more below ground surface.

The following pertains to these grids:

Unexcavatable Grids behind the High Wall Liner Curtain:

- Grid D5
  This grid had a Radium-226 activity of 18.5 picoCuries per gram. It is in the highwall beneath the Mill Building and, as such is unexcavatable. Material is isolated from the clean backfill by the synthetic liner curtain.

- Grid G1
  This grid had a Radium-226 activity of 18.8 picoCuries per gram. It is in the highwall beneath the Mill Building and, as such is unexcavatable. Material is isolated from the clean backfill by the synthetic liner curtain.

- Grid G0
  This grid had a Radium-226 activity of 22.5 picoCuries per gram. It is in the highwall beneath the Sulphuric Acid tanks and, as such, is unexcavatable. Material is isolated from the clean backfill by the synthetic liner curtain.

- Grid G minus 1
  This grid had a Radium-226 activity of 17.7 picoCuries per gram. It is in the highwall beneath the Sulphuric Acid tanks and, as such, is unexcavatable. Material is isolated from the clean backfill by the synthetic liner curtain.

- Grid F0
  This grid had a Radium-226 activity of 17.7 picoCuries per gram. It is in the highwall beneath the Mill Building and water and sulphuric acid tanks and, as such, is unexcavatable. Material is isolated from the clean backfill by the synthetic liner curtain.

- Grid H minus 1
  This grid had a Radium-226 activity of 26.5 picoCuries per gram. It is in the highwall beneath the water and sulphuric acid tanks and, as such, is unexcavatable. Material is largely isolated from the clean backfill by the synthetic liner curtain.

- Grid I minus 3
  This grid had a Radium-226 activity of 20.9 picoCuries per gram. It is in the highwall beneath the main power line feeding the facility and, as such, is unexcavatable. Material is isolated from the clean backfill by the synthetic liner curtain. Please see power pole symbols on **Catchment Basin Excavation Map**.

Grids with Radium-226 Uncertainties Placing Them At or Below the 16.4 PicoCuries/Gram Release Limit and with Isotopic Ratios Similar to Natural Materials:

Radium-226 sample results are expressed as a value with an associated uncertainty meaning that the true result/value for the sample could fall within the range of the reported value plus or minus the uncertainty. The 16.4 picoCuries/gram release limit for soils below 15 centimeters (six inches) below surface falls within the range of uncertainty of the composite sample results of the below listed grids.

In addition, Regulatory Guide 1620 – *Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites under Title II of the Uranium Mill Tailings Radiation Control Act of 1978,* states:

"If the plan indicates that in-situ ore is in the clean up area, it should be characterized by Ra-226/U-238 ratios, visual criteria and/or other means."

These grids contain naturally occurring radioactive material as indicated by their U-238/Ra-226 ratios, which are similar to the average ratio for the currently accepted site background samples.

- Grid H0
  This grid had a Radium-226 activity of 16.90 picoCuries per gram with an uncertainty of +/-1.4 picoCuries per gram.
  - This means that the sample activity could be as low as 15.5 picoCuries per gram, which is below the release limit.
  - In addition, the sample had a Uranium-238/Radium-226 activity ratio of 0.64.
  - This ratio approximates the Uranium-238/Radium-226 activity ratio of natural/pre-operational background material of 0.57 indicating that it is in fact naturally occurring.

- This grid composite was also non-detect for Total Extractable Hydrocarbons (TEH), had a low sulphate (123 milligrams per kilogram) concentration and a high (8.87) pH, indicative of uncontaminated soils.

- Grid I1

  This grid had a Radium-226 activity of 17.00 picoCuries per gram with an uncertainty of +/-1.4 picoCuries per gram.
  - This means that the sample activity could be as low as 15.6 picoCuries per gram, which is below the release limit.
  - In addition, the sample had a Uranium-238/Radium-226 activity ratio of 0.53.
  - This ratio approximates the Uranium-238/Radium-226 activity ratio of natural/pre-operational background material of 0.57 indicating that it is in fact naturally occurring.
  - This grid composite was also non-detect for Total Extractable Hydrocarbons (TEH), had a low (179 milligrams per kilogram) sulphate content and a high (8.69) pH.

- Grid J2

  This grid had a Radium-226 activity of 17.00 picoCuries per gram with an uncertainty of +/-1.5 picoCuries per gram.
  - This means that the sample activity could be as low as 15.5 picoCuries per gram, which is below the release limit.
  - In addition, the sample had a Uranium-238/Radium-226 activity ratio of 0.57.
  - This ratio equals the Uranium-238/Radium-226 activity ratio of natural/pre-operational background material of 0.57 indicating that it is in fact naturally occurring.
  - This grid composite was also non-detect for Total Extractable Hydrocarbons (TEH), had a low (127 milligrams per kilogram) sulphate content and a high (9.09) pH.

- Grid J3

  This grid had a Radium-226 activity of 16.90 picoCuries per gram with an uncertainty of +/-1.4 picoCuries per gram.
  - This means that the sample activity could be as low as 15.5 picoCuries per gram, which is below the release limit.
  - In addition, the sample had a Uranium-238/Radium-226 activity ratio of 0.45.
  - This ratio approximates the Uranium-238/Radium-226 activity ratio of natural/pre-operational background material of 0.57 indicating that it is in fact naturally occurring.

- Grid N4

  This grid had a Radium-226 activity of 16.8 picoCuries per gram with an uncertainty of +/-1.2 picoCuries/gram.
  - This means that the sample activity could be as low as 15.6 picoCuries per gram, which is below the release limit.
  - In addition this sample had a Uranium-238/Radium-226 activity ratio of 0.56.
  - This ratio is close to the Uranium-238/Radium-226 activity ratio of natural/pre-operational background material of 0.57, indicating that it is in fact naturally occurring.
  - This grid was deemed acceptable in an email from Stephen Cohen dated October 10, 2006 included in Appendix 13.

- Grid P7

  This grid had a Radium-226 activity of 16.7 picoCuries per gram with an uncertainty of +/-1.4 picoCuries/gram.
  - This means that the sample activity could be as low as 15.3 picoCuries per gram, which is below the release limit.
  - In addition this sample had a Uranium-238/Radium-226 activity ratio of 0.34.
  - This ratio is close to the Uranium-238/Radium-226 activity ratio of natural/pre-operational background material of 0.57, indicating that it is in fact naturally occurring.
  - Grid N4 was deemed acceptable for release and its Radium-226 concentration was similar.

Grids in Defined Areas of Naturally Occurring Radioactive Material

Two (2) large areas of clearly naturally occurring radioactive material (NORM) were discovered in the excavation.

The first area was the K minus 3 area that is defined by the reddish-brown shaded area on the maps. This area was excavated following discovery of elevated Radium-226 concentrations in the K minus 3 grid. This grid was in the excavation wall and could only be safely sampled when backfilling had reached the bottom (southern) edge of the grid. When the initial elevated Radium-226 concentration was discovered it was excavated and a scintillometer was used to further guide excavation into elevated activity material to the east. In the course of this excavation naturally occurring radioactive material containing substantial concentrations of radium-226, natural uranium and thorium-230 were discovered. These materials were sampled and the analytical results are discussed in Section I - Background. Radionuclides in grids in this defined area are clearly naturally occurring. Grids that exceed the 16.4 picoCurie/gram Radium-226 limit in this area include: L1, M minus 1, M minus 2 and M minus 4. These grids are discussed below. This area and the analytical results of samples collected from it were discussed with Stephen Cohen in a telephone conversation on May 23, 2007 and an email dated June 24, 2007, included in Appendix 14.

The second area of naturally occurring radioactive material is the T5 Naturally Occurring Radioactive Material (NORM) Area shaded in blue on the maps. The radionuclides in this area must be naturally occurring since the grid elevation is 6626 above mean sea level, which is the same elevation as the Catchment Basin bottom. It is highly unlikely that contamination from the Catchment Basin could travel laterally 420 feet without dropping in elevation. In addition, higher levels of radium-226 activity should be present between the T5 Grid and the Catchment Basin if the Catchment Basin was the contamination source. This is not the case. Adjoining grids S5 and S6 were discussed in email correspondence with Stephen Cohen dated October 10, 2006, included in Appendix 13. The justification that the Radium-226 in these grids was naturally occurring was deemed acceptable. This same justification applies to the T5 Grid, discussed below, as well.

- Grid L1
  This grid had a Radium-226 activity of 34.50 picoCuries per gram. The following pertains:
  - This grid lies in the K minus 3 Naturally Occurring Radioactive Material Area that contains material that is natural as discussed in the report entitled *Petrographic Evaluation of Sample #C07051289-001A from P.O. # 1845.*
  - This material is clearly naturally occurring.

- Grid M minus 1
  This grid had a Radium-226 activity of 35.40 picoCuries per gram. The following pertains:
  - This grid lies in the K minus 3 Naturally Occurring Radioactive Material Area that contains material that is natural as discussed in the report entitled *Petrographic Evaluation of Sample #C07051289-001A from P.O. # 1845.*
  - This material is clearly naturally occurring.

- Grid M minus 2
  This grid had a Radium-226 activity of 60.20 picoCuries per gram. The following pertains:
  - This grid lies in the K minus 3 Naturally Occurring Radioactive Material Area that contains material that is natural as discussed in the report entitled *Petrographic Evaluation of Sample #C07051289-001A from P.O. # 1845.*
  - This material is clearly naturally occurring.

- Grid M minus 4
  This grid had a Radium-226 activity of 18.10 picoCuries per gram. The following pertains:
  - This grid lies in the K minus 3 Naturally Occurring Radioactive Material Area that contains material that is natural as discussed in the report entitled *Petrographic Evaluation of Sample #C07051289-001A from P.O. # 1845.*
  - This material is clearly naturally occurring.

- Grid T5
  This grid had a Radium-226 activity of 36.60 picoCuries per gram. The Radium-226 in this grid is deemed naturally occurring for the following reasons:

- The sample had a Uranium-238/Radium-226 activity ratio of 0.52.
- This ratio approximates the Uranium-238/Radium-226 activity ratio of natural/pre-operational background material of 0.57 indicating that it is naturally occurring.
- The elevation of Grid T5 is 6626 feet above mean sea level.
- The pre-excavation elevation of the ground around the Catchment Basin was 6638 feet above mean sea level.
- The elevation of the bottom of the Catchment Basin was 6626 feet above mean sea level.
- It is highly unlikely that contamination would be present 420 feet from the center of the Catchment Basin at the same elevation as its bottom.
- The grid had peculiar banding present in it ranging from white to rust colored, which probably indicates naturally occurring solution activity.
- This grid composite was also non-detect for Total Extractable Hydrocarbons (TEH) and a low (143 milligrams per kilogram) sulphate content.
- This discussion was presented to Stephen Cohen in an email on October 10, 2006 relative to Grids S5 and S6 and was deemed acceptable.

- Grid O4

  This grid was inadvertently composite sampled twice.
  - The first composite sample collected on September 12, 2006 had a Radium-226 activity of 10.6 picoCuries per gram while the second collected on January 5, 2007 had a Radium-226 activity of 17.4 with an uncertainty of +/-1.6.
  - This means that the sample activity of the second sample could be as low as 15.8 picoCuries per gram, which is below the release limit.
  - The average of the composite samples is 14.0 picoCuries per gram, which is below the release limit.
  - This result is in a gray shaded line in the spreadsheet in Appendix 2.

Spot Samples

The following discussion pertains to the following samples that exceeded the 16.4 picoCuries per gram Radium-226 limit. These samples belong to the following three groups:

Spot Samples Associated with Seeps or with Areas that are Unexcavatable that were Covered with Liner

- Samples I minus 1, 45' N of SE Corner Mill Building and Under Tails Liner – Pit Bottom had Radium-226 results of 22.0, 37.9 and 38.1 picoCuries per gram. These are in unexcavatable areas that were covered with liner material.

Spot Samples Associated with the K minus 3 or T5 Naturally Occurring Radioactive Material (NORM) Areas

- Samples K minus 3, L minus 3, M minus 2, M minus 1, N minus 1, N minus 3, T5, S6 Center, W4 Center and Y4, with results of 26.2, 30.6, 41.5, 40.5, 28.8, 17.6, 70.1, 242.0, 20.3 and 31.9 picoCuries per gram are associated with naturally occurring radioactive material (NORM).
- Spot samples K minus 3, L minus 3, M minus 2, M minus 1, N minus 1 and N minus 3 are associated with material described in the document in Appendix 1 of Section I - Background.
- Spot samples T5, S6 Center, W4 Center and Y4 are deemed to have naturally occurring Radium-226 for the following reasons:
  - The elevation of T5 is 6626 feet above mean sea level, S6 Center is 6624 feet above mean sea level, W4 Center is 6636 feet above mean sea level and Y4 is 6640 feet above mean sea level.
  - The pre-excavation elevation of the ground around the Catchment Basin was 6638 feet above mean sea level.
  - The elevation of the bottom of the Catchment Basin was 6626 feet above mean sea level.
  - It is highly unlikely that contamination would be present 420 feet from the center of the Catchment Basin at the same elevation as its bottom.
  - This area had peculiar banding present in it ranging from white to rust colored, which probably indicates naturally occurring solution activity.
  - This grid composite was also non-detect for Total Extractable Hydrocarbons and had a low (143 milligram per kilogram) sulphate content.
  - This discussion was presented to Stephen Cohen in an email on October 10, 2006 relative to Grids S5 and S6 and was deemed acceptable for release.

Spot Samples Associated with Other Naturally Occurring Radioactive Material (NORM)

- Samples J1, J4, M7, O6 and Q7 had Radium-226 results of 16.9, 17.4, 16.5, 18.5 and 21.2 picoCuries per gram respectively. They also had Uranium-238/Radium-226 ratios of 0.53, 0.70, 0.48, 0.41 and 0.52 which are in the range of 0.57, the ratio for pre-operational background samples collected in the area.

Natural Uranium:

The release standard for natural uranium was 35 picoCuries per gram.

Grid Composite Samples

The following grids had composite samples that exceeded that limit for the following reasons:

Grids in or near Naturally Occurring Radioactive Material (NORM) Area:

Two (2) areas that contained NORM, the K minus 3 (shaded in blue) and the T5 (shaded in blue) areas, are identified on the map. The following grids are in these areas:

- Grid M minus 2:
  - This grid had a composite natural uranium activity of 47.39 picoCuries/gram.
  - The two (2) high background samples were collected along the south edge of this grid in a highwall. The document in Appendix 1 of Section I - Background, describing these samples clearly proves that the uranium in this grid is naturally occurring.

- Grid T5:
  - This grid had a composite natural uranium activity of 38.12 picoCuries/gram.
  - It is deemed naturally occurring for the following reasons:
    - The sample had a Uranium-238/Radium-226 activity ratio of 0.52.
    - This ratio approximates the Uranium-238/Radium-226 activity ratio of natural/pre-operational background material of 0.57 indicating that it is naturally occurring.
    - The elevation of Grid T5 is 6626 feet above mean sea level.
    - The pre-excavation elevation of the ground around the Catchment Basin was 6638 feet above mean sea level.
    - The elevation of the bottom of the Catchment Basin was 6626 feet above mean sea level.
    - It is highly unlikely that contamination would be present 420 feet from the center of the Catchment Basin at the same elevation as its bottom.
    - The grid had peculiar banding present in it ranging from white to rust colored, which probably indicates naturally occurring solution activity.
    - This grid composite was also non-detect for Total Extractable Hydrocarbons (TEH) and a low (143 milligrams per kilogram) sulphate content.
    - Grid T5 adjoins grids S5 and S6. The Radium-226 in these grids was deemed naturally occurring in email correspondence with Stephen Cohen dated October 10, 2006. The justification accepted for those grids applies to Grid T5 as well.

- Grid X4:
  - This grid had a composite natural uranium activity of 41.91 picoCuries per gram.
  - The uranium in this grid was deemed naturally occurring for the following reasons:
    - The elevation of Grid X4 is 6638 feet above mean sea level, which is the elevation of the top of the Catchment Basin.
    - It could not have been contaminated by fluids from the Catchment Basin.

Unexcavated Grids behind the Highwall Liner Curtain:

The following grids had natural uranium activities in excess of 35 picoCuries per gram and were unexcavatable because excavating them would have impacted site structures. These grids were covered with synthetic liner material to isolate them from the clean backfill. These grids are as follows:

- Grid G minus 1
  - This grid had a natural uranium activity of 45.63 picoCuries per gram. It is in the highwall beneath the sulphuric acid tanks and is isolated from the clean backfill by the synthetic liner curtain.

- Grid G0
  - This grid had a natural uranium activity of 88.69 picoCuries per gram. It is in the highwall beneath the sulphuric acid tanks and is isolated from the clean backfill by the synthetic liner curtain.

In the submittals relating to the contamination there was discussion concerning three (3) samples in Borehole CB-21 that had natural uranium concentrations ranging from 44.00 to 59.50 picoCuries per gram. A commitment was made to excavate a cut in the excavation highwall to capture this material. This was done and the cut can be seen in Grids G12 and H12. Grids G12 and H12 had natural uranium activities of 6.61 and 23.02 picoCuries per gram, respectively, which are below the limit. A series of spot samples were collected in the area as shown on the map. One spot sample exceeded the 35 picoCuries per gram limit at 39.33 pCi/g, but grid composite samples are used to determine release as per a telephone conversation with Stephen Cohen on December 13, 2006 at 8:00 a.m. A follow-up email on this issue is included in Appendix 11.

Spot Samples
Some spot samples exceeded the 35 picoCuries per gram natural uranium limit. These samples exceeded the limit for the following reasons:

Spot Samples in or Near Naturally Occurring Radioactive Material (NORM) Areas:
- T5 Naturally Occurring Radioactive Material (NORM) Area:
  - Spot samples S7, T5 and T6 had natural uranium activities of 81.24, 37.91 and 28.10 picoCuries per gram. This area has been determined to contain NORM for reasons provided in discussions of the Grid T5.

Spot Samples Related to Seeps in Unexcavatable Areas that Were Covered with Synthetic Liner
- Spot samples Hot Spot #3, 45 feet N of SE Corner Mill Building and Under Tails Line Pit Bottom, had natural uranium activities of 42.2, 42.72 and 37.51 picoCuries per gram, respectively:
  - These samples were collected from organic seeps in unexcavatable areas (Hot Spot #3 – Beneath the Raffinate Tank Slab and 45 feet N of SE Corner Mill Building and Under Tails Line Pit Bottom – Beneath the east wall of the Mill Building). Seepage Collectors #2 and #1 were constructed by these sample locations and the exposed walls covered with synthetic liner material prior to backfilling.

Thorium-230

The release limit for Thorium-230 is 15 picoCuries per gram above background. Current approved background for the site is 1.57 picoCuries per gram, creating a limit of 16.57 picoCuries per gram.

Grid Composite Samples
The following grids had composite samples that exceeded the limit for the following reasons:

Grids in Naturally Occurring Radioactive Material (NORM) Areas
Two areas that contained NORM, the reddish brown shaded K minus 3 Naturally Occurring Radioactive Material (NORM) Area and the blue shaded T5 Naturally Occurring Radioactive Material areas are shown on the map. The following grids are in these areas:

- Grid M minus 1
  - This grid had a composite thorium-230 activity of 28.0 picoCuries/gram.
  - The two high background samples were collected along the north edge of this grid in a highwall. The document in Appendix 1 of Section I Background, describing these samples clearly proves that the thorium in this grid is naturally occurring.

- Grid M minus 2
  - This grid had a composite thorium-230 activity of 40.0 picoCuries/gram.
  - The two high background samples were collected along the north edge of this grid in a highwall. The document in Appendix 1 of Section I Background, describing these samples clearly proves that the thorium in this grid is naturally occurring.

- Grid L minus 1
  - This grid had a composite thorium-230 activity of 31.0 picoCuries/gram.

- The two high background samples were collected to the northeast of this grid in a highwall. The document in Section I, Appendix 1 describing these samples clearly proves that the thorium in this grid is naturally occurring.

- Grid M minus 4
  - This grid had a composite thorium-230 activity of 18.0 picoCuries/gram.
  - This grid is in the vicinity of where the high background samples were collected along the south edge of Grid M minus 2. The document in Section I, Appendix 1 describing these samples clearly proves that the thorium in this grid is naturally occurring.

- Grid T5
  - This grid had a composite thorium-230 activity of 33.0 picoCuries/gram.
  - It is deemed naturally occurring for the following reasons:
  - The elevation of Grid T5 is 6626 feet above mean sea level.
  - The pre-excavation elevation of the ground around the Catchment Basin was 6638 feet above mean sea level.
  - The elevation of the bottom of the Catchment Basin was 6626 feet above mean sea level.
  - It is highly unlikely that contamination would be present 420 feet from the center of the Catchment Basin at the same elevation as its bottom.
  - The grid had peculiar banding present in it ranging from white to rust colored, which probably indicates naturally occurring solution activity.
  - This grid composite was also non-detect for Total Extractable Hydrocarbons (TEH) and a low (143 milligrams per kilogram) sulphate content.
  - Grid T5 adjoins grids S5 and S6. The Radium-226 in these grids was deemed naturally occurring in email correspondence with Stephen Cohen dated October 10, 2006. The justification accepted for those grids applies to Grid T5 as well.

Unexcavated Grids behind the Highwall Liner Curtain

Three (3) grid composite samples were collected from grids behind the highwall liner curtain. These grids could not be excavated since further excavation would damage infrastructure. These grids are as follows:

- Grid D5:
  This grid had a Thorium-230 activity of 20.0 picoCuries per gram. It is in the highwall directly beneath the south wall of the Mill Building and is isolated from the clean backfill by the synthetic liner curtain.

- Grid G0:
  This grid had a Thorium-230 activity of 30.0 picoCuries per gram. It is in the highwall beneath the sulphuric acid tanks and is isolated from the clean backfill by the synthetic liner curtain.

- Grid I minus 3:
  This grid had a Thorium-230 activity of 24.0 picoCuries per gram. It was in the highwall directly beneath the main power line feeding the facility and is isolated from the clean backfill by the synthetic liner curtain. (Please see power pole symbols on **Catchment Basin Excavation Map**.

Spot Samples

Spot Samples in or Near Naturally Occurring Radioactive Material (NORM) Areas

- T5 Naturally Occurring Radioactive Material Area:
  Spot samples T5, U5, S6 Center, X4 Center and Y4 Center had Thorium-230 activities of 67.0, 20.0, 264, 20.0 and 33.0 picoCuries per gram respectively. These results are deemed naturally occurring for the following reasons:
  - Locations T5, U5 and S6 Center are at elevations of 6624 to 6628 feet above mean sea level. The bottom of the Catchment Basin was at 6626 feet above mean sea level and approximately 420 feet away from where these samples were collected. It is improbable that fluids leaking from the bottom of the Catchment Basin contaminated this area.
  - Location X4 Center and Y4 Center are at elevations of 6638 to 6642 feet above mean sea level. The Catchment Basin bottom was at 6626 feet above mean sea level and the Catchment Basin top was at

6636 feet above mean sea level. Clearly the elevated Thorium-230 activities in these samples could not be contamination from the Catchment Basin.

Conclusions/General Discussion Regarding Excavation Release Based on Grid Composite Sampling

Kennecott Uranium Company has excavated the contaminated soils related to the Catchment Basin. Any remaining material containing radium-226, natural uranium or thorium-230 present in either grid composite or spot samples that is above the listed release limits is either:

- Material that could not be excavated without destroying existing infrastructure, such as contaminated material beneath the slab containing the clarifier, raffinate and clarified solution tanks (Raffinate Slab), beneath the south and east walls of the Mill Building, beneath the sulphuric acid and water tanks and beneath the corridor of the facility's main power line. These areas of contaminated soils were covered with liner material to isolate them from the clean fill. The locations of these samples are well documented and these areas will be remediated at facility closure and decommissioning.

- Material that is naturally occurring, such as:
  - Material in the K minus 3 NORM area which is clearly naturally occurring based on the samples collected along the south edge of Grid M minus 2 and discussed in the report in Appendix 1 of Section I Background:
    - This area is defined by reddish brown shading on the maps and is defined by radium-226 and gamma exposure contours on the Radium-226 Final Results Contour and the Gamma Reading Contour Maps.
  - Material in the T5 Naturally Occurring Radioactive Material area and in and around Grid X4:
    - This material is not contaminated by fluids from the Catchment Basin since this area is at least 420 feet east of the basin and at or above the elevation of its bottom. It is improbably that fluids from the Catchment Basin could have impacted this area.
  - Material in Discrete Grids that is Naturally Occurring:
    - Some discrete grids such as H0, I1, J2, J3, N4 and P7 exceeded the 16.4 picoCurie per gram limit, but had Uranium-238/Radium-226 isotope ratios in the range of the background radios based on pre-operational sampling. Regulatory Guide 1620 – *Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites Under Title II and the Uranium Mill Tailings Radiation Control Act of 1978* stated:

      "If the plan indicates that in-situ ore is in the clean-up area, it should be characterized by Ra-226/U-238 ratios, visual criteria and/or other means."
    - The grid composite samples of grids H0, I1, J2, J3, N4 and P7 clearly are samples of natural material based on isotope ratios.

- Material that when Analytical Uncertainty is Considered Falls at or Below Release Limits:
  - Discrete grids such as H0, I1, JH2, J3, N4 and P7 could, when analytical uncertainty for Radium-226 is considered, be beneath the 16.4 pCi/g release limit. Grid N4 was discussed in this light in an email from Stephen Cohen dated October 10, 2006, included in Appendix 13, in which he stated, "N4 is close enough to 16.4 pCi/g that it is acceptable."

In addition, the excavation had extended up to the Raffinate Slab, southern and eastern walls of the Mill Building, the bases of the sulphuric acid and water tanks and to the path of the electric line feeding the facility. In the beginning of October 2006 separation cracking between the footing and the slab of the Mill Building along the eastern wall of the building was worsening due to removal of materials against the footing. The excavation and the fact that it continued to remain open presented a clear threat to site infrastructure.

These issues were discussed with Stephen Cohen in a series of telephone calls described as follows:

Date: November 3, 2006

- The subject of an excavation map sent on November 1, 2006 was discussed in light of some grids with elevated Radium-226 composite sample results. The problem with the cracking between the footing and slab along the east wall of the Mill Building was discussed. Stephen Cohen stated "*...cannot allow possible small amounts of residual contamination to hinder backfilling.*" He requested that images of the cracking be sent to him to document the situation. This email was sent and is included in Appendix 12.

This appendix also includes an email on the grids discussed. The cracking is discussed in a separate section of this report.

Date: December 13, 2006, 8:00 a.m.

- The subject of the I minus 3 grid was discussed as well as its proximity to the main facility power line. Stephen Cohen stated that it could be left given the physical risks of excavating it.
- The subject of the single spot sample elevated in uranium (CB-21Z) was discussed. Stephen Cohen stated that as long as the grid's (H12) composite sample was below the limit it was acceptable.
- An email following up on this discussion was sent to Stephen Cohen on Thursday, December 21, 2006 and is included in Appendix 11.

A series of emails discussing sampling results and other topics is included in Appendix 13. This appendix includes emails dated October 6, 2006, October 10, 2006 (four (4) messages) and October 31, 2006. The gist of these messages is as follows:

- The results for grids I minus 2, S5 and S6 are acceptable provided a case can be made that the radionuclides are naturally occurring. The case has been made for Grids S5 and S6, given the discussion of their elevations and distance relative to the Catchment Basin.
- The composite sample result for Grid N4 was deemed acceptable given that it was 16.8 picoCuries per gram, the uncertainty is +/-1.3 picoCuries per gram and the release limit is 16.4 picoCuries per gram.
- The sample results for the Ore Pad fill were presented in the October 10, 2006 email and deemed acceptable in a later telephone conversation.

Given the situation regarding the cracking along the east wall of the Mill Building and the fact that remaining grids exceeding the limit either were being covered, contained naturally occurring radionuclides or were within the release limit when sample uncertainty was considered, the excavation was backfilled.

In addition, any grids whose composite samples were slightly in excess of the release limit for Radium-226 or Thorium-230 (the immediate parent of Radium-226 with a half life of approximately 80,000 years) are deeply buried beneath wetted and compacted fill. The primary concern regarding Radium-226 either presently occurring or formed by the decay of Thorium-230 is the fact that it in turn decays to Radon-222. The fact that these grids are buried beneath wetted compacted fill effectively mitigates any hazard from decay generated Radon-222.

Some grids do not fall entirely within the excavated area, but lie on the border of the excavated area on unexcavated ground. In the case of these grids only a portion of the grid was excavated. These partially excavated grids include the following two (2) groups:

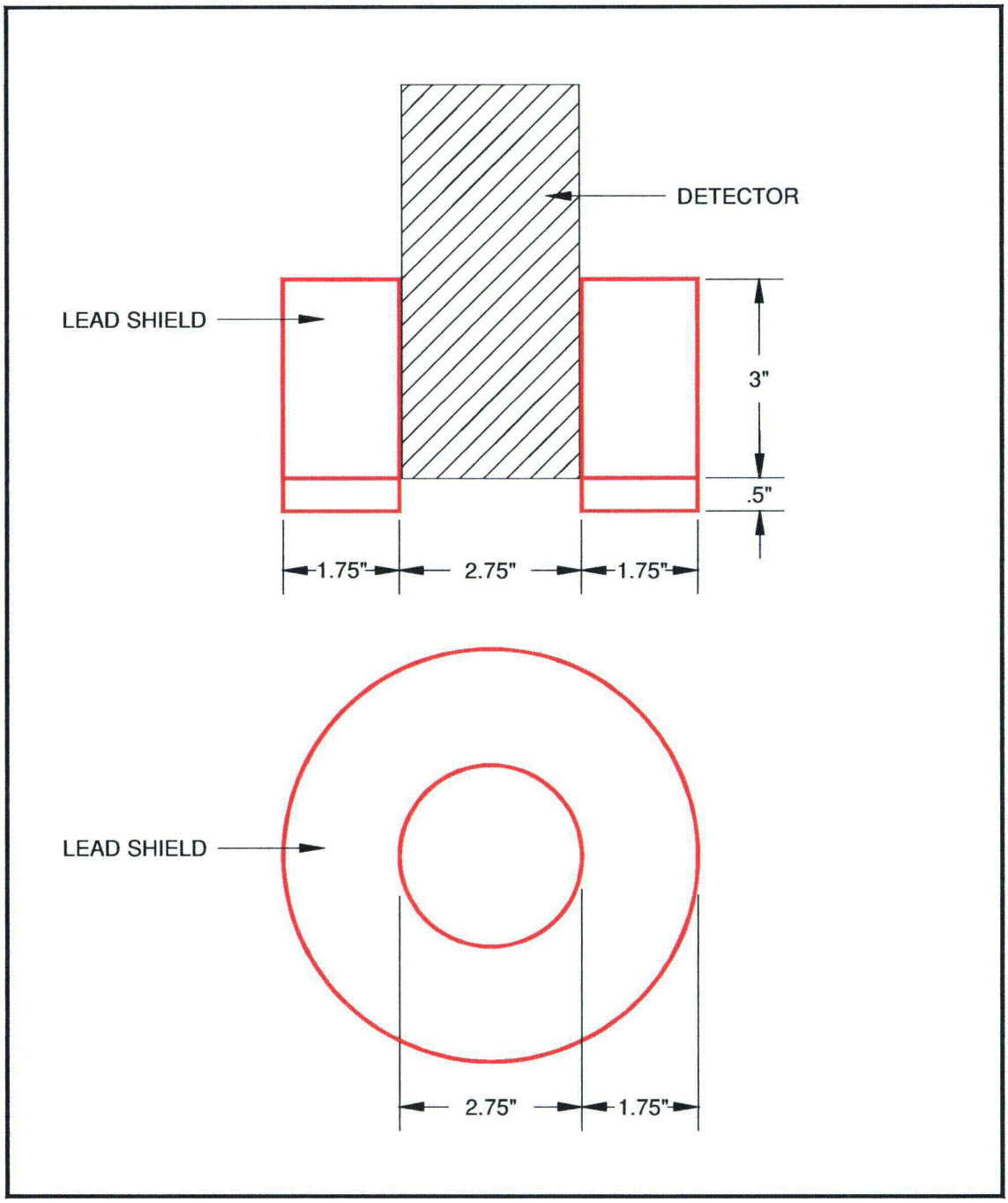
- Partially excavated grids on unexcavatable areas covered by liner
  These grids will ultimately be excavated at final decommission/reclamation/closure, and include:

D6	E5	G minus 3
D7	F0	G minus 2
D8	F1	G minus 1
D9	F2	
D10	F3	
D11	F4	

- Partially excavated grids that were sampled and backfilled
  These grids include:

D12	P10	W5	J minus 4
E13	Q10	02	
F13	Q9	N0	
G13	R9	O minus 2	
H13	R8	O minus 3	
I12	S8	O minus 4	
J12	S7	N minus 4	
K11	T7	M minus 4	
L11	U6	L minus 4	
M11	V5	K minus 4	

The samples from these grids were collected solely from the excavated portions of these grids at depths of one (1) foot or more below surface; hence, these sample results apply solely to the subsurface. Thus the 16.4 picoCuries per gram Radium-226 standard applies to these samples from these partially excavated grids.



SHEPHERD MILLER
INCORPORATED

FIGURE 14
CONFIGURATION OF PORTABLE
LEAD SHIELD

Date:	JUNE 1998
Project:	100123
File:	LEAD

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation Sampling Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	RADIUM-226 Thorium-230 Uncertainty (picocuries per gram)	RADIUM-226 INITIAL Result (picocuries per gram)	RADIUM-226 INITIAL Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/hour)	Gamma Reading (CPM)
D 5	Composite	148704.07	323933.72		ND	ND	ND	7.27	263	14.80	10.02	5.00	20.0	2.2	14.4	1.3	18.5	1.5	0.25	1.08	0.27	1		
D 6	Composite	148671.27	323933.72		ND	ND	ND	7.32	906	7.64	5.17	2.58	10.0	1.8	10.6	1.3	14.1	1.4	0.26	0.71	0.18	4.5		
D 7	Composite	148638.46	323933.72		1350	ND	1350	7.09	271	16.90	11.44	5.70	2.9	0.8	4.2	0.9	4.5	1	1.97	0.64	1.27	1.8		
D 8	Composite	148605.65	323933.72		193	ND	193	6.84	477	19.60	13.27	6.62	2.1	0.7	10.6	1.3	12.5	1.4	3.15	0.17	0.53	4.5		
D 9	Composite	148572.86	323933.72		ND	ND	ND	8.17	428	8.04	5.44	2.71	0.0	0.0	4.5	1	4.8	1.1	N/A	0.00	0.57	4.4		
D 10	Composite	148540.05	323933.72		ND	ND	ND	8.53	414	5.40	3.66	1.82	0.0	0.0	5	1.1	4.5	1.1	N/A	0.00	0.41	1.8		
D 11	Composite	148507.24	323933.72		ND	ND	ND	8.2	606	9.51	6.44	3.21	0.0	0.0	5.4	1	5.6	1	N/A	0.00	0.57	1.3		
D 12	Composite	148474.43	323933.72		ND	ND	ND	7.87	1270	12.60	8.53	4.25	0.0	0.0	6.9	1.1	7.6	1.2	N/A	0.00	0.56	3.1		
E 5	Spot	148720.47	323950.13																					
	Center / Spot	148703.70	323966.45																					
	Composite	148703.70	323966.45																					
	S. 1/2 Comp.	148703.70	323966.45		ND	ND	ND	8.9	251	27.62	18.70	9.32	6.9	1.6	10.2	1.2	13.8	1.3	1.35	0.50	0.68	3.3		
E 6	Spot	148687.66	323950.13												9.2	1.1	12	1.2				4.2	14.1	12563
	Center / Spot	148671.33	323965.53												5.8	1.2	8.2	1.2				5.6	13.2	11790
8/1/2006	Composite	148671.33	323965.53		ND	ND	ND	8.14	237	15.30	10.36	5.16	2.2	0.8	6.9	1.2	8.8	1.2	2.35	0.25	0.59	5.8		
E 7	Spot	148654.86	323950.13												3.7	1	4.9	1				10		
	Center / Spot	148638.45	323966.53												8.1	1.2	8.4	1.2				3.4	15.2	13546
2-Aug	Composite	148638.45	323966.53		ND	ND	ND	8.81	346	5.47	3.70	1.85	0.8	0.6	6.2	1.1	6.2	1.1	2.31	0.13	0.30	4.1		
E 8	Spot	148622.05	323950.13												1.9	1.1	2.4	1.1				5.7		
	Center / Spot	148605.81	323966.70												5.9	1.4	4.4	1.2				5.2	11.8	10502
2-Aug	Composite	148605.81	323966.70		ND	ND	ND	8.95	231	5.66	3.83	1.91	0.0	0.0	7.2	1.2	7.3	1.2	N/A	0.00	0.26	5.1		
E 9	Spot	148589.24	323950.13												7.5	1.4	9.2	1.4				7.7	12.5	11152
	Center / Spot	148572.80	323966.55												5.5	1.3	4.8	1.1				5.3	12.8	11413
2-Aug	Composite	148572.80	323966.55		56	ND	57	8.82	336	7.58	5.13	2.56	1.0	0.5	7.3	1.2	6.2	1.1	2.56	0.16	0.41	4.9		
E 10	Spot	148556.45	323950.11																				11.9	10569
	Center / Spot #1	148540.00	323966.55												4.2	1.1	4	1.2				2.7		
	Composite	148540.00	323966.55		ND	ND	ND	8.81	524	4.77	3.23	1.61	0.0	0.0	5.1	1.1	4.7	1.1	N/A	0.00	0.34	3.2		
E 11	Spot	148523.64	323950.11																				10.5	9362
	Center / Spot	148507.19	323966.55												9.1	1.2	10.1	1.2				4.4	14.6	13032
	Composite	148507.19	323966.55		47	ND	50	7.19	277	16.40	11.10	5.54	2.3	1.0	10.2	1.3	10.1	1.2	2.41	0.23	0.55	6.9		
E 12	Spot	148490.83	323950.11												8.4	1.1	10	1.2		0.00	0.00	3.6	11.2	9978
	Composite	148474.43	323966.53		ND	ND	ND	8.22	1100	8.02	5.43	2.71	0.0	0.0	7.5	1.1	8.1	1.2	N/A	0.00	0.33	3		
E 13	Composite	148441.62	323966.53		ND	ND	ND	6.22	1050	6.22	4.21	2.10	0.8	0.5	5.8	1	7	1.2	2.62	0.11	0.30	3.7		
F0	Composite	148868.14	323999.36		ND	ND	ND	9.27	352	18.20	12.32	6.14	11.0	1.5	15	1.6	17.7	1.7	0.56	0.62	0.35	5.8		
F1	Composite	148835.33	323999.36		ND	ND	ND	9.45	174	10.90	7.38	3.68	1.3	0.6	5.5	1.1	7.2	1.2	2.83	0.18	0.51	5.3		
F2	Composite	148802.52	323999.36		ND	ND	ND	9.37	ND	1.35	0.91	0.46	0.0	0.0	3.6	1.1	2.7	1	N/A	0.00	0.17	4.8		
F3	Composite	148769.71	323999.36		ND	ND	ND	9.86	16	2.01	1.36	0.68	0.0	0.0	4	1	3.6	1	N/A	0.00	0.19	3.2		
F4	Composite	148736.88	323999.36		ND	ND	ND	9.23	293	3.85	2.61	1.30	0.7	0.4	4.2	1.1	4.2	1.1	1.86	0.17	0.31	3.6		
F 5	Spot	148720.47	323982.94																					
	Center / Spot	148704.04	323999.37																					
	Composite	148704.04	323999.37																					
	S. 1/2 Comp.	148704.04	323999.37		ND	ND	ND	8.81	231	19.05	12.90	6.43	2.3	0.8	7.8	1.1	8.8	1.1	2.80	0.26	0.73	2.6		
F 6	Spot	148687.66	323982.94												6.4	0.9	7.9	1				4.4	13.6	12060
	Center / Spot	148671.27	323999.31												6.1	1.2	7.3	1.1				6.8	12.6	11196
1-Aug	Composite	148671.27	323999.31		ND	ND	ND	8.53	256	14.70	9.95	4.96	1.3	0.6	7.7	1.3	9	1.3	3.82	0.14	0.55	6.3		
F 7	Spot	148654.86	323982.94												7.1	1.2	8	1.2				6.1	14.9	13233
	Center / Spot	148638.45	323999.34												5.1	1.1	6.3	1.2				3.7	10.8	9604
8/2/2006	Composite	148638.45	323999.34		ND	ND	ND	8.79	312	14.40	9.75	4.86	1.5	0.6	7.5	1.3	7.7	1.2	3.24	0.19	0.63	4.8		
F 8	Spot	148622.05	323982.94												5.5	1.2	5.8	1.2				3	12.4	11064
	Center / Spot	148605.64	323999.41												5.4	1.2	5	1.2				4	12.2	10860
8/2/2006	Composite	148605.64	323999.41		ND	ND	ND	8.81	219	10.70	7.24	3.61	1.6	0.7	7.3	1.3	8	1.3	2.26	0.20	0.45	4.3		
F 9	Spot	148589.24	323982.94												6.9	1.2	8.9	1.2				3.3		
	Center / Spot	148572.84	323999.34												8.1	1.3	8.9	1.3				7.2	12.6	11237
	Composite	148572.84	323999.30		42	ND	43	8.59	214	13.40	9.07	4.52	2.1	0.7	8	1.4	8.2	1.3	2.15	0.26	0.55	5		
F 10	Spot	148556.45	323982.94												6.7	1.2	8.1	1.2				5.4	15.4	13674
	Center / Spot	148540.00	323999.34												9.2	1.1	9.4	1.1				7	12.8	11409
	Composite	148540.00	323999.34		125	ND	127	8.95	239	17.70	11.98	5.97	2.0	0.7	7.8	1	7.5	1	2.99	0.27	0.80	4.2		
F 11	Spot	148523.64	323982.94												9.2	1.1	10.4	1.1				3.4	12.6	11249
	Center / Spot	148507.19	323999.34												9.9	1.2	10.7	1.2				4.8	12.8	11407
	Composite	148507.19	323999.34		110	ND	111	7.22	222	13.60	9.21	4.59	1.3	0.7	8.9	1.2	12.6	1.2	3.53	0.10	0.36	5.7		
F 12	Spot	148490.83	323982.94												11.5	1.3	12.6	1.2				6.9		
	Composite	148474.43	323999.36		579	ND	580	8.33	430	10.10	6.84	3.41	0.0	0.0	5.8	1.1	5.4	1.1	N/A	0.00	0.63	3		
F 13	Composite	148441.62	323999.36		ND	ND	ND	6.9	2280	4.98	3.37	1.68	0.7	0.4	4.2	0.9	5.4	1.2	2.40	0.13	0.31	2.3		

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation Sampling Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 Uncertainty (picocuries per gram)	RADIUM-226 INITIAL Result (picocuries per gram)	RADIUM-226 INITIAL Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/hour)	Gamma Reading (CPM)
G-1	Composite	148900.95	324032.17		ND	ND	ND	7.18	552	67.40	45.63	22.75	12.0	1.8	15.7	1.5	17.7	1.5	1.90	0.68	1.29	5.1		
G 0	Composite	148868.14	324032.17		ND	ND	ND	7.27	1640	131.00	88.69	44.22	30.0	2.8	20.2	1.7	22.5	1.7	1.47	1.33	1.97	4.8		
G 1	Composite	148835.33	324032.17		ND	ND	ND	8.57	50	23.10	15.64	7.80	5.1	1.5	14.5	1.3	18.8	1.4	1.53	0.27	0.41	8		
G 2	Composite	148802.52	324032.17		ND	ND	ND	8.64	56	16.40	11.10	5.54	3.0	0.9	9.6	1.2	10.1	1.3	1.85	0.30	0.55	10.2		
G-2	Composite	148933.76	324032.17		ND	ND	ND	9.54	33	6.94	4.70	2.34	4.1	0.9	7.8	1.3	11.7	1.5	0.57	0.35	0.20	5.2		
G 3	Composite	148769.71	324032.17		ND	ND	ND	7.53	35	4.28	2.90	1.44	0.7	0.6	4.7	1.2	4.2	1.2	2.06	0.17	0.34	4.8		
G 4	Composite	148736.88	324032.13		ND	ND	ND	7.49	60	4.57	3.09	1.54	0.8	0.5	4.1	1	3.1	1.1	1.93	0.26	0.50	4.2		
G 5	Spot	148720.47	324015.75																					
2-Aug	Center / Spot	148704.09	324032.13												9.3	1.2	10.4	1.3				3.1	15.1	13413
2-Aug	Composite	148704.09	324032.13		31	ND	31	8.63	193	16.70	11.31	5.64	3.6	0.9	12.1	1.4	12.3	1.3	1.57	0.29	0.46	4.3		
G 6	Spot	148687.66	324015.75												11.3	1.3	13.5	1.3				7.7	15.7	13962
	Center / Spot	148670.95	324032.21												6.8	1.1	7.9	1.1				3.9	12.1	10786
1-Aug	Composite	148670.95	324032.21		65	ND	67	8.54	295	17.10	11.58	5.77	2.3	0.7	8.6	1.3	9.7	1.2	2.51	0.24	0.60	5.2		
G 7	Spot	148654.86	324015.75												9.6	1.2	10.2	1.2				7.1	13.5	11982
	Center / Spot	148638.73	324032.02												9.3	1.3	8.2	1.1				7.6		
8/3/2006	Composite	148638.73	324032.02		107	ND	109	8.6	205	9.62	6.51	3.25	3.8	1.1	7.2	1.2	8.1	1.2	0.85	0.47	0.40	7.3		
G 8	Spot	148622.05	324015.75												7.2	1.3	7.9	1.2				6.6	13.1	11621
	Center / Spot	148605.66	324032.11												7.1	1.5	7.2	1.4				8.8	11.0	9750
8/3/2006	Composite	148605.66	324032.11		39	ND	42	8.13	235	9.22	6.24	3.11	1.6	0.6	5.8	1.4	6.5	1.4	1.95	0.25	0.48	8		
G 9	Spot	148589.24	324015.75												7.7	1.4	8.2	1.3				8.4	10.7	9541
	Center / Spot	148572.84	324032.15												6.2	1.1	5.5	1				4.8	12.3	10921
	Composite	148572.84	324032.15		69	ND	71	9.14	242	11.70	7.92	3.95	2.3	0.8	7.3	1.1	7.3	1	1.72	0.32	0.54	4.8		
G 10	Spot	148556.45	324015.75												7	1.2	7.5	1.1				5.1	12.3	10958
	Center / Spot	148540.00	324032.15												6.6	1.1	7.8	1.1				5.5	11.6	10327
	Composite	148540.00	324032.15		96	13	108	9.25	228	11.60	7.85	3.92	1.1	0.5	6.8	1	6.8	1	3.56	0.16	0.58	4.8		
G11	Spot - Resample	148523.64	324015.75		23	ND	31	8.75	425	20.00	13.54	6.75	2.5	0.8	9.4	1.3	11.8	1.3	2.70	0.21	0.57	6.6		
	Center / Spot	148507.19	324032.15												6.8	1.1	8	1.1				4.1	13.3	11807
	Composite	148507.19	324032.15		1350	ND	1350	6.95	211	14.50	9.82	4.89	1.4	0.6	7.7	1.3	8.1	1.3	3.50	0.17	0.60	6.7		
G 12	Spot	148490.83	324015.75		10	ND	15	8.74	540	16.30	11.04	5.50	1.3	0.7	7.7	1.1	8.4	1.1	4.23	0.15	0.66	2.7		
	Composite	148474.43	324032.17		185	ND	186	8.81	220	9.76	6.61	3.29	0.0	0.0	3.6	1.2	3.5	1.1	N/A	0.00	0.94	6.5	13.9	12329
G 13	Composite	148441.62	324032.17		ND	ND	ND	6.77	1540	10.00	6.77	3.38	1.5	0.6	5.4	1.7.5	1.3		2.25	1.15	2.60	4		
H-1	Composite	148900.95	324064.98		ND	ND	ND	8.93	ND	44.80	30.33	15.12	10.0	1.6	20.8	1.6	26.5	1.8	1.51	0.38	0.57	11.4	20.7	18416
H-2	Composite	148933.76	324064.98		ND	ND	ND	7.12	47	46.70	31.62	15.76	3.7	1.0	5.9	0.9	6.9	1	4.26	0.54	2.28	2.7		
H-3	Composite	148966.57	324064.98		ND	ND	ND	7.29	43	49.90	33.78	16.84	5.9	1.2	12.6	1.3	14.5	1.4	2.85	0.41	1.16	0.7		
H 0	Center/Spot	148868.09	324065.09		ND	ND	ND	9.09	148	31.90	21.60	10.77	9.3	1.8	14.8	1.4	17.1	1.4	1.16	0.54	0.63	8.9	21.0	18665
	Composite	148868.09	324065.09		ND	ND	ND	8.87	123	32.10	21.73	10.84	4.3	1.1	13.6	1.3	16.9	1.4	2.52	0.25	0.64	8.4		
H 1	Spot	148851.73	324048.56		ND	ND	ND	8.85	99	29.20	19.77	9.86	6.3	1.3	13.6	1.4	15.4	1.4	1.56	0.41	0.64	7.2	20.7	18416
	Center/Spot	148835.33	324064.98		ND	ND	ND	9.18	128	22.90	15.50	7.73	4.0	1.1	14.7	1.3	14.7	1.3	1.93	0.27	0.53	8.6	18.7	16687
	Composite	148835.33	324064.98		ND	ND	ND	8.91	142	22.40	15.16	7.56	3.1	0.9	13.8	1.4	16.1	1.4	2.44	0.19	0.47	8.9		
H 2	Spot	148818.92	324048.56		ND	ND	ND	9.22	119	11.60	7.85	3.92	2.7	0.9	10.9	1.3	11.9	1.3	1.45	0.23	0.33	10.5	17.8	15819
	Center/Spot	148802.52	324064.98		ND	ND	ND	9.12	163	21.70	14.69	7.33	6.5	1.4	13.2	1.4	14.8	1.4	1.13	0.44	0.49	8.4	21.1	18748
	Composite	148802.52	324064.98		ND	ND	ND	9.08	159	20.40	13.81	6.89	2.6	0.8	13.4	1.4	16.1	1.4	2.65	0.16	0.43	7.9		
H 3	Spot	148786.11	324048.56		ND	ND	ND	8.75	143	10.20	6.91	3.44	1.2	0.7	7.1	1.2	6.3	1.2	2.87	0.19	0.55	10.4		
	Center/Spot	148769.71	324064.98												8.9	1.2	9.9	1.2				8.2		
	Composite	148769.71	324064.98		ND	ND	ND	9.29	144	18.10	12.25	6.11	3.6	1.0	12.2	1.3	13.4	1.3	1.70	0.27	0.46	7.5		
H 4	Spot	148753.30	324048.56												9.3	1.2	11	1.2				7.4		
	Center/Spot	148736.88	324064.98												11.1	1.2	12.2	1.2				5.5		
	Composite	148736.88	324064.98		55	10	65	9.04	163	16.00	10.83	5.40	2.6	0.9	9.9	1.2	10.9	1.3	2.08	0.24	0.50	6.9		
H 5	Spot	148720.47	324048.56	6598.67											10.9	1.3	12	1.3				7.1		
	Center / Spot	148703.92	324065.09	6598.44											5	1	7.6	1.1				3.8	10.4	9280
	Composite	148703.92	324065.09		61	ND	69	8.6	209	24.22	16.40	8.18	3.2	0.9	10.2	1.2	10.3	1.2	2.56	0.31	0.79	5.5		
H 6	Spot	148687.66	324048.56	6597.75											8.2	1.2	9.7	1.1				4.7	13.2	11761
	Center / Spot	148671.30	324064.92	6598.00											8.7	1.3	10.2	1.2				5.3	13.9	12344
	Composite	148671.30	324064.92		28	ND	33	8.72	227	14.00	9.48	4.73	2.5	1.1	9.4	1.2	9.2	1.1	1.89	0.27	0.51	6.3		
H 7	Spot	148654.86	324048.56	6596.92											14	1.3	9.5	1.1				6.9	13.1	11662
	Center / Spot	148638.55	324064.99	6596.62											6.8	1.3	6.5	1.3				5.7	11.9	10571
	Composite	148638.55	324064.99		194	ND	196	8.53	212	12.50	8.46	4.22	1.9	0.7	7.3	1.3	9.3	1.3	2.22	0.20	0.45	5.6		
H 8	Spot	148622.05	324048.56	6596.65											5.7	1.3	6	1.2				6.9	10.1	8956
	Center / Spot	148605.75	324064.86	6597.69											5.7	1.4	6.7	1.3				7.4	12.1	10787
	Composite	148605.75	324064.86		23	ND	24	8.37	235	7.46	5.05	2.52	1.0	0.5	6.5	1.3	6.1	1.2	2.52	0.16	0.41	7.8		
H 9	Spot	148589.24	324048.56	6596.62											6.9	1.4	7.9	1.4				6.9	12.2	10818
	Center / Spot	148572.79	324064.92												6.6	1.1	7.1	1.1				7.4	11.9	10576
	Composite	148572.79	324064.92		66	ND	68	8.96	322	16.10	10.90	5.43	2.4	0.8	7.4	1.2	6.6	1.1	2.26	0.36	0.82	6.5		

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation Sampling Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 Uncertainty (picocuries per gram)	RADIUM-226 INITIAL Result (picocuries per gram)	RADIUM-226 INITIAL Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/hour)	Gamma Reading (CPM)
H 10	Spot	148556.45	324048.56												5.8	1.1	7.3	1.1				3.5	11.2	9940
	Center / Spot	148540.00	324064.92												5.6	1.1	6.3	1.1				5.4	9.3	8291
	Composite	148540.00	324064.92		270	ND	273	9.15	280	8.86	6.00	2.99	1.1	0.6	5.4	1.2	9.3	1.2	2.72	0.12	0.32	5.9		
H 11	Spot	148523.64	324048.56												3.1	1.2	2.6	1.1				5.8	8.8	7876
	Center / Spot	148507.19	324064.92												5.3	1.3	5.9	1.2				6.4	13.6	12077
	Composite	148507.19	324064.92		33	ND	35	8.89	358	15.00	10.16	5.06	2.2	0.9	6	1.2	6.4	1.1	2.30	0.34	0.79	6.1		
H 12	Spot	148490.83	324048.56												4.5	1.2	4.5	1.1				9	10.9	9737
	Composite	148474.43	324064.98		60	ND	61	8.02	2100	34.00	23.02	11.48	3.1	1.0	8.9	1.1	10.4	1.2	3.70	0.30	1.10	3.5		
H 13	Composite	148441.62	324064.98		ND	ND	ND	6.43	367	25.30	17.13	8.54	3.4	0.9	5.4	1.1	7.4	1.3	2.51	0.46	1.15	2.3		
I-1	Spot	148917.35	324081.34		ND	ND	ND	9.14	118	50.60	34.26	17.08	9.3	1.8	20.2	1.7	22	1.6	1.84	0.42	0.78	8.5	24.7	21949
	Center/Spot	148900.95	324097.77		ND	ND	ND	9.21	127	32.80	22.21	11.07	9.2	1.8	19	1.6	18.8	1.5	1.20	0.49	0.59	9.2	25.4	22600
	Composite	148900.95	324097.77		ND	ND	ND	9	153	30.50	20.65	10.30	5.7	1.3	15.5	1.5	16.2	1.5	1.81	0.35	0.64	8		
I-2	Center/Spot	148950.16	324081.35		ND	ND	ND	9.21	101	24.30	16.45	8.20	4.7	1.3	19.7	1.5	22.7	1.5	1.75	0.21	0.36	8		
	Composite	148933.76	324097.77		ND	ND	ND	9.16	112	18.40	12.46	6.21	3.2	0.9	35.5	1.9	15.8	1.4	1.94	0.20	0.39	8.4		
I-3	Composite	148966.57	324097.77		ND	ND	ND	7.43	18	60.10	40.69	20.29	24.0	2.8	16.2	1.4	20.9	1.6	0.85	1.15	0.97	1.4		
I 0	Spot	148884.54	324081.35		ND	ND	ND	9.17	111	41.20	27.89	13.91	11.0	1.7	14.4	1.4	16.7	1.4	1.26	0.66	0.83	7.8	20.4	18151
	Center/Spot	148868.09	324097.80		ND	ND	ND	9.24	164	23.60	15.98	7.97	5.5	1.3	15.6	1.5	16.2	1.5	1.45	0.34	0.49	8.6	20.2	17939
	Composite	148868.09	324097.80		ND	ND	ND	9.33	165	25.10	16.99	8.47	4.8	1.2	13.9	1.4	15.4	1.4	1.77	0.31	0.55	7.7		
I 1	Spot	148851.73	324081.34		ND	ND	ND	9.33	120	27.30	18.48	9.22	4.3	1.1	13.8	1.4	16.3	1.5	2.14	0.26	0.57	8.7	18.5	16467
	Center/Spot	148835.28	324097.80		ND	ND	ND	9.42	110	23.30	15.77	7.87	7.6	1.7	11.1	1.2	12.8	1.3	1.03	0.59	0.61	8	19.1	17023
	Composite	148835.28	324097.80		ND	ND	ND	8.65	179	26.90	18.21	9.08	4.4	0.9	14.7	1.4	17	1.4	2.06	0.26	0.53	8.7		
I 2	Spot	148818.92	324081.35		ND	ND	ND	9.04	168	24.40	16.52	8.24	5.2	1.5	12.1	1.4	14.4	1.4	1.58	0.36	0.57	9.4	17.5	15551
	Center/Spot	148802.52	324097.77		ND	ND	ND	9.12	143	40.70	27.55	13.74	9.8	1.8	12.3	1.4	14.1	1.4	1.40	0.70	0.97	7.5	15.5	13832
	Composite	148802.52	324097.77		ND	ND	ND	9.17	156	24.80	16.79	8.37	3.5	0.9	16.3	1.5	16.1	1.4	2.39	0.22	0.52	8.3		
I 3	Spot	148786.11	324081.35		ND	ND	ND	9.31	129	14.50	9.82	4.89	3.5	1.2	12	1.3	12.5	1.3	1.40	0.28	0.39	9.1		
	Center/Spot	148769.71	324097.77												11.9	1.3	13	1.3				8.8		
	Composite	148769.71	324097.77		ND	ND	12	9.24	146	24.10	16.32	8.14	3.2	0.8	11.6	1.4	13.6	1.4	2.54	0.24	0.60	8.5		
I 4	Spot	148753.30	324081.35												10.8	1.3	12	1.3				8.7		
	Center/Spot	148736.88	324097.77												8.4	1.2	9.3	1.2				8.5		
	Composite	148736.88	324097.77		17	nd	24	8.98	169	23.40	15.84	7.90	4.1	1.0	13	1.4	13.9	1.4	1.93	0.29	0.57	8.7		
I 5	Spot	148720.47	324081.35												10	1.2	12.2	1.2				4.7	17.0	15174
	Center / Spot	148704.26	324097.83												9.3	1.3	9.7	1.3				5.1	16.6	14748
	Composite	148704.26	324097.83		86	ND	89	8.18	290	31.50	21.33	10.63	6.8	1.3	12.6	1.5	16	1.5	1.56	0.43	0.66	7.3		
I 6	Spot	148687.66	324081.35												10.1	1.2	10.6	1.2				6.8	14.1	12535
	Center / Spot	148671.32	324097.86												10.7	1.4	12.1	1.4				9.6	14.1	12563
	Composite	148671.32	324097.86		57	ND	63	8.45	185	18.90	12.80	6.38	2.7	0.8	10.1	1.2	10.6	1.2	2.36	0.25	0.60	7.9		
I 7	Spot	148654.86	324081.35												9.2	1.2	10.6	1.2				5.9	14.6	12972
	Center / Spot	148638.49	324097.80												3.5	1.2	3.5	1.1				4.7	10.3	9133
	Composite	148638.49	324097.80		278	ND	278	8.59	174	17.70	11.98	5.97	1.3	0.6	7.8	1.2	7.7	1.1	4.60	0.17	0.78	6.9		
I 8	Spot	148622.05	324081.35												4.3	1.3	5.7	1.2				7.2	11.2	9991
	Center/Spot	148605.70	324097.84												7.1	1.3	8.5	1.3				9.9	11.0	9767
	Composite	148605.70	324097.84		212	ND	213	8.2	228	12.30	8.33	4.15	1.6	0.7	5.8	1.3	6.4	1.2	2.60	0.25	0.65	7.7		
I 9	Spot	148589.24	324081.35												5.4	1.3	5.7	1.2				7.9	11.8	10476
	Center / Spot	148572.79	324097.86												3.9	1.1	4.1	1				5.9	9.7	8631
	Composite	148572.79	324097.86		ND	ND	10	9.15	212	6.63	4.49	2.24	1.0	0.7	5.5	1.2	4.4	1.1	2.24	0.23	0.51	6		
I 10	Spot	148556.45	324081.35												5.9	1.1	6.3	1.1				2.4	9.0	7976
	Center / Spot	148540.00	324097.86												4.7	1.2	4.3	1.1				7.9	8.7	7704
	Composite	148540.00	324097.86		ND	ND	ND	7.27	220	7.27	4.92	2.45	0.6	0.5	4.4	1	5	1	4.09	0.12	0.49	7.8		
I 11	Spot	148523.64	324081.35												4.2	1.2	3.4	1				7	8.5	7592
	Composite	148507.24	324097.77		17	ND	18	8.43	290	7.30	4.94	2.46	1.9	1.0	4.1	1	3.8	1	1.30	0.50	0.65	6.9		
I 12	Composite	148474.43	324097.77		ND	ND	ND	9.25	289	28.00	18.96	9.45	3.4	0.9	5.7	1.1	6.3	1.1	2.78	0.54	1.50	2.2		
J-1	Spot	148917.35	324114.16		ND	ND	ND	9.74	100	17.20	11.64	5.81	4.2	1.2	13.3	1.3	14.8	1.3	1.38	0.28	0.39	6.8	18.4	16349
	Center/Spot	148900.90	324130.76		ND	ND	ND	9.32	118	16.30	11.04	5.50	3.2	1.1	10.1	1.3	11.5	1.3	1.72	0.28	0.48	8.4	15.5	13819
	Composite	148900.90	324130.76		ND	ND	11	8.92	156	24.30	16.45	8.20	3.8	0.9	14	1.4	15.1	1.4	2.16	0.25	0.54	9.2		
J-2	Center/Spot	148950.16	324130.76												12.8	1.2	14	1.3				6.8		
	Composite	148950.16	324130.76		ND	ND	ND	8.87	125	20.50	13.88	6.92	5.1	1.3	11.8	1.4	15.1	1.5	1.36	0.34	0.46	7.8		
J-3	Composite	148966.57	324130.58		ND	ND	ND	7.66	55	23.00	15.57	7.76	2.1	0.8	5.5	1.1	6.4	1.1	3.70	0.33	1.21	1.2		
J-4	Composite	148999.38	324130.58		ND	ND	ND	9.72	26	4.52	3.06	1.53	11.0	1.5	10.6	1.2	14	1.4	0.14	0.79	0.11	2.9		
J 0	Spot	148884.54	324114.16		ND	ND	ND	9.22	144	24.30	16.45	8.20	4.7	1.1	10	1.3	13.3	1.4	1.75	0.35	0.62	9.1		
	Center/Spot	148868.09	324130.76												15.8	1.6	14.4	1.4				14.3	14.4	12859
	Composite	148868.09	324130.76		ND	ND	ND	8.85	155	20.10	13.61	6.79	2.8	0.8	12.9	1.3	12.1	1.3	2.42	0.23	0.56	8.2		
J 1	Spot	148851.73	324114.16		ND	ND	ND	9.06	155	26.40	17.87	8.91	4.3	1.0	13.7	1.4	16.9	1.5	2.07	0.25	0.53	9.3	17.3	15390
	Center/Spot	148835.28	324130.76		ND	ND	ND	8.99	115	19.80	13.40	6.68	4.7	1.2	11.2	1.3	12	1.3	1.42	0.39	0.56	9.5	16.7	14852
	Composite	148835.28	324130.76		ND	ND	ND	8.84	147	18.70	12.66	6.31	3.1	0.9	14.8	1.4	15.6	1.4	2.04	0.20	0.40	7.8		

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation Sampling Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 Uncertainty (picocuries per gram)	RADIUM-226 INITIAL Result (picocuries per gram)	RADIUM-226 INITIAL Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/hour)	Gamma Reading (CPM)
J 2	Spot	148818.92	324114.16		ND	ND	ND	9.35	134	27.30	18.48	9.22	6.3	1.3	15.5	1.5	16.2	1.4	1.46	0.39	0.57	7.8	21.8	19384
	Center/Spot	148802.47	324130.76		ND	ND	ND	8.37	95	6.19	4.19	2.09	2.1	0.7	5.6	1.1	5.6	1.1	1.00	0.38	0.37	6.7	13.9	12353
	Composite	148802.47	324130.76		ND	ND	ND	9.09	127	28.50	19.29	9.62	4.1	0.9	12.9	1.4	17	1.5	2.35	0.24	0.57	8		
J 3	Spot	148786.11	324114.16		ND	ND	ND	9.27	107	30.40	20.58	10.26	5.6	1.2	12.7	1.5	12.9	1.4	1.83	0.43	0.80	8.3		
	Center/Spot	148769.71	324130.58		ND	ND	ND	9.43	109	19.60	13.27	6.62	4.2	1.1	11	1.3	13.2	1.4	1.58	0.32	0.50	8.9		
	Composite	148769.71	324130.58		144	ND	144	8.96	122	22.60	15.30	7.63	4.1	1.0	14.2	1.4	16.9	1.4	1.86	0.24	0.45	9.1		
J 4	Spot	148753.30	324114.16		151	ND	157	9.43	135	36.30	24.58	12.25	9.1	1.7	16.3	1.4	17.4	1.4	1.35	0.52	0.70	8.9		
	Center/Spot	148736.88	324130.58												10	1.2	11.1	1.2				7.8		
	Composite	148736.88	324130.58		215	nd	216	9.05	212	22.60	15.30	7.63	2.3	0.8	12	1.2	15.2	1.3	3.32	0.15	0.50	5.9		
J 5	Spot	148720.47	324114.16												12.6	1.6	14.9	1.6				6.7	16.8	14989
	Center / Spot	148704.23	324130.67												9.4	1.3	10.3	1.3				8.9	14.5	12948
	Composite	148704.23	324130.67		26	ND	27	8.68	206	23.30	15.77	7.87	4.2	1.2	11.1	1.4	11.5	1.4	1.87	0.37	0.68	6.3		
J 6	Spot	148687.66	324114.16												11.9	1.4	15.1	1.5				8.4	15.5	13787
	Center/Spot	148671.41	324130.68												9.1	1.2	10.9	1.2				4.9	13.6	12112
	Composite	148671.41	324130.68		13	ND	16	8.64	221	26.10	17.67	8.81	2.9	1.0	9.7	1.2	10.9	1.2	3.04	0.27	0.81	5.2		
J 7	Spot	148654.86	324114.16												8.8	1.3	9.1	1.2				7.6	12.3	10975
	Center/Spot	148638.55	324130.76												9.9	1.4	8.7	1.3				9.9	13.2	11721
	Composite	148638.55	324130.76		283	ND	283	8.21	206	8.04	5.44	2.71	1.0	0.6	7.5	1.3	8.5	1.2	2.71	0.12	0.32	7.8		
J 8	Spot	148622.05	324114.16												9	1.3	9.2	1.2				8	12.6	11202
	Center/Spot	148605.74	324130.71												5.1	1.3	5.5	1.2				7.5	9.9	8796
	Composite	148605.74	324130.71		69	ND	69	8.18	164	4.36	2.95	1.47	0.5	0.4	2.1	1.3	4.1	1.3	2.94	0.12	0.36	6.6		
J 9	Spot	148589.24	324114.16												3.3	1.2	3.2	1.1				6.9	10.3	9200
	Center/Spot	148572.79	324130.68												3.6	1.1	3.1	1				6.2	7.6	6788
	Composite	148572.79	324130.68		128	ND	128	8.96	252	5.02	3.40	1.69	0.7	0.5	3	1.1	3	1	2.42	0.23	0.56	6.2		
J 10	Spot	148556.45	324114.16												3.6	1.2	3.4	1.1				6.3	9.4	8338
	Center/Spot	148540.00	324130.68												6.4	1	6.8	1				3.4	10.2	9060
	Composite	148540.00	324130.68		ND	ND	ND	9.1	293	7.79	5.27	2.63	1.2	0.7	4.7	1.1	5.1	1.1	2.19	0.24	0.52	6.3		
J 11	Spot	148523.64	324114.16												7.7	1.2	7.3	1.1		0.00	0.00	4.7	9.8	8734
	Composite	148507.24	324130.58		ND	ND	ND	8.37	465	17.80	12.05	6.01	0.0	0.0	9.9	1.3	10	1.3		0.00	0.60	6.2		
J 12	Composite	148474.43	324130.58		ND	ND	ND	8.9	136	14.70	9.95	4.96	5.2	1.3	8.4	1.1	10.4	1.2	0.95	0.50	0.48	2		
K-1	Composite	148900.95	324163.39		ND	ND	ND	8.05	221	20.10	13.61	6.79	1.7	0.8	5.3	1.2	3.9	1.2	3.99	0.44	1.74	7.4		
K-2	Composite	148933.76	324163.39		ND	ND	ND	7.77	229	26.80	18.14	9.05	2.3	0.9	5.9	1.2	6.7	1.2	3.93	0.34	1.35	6.5		
K Minus 2	Spot																						15.3	13543
K Minus 2	Center																						10.3	9142
K Minus 3 (5/7/07)	Spot	148982.97	324146.97												26.3	1.8	26.2	1.9				8.6	35.1	31042
	Center/Spot	148966.57	324163.39												6.1	1.1	5.3	1.1				6.8	10.3	9099
	Composite	148966.57	324163.39		ND	ND	ND	8.61	ND	21.90	14.83	7.39	4.5	0.9	5.8	1.1	7.1	1.2	1.64	0.63	1.04	6.1		
K Minus 4	Composite	148999.38	324163.39		ND	ND	ND	9.22	43	6.02	4.08	2.03	2.1	0.7	8.8	1.1	9.4	1.2	0.97	0.22	0.22	2.7		
K 0	Composite	148868.14	324163.39		ND	ND	ND	7.8	193	4.14	2.80	1.40	0.0	0.0	4.4	1.2	2.7	1.2			0.52	3.1		
K 1	Composite	148835.33	324163.39		ND	ND	ND	8.87	31	33.20	22.48	11.21	5.1	1.1	12.5	1.3	14.9	1.4	2.20	0.34	0.75	8.5		
K 2	Spot	148818.92	324146.97		ND	ND	ND	9.2	124	30.50	20.65	10.30	8.1	1.4	13.3	1.4	15.3	1.4	1.27	0.53	0.67	8	19.7	17558
	Center/Spot	148802.47	324163.45												13.5	1.4	13	1.4				9.9	10.3	9142
	Composite	148802.47	324163.45		51	ND	58	8.3	204	25.30	17.13	8.54	5.6	1.1	12.3	1.3	12.3	1.3	1.53	0.46	0.69	7		
K 3	Spot	148786.11	324146.97		79	ND	80	8.99	164	25.20	17.06	8.51	5.6	1.1	11.6	1.3	14.1	1.3	1.52	0.40	0.60	7		
	Center/Spot	148769.66	324163.45												9.1	1.2	10.7	1.2				8.2		
9/25/2006	Composite	148769.66	324163.45		20	ND	27	9.26	168	14.00	9.48	4.73	2.6	0.7	11.1	1.3	11.1	1.3	1.82	0.23	0.43	7.8		
K 4	Spot	148753.30	324146.97		11	16	27	9.18	103	14.15	9.58	4.78	5.5	1.3	13.6	1.4	15	1.3	0.87	0.37	0.32	7.4	18.8	16730
	Center/Spot	148736.85	324163.35												11.6	1.4	12.3	1.3				6.4	15.3	13601
3-Aug	Composite	148736.85	324163.35		ND	ND	ND	8.71	193	24.00	16.25	8.10	5.0	1.4	11.3	1.4	13.6	1.4	1.62	0.37	0.60	7.8		
K 5	Spot	148720.47	324146.97												9.8	1.5	8.9	1.4				6.4	15.8	14060
	Center/Spot	148704.08	324163.45												10.4	1.5	13.8	1.6				5.4	17.0	15158
	Composite	148704.08	324163.45		160	ND	161	8.55	582	22.50	15.23	7.60	5.5	1.4	11.2	1.3	13.6	1.3	1.38	0.40	0.56	5.6		
K 6	Spot	148687.66	324146.97												8.5	1.6	10.5	1.6				6.8	13.2	11712
	Center/Spot	148671.21	324163.45												10.8	1.3	10.7	1.2				5.8	13.8	12270
	Composite	148671.21	324163.45		80	ND	81	7.21	190	13.30	9.00	4.49	2.7	0.8	4.6	1.1	5.3	1.1	1.66	0.51	0.85	5		
K 7	Spot	148654.86	324146.97												8	1.2	7.8	1.1				6.1	12.4	10992
	Center/Spot	148638.41	324163.45												9.8	1.3	13.1	1.3				6.3	15.9	14127
	Composite	148638.41	324163.45		148	ND	150	6.82	557	23.90	16.18	8.07	4.5	1.1	11.9	1.3	13	1.2	1.79	0.35	0.62	4.3		
K 8	Spot	148622.05	324146.97												9.3	1.3	10.8	1.2				6.7		
	Center/Spot	148605.60	324163.45												9.3	1.2	9.7	1.2				8.7		
	Composite	148605.60	324163.45		45	ND	45	8.79	215	4.91	3.32	1.66	0.9	0.5	4.6	1.1	5.3	1.1	1.84	0.17	0.31	6.6		
K 9	Spot	148589.24	324146.97												2.6	1.2	2.58	1.1				7.1		
	Center/Spot	148572.79	324163.45												3.5	1	3.9	1				4	8.1	7217
	Composite	148572.79	324163.45		ND	ND	ND	8.87	635	5.29	3.58	1.79	0.6	0.4	2.7	1	3.9	1	2.98	0.15	0.46	2	0.0	

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation Sampling Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 Uncertainty (picocuries per gram)	RADIUM-226 INITIAL Result (picocuries per gram)	RADIUM-226 INITIAL Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/hour)	Gamma Reading (CPM)
K 10	Spot	148556.45	324146.97												4.8	1.2	5	1.1				7	7.8	6982
	Composite	148540.05	324163.39		ND	ND	ND	8.93	375	14.40	9.75	4.86	1.7	0.7	11.1	1.3	13.8	1.4	2.86	0.12	0.35	6.6		
K 11	Composite	148507.24	324163.39		ND	ND	ND	8.74	**1350**	16.20	10.97	5.47	1.2	0.7	5.8	1.2	7.6	1.2	4.56	0.16	0.72	2.8		
	Recheck Sulfate	148507.24	324163.39						1080															
L Minus 1	Spot	148917.35	324179.78												7.4	1	7.2	1				8.4	9.0	7980
	Center/Spot	148900.95	324196.20												32.6	1.7	32.2	1.7				3.1	30.4	26859
	Composite	148900.95	324196.20		ND	ND	ND	6.92	ND	33.50	22.68	11.31	31.0	2.5	30.8	1.8	34.5	2	0.36	0.90	0.33	4.3		
L Minus 2	Spot	148950.16	324179.78												9	1.1	9.3	1.1				7.3	11.3	9982
	Center/Spot	148933.76	324196.20												22.2	1.4	27.1	1.6				9.7	19.2	16994
	Composite	148933.76	324196.20		ND	ND	ND	7.56	ND	35.60	24.10	12.02	11.0	1.3	11.2	1.3	11.6	1.3	1.09	0.95	1.04	4.7		
L Minus 3	Spot	148982.97	324179.78												22.4	1.4	30.6	1.6				7.4	24.3	21492
	Center/Spot	148966.57	324196.20												5.9	0.9	4.6	1				10.5	13.2	11658
	Composite	148966.57	324196.20		ND	ND	ND	8.18	ND	16.50	11.17	5.57	1.1	0.5	5.9	0.9	3.7	0.9	5.06	0.30	1.51	9.8		
L Minus 4	Composite	148999.38	324196.20		ND	ND	ND	8.96	351	3.68	2.49	1.24	1.1	0.5	4.6	0.9	5.1	1	1.13	0.22	0.24	3.9		
L 0	Composite	148868.14	324196.20		ND	ND	ND	9.37	298	10.90	7.38	3.68	4.2	1.2	8.8	1.3	10.8	1.3	0.88	0.39	0.34	3.9		
L 1	Center	148851.73	324179.78												6.3	1.1	7.6	1.3				3.5	9.0	7980
	Composite	148835.33	324196.20		ND	ND	ND	9.51	101	15.40	10.43	5.20	4.2	1.1	7.5	1.2	9.6	1.3	1.24	0.44	0.54	4.2		
	Hot spot bulk-10' east TMW-111	148798.69	324195.42	6610.00	72	ND	72	7.12	480	17.00	11.51	5.74	7.6	1.5	7.8	1.3	7.7	1.2	0.76	0.99	0.75	6		
	Composite	148802.52	324196.20		386	ND	387	6.58	673	14.10	9.55	4.76	5.8	1.3	6.4	1.1	7.6	1.2	0.82	0.76	0.63	3.5		
L 3	Spot	148786.11	324179.78												12	1.3	14.1	1.3				7.2	15.9	14149
	Center/Spot	148769.84	324196.08												9.9	1.3	10.6	1.2				4.5	13.9	12400
	Composite	148769.84	324196.08		ND	ND	ND	8.66	259	17.00	11.51	5.74	3.6	0.9	9.1	1.3	10.5	1.2	1.59	0.34	0.55	6.4		
L 4	Spot	148753.27	324179.78												11.1	1.2	14	1.3				3.9	15.4	13728
	Center/Spot	148736.81	324196.25												10.8	1.4	12.4	1.4				6.3	15.7	13989
	Composite	148736.81	324196.25		ND	ND	11	8.63	224	20.70	14.01	6.99	9.7	1.6	9.2	1.4	11.5	1.4	0.72	0.84	0.61	5.2		
L 5	Spot	148720.47	324179.78												14.4	1.4	16.1	1.4				8.5	14.9	13253
	Center/Spot	148704.02	324196.25												12	1.3	14.9	1.3				5.2	14.5	12924
	Composite	148704.02	324196.25		10	ND	11	6.93	290	33.50	22.68	11.31	5.1	1.1	12.5	1.3	12.9	1.2	2.22	0.40	0.88	6.3		
L 6	Spot	148687.66	324179.78												11.6	1.3	12.3	1.3				7.2	14.2	12635
	Center/Spot	148671.21	324196.25												9.4	1.3	10.9	1.3				5.4	12.5	11159
	Composite	148671.21	324196.25		76	ND	77	7.17	181	22.70	15.37	7.66	3.3	0.9	9.3	1.2	11.8	1.2	2.32	0.28	0.65	6.1		
L 7	Spot	148654.86	324179.78												9.8	1.2	10	1.1				6.1	15.5	13783
	Center/Spot	148638.41	324196.25												6	1	8.1	1.1				4.4		
	Composite	148638.41	324196.25		275	ND	280	9.15	229	7.85	5.31	2.65	1.4	0.6	3.9	1	5.8	1.1	1.89	0.24	0.46	2.2		
L 8	Spot	148622.05	324179.78												7.3	1.2	7.6	1.1				6.3		
	Center/Spot	148605.60	324196.25												3.1	1.1	3.2	1				7.8	8.5	7578
	Composite	148605.60	324196.25		25	ND	25	9.18	202	4.00	2.71	1.35	0.7	0.5	3.6	1.1	3.9	1	1.93	0.18	0.35	5.9		
L 9	Spot	148589.24	324179.78												3.2	1.1	3.4	1				8.7	7.6	6757
	Center/Spot	148572.79	324196.25												2.9	1	4.3	1.1				3.7	8.8	7861
	Composite	148572.79	324196.25		10	ND	14	9.21	216	6.53	4.42	2.20	0.5	0.4	3.3	1.1	3.9	1.1	4.41	0.13	0.57	7.3		
L 10	Spot	148556.45	324179.78												4.8	1.2	5.8	1.2				7.1	8.8	7803
	Composite	148540.05	324196.20		ND	ND	ND	10	770	14.00	9.48	4.73	1.9	0.7	9.9	1.3	9.6	1.3	2.49	0.20	0.49	4.1		
L 11	Composite	148507.24	324196.20		ND	ND	ND	8.87	304	17.10	11.58	5.77	1.0	0.5	4.6	1	5.7	1.1	5.77	0.18	1.01	1.9		
M Minus 1	Spot	148917.35	324212.58												37.3	1.8	40.5	1.9				6.2	41.7	36882
	Center/Spot	148900.95	324229.01												47.9	2	53.2	2.1				6.6	47.1	41645
	Composite	148900.95	324229.01		ND	ND	ND	7.55	25	23.10	15.64	7.80	28.0	2.8	29	1.7	35.4	1.9	0.28	0.79	0.22	4.8		
M Minus 2	Spot	148950.16	324212.58												37.3	1.9	41.5	2.1				6.8	24.9	22041
	Center/Spot	148933.76	324229.01												31.2	1.5	38.3	1.8				8.8	13.5	11978
	Composite	148933.76	324229.01		ND	ND	ND	7.67	ND	70.00	47.39	23.63	40.0	2.7	45.3	1.9	60.2	2.3	0.59	0.66	0.39	7.4		
M Minus 3	Spot	148982.97	324212.58												8.2	1.3	9.9	1.4				7.5	11.6	10272
	Center/Spot	148966.57	324229.01												6.5	1	6.3	1				9.3	13.8	12187
	Composite	148966.57	324229.01		ND	ND	ND	8.57	36	22.90	15.50	7.73	4.4	1.0	8	1.2	8.3	1.4	1.76	0.53	0.93	11		
M Minus 4	Composite	148999.38	324229.01		ND	ND	ND	8.81	ND	22.00	14.89	7.43	18.0	1.9	15.9	1.4	18.1	1.5	0.41	0.99	0.41	6.3		
M 0	Spot	148884.54	324212.58												7.5	1	8.4	1.2				13.5	12.8	11273
	Composite	148868.14	324229.01		ND	ND	ND	9.14	313	21.50	14.56	7.26	3.9	1.0	8.1	1.1	8.7	1.1	1.86	0.45	0.83	5.7		
M 1	Spot	148851.73	324212.58												6.4	1.2	8	1.3				5.4	12.0	10691
	Center	148835.33	324229.01												7.5	1.1	9.7	1.2				3.9	12.4	11059
	Composite	148835.33	324229.01		ND	ND	ND	9.53	160	14.70	9.95	4.96	4.2	1.0	9.7	1.3	10.4	1.4	1.18	0.40	0.48	4.2		
M 2	Hot spot in wall-10' above pit floor	148795.00	324218.00	6610.00	2150	ND	2150	5.6	520	14.30	9.68	4.83	13.0	1.9	3	1.1	2.9	1	0.37	4.48	1.66	6.1		
	Hot spot bulk-10' above pit floor	148795.00	324128.00	6610.00	263	ND	264	5.82	375	5.63	3.81	1.90	2.5	0.9	3.3	1	4.4	1	0.76	0.57	0.43	5.8		
	Composite	148802.52	324229.01		822	ND	825	5.63	568	8.00	5.42	2.70	3.8	1.0	3.8	1.1	4.8	1.1	0.71	0.79	0.56	3		

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation Sampling Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 Uncertainty (picocuries per gram)	RADIUM-226 INITIAL Result (picocuries per gram)	RADIUM-226 INITIAL Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/hour)	Gamma Reading (CPM)
M 3	Spot	148786.08	324212.59												6.8	1.5	9.6	1.6				7.4	14.7	13070
	Center/Spot	148769.63	324229.04												12.1	1.3	14.8	1.3				4.9	16.6	14756
	Composite	148769.63	324229.04		12	ND	12	8.84	351	28.70	19.43	9.69	1.3	0.6	9.5	1.1	13.8	1.3	7.45	0.09	0.70	3.8		
M 4	Spot	148753.27	324212.59												7.9	1.3	11.7	1.3				4.7	14.8	13143
	Center/Spot	148736.82	324229.04												13.6	1.4	15.2	1.4				8.1	15.9	14130
	Composite	148736.82	324229.04		ND	ND	ND	7.25	220	27.40	18.55	9.25	4.4	1.0	12	1.3	13.9	1.3	2.10	0.32	0.67	6.8		
M 5	Spot	148720.47	324212.59												10.3	1.3	10.6	1.2				8.7	15.6	13862
	Center/Spot	148704.02	324229.04												8.4	1.3	10	1.2				8.2	13.7	12156
	Composite	148704.02	324229.04		ND	12	15	7.06	195	13.60	9.21	4.59	3.0	0.9	10.7	1.3	12.4	1.2	1.53	0.24	0.37	6		
M 6	Spot	148687.66	324212.59												9	1.3	9.3	1.2				5.8	15.4	13726
	Center/Spot	148671.21	324229.04												9.6	1.2	11.5	1.2				4.6	14.7	13103
	Composite	148671.21	324229.04		33	ND	35	7.12	247	12.60	8.53	4.25	2.8	1.0	8.3	1.3	8.8	1.2	1.52	0.32	0.48	5.2		
M 7	Spot	148654.86	324212.59												13.1	1.5	16.5	1.5				7.4	12.4	11036
	Center/Spot	148638.41	324229.04												5.9	1.1	5.3	1				2.5	11.1	9840
	Composite	148638.41	324229.04		ND	ND	ND	9.14	249	6.51	4.41	2.20	0.8	0.5	4.6	1.1	5.4	1.1	2.75	0.15	0.41	2.3		
M 8	Spot	148622.05	324212.59												3.6	1	4.4	1.1				4	8.1	7198
	Center/Spot	148605.60	324229.04												4.2	1	4.7	1				3.4	9.4	8380
	Composite	148605.60	324229.04		422	ND	423	9.45	446	6.40	4.33	2.16	1.0	0.7	4	1	4.6	1	2.16	0.22	0.47	3.9		
M 9	Spot	148589.24	324212.59												3.4	1.1	3.8	1.1				8	8.2	7331
	Center/Spot	148572.79	324229.04												6	1.1	5.1	1				9.3	8.2	7293
	Composite	148572.79	324229.04		ND	ND	ND	9.07	298	6.36	4.31	2.15	0.5	0.4	4.7	1.1	5.8	1	4.29	0.09	0.37	6.9		
M 10	Spot	148556.45	324212.59		ND	ND	ND	7.8	235	5.86	3.97	1.98	0.7	0.4	4.9	1.2	4.9	1.1	2.83	0.14	0.40	4.6	13.8	12251
	Composite	148540.05	324229.01		ND	ND	ND	8.85	411	77.30	52.33	26.09	15.0	2.0	12.4	1.3	14.5	1.3	1.74	1.03	1.80	4		
	Composite-Resample	148540.05	324229.01		ND	ND	ND	8.1	172	10.60	7.18	3.58	2.6	1.0	7.4	1.1	8.5	1.1	1.38	0.31	0.42	6.3		
M 11	Composite	148507.24	324229.01		ND	ND	ND	8.74	**1590**	23.70	16.04	8.00	2.1	0.8	6.3	1.1	6.6	1.1	3.81	0.32	1.21	2.8		
	Recheck Sulfate	148507.24	324229.01						1850															
N Minus 1	Spot	148917.35	324245.39												23.9	1.4	28.8	1.6				8.8	24.8	21953
	Center/Spot	148900.95	324261.82												6.7	1	6.8	1.1				8.1	11.9	10476
	Composite	148900.95	324261.82		ND	ND	ND	8.51	ND	6.29	4.26	2.12	4.8	1.0	9.7	1.2	9.1	1.3	0.44	0.53	0.23	9.2		
N Minus 2	Spot	148950.16	324245.39												9.6	1.1	9.1	1.2				8.6	11.6	10247
	Center/Spot	148933.76	324261.82												5.7	1	4.9	1				6.6	10.0	8860
	Composite	148933.76	324261.82		ND	ND	ND	7.8	35	15.90	10.76	5.37	3.2	0.8	5.7	1.1	5	1.2	1.68	0.64	1.07	8.2		
N Minus 3	Spot	148982.97	324245.39												16.5	1.4	17.6	1.4				11.6	21.0	18602
	Center/Spot	148966.57	324261.82												3.5	0.9	3.6	0.9				6.3	9.0	7991
	Composite	148966.57	324261.82		ND	ND	ND	7.96	ND	5.13	3.47	1.73	3.9	0.9	8.4	1	8.2	1.1	0.44	0.48	0.21	7.5		
N Minus 4	Composite	148999.38	324261.82		ND	ND	ND	9.31	ND	10.00	6.77	3.38	8.2	1.5	9.2	1.3	11	1.4	0.41	0.75	0.31	5.8		
N 0	Spot	148884.54	324245.39												5.8	1	4.5	1				12	10.7	9490
	Composite	148868.14	324261.82		ND	ND	ND	9.45	115	11.20	7.58	3.78	2.4	0.8	6.7	1	7	1	1.58	0.34	0.54	8.1		
N 1	Spot	148851.73	324245.39												9.1	1.4	11.5	1.6				6.3		
	Center	148835.33	324261.82												6.8	1.2	7.9	1.2				4.6	10.9	9732
	Composite	148835.33	324261.82		ND	ND	ND	9.45	379	7.17	4.85	2.42	3.9	0.9	6.2	1.1	8.9	1.2	0.62	0.44	0.27	3.8		
N2	Center	148802.52	324261.82												3.1	0.9	3.6	1.1				4.6		
	Composite	148802.52	324261.82		ND	ND	ND	9.07	56	2.45	1.66	0.83	0.8	0.4	3.8	1	5.4	1.1	1.03	0.15	0.15	2.8		
N 3	Hot spot bulk-west of TMW-62 / Spot	148786.11	324245.39		17	ND	18	7.3	446	18.20	12.32	6.14	2.7	0.9	9.9	1.2	10.2	1.2	2.28	0.26	0.60	6.5		
	Composite	148769.71	324261.82		39	ND	39	9.22	79	5.65	3.83	1.91	1.4	0.7	6.7	1.2	6	1.1	1.36	0.23	0.32	5		
N 4	Spot	148753.27	324245.40		36	ND	37	8.56	236	32.80	22.21	11.07	6.8	1.4	12.7	1.4	15.5	1.4	1.63	0.44	0.71	5.2	17.7	15744
	Composite	148736.88	324261.82		14	ND	15	9.05	252	27.90	18.89	9.42	5.5	1.4	12.2	1.2	16.8	1.3	1.71	0.33	0.56	5.3		
N 5	Spot	148720.47	324245.40		ND	ND	ND	9.04	172	16.50	11.17	5.57	4.7	1.2	12.4	1.3	14.6	1.3	1.19	0.32	0.38	7.2	14.9	13275
	Center/Spot	148704.02	324261.85		ND	ND	ND	9.21	190	28.80	19.50	9.72	3.4	1.0	15.4	1.4	15.9	1.4	2.86	0.21	0.61	8.2	19.0	16939
19-Sep	Composite-Resample-2	148704.02	324261.85		11	ND	12	9.36	197	16.20	10.97	5.47	3.9	1.0	12.4	1.3	14.6	1.3	1.40	0.27	0.37	9.5		
N 6	Spot	148687.66	324245.40		ND	ND	ND	8.95	203	17.30	11.71	5.84	4.3	1.2	13.5	1.4	13.5	1.3	1.36	0.32	0.43	8.6	15.6	13905
	Center/Spot	148671.21	324261.85												9.5	1.4	10.4	1.3				7.6	11.9	10569
	Composite	148671.21	324261.85		ND	ND	ND	7.38	204	13.50	9.14	4.56	2.6	0.8	8.2	1.2	10.8	1.2	1.75	0.24	0.42	6.5		
N 7	Spot	148654.86	324245.40												6.4	1.1	7.6	1.1				4.1	9.4	8373
	Center/Spot	148638.41	324261.85												4	1	4.7	1.1				4.5	8.0	7120
	Composite	148638.41	324261.85		ND	ND	ND	8.93	210	4.65	3.15	1.57	0.9	0.5	3.5	1	3.3	1	1.74	0.27	0.48	3.2		
N 8	Spot	148622.05	324245.40												3.4	1.1	3.6	1				8.6	7.6	6807
	Center/Spot	148605.60	324261.85												3.4	1	3.9	1				4	7.3	6532
	Composite	148605.60	324261.85		ND	ND	ND	9.38	303	4.87	3.30	1.64	0.7	0.5	3.4	1	2.9	1	2.35	0.24	0.57	2.8		
N 9	Spot	148589.24	324245.40												2.8	0.9	2.9	0.9				4.3	7.6	6749
	Center/Spot	148572.79	324261.85																				8.6	7639
	Composite	148572.79	324261.85		15	ND	15	8.14	610	9.07	6.14	3.06	1.6	0.6	6.3	1.1	7.6	1.2	1.91	0.21	0.40	7.4		
N 10	Composite	148540.05	324261.82		ND	ND	ND	8.95	188	16.20	10.97	5.47	1.0	0.6	4.4	1.1	5.7	1.1	5.47	0.18	0.96	3.3		

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation Sampling Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 Uncertainty (picocuries per gram)	RADIUM-226 INITIAL Result (picocuries per gram)	RADIUM-226 INITIAL Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/hour)	Gamma Reading (CPM)
O Minus 1	Composite																						13.0	11452
O minus 2	Composite				ND	ND	ND	8.03	2310	15.20	10.29	5.13	4.6	1.0	10.7	1.2	12	1.2	1.12	0.38	0.43	3.4		
O minus 3	Composite				ND	ND	ND	6.95	2940	22.10	14.96	7.46	4.5	0.9	10.9	1.2	12.3	1.3	1.66	0.37	0.61	3.1		
O minus 4	Composite				ND	ND	ND	7.75	2230	16.50	11.17	5.57	1.7	0.6	8.5	1.1	10.8	1.2	3.28	0.16	0.52	4.4		
O 1	Spot	148851.73	324278.20												7	1.1	8.2	1.2				4.2	13.0	11452
	Center	148835.33	324294.42												4.6	1.3	4.7	1.3				6.3	10.6	9443
	Composite	148835.33	324294.42		ND	ND	ND	9.56	154	3.49	2.36	1.18	0.8	0.4	4	1.2	6.1	1.3	1.47	0.13	0.19	9.3		
O 2	Center	148802.52	324294.42												11	1.3	15.4	1.5				3.7	12.0	10656
	Composite	148802.52	324294.42		ND	ND	ND	8.98	492	9.30	6.30	3.14	6.6	1.2	9.7	1.3	10.6	1.3	0.48	0.62	0.30	4.4		
O 3	Center	148769.71	324294.42												2.9	1.1	2.2	1.1				3.9	8.7	7748
	Composite	148769.71	324294.42		ND	ND	ND	9.1	73	2.46	1.67	0.83	1.0	0.5	3.9	1	4.4	1	0.83	0.23	0.19	2.6		
O 4	Composite	148736.90	324294.42		ND	ND	ND	8.12	369	12.80	8.67	4.32	11.0	2.0	10.2	1.2	10.6	1.2	0.39	1.04	0.41	1.4		
O 4 (1/5/07)	Composite	148736.90	324294.42		ND	ND	ND	9.09	453	14.30	9.68	4.83	9.0	1.4	14.6	1.5	17.4	1.6	0.54	0.52	0.28	5.4		
O4 - Average	Composite				ND	ND	ND	8.6	411.0	13.6	9.2	4.6	10.0	1.7	12.4	1.4	14.0	1.4	0.5	0.8	0.3	3.4		
O 5	Spot	148720.47	324278.20																					
	Center/Spot	148704.07	324294.42																				22.4	19980
	Composite	148704.07	324294.42		ND	ND	ND	9.13	291	15.30	10.36	5.16	3.5	1.2	10.2	1.2	11.6	1.2	1.48	0.30	0.45	4.9		
O 6	Spot	148687.66	324278.20		ND	ND	ND	8.85	227	22.50	15.23	7.60	3.5	1.1	14.3	1.4	18.5	1.5	2.17	0.19	0.41	8.2	18.3	16262
	Center/Spot	148671.21	324294.65																					
	Composite	148671.21	324294.65		ND	ND	ND	9.25	276	20.30	13.74	6.85	4.1	1.2	12.2	1.3	14.6	1.3	1.67	0.28	0.47	6.7		
O 7	Spot	148654.86	324278.00												8.9	1.2	9	1.2				9.5	11.4	10127
	Center/Spot	148638.41	324294.65												2.7	1	3.7	1				3.9	7.6	6758
	Composite	148638.41	324294.65		ND	ND	ND	7.58	162	8.36	5.66	2.82	0.8	0.4	3.7	0.9	3.7	1	3.53	0.22	0.76	3.3		
O 8	Spot	148622.05	324278.20												5.9	1.1	6.1	1.1				5.9	8.4	7443
	Center/Spot	148605.60	324294.65												4.3	1.1	4.7	1.1				1.6		
	Composite	148605.60	324294.65		ND	ND	ND	7.68	588	22.10	14.96	7.46	0.8	0.5	5.8	1	5.5	1	9.33	0.15	1.36	2.3		
O 9	Spot	148589.24	324278.20												6.7	1.2	8.9	1.2				8.8	7.5	6664
	Center/Spot	148572.79	324294.65																				9.2	8167
	Composite	148572.79	324294.65		ND	ND	ND	8.52	238	14.20	9.61	4.79	3.0	1.0	6.1	1.1	6.9	1.2	1.60	0.43	0.69	4		
O 10	Composite	148540.05	324294.42		ND	ND	ND	8.68	**1040**	16.30	11.04	5.50	1.9	0.7	5.6	1	5.6	1.1	2.90	0.34	0.98	3		
	Recheck Sulfate	148540.05	324294.42						1630															
P 1	Spot	148851.73	324311.00												2.8	0.9	3	0.9				0.9	9.9	8790
	Center/Spot	148835.33	324327.42												4.7	1.3	5.5	1.4				10.1	9.0	8008
	Composite	148835.33	324327.42		ND	ND	ND	9.4	48	3.24	2.19	1.09	1.6	0.6	4.5	1.1	5.2	1.2	0.68	0.31	0.21	6.1		
P 4 (1/5/07)	Composite	148736.88	324327.42		ND	ND	ND	9.7	125	6.91	4.68	2.33	1.4	0.6	4.6	1.1	5.8	1.2	1.67	0.24	0.40	2.7		
P 5	Center/Spot	148704.07	324327.42																				15.4	13665
	Composite	148704.07	324327.42		ND	ND	ND	8.85	1100	9.12	6.17	3.08	3.8	1.0	8	1.2	9.7	1.2	0.81	0.39	0.32	3.5		
P 6	Spot	148687.66	324311.00												10.3	1.3	11.6	1.3				5.6	20.5	18202
	Center/Spot	148671.21	324327.45												11	1.2	11.9	1.2				3.9	17.9	15945
	Composite	148671.21	324327.45		ND	ND	ND	7.67	225	17.80	12.05	6.01	5.1	1.2	9.4	1.2	10.7	1.2	1.18	0.48	0.56	3.7		
P 7	Spot	148654.86	324311.00												7.1	1.1	7.5	1.2				2.3	10.4	9227
	Composite	148638.46	324327.42		26	ND	27	8.49	411	16.60	11.24	5.60	3.1	0.9	13.2	1.2	16.7	1.4	1.81	0.19	0.34	3.6		
P 8	Center/Spot	148605.65	324327.42												5.1	1	5	1.1				2.5		
	Composite	148605.65	324327.42		ND	ND	ND	8.46	147	15.20	10.29	5.13	4.9	1.1	6.5	1.1	7.7	1.2	1.05	0.64	0.67	6.7		
P 9	Center/Spot	148572.86	324327.42												5.9	1	7.9	1.1				2.5		
	Composite	148572.86	324327.42		ND	ND	ND	8.81	208	15.20	10.29	5.13	3.2	1.0	7.1	1.2	8.3	1.2	1.60	0.39	0.62	6.7		
P 10	Composite	148540.05	324327.42		ND	ND	ND	8.47	**1090**	7.07	4.79	2.39	3.6	0.9	7.4	1.2	6.8	1.2	0.66	0.53	0.35	4.4		
	Recheck Sulfate	148540.05	324327.42						1220															
Q 1	Spot	148851.73	324343.81												3.4	0.9	3.3	0.9				3	9.4	8340
	Center	148835.33	324360.23												6.8	1.5	8.9	1.6				10.7	9.5	8453
	Composite	148835.33	324360.23		ND	ND	ND	9.46	224	9.54	6.46	3.22	3.8	1.0	8.8	1.4	9.9	1.4	0.85	0.38	0.33	9.3		
Q 4	Composite	148736.88	324360.23		ND	ND	ND	8.66	**2550**	14.00	9.48	4.73	5.0	1.0	9.4	1.1	11.2	1.2	0.95	0.45	0.42	4.2		
	Recheck Sulfate	148736.88	324360.23						2080															
Q 5	Center/Spot	148704.07	324360.23												9.5	1	11.5	1.3				6.5	10.3	9138
	Composite	148704.07	324360.23		ND	16	25	8.29	263	11.50	7.79	3.88	3.6	0.8	7.8	1	8.3	1.2	1.08	0.43	0.47	5.9		
Q 6	Spot	148687.66	324343.81												9.3	1.1	10.1	1.2				4.3	18.8	16704
	Center/Spot	148671.21	324360.26												10.3	1.1	11.5	1.2				2.6	14.6	12990
	Composite	148671.21	324360.26		32	ND	35	8.55	338	17.60	11.92	5.94	4.5	1.3	10.1	1.1	11.5	1.2	1.32	0.39	0.52	2.7		
Q 7	Spot	148654.86	324343.81												15.2	1.5	21.2	1.6				4.6		
	Center/Spot	148638.41	324360.26												4.5	1	6.3	1.1				2	11.0	9772
	Composite	148638.41	324360.26		ND	ND	ND	5.73	439	16.00	10.83	5.40	6.8	1.5	7	1.1	10.4	1.2	0.79	0.65	0.52	2		
Q 8	Spot	148622.05	324343.81												7.1	1	7.4	1.2				5.3		
	Center/Spot	148605.60	324360.26												6.3	0.9	5.4	1.1				3.2		
26-Sep	Center/Spot	148605.60	324360.26												6.4	1	6.3	1				4.7		

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation Sampling Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 Uncertainty (picocuries per gram)	RADIUM-226 INITIAL Result (picocuries per gram)	RADIUM-226 INITIAL Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/hour)	Gamma Reading (CPM)
	Composite	148605.60	324360.26		ND	ND	ND	8.23	395	12.00	8.12	4.05	2.8	0.8	5.6	1.1	6.1	1.1	1.45	0.46	0.66	5.1		
Q 9	Spot	148589.24	324343.81												8.7	1.2	8.6	1.1				5.7	11.7	10389
	Center/Spot	148572.79	324360.26																					
	Composite	148572.79	324360.26		ND	ND	ND	8.9	81	9.28	6.28	3.13	3.2	0.8	4.7	1.1	4.8	1.1	0.98	0.67	0.65	2		
Q 10	Composite	148540.05	324360.23		ND	ND	ND	8.64	**1180**	7.98	5.40	2.69	1.7	0.8	6	1	6.9	1.1	1.58	0.25	0.39	2.5		
	Recheck Sulfate	148540.05	324360.23						1230															
R 1	Spot	148851.73	324376.62												14.8	1.3	20.3	1.5				2.5	10.0	8872
	Center	148835.33	324393.04												5.3	1.2	5.6	1.2				5.2	9.2	8160
	Composite	148835.33	324393.04		ND	ND	ND	9.46	148	4.75	3.22	1.60	2.7	0.9	5.6	1.1	6.8	1.2	0.59	0.40	0.24	5.5		
R 4	Composite	148736.88	324393.04		ND	ND	ND	8.7	1440	23.40	15.84	7.90	3.2	0.9	11.4	1.2	13.3	1.2	2.47	0.24	0.59	2.9		
R 5	Composite	148704.07	324393.04		ND	ND	ND	9.12	27	3.66	2.48	1.24	1.2	0.5	2.9	1	2.6	1	1.03	0.46	0.48	2.8		
R 6	Spot	148687.66	324376.62		13	12	26	9.66	213	17.20	11.64	5.81	4.2	1.2	9.6	1.1	9.6	1.1	1.38	0.44	0.60	3.8	11.4	10118
	Center/Spot	148671.21	324393.07		ND	ND	ND	8.9	255	18.30	12.39	6.18	2.5	0.8	9.4	1.1	9.5	1.1	2.47	0.26	0.65	3.2	12.8	11364
R 6#2	Composite	148671.21	324393.07		ND	ND	ND	8.68	209	9.99	6.76	3.37	1.3	0.7	5.6	1.3	5.1	1.2	2.59	0.25	0.66	5.1		
R 7	Spot	148654.86	324376.62		ND	ND	ND	8.08	183	14.70	9.95	4.96	1.1	0.6	9.1	1.3	9.4	1.3	4.51	0.12	0.53	2.6	12.7	11343
	Center/Spot	148638.41	324393.07												5.4	1.1	5.7	1.1				1.6	9.1	8100
	Composite	148638.41	324393.07		ND	ND	ND	4.75	274	18.00	12.19	6.08	1.9	0.9	5.6	1.2	5.8	1.2	3.20	0.33	1.05	2.8		
R 8	Spot	148622.05	324376.62												5.9	1.1	6.2	1.1				1.6	11.2	10008
	Composite	148605.65	324393.04		ND	ND	ND	8.1	115	8.76	5.93	2.96	1.3	0.6	4.4	0.9	6.5	1	2.27	0.20	0.45	2.5		
R 9	Composite	148572.86	324393.04		ND	ND	ND	6.29	1330	18.10	12.25	6.11	2.2	0.9	6.4	1	6.8	1.2	2.78	0.32	0.90	2.7		
S 4	Composite	148736.88	324425.88		ND	ND	ND	9.25	34	7.45	5.04	2.51	2.6	0.9	7.1	1	7.6	1	0.97	0.34	0.33	1.3		
S 5	Spot	148720.47	324409.43		ND	ND	ND	9.47	269	23.20	15.71	7.83	7.2	1.6	8.3	0.9	11.6	1.3	1.09	0.62	0.68	4.7	12.5	11099
	Center/Spot	148704.02	324425.88		ND	ND	ND	9.32	241	25.10	16.99	8.47	6.2	1.2	8.2	1	9.9	1.2	1.37	0.63	0.86	5.8		
	Composite-Resample	148704.02	324425.88		ND	ND	ND	7.23	ND	9.91	6.71	3.35	8.2	1.5	4.4	1.1	4.3	1.2	0.41	1.91	0.78	4.2		
S 6	Spot	148687.66	324409.43		ND	ND	ND	8.96	126	6.76	4.58	2.28	2.0	0.7	10.5	1.2	10.6	1.2	1.14	0.19	0.22	2.6	18.2	16154
	Center/Spot	148671.21	324425.88		ND	ND	ND	9.01	199	88.00	59.58	29.71	264.0	8.5	125	2.8	242	4.6	0.11	1.09	0.12	5.9		
	Composite-Resample	148671.21	324425.88		ND	ND	ND	6.1	149	15.30	10.36	5.16	10.0	1.6	8.2	1.4	10.3	1.5	0.52	0.97	0.50	5.3		
S 7	Spot	148654.86	324409.46		ND	ND	ND	8.22	553	120.00	81.24	40.51	5.5	1.4	8.3	1.2	8.6	1.2	7.36	0.64	4.71	2.5	11.2	9968
	Composite	148638.46	324425.88		ND	ND	ND	8.65	238	12.00	8.12	4.05	2.8	0.8	7.8	1.2	8.7	1.2	1.45	0.32	0.47	3.5		
S 8	Composite	148605.65	324425.88		ND	ND	ND	6.96	242	21.00	14.22	7.09	2.7	0.8	8.5	1	9.7	1.3	2.63	0.28	0.73	4.3		
T4	Spot	148753.30	324442.24																				9.4	8388
	Center/Spot	148736.88	324458.69																				14.2	12617
	Composite	148736.88	324458.69		ND	ND	ND	8.89	658	5.69	3.85	1.92	1.4	0.6	5.9	0.7	6.7	1	1.37	0.21	0.29	1.9		
T 5	Spot	148720.47	324442.24		ND	ND	ND	8.83	323	56.00	37.91	18.90	67.0	4.5	42.8	1.9	70.1	2.9	0.28	0.96	0.27	7.3	21.4	19003
	Center/Spot	148704.02	324458.69		ND	ND	ND	7.21	257	60.60	41.03	20.46	3.0	0.9	5.8	1	5.9	1.2	6.82	0.51	3.47	7.1		
	Composite-Resample	148704.02	324458.69		ND	ND	ND	6.57	143	56.30	38.12	19.00	33.0	3.2	24.3	1.9	36.6	2.3	0.58	0.90	0.52	6.1		
T 6	Spot	148687.66	324442.24		ND	ND	ND	6.59	177	41.50	28.10	14.01	3.0	1.2	1.1	0.9	6.7	1.3	4.67	0.45	2.09	6.9	11.6	10286
	Center/Spot	148671.21	324458.69												7.8	0.9	11.4	1.3				4.1	15.3	13597
	Composite	148671.21	324458.69		ND	ND	ND	8.2	252	18.30	12.39	6.18	3.8	0.9	6.2	1	8.2	1.2	1.63	0.46	0.75	6.4		
T 7	Spot	148654.87	324442.24																				12.3	10966
	Composite	148638.46	324458.69		ND	ND	ND	9.08	22	11.20	7.58	3.78	1.5	0.5	4	1	5.2	1	2.52	0.29	0.73	1.6		
U 4	Spot	148753.30	324475.05																				9.1	8135
	Center/Spot	148736.88	324491.50												9.3	1	11.4	1.2				6.5	11.7	10389
	Composite	148736.88	324491.50		ND	ND	ND	8.54	367	14.20	9.61	4.79	2.9	0.8	5.8	0.9	7.8	1.2	1.65	0.37	0.61	4.4		
U 5	Spot	148720.47	324475.05		ND	ND	ND	9.25	230	22.40	15.16	7.56	20.0	3.2	11.6	1.1	15.8	1.5	0.38	1.27	0.48	6	10.1	8995
	Center/Spot	148704.02	324491.50												5.5	1	5.9	1.2				5.6		
	Composite	148704.02	324491.50		ND	ND	ND	8.17	190	34.90	23.63	11.78	1.8	0.6	4.5	0.9	4.8	1.1	6.54	0.38	2.45	6		
U 6	Spot	148687.66	324475.05		ND	ND	ND	8.85	286	35.00	23.70	11.81	3.3	1.2	4.5	0.9	6.5	1.2	3.58	0.51	1.82	5.1	11.0	9767
	Composite	148671.21	324491.50		ND	ND	ND	9.37	131	18.20	12.32	6.14	3.0	0.8	6.2	1.1	7.7	1.2	2.05	0.39	0.80	2.3		
V 4	Spot	148753.30	324507.89																				8.8	7790
	Center/Spot	148736.88	324524.31												5.9	0.9	7.6	1.2				5.1		
	Composite	148736.88	324524.31		ND	ND	ND	8.81	146	14.50	9.82	4.89	1.5	0.7	7.5	0.9	8.3	1.2	3.26	0.18	0.59	5		
V 5	Spot	148720.47	324507.86												4.3	0.8	5.9	1.1				4.7		
	Center/Spot	148704.02	324524.31												6.3	1	8.7	1.3				5.9		
	Composite	148704.02	324524.31		ND	ND	ND	9.36	144	23.50	15.91	7.93	3.3	1.0	5.2	0.8	6	1.1	2.40	0.55	1.32	4.9		
V 6	Spot	148687.66	324507.89																				12.6	11201
W 4	Spot	148753.30	324540.70																				12.3	10946
	Center/Spot	148736.88	324557.12												13.8	1.1	20.3	1.6				8.3		
	Composite	148736.88	324557.12		ND	ND	ND	8.47	591	34.00	23.02	11.48	12.0	1.7	10	1.1	14.7	1.4	0.96	0.82	0.78	6.2		
W 5	Spot	148720.47	324540.67												5.5	0.9	6.6	1.2				4.3		
	Composite	148704.07	324557.12		ND	ND	ND	6.92	2900	6.92	4.68	2.34	8.0	1.4	7.6	1.2	12.1	1.4	0.29	0.66	0.19	3.7		
X 4	Spot	148753.30	324573.48		ND	ND	12	8.89	619	19.50	13.20	6.58	4.9	1.3	9.1	1	11.6	1.2	1.34	0.42	0.57	6.9	13.2	11734
	Center/Spot	148736.85	324589.93		ND	ND	ND	9.21	311	20.20	13.68	6.82	20.0	2.3	16.1	1.1	23.7	1.6	0.34	0.84	0.29	6.2	16.6	14731
	Composite-Resample	148736.85	324589.93		ND	ND	ND	7.79	1170	61.90	41.91	20.90	6.6	1.5	9.7	1.3	12.6	1.5	3.17	0.52	1.66	8.5		

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation Sampling Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	RADIUM-226 Thorium-230 Uncertainty (picocuries per gram)	RADIUM-226 INITIAL Result (picocuries per gram)	RADIUM-226 INITIAL Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/hour)	Gamma Reading (CPM)
X 5	Spot	148720.47	324573.48		ND	ND	ND	8.71	189	30.00	20.31	10.13	15.0	1.9	10.4	1.1	15.9	1.4	0.68	0.94	0.64	4.6	15.5	13776
Y 4	Spot	148753.30	324606.29		ND	ND	ND	8.82	716	18.70	12.66	6.31	38.0	2.9	18.3	1.3	31.9	1.8	0.17	1.19	0.20	6	20.8	18523
	Center/Spot	148736.85	324622.74		ND	ND	ND	9.02	112	12.20	8.26	4.12	33.0	3.0	17.4	1.3	32.2	2	0.12	1.02	0.13	5.6	18.3	16330
	Composite-Resample	148736.85	324622.74		ND	ND	ND	8.1	1600	28.50	19.29	9.62	10.0	1.9	9.7	1.2	13.6	1.3	0.96	0.74	0.71	5.3		
Y 5	Spot	148720.47	324606.29		ND	ND	ND	9.39	86	8.04	5.44	2.71	2.9	0.9	6.1	0.9	8.9	1.2	0.94	0.33	0.30	6	12.3	10942
Z 4	Spot	148753.30	324639.13																				15.9	14161
Z 5	Spot	148720.47	324639.13																				13.9	12377
HOT SPOT #2	Spot	148592.45	323950.13	6598.00	15300	ND	15300	5.07	264	39.88	27.00	13.46	1.3	0.6	4.2	1.1	4.7	1.1	10.36	0.28	2.86	9.8		
HOT SPOT #3	Spot	148595.45	323950.13	6598.00	13300	ND	13300	4.92	501	62.33	42.20	21.04	5.5	1.3	4.6	1.1	4.2	1.1	3.83	1.31	5.01	11.7		
HOT SPOT #4	Spot	148603.45	323950.13	6598.00	15800	ND	15800	4.8	205	16.69	11.30	5.63	5.1	1.4	5.2	1.2	6.9	1.3	1.10	0.74	0.82	8.4		
HOT SPOT #5	Spot	148616.45	323950.13	6598.00	12800	ND	12800	4.6	495	25.11	17.00	8.48	1.6	0.7	3.2	1.1	3.1	1.1	5.30	0.52	2.73	7.2		
TMW-62		148789.00	324277.10	6602.00																			24.1	21450
TMW-91		148518.40	323956.90	6597.00																			17.1	15250
TMW-92		148504.50	323951.30	6598.00																			18.3	16291
TMW-101		148798.80	324099.25																				12.8	11367
TMW-104		148508.60	324122.60	6606.00																			11.9	10586
TMW-111		148800.10	324188.00	6607.00																			21.7	19272
TMW-112		148700.10	324189.00	6601.00																			19.1	16969
TMW-113		148600.10	324192.50	6596.00																			7.4	6556
CB-21 Hole	Bottom	148473.68	324046.65	6599.01	ND	ND	ND	4.74	252	4.90	3.32	1.65	0.0	0.0	3.2	0.9	2	0.9	N/A	0.00	0.83	4.3		
CB-21 Hole	West Side	148471.25	324035.92	6603.90	ND	ND	ND	5.05	227	4.51	3.05	1.52	0.0	0.0	1.8	1.2	3.4	1.2	N/A	0.00	0.45	5.7		
CB-21 Hole	South Side	148464.08	324046.65	6603.30	53	ND	53	5.91	333	6.08	4.12	2.05	0.0	0.0	2.6	1.1	2.4	1.1	N/A	0.00	0.86	5.6		
CB-21 Hole	East Side	148462.66	324053.54	6602.80	ND	ND	ND	4.66	405	5.87	3.97	1.98	0.4	0.3	2.7	1.2	2.7	1.1	4.95	0.15	0.73	6.7		
CB-21-V		148465.54	324033.51	6611.00	ND	ND	ND	7.94	314	43.20	29.25	14.58	6.6	1.4	13.8	1.4	17.5	1.5	2.21	0.38	0.83	5.5		
CB-21-W		148462.16	324041.93	6610.40	27	ND	29	7.7	449	36.20	24.51	12.22	2.6	1.0	4.8	0.9	6	1.1	4.70	0.43	2.04	2.6		
CB-21-X		148464.50	324052.06	6611.90	144	ND	145	7.07	573	16.40	11.10	5.54	0.0	0.0	4	0.9	3.3	0.9	N/A	0.00	1.68	1.1		
CB-21-Y		148467.38	324059.83	6611.20	109	ND	110	7.46	322	6.77	4.58	2.29	0.5	0.4	2.5	0.9	2.8	1	4.57	0.18	0.82	3		
CB-21-Z		148471.81	324067.46	6610.80	ND	ND	ND	8.35	309	58.10	39.33	19.61	7.6	1.6	16.6	1.6	18.3	1.7	2.58	0.42	1.07	12.2		
15' N of SE Corner Mill Bldg	4' above bottom	148742.05	324038.00	6602.30	1280	ND	1300	8.28	136	53.70	36.35	18.13	0.0	0.0	3.4	1.2	3.6	1.1	N/A	0.00	5.04	4.4		
45' N of SE Corner Mill Bldg	1' above bottom	148776.26	324038.52	6600.64	1890	ND	1890	9.25	146	63.10	42.72	21.30	13.0	1.9	32.5	2.1	37.9	2.1	1.64	0.34	0.56	12.5		
Hole North Tailings Line	Bottom	148805.90	324043.55	6594.26	ND	ND	ND	9.22	183	4.63	3.13	1.56	0.0	0.0	4.3	1.3	5.1	1.2	N/A	0.00	0.31	10.4		
Under Tails Line Pit Bottom	West wall	148783.13	324039.57	6599.43	4420	ND	4430	9.06	174	55.50	37.57	18.73	1.4	1.8	35	2.3	38.1	2.2	13.38	0.04	0.49	15.1		
WALL	#1	148812.02	324177.38	6608.81	ND	ND	ND	5.11	155	4.21	2.85	1.42	1.5	0.7	3.6	1.1	3.2	1	0.95	0.47	0.44	6.6		
WALL	#2	148806.61	324209.82	6614.88	561	ND	569	4.47	149	3.75	2.54	1.27	3.9	1.1	6.4	1.3	6.5	1.2	0.32	0.60	0.19	5.3		
WALL	#3	148810.21	324205.13	6614.46	94	ND	101	5.18	123	17.80	12.05	6.01	8.3	0.0	8	1.3	8.5	1.2	0.72	0.98	0.71	6.3		
WALL	#4	148808.80	324205.98	6609.94	ND	ND	ND	4.85	777	6.06	4.10	2.05	9.4	1.4	3.1	1.1	3.6	1.1	0.22	2.61	0.57	6.7		
WALL	#5	148803.42	324213.94	6515.25	534	ND	537	4.8	239	7.55	5.11	2.55	7.1	1.1	7	1.3	8	1.2	0.36	0.89	0.32	7.3		
Diesel																								

NOTES:
99.2830% Uranium-238 in natural uranium used in calculations as per CRC Handbook of Chemistry and Physics.
677 picoCuries per milligram natural uranium specific activity used as per 20CFR20 Appendix B.
340 picoCuries per milligram specific activity for Uranium-238 used as per 49CFR173.435.

CB Samples Spreadsheet Final 4-21-08

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation
Superceded by Later Sampling

Location	Sample Type	Northing	Easting	Elevation	Diesel Range (milligrams per kilogram)	Oil Range Hydrocarbo (milligrams per kilogram)	Total Extractable (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 - (picocuries per gram)	INITIAL Result (picocuries per gram)	INITIAL Uncertainty (picocuries per gram)	FINAL Result (picocuries per gram)	FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/ hour)	Gamma Reading (CPM)	Radium-226 Result (picocuries per gram)	Gamma Reading (microR/ hour)	Gamma Reading (CPM)
E-6 7/17/2006	Composite	148671.33	323965.53		ND	ND	ND	8.68	158	19.65	13.30	6.63	2.1	0.8	5.7	1	7.9	1	3.16	0.27	0.84	8.9			5	12.2	10860
E-7 7/17/2006	Composite	148638.45	323966.53		ND	ND	ND	8.45	200	24.22	16.40	8.18	2.2	0.9	4.9	1	5.7	1	3.72	0.39	1.43	8.7			9.4	12.8	11409
E-8	Composite	148605.81	323966.70		ND	ND	ND	8.47	143	10.60	7.18	3.58	2.5	0.8	6.4	1.1	6.3	1.1	1.43	0.40	0.57	7.2			14.9	15.1	13413
E-9	Composite-N Half	148572.80	323966.55		ND	ND	ND	8.19	146	7.49	5.07	2.53	1.5	0.7	3.6	1	4.8	1	1.69	0.31	0.53	8.1			10.2	13.5	11982
F-6 7/17/2006	Composite	148671.27	323999.31		ND	ND	ND	8.64	144	11.10	7.51	3.75	1.6	0.8	5.1	1	6.4	1.1	2.34	0.25	0.59	9.3			7.6	10.4	9280
F7	Composite	148638.45	323999.34		11	ND	12	8.68	166	17.00	11.51	5.74	3.5	1.1	6.4	1.1	8.7	1.1	1.64	0.40	0.66	8.5			9.5	13.1	11662
F8	Composite	148605.64	323999.41		ND	ND	ND	8.31	158	10.50	7.11	3.54	3.2	1.1	5.6	1.1	6	1.1	1.11	0.53	0.59	7.5			6.7	12.1	10787
G-5 7/17/2006	Composite	148704.09	324032.13		134	ND	134	8.51	195	13.40	9.07	4.52	2.8	1.1	7.1	1.1	9.7	1.2	1.62	0.29	0.47	8.3			3.5	10.3	9133
G-6 7/17/2006	Composite	148670.95	324032.21		ND	ND	ND	8.38	160	11.70	7.92	3.95	2.8	1.1	5.5	1	6.4	1	1.41	0.44	0.62	9.4			5.7	11.8	10476
G-7	Composite	148638.73	324032.02		ND	ND	ND	8.61	168	8.37	5.67	2.83	1.8	0.7	7.1	1	9.2	1.1	1.57	0.20	0.31	7.5			4.3	8.7	7704
G-8	Composite	148605.66	324032.11		ND	ND	ND	8.93	170	7.42	5.02	2.50	1.5	0.7	5.4	1.1	6.6	1.1	1.67	0.23	0.38	9			11.5	15.5	13819
G11 8/18/06	Spot	148523.64	324015.75								0.00	0.00			9.1	1.2	9.4	1.2				7.5	13.1	11636	10.3	14.5	12948
G11 9/19/06	Spot	148523.64	324015.75		23	ND	31	8.75	425	20.00	13.54	6.75	2.5	0.8	9.4	1.3	11.8	1.3	2.70	0.21	0.57	6.6			15.1	15.5	13787
J-4 9/6/2006	Composite	148736.88	324130.58		83	ND	85	9.05	228	29.30	19.84	9.89	3.1	1.1	12	1.2	15.2	1.3	3.19	0.20	0.65	5.9					
K Minus 3	Composite	148966.57	324163.39		20	ND	27	9.26	168	14.00	9.48	4.73	2.6	0.7	13.3	1.4	15.8	1.4	1.82	0.16	0.30	4.3					
K Minus 3	Composite (2nd)	148966.57	324163.39		ND	ND	ND	9.22	218	28.90	19.57	9.76	92.0	5.2	72.7	2.7	107	3.3	0.11	0.86	0.09	3.1					
K Minus 3	Recheck Thorium	148982.97	324146.97										96.0	4.7													
N5	Composite	148704.02	324261.85		ND	ND	ND	7.2	215	23.00	15.57	7.76	5.6	1.1	11.4	1.4	17.9	1.5	1.39	0.31	0.43	8.7					
P 4	Composite	148736.88	324327.42		ND	ND	ND	8.43	180	7.06	4.78	2.38	5.0	1.4	5.2	1.1	4.9	1	0.48	1.02	0.49	1.7					
9/26/2006	Composite	148605.60	324360.26		ND	ND	ND	8.04	759	15.50	10.49	5.23	2.6	0.8	5.6	1.1	6.1	1.1	2.01	0.43	0.86	5.1					
8/18/2006	Composite	148671.21	324393.07		12	ND	12	8.28	207	16.60	11.24	5.60	5.8	1.4	22.1	1.7	21.8	1.6	0.97	0.27	0.26	3.2					
S5	Composite	148704.02	324425.88		ND	ND	ND	8.83	168	25.10	16.99	8.47	12.0	1.5	19.7	1.4	32.2	2.1	0.71	0.37	0.26	5.4					
	Composite	148671.21	324425.88		ND	ND	ND	7.84	331	35.00	23.70	11.81	73.0	3.8	33.1	1.6	56.3	2.5	0.16	1.30	0.21	6.4					
T5	Composite	148704.02	324458.69		ND	ND	ND	8.37	228	51.60	34.93	17.42	20.0	2.2	14.4	1.2	19.9	1.7	0.87	1.01	0.88	6.5					
	Composite	148736.85	324622.74		ND	ND	ND	8.93	137	10.90	7.38	3.68	8.8	1.6	12.1	1.1	17.4	1.5	0.42	0.51	0.21	7.1					
	Composite	148736.85	324589.93		ND	ND	ND	8.54	964	35.20	23.83	11.88	10.0	1.7	11.2	1.1	16.2	1.4	1.19	0.62	0.73	4.9					
North Pit	10' below surface 75' W of PWW-2	148802.54	324180.69	6630.00	ND	ND	ND	7.65	262	34.10	23.09	11.51	4.9	1.1	14.3	1.6	18	1.8	2.35	0.27	0.64	4.9					

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation
Removed by Excavation

Location	Sample Type	Northing	Easting	Elevation	Diesel Range (milligrams per kilogram)	Oil Range Hydrocarbo (milligrams per kilogram)	Total Extractable (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 - (picocuries per gram)	INITIAL Result (picocuries per gram)	INITIAL Uncertainty (picocuries per gram)	FINAL Result (picocuries per gram)	FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/ Thorium-230	Equilibrium Thorium-230/ Radium-226	Equilibrium Uranium-238/ Radium-226	Moisture (percent)	Gamma Reading (microR/ hour)	Gamma Reading (CPM)	Radium-226 Result (picocuries per gram)	Gamma Reading (microR/ hour)	Gamma Reading (CPM)
HOT SPOT #1	Spot	148726.71	324047.21	6601.53	27900	ND	28000	7.89	1510	30.87	20.90	10.42	1.7	0.7	3.3	1	5.8	1.1	6.13	0.29	1.80	9.1					
TMW-90	9-1/2' above casing bottom	148611.25	323958.92	6593.82	ND	ND	13	8.02	240	13.90	9.41	4.69	3.4	1.1	7.2	1.1	9.7	1.1	1.38	0.35	0.48	16.2					
TMW-90	7' above casing bottom N Wall	148611.25	323958.92	6591.32	ND	ND	ND	7.83	212	7.23	4.89	2.44	2.2	0.9	4.2	1.1	5.2	1.1	1.11	0.42	0.47	10.5					
TMW-90	4' above casing bottom N Wall	148611.25	323958.92	6588.32	8120	ND	8120	8.67	319	7.27	4.92	2.45	3.5	1.1	8.9	1.1	9.6	1.1	0.70	0.36	0.26	12.4					
TMW-90	3-1/2' above casing bottom N Wall	148611.25	323958.92	6587.82	242	ND	243	8.27	1830	7.89	5.34	2.66	4.2	1.1	11.8	1.3	14.3	1.4	0.63	0.29	0.19	13.6					
TMW-90	Casing bottom	148611.25	323958.92	6584.32	ND	ND	12	6.19	119	10.00	6.77	3.38	3.4	1.1	4.8	1	6.1	1.1	0.99	0.56	0.55	7.5					
SE Corner Mill Bldg	45' EAST	148725.06	324047.06	6605.00	2440	ND	2450	7.7	218	14.50	9.82	4.89	1.5	0.2			1.4	0.1	3.26	1.07	3.50						
SE Corner Mill Bldg	50' EAST	148725.06	324052.06	6605.00	6040	ND	6060	7.66	161	23.10	15.64	7.80	0.8	0.1			1.4	0.1	9.75	0.57	5.57						
L 2	Hot spot in wall-10' east TMW-111	148798.69	324195.42	6610.00	3260	ND	3280	6.73	315	23.90	16.18	8.07	13.0	2.0	3.8	1.1	4.6	1	0.62	2.83	1.75	6.2					
So. of TMW-62		148780.05	324246.43	6610.00	706	193	899			7.09	4.80	2.39	4.3	0.5			1.8	0.2	0.56	2.39	1.33						
SE Corner Mill Bldg	30' EAST	148725.06	324032.06	6610.00	1570	ND	1580			11.60	7.85	3.92	10.0	0.7			5	0.3	0.39	2.00	0.78	6.2					
SE Corner Mill Bldg	25' EAST	148725.06	324027.06	6605.00	1240	ND	1270	7.55	152	9.42	6.38	3.18	1.3	0.1			1.6	0.1	2.45	0.81	1.99	6.2					
SE Corner Mill Bldg	54' EAST	148725.06	324056.06	6602.00	17600	ND	17900	7.9		23.60	15.98	7.97	0.6	0.1			1.2	0.1	13.28	0.50	6.64	9.6					
NW Corner Excav. Against Mill	8' below surface	148722.27	323923.45	6632.00	ND	ND	ND	6.66	60	1.74	1.18	0.59	0.4	0.1			0.6	0.08	1.47	0.67	0.98						
50' S. of Mill Bldg	8' below surface	148672.27	323923.45	6632.00	ND	ND	ND	6.28	42	27.00	18.28	9.11	2.7	0.2			2.2	0.2	3.38	1.23	4.14						
30' S. of Mill Bldg	6' below surface	148692.27	323923.45	6634.00	ND	ND	ND	6.65	67	2.72	1.84	0.92	0.5	0.1			2.2	0.2	1.84	0.23	0.42						
Y 4	Composite-Resample	148736.85	324589.93		ND	ND	ND	8.1	1600	28.50	19.29	9.62	10.0	1.9	9.7	1.2	13.6	1.3	0.96	0.74	0.71	5.3					

No results for that parameter

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation
Samples - No Accurate Locational Data

Location	Sample Type	Northing	Easting	Elevation	Diesel Range (milligrams per kilogram)	Oil Range Hydrocarbo (milligrams per kilogram)	Total Extractable (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 - (picocuries per gram)	INITIAL Result (picocuries per gram)	INITIAL Uncertainty (picocuries per gram)	FINAL Result (picocuries per gram)	FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/ hour)	Gamma Reading (CPM)	Radium-226 Result (picocuries per gram)	Gamma Reading (microR/ hour)	Gamma Reading (CPM)
North Culvert End	1'				ND	ND	ND	9.09	ND	3.45	2.34	1.16	1.4	0.8	2.6	1	3	1	0.83	0.47	0.39	3.7					
North Culvert End	10'				ND	ND	ND	8.37	ND	3.27	2.21	1.10	6.2	1.4	8.6	1.3	10.8	1.3	0.18	0.57	0.10	8					

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation
Ore Pad Material Analyses

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 Uncertainty (picocuries per gram)	INITIAL Result (picocuries per gram)	INITIAL Uncertainty (picocuries per gram)	FINAL Result (picocuries per gram)	FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/ hour)	Gamma Reading (CPM)
Ore Pad Fill N	East				ND	ND	ND	9.31	10	5.51	3.73	1.86	1.1	0.5	5.2	0.9	5.4	0.9	1.69	0.20	0.34	1.8		
Ore Pad Fill N	West				ND	ND	ND	9.43	28	8.95	6.06	3.02	2.2	0.7	9	1	8.5	1	1.37	0.26	0.36	3.6		
Average								9.37	19	7.23	4.89471	2.4405747	1.65	0.6	7.1	0.95	6.95	0.95	1.5320721	0.2312636	0.3499358	2.7		

Kennecott Uranium Company
Sweetwater Uranium Project
Catchment Basin Excavation
Natural Material Kminus3 Area

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics (milligrams per kilogram)	Oil Range Hydrocarbons (milligrams per kilogram)	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 - Uncertainty (picocuries per gram)	INITIAL Result (picocuries per gram)	INITIAL Uncertainty (picocuries per gram)	FINAL Result (picocuries per gram)	FINAL Uncertainty (picocuries per gram)	Equilibrium Uranium-238/Thorium-230	Equilibrium Thorium-230/Radium-226	Equilibrium Uranium-238/Radium-226	Moisture (percent)	Gamma Reading (microR/ hour)	Gamma Reading (CPM)
K Minus 3 NORM Area	Black Material	148982.97	324146.97		226	804	1000			2550.00	1726.35	860.78	393.0	17.0	155	5.8	396	9	2.19	0.99	2.17	36.4		
K Minus 3 NORM Area	Sand	148982.97	324146.97		211	650	834			2350.00	1590.95	793.27	708.0	29.0	192	4.9	326	6.4	1.12	2.17	2.43	18.4		

Not analyzed for these parameters

Catchment Basin Excavation					
Gamma Readings - Surveyed Points between Marked Points					
Date:	31-Jul-06				
Point Identification	Northing	Easting	Elevation	Gamma Count (Counts per minute)	Gamma Exposure Rate (MicroR per hour)
7002	148687.72	324130.26	6600.41	13661	16.2
7003	148688.07	324094.08	6599.46	14512	17.2
7004	148687.13	324060.80	6598.93	12157	14.4
7005	148684.76	324028.60	6598.21	10164	12.1
7006	148685.17	323994.22	6596.54	10312	12.2
7007	148684.94	323966.95	6597.79	12984	15.4
7008	148676.81	323959.93	6598.84	13299	15.8
7009	148677.88	323977.42	6598.54	11634	13.8
7010	148672.20	323985.99	6598.13	9775	11.6
7011	148670.72	324021.43	6598.52	10438	12.4
7012	148673.35	324049.89	6598.40	10882	12.9
7013	148673.67	324082.22	6599.41	11840	14.1
7014	148673.15	324114.89	6599.41	12326	14.6
7015	148652.14	324131.47	6598.50	11392	13.5
7016	148652.42	324095.34	6598.53	13088	15.5
7017	148653.45	324063.71	6598.19	12321	14.6
7018	148654.57	324032.88	6598.07	12307	14.6
7019	148653.24	324008.64	6598.68	10225	12.1
7020	148639.92	324049.04	6597.75	11203	13.3
7021	148639.05	324081.95	6597.64	11207	13.3
7022	148639.60	324115.88	6598.12	8995	10.7
7023	148621.13	324063.24	6597.92	10419	12.4
7024	148622.04	324037.24	6597.77	10633	12.6
7025	148606.79	324049.45	6597.65	9550	11.3
7026	148606.79	324080.93	6597.93	10664	12.7
7027	148607.94	324115.27	6598.87	9624	11.4
7028	148589.42	324097.75	6598.49	11113	13.2
7029	148588.66	324065.65	6598.12	8788	10.4
7030	148590.22	324034.53	6597.06	10346	12.3
7031	148704.10	324050.97	6599.48	12018	14.3
7032	148705.18	324082.10	6599.19	12978	15.4
7033	148705.87	324116.07	6600.35	13652	16.2
7034	148707.75	324144.55	6600.26	12845	15.3
7035	148699.88	324179.09	6601.28	16731	19.9
7036	148718.49	324198.35	6600.42	14828	17.6
7037	148736.83	324179.22	6600.25	13952	16.6
7038	148734.12	324146.10	6599.81	14630	17.4
7039	148755.28	324164.25	6600.37	14709	17.5
7040	148754.38	324196.79	6599.95	10923	13.0
7041	148754.61	324228.02	6599.97	15395	18.3
7042	148768.45	324215.87	6599.27	11028	13.1
7043	148764.93	324179.41	6599.88	13847	16.4
7044	148786.00	324197.78	6600.51	15683	18.6
7045	148702.23	324144.54	6600.47	12469	14.8

Point Identification	Northing	Easting	Elevation	Gamma Count	Gamma Exposure Rate
				(Counts per minute)	(MicroR per hour)
7046	148702.75	324112.30	6600.45	16240	19.3
7047	148701.45	324079.24	6599.30	12568	14.9
7048	148697.89	324041.47	6599.38	12735	15.1
7049	148672.73	324016.00	6598.37	10574	12.6
7050	148672.20	324049.60	6598.32	13296	15.8
7051	148671.93	324084.36	6599.21	13258	15.7
7052	148673.34	324115.02	6599.52	12033	14.3
7053	148671.03	324149.15	6599.62	12030	14.3
7057	148635.43	324148.09	6599.45	12287	14.6
7058	148637.34	324114.61	6598.14	10861	12.9
7059	148636.47	324080.68	6597.40	10757	12.8
7060	148637.20	324046.39	6597.77	10895	12.9
Instrument Data					
	Manufacturer	Model	Serial Number	Calibration Date	
Rate meter	Ludlum	2350-1	192613	13-Feb-06	
Probe	Ludlum	44-10	PR206932	12-Feb-06	
Detector Efficiency:	842.00	CPM/uR/HR			
	Reading		Calculated Reading		
	(microR/hour)	(Counts per minute)	(microR/hour)		
Source:	257.00	216269.00	256.9		
Background:	11.33	9540.00	11.3		

	Catchment Basin Excavation					
	Gamma Readings - Surveyed Points in Excavation					
	Date:	4-Oct-06				
	Point Identification	Northing	Easting	Elevation	Gamma Count (Counts per minute)	Gamma Exposure Rate (MicroR per hour)
	249	148704.63	324598.89	6642.08	10462	11.8
	250	148713.80	324561.53	6636.36	10593	11.9
	251	148730.79	324549.44	6635.99	11440	12.9
	252	148740.15	324538.51	6635.32	7839	8.8
	253	148733.99	324519.01	6633.53	7367	8.3
	254	148717.43	324520.28	6633.61	7880	8.9
	255	148701.91	324522.86	6633.60	10138	11.4
	256	148698.97	324502.09	6632.12	8185	9.2
	257	148714.65	324497.91	6631.74	8768	9.9
U5 GAMMA	258	148720.27	324476.13	6629.18	8995	10.1
	259	148712.35	324464.43	6626.48	23106	26.0
	260	148696.27	324463.60	6626.73	8343	9.4
	261	148696.42	324449.64	6625.10	15604	17.5
	262	148710.11	324449.27	6625.03	37284	41.9
	263	148709.90	324433.51	6623.54	7102	8.0
	264	148707.33	324420.19	6621.40	6730	7.6
	265	148695.10	324418.44	6621.02	6762	7.6
	266	148683.31	324418.50	6620.84	14162	15.9
	267	148667.12	324421.62	6622.91	28535	32.1
	268	148668.90	324436.15	6624.01	10590	11.9
	269	148685.22	324436.01	6623.72	19735	22.2
	270	148683.01	324451.90	6626.98	9095	10.2
	271	148726.31	324580.13	6636.43	20890	23.5
	272	148739.59	324580.17	6636.76	16701	18.8
	273	148749.35	324585.19	6637.47	14611	16.4
	274	148740.76	324594.22	6638.21	16296	18.3
	275	148730.26	324608.83	6639.42	16568	18.6
	276	148733.16	324625.33	6641.32	34680	39.0

Gamma Instrument Data											
Initial Samples - Sheet #1											
	Manufacturer	**Model**	**Serial Number**	**Calibration Date**	**Source Check**	**Source Check**	**Background**	**Background**	**Activity**	**Date**	**Conversion**
					(cpm)	(microR/hour)	(cpm)	(microR/hour)	(microCuries)		(cpm / uR/hr)
July 31, 2006											
Meter:	Ludlum	2350-1	192613	13-Feb-06							
Probe:	Ludlum	44-10	PR-206932	12-Feb-06	216269	257	9540	11.3			842
Source:		Cesium-137	2304						1.408	15-Aug-80	
August 29, 2006											
Meter:	Ludlum	2350-1	216182	9-Aug-06							
Probe:	Ludlum	44-10	PR-233869	9-Aug-06	250607	282	9353	10.5			890
Source:									1.408	15-Aug-80	
August 30, 2006											
Meter:	Ludlum	2350-1	216182	9-Aug-06							
Probe:	Ludlum	44-10	PR-233869	9-Aug-06	253551	285	8752	9.8			890
Source:									1.408	15-Aug-80	
October 4, 2006											
Meter:	Ludlum	2350-1	216182	9-Aug-06							
Probe:	Ludlum	44-10	PR-233869	9-Aug-06	253584	285	5854	6.6			890
Source:									1.408	15-Aug-80	
Lead shine shield used for all readings.											

Schutterle, Shelley (RTEA)

From: Oscar Paulson [paulson@tribcsp.com]
Sent: Thursday, December 21, 2006 1:57 PM
To: Stephen Cohen
Cc: shelley@tribcsp.com
Subject: Catchment Basin Excavation

Stephen Cohen:

The following:

1. Additional Deep Soil Background Samples

The diesel contaminated soil excavation West of the Mill Building is still open. This area was excavated to a depth of approximately 6554 above mean sea level (approximately 76 feet below ground surface) to remove diesel contaminated soils. The excavation walls provide a profile of the geology near the Mill. Four (4) samples were collected in the walls of the Western portion of this excavation approximately 1,000 feet Northwest of the Catchment Basin. The results are tabulated below:

Location	Sample Type	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 - Uncertainty (picocuries per gram)	FINAL Radium-226 Result (picocuries per gram)	FINAL Radium-226 Uncertainty (picocuries per gram)
Diesel Pit North Wall	West end bottom Redox - #2	ND	8.45	94	17.50	11.85	5.9	1.3	4.6	1.1
Diesel Pit South Wall	Center/Bottom - #4	ND	8.56	81	16.40	11.10	0.7	0.5	6	1.3
Diesel Pit South Wall	Bottom - #3	ND	8.1	321	9.85	6.67	1.7	0.7	20.2	1.9
Diesel Pit SW Corner	Bench - #1	ND	8.93	63	43.30	29.31	6.4	1.2	18.3	1.4

Clearly background radium-226 and natural uranium can be elevated at depth which is to be expected given that the area is mineralized. The sample Bench #1 was collected approximately 35 feet below surface in the depth range of the Catchment basin excavation

2. Catchment Basin Excavation CB-21 Area

Borehole CB-21 exhibited an elevated natural uranium concentration as was discussed in the submittal related to the contamination. In the submittal, a commitment was made to excavate additional material around the CB-21 borehole and sample it. This bore hole involves two (2) grids that have been sampled to date, Grids G12 and H12. The pertinent results for these two grids area below:

Location	Sample Type	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 - Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)
G12	Composite	186	8.81	220	9.76	6.61	3.29	0.0	0.0	3.5	1.1
H12	Composite	61	8.02	2100	34.00	23.02	11.48	3.1	1.0	10.4	1.2

These two (2) grids clearly meet release standards. Several spot samples in the area did not meet release standards however but as discussed in our telephone conversation on December 13, 2006 as long as the grid met the release standard some spot samples within the grid could exceed the limit since the grid sample is a nine (9) point composite sample.

Spot sample data for the cut around CB-21 is included below:

Location	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 - Uncertainty (picocuries per gram)	RADIUM-226 FINAL Result (picocuries per gram)	RADIUM-226 FINAL Uncertainty (picocuries per gram)
CB-21 Hole	ND	4.74	252	4.90	3.32	1.65	0.0	0.0	2	0.9
CB-21 Hole	ND	5.05	227	4.51	3.05	1.52	0.0	0.0	3.4	1.2
CB-21 Hole	53	5.91	333	6.08	4.12	2.05	0.0	0.0	2.4	1.1
CB-21 Hole	ND	4.66	405	5.87	3.97	1.98	0.4	0.3	2.7	1.1
CB-21-V	ND	7.94	314	43.20	29.25	14.58	6.6	1.4	17.5	1.5
CB-21-W	29	7.7	449	36.20	24.51	12.22	2.6	1.0	6	1.1
CB-21-X	145	7.07	573	16.40	11.10	5.54	0.0	0.0	3.3	0.9
CB-21-Y	110	7.46	322	6.77	4.58	2.29	0.5	0.4	2.8	1
CB-21-Z	ND	8.35	309	58.10	39.33	19.61	7.6	1.6	18.3	1.7

3. Grid I minus 3

The results for this grid are as follows:

Location	Sample Type	Total Extractable Hydrocarbons (milligrams per kilogram)	pH (Standard units)	Sulphate (milligrams per kilogram)	Natural Uranium (milligrams per kilogram)	Natural Uranium (picocuries per gram)	Uranium-238 (picocuries per gram)	Thorium-230 (picocuries per gram)	Thorium-230 - Uncertainty (picocuries per gram)	FINAL Result (picocuries per gram)	Uncertainty (picocuries per gram)
I-3	Composite	ND	7.43	18	60.10	40.69	20.29	24.0	2.8	20.9	1.6

This grid was discussed in our telephone conversation on December 13, 2006. Given the fact that the sulphate concentration for this grid is very low (18 milligrams per kilogram) and elevated sulphate is one indicator of contamination by process fluids, no hydrocarbon contamination is present and that uranium-238, thorium-230 and radium-226 are all roughly in equilibrium (20.29 picocuries per gram/24.0 picocuries per gram/20.9 picocuries per gram) it is believed that the radium-226 present in this grid is natural it was decided that no further excavation work be performed on this grid. In addition, the main power line for the facility lies immediately North of this grid making it difficult to extend excavation activities further to the North at this time.

This e-mail is being sent to document our discussion on December 13, 2006 as well as to provide newly received information regarding naturally occurring elevated radium-226 concentrations in the walls of the diesel contaminated soil excavation.

If you have any questions please do not hesitate to contact me.

Oscar Paulson
Facility Supervisor
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Sweetwater Uranium Project
P.O. Box 1500
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Cellular: (307)-320-8758

E-mail: paulson@tribcsp.com

Schutterle, Shelley (RTEA)

From: Oscar Paulson [paulson@tribcsp.com]

Sent: Tuesday, November 07, 2006 8:36 AM

To: Stephen Cohen

Cc: shelley@tribcsp.com

Subject: Cracking between the Slab and Footing Along the Inside of the East Wall of the Mill Building

Attachments: crack_caliper_01.jpg; crack_support_02.jpg; chains_01.jpg; crack_south_of_support.jpg

Stephen Cohen:

Cracking exists between the slab and footing along the inside of the East Wall of the Mill Building as shown in the three (3) attached photographs. The West highwall of the Catchment Basin Excavation lies directly beneath the East wall of the Mill Building.

Attached please find the following photographs that you requested that depict the cracks and attempts to prevent further separation along them:

crack_support_02.jpg - This shows the cracking around a concrete support for a vertical beam along the interior of the East wall of the Mill Building. A stadia rod is included for scale. The clevises and wire rope in the image connect to a come-along behind the photographer that is connected to a concrete support for a thickener leg. These tensioned cables were installed to pull back on the concrete. Crack width measurements and dates are written on the beam.

crack_caliper_01.jpg - This shows a crack inside of the man door in the Southeast corner of the Mill Building. A measurement point is marked in white paint. A dial indicator attached to a support to measure crack width is also shown.

chains_01.jpg - This image shows chains attached to two (2) concrete thickener bases going to a come-along attached via a steel cable to the base of a beam attached to a footing along the inside of the Mill Building's East wall. This was installed to provide pull back against the footing along the Mill Building's East wall.

crack_south_of_support.jpg - This image of the crack is taken immediately South of it in *crack_support_02.jpg*.

Due to the presence of the cracks and measured movement across them, prompt backfilling of the excavation against the highwall beneath the Mill Building is essential to provide support to the Mill Building foundation and to prevent damage to the Mill Building. A compacted fill buttress is being constructed against the highwalls beneath the Mill Building walls and the tanks. This buttress is being constructed by placing fill in lifts, wetting it and wheel compacting it with a Caterpillar 980C front end loader.

Oscar Paulson

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Kennecott Uranium Company
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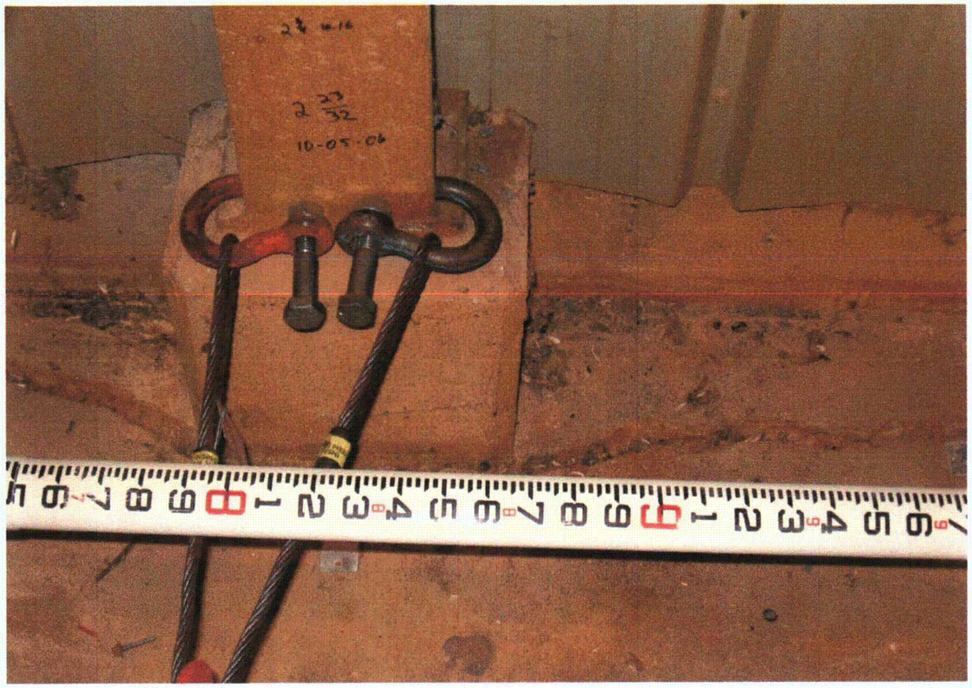
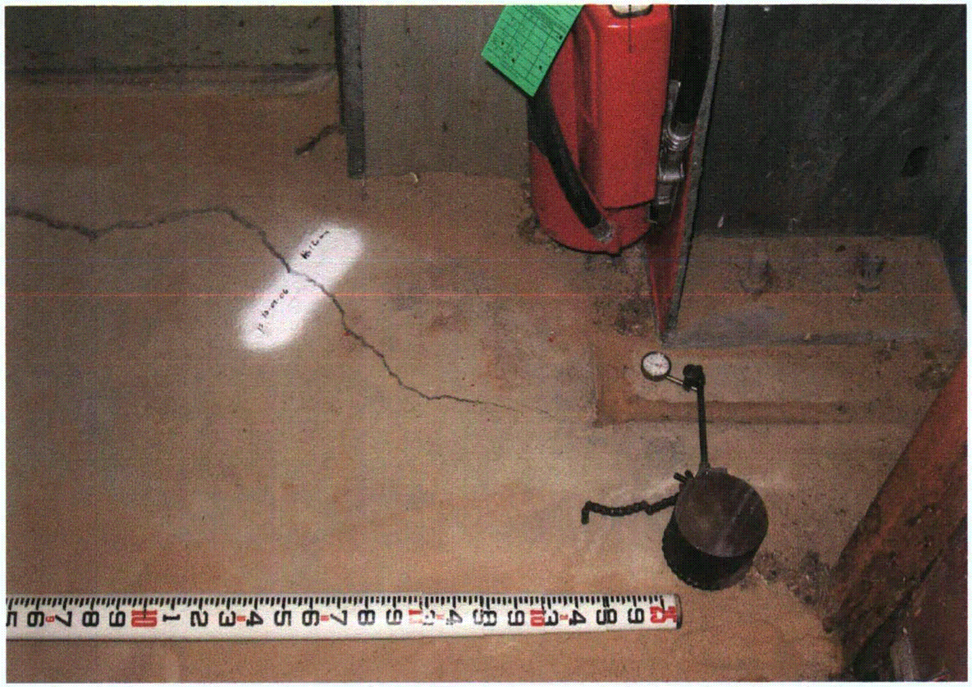
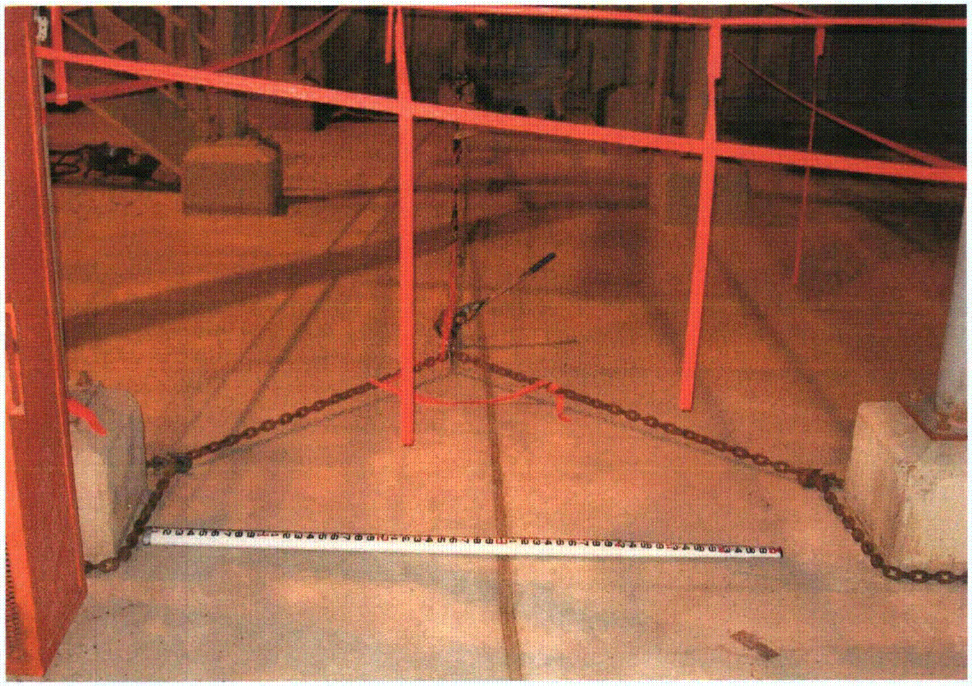
42 Miles Northwest of Rawlins


2 23/32
10-05-06




6 23/32 (10-05-06)



Schutterle, Shelley (RTEA)

From: Oscar Paulson [paulson@tribcsp.com]
Sent: Thursday, December 07, 2006 3:18 PM
To: Stephen Cohen
Cc: shelley@tribcsp.com
Subject: Updated Excavation Sample Map
Attachments: 12_07_06_excavation.pdf; 12_07_06-excavation_data.ppt

Stephen Cohen:

1. License Amendment Request

The amendment for the drain system was received. Thank you!

2. E-mail on Cracking

Was the e-mail with the images of the cracking in the Mill Building floor satisfactory? It was sent on Tuesday, November 07, 2006

3. Excavation

Attached please find the Adobe Acrobat Portable Document Format (*.pdf file 12_07_06_excavation.pdf and the Microsoft PowerPoint (*.ppt) file 12_07_06-excavation_data.ppt that contain updated sample data. Three (3) of the following grids were below 16.4 picoCuries per gram Radium-226 based on the preliminary results shown on the map sent to you on Monday, November 20, 2006 and now returned results in excess of 16.4 picoCuries per gram Radium-226:

Grid G minus 1 Composite

This grid returned a final composite result of 17.7 picoCuries per gram but is located at the top of the highwall beneath the Sulfuric Acid Tanks. Further excavation cannot be done in this area and this area is part of the Western highwall being covered by liner material. This material will be removed at final decommissioning.

Grid G0 Composite

This grid returned a final composite result of 22.5 picoCuries per gram with a preliminary result of 20.2 picoCuries per gram. It is also located at the top of the highwall beneath the Sulfuric Acid Tanks. Further excavation cannot be done in this area and this area is part of the Western highwall being covered by liner material. This material will be removed at final decommissioning.

Grid I minus 3 Composite

This grid returned a final composite result of 20.9 picoCuries per gram with a preliminary result of 16.2 picoCuries per gram. It is in the center/top of the excavations extreme North wall. The results are being studied to determine if the Radium-226 is natural. This grid is bounded by the facility's main power line (34,500 volt service) to the North. The grid South and below (vertically) it (I minus 2) contains 15.8 picoCuries per gram Radium-226. If it is determined that it is indeed contaminated possibilities include attempting to excavate an additional eight (8) feet to the North (the farthest excavation could proceed without interfering with the power line) or extending the plastic liner over the grid.

Grid D5 Composite

This grid returned a final composite result of 18.5 picoCuries per gram with a preliminary result of 14.4 picoCuries per gram. It is in the highwall being covered by liner material. This contamination will be excavated at final decommissioning.

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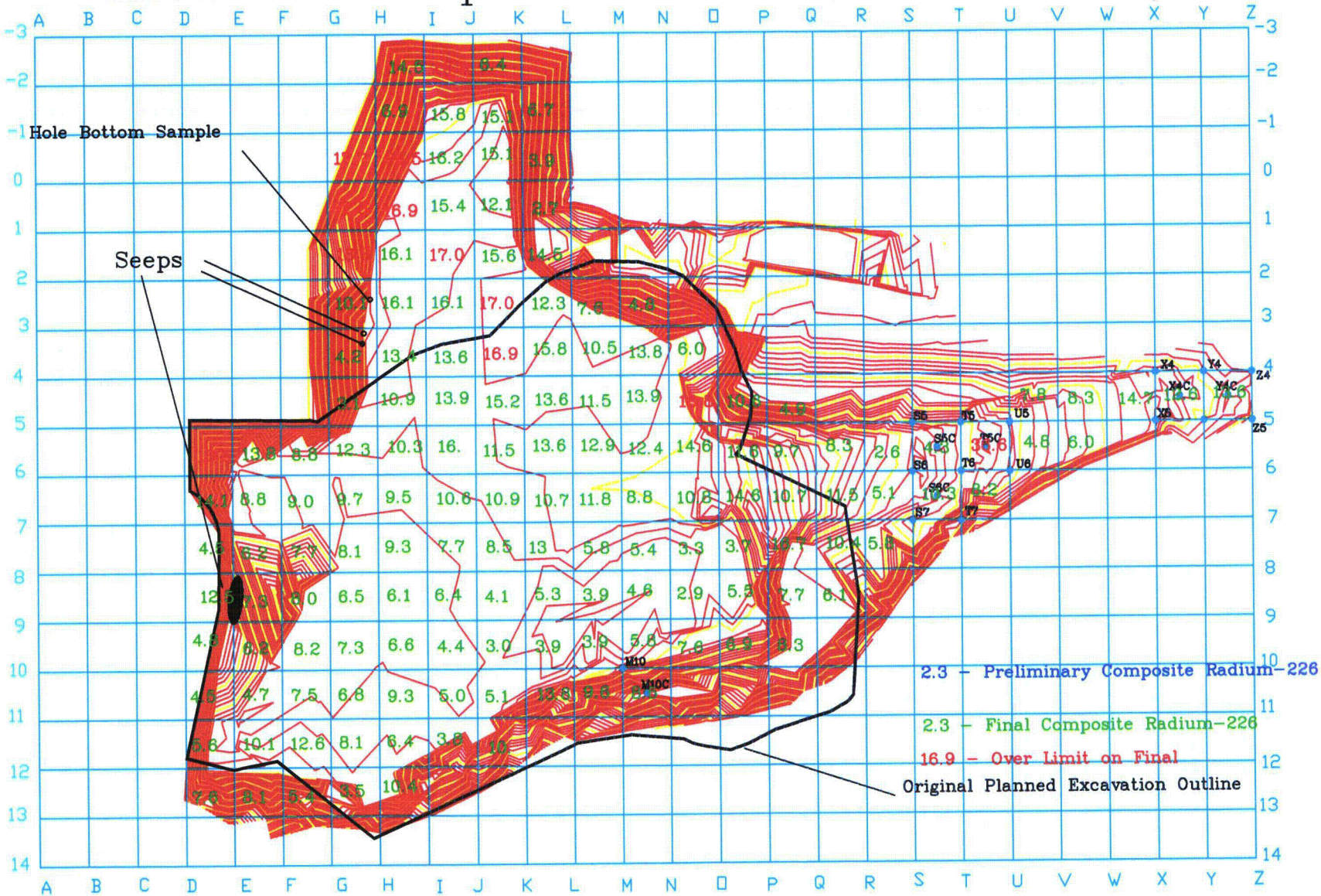
Excavation Map – October 4, 2006 Survey



Schutterle, Shelley (RTEA)

From: Oscar Paulson - Bresnan - Proxy [oscar.paulson@bresnan.net]
Sent: Friday, October 06, 2006 1:02 PM
To: Stephen Cohen
Cc: shelley@tribcsp.com; Oscar Paulson
Subject: Excavation Grid Sampling
Attachments: excavation_contours_03.ppt

Stephen Cohen:

The following pertains to grids exceeding the 16.4 picoCurie per gram Radium-226 (15 picoCuries per gram plus background) threshold and grids with preliminary (partially ingrown) results approaching that threshold:

1. Grid R6

The initial sample was 21.8 picoCuries per gram. The grid was excavated an additional two (2) feet and a second composite sample was collected. The preliminary (partially ingrown) result for the second sample is 5.6 picoCuries per gram. It appears as if this grid has been addressed.

2. Grid N5

The initial sample was 17.9 picoCuries per gram. The grid was excavated an additional two (2) feet and a second composite sample was collected. The preliminary (partially ingrown) result for the second sample is 12.4 picoCuries per gram.

2. Grids S5 and S6

The sample data for these grids is as follows:

		S5	S6
Radium-226 (Preliminary)	**(pCi/gr)**	19.7	33.1
Natural uranium	**(pCi/gr)**	17	23.6
Natural uranium	**(mg/kg)**	25.1	35
Uranium-238 Activity	**(pCi/gr)**	8.5	11.8
Thorium-230	**(pCi/gr)**	12	73
pH		8.83	7.84
Sulphate	**(mg/kg)**	168	331
Diesel Range Organics (DRO)	**(mg/kg)**	ND	ND

These two (2) grids are outside of the planned excavation and are located in an access ramp dug to access contaminated material within the main excavation. Please see that attached PowerPoint (*.ppt) file excavation_contours_03.ppt that shows the September 22, 2006 excavation contours, the outline of the originally planned excavation, grids exceeding 16.4 picoCuries per gram radium-226 in purple herringbone hatch and grids approaching (on preliminary analysis) 16.4 picocuries per gram Radium-226 in blue dash hatch.The centers of the grids are at an elevation of roughly 6624 feet above Mean Sea Level (MSL) placing them two (2) feet below the bottom of the Catchment Basin at 6626 above Mean Sea Level (MSL). It is not conceivable given their distance from the Catchment Basin (370 feet East) and the fact that they are only two (2) feet below its bottom that they could be impacted by fluids from it. They contain no Diesel Range Organics (DRO). The Uranium-238 activity is roughly one-half to one-third of the Radium-226 activity which roughly fits with the state of equilibrium of the uranium resource present in the area.

Regardless, an additional two (2) feet was excavated from each of the above two (2) grids and they were resampled on Wednesday, October 4, 2006. In addition, three (3) other grids (T5, X4 and Y4) were also excavated an additional two (2) feet since their preliminary (partially ingrown) results for Radium-226 were high but did not yet exceed the 16.4 picoCurie per gram limit.

All five (S5, S6, T5, X4 and Y4) of these grids were peculiar in appearance in that they contained patches of light gray sand and patched of oxidized brown/tan sand. They may be located within a near surface oxidation/reduction front in which case the contamination would be natural.

3. Grids in the Northern Extension of the Excavation East of the Mill Building

3.1. Grids with Preliminary Radium-226 Values Exceeding 16.4 PicoCuries per gram

I - 2 Composite - 35.5 picoCuries per gram

3.2. Grids with Preliminary Radium-226 Values Sufficiently High that the Final Analysis Will Probably Exceed 16.4 PicoCuries per gram

H2 Composite - 13.4 picoCuries per gram
H1 Composite - 13.8 picoCuries per gram
J3 Composite - 14.2 picoCuries per gram
I4 Composite - 13.0 picoCuries per gram
I2 Composite - 16.3 picoCuries per gram
J1 Composite - 14.8 picoCuries per gram
J - 1 Composite - 14.0 picoCuries per gram
I0 Composite - 13.9 picoCuries per gram
H0 Composite - 13.6 picoCuries per gram
I-1 Composite - 15.5 picoCuries per gram
I1 composite - 14.7 picoCuries per gram

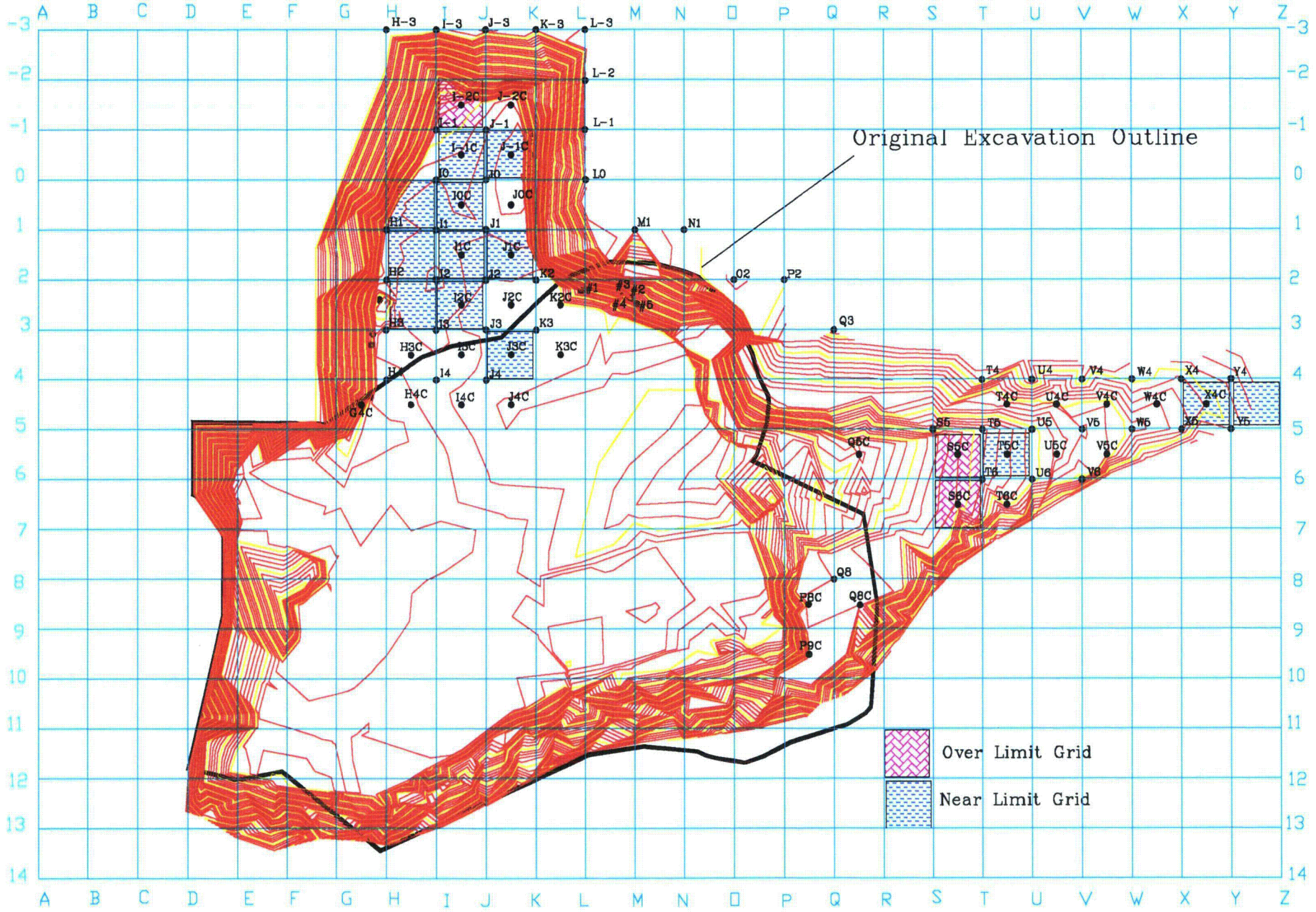
Please note that the sample collected from a wet area beneath the tailings line in the base of the highwall below the East Wall of the Mill Building in Grid G3 had a preliminary Radium-226 concentration of 35.0 picoCuries per gram. The elevation of the wet area is 6599.43 above Mean Sea Level (MSL). This wet area had a Diesel Range Organics (DRO) concentration of 4420 milligrams per kilogram. The sample collected North of that location in a hole excavated in the pit bottom on the Eastern side of Grid G2 had a preliminary Radium-226 concentration of 4.3 picoCuries per gram and a Diesel Range Organics (DRO) concentration of Non-Detect. That sample was collected at 6594.48 feet above Mean Sea Level (MSL). The Eastern part of that hole also extends into the H2 grid which had a composite preliminary Radium-226 concentration of 13.4 picoCuries per gram. The H2 grid has an elevation of 6598 feet above Mean Sea Level (MSL).

Based upon the above information, it appears that Radium-226 bearing fluids may have spread out on top of the clay at 6598 feet above Mean Sea Level (MSL). A sample collected four (4) feet below that elevation, as was done in the bottom of the test pit straddling the border between the G2 and H2 grids had a preliminary Radium-226 concentration of 4.3 picoCuries per gram .

At this point, given the above information the only solution is to excavate the above listed grids down an additional four (4) feet to the elevation of the clean sample in the hole straddling the border of the G2 and and H2 grids and resample them.

Oscar Paulson
Facility Supervisor

Excavation as of September 22, 2006 with Grids and Original Excavation Outline



Schutterle, Shelley (RTEA)

From: Oscar Paulson [paulson@tribcsp.com]
Sent: Tuesday, October 10, 2006 9:40 AM
To: Stephen Cohen
Cc: shelley@tribcsp.com
Subject: Re: Grids and Data
Attachments: final_excavation.ppt; excavation_final.pdf

Stephen Cohen:

The requested information will be sent in two (2) e-mails. This e-mail will contain the map of thecavation included as the Adobe Acrobat Portable Document Format (*.pdf) file excavation_final.pdf and the Microsoft PowerPoint (*.ppt) file final_excavation.pdf. A second e-mail will contain a spreadsheet with additional sample data.

Survey Date: October 4, 2006

Grids: Ten (10) meter by ten (10) meter

Planned Excavation Outline: The excavation as originally designed is shown in a heavy dark outline.

Radium-226 sample results are posted in each grid in either green or blue lettering. Green lettering denotes a final Radium-226 result for the grid. Blue lettering denotes a preliminary Radium-226 result for each grid. When the samples are collected they are sealed in the field and counted upon arrival in the laboratory. They are then opened, the contents dried and resealed and allowed to ingrow for a final count. The preliminary (upon arrival) count is corrected for the moisture content determined upon drying and provided by the laboratory as a Preliminary result with the understanding that it may not represent all of the Radium-226 present since some Radium-226 progeny may be lost during canning in the filed. This preliminary result is provide to give a fast approximate Radium-226 result to guide excavation.

The two (2) seeps discussed in a previous e-mail beneath the East wall of the Mill Building are shown as well as the seep in the highwall beneath the Clarifier Slab.

The following pertains to some specific grids:

Grid I minus 2

The preliminary sample of this grid already exceeds the limit as it is 35.5 picoCuries per gram.

In addition the following grids in the vicinity (Northern extension of the excavation) have elevated Radium-226 concentrations:

H2 Composite - 13.4 picoCuries per gram
H1 Composite - 13.8 picoCuries per gram
J3 Composite - 14.2 picoCuries per gram
I4 Composite - 13.0 picoCuries per gram
I2 Composite - 16.3 picoCuries per gram
J1 Composite - 14.8 picoCuries per gram
J minus 1 Composite - 14.0 picoCuries per gram
I0 Composite - 13.9 picoCuries per gram
H0 Composite - 13.6 picoCuries per gram
I minus 1 Composite - 15.5 picoCuries per gram
I1 composite - 14.7 picoCuries per gram

Grid N4

The final result for this grid has exceed the limit and is 16.8 picoCuries per gram however the uncertainty of the result is +/- 1.3 picoCuries per gram.

Grid N5

The original sample for this grid was 17.9 picoCuries per gram. It was excavated an additional two (2) feet and resampled. The preliminary result for the resample is 12.4 picoCuries per gram.

Grid R6

The original result was 21.8 picoCuries per gram. It was excavated an additional two (2) feet and resampled. The resample result is 5.1 picoCuries per gram

Grid S5/Grid S6

The preliminary result for grid Grid S5 was 19.7 picoCuries per gram. It was excavated an additional two (2) feet and resampled. Preliminary results for the resample are not yet available. The preliminary result for grid S6 was 33.1 picoCuries per gram. It was excavated an additional two (2) feet and resampled. Preliminary results for the resample are not yet available.

The sample data for these grids is as follows:

		S5	S6
Radium-226 (Preliminary)	**(pCi/gr)**	19.7	33.1
Natural uranium	**(pCi/gr)**	17	23.6
Natural uranium	**(mg/kg)**	25.1	35
Uranium-238 Activity	**(pCi/gr)**	8.5	11.8
Thorium-230	**(pCi/gr)**	12	73
pH		8.83	7.84
Sulphate	**(mg/kg)**	168	331
Diesel Range Organics (DRO)	**(mg/kg)**	ND	ND

These two (2) grids are outside of the planned excavation and are located in an access ramp dug to access contaminated material within the main excavation. Please see that attached excavation map. The centers of the grids are at an elevation of roughly 6624 feet above Mean Sea Level (MSL) placing them two (2) feet below the bottom of the Catchment Basin at 6626 above Mean Sea Level (MSL). It is not conceivable given their distance from the Catchment Basin (370 feet East) and the fact that they are only two (2) feet below its bottom that they could be impacted by fluids from it. They contain no Diesel Range Organics (DRO). The Uranium-238 activity is roughly one-half to one-third of the Radium-226 activity which roughly fits with the state of equilibrium of the uranium resource present in the area.

Grids T5, X4, Y4

While the preliminary results did not exceed the 16.4 picoCuries per gram cutoff the preliminary results were high so they were excavated an additional two (2) feet and resampled. Preliminary results for the resamples of these grids are not yet available.

A spreadsheet with all of the sample data with locations including spot Radium-226 results for grid center points and corners and natural uranium, thorium-230, pH, sulphate and Diesel Rang Organic (DRO) results for the composite samples will be provided shortly.

Oscar Paulson
Facility Supervisor

---- Original Message ----

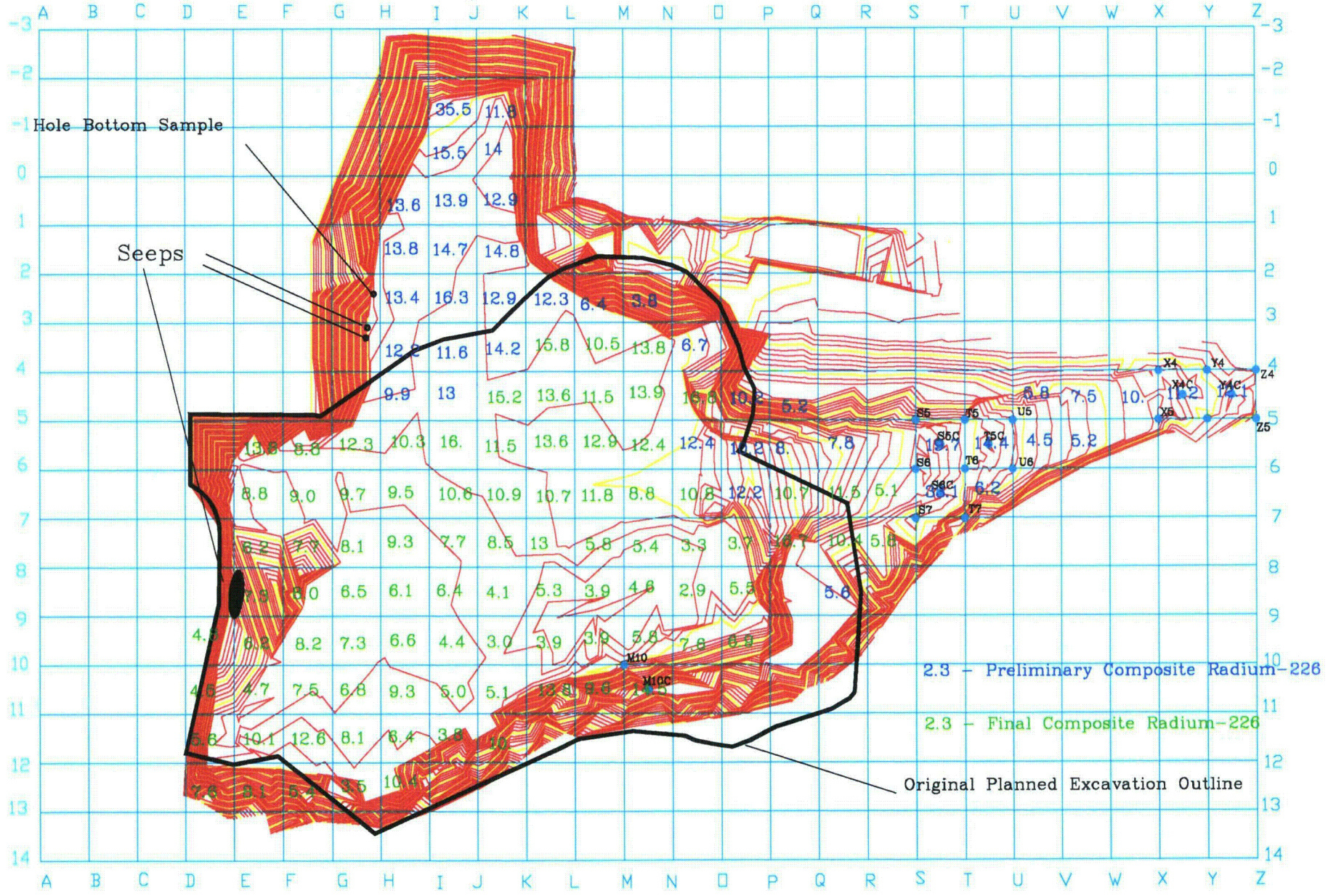
From: Stephen Cohen
To: Oscar Paulson
Sent: Tuesday, October 10, 2006 5:28 AM
Subject: Grids and Data

Oscar:

Just to let you know, I haven't seen the grid map and data yet. I wasn't sure whether you sent it and it was bounced or if you never sent it.

Steve

Excavation Map – October 4, 2006 Survey



Schutterle, Shelley (RTEA)

From: Oscar Paulson [paulson@tribcsp.com]
Sent: Tuesday, October 10, 2006 11:17 AM
To: Stephen Cohen
Cc: shelley@tribcsp.com
Subject: Excavation Sample Data
Attachments: CB_Samples_10-09-06.xls

Stephen Cohen:

Attached please find the Microsoft Excel (*.xls) file CB_Samples_10_09_06.xls that contains sample results for the excavation. The following pertains:

1. Sampling

As per the submittals a nine (9) point composite from 0 to 6 inches below surface was collected from each grid. In addition, spot samples (each from 0 to 6 inches below surface) at the corners of grids and at the center points of grids were collected. The different sample types are denoted:

D6 Composite - Nine (9) point composite sample collected within a grid
D6 Center/Spot - Spot sample of the grid center
D6 Spot - Spot sample of a grid corner

A grid for purposes of identification is named after the letter/number designation of its Northwest corner.

The contours on the map are one (1) foot contours.

Location data in Northings and Eastings are shown for all samples. Samples collected from the pit floor do not have elevations since they come from the bottom. Elevations for these samples can be derived from the contour map. Other samples have elevations associated with them.

In addition the following other groups of samples were collected:

CB - 21 Series

These were collected around the excavated bore hole CB-21 as committed to in Appendix 7 of the excavation submittal submitted on January 18, 2005.

Hot Spot #2 to #4 Series

These were collected in the West highwall beneath the clarifier slab. This area will be covered by the liner curtain.

Hot Spot #1/SE Corner of Mill Bldg.Series

These were collected on the Northern highwall of the original excavation. This material was removed when the Northern extension to the excavation was completed.

TMW-90 Series

These were collected in the excavation dug to remove the remains of the casing for TMW-90 the perched fluid collection well. This entire area was dug deeper once the contamination in the sample collected four (4) feet above the casing bottom was discovered. Sampling following this additional excavation is reflected in the composite and composite samples in the area. The well was in Grid E8.

Wall Series (#1 to #5)

These were collected in the excavation highwall around TMW-11 to investigate sands with an organic odor. None exceeded any limits.

15' N of SE Corner Mill Bldg
45' N of SE Corner Mill Bldg
Under Tails Line Pit Bottom
These were collected around points in the highwall beneath the East wall of the Mill Building identified as seeps on the map that will be covered by the liner curtain.

Ore Pad Fill

The Ore Pad material for use as fill was sampled to determine that it is suitable for use as backfill which it is since it is below 16.4 picoCuries per gram Radium-226.

If you require any additional information on other samples that are not discussed please e-mail me.

Analysis

All samples were analyzed for Radium-226 via the closed can method. The samples were canned and sealed in the filed and a preliminary count conducted upon their arrival in the laboratory. The can was then unsealed the contents dried, moisture content determined resealed and allowed to ingrow for a final count. The preliminary count was corrected for the determined moisture content and provided for use a immediate guidance.

All composite samples in addition to Radium-226 were analyzed for natural uranium, thorium-230, pH, sulphate, and Diesel Range Organics (DRO). The samples were analyzed for pH and sulphate since low pH and high sulphate content are considered indicators of process fluids.

Gamma Radiation Measurements

In the submittal Kennecott Uranium Company stated that composite sampling and analysis of each grid would be conducted. However, in addition direct gamma radiation measurements were collected in the excavation bottom at various surveyed points including grid corners, grid centers, monitor well locations and other locations that were surveyed as the readings were collected. The readings were collected using a Ludlum Model 44-10 probe equipped with a forty-four (44) pound "shine shield" and a Model 2350-1 rate meter. One (1) minute counts were used. The probes used were calibrated by Energy Laboratories, Inc. using a 110 microCurie Radium-226 source. A conversion factor in CPM/microR per hour was generated for each probe used.

Given the fact that the samples collected in the bottom of the Northern extension of the excavation have high pHs, low sulphate concentration and no detectable Diesel Range Organics (DRO) it appears that the elevated Radium-226 concentrations are natural. The unambiguous contamination in the highwall beneath the East wall of the Mill Building had detectable Diesel Range Organics (DRO) associated with it. The grids on the excavation floor do not. In addition, the grid (I minus 2) most contaminated with Radium-226 (35.5 picoCuries per gram - preliminary) is the furthest from the Catchment Basin and the contamination in the highwall beneath the East wall of the Mill Building. This does not make sense. It is likely that the Radium-226 in these grids is natural given the fact that the elevation of the pit floor is 6598 above Mean Sea Level (MSL) approximately forty (40) feet below surface. The background radium-226 value used for the site was determined from surface samples. This value may not apply to samples collected at depth.

Oscar Paulson
Facility Supervisor

Schutterle, Shelley (RTEA)

From: Oscar Paulson [paulson@tribcsp.com]
Sent: Tuesday, October 10, 2006 1:38 PM
To: Stephen Cohen
Cc: shelley@tribcsp.com
Subject: Re: Excavation Sample Data

Stephen Cohen:

Thank you for your prompt reply. I tried to call you but you were not answering. My only question pertains to Grid I minus 2 and the other grids in that area. Given the location of Grid I minus 2 and the lack of any organic contamination, low pH or sulphate it appears to be naturally high in radium-226. My only concern is that the data for the other grids in the Northern portion of te excavation is preliminary and that some grids may have final results that exceed the 16.4 picoCurie per gram limit. I believe however, that these is an excellent case to be made that the contamination in these grids is natural as well given the high soil pHs and low sulphates.

Oscar Paulson
Facility Supervisor

----- Original Message -----
From: Stephen Cohen
To: Oscar Paulson
Cc: Bill VonTill
Sent: Tuesday, October 10, 2006 11:31 AM
Subject: Re: Excavation Sample Data

Oscar:

I spoke with Robert Lukes, HP, and we both concur that the results for the grids I-2, S5, and S6 are acceptable, as long as you can make a case that the radium is naturally occurring. You have already done so for S5 and S6. Grid N4 is close enough to 16.4 pCi/g that it's acceptable. This whole issue should be explained in detail in your construction completion report. If you have any questions, please call me.

Sincerely:

Stephen J. Cohen, PG
Hydrogeologist
US Nuclear Regulatory Commission
Office of Federal and State Materials and
Environmental Management Programs
Mailstop T7E18
Washington, DC 20555-0001
301-415-7182
sjc7@nrc.gov

>>> "Oscar Paulson" <paulson@tribcsp.com> 10/10/2006 1:17 PM >>>
Stephen Cohen:

Attached please find the Microsoft Excel (*.xls) file CB_Samples_10_09_06.xls that contains sample results for the excavation. The following pertains:

1. Sampling

As per the submittals a nine (9) point composite from 0 to 6 inches below surface was collected from each grid. In addition, spot samples (each from 0 to 6 inches below surface) at the corners of grids and at the center points of grids were collected. The different sample types are denoted:

D6 Composite - Nine (9) point composite sample collected within a grid
D6 Center/Spot - Spot sample of the grid center
D6 Spot - Spot sample of a grid corner

A grid for purposes of identification is named after the letter/number designation of its Northwest corner.

The contours on the map are one (1) foot contours.

Location data in Northings and Eastings are shown for all samples. Samples collected from the pit floor do not have elevations since they come from the bottom. Elevations for these samples can be derived from the contour map. Other samples have elevations associated with them.

In addition the following other groups of samples were collected:

CB - 21 Series

These were collected around the excavated bore hole CB-21 as committed to in Appendix 7 of the excavation submittal submitted on January 18, 2005.

Hot Spot #2 to #4 Series

These were collected in the West highwall beneath the clarifier slab. This area will be covered by the liner curtain.

Hot Spot #1/SE Corner of Mill Bldg.Series

These were collected on the Northern highwall of the original excavation. This material was removed when the Northern extension to the excavation was completed.

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Ore Pad Fill

The Ore Pad material for use as fill was sampled to determine that it is suitable for use as backfill which it is since it is below 16.4 picoCuries per gram Radium-226.

If you require any additional information on other samples that are not discussed please e-mail me.

Analysis

All samples were analyzed for Radium-226 via the closed can method. The samples were canned and sealed in the filed and a preliminary count conducted upon their arrival in the laboratory. The can was then unsealed the contents dried, moisture content determined resealed and allowed to ingrow for a final count. The preliminary count was corrected for the determined moisture content and provided for use a immediate guidance.

All composite samples in addition to Radium-226 were analyzed for natural uranium, thorium-230, pH, sulphate, and Diesel Range Organics (DRO). The samples were analyzed for pH and sulphate since low pH and high sulphate content are considered indicators of process fluids.

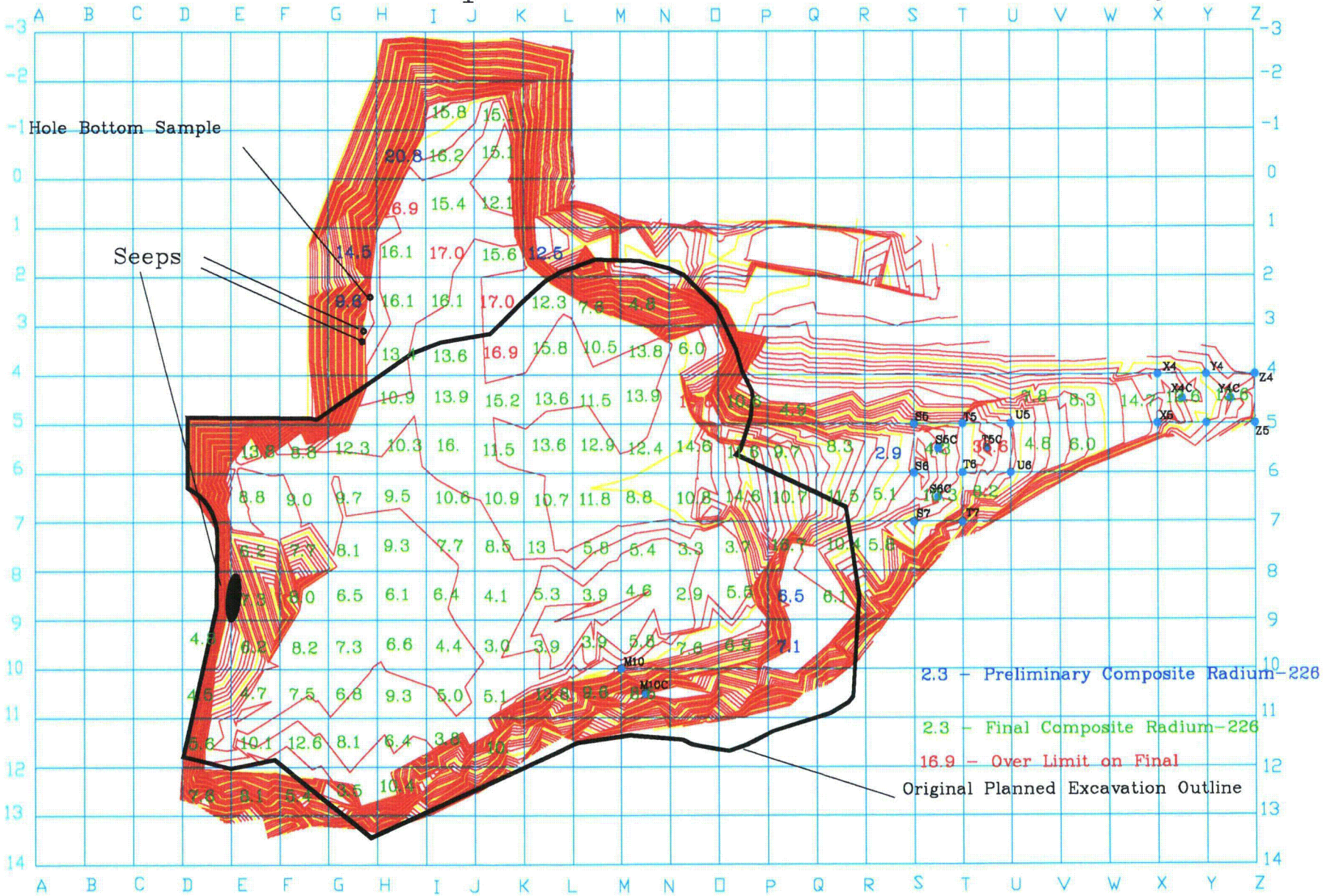
Gamma Radiation Measurements

In the submittal Kennecott Uranium Company stated that composite sampling and analysis of each grid would be conducted. However, in addition direct gamma radiation measurements were collected in the excavation bottom at various surveyed points including grid corners, grid centers, monitor well locations and other locations that were surveyed as the readings were collected. The readings were collected using a Ludlum Model 44-10 probe equipped with a forty-four (44) pound "shine shield" and a Model 2350-1 rate meter. One (1) minute counts were used. The probes used were calibrated by Energy Laboratories, Inc. using a 110 microCurie Radium-226 source. A conversion factor in CPM/microR per hour was generated for each probe used.

Given the fact that the samples collected in the bottom of the Northern extension of the excavation have high pHs, low sulphate concentration and no detectable Diesel Range Organics (DRO) it appears that the elevated Radium-226 concentrations are natural. The unambiguous contamination in the highwall beneath the East wall of the Mill Building had detectable Diesel Range Organics (DRO) associated with it. The grids on the excavation floor do not. In addition, the grid (I minus 2) most contaminated with Radium-226 (35.5 picoCuries per gram - preliminary) is the furthest from the Catchment Basin and the contamination in the highwall beneath the East wall of the Mill Building. This does not make sense. It is likely that the Radium-226 in these grids is natural given the fact that the elevation of the pit floor is 6598 above Mean Sea Level (MSL) approximately forty (40) feet below surface. The background radium-226 value used for the site was determined from surface samples. This value may not apply to samples collected at depth.

Oscar Paulson
Facility Supervisor

Excavation Map – October 4, 2006 Survey



Schutterle, Shelley (RTEA)

From: Oscar Paulson [paulson@tribcsp.com]
Sent: Tuesday, October 31, 2006 11:46 AM
To: Stephen Cohen
Cc: shelley@tribcsp.com
Subject: Excavation Grids
Attachments: final_excavation_02.ppt; final_excavation_02.pdf

Stephen Cohen:

1. Updated Map:

Attached please find the Microsoft PowerPoint (*.ppt) file excavation_final_02.ppt and the Adobe Acrobat Portable Document Format (*.pdf file excavation_final_02.pdf that contains the current map.

2. Review of Pre-operational Background Soil Data

A review of the background soil sample data for the site has been completed to determine background equilibrium conditions. The average soil background equilibrium (Uranium-238 to Radium-226 activity ratio) is 0.57 with a standard deviation of 0.88. Thus the pre-operational background soil data shows that the activity of the Radium-226 is almost twice the activity of Uranium-238. The Uranium-238 to Radium-226 activity ratios of 0.64, 0.53, 0.56, 0.45, 0.56 and 0.73 for Grids H0, I1, J2, J3, N4, and H-1 discussed below are consistent with the Uranium-238 to Radium-226 activity ratio of 0.57 for pre-operational background soils. The Uranium-238 to Radium-226 activity ratio of Grid T5 discussed below is 0.52 which is very close to the pre-operational background sample average Uranium-238 to Radium-226 activity ratio of 0.56 indicaton that Radium-226 present there is natural as well.

3. Review of Grids:

Grid M10 - This grid had high uranium. A small amount of material was cleared/excavated at this location and a second sample was collected. The second sample only had 10.6 milligrams per kilogram natural uranium, down from 77.30 milligrams per kilogram. This grid is resolved. Radium-226 was 8.5 picoCuries per gram.

Grid I -2 - The 35.5 preliminary result was a laboratory error. They stated, *"...the initial gamma was accidentally double counted. The original initial result was 35.5 but it's real value is 12.8."* The final result is 15.8 picoCuries per gram.

Grid H0 - The final result is 16.9 picoCuries per gram with an uncertainty of 1.4 picoCuries per gram meaning that the actual value could be as low as 15.5 picoCuries per gram placing it within releasable range. The natural uranium is 32.10 milligrams per kilogram with a high soil pH (8.87) and low (123 parts per million) sulphate. It is also immediately against the highwall to be covered with liner meaning that it could be easily accessed when the contamination beneath the Mill Building is excavated at final decommissioning. The Uranium-238 to Radium-226 activity ratio is 0.64. This appears natural.

Grid I1 - The final result is 17.0 picoCuries per gram with an uncertainty of 1.4 picoCuries per gram meaning that the actual value could be as low as 15.6 picoCuries per gram placing it within releasable range. The natural uranium is 26.90 milligrams per kilogram with a high soil pH (8.65) and low (179 parts per million) sulphate. The Uranium-238 to Radium-226 activity ratio is 0.53. This appears natural.

Grid J2 - The final result is 17.0 picoCuries per gram with an uncertainty of 1.5 picoCuries per gram meaning that the actual value could be as low as 15.5 picoCuries per gram placing it within releasable range. The natural uranium is 28.50 milligrams per kilogram with a high soil pH (8.87) and low (125 parts per million) sulphate. The Uranium-238 to Radium-226 activity ratio is 0.56. This appears natural.

Grid J3 - The final result is 16.9 picoCuries per gram with an uncertainty of 1.4 picoCuries per gram meaning that the actual value could be as low as 15.5 picoCuries per gram placing it within releasable range. The natural uranium is 22.60 milligrams per kilogram with a high soil pH (8.96) and low (122 parts per million) sulphate. The

Uranium-238 to Radium-226 activity ratio is 0.45. This appears natural.

Grid N4 - The final result is 16.8 picoCuries per gram with an uncertainty of 1.3 picoCuries per gram meaning that the actual value could be as low as 15.5 picoCuries per gram placing it within releasable range. The natural uranium is 27.90 milligrams per kilogram with a high soil pH (9.05) and low (252 parts per million) sulphate. The Uranium-238 to Radium-226 activity ratio is 0.56. This appears natural.

Grid H-1 - The preliminary result is 20.8 picoCuries per gram with an uncertainty of 1.6 picoCuries per gram. The natural uranium is high (44.80 milligrams per kilogram) with a high soil pH (8.93) and non-detect sulphate. The preliminary Uranium-238 to Radium-226 activity ratio is 0.73. This appears natural. It is also immediately against the highwall to be covered with liner meaning that it could be easily accessed when the contamination beneath the Mill Building is excavated at final decommissioning.

Grid T5 - This grid falls into the same category as the original samples from Grids S-5 and S-6 did. It is too high in elevation to be impacted from leakage from the Catchment Basin and beneath a substantial cover of topsoil so the elevated Radium-226 cannot be any form of windblown contamination. It has a final Radium-226 of 36.6 picoCuries per gram with a natural uranium concentration of 51.60 milligrasm per kilogram. The Uranium-238 to Radium-226 activity ratio is 0.52.

Oscar Paulson
Facility Supervisor

From: Paulson, Oscar (RTEA)
Sent: Sunday, June 24, 2007 1:29 PM
To: (SJC7@nrc.gov)
Cc: Schutterle, Shelley (RTEA)
Subject: Catchment Basin excavation - Kminus3 Area (northeast Corner)

Stephen Cohen:

The following information is being provided as documentation that the radium-226 and the associated organic materials found in the Kminus3 grid and the Northeast corner of the Catchment Basin Excavation are in fact naturally occurring and as such that area of the excavation is being backfilled and the excavation is being completed:

- **Discovery of black organic material in the Northeast corner of the excavation**
  - While excavating radium-226 in excess of 15 picoCuries per gram above accepted background in the Northeast corner of the excavation in and around and east of the Kminus3 grid, sand containing black organic material was discovered as shown in the attached image (IMG_1468.JPG) which is also included below:

- **Analysis of this material and the surrounding sand**
  - Analysis results for this material and the surrounding sand are included below:

Sample	Uranium	Thorium-230		Radium-226		Organic Characteristics			
		Activity	Precision	Activity	Precision	DRO	ORH	THE	TOC
	(mg/kg)	(pci/gr)	(pci/gr)	(pci/gr)	(pci/gr)	(mg/kg)	(mg/kg)	(mg/kg)	(percent)
Black material	2550	393	17	396	9	226	804	1000	22
Sand with Black material	2350	708	29	326	6.4	211	650	834	5

  - This material exhibits high concentration of organics, 22 percent for the black material shown in the image and 5 percent for the surrounding sands.
  - The material also contains high concentrations of uranium, thorium and radium-226
  - The black material was analyzed by Energy Laboratories, Inc who also had it examined by:

Gareth D. Mitchell
Consulting Geologist

- He concluded his examination by stating:

  These observations demonstrate that the organic matter contained in sample #C07051289-001A were derived from terrestrial plants with secondary woody tissues that have gone through at least the initial stage of coalification. Depending upon stratigraphy and sample location in the field, the type and condition of organic matter and mineralization observed suggests that it is naturally occurring.

  His report is attached as the Microsoft word (*.doc) file ELI845.doc

Based on the above report it is concluded that the anomalous radium-226 concentration discovered in the Kminus3 grid and in surrounding areas including some grids remaining in the excavation in this area at present, are natural and are derived from naturally occurring uranium in the sands concentrated by localized naturally occurring organic materials. The probability (pending receipt of analytical results) that the contamination in the Kminus3 area was natural was briefly discussed with you in a telephone conversation on Wednesday, May 23, 2007.

If you have any questions please do not hesitate to contact me.

Oscar Paulson

Facility Supervisor
Kennecott Uranium Company
Sweetwater Uranium Project
P.O. Box 1500
42 Miles Northwest of Rawlins
Rawlins, Wyoming 82301-1500

Telephone: (307)-324-4924
Fax: (307)-324-4925
Cellular: (307)-320-8758

E-mail: oscar.paulson@riotinto.com

Ore Pad Clean Fill Excavation

The Catchment Basin Excavation was backfilled with fill material taken from the base of the Ore Pad. The Ore Pad itself was cleaned at cessation of operations. The material removed from the Ore pad base was not ore, but overburden material removed during excavation of the Sweetwater Pit and used to construct the foundation for the Ore Pad. This material was sampled for suitability for use as fill material. The sampling results are as follows:

Location	Diesel Range Organics	Oil Range Hydrocarbons	Total Extractable Hydrocarbons	pH	Sulphate	Natural Uranium	Thorium-230	Thorium-230 Uncertainty	FINAL Radium-226		Moisture
									Result	Uncertainty	
	(milligrams per kilogram)	(milligrams per kilogram)	(milligrams per kilogram)	(Standard units)	(milligrams per kilogram)	(milligrams per kilogram)	(picocuries per gram)	(picocuries per gram)	(picocuries per gram)	(picocuries per gram)	(percent)
Ore Pad Fill North Side	ND	ND	ND	9.31	10	5.51	1.1	0.5	5.4	0.9	1.8
Ore Pad Fill North Side	ND	ND	ND	9.43	28	8.95	2.2	0.7	8.5	1	3.6
Average				9.37	19	7.23	1.65	0.6	6.95	0.95	2.7

The average Radium-226 activity of this material is 6.95 picocuries per gram which is below 16.4 picoCuries per gram (approved site background of 1.44 picoCuries per gram radium-226 plus 15 picoCuries per gram for radium-226 for soils 15 centimeters (six (6) inches) or more below surface). Upon final site reclamation this area will be covered by at least one (1) foot of clean stockpiled topsoil.

Information on this material and its suitability for use as backfill was provided to the Commission in an email dated October 10, 2006, included in Appendix 13 of Section IV. The use of this material, based on the above listed sample results, was specifically approved by Stephen Cohen in a telephone conversation on October 19, 2006 at 1:30 pm.

A total of 275,725 cubic yards of material were excavated from the Ore Pad for use as fill. This substantially diminished the size of the Ore Pad as shown on the **Pre-Excavation (October 2005)** Map. The remaining excavated face on the Ore Pad was smoothed and shaped as is shown on the **Post Excavation (November 2007)** Map.

The material was excavated using trackhoes and loaders as shown below. The following image, taken on December 26, 2006, shows a trackhoe loading fill from the Ore Pad:

The image below taken on January 8, 2007 shows the loader loading fill from the Ore Pad:

The image below taken on January 8, 2007 shows the loader loading fill from the Ore Pad:

In the course of removing material from the Ore Pad for use in the excavation two (2) problems were encountered which are as follows:

- On Wednesday, February 1, 2006 while removing material for use in berms, an almost empty barrel of gear grease was discovered buried in the material. This material and its disposition are discussed in greater detail in Appendix 1.

- While excavating material from the Ore Pad for backfill some hydrocarbon contamination in the Ore Pad was discovered. It is described in greater detail in Appendix 2.

Discovery of Buried Gear Oil Drum

On Wednesday, February 1, 2006, an almost empty grease barrel was discovered while excavating clean fill material from the Ore Pad for berms. This barrel contained some free product which spilled out when the barrel was hit by the trackhoe bucket. The barrel was buried beneath the surface of the Ore Pad in the past when the Ore Pad was constructed by Minerals Exploration Company/Union Oil Company of California (MEC/UNOCAL). The grease that spilled out on to the dirt smelled strongly of chlorinated solvent. A Material Safety Data Sheet (MSDS) for the spilled grease is included. The grease is UNOCAL Gearite Heavy and it contains 1,1,1 trichloroethane. The crushed barrel, spilled product and contaminated soil were loaded in a single loader bucket and the bucket was emptied on to the liner inside the Main Shop Building. The image below shows the barrel and hydrocarbon contaminated soil on liner material in the Main Shop Building.

A sample of the contaminated soil was collected for analysis. The results are included as the analysis result *Ore Pond Contaminated Soil.* Clean soils were laboriously hand separated from the contaminated soils to reduce the volume of contaminated material. The analysis results for the sorted clean soil are included as the analysis result *Clean Soil Sorted from Grease contaminated Soil.* The sorting, as shown by the analysis was highly successful.

The drum was crushed and placed with the sorted contaminated soil in a single fifty-five (55) gallon drum. The drummed material was characterized/inventoried by CAP Environmental Services of Cheyenne, Wyoming on Thursday, August 31, 2006. The drummed material was removed to a disposal site on Wednesday, May 30, 2007. A copy of the manifest is included in this Appendix. The first item on the manifest is the drum containing the contaminated soil.

This drum and its contents were discovered buried in overburden material from the Sweetwater Pit (Mine), did not come from the site's restricted area and were not involved in the process; hence, they were not 11(e).2 byproduct material.

MATERIAL SAFETY DATA SHEET

UNOCAL 76

Product Name: [redacted]
Product Code No: 05279

Page
Issue Date:

MANUFACTURER:

UNOCAL REFINING & MARKETING DIVISION
UNION OIL COMPANY OF CALIFORNIA
1201 W. 5TH STREET
LOS ANGELES, CALIFORNIA 90017

CONTACT FOR FURTHER INFORMATION:
MSDS COORDINATOR (213) 977-7589

Transportation Emer
Call CHEMTREC
(800) 424-9300
(202) 483-7616
from Alaska & Ha
Health Emergencies:
CALL LOS ANGELES PO
INFORMATION CENTER
(213) 664-2121

PRODUCT IDENTIFICATION

PRODUCT NAME: UNOCAL GEARITE HEAVY

SYNONYMS: UNION GEARITE HEAVY

GENERIC NAME: GEAR LUBRICANT

CHEMICAL FAMILY: PETROLEUM HYDROCARBONS

DOT PROPER SHIPPING NAME: NOT APPLICABLE

SECTION I - INGREDIENTS	TLV	UNITS	AGENCY	TYPE
1,1,1-TRICHLOROETHANE	350.00	PPM	OSHA	FULL TER
ASPHALT FUMES	5.00	MG/M3	ACGIH	FULL TER
OIL MIST, IF GENERATED	5.00	MG/M3	OSHA	FULL TER

THE IDENTITIES OF INGREDIENTS THAT ARE TRADE SECRETS ARE EXCLUDED FROM THIS LIST.

SECTION II - EMERGENCY AND FIRST AID PROCEDURES

xxxEMERGENCYxxx
Have physician call LOS ANGELES POISON INFORMATION CENTER (24 hrs.) (213) 664-2

EYE CONTACT:

FOR DIRECT CONTACT, FLUSH THE AFFECTED EYE(S) WITH CLEAN WATER. IF IRRITATION OR REDNESS DEVELOPS, SEEK MEDICAL ATTENTION.

SKIN CONTACT:

DO NOT USE GASOLINES, THINNERS OR SOLVENTS TO REMOVE PRODUCT FROM SKIN. WIPE MATERIAL FROM SKIN AND REMOVE CONTAMINATED CLOTHING. CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING WITH MILD SOAP AND WATER AND, IF NECESSARY, A WATERLESS SKIN CLEANSER. IF IRRITATION OR REDNESS DEVELOPS AND PERSISTS, SEEK MEDICAL ATTENTION.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION.

EYE PROTECTION:

APPROVED EYE PROTECTION TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY IS RECOMMENDED

OTHER PROTECTIVE EQUIPMENT:

IT IS SUGGESTED THAT A SOURCE OF CLEAN WATER BE AVAILABLE IN THE WORK AREA FOR FLUSHING EYES AND SKIN. BARRIER CREAMS SPECIFIC FOR OIL BASED MATERIALS ARE RECOMMENDED WHEN GLOVES ARE IMPRACTICAL.

SECTION V - REACTIVITY DATA

STABILITY:

STABLE

INCOMPATIBILITY (MATERIALS TO AVOID):

AVOID CONTACT WITH STRONG ACIDS AND OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:

THERMAL DECOMPOSITION IN THE PRESENCE OF AIR MAY YIELD MAJOR AMOUNTS OF OXIDES OF CARBON AND MINOR AMOUNTS OF OXIDES OF SULFUR AND NITROGEN.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

SECTION VI - SPILL OR LEAK PROCEDURES

HIGHWAY OR RAILWAY SPILLS
Call CHEMTREC (800) 424-9300 Cont. U.S.
(Collect) (202) 483-7616 from Alaska &

PRECAUTIONS IN CASE OF RELEASE OR SPILL:

COLLECT LEAKING LIQUID IN SEALABLE CONTAINERS. ABSORB SPILLED LIQUID IN SAND OR INERT ABSORBANT. CONTACT FIRE AUTHORITIES AND APPROPRIATE STATE/LOCAL AGENCIES. IF SPILL IN EXCESS OF EPA REPORTABLE QUANTITY IS MADE INTO THE ENVIRONMENT, IMMEDIATELY NOTIFY THE NATIONAL RESPONSE CENTER (PHONE NUMBER: 800-424-8802).

WASTE DISPOSAL METHOD:

DISPOSE OF PRODUCT IN ACCORDANCE WITH LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS.

SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

STORE IN A COOL, DRY LOCATION. KEEP AWAY FROM INCOMPATIBLE MATERIALS (SEE SECTION V). AVOID GENERATING OIL MISTS WHILE HANDLING. AVOID PROLONGED OR REPEATED SKIN CONTACT. WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR OIL-SOAKED CLOTHING OR SHOES.

SECTION XI - DOCUMENTARY INFORMATION

ISSUE DATE: 2/13/86 PRODUCT CODE NO. 05279

PREV. DATE: _____ PREV. PROD. CODE NO. _____

MSDS NO: _____ PREV. MSDS NO: _____

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information in this document is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

LABORATORY ANALYTICAL REPORT

Client: Kennecott Uranium Company
Project: Sweetwater Uranium
Lab ID: C06020169-001
Client Sample ID: Ore Pond Contaminated Soil

Report Date: 02/14/06
Collection Date: 02/01/06 15:30
Date Received: 02/03/06
Matrix: Soil

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Filterable	No					SW1311	02/06/06 14:50 / kmh
METALS - TCLP							
Arsenic	ND	mg/L		0.50	5	SW6010B	02/08/06 15:01 / cp
Barium	ND	mg/L		10	100	SW6010B	02/08/06 15:01 / cp
Cadmium	ND	mg/L		0.10	1	SW6010B	02/08/06 15:01 / cp
Chromium	ND	mg/L		0.50	5	SW6010B	02/08/06 15:01 / cp
Lead	42.6	mg/L	*	0.50	5	SW6010B	02/08/06 15:01 / cp
Mercury	ND	mg/L		0.02	0.2	SW7470A	02/09/06 09:48 / sjl
Selenium	ND	mg/L		0.10	1	SW6010B	02/08/06 15:01 / cp
Silver	ND	mg/L		0.50	5	SW6010B	02/08/06 15:01 / cp
VOLATILE ORGANIC COMPOUNDS							
1,1,1,2-Tetrachloroethane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,1,1-Trichloroethane	110000	mg/kg	D	4100		SW8260B	02/08/06 16:34 / jlr
1,1,2,2-Tetrachloroethane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,1,2-Trichloroethane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,1-Dichloroethane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,1-Dichloroethene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,1-Dichloropropene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,2,3-Trichlorobenzene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,2,3-Trichloropropane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,2,4-Trichlorobenzene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,2,4-Trimethylbenzene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,2-Dibromo-3-chloropropane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,2-Dibromoethane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,2-Dichlorobenzene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,2-Dichloroethane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,2-Dichloropropane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,3,5-Trimethylbenzene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,3-Dichlorobenzene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,3-Dichloropropane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
1,4-Dichlorobenzene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
2,2-Dichloropropane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
2-Chlorotoluene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
4-Chlorotoluene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
Benzene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
Bromobenzene	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
Bromochloromethane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
Bromodichloromethane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
Bromoform	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
Bromomethane	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr
Carbon tetrachloride	ND	mg/kg	D	410		SW8260B	02/07/06 16:48 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
* - The result exceeds the MCL.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix interference.

LABORATORY ANALYTICAL REPORT

Client: Kennecott Uranium Company
Project: Sweetwater Uranium
Lab ID: C06020169-001
Client Sample ID: Ore Pond Contaminated Soil

Report Date: 02/14/06
Collection Date: 02/01/06 15:30
Date Received: 02/03/06
Matrix: Soil

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
SYNTHETIC ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
1,2-Dichlorobenzene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
1,3-Dichlorobenzene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
1,4-Dichlorobenzene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
1-Methylnaphthalene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2,4,5-Trichlorophenol	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2,4,6-Trichlorophenol	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2,4-Dichlorophenol	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2,4-Dimethylphenol	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2,4-Dinitrophenol	ND	mg/kg		4900		SW8270C	02/11/06 00:18 / eli-b
2,4-Dinitrotoluene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2,6-Dinitrotoluene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2-Chloronaphthalene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2-Chlorophenol	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2-Methylnaphthalene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
2-Nitrophenol	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
3,3'-Dichlorobenzidine	ND	mg/kg		2000		SW8270C	02/11/06 00:18 / eli-b
4,6-Dinitro-2-methylphenol	ND	mg/kg		4900		SW8270C	02/11/06 00:18 / eli-b
4-Bromophenyl phenyl ether	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
4-Chloro-3-methylphenol	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
4-Chlorophenol	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
4-Chlorophenyl phenyl ether	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
4-Nitrophenol	ND	mg/kg		4900		SW8270C	02/11/06 00:18 / eli-b
Acenaphthene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Acenaphthylene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Anthracene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Azobenzene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Benzidine	ND	mg/kg		2000		SW8270C	02/11/06 00:18 / eli-b
Benzo(a)anthracene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Benzo(a)pyrene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Benzo(b)fluoranthene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Benzo(g,h,i)perylene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Benzo(k)fluoranthene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
bis(-2-chloroethoxy)Methane	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
bis(-2-chloroethyl)Ether	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
bis(2-chloroisopropyl)Ether	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
bis(2-ethylhexyl)Phthalate	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Butylbenzylphthalate	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Chrysene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Dibenzo(a,h)anthracene	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Diethyl phthalate	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Dimethyl phthalate	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b
Di-n-butyl phthalate	ND	mg/kg		980		SW8270C	02/11/06 00:18 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYTICAL REPORT

Client: Kennecott Uranium Company
Project: Sweetwater Uranium
Lab ID: C06090958-001
Client Sample ID: Clean Soil Sorted from Grease Contaminated Soil

Report Date: 10/09/06
Collection Date: 09/20/06
DateReceived: 09/21/06
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Filterable	No					SW1311	09/26/06 08:06 / dj
METALS - TCLP							
Arsenic	ND	mg/L		0.50	5	SW6010B	10/05/06 19:06 / bws
Barium	ND	mg/L		10	100	SW6010B	10/05/06 19:06 / bws
Cadmium	ND	mg/L		0.10	1	SW6010B	10/05/06 19:06 / bws
Chromium	ND	mg/L		0.50	5	SW6010B	10/05/06 19:06 / bws
Lead	ND	mg/L		0.50	5	SW6010B	10/05/06 19:06 / bws
Mercury	ND	mg/L		0.02	0.2	SW7470A	09/28/06 12:36 / kes
Selenium	ND	mg/L		0.10	1	SW6010B	10/06/06 07:51 / bws
Silver	ND	mg/L		0.50	5	SW6010B	10/05/06 19:06 / bws
VOLATILE ORGANIC COMPOUNDS							
1,1,1,2-Tetrachloroethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,1,1-Trichloroethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,1,2,2-Tetrachloroethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,1,2-Trichloroethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,1-Dichloroethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,1-Dichloroethene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,1-Dichloropropene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,2,3-Trichlorobenzene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,2,3-Trichloropropane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,2,4-Trichlorobenzene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,2,4-Trimethylbenzene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,2-Dibromo-3-chloropropane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,2-Dibromoethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,2-Dichlorobenzene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,2-Dichloroethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,2-Dichloropropane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,3,5-Trimethylbenzene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,3-Dichlorobenzene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,3-Dichloropropane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
1,4-Dichlorobenzene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
2,2-Dichloropropane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
2-Chlorotoluene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
4-Chlorotoluene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
Benzene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
Bromobenzene	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
Bromochloromethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
Bromodichloromethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
Bromoform	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr
Bromomethane	ND	mg/kg		0.20		SW8260B	09/30/06 20:16 / jlr

Report Definitions: RL - Analyte reporting limit. QCL - Quality control limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Field	Entry
Company Name:	Kennett Uranium Company
Project Name, PWS #, Permit #, Etc.:	Sweetwater Uranium Project
Report Mail Address:	P.O. Box 1500 Rawlins, Wyoming 82301-1500
Contact Name, Phone, Fax, E-mail:	Oscar Paulson Fax: (307)-321-4925 Telephone: (307)-321-4924 E-mail: paulsmo@tribcp.ca
Sampler Name if other than Contact:	
Invoice Address:	P.O. Box 1500 Rawlins, Wyoming 82301-1500
Invoice Contact & Phone #:	Shirley Schutterle (307)-321-4924
Purchase Order #:	06363
ELI Quote #:	

Report Required For: POTW/WWTP ☐ DW ☐ Other ________

Special Report Formats - ELI must be notified prior to sample submittal for the following:
NELAC ☐ A2LA ☐ Level IV ☐
Other ________
EDD/EDT ☐ Format ________

Number of Containers / Sample Type: A W S V B O / Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED: Radium-226 Radium-228 / Natural Uranium / Thorium-230 / pH / Pb-210 / Sulfate / Diesel Range Organics / TCLP Metals / VOA / SEE ATTACHED / Normal Turnaround (TAT) / RUSH Turnaround (TAT)

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Shipped by: Client
Cooler ID(s): Client
Receipt Temp: 34 Ice
Custody Seal Y N
Intact Y N
Signature Match Y N

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Analyses	Comments	Lab ID
1 Hole Bottom North Tails Line	9/19/06	On Bottle	2-S	✓	* Separate COCs	
2 N-S Composite Resample	✓	✓		✓	Ciw 9/20/06	
3 Under Tails Line Pit Bottom			✓	✓		
4 6-1 Spot-Resample				✓		
5 45 N & 3E Corner Mill Building				✓		
6 1 Foot Above Bottom				✓		
7 15 North & 5E Corner Mill				✓		
8 Building 4' Above Bottom	✓		✓	✓		
9 Clean Soil Sorted from	9/20/06		1-S	✓		
10 Grease Contaminated Soil	✓					

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Oscar Paulson	September 20 2006 / 12:11 pm	[signature]	Tom Bergman	9/21/06	9/21/06 9:20
			[signature]		

Sample Disposal: Return to client: ________ Lab Disposal: ________

LABORATORY USE ONLY
Sample Type: ________ # of fractions ________

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
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Date: 09-Oct-06

CLIENT: Kennecott Uranium Company
Project: Sweetwater Uranium
Sample Delivery Group: C06090958

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-f - Energy Laboratories, Inc. - Idaho Falls, ID
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package. A copy of the submittal(s) has been included and tracked in the data package.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol. NELAC Certification Number E87641.

PCB ANALYSIS USING EPA 505
Data reported by ELI using EPA method 505 reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

The total number of pages of this report are indicated by the page number located in the lower right corner.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WYDD80372154	2	800-260-8832	000232824 GBF

5. Generator's Name and Mailing Address: RIO TINTO ENERGY AMERICA KENNECOTT URANIUM P.O. BOX 1500 RAWLINS. WY 82301

Generator's Site Address (if different than mailing address): 42 MILES N.W. RAWLINS, WY

Generator's Phone: 307-324-4925

6. Transporter 1 Company Name: SMITH SYSTEMS TRANSPORTATION — U.S. EPA ID Number: NED 986382133

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS 9131 E 96TH HENDERSON, COLORADO 80640 — U.S. EPA ID Number: COD 980591184

Facility's Phone: 303-289-4827

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID N.O.S. 9. UN3082 UN3077 X PKG III. (DEBRIS W. TRICHLOROETHENE, LEAD)	1	DM	400	P	F002 D008
X	2. WASTE FLAMMABLE LIQUID N.O.S. 3. UN1993 PKG III (CORROSION INHIBITOR & DIESEL)	1	DM	55	G	D001
X	3. WASTE FLAMMABLE LIQUID N.O.S. 3. UN1993 PKG III. (PAINT & PAINT RELATED MATERIALS)	1	DM	55	G	D001 F003
X	4. WASTE FLAMMABLE LIQUID N.O.S. 3 UN1993 PG III (FLOW IMPROVER XYLENE)	5	DM	275	G	D001 F003

14. Special Handling Instructions and Additional Information: 1- PROFILE # 693520 2. PROFILE # 399666 3. PROFILE # 399668 4. PROFILE # 693522 EMERGENCY RESPONSE GUIDES # 171 # 128 4.- 5- 55 GAL OVERPACKED.

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] — Signature: [signature] — Month Day Year: 5 30 07

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Steve Nelson — Signature: [signature] — Month Day Year: 05 30 07
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☒ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
PG 1 LINE 1 - CHG UN 3082 TO UN 3077. OKAY PER CHARLIE (OAF-ENV) / JOSHUA M (VEST-HEN) / WB 05/31/07

18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: WADE BOYER — Signature: [signature] — Month Day Year: 05 31 07

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Hydrocarbon Contamination in Ore Pad Material

Soils contaminated with hydrocarbons were discovered in the course of excavating material from the Ore Pad for use in backfilling the Catchment Basin excavation. Upon discovery any materials containing hydrocarbons that had been used as backfill were removed from the Catchment Basin excavation and stockpiled north of the Ore Pad in a bermed and ditched area where they remain to this day. The amount of material removed and stockpiled was 6,364 cubic yards. Eight (8) samples of this material were collected (Samples Pile-1 to Pile-8) on the attached spreadsheet.

The area from which this material came was sampled as well. These samples are samples Ore Pad-1 to Ore Pad-8.

The location of these samples, as well as the stockpile and the area from which the material was excavated, are shown on the attached map.

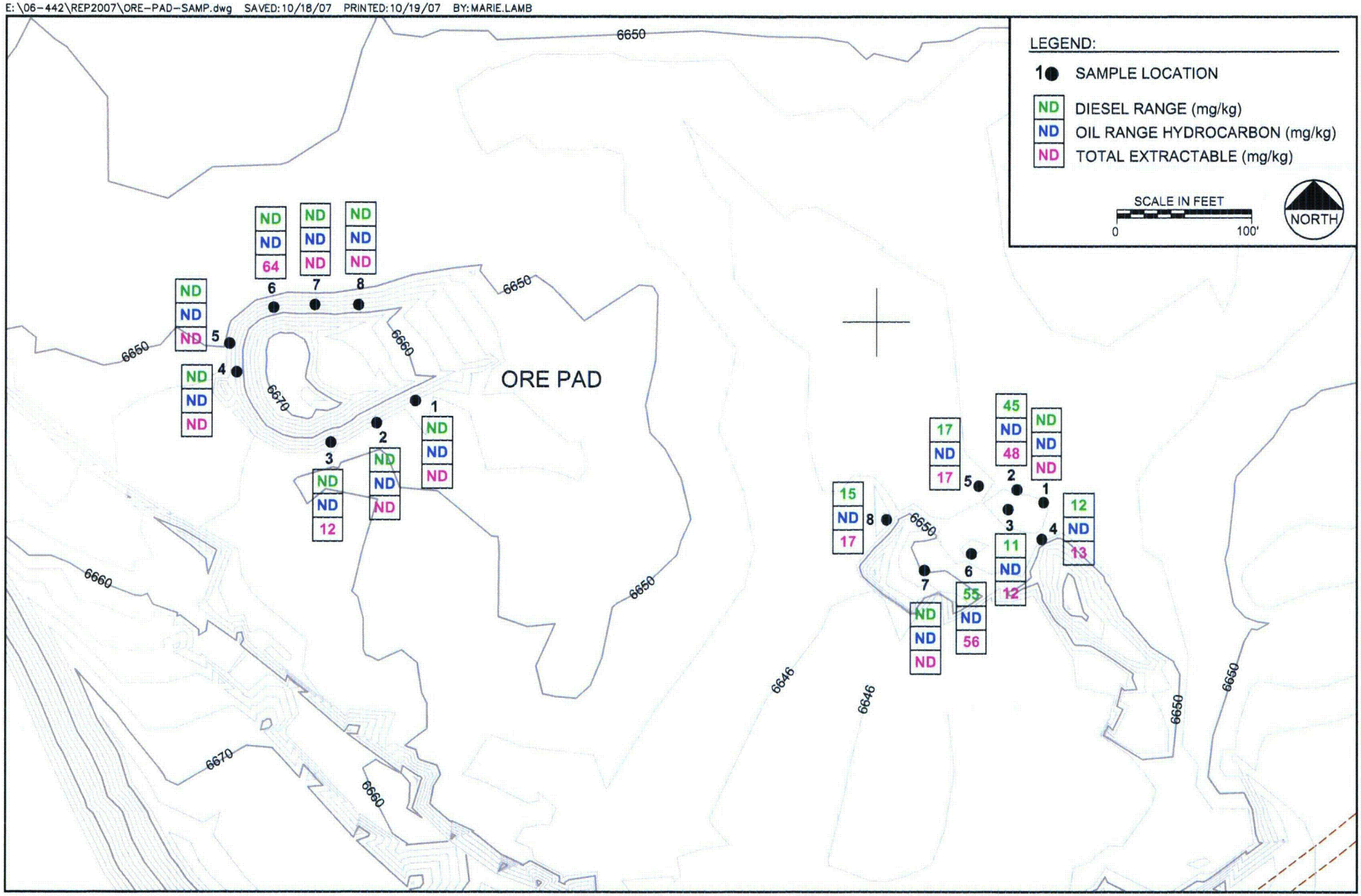
Wyoming Department of Environmental Quality (DEQ) Solid and Hazardous Waste Division Solid Water Guideline #2 Petroleum Contaminated Soils states:

> ***Clean fill material***
> *Properly characterized PCS may be used as clean fill material without obtaining prior authorization from SHWD if* ***all*** *of the following conditions are met:*
> - *the TPH/GRO concentration is less than 30 mg/kg, and*
> - *the TPH/DRO concentration is less than 100 mg/kg, and*
> - *the PCS is not placed in direct contact with seasonally high surface water or groundwater, and*
> - *the PCS is not placed in an existing or proposed residential, recreational or agricultural* area.

Based on the Total Petroleum Hydrocarbon (TEH) results this material can be used as clean fill and left stockpiled in place. Regardless of the fact that it is classified as clean fill it was not used as fill in the Catchment Basin excavation. It was removed and stockpiled in the Ore Pad area from whence it came as shown on the included map.

Kennecott Uranium Company			
Sweetwater Uranium Project			
Ore Pad Area - Hydrocarbon Sampling Results			
Location	**Diesel Range Organics (milligrams per kilogram)**	**Oil Range Hydrocarbons (milligrams per kilogram)**	**Total Extractable Hydrocarbons (milligrams per kilogram)**
Ore Pad 1	ND	ND	ND
Ore Pad 2	ND	ND	ND
Ore Pad 3	ND	ND	12
Ore Pad 4	ND	ND	ND
Ore Pad 5	ND	ND	ND
Ore Pad 6	ND	ND	64
Ore Pad 7	ND	ND	ND
Ore Pad 8	ND	ND	ND
Pile 1	ND	ND	ND
Pile 2	45	ND	48
Pile 3	11	ND	12
Pile 4	12	ND	13
Pile 5	17	ND	17
Pile 6	55	ND	56
Pile 7	ND	ND	ND
Pile 8	15	ND	17
Notes:	Pile samples are from the large pile to the left.		
	Ore Pad samples are from the sampled area to the right.		
OAP:10/16/07			
ore_pad_organics.xls			

E:\06-442\REP2007\ORE-PAD-SAMP.dwg SAVED: 10/18/07 PRINTED: 10/19/07 BY: MARIE.LAMB



Project No. 180889

October 2007

ORE PAD SAMPLING

This second image taken on October 9, 2006 shows the fill being spread and compacted with a front end loader.

The image below taken on October 11, 2006 shows both dumping and placement.

Wetting of the fill followed by compaction with the loader is shown below. This image was taken on November 1, 2006.

The image below taken on Tuesday, April 15, 2008 shows the surcharge material immediately east of the Raffinate Tank Slab along with monitor wells TMW-91, 92 and 102. These piles are clearly visible on both the **Post Excavation (November 2007)** and **Volume Calculation Pre-Construction versus Post-Construction** maps.

Rio Tinto Technical Services
5295 South 300 West
Suite 300
Murray, Utah 84107

Telephone (1 801) 743-4633
Facsimile (1 801) 743-4670

RIO TINTO

TECHNOLOGY
TECHNICAL SERVICES

Memorandum

To:	Rich Atkinson, KEC	File Ref:	GCJ014
From:	Z. M. Zavodni	Copies:	O. Paulson R. Heig
Date:	19 February 2003		

SWEETWATER MILL CONTAMINATED GROUND EXCAVATION SLOPE REVIEW

The Sweetwater Mill contaminated ground excavation slope review was conducted on April 9, 2002, in the company of Rich Atkinson and Oscar Paulson. This memorandum documents the findings and slope design recommendations made during the subject visit.

Background

Recent rotary drilling of some 80 holes has identified a broad area of diesel-contaminated ground at the Sweetwater Mill site. The contamination is believed to be confined to the upper 100 ft zone above the groundwater table. The source for the ground contamination is unresolved; a suspected truck ready-line overlying the main area of contamination is the only explanation to date. Two diesel storage tanks are also suspected of leaking at the western edge of the planned excavation and various fuel lines also contributed to the contamination. The facility has not been operated since April, 1983. The diesel contamination is based on visual and olfactory observation of the rotary drill cuttings and follow up laboratory testing.

Two groundwater monitoring wells have been completed immediately down-gradient of the contaminated ground to determine if groundwater has been impacted. To date, the two wells have not shown any detectable contamination. The NRC, WDEQ Land Quality Division, and the WDEQ Solid and Hazardous Waste Division have all been notified of the situation.

Contaminated ground excavation was started on December 10, 2001. This open pit is now some 40 ft deep at the west end. It is estimated that approximately one-half million

cubic yards material will eventually need to be moved to capture known contaminated material by digging two interconnected open pit excavations.

The contaminated ground is within the Battle Springs Formation, which is composed of interbedded and discontinuous sandstones, siltstones and claystones. Diesel fuel tends to pool on top of the less permeable claystone layers.

Treatment of the contaminated ground is being performed by land farming. Typically, diesel contamination can be removed to acceptable levels with this method in less than two years with bacteria consuming the diesel.

A concern was raised about the performance of the excavation slopes upon pit thawing and future planned pit deepening. This precipitated the current slope review.

Findings

- The original Sweetwater Mine is found within a mile northwest of the mill site. Pit slope studies have been conducted for this mine in 1977 by Golder Associates. Their study determined intact rock shear strength parameters, and these values were modified by Water Waste & Land Inc., in 1987 for their slope stability reclamation design estimates. These stability calculations determined the Sweetwater pit slopes to be stable and have safety factors well in excess of 2.0. The mine is located in the Battle Springs Formation and has therefore similar rock types to those found at the Sweetwater mill site excavation. One cannot correlate directly the stratigraphy from the open pit mine to the mill site excavation. However, the rock units are believed to have similar strength and structural characteristics, hence their slope performance should also be quite similar. The Water Waste & Land study employed suitably conservative strength values to arrive at their slope safety factor estimates.

- The Sweetwater Mine slopes were examined during the April 9, 2002 visit and were found to be stable with the exception of minor sloughing at the central "nose" configuration and minor slabbing within an isolated area near the groundwater contact because of water undercutting. Otherwise, 150 ft high the slopes have remained stable since construction in 1983. The Sweetwater Mine design consists of 50–70 ft high benches at 53-70°, with catch benches ranging form zero to 40 ft wide, resulting in an overall slope of approximately 50°. The proposed mill site excavation design is more conservative than the Sweetwater Mine design.

- The current mill site excavation employs 20 ft wide catch bench with bench face angles of 1.5:1 (63°). The maximum bench height is approximately 40 ft high, with the west wall being planned at an ultimate maximum slope height of 90 ft with two benches. Bench face angles were documented during the site visit. Face angles of 74-79° were measured in the north wall; 62° was measured in the west wall, and

67° was measured in the south wall. The existing walls are judged to be stable from an overall slope perspective.

- Slope blast damage will not occur during excavation as all slopes will be mined without blasting. A D-10 bulldozer, 773 trucks, and a 992 excavator will be used to conduct future open pit mining at the mill site.

- No drill core is available for the site.

- The groundwater table at the mill site is located approximately 110 ft depth below the crest of the pit.

- No faults or other major unfavourably oriented structures were identified during the site examination. Only sedimentation related inter-fingered depositional structures / contacts were noted. Minor erosional features were also identified. Bedding in the area is practically horizontal and favorable from a slope stability standpoint.

- The slope was observed to be subject to near surface material degradation (i.e., weathering to sand size fragments) but the rock mass strength is believed to be sound immediately away from the wall surface and is not subject to a deep-seated failure mechanism.

Recommendations / Conclusions

- The excavation should to be laid back at the slope crest to 37° for the initial five feet. Thereafter, a 1.5:1 (63°) slope should be cut for the remaining maximum 45 ft height. This should be followed by a 20 ft wide catch bench and finally a 1.5:1 slope for the remaining 40 ft pit depth. The crest of the slope should have a three-foot high safety berm placed at two feet from the edge of the 37° slope section. This design results in an overall slope of approximately 50°. This recommended slope design was evaluated employing conservative rock mass strength estimates. Results indicate that the safety factor consistently exceeds 1.2, which is judged to be acceptable for this short-lived excavation. The slopes were analysed in a dry condition since the entire excavation is above the groundwater table. (As previously noted, the existing Sweetwater pit employed similar bench face angles but greater bench heights. This wall design has been stable for the past 20 years and is empirical proof that the existing and recommended mill excavation slope design should perform safely.)

- Boulders must be kept away from the crest edge of the individual benches, especially at the immediate ground surface. The existing windrow at the crest of the pit needs to be removed from the pit edge, by at least two feet.

- Walls must be cut in as linear a fashion as possible because "nose" configurations in plan tend to be unstable.

- No pore pressure related stability issues are expected in the current excavation.

- Rock strength estimates were made in the field and then compared to previous values obtained by Golder in 1977; these values were then compared to similar rock types tested recently at US Borax to arrive at a representative rock mass strength data estimate for the stability calculations.

- Since the mine will only be open for approximately six months, only a limited 20 ft catch bench width is required. Minor breakdown is expected during excavation life due to freeze-thaw action.

- The new bench faces must be properly scaled and cut at a continuous 1.5:1 slope angle. The catch bench will have to be cleaned before starting the lower cut.

- Based on empirical performance in the current mill excavation and in the old Sweetwater pit, there is no need for additional testing or core drilling. Also, because of the limited wall heights and short exposure time, the risk of wall instability at the recommended design is judged to be extremely low.

Z. M. Zavodni

consulting
scientists and
engineers

TECHNICAL MEMORANDUM

MFG PROJECT: 181246

TO: Oscar Paulson

CC: Clint Strachan

FROM: Tom Chapel

DATE: July 12, 2006

SUBJECT: Kerosene Excavation Stability Consultation, Kennecott Uranium Company, Sweetwater Mill

INTRODUCTION

On July 10, 2006, Clint Strachan PE, and Tom Chapel, PE visited the Kennecott Uranium Company (KUC) Sweetwater Uranium Project at your request to observe the Catchment Basin excavation. This document comprises the engineering opinion you requested regarding the short and long-term stability of the excavation highwall at the mill building corner. This document has been prepared for KUC (upon your request) by MFG, Inc.

CATCHMENT EXCAVATION BACKGROUND

On July 10, 2006 the Catchment Basin excavation was approximately 300 feet from north to south and approximately 400 feet from west to east, and approximately 40 feet deep. Approximately 120,000 cubic yards of soil and sedimentary rock have been removed from the excavation to date. The excavation walls have generally been maintained at a 2h:1v overall slope, consistent with the diesel fuel excavation west of the mill in 2003. The excavation highwalls are steeper on the northwest corner and west side of the excavation due to the mill building and storage tanks. As excavation is nearing final planned depths for material cleanup, the stability of the steeper highwalls is of concern, as well as the method of excavation backfill to preclude potential differential settlement of the nearby structures.

DOCUMENTS REVIEWED

To assist in our investigation, the following documents were provided by KUC for our use:

- Excerpts from a report titled: *Report to Mineral Exploration Co., Inc on the Geotechnical Evaluation of the Proposed Design of Pit C-1*, prepared by Golder Associates, Inc. January, 1977

- Structural plan sheets 25-3-S, 25-4-S, and 25-5-S, prepared by Kaiser Engineers and dated 7-28-1978
- An excerpt from a report titled: *Final Report, Hydrologic and Geotechnical Aspects of Sweetwater Mine Reclamation*, prepared by Waste, Water, and Land, November, 1987
- A memorandum titled: *Sweetwater Mill Contaminated Ground Excavation Slope Review*, prepared by Rio Tinto Technical Services and dated February, 2003

OBSERVATIONS

The excavation begins approximately 3 feet from the edge of the mill building near the southeast corner and bears westward for about 40 feet, then turns south and parallels the eastern edge of three empty, above-ground steel process solution storage tanks and associated concrete containment slabs. Structural plans (see above) indicate the building is founded with a pad and grade beam foundation bearing in the silty sand and/or sandstone. The pad nearest the southeast corner of the building is an 8 ft. by 12 ft. footing that is centered about 26 feet from the building corner. No part of this pad was visible in our observation of the excavation. The storage tanks are founded with a ring-beam foundation and slab-on-grade.

From the ground surface, the excavation slopes down and away from the mill building at an estimated slope of 2h:1v for the uppermost 3 to 5 feet. The soil in this upper zone appears to be a dry to slightly moist, silty sand. Below that level the sand grades to a fine grained, well-sorted, poorly cemented, silty sandstone bedrock and the excavated slope increases to about 0.5h:1v. Other parts of the excavation include roughly 10 foot wide horizontal benches at vertical intervals of about 10 feet and 25 feet from the upper ground surface (to maintain the 2h:1v overall slope described above). At about 20 feet below the upper ground surface the soil changes abruptly to a hard, gray-green claystone/siltsone with a blocky structure and very fine, limonite stained fractures. At a depth of about 30 feet, the soil profile changed to a well-cemented, hard, fine grained sandstone. These sediments are all believed to be channel fill deposits of the Eocene Battle Springs Formation. No significant faulting, fracturing or jointing was observed, and no water was observed in any of the soils or rock in the excavation walls. However, three areas on the slope appeared moist due to surface water draining from the roof of the mill building and from a drain near the tanks. Some minor erosion of the soil in the area of the drains was visible.

In the vicinity of the steel tanks, the excavation begins immediately adjacent to the containment curb and slab-on-grade that appears integral with the ring-beam foundations of the individual tanks. The slopes adjacent to the tanks also appeared to be about 0.5h:1v and the soil profile exposed was similar to that observed near the mill building. In a localized area near the base of the excavation and adjacent to the tanks, standing liquid was observed, described by KUC as perched on claystone beneath the base of the excavation.

No distress was observed in the ground surrounding the mill building or the tanks, or in the structures themselves. Minor spalling of concrete columns was visible in the building interior, however these areas have been noted by KUC for several years and do not appear related to the current excavation.

We also observed the diesel fuel excavation west of the mill building. We understand that approximately 450,000 cubic yards of material was removed. Although a 2h:1v overall slope was maintained, near vertical interbench walls have been open since excavation. We did not see evidence of any slope failures in that excavation. Geologic profile and water conditions we observed in the two excavations appear similar.

CONCLUSIONS AND RECOMMENDATIONS

Short Term Stability. The highwall adjacent to the mill building and the storage tanks appears to be stable on a short-term basis, as long as moisture content and highwall slope conditions remain similar to those that presently exist. Although the building and tanks are very close to the excavation edges, it appears that soil cementation and strength are adequately supporting the structures at this time, and no evidence of distress is apparent. Excavation bracing and tieback anchors are not considered practical alternatives due to the present depth and configuration of the excavation. Furthermore, previous studies and nearby excavations in similar conditions have shown favorable performance of similar slopes. However, until the excavation can be backfilled, which is anticipated to begin in the next 30 days, we recommend daily observation of the structures and surrounding ground. The excavation highwalls should be inspected for evidence of bulging, cracking, slabbing or sloughing of material. The ground surface and interior slab-on-grade floor should also be checked for signs of movement, cracking or settling. If periods of prolonged wet weather develop, the observation frequency should be increased to the beginning and end of each shift with consideration given to accelerating the backfill schedule.

Long Term Stability. To protect the long term integrity of the structure foundations, special mitigation alternatives should be considered. If the excavation is backfilled with uncompacted soil and the foundations are not underpinned or stabilized, it is likely that over time, lateral movement of the loaded soils below the building and tank foundations may occur, resulting in distress to the buildings, tanks, and appurtenant facilities due to differential settlement.

We considered several alternatives for mitigating this potential problem, including underpinning of the foundations using helical piers, conventional concrete drilled piers, micropiles, and an earthen "buttress fill" adjacent to the structure foundations. The pier and pile alternatives essentially transfer the structure loads to sedimentary rock below the excavation zone, thereby eliminating the current lateral loading of the excavation wall by the foundations. The buttress fill alternative would consist of a compacted earthen fill placed adjacent to the excavation wall to provide a dense buttressing zone against the excavation highwall. The excavation outside the compacted buttress zone could be backfilled with random fill without moisture conditioning or compaction. The buttress zone would be constructed against the highwall with an overall slope of 2h:1v away from the highwall.

We believe the buttress fill alternative is the more practical and feasible alternative for this site because the material is readily available, a contractor is on site and available to perform the work immediately, the excavation will need to be backfilled anyway, and the time frame for additional investigation and structural design that would be required for the other alternatives is eliminated. To construct the buttress fill, we recommend the following:

1. Determine construction limits for the compacted material assuming a 2h:1v slope from a series of points located 10 feet from the structure walls.
2. Confirm a source for the material and determine laboratory compaction parameters according to ASTM D 698 methods.
3. Place the material in thin lifts, moisture-condition the material for compaction and dust control, and compact using non-vibratory equipment and/or haul units such as the 20-ton Volvo trucks currently on site. The lift thickness, compaction requirements, and moisture specifications will be dependent on the buttress material properties. We anticipate the compaction objective would be equivalent to 95 percent of standard Proctor maximum dry density at a moisture content between optimum and 5 percent below optimum water content (for a fine-grained sandy soil). We recommend a performance specification be developed for this work. That is, testing on the first day or two of placement and compaction can be used to

determine an acceptable moisture content, and a minimum number of passes by compaction equipment necessary to achieve desired results. Following that initial period, compaction will be specified using that level of effort identified in the initial testing.

4. Place random fill (without moisture or density control) as desired outside the buttress limits and grade the surface to drain away from the structures.

LIMITATIONS

The observations and recommendations outlined above are based on the site reconnaissance and brief document review made by MFG on July 10. Additional technical support for these recommendations and quantitative verification of existing stability could be made with slope stability, stress, and lateral earth pressure calculations, if desired by KUC.

Backfilling

Initial plans called for backfilling the excavation with loose fills excavated from the Ore Pad. This material was determined to be radiologically suitable as backfill as described in the section entitled Clean Fill Excavation. Information on this material and its suitability was provided to Stephen Cohen of the Nuclear Regulatory Commission in an email dated October 10, 2006, included in Appendix 13 of Section 4. Use of this material was approved by Stephen Cohen in a telephone conversation on October 19, 2006.

From 2001 to 2003 a substantial amount of diesel contaminated soils was excavated west of the Mill Building and north of the Main Shop Building. During the course of this excavation an investigation of highwall stability was made and is attached as the document "Sweetwater Mill Contaminated Ground Excavated Slope Review" included in Appendix 1. This review concluded, "*The risk of wall instability at the recommended design is judged to be extremely low.*" Based upon this study for an excavation immediately west of the Catchment Basin excavation, its recommendations were followed for the Catchment Basin excavation as well. The excavation resulted in an approximately forty (40) foot high highwall immediately beneath the Raffinate Tank Slab, around the southeastern corner of the Mill Building and along the east side of the Mill Building.

A second investigation of the Catchment Basin excavation by MFG was completed and a document dated July 12, 2006 is included in Appendix 2. MFG made the following conclusions:

- To protect the long-term integrity of the structure foundations, special mitigation alternatives should be considered. If the excavation is backfilled with uncompacted soil and the foundations are not underpinned or stabilized, it is likely that over time, lateral movement of the loaded soils below the building and tank foundations may occur, resulting in distress to the buildings, tanks, and appurtenant facilities due to differential settlement.
- We believe the buttress fill alternative is the more practical and feasible alternative for this site because the material is readily available, a contractor is on site and available to perform the work immediately, the excavation will need to be backfilled anyway, and the time frame for additional investigation and structural design that would be required for the other alternatives is eliminated.

A third examination of highwall issues was made by Rio Tinto Technical Services (RTSS) and summarized in the document entitled "Excavation Observations – Catch Basin" dated October 12, 2006 in Appendix 3. This document made the following conclusions:

- *"... the berm recommended by MFG should be constructed as soon as practical".*
- It also recommended that the berm along the toe of the cut slope be completed as soon as practical.

This compacted fill buttress was constructed. In fact, the entire fill in the excavation was wetted and compacted. The compacted fill buttress construction and the backfilling of the excavation became urgent in October 2006 due to the widening of separation cracks between the footing and slab along the east wall of the Mill Building, since the excavation was up against the wall. Upon discussion of the cracking, Stephen Cohen stated in a telephone conversation on November 3, 2006, "...cannot allow possible small amounts of contamination to hinder backfilling." As such, backfilling was performed as expeditiously as possible. Also, additional fill material above the original ground surface of approximately 6640 feet above mean sea level was added as a surcharge to maintain pressure on the fill material to provide long term additional compaction. This material is higher than the base of the Mill Building and Raffinate Tank Slab as shown in the map entitled **Catchment Basin Volume Calculation – Pre Construction versus Post Construction**. This map shows in purple numbers thicknesses of fill above the original ground surface. The map shows the original surface contours (projected over the top of the Catchment Basin) in blue and the current (post backfilling) surface contours in brown. In one area 15.9 feet of additional material was added. This material will have to be removed at some point in the future prior to commencement of operations; however, it will be left in place as long as possible to promote compaction.

The compacted fill buttress was constructed as instructed in the document prepared by MFG in Appendix 2 entitled "Kerosene Excavation Stability Consultation, Kennecott Uranium Company, Sweetwater Mill" which states, "*Place the material in thin lifts, moisture-condition the material for compaction and dust control, and compact using non-vibratory equipment and/or haul units such as the 20-ton Volvo trucks currently on site.*"

Material was excavated from the Ore Pad, hauled into the excavation bottom with twenty-ton haul trucks, placed in thin (one (1) foot thick) lifts, wetted with a water spray from a water truck and compacted with a Caterpillar 980 C front end loader and with loaded Volvo twenty-ton haul trucks. No vibratory compaction equipment was used. Use of vibratory compaction equipment was deemed a safety hazard due to the potential for causing fall of material from the highwall. A total of 275,725 cubic yards of fill material was placed in the excavation. Since 233,268 cubic yards were cut from the excavation, this means that 42,457 cubic yards of additional fill were added during backfilling. Backfilling progress was surveyed on a monthly basis by Robert Jack Smith and Associates, licensed surveyors. These surveys provided the basis for contractor reimbursement as well as the basis for the series of sequential excavation maps. The Excavation Progress Layouts (Section III, Appendix 1) beginning on December 1, 2006 show the backfilling progress.

As described in Section V. Ore Pad Clean Fill Excavation, 6,364 cubic yards of fill were removed from the excavation during backfilling due to concerns regarding hydrocarbon contamination in the fill. This is described in greater detail in that section.

The image below taken on October 9, 2006 shows a twenty-ton Volvo haul truck dumping the material.

RIO TINTO

Operational and Technical Excellence

Memo

Date:	October 13, 2006	**Project:**	Green Mountain
To:	Oscar Paulson		
From:	Joergen Pilz		
Subject:	**Excavation Observations – Catch Basin**		

Dear Oscar,

This memorandum summarizes the writer's observations regarding stability of the Catch Basin excavation being accomplished to the East of the Mill at RTEA's Green Mountain Mine in Sweetwater County, Wyoming. The purpose of the site visit was to assess the stability of the slopes below the Mill Building / Tanks and to address site safety concerns that may exist in the backfilling operations. This memorandum is based on review of documents provided by Green Mountain Mine and field observations completed on October 11, 2006.

Principal Findings

- Based on the site observations and strength data provided in reports by Golder, the slope below the Mill, which extends at slope angles between 65 and 75 degrees (.3 to 0.5:1 [H:V]) is stable. The estimated factor of safety of this slope is greater than 1.5, which is generally considered to be satisfactory.

- There appear to have been minor movements of the footings in the Mill. These movements occurred along pre-existing cracks (cracks that had been present prior to the excavation). It is the writer's opinion that the cause of the movement was the reduction in lateral stress caused by the excavation. In terms of slope stability, the cracks are considered to be of minor consequence, however, the berm recommended by MFG should be constructed as soon as practical.

- Observation of the contractor's fill placement operations indicates good construction practice in terms of maintaining personnel and equipment at safe distances away from the slope. The Contractor should continue the observed practices and must have daily pre-shift safety meetings, especially when workers need to be temporarily present at the toe of the slope.

- Extension of monitor wells at several locations around the perimeter of the excavation will require temporary work below slopes that may be subject to raveling. As discussed in the field with the Contractor's representative, it is recommended that:

    - Loose material at the crest of the slope should be "pulled back" by backhoe.
    - Any obvious loose blocks of soil/bedrock should be removed by backhoe and
    - Either a Tensar geogrid or snow fencing be draped over the slope.

The intent of draping the geogrid over the slope is to keep potentially loose blocks of material adjacent to the slope as an added measure to removing obviously loose blocks beforehand. It is also recommended that no equipment be operated in proximity to the slope (no closer than 100 ft) when men are extending the wells.

- As recommended previously by others, the practice of daily slope inspections and increasing the frequency of inspections during inclement weather conditions should be continued.

Discussion and Basis

The catch basin excavation is being accomplished to remove as much of the contaminated 11(e).2 materials as practical outside the Mill structures. The backfill material is separated from contaminated materials by a 6 mil liner, which is being nailed to the slope in stages as the backfill is being accomplished. At the time of the field observations, the Contractor (Archer Construction) was placing a berm at the southeast corner of the Mill building, which represents the most exposed section of the structures along the perimeter of the excavation. A panorama photograph of the excavation is presented on Figure 1.

Figure 1 – Oct 11 photograph of berm being placed, slopes show no signs of instability, although minor movements may have occurred along perimeter of Mill.

Fill placement operations are such that the Contractor men and equipment are maintained away from the slope to the maximum extent practicable. Dump trucks are backed up to the slope against a fill berm and spotted and the fill is spread by loader into lifts. Compaction is by wheel rolling using a CAT front end loader. This procedure avoids operation of vibratory equipment along the slope and maintains the operator's cab away from the slope. The principal exposure to workers occurs during the 1 hour period when the liner is periodically pinned to the slope. At this time it is understood that the construction supervisor observes the slope on a full time basis.

As discussed in the field, the extension of the monitor wells will require close supervision to maintain safe working conditions. The principal hazard when several of the wells are extended close to the slope is raveling of sandstone / claystone blocks. Such raveling was not observed to be active. However, the potential of such rock fall does exist and the mitigation measures outlined previously should be observed. A full time "spotter" should observe the slopes when men are working below.

A reconnaissance of the interior of the Mill was completed. Cracking between the foundation perimeter wall and interior floor slabs was observed at many locations around the perimeter of the building. Many of the cracks were quite old and movement of these cracks had previously been monitored. However, it appeared to the writer that the size of the cracks were larger around the exterior wall situated above the catch basin excavation. Movements of 1/32 inch were recently measured. It is likely that these movements occurred due to a relief in horizontal stress at the excavation was completed. Some minor vertical movement has to occur due to this stress relief to accommodate the foundation loads. As is being accomplished, it is recommended that monitoring of the cracks be continued during construction to confirm that movement rates are not increasing. It is also recommended that the berm along the toe of the cut slope be completed as soon as practical.

Rio Tinto OTX is pleased to be of service to Green Mountain on this project. If there are any questions or comments, please contact the undersigned.

Best Regards

Joergen Pilz
Geotechnical Advisor - OTX

Attachments:
MFG Site Observations
10/5/06 Safety Minutes
Stability Output

Highwall Liner Installation

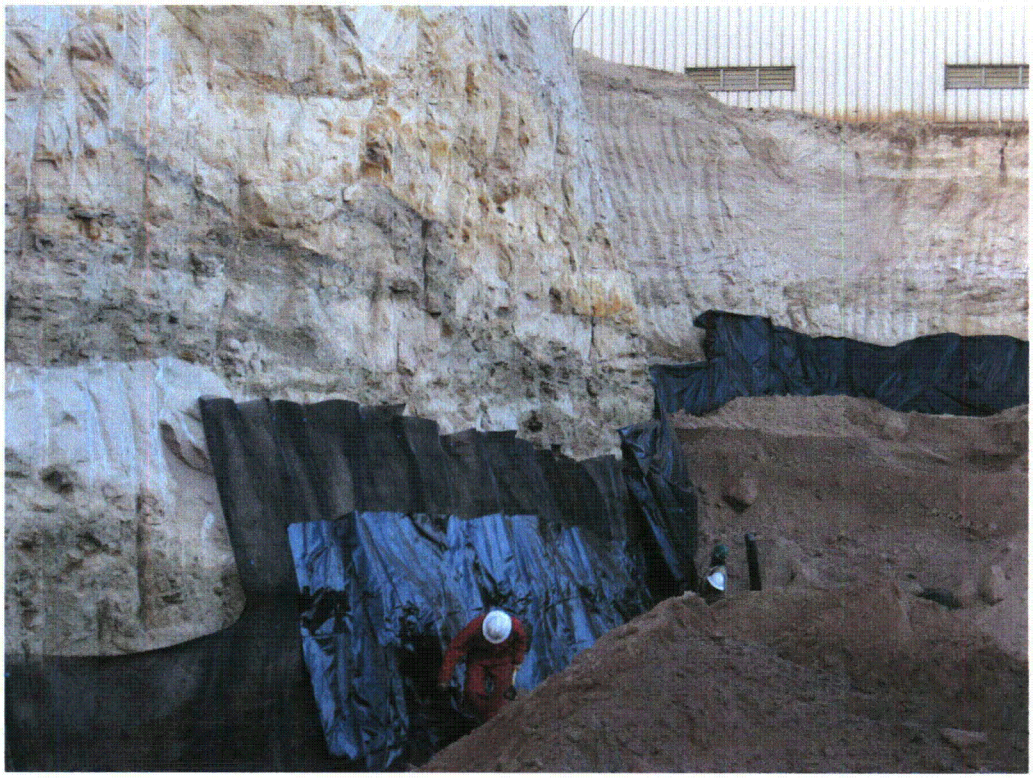
Sections of the western highwall of the excavation beneath the Raffinate Tank slab, Mill Building and beneath the acid and water tanks had either elevated (above 16.4 picoCuries per gram) Radium-226 contamination levels, seeps of fluid containing hydrocarbons (Seep #1 - beneath the east side of the Mill Building and Seep #2 - beneath the Raffinate Tank Slab), elevated concentrations of natural uranium (Grids G minus 1, G0, H minus 3 and I minus 3), or elevated concentrations of Thorium-230 (Grids D5, G0 and I minus 3). These seeps are shown and discussed in the section entitled Seeps/Seepage collectors. The samples in the highwalls containing Radium-226 in excess of 16.4 picoCuries per gram, natural uranium in excess of 35 picoCuries per gram and/or Thorium-230 in excess of 16.57 picoCuries per gram, are listed in the sample data spreadsheet and shown on the Radium-226, natural uranium and Thorium-230 sample maps of the excavation, respectively.

In order to separate these contaminated materials, which could not be excavated since they were beneath existing infrastructure (Mill Building, slabs or tanks), it was decided to cover these contaminated sections of highwall with liner material (minimum six (6) mil polyethylene). This is described in the amendment request to excavate the contaminated material and was approved as part of License Amendment No. 21, allowing excavation of the contamination.

The areas of highwall covered by liner material are shown on the **Sample Point Locations and I.D.** and other maps. In some cases (the area of Seeps #1 and #2) geogrid was placed behind the liner material to facilitate the flow of any seepage flowing against the liner material from the still contaminated side into the seepage collectors.

The image above taken on October 5, 2006 shows the first liner material being installed beneath the southeast corner of the Mill Building immediately prior to the start of backfilling.

The following images show the installation of the geogrid behind the liner followed by the liner material itself along a section of highwall. The images were taken on November 13, 2006.



The following panorama shows the liner installed along the entire west wall beneath the Raffinate Tank Slab as well as beneath the south wall of the Mill Building. This image was taken on November 30, 2006:

The liner was installed in overlapping sections as backfill was added, as shown below:

This panorama of the liner beneath the Raffinate Tank slab was taken on December 5, 2006.

This panorama of the liner was taken on February 8, 2007:

This panorama was taken on February 14, 2007:

Drains, Seeps/Seepage Collectors and Remaining Perched Fluids

Two (2) seepage collectors were installed in the fall of 2006 following completion of the main portion of the excavation area (excluding the Kminus3 area). These seepage collectors were approved under License Condition 9.10 following submittal of a license amendment request included in Appendix 1 and receipt of an approval letter and Technical Evaluation Report included in Appendix 2.

The request to install the collectors was made following discovery and documentation of two (2) seeps containing hydrocarbons that could not be excavated. Seep #1 was located at the bottom of the excavation's west wall beneath the east wall of the Mill Building. This seep could not be excavated since it extended beneath the Mill Building slab. This seep is shown on the Total Extractable Hydrocarbon (TEH) map and was addressed by seepage Collector #1, which is shown and labeled on the above referenced map.

Seep #2 was also in the west wall of the excavation beneath the Raffinate Tank slab. It is shown on the Total Extractable Hydrocarbon (TEH) map and was addressed by the installation of seepage Collector #2.

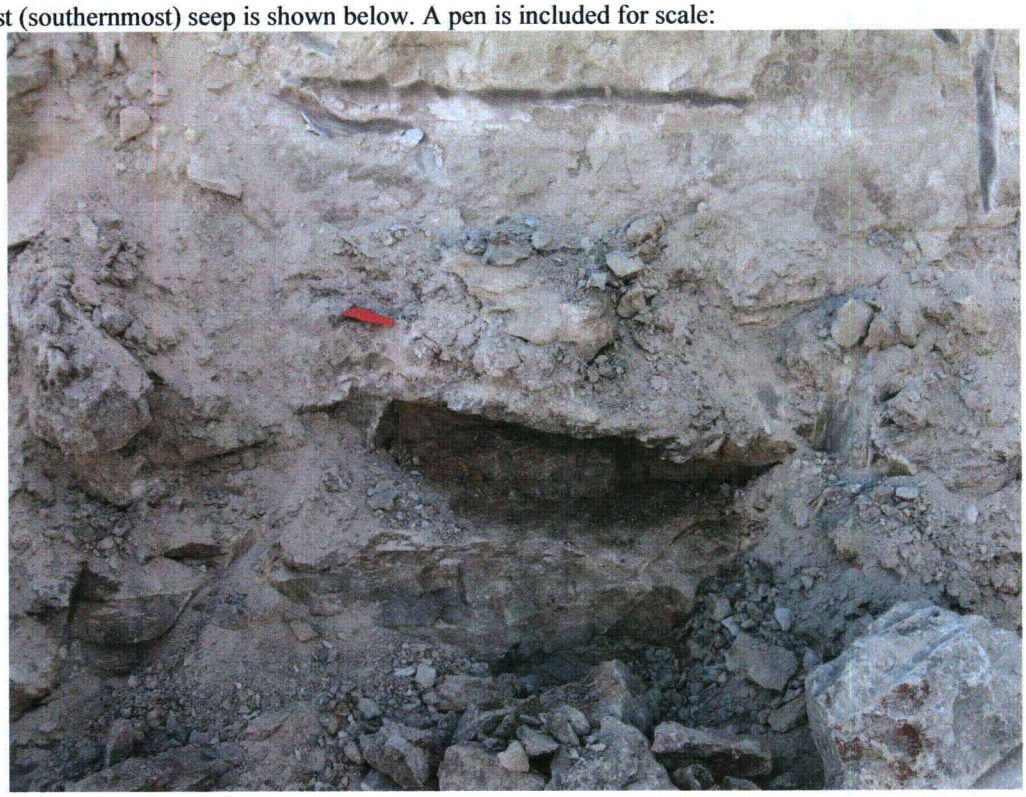
The seepage collectors are clearly shown on all the sampling maps and the **Catchment Basin Post Excavation (November 2007) Map**. These seepage collectors, installed to collect potential seepage, are described below with their associated seep:

Seepage Collector #1

The location of this collector is shown on the Total Extractable Hydrocarbon (TEH) and other maps. This collector consists of a fifteen (15) foot long, six (6) inch in diameter slotted polyethylene pipe sealed at both ends with a T in the middle. This T is connected to a six (6) inch vertical polyethylene pipe going to the surface so that accumulated seepage can be pumped out. This collector was specifically installed to address the seepage shown in the image below which was coming from beneath the Mill Building:

Close-up images of these seeps are shown below. The rightmost (northernmost) seep is shown below. A trowel is included for scale:

The leftmost (southernmost) seep is shown below. A pen is included for scale:



These images were taken on September 19, 2006. Fluids from the seeps could not be collected for analysis since they drained quickly once the seeps were exposed. Samples of the soils in the seeps were collected. The results are included on the following page:

Seep Associated with Seepage Collector # 1 East of Mill Building

Location	Sample Type	Northing	Easting	Elevation	Diesel Range Organics	Oil Range Hydrocarbons	Total Extractable Hydrocarbons	pH	Sulphate	Natural Uranium	Thorium-230	Thorium-230 Uncertainty	Radium-226 FINAL Result	Radium-226 FINAL Uncertainty
					(milligrams per kilogram)	(milligrams per kilogram)	(milligrams per kilogram)	(Standard units)	(milligrams per kilogram)	(milligrams per kilogram)	(picocuries per gram)	(picocuries per gram)	(picocuries per gram)	(picocuries per gram)
45' N of SE Corner Mill Bldg	1' above bottom	148776.26	324038.52	6600.64	1890	ND	1890	9.25	146	63.10	13.0	1.9	37.9	2.1
Under Tails Line Pit Bottom	West wall	148783.13	324039.57	6599.43	4420	ND	4430	9.06	174	55.50	1.4	1.8	38.1	2.2

Seep Associated with Seepage Collector # 2 East of Raffinate Tank Slab

HOT SPOT #2	Spot	148592.45	323950.13	6598.00	15300	ND	15300	5.07	264	39.88	1.3	0.6	4.7	1.1
HOT SPOT #3	Spot	148595.45	323950.13	6598.00	13300	ND	13300	4.92	501	62.33	5.5	1.3	4.2	1.1
HOT SPOT #4	Spot	148603.45	323950.13	6598.00	15800	ND	15800	4.8	205	16.69	5.1	1.4	6.9	1.3
HOT SPOT #5	Spot	148616.45	323950.13	6598.00	12800	ND	12800	4.6	495	25.11	1.6	0.7	3.1	1.1

These samples are identified on the map entitled **Sweetwater Uranium Project – Catchment Basin Excavation – Sample Point Locations.**

The images below taken on October 9, 2006 depict the construction of Seepage collector #1:

The above image shows the gravel covering the horizontal collector (slotted pipe) installed behind/beneath the polyethylene liner placed over the exposed seep to prevent it from contaminating the clean fill material. Any seeping fluids would accumulate against the liner material and run into the crushed rock and horizontal pipe to be collected.

The image below shows the pipe to the surface extended through the liner material into the clean backfill to the surface:

Seep/Seepage Collector #2

The image below shows the seep in the west wall of the excavation beneath the Raffinate Tank slab:

This panorama is a composite of images taken on July 14, 2006. The area of seeping hydrocarbons is distinguished by its darker color.

Sample data for the four (4) flagged hot spots in the seep are shown as data for Hot Spots #1 to #4 in the previous table. This seep is approximately ten (10) meters long and lies between points E8 and E9 on the sample location map. The leftmost flagged point is E9 and the rightmost flagged point is E8. The four-(4) intervening flagged points are sample locations Hot Spot #2 to #5 from left to right, respectively.

The image below shows Seepage Collector #2 after installation with liner over the collector:

These two (2) seeps indicate contamination beneath the Raffinate Tank slab and the Mill Building itself. This contaminated material was isolated by liner material from the clean backfill and will be addressed at final site decommissioning. These seepage collectors are checked periodically for accumulated fluids. To date none have been found.

A small quantity of perched fluid was encountered in the excavation bottom near monitor well TMW-90 near the west highwall of the excavation beneath the Raffinate tank slab. This image of the perched fluid (wet spot between the wells) was taken on July 10, 2006. The fluid was sampled and the results are included in Appendix 2 of Section II – Fluid Recovery. There was only a very small amount of fluid present and it evaporated rapidly. The elevation of the fluid was approximately 6600 feet above mean sea level.

Rio Tinto Energy America
Kennecott Uranium Company
PO Box 1500
Rawlins, Wyoming 82301-1500
(307) 324-4924

October 3, 2006

Mr. Keith McConnell, Deputy Director
Decommissioning & Uranium Recovery Licensing Directorate
U.S. Nuclear Regulatory Commission
Mail Stop T-7E18
Washington, DC 20555-0001

Dear Mr. McConnell:

Subject: Sweetwater Uranium Project – Docket Number 40-8584
Source Material License #SUA-1350
Request for Amendment to Final Design – Volume IV – Part 2, Mill Decommissioning Addendum to the Existing Impoundment Reclamation Plan (Referenced in License Condition 9.10) – Additional Information

Kennecott Uranium Company submitted the above amendment request on May 12, 2004. It was followed by additional submittals dated July 22, 2004, December 15, 2004 and January 18, 2005. The excavation work described in these submittals is complete, barring any analytical data yet to arrive exceeding the referenced standards for the excavation.

The following additional information is being submitted:

Seepage Collection System

In the course of the excavation work the two (2) shallow (perched) monitor wells used to recover fluids perched on a clay layer approximately forty (40) feet below surface were destroyed. The destruction of these wells was planned and discussed in the December 15, 2004 submittal, which states:

"..they will be destroyed during the excavation process and not replaced."

These two (2) wells collected seepage from rainfall and snowmelt that seeped from the surface down to the clay at forty (40) feet below surface at the planned excavation bottom. This surface seepage flowed through kerosene contaminated materials.

The excavation highwalls beneath the slab supporting the clarifier and beneath the east wall of the Mill Building have kerosene contamination in them. This material will not be removed until final decommissioning since doing so would jeopardize the integrity of the respective foundation slabs. This issue was addressed in the amendment request when it was stated that *"The exposed contaminated high wall shall be covered with liner material of at least six-(6) mil thickness and held in place by backfill."*

In addition to doing the above and given the planned destruction of TMW-90 and 105, Kennecott Uranium Company is planning to install perforated pipe at the bottom of the excavation against the highwalls beneath foundation slabs behind (on the contaminated side) of the liner material. Kennecott Uranium Company believes that this is a prudent approach since it would allow for the collection and removal of any potentially contaminated seepage that might accumulate behind and run down the contaminated side of the liner curtain.

Kennecott Uranium Company plans to use perforated six (6) inch diameter polyethylene pipe for the collection system and to connect it to a vertical six (6) inch polyethylene pipe extending to the surface to allow any seepage to be removed with a pump. Kennecott Uranium Company plans to bed the perforated pipe in gravel to maximize collection efficiency. Installation of this system is not required by the current plan, but is work Kennecott Uranium Company is volunteering to perform in the interest of long term groundwater protection.

This item was discussed with Stephen Cohen of your staff in telephone conversations on Tuesday, September 26 and Tuesday, October 3, 2006, and in an e-mail dated Sunday, September 24, 2006 3:57 PM.

Final Cleaning of Areas Surrounding the Excavation and Travel/Haulage Ways

With the exception of several grids that probably are exhibiting contamination by naturally occurring uranium and its decay products, Kennecott Uranium Company believes that the excavation is complete. Given the onset of winter weather Kennecott Uranium Company wants to backfill the excavation as rapidly as possible. Certain areas around the excavation were used by haul trucks as haulage ways and by other equipment as travel ways. The equipment is being washed, scanned and released for unrestricted use. Kennecott Uranium Company plans to scrape three (3) to six (6) inches of soil off of these haulage and travel ways and place that material in the tailings impoundment to insure that no inadvertent contamination is present in these areas. Given the short duration of time that these areas were used by trucks and equipment removal of this amount of surface material should assure that any inadvertent contamination from equipment tires, etc. has been removed.

Placement of soils and rubble in the tailings impoundment was addressed in the May 12, 2004 amendment request when it stated:

4. ***Waste Disposal***

   The excavation process will remove concrete (from the existing basin's sides), pipe, soils and miscellaneous debris. These materials shall be placed in the tailings impoundment on site. The licensee is allowed to place site generated byproduct material in the tailings impoundment under license condition 10.6, which states in part: During any period of mill standby, the licensee shall not add tailings or other solid wastes to the tailings impoundment, except byproduct material in the form of debris generated by routine site maintenance.

   Placement of these materials shall be performed under Section IV DSOP-1 Green Mountain Ion Exchange Waste Disposal

This item was discussed with Stephen Cohen of your staff in telephone conversations on Tuesday, September 26 and Tuesday, October 3, 2006, and in an e-mail dated Tuesday, September 26, 2006 1:52 PM.

This letter was prepared at the request of Stephen Cohen in a telephone conversation on Tuesday, October 3, 2006. If you have any questions please do not hesitate to contact me.

Sincerely yours,

Oscar Paulson
Facility Supervisor

cc: Stephen Cohen (2 copies)
Director, DRSS, Region IV
John Lucas - RTEA

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 29, 2006

Mr. Oscar Paulson
Facility Supervisor
Sweetwater Uranium Project
Kennecott Uranium Company
P.O. Box 1500
Rawlins, WY 82301-1500

SUBJECT: MODIFICATION TO MILL DECOMMISSIONING PLAN, CATCHMENT BASIN RECLAMATION PROJECT, KENNECOTT URANIUM COMPANY, SWEETWATER URANIUM PROJECT, AMENDMENT NO. 25 TO SOURCE MATERIALS LICENSE SUA-1350 (TAC J00503)

Dear Mr. Paulson:

By letter dated October 3, 2006, Kennecott Uranium Company (KUC) submitted to U.S. Nuclear Regulatory Commission (NRC) staff a request to amend the portion of its Mill Decommissioning Plan pertaining to the catchment basin reclamation. Specifically, KUC proposes to install drains at the bottom of the 40-foot deep excavation to collect potentially contaminated seepage below the clarifier and mill building structural foundations. KUC states that this change would allow it to prevent further contaminant migration and facilitate future site decommissioning activities. NRC staff has reviewed and approved this amendment request. Our review is documented in a technical evaluation report enclosed with this letter (Enclosure 1). NRC staff has also enclosed License Amendment No. 25 (Enclosure 2) with the appropriate amendment to License Condition 9.10.

This licensing action is categorically excluded from further environmental review under 10 CFR Part 51.22(c)(11), because it approves a change in equipment that does not change the types and amounts of effluent or the individual or cumulative occupational radiation exposures. Also, this licensing action will neither impact construction nor increase the risk of radiological accidents.

In addition to the above amendment, NRC staff has amended License Condition 9.2 to reflect organizational changes within the agency. The new address to which correspondence regarding this license should be sent is, as follows: Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs, Mail Stop T-7 E18, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by express delivery to 11545 Rockville Pike, Rockville, Maryland 20852-2738.

If you have any questions regarding this licensing action, please contact Mr. Stephen J. Cohen, Project Manager, at 301-415-7182, or by e-mail at sjc7@nrc.gov.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

Sincerely,

Keith I. McConnell, Deputy Director
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Docket No.: 40-8584
License No.: SUA-1350

Enclosures:
1. Technical Evaluation Report
2. License Amendment No. 25

cc: M. Thiesse, WDEQ

TECHNICAL EVALUATION REPORT
MODIFICATION TO MILL DECOMMISSIONING PLAN
CATCHMENT BASIN RECLAMATION
KENNECOTT URANIUM COMPANY, SWEETWATER COUNTY, WYOMING

DOCKET NO.:	40-8584
LICENSE NO.:	SUA-1350
DATE:	November 13, 2006
FACILITY:	Sweetwater Uranium Project, Sweetwater County, Wyoming
TECHNICAL REVIEWERS:	Stephen J. Cohen
PROJECT MANAGER:	Stephen J. Cohen

1.0 SUMMARY AND CONCLUSIONS

By letter dated October 3, 2006, Kennecott Uranium Company (KUC) requested an amendment to its Mill Decommissioning Plan (MDP) for the Sweetwater Uranium Project (SUP) pertaining to soil and ground water remediation associated with prior catchment basin releases. Specifically, the amendment is to install drains in an area of petroleum contaminated soil beneath foundations of clarifiers and the mill building to facilitate contamination removal prior to decommissioning these structures in the future. U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the request and approves this MDP amendment.

2.0 BACKGROUND

KUC operated a solvent extraction (SX) circuit, as part of its uranium milling process prior to placing the SUP mill on standby in 1983. KUC operated this SX circuit at almost 100 percent capacity, resulting in upsets or overflows of processing fluids. SX circuit overflow was conveyed to a catchment basin that was lined with concrete on the sides, but no liner on the bottom. Because the basin bottom was not lined, process fluids migrated into the subsurface contaminating ground water and soils. Contaminants included radionuclides (natural uranium, radium-226 and -228, and thorium-230), kerosene (used in the SX process), and volatile organic compounds.

By letter dated May 12, 2004, KUC submitted a request to amend License Condition (LC) 11.3 - ground water corrective action program, LC 11.5 - the mill standby environmental monitoring program, and LC 9.10 - the MDP to allow for catchment basin decommissioning and ground water and soils reclamation (KUC, 2004a). KUC supplemented the aforementioned submittal

on July 22, 2004, to provide additional information regarding the surety and environmental contamination (KUC, 2004b). On October 28, 2004, NRC staff issued a request for additional information (NRC, 2004), to which KUC responded on December 15, 2004 (KUC, 2004c). This response provided additional information on hydrogeology, limits of contamination, and the soils and ground water reclamation program. KUC provided additional information on January 18, 2005, regarding natural uranium and thorium-230 remediation in subsurface soils (KUC, 2005). NRC staff issued License Amendment No. 21, approving the requested amendments on May 23, 2005 (NRC, 2005).

The SUP mill may soon be taken off standby status because of its impending sale and likely restart under new ownership. KUC's sale of the SUP mill will likely be finalized in early 2007, at which time KUC plans to apply for a license amendment transferring its license to the new owner.

3.0 TECHNICAL EVALUATION

Active reclamation of the catchment basin started in February 2006, with the demolition of the catchment basin and excavation of contaminated soils. By October 2006, KUC excavated approximately 168,080 cubic meters (220,000 cubic yards) of contaminated soil, which KUC disposed of in its tailings impoundment. The excavation is approximately 12.2 m (40 ft) deep and encroaches upon the foundations of KUC's clarifiers and the east wall of the mill building.

As part of the soil and ground water reclamation activities, KUC eliminated two shallow ground water extraction wells used to recover fluids from a perched zone. Perched fluids consisted of catchment basin seepage and infiltrating precipitation that migrated through contaminated soil strata. This perched zone, as well as the associated contamination, has been removed from the excavation area; however, some contamination is located in the excavation walls below structural foundations for the clarifiers and the east mill building wall. These contaminated materials will be isolated and left in place until the mill is eventually decommissioned.

To isolate the contamination below structural foundations, KUC will cover the excavation walls with synthetic liners. However, KUC now proposes to install drains to remove any contaminated seepage and reduce the potential for further migration of contaminated materials. Specifically, KUC plans to install a 15-centimeter (cm) (6-inch (in.) diameter perforated polyethylene pipe for the collection system and connect it to 15-cm (6-in.) polyethylene pipe extending to the surface to remove seepage. NRC staff expects the amount of seepage to be minimal, because the catchment basin no longer exists, and infiltration from precipitation is limited in the Great Divide Basin of Wyoming. NRC staff has reviewed KUC's request and determined that the addition of drains at the excavation bottom is a prudent measure to control any seepage that might accumulate in this area.

4.0 PROPOSED LICENSE AMENDMENTS

9.2 All written notices and reports to the Nuclear Regulatory Commission (NRC) required under this license, with the exception of incident and event notifications, shall be addressed: c/o Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs, Mail Stop T-7 E18, Washington, DC 20555-0001, or by express delivery to 11545 Rockville Pike, Rockville, Maryland 20852-2738.

Incident and event notifications, which require telephone notification under 10 CFR 20.2202 and 10 CFR 40.60, shall be made to the NRC Operations Center at (301) 816-5100.

Applicable Amendments: 16, 18, 25]

9.10 Decommissioning of the facility shall be performed as presented in the Final Design, Volume VI, Part 2 - "Mill Decommissioning Addendum to the Existing Impoundment Reclamation Plan," submitted May 28, 1998, as supplemented by the response to comments submitted February 3, 1999, and the catchment basin remediation plan dated May 12, 2004, as revised July 22, 2004, December 15, 2004, January 18, 2005, and October 3, 2006. The verification results of this remediation are to be submitted to NRC for approval, as soon as reasonably possible. The catchment basin verification report and NRC's approval letter shall be referenced in the Final Status Survey Report. Residual contamination remaining under structural foundations after the catchment basin remediation shall be removed at the time the structures are decommissioned. The NRC shall be notified and detailed SOPs for decommissioning (land and buildings) shall be available for review at least three months before decommissioning begins.

[Applicable Amendments: 21, 25]

5.0 REFERENCES

Kennecott Uranium Company, 2004a, Request for Amendment to Corrective Action Program and Mill Decommissioning Plan, May 12, 2004 [ADAMS Accession No. ML041450426].

Kennecott Uranium Company, 2004b, Response to Comments Regarding License Renewal Request and License Amendment for Proposed Change to Ground Water Corrective Action Program, July 22, 2004 [ADAMS Accession No. ML042110348].

Kennecott Uranium Company, 2004c, Response to Request for Additional Information Dated October 28, 2004, December 15, 2004 [ADAMS Accession No. ML043520255].

Kennecott Uranium Company, 2005, Response to Comments Regarding Natural Uranium and Thorium-230 Remediation in Subsurface Soils, January 8, 2005 [ADAMS Accession No. ML050350266].

U.S. Nuclear Regulatory Commission, 2004, Request for Additional Information Regarding Amendments to the Ground Water Corrective Action Program and Mill Decommissioning Plan, October 28, 2004 [ADAMS Accession No. ML043070658].

U.S. Nuclear Regulatory Commission, 2005, License Amendment No. 21, May 23, 2005 [ADAMS Accession No. ML051510387].