SDMS DOCID#1142330

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.

Brown Vandever Mine

Navajo AUM Eastern Region

Prepared by:

Weston Solutions, Inc.

Contract: W91238-06-F-0083

12767.063.496.1111

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Part I Site Identification, Location and Status

Site Names and ID numbers as applicable

Mine ID: 343, 1010

Map ID: E83 (343)
E84 (1010)

CERCLIS: NND 986 669 117

NAMLRP: NOT ASSIGNED

New Mexico Mining and Mineral Division ID: NM0099

New Mexico Bureau of Geology and Mineral Resources: NMMK0195, 0196

Local name / Aliases: Williams and Thompson, Section 18

Chapter and local area: Baca / Haystack Chapter

Lat/Long: 35.3514983811 N / -107.942006283 W (343)
35.3497831439 N / -107.940571917 W (1010)

Nearby road and highway: Haystack Road, Interstate 40 **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:

No ownership was identified. The mine site properties were classified as Indian Allotment.

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: 2 houses approximately 500 feet South of the site, and 1 house approximately 0.25 miles southwest of the site.

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):

2 houses 500 feet south of site – measured at 11,140 counts per minute (cpm)
House southwest of site – measured at 8,257 cpm

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: Windmill well located approximately 2.25 miles northwest of sites

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 Section 18 mine site consisted of 2 sites, AUM ID numbers 343, 1010 equaling a total surface area of 49,591.89 square meters with approximately 6,390.64 square meters of total underground workings. Local residents reported that the mines were located underground, and were closed in the 1960s. Residents reported that in the past (1960's and 1970's) they used water from the mine sites for drinking, bathing, and for livestock, and materials from the sites were used for building. Currently, water is obtained from a public drinking water source west of the sites. Historical ownership of the mine appeared to be unclear. The New Mexico Mining and Minerals Division identified the operator in 1952 F.A. Sutton; 1952 Thompson & Williams; 1952-1953 Glen Williams; 1955-1956 Santa Fe Uranium Corp.; 1955-1959 Federal Uranium Corp.; 1963-1964 Mesa Mining Corp.; and in 1966 Cibola Mining Co..

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. No waste piles, adits, pits, or other mine features were observed during the site visits, as is consistent with the residents claim that the mine was underground, and no open-pit mining was ever conducted at the sites. A mine shaft entrance was also observed along the southern edge of site #1010 (Photo 5). Residents also reported that many openings/shafts are present within the hillsides surrounding the sites.

Part IV Summary of radiological readings

Background Locations

#1 8,719 cpm
#2 10,316 cpm
#3 7,785 cpm
#4 7,559 cpm

Mine site: 342

- See Figures 1 and 2

Mine site: 345

- See Figures 1 and 2

Mine site: 1038

- See Figures 1 and 2

Mine site: 1039

- See Figures 1 and 2

Nearby Structure Perimeter – Houses south of site

#1 8,780 cpm
#2 13,500 cpm

Nearby Structure Perimeter – House southwest of site

#1 8,257

Describe any other radiological measurements:

A total of 1,825 gamma radiation measurements were collected from mine sites, ranging from 6,618 cpm to 56,343 cpm. The measurements are represented in Figures 1 and 2. The New Mexico Mining and Minerals Division identified radiological measurements with background levels 90-130 counts per second (cps); adits 3,900 cps; and stope 3,500 cps.

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 18 (343, 1010) **Chapter:** Baca / Haystack

Decision Criteria

Is there an unreclaimed waste pile at the site? No

At what distance from the waste pile is the nearest residential structure located? 500 ft.

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

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

3 homes within 0.25 miles of the mine sites

Summary hazard ranking system factors

3 homes within 0.25 miles of the mine sites

Summary of reclamation factors

No known reclamation

Part VII Photos

Photo 1. Section 18 mine site, towards the south

Photo 2. Section 18 mine site, towards the northwest

Photo 3. Section 18 mine site "Potential Radiological Hazard" sign, towards the north

Photo 4. Section 18 mine site fenced enclosure, towards the east

Photo 5. Section 18 mine site wooden structure, possible mine shaft entrance, towards the east

Part VIII Contacts Reports and Information

Name__Tom & Lena Vandever_____

Title or official role (if any) ___Local Resident_____

Telephone number_____

Information provided___Local / Historical Knowledge_____

Name__Brown Vandever_____

Title or official role (if any) ___Local Resident_____

Telephone number_____

Information provided___Local / Historical Knowledge_____

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_Susan A. Lucas Kamat_____

Title or official role (if any) AUM Data Manager – New Mexico Mining & Mineral Division

Telephone number__(505) 476-3408 fx: (505) 476-3408_____

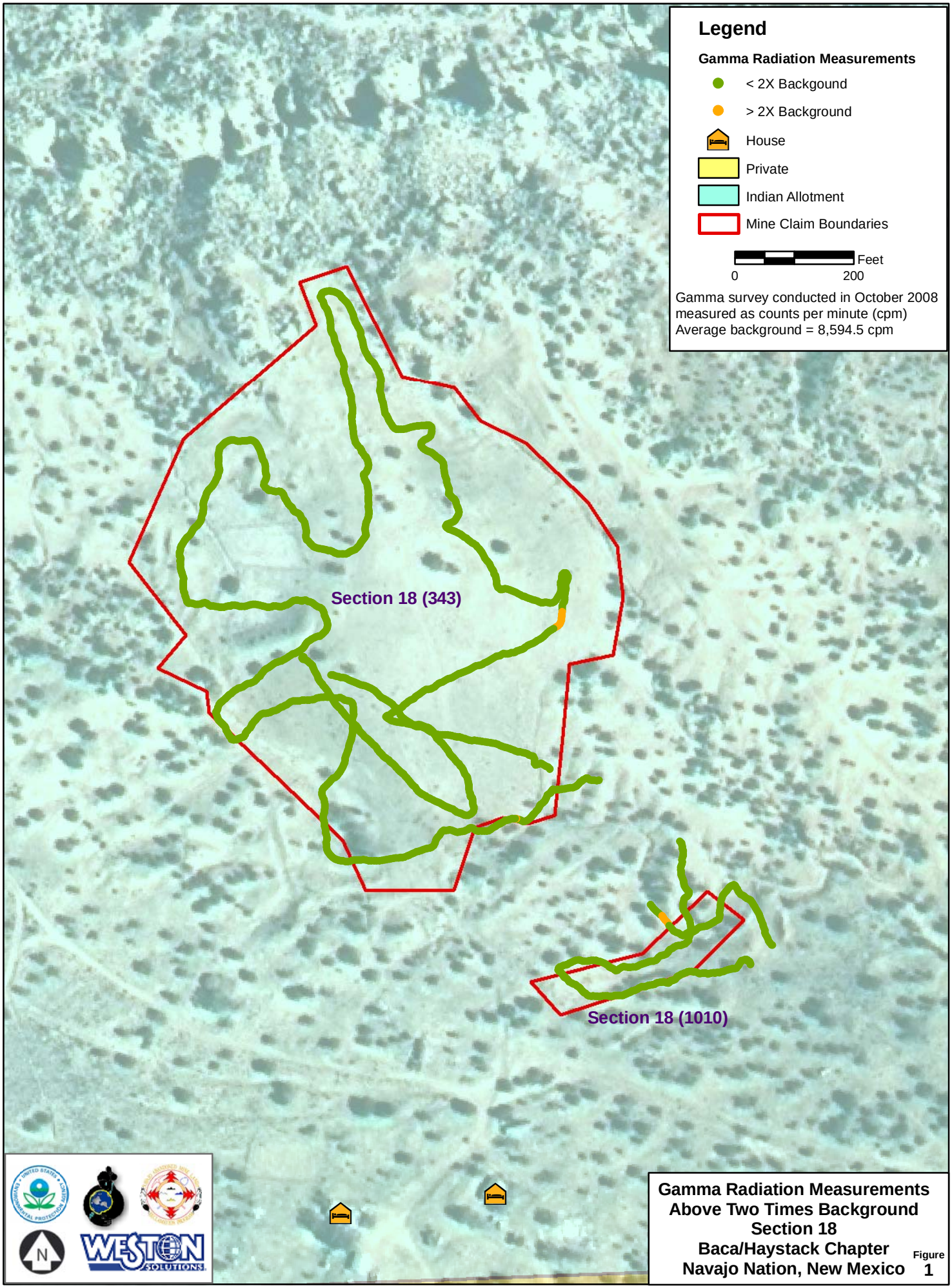
Information provided__Background information and findings from 2008 New Mexico MMD Survey of mining sites.

Name_Ms George Padilla_____

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

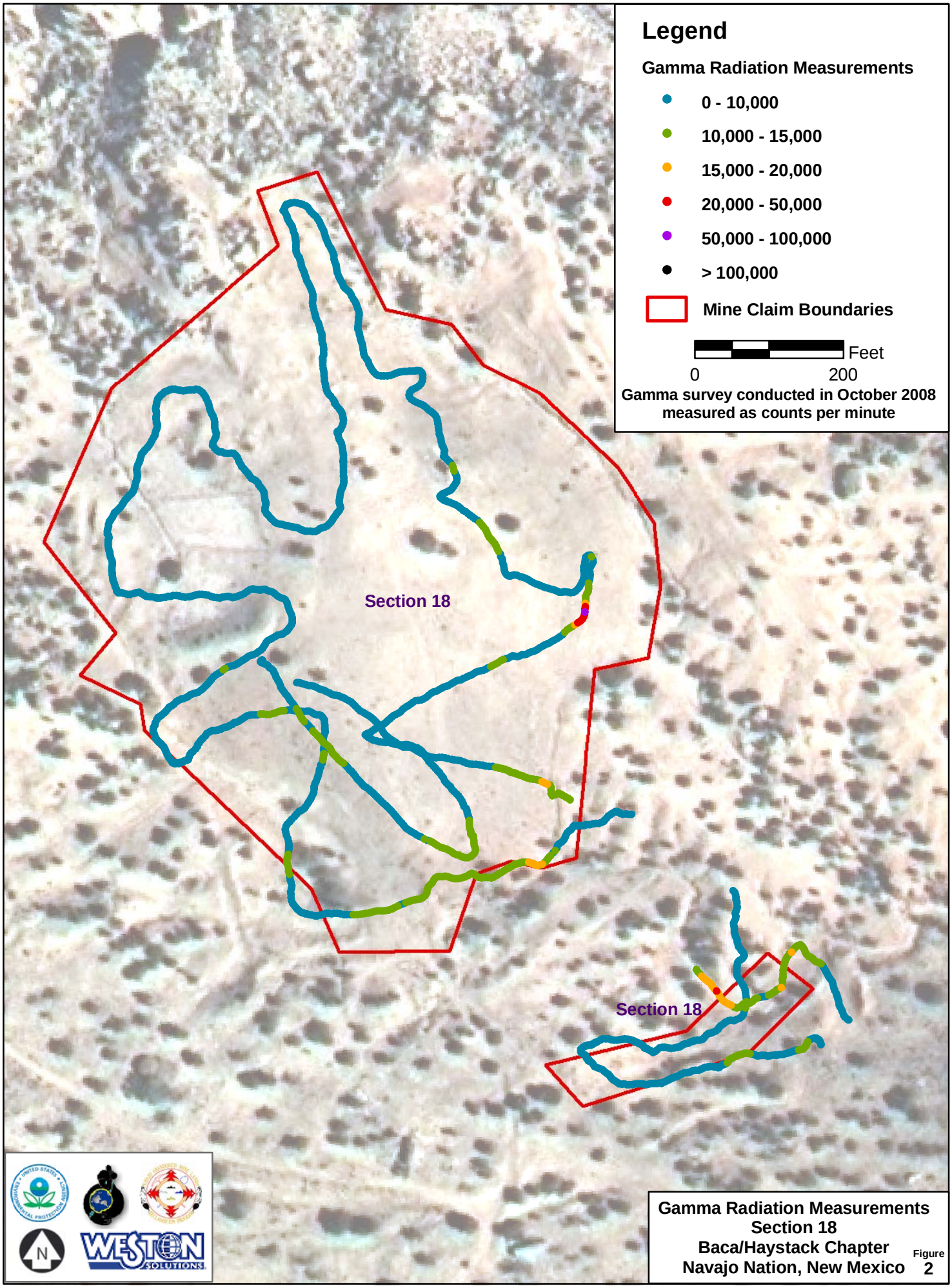
Telephone number__(505) 863-8434_____

Address PO Box 1060, Gallup, NM 87305



Gamma Radiation Measurements Above Two Times Background
Section 18
Baca/Haystack Chapter
Navajo Nation, New Mexico

Figure 1



Gamma Radiation Measurements
Section 18
Baca/Haystack Chapter
Navajo Nation, New Mexico

Figure 2