

# Navajo Abandoned Uranium Mine Site Screen Report

*This form is for use at the site of abandoned uranium mines (AUM) located on Navajo Nation lands. Applicable sites include all mine and mine features that have or have not undergone reclamation by the Navajo Abandoned Mine Lands Reclamation Program, including features, adits and pits. Applicable sites also include all AUM sites listed in the USEPA CERCLIS database, all sites listed in the 2008 AUM GIS Report issued by USACOE and USEPA, all AUM sites on allotment lands associated with the Navajo Nation, and any and all AUM sites lands not listed in any database located on Navajo lands. Reconnaissance of any sites located on lands adjacent to Navajo lands but that are or may be impacting Navajo lands will need to be coordinated with the authorities appropriate to those lands.*

*The purpose of the form is to ascertain the status and location of the identified AUM site, to record all immediate site information associated with the mine site and to document the recommendation and/or decision on what additional steps, if any, are needed at the site.*

## **Section 33 AUM Site**

### **Navajo AUM Eastern Region**

**Prepared by:**

**Weston Solutions, Inc.**

**Contract: W91238-06-F-0083**

**12767.063.496.1111**

**May 2009**

**Part I Site Identification, Location and Status**

**Site Names and ID numbers as applicable**

**Mine ID:** 1040

**Map ID:** E41b

**CERCLIS:** NNN 000 908 748

**NAMLRP:** NOT ASSIGNED

**New Mexico Mining and Mineral Division ID:** NM0059

**New Mexico Bureau of Geology and Mineral Resources:** NMMK0247

**Local name / Aliases:** West Ranch (Railroad Land), Moe No. 5, Old Moe, Moe Mine, Moe #5, Moe decline

**Chapter and local area:** Casamero Lake Chapter

**Lat/Long:** 35.4906103257 N / -108.0166273 W

**Nearby road and highway:** Route 19, Casamero Lake Loop Road

**Local Post Office:** Prewitt, NM

**Land Status: check one or more and provide ownership and contact information below**

- Tribal Trust Land**
- Tribal Fee Land**
- Allotment**
- Fee land**
- Public lands**
- Private**
- Bureau of Land Mgmt**
- State**

**Ownership and contact information:**

The mine site property is classified as private land owned by Lynn “Buddy” Elkins, but no residences were found within 0.25 miles of the site

## **Part II Site Observations**

**Observed Structures: list number of and describe human habitation status of structures at the following distances from mine:**

**0 to 200 feet:** None                      **200 feet to 0.25 mile:** None

**Observed Public or commercial structure: list and describe all schools, clinics, Chapter Houses, places of business and any other structure used by members of the community at the following distances:**

**0 to 200 feet:** None                      **200 feet to 0.25 mile:** None

**Levels measured around the perimeter(s) of the identified structure(s):**

None

**Observed water sources: list the number and type of wells and surface water sources that are potentially used for human consumption at the following distances from the mine:**

**0 to 0.25 miles:** None                      **0.25 miles to 4 miles:** None

**Observed Sensitive environments: note and describe all sensitive environments located within visible range of the mine site, including: wetlands, endangered species habitats and approximate locations of sites that may be under protection of the government of the Navajo Nation.**

None observed

**Known Site History: include information from interviews with Chapter officials and residents.**

Lucita Sardo lives near the mine and had relatives who formerly worked for Cobb Nuclear who operated either the Section 32 Mine and/or Section 33 Mine. The mine was closure was the result of a fatality at the mine.

**Note information on mine ownership, period of operation, and type of mining operation.**

The Section 33 mine consists of an area of 11,004.93 square meters and an undetermined extent of underground workings. Any historical information pertaining to mining operations and historical ownership of the mine site, other than Cobb Nuclear, appeared to be unclear.

### **Part III      Type, number and reclamation status of mine features**

**Provide description and reclamation status of all mine sites and features at site. Include all waste piles, adits, pits and other features, and indicate whether they are open, closed, covered, capped, buried or unreclaimed. Indicate approximate size, shape and extent, including description of any reclamation caps. Note condition of all reclamation caps.**

Reclamation status of the mine sites are currently unknown. No visible signs of reclamation were observed. Numerous waste piles were observed at the site and some former unidentified workings. No adits or shafts were observed during the site visit.

### **Part IV      Summary of radiological readings**

#### **Background Locations**

#1 16,630 cpm

#2 17,128 cpm

#3 16,882 cpm

**Mine site:** Section 33

- See Figures 1 and 2

#### **Nearby Structure Perimeter**

The Lucita Sardo residence had some materials (tarps and lumber) that were from the mine. Gamma radiation measurements on her property were approximately 12,000 cpm.

#### **Describe any other radiological measurements:**

A total of 1,550 gamma radiation measurements were collected from mine sites, ranging from 14,322 cpm to 140,917 cpm. The measurements are represented in Figures 1 and 2. A rock from a waste pile emitted over 800,000 cpm.

**Part V            Site sketch of all mine features and readings, including locations of all structures, sources of drinking water and any other important features and radiological readings.**

Presented in Figures 1 and 2

**Part VI Response Action Summary**

**Site Name(s):** Section 33

**Chapter:** Casamero Lake

**Decision Criteria**

**Is there an unreclaimed waste pile at the site?** Yes

**At what distance from the waste pile is the nearest residential structure located?** 0.4 mile

**At what distances from the waste pile are there potential drinking water sources?** 0.8 mile

**Is there a reclamation cap or sealed adit in place at the site?** No

**Is the cap/seal functionally intact?** N/A

**Is the cap/seal sufficiently degraded to create a concern about releases?** N/A

**At what distance from the cap/seal is the nearest domestic structure located?** N/A

**At what distance from the cap/seal is the nearest domestic drinking water source?** N/A

**Summary of emergency response factors**

None

**Summary hazard ranking system factors**

None

**Summary of reclamation factors**

No known reclamation

**Part VII      Photos**



Photo 1. Section 33 Mine site, towards the north



Photo 2. Section 33 Mine site, towards the west, residence in background.



Photo 3. Section 33 Mine site, wooden hopper and pulverized waste rock pile located at southeast corner of mine



Photo 4. Section 33 Mine site, Uranium ore exhibiting over 800,000 cpm



Photo 5. Section 33 Mine site, pulverized waste rock piles.

**Part VIII      Contacts Reports and Information**

Name: Lynn "Buddy" Elkins

Title or official role (if any) Property Owner

Telephone number 505-290-7707

Information provided: Indicated that the property may be his or a relatives

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Name Lucita Sardo

Title or official role (if any) Resident

Telephone number PO Box 873, Prewitt NM 87045

Information provided Lives near the site and relatives that worked at the mines

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Name Stanley Edison

Title or official role (if any) Navajo EPA Superfund Program

Address PO Box 2946, Window Rock, AZ 86515

Telephone number 928-871-6861

Information provided General Background and Contact/Access Information

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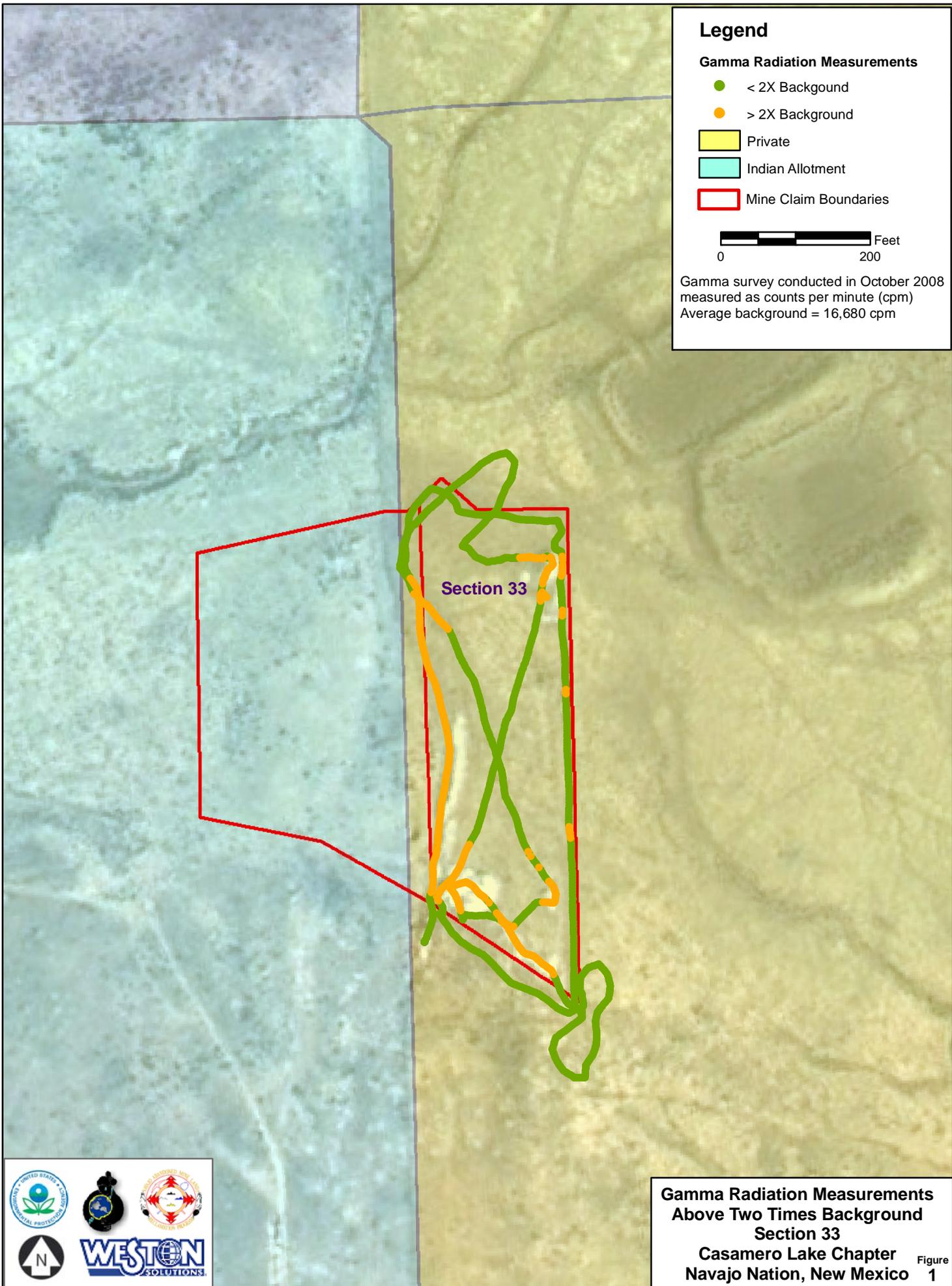
Name \_\_\_\_\_

Title or official role (if any) \_\_\_\_\_

Telephone number \_\_\_\_\_

Information provided \_\_\_\_\_

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**Gamma Radiation Measurements Above Two Times Background Section 33 Casamero Lake Chapter Navajo Nation, New Mexico** Figure 1

**Legend**

**Gamma Radiation Measurements**

- 0 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 50,000
- 50,000 - 100,000
- > 100,000

□ Mine Claim Boundaries



Gamma survey conducted in October 2008  
measured as counts per minute



**Gamma Radiation Measurements**  
**Section 33**  
**Casamero Lake Chapter**  
**Navajo Nation, New Mexico** Figure 2