



**Rio Tinto Energy America**

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31 January 2007

Mr. Keith I. McConnell, Deputy Director  
Division of Waste Management and Environmental Protection  
Office of Federal and State Materials and Environmental Management Programs  
U.S. Regulatory Commission  
11545 Rockville Pike, Mail Stop T7-E18  
Rockville, MD 20852-2738

Dear Mr. McConnell:

**Subject: Sweetwater Uranium Project - Docket Number 40-8584  
Source Materials License #SUA-1350 -- License Conditions 11.2 and 12.3  
Land Use Report**

In compliance with License Conditions 11.2 and 12.3 of SML SUA-1350, Kennecott Uranium Company has conducted visual surveys throughout the year (20065) of land use in, and within a five-mile radius of, the Sweetwater Uranium Mill restricted area.

Limited cattle and sheep grazing, wildlife usage, recreation (mainly hunting during the Fall) and oil and gas development and production continue as the principle land uses in the area. There has been noticeable oil and gas drilling activity to the west, north and south of the facility, creating additional traffic along Sweetwater County Road 4-63 south of the facility. Some uranium exploration drilling has been conducted approximately four miles due north of the facility. Extensive uranium related claim staking has been done within a five mile radius of the facility, primarily to the north and west.

As of the end of December 2006, four (4) drill rigs were operating around the facility and located as follows:

<u>Well Name:</u>	<u>Location:</u>	<u>Latitude/Longitude</u>
North Battle Springs Unit 14-27	SW ¼ SW ¼ Section 27, T24N R94W	N42° 01.163'/W108° 01.384'
North Battle Springs Unit 1-31	NW ¼ SE ¼ Section 31, T25 N R94W	N42° 05.650'/W108° 05.559'
Chain Lakes Well No. 29-1	ND ¼ NW ¼ Section 29, T23N R93W	N41° 56.418'/W107° 56.766'
Champlin 532A-1	Section 19, T23N R92 W	N41° 56.856'/W107° 50.934'

All are more than five (5) miles from the facility but of interest because these operations represent the closest activity to date to the facility in recent time.

All of the petroleum-contaminated soils excavated on site during 2001, 2002 and 2003 were placed on a synthetically lined landfarm approximately fifty (50) acres in area, located outside of the NRC bonded area, but within the Department of Environmental Quality (DEQ) bonded area, west of the facility. The land-farmed materials are being treated by bioremediation with added nutrients. Once the materials meet nationally accepted clean soil standards (<100 milligrams per kilogram diesel range organics), they will be used to backfill the excavation. The excavation and remediation of this petroleum-contaminated soil was described in detail in a separate binder submitted to the NRC in 2003.

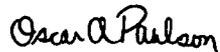
The soil and ground water contamination related to the Catchment Basin have been previously described in submittals dated May 12, July 22 and December 15, 2004 and January 18, 2005. These contaminated soils were excavated during 2006 and backfilling of the 219,000 cubic yard excavation is in progress. This work is being performed by Archer Construction Inc. of Riverton, Wyoming, using a crew of approximately ten (10) men.

Mill operations remain suspended. There are two mobile homes near the south edge of the site's chain link fence. The resident caretaker uses one for approximately four (4) days out of each week and a security guard uses the other (the one closest to the chain link fence) approximately three days of each week. The security guard is considered the nearest resident for purposes of dose calculation and estimation.

The Sweetwater Uranium Project's potable water wells are the only drinking water sources in the area. The Bureau of Land Management (BLM) maintains three water wells with tanks for livestock and wildlife watering within the area. The wells are located one mile southeast, four miles east and five miles northeast of the facility. All of the Bureau of Land Management wells are up gradient of the restricted area in regard to the regional ground water gradient.

If there are any questions regarding this report please contact me at (307) 328-1476 or (307) 324-4924.

Sincerely yours,



Oscar Paulson  
Facility Supervisor/RSO

cc: S. Cohen, Project Manager (NRC)  
Director, DRSS (NRC) - Arlington, TX  
John Lucas - Rio Tinto Energy America

## DIESEL CONTAMINATED SOIL EXCAVATION

The excavation was completed in March 2003. A sign-off letter and page changes to the report submitted in February 2003 to make it a final report were submitted on July 31, 2003. The excavation is still open pending remediation of the land-farmed soils to the 100-milligram per kilogram clean soil standard, at which point they can be used as backfill. The average concentration in the land-farmed soils was 91.5 milligrams per kilogram in September 2006; however, some samples are still above the 100-milligram per kilogram clean soil standard.

The land farm was last sampled on September 29, 2006. The sample collected from the location 200 North/-200 East on September 29, 2006 had the following results:

	<u>0' - 3'</u>	<u>3' - 5'</u>
• Diesel Range Organics (DRO)	2500 mg/kg	111 mg/kg
• Oil Range Organics (ORO)	ND	ND
• Total Extractable Hydrocarbons.	2510 mg/kg	112 mg/kg

This anomalously high concentration sample biased the entire sample set of 102 samples from 51 locations. If this single sample were removed from the sample set the average hydrocarbon concentration of the land farm would be substantially lower.

The State of Wyoming Department of Environmental Quality, Land Quality Division, reviewed the sample data submitted for the land farm in their 2006 Annual Inspection Report and Annual Report Review, stating:

“Since Kennecott has followed the permit (i.e. pages I-55 through I-60 in the Mine Plan) in all its land farming procedures at Permit 481, the company is authorized to remove the materials from the portions of the land farm noted in Appendix 13 of the 2005/2006 Annual Report as having DRO concentrations of 100 ppm or less.”

Thus, Kennecott Uranium Company can remove land farmed material from grids with a Diesel Range Organic concentration of 100 parts per million or less and backfill that material into the open excavation.