# 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, pits and waste piles. 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 not listed in any database located on Navajo lands. Reconnaissance of any sites located on lands adjacent to Navajo lands that 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, and record all immediate site information associated with the mine site. Decisions and recommendations on what additional steps are needed will be provided on a separate document.

## Mine Name: Blk022 Mine ID: 404

## Navajo AUM Central Region

## **Prepared by:**

## Weston Solutions, Inc.

## Contract: W91238-06-F-0083

## 20074.063.017.0020

## August 2011

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

#### Site Names and ID numbers as applicable

Mine ID:	404
----------	-----

Map ID: C22

**CERCLIS:** NNN000909195

Navajo Abandoned Mine Land Reclamation Program: None

Local name / Aliases: None

Chapter and local area: Tselani

County: Apache State: Arizona

Lat/Long: 36.2216218405 N / -109.838942126 W

Nearby road and highway: Route 29 Local Post Office: Blue Gap, AZ

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

Tribal Trust Land	$\bowtie$	Public lands	
Private		Tribal Fee Land	
Bureau of Land Mgmt		Allotment	
State		Fee land	

#### **Subsurface Mineral Rights:**

No information on subsurface mineral rights ownership was found in the EPA/AUM Database.

#### **Claim and operator information:**

The mine surface land status is classified as Tribal Trust Land. No additional historical ownership / lease information was identified in the EPA / AUM database.

#### Number of residential structures within 200 feet of mine: None

#### Part II Summary of Radiological Readings

#### Mine ID: 404

**Highest gamma radiation measurement:** 809,768 counts per minute (cpm)

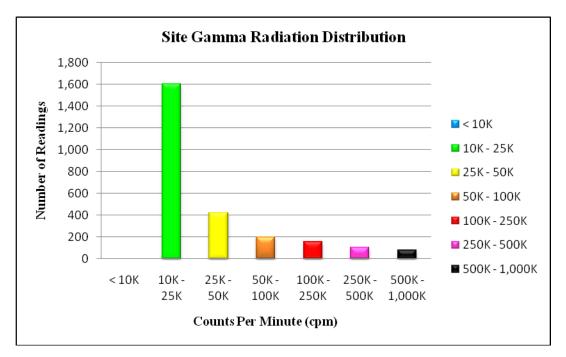
Background Average: 13,268 cpm Two Times Background: 26,536 cpm

Describe any other radiological measurements:

A total of 2,560 gamma radiation measurements were collected from the mine site, ranging from 10,117 cpm to 809,768 cpm. The measurements are represented in Figures 1 and 2.

#### **Distribution Chart and Statistics:**

Site Gamma Radiation Statistics		
Number of Readings	2,560	
Minimum (cpm)	10,117	
Maximum (cpm)	809,768	
Mean (cpm)	66,950	
Median (cpm)	20,424	
Standard Deviation	128,073	



#### Part III Status of Reclamation and Mine Waste

**Mine ID: 404** 

The following information was obtained from the Navajo Abandoned Mine Land Reclamation Program (NAMLRP) Point Features Database:

NAMLRP Status of the mine site: Reclaimed: No Waste Pile onsite: No

NAMLRP Project Number: None

**NAMLRP Mine features:** 1 Rim Strip / Pit

The following information was obtained from field observations collected during the 2011 site screening:

Provide description and 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 caps.

**Observed reclamation work and status:** 

Adits: None observed

Waste Piles: None observed

**Pits:** None observed

Shafts: None observed

Other Debris and Mine Features:

None observed

#### Part IV Site Observations and Environs

Observed Residential Structures (number and human habitation status of structures at the following distances from mine):

0 to 200 feet: None observed

200 feet to 0.25 mile: None observed

Observed Public or Commercial Structures (schools, clinics, Chapter Houses, places of business and any other structures used by members of the community at the following distances from the mine site):

0 to 200 feet: None observed200 feet to 0.25 mile: None observed

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

None

Observed Water Sources (number and type of wells and surface water sources that are potentially used for human consumption at the following distances from the mine site):

0 to 0.25 miles: None observed

0.25 miles to 4 miles: Residential pond approximately 3.5 mi NW of site

Sensitive Environments (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 (information from interviews with Chapter officials and residents and database review, includes: mine ownership, type of mining operation, period of operation, known amount of production, and any other information provided):

The Blk022 mine claim consists of an area of 11,660.59 m<sup>2</sup>. The mine surface land status is classified as Tribal Trust Land. No additional historical ownership / lease information was identified in the EPA / AUM database.

#### Part V Response Action Summary

#### **Summary of Evaluation Factors:**

#### Accessibility:

Was the mine easily accessible to potential human activity? Yes

#### Radiological Measurements:

Were any gamma radiation measurements collected at the mine greater than two times the site-specific background levels? Yes

#### Waste Piles:

Were any unreclaimed waste piles observed at the mine with gamma radiation measurements greater than two times the site-specific background levels? No

#### Structures:

Were any structures observed within 200 feet of the mine? No

#### **Potential Drinking Water Sources:**

Were any potential drinking water sources observed within 4 miles of the mine? Yes

#### **Reclamation:**

Was the mine reported to be previously reclaimed, or did the mine appear to be reclaimed?

No

## Part VI Photos

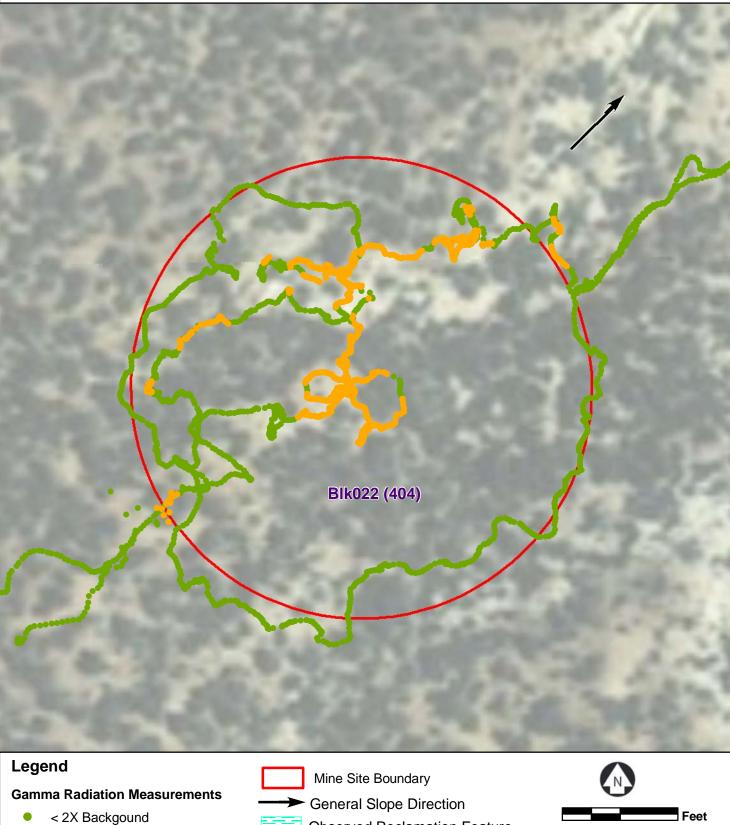


Photo 1: Mine Site #404; Center of site with elevated readings

## Part VII Contacts Reports and Information

Name:	Eugene Esplain		
Title or official role (if any):	Navajo EPA Superfund Program		
Telephone number:	(928) 871-7331		
Address:	PO Box 2946, Window Rock, AZ 86515		
Information provided:	Lead Regulatory Agency		
N			
Name:			
Title or official role (if any):			
Telephone number:			
Address:			
Information provided:			
Name:			
Title or official role (if any):			
Telephone number:			
Address:			
Information provided:			

## Figure 1 - Gamma Radiation Measurements, Above Two Times Background Blk022 (404) Tselani Chapter, Navajo Nation



> 2X Background 

Measured as counts per minute (cpm)

Average background 13,268 cpm



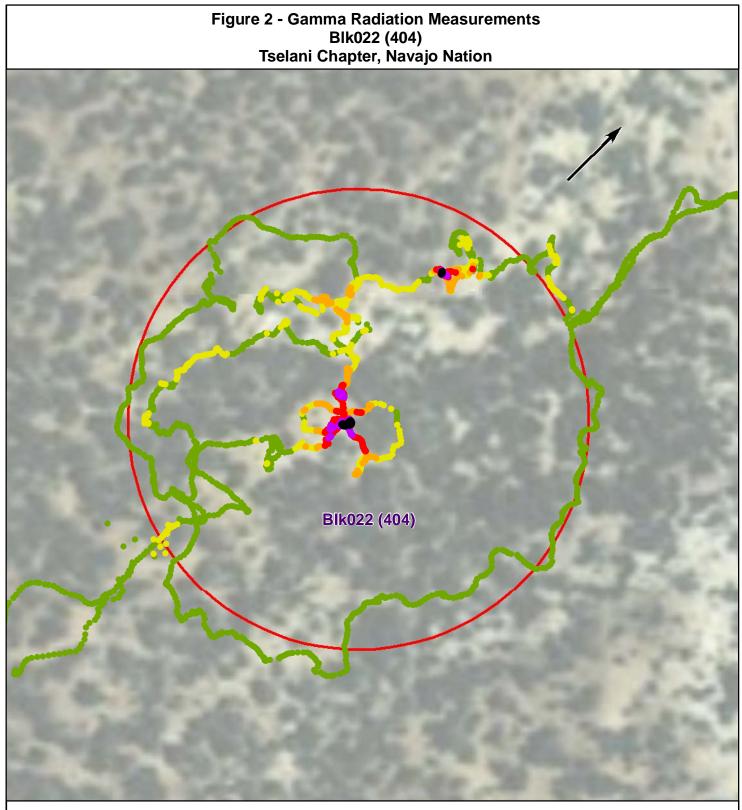
**Observed Reclamation Feature** 

**Observed Waste Pile** 

**Observed Structure** 

Steep Grade





#### **Gamma Radiation Measurements**

- 0 10,000 cpm
- 10,000 25,000 cpm
- 25,000 50,000 cpm
- 50,000 100,000 cpm
- 100,000 250,000 cpm
- 250,000 500,000 cpm
- 500,000 1,000,000 cpm

- - Mine Site Boundary
- General Slope Direction
  Observed Reclamation F
  - Observed Reclamation Feature
    Conserved Waste Pile
  - Observed Structure





Measured as counts per minute (cpm) Average background 13,268 cpm