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.

Haystack Mines AUM Site

Navajo AUM Eastern Region

Prepared by:

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Contract: W91238-06-F-0083

12767.063.496.1111

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US-NAUM0206822-00001

Part I Site Identification, Location and Status

Site Names and ID numbers as applicable

Mine ID: 342, 345, 1038, 1039

Map ID: E79 (342), E77 (345), E102 (1039), E103 (1038)

CERCLIS: NNN 000 908 719

NAMLRP: NOT ASSIGNED

New Mexico Mining and Mineral Division ID: (342)-NM0047, (345) NM0061, (1039) NM0061, (1038) NM0061

New Mexico Bureau of Geology and Mineral Resources: (342)-NMMK0081, 0077, 0080; (345)-NM0079, 0078; (1039)- NM0079, 0078; (1038)- NM0079,0078

Local name / Aliases: Haystack, DOE Lease NM-1-B, Section 13, Railroad Section, Arthur Bibo

Chapter and local area: Baca / Haystack Chapter

Lat/Long: 35.3511399598 N / -107.952383202 W (#342)
35.3578843120 N / -107.961126193 W (#345)
35.3515474488 N / -107.946412575 W (#1039)
35.3518280017 N / -107.949355001 W (#1038)

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	☒	(ID# 1039)
Fee Land	☐	
Public lands	☒	(ID#s 342, 345, 1038)
Private	☐	
Bureau of Land Mgmt	☐	
State	☐	

Ownership and contact information:

No ownership was identified. The mine site properties were classified as Indian Allotment and Public Land Ordinance.

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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 750 feet southeast of site 1039; 1 house approximately 700 feet south of site 342

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 southeast of 1039 – measured at 11,140 counts per minute (cpm)
- House south of 342 – 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 2.5 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 Haystack Mine consisted of 4 sites, AUM ID numbers 342, 345, 1038, and 1039, equaling a total surface area of 53,363.78 square meters with approximately 92,080.41 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.

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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 is 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. Openings/adits were observed in the vicinity of the mine sites, including an open hole was observed approximately 450 feet south of site 1039, residents reported that the hole was not dug from the surface, but created from subsidence from the underground mining operation. Another large opening was observed approximately 0.25 miles east of site 1039, in the center of the Section 18 (ID# 343) mine site. A mine shaft entrance was also observed along the western edge of Section 18, approximately 800 feet west of site 1039. Residents also reported that many openings/shafts are present withing the hillsides surrounding the sites. Several water pipe and valves were observed within site 1039, but these are not believed to be used for drinking water, and are not known to be originated at the mine sites.

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Part IV Summary of radiological readings

Background Locations

#1 8,663 cpm
#2 9,698 cpm
#3 10,485 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 southeast of 1039

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

Nearby Structure Perimeter – House south of 342

#1 8,257

Describe any other radiological measurements:

A total of 2,223 gamma radiation measurements were collected from the mine sites, ranging from 6,074 cpm to 33,870 cpm. The measurements are represented in Figures 1 and 2.

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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

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Part VI Response Action Summary

Site Name(s): Haystack (342, 345, 1038, 1039) **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? 700 feet

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

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Part VII Photos

Photo 1. Haystack mine site 345, towards the north

Photo 2. Haystack mine site 345, towards the north/northwest

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Photo 3. Haystack mine site 1039, towards the south

Photo 4. Haystack mine site 1039, houses approximately 750 feet southease of site, towards the south

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Photo 5. Haystack mine site 1039, water pipe, towards the south

Photo 6. Haystack mine site 342, towards the northwest

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Photo 7. Haystack mine site 1038, towards the north

Photo 8. Haystack mine site 1038, towards the north

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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

Information provided__General Background and Contact/Access Information

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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

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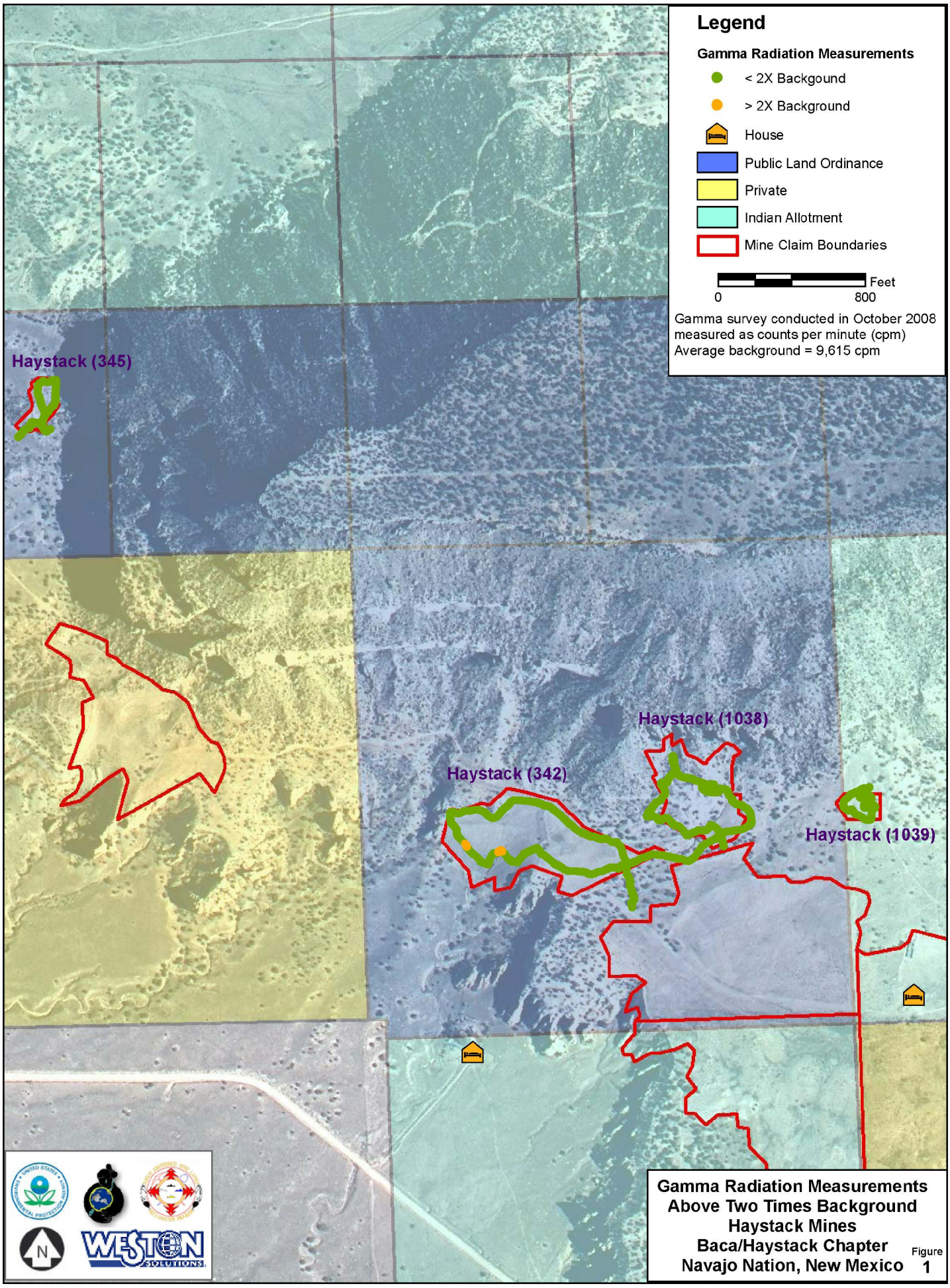
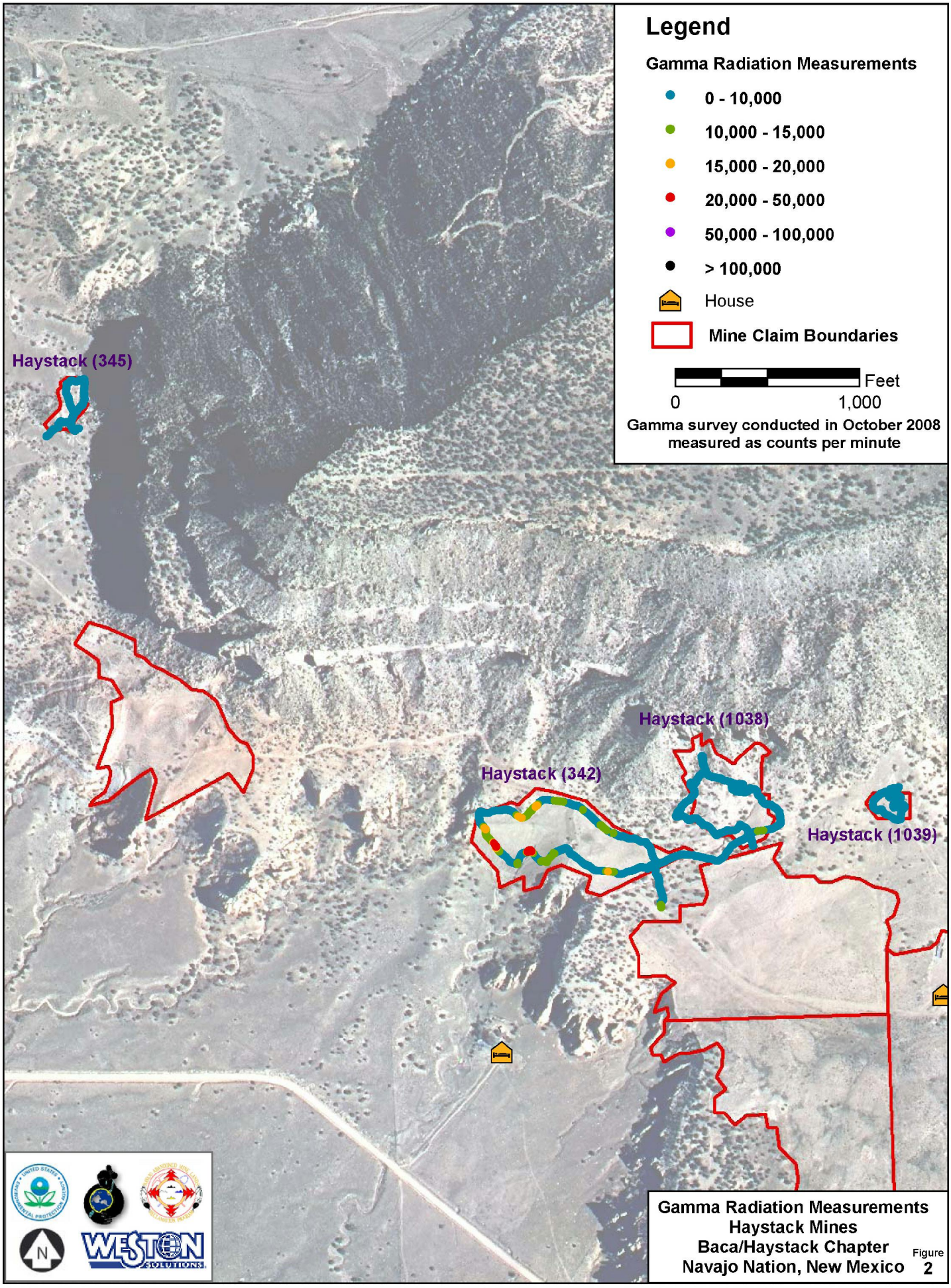


Gamma Radiation Measurements
Above Two Times Background
Haystack Mines
Baca/Haystack Chapter
Navajo Nation, New Mexico

Figure 1



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

Figure 2