

## Rio Tinto

Kennecott Uranium Company  
PO Box 1500, 42 Miles NW of Rawlins  
Rawlins, Wyoming 82301-1500  
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28 January 2015

Mr. Andrew Persinko, 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. Persinko:

**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 (2014) of land use in, and within a five-mile radius of, the Sweetwater Uranium Project. The primary land uses in the area are mineral development (including uranium and oil and gas), grazing (including cattle, sheep, feral horses, and wildlife) and recreation (including hunting and camping). Other ancillary activities are electricity transmission gas transmission and livestock and wildlife watering wells,

Surveys were made on May 12, May 22, May 28, May 29, June 2, June 3, June 4, June 5, June 9, June 12, July 10, July 17, July 28, August 4, August 5, August 11, September 3, September 4, September 11, September 16, September 17, September 18, September 22, September 23, September 24, October 3, December 4 and December 18, 2014. Some of these surveys were made while performing other activities in the area such as the collection of water levels.

The surveys conducted on May 29, June 3, July 10, July 17, July 28, October 3, December 4, and December 18, 2014 included collection of photographs. The surveys conducted on May 12, May 22, May 28, May 29, June 2, June 3, June 4, June 5, June 9, August 4, August 5, August 11, September 3, September 4, September 11, September 16, September 17, September 18, September 22, September 23, September 24, 2014 were conducted concurrently with other activities specifically regional water level data collection. The locations of watering wells (identified by type of pump), gas development, uranium exploration/development activity, and livestock activity are shown on the included map. In addition, observations were made throughout the entire year as site personnel traveled around the area.

Cattle and sheep grazing occur in the area. Cattle are almost always present East of the facility along the paved access road (Sweetwater County Road 63). Three (3) sheep camps were established in the area in December 2014. They are labeled Sheep Camp #1, Sheep Camp #2 and Sheep Camp #3 respectively and are shown on the map. Sheep were visible West of Sweetwater County Road 23 in December 2014.

Hunting of big game wildlife occurs during the fall throughout the area. The area is also used for recreational camping.

Oil and gas development and production continue as a principle land use in the area. A twenty-four (24) inch buried gas pipeline and other gas development activities are shown on the map. 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 4-23 south of the facility. Uranium exploration drilling and well completion work is being conducted approximately four miles due north of the facility by UR-Energy. Drilling operations continued in 2014. The facility known as their

Lost Creek Project commenced operation in August 2013. Their areas of operation including three (3) areas containing wells are shown on the attached map. Extensive uranium related claim staking has been done in the past within a five mile radius of the facility, primarily to the north and west. In addition, claim staking was completed South and West of the facility in the Northern halves of Townships 23 North, Range 94 West and 23 North, Range 93 West in 2014. This staking was followed by the completion of twelve (12) holes in the general area between October 27 and December 10, 2014. The general area of the drilling is shaded on the map.

A 230 Kv power line from the Jim Bridger Power Plant passes through the area. A 34.500 Kv power line feeds the Sweetwater facility from the North and is shown on the map.

As of December 2011, the following items were observed north of the facility at the Lost Creek Project and are located as follows:

Latitude			Longitude			Northing	Easting	Item
Degrees	Minutes		Degrees	Minutes				
42	6.146	North	107	53.491	West	166533.218	325779.559	Water well/solar panel
42	6.382	North	107	53.252	West	167966.199	326848.764	Deep disposal well/Reclaimed drilling site
42	7.888	North	107	53.015	West	176491.574	340678.327	Water tank
42	7.883	North	107	52.796	West	225019.203	328861.303	Fence/drill rig
42	7.815	North	107	51.364	West	176675.548	335401.726	Drill rigs
42	7.803	North	107	50.943	West	176637.937	337301.247	Laydown yard
42	7.822	North	107	50.693	West	176751.119	338431.699	Office/drill rigs/tanks including microwave telephone system with tower
42	7.822	North	107	50.693	West	176751.119	338431.699	Deep disposal well
42	7.783	North	107	50.197	West	176491.574	340678.327	Water tanks

The following oil and gas activity has been observed:

Latitude			Longitude			Northing	Easting	Item
Degrees	Minutes		Degrees	Minutes				
42	3.078	North	108	0.636	West	147883.447	293438.368	Booster station
42	1.511	North	108	1.197	West	138171	291068	Well site
42	1.144	North	108	1.406	West	135998	290131	Well site
41	59.557	North	108	3.293	West	125704	287614	Well site
41	59.469	West	108	1.968	West	126212	281646	Well site

The following sheep ranching activity has been observed:

Latitude			Longitude			Northing	Easting	Item
Degrees	Minutes		Degrees	Minutes				
42	0.792	North	107	57.48	West			Sheep Camp #1
42	2.455	North	107	57.573	West			Sheep Camp #2
41	59.285	North	107	58.926	West			Sheep Camp #3

These items are shown on the attached map entitled “Sweetwater Uranium Project – Land Use Report Map”, provided that they are within the map’s borders. Photographs of some of these items and other items are provided, attached.

A gas booster station related to gas development in the area has been installed west of the facility and is shown on the map. It is however, more than five (5) miles west of the facility.

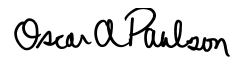
A Google Earth image of the area is included with this report.

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. An employee has parked a small camper trailer near the facility in which he sleeps on Monday, Tuesday and Wednesday nights each week since he works four (4) ten (10) hour shifts on Monday to Thursday and use of the trailer reduces his commute to a single round trip to his home town (Rock springs, Wyoming) each week. The security guard is considered the nearest resident for purposes of dose calculation and estimation as per the e-mail from James Webb – Nuclear Regulatory Commission (NRC) Project Manager dated Monday, February 28, 2011.

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 along Sweetwater County Road 63 (one mile southeast, four miles east and five miles northeast of the facility) as well as at least seven (7) wells equipped with solar powered submersible pumps for livestock and wildlife watering in the area. Those wells within the map's borders are shown on the attached map. One (1) of the wells along Sweetwater County Road 63 (Road Well #4) lies within the bounds of the map and is shown. These Bureau of Land Management wells are either up gradient of the Sweetwater Uranium Project area in regard to the regional ground water gradient or so distant as not to be impacted by operations.

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: J. Webb, Project Manager (NRC)  
Director, DRSS (NRC) - Arlington, TX  
Rich Atkinson

## **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 23.5 milligrams per kilogram in September 2008; however, some samples are still above the 100-milligram per kilogram clean soil standard.

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.

# Images



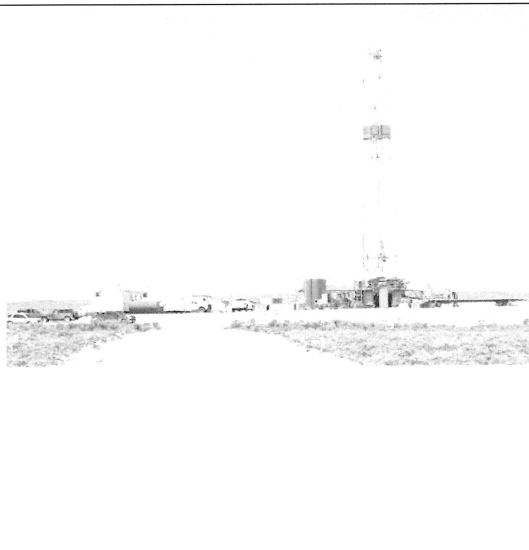
**Image 1 – UR Energy Lost Creek Project Offices – May 29, 2014**



**Image 2 – UR Energy Lost Creek Project Liquid Oxygen Tank – May 29, 2014**



**Image 3 – Feral Horses Northwest Corner Section 16, Township 24 North, Range 93 West – May 29, 2014**



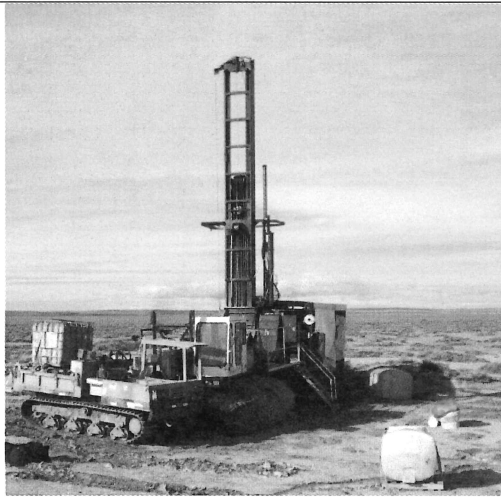
**Image 4 – UR Energy Lost Creek Project – Rig Drilling Deep Disposal Well – July 17, 2014**



**Image 5 – Lost Creek Project sign by County Road 23 – January 31, 2013**



**Image 6 – Road Striping Truck – July 28, 2014**



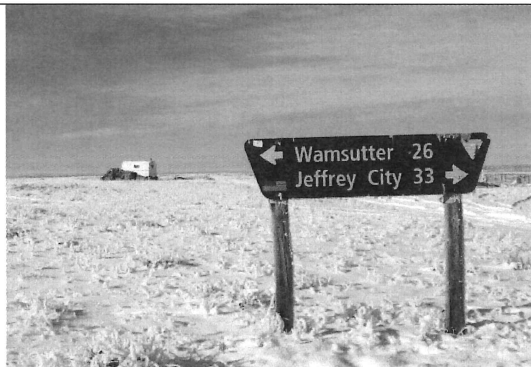
**Image 7 – Drilling Rig on Battle Spring Flat in Northern Portion of Township 23 North, Range 94 West – December 4, 2014**



**Image 8 – Sheep Camp #3– East of Junction of Sweetwater County Road 23 and the Southern Edge of Section 1, Township 23 North, Range 94 West.**



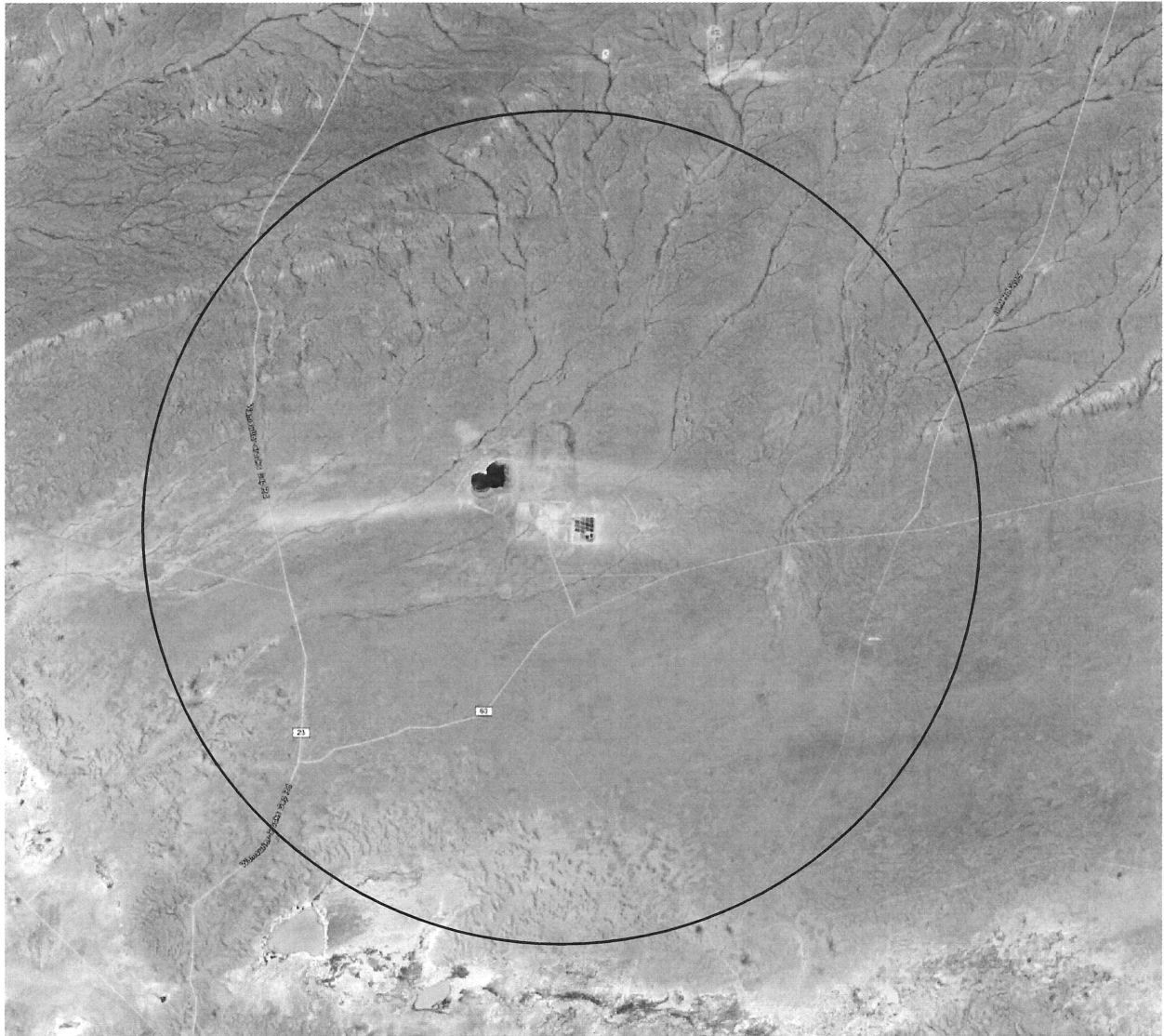
**Image 9 – Warning sign associated with the Lost Creek Project**



**Image 10 - Sheep Camp #1 - East of Junction of Sweetwater County Roads #63 and #23 – December 18, 2014**



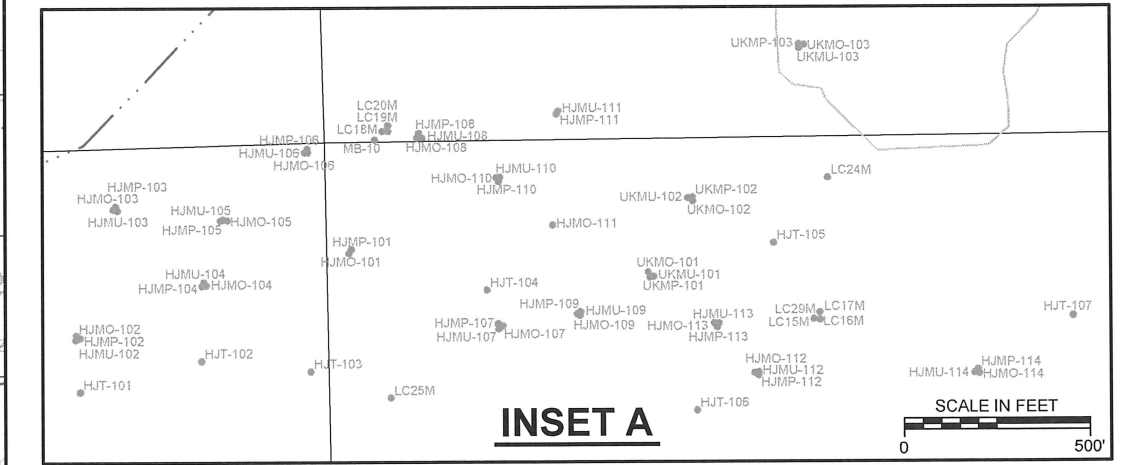
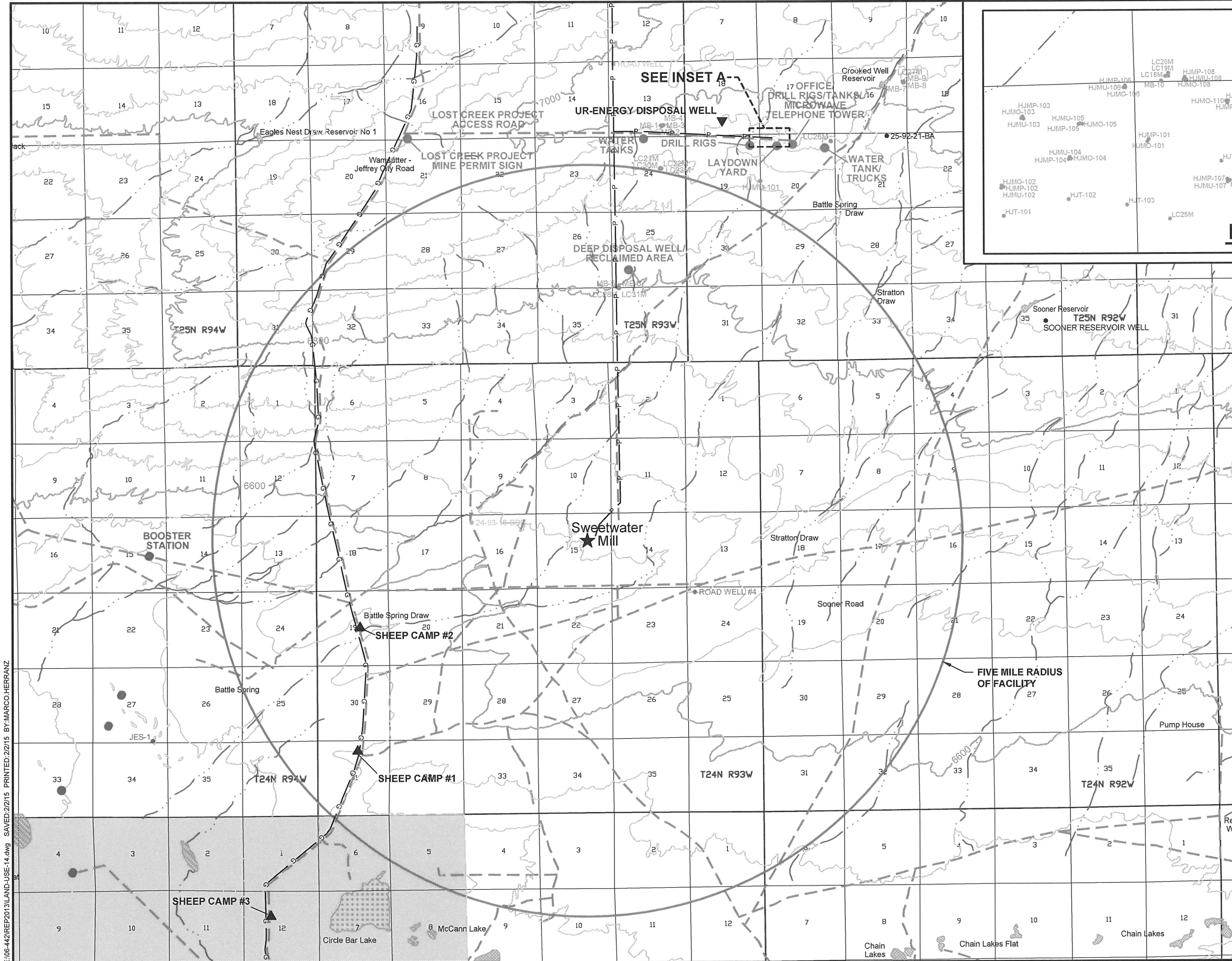
**Image 11 - Sheep Camp #2 – Approximately One (1) Mile North of Sheep Camp #1 – December 18, 2014**



Five (5) Mile Radius

Google Earth – June 8, 2014






**LEGEND**


- ROAD
- STREAM
- TOWNSHIP AND RANGE
- CONTOURS (40' INTERVAL)
- P- 34,500 VOLT POWER LINE
- G- TWENTY-FOUR (24) INCH GAS PIPELINE
- UR ENERGY LOST CREEK PROJECT
- GAS DEVELOPMENT
- UR ENERGY WELL
- ROAD WELLS
- ▼ UR-ENERGY DISPOSAL WELL
- ▲ SHEEP CAMP
- EXPLORATION DRILLING AREA

**SAMPLED LIVESTOCK WATERING WELLS**

- FREE FLOWING WELLS
- WELLS WITH SUBMERSIBLE PUMPS
- WELLS WITH BUREAU OF LAND MANAGEMENT (BLM) SOLAR POWERED SUBMERSIBLE PUMPS

  
 SCALE IN FEET  
 0 7000'

**SWEETWATER URANIUM PROJECT  
LAND USE REPORT MAP  
2014**

	Date: JANUARY 2015
	Project: 114-182074
	File: LAND-USE-14.dwg

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