

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.

Mac No. 2 AUM Site

Navajo AUM Eastern Region

Prepared by:

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Contract: W91238-06-F-0083

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Part I Site Identification, Location and Status

Site Names and ID numbers as applicable

Mine ID: 320

Map ID: E33

CERCLIS: NNN 000 908 728

NAMLRP: NOT ASSIGNED

New Mexico Mining and Mineral Division ID: NM0094

New Mexico Bureau of Geology and Mineral Resources: NMMK0098

Local name / Aliases: Mac #2, Kerr McGee

Chapter and local area: Smith Lake Chapter

Lat/Long: 35.5269579107 N / -108.247081921 W

Nearby road and highway: BIA 491 (Wolf Canyon Rd) BIA 49

Local Post Office: Thoreau, 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 Indian Allotment land.

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:** DWR well T16-509 located
2.75 miles northwest of site

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.

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

The Mac No.2 mine consists of an area of 26,136.47 square meters with approximately 40,577 square meters of underground workings. Any historical information pertaining to mining operations and historical ownership of the mine site 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. Several piles of pulverized waste rock remain at the site. Two concrete pads are located on the eastern portion of the property. No waste piles, adits, or other mine features were observed during the site visit.

Part IV Summary of radiological readings**Background Locations**

#1 17,068 cpm

#2 15,717 cpm

#3 16,073 cpm

Mine site: Mac No. 2

- See Figures 1 and 2

Nearby Structure Perimeter – None**Describe any other radiological measurements:**

A total of 1,649 gamma radiation measurements were collected from mine sites, ranging from 12,997 cpm to 238,218 cpm. The measurements are represented in Figures 1 and 2.

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): Mac No. 2 **Chapter:** Smith 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? 0.5 mile

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

A domestic well is located 2.75 miles to the east. DWR well T16-509 is a livestock well located 1.9 miles to the east, however the well is posted as non-potable water. Drinking water for the residences in the area is piped in.

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. Mac No. 2 Mine site, towards the north



Photo 2. Mac No. 2 Mine site, towards the northwest



Photo 3. Mac No. 2 Mine site, waste pile located along the eastern edge of the site



Photo 4. Mac No. 2 Mine site, debris pile on the mine site



Photo 5. Mac No. 2 Mine site, two concrete pads at the eastern portion of the site



Photo 6. Mac No. 2 Mine site, waste piles along the eastern edge of the site

Part VIII Contacts Reports and Information

Name Stanley Edison

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

Address PO Box 2946, Window Rock, AZ 86515

Information provided General Background and Contact/Access Information

Name Ms George Padilla

Title or official role (if any) Regional Environmental Scientist, BIA, Navajo Nation

Telephone number (505) 863-8434

Address PO Box 1060, Gallup, NM 87305

Name _____

Title or official role (if any) _____

Telephone number _____

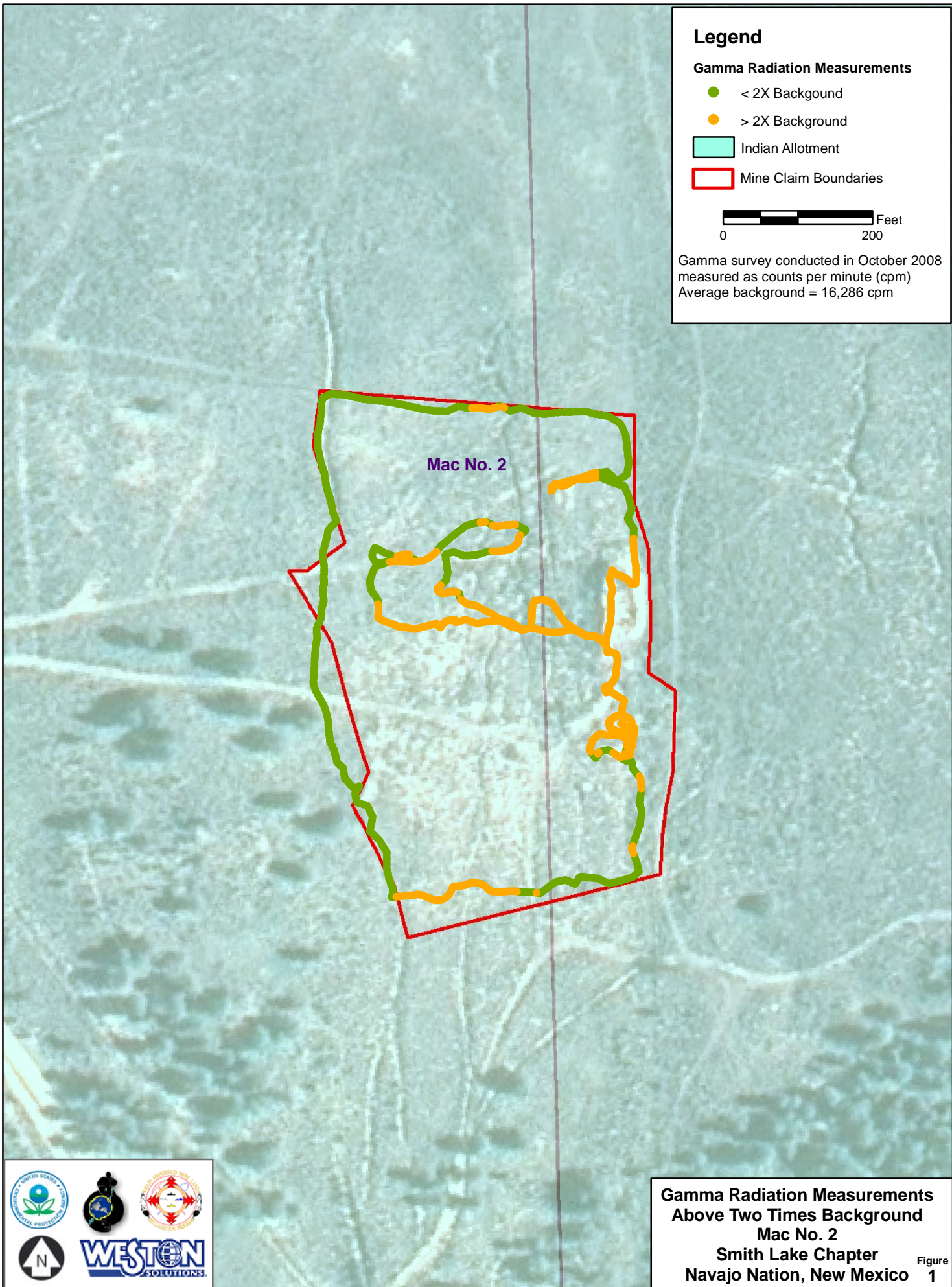
Information provided _____

Name _____

Title or official role (if any) _____

Telephone number _____

Information provided _____



Legend

Gamma Radiation Measurements

- < 2X Background
- > 2X Background

Indian Allotment

Mine Claim Boundaries

Feet
0 200

Gamma survey conducted in October 2008
measured as counts per minute (cpm)
Average background = 16,286 cpm

Mac No. 2

**Gamma Radiation Measurements
Above Two Times Background
Mac No. 2
Smith Lake Chapter
Navajo Nation, New Mexico**



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
Mac No. 2
Smith Lake Chapter
Navajo Nation, New Mexico**