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: **Mexican Hat Stockpile**
Mine ID: **707**

Navajo AUM North Central Region

Prepared by:

Weston Solutions, Inc.

Contract: W91238-06-F-0083

20074.063.039.0020

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Part I Site Identification, Location and Status

Site Names and ID numbers as applicable

Mine ID: **707**

Map ID: NC2

CERCLIS: NNN000909311

Navajo Abandoned Mine Land Reclamation Program: None

Local name / Aliases: None

Chapter and local area: State of Utah

County: San Juan **State:** UT

Lat/Long: 37.1546554673 N / -109.856923882 W

Nearby road and highway: Route 163 **Local Post Office:** Mexican Hat, UT

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

Tribal Trust Land	☒	**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:

No historical ownership / lease information or documents were identified in the EPA / AUM database.

Number of residential structures within 200 feet of mine: None

Part II Summary of Radiological Readings

Mine ID: 707

Highest gamma radiation measurement: 29,036 counts per minute (cpm)

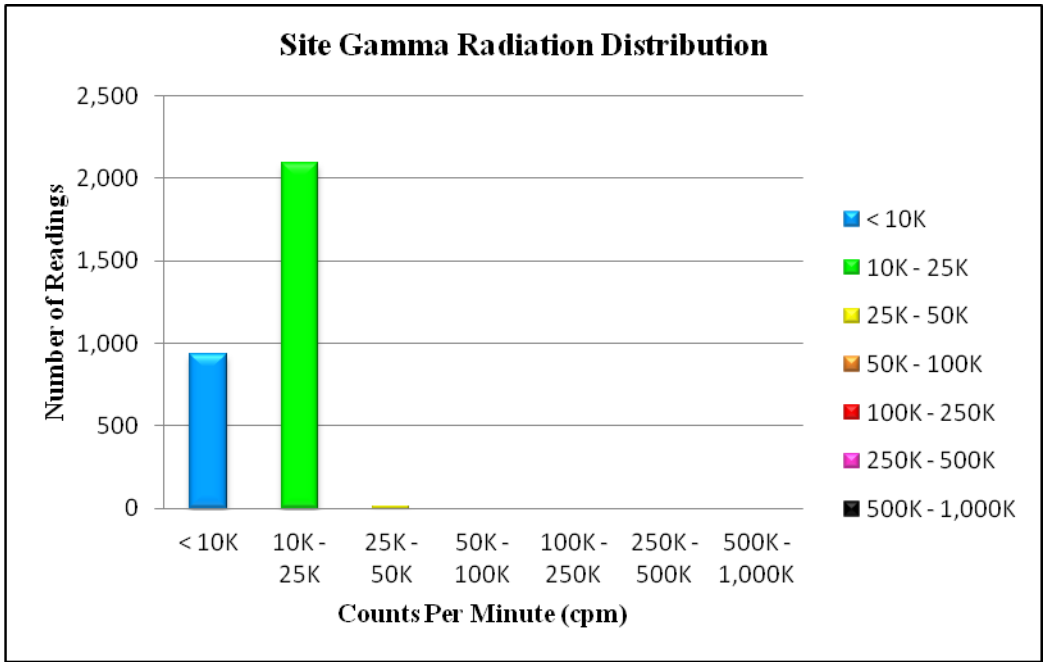
Background Average: 9,553 cpm **Two Times Background:** 19,106 cpm

Describe any other radiological measurements:

A total of 3,041 gamma radiation measurements were collected from the mine site, ranging from 6,317 cpm to 29,036 cpm. The measurements are represented in Figures 1 and 2.

Distribution Chart and Statistics:

Site Gamma Radiation Statistics	
Number of Readings	3,041
Minimum (cpm)	6,317
Maximum (cpm)	29,036
Mean (cpm)	11,015
Median (cpm)	10,626
Standard Deviation	2,324



Part III Status of Reclamation and Mine Waste

Mine ID: 707

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: None

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:
Reclamation cap, approximately 50' x 150'; some debris/workings offsite

Part IV Site Observations and Environs

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

0 to 200 feet: None Observed

200 feet to 0.25 mile: 0.25 mi S - Town of Mexican Hat

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 observed

200 feet to 0.25 mile: 0.2 mi S - Fire house; 0.25 mi S - Town of Mexican Hat; Many oils tanks surrounding the site

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

Background Levels

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: 0.2 mi W - Reservoir; 0.25 mi SW - Reservoir

0.25 miles to 4 miles: 0.3 mi E - San Juan River

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 Mexican Hat Stockpile mine claim consists of an area of 9,701 m^2. 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?
Yes

Part VI Photos

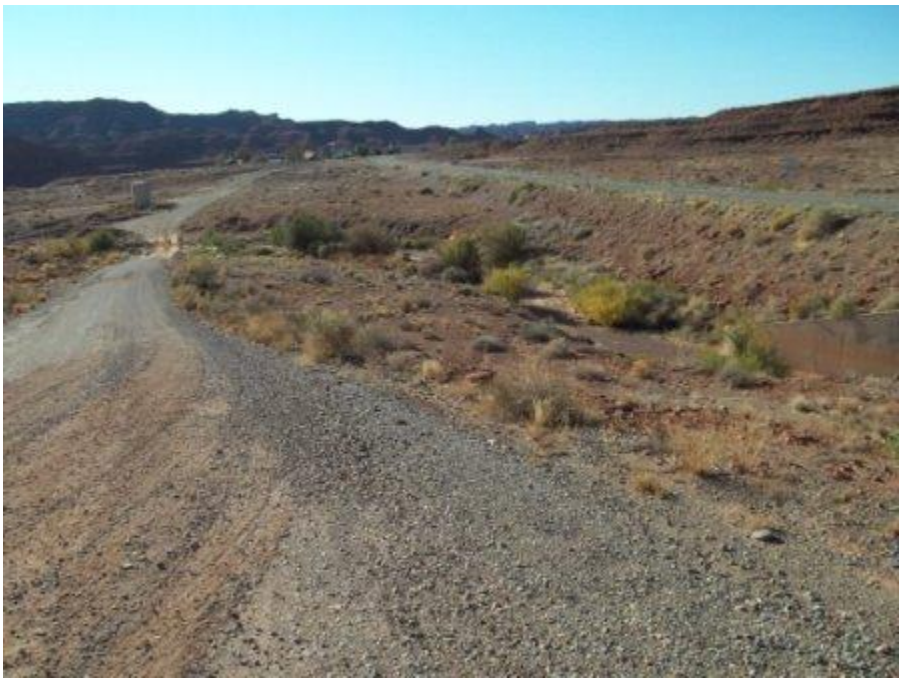


Photo 1	Mine Site #707

Photo 2	Mine Site #707

Photo 3	Mine Site #707

Photo 4	Mine Site #707 – Oil tank

Photo 5	Mine Site #707– Oil tank

Photo 6	Mine Site #707– Oil tank

Photo 7	Mine Site #707– Oil tank

Photo 8	Mine Site #707– Firehouse

Part VII Contact 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

Name: _____

Title or official role (if any): _____

Telephone number: _____

Address: _____

Information provided: _____

Name: _____

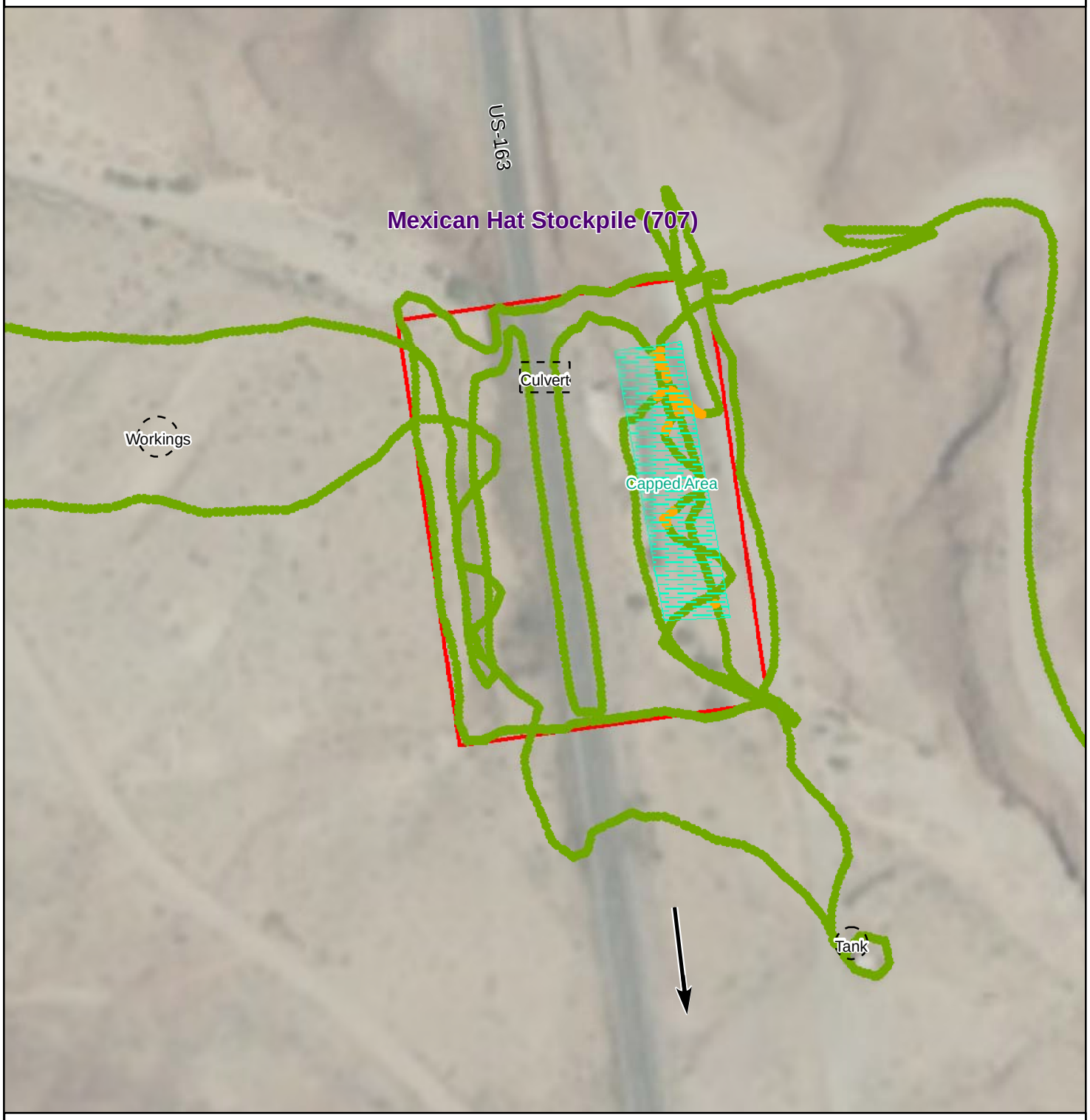
Title or official role (if any): _____

Telephone number: _____

Address: _____

Information provided: _____

Figure 1 - Gamma Radiation Measurements, Above Two Times Background
Mexican Hat Stockpile (707)
State of Utah



Gamma Radiation Measurements

- < 2X Backgound
- > 2X Background

Measured as counts per minute (cpm)

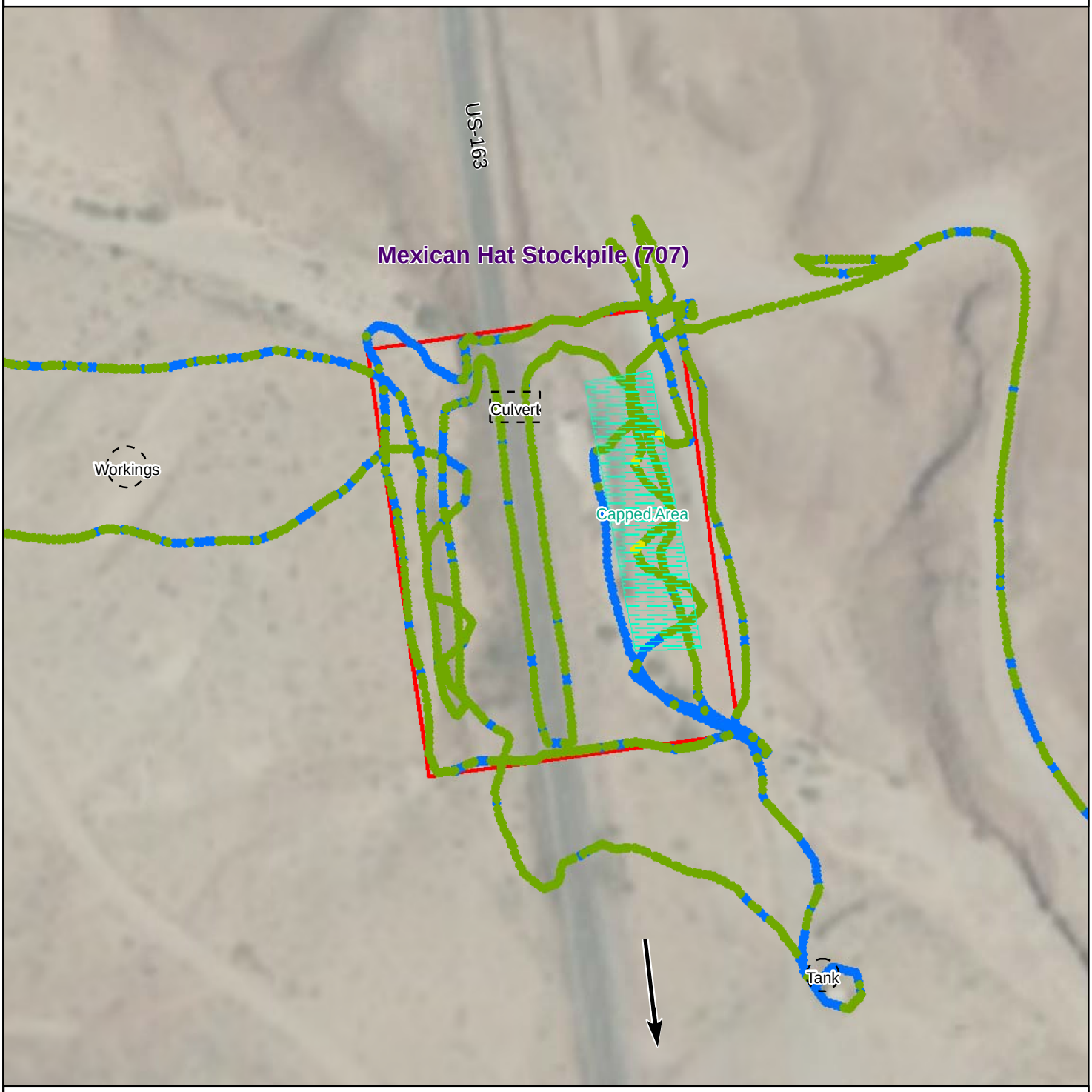
Average background 9,868 cpm

Mine Site Boundary
General Slope Direction
Observed Reclamation Feature
Observed Waste Rock
Observed Structure
Observed Adit

N

Feet
0 100

Figure 2 - Gamma Radiation Measurements
Mexican Hat Stockpile (707)
State of Utah



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

Average background 9,868 cpm

Mine Site Boundary
General Slope Direction
Observed Reclamation Feature
Observed Waste Rock
Observed Structure
Observed Adit

Measured as counts per minute (cpm)

N

Feet
0 **100**