

PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: LaDonna Turner _____ (Date) _____
(Name/Title)

1445 Ross Avenue, Dallas, TX 75202 _____ 214-665-6666 _____
(Address) (Phone)

turner.ladonna@epa.gov _____
(E-Mail Address)

Site Name: Crackpot Mine _____

Previous Names (if any): _____

Site Location: _____
(Street)

Laguna Pueblo, New Mexico _____
(City/State/Zip)

34 56'20"N _____ 107 23'36"W _____
(Latitude) (Longitude)

Complete the following checklist. If "yes" is marked, please explain below.

		YES	NO
1.	Does the site already appear in CERCLIS?	<input type="checkbox"/>	X
2.	Is the release from products that are a part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	<input type="checkbox"/>	X
3.	Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	<input type="checkbox"/>	X
4.	Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	<input type="checkbox"/>	X
5.	Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	<input type="checkbox"/>	X
6.	Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	<input type="checkbox"/>	X
7.	Are hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	<input type="checkbox"/>	X
8.	Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)?	<input type="checkbox"/>	X

Please explain all "yes" answer(s): _____

Site Determination: X Enter the site into CERCLIS. Further assessment is recommended (explain below).
 The site is not recommended for placement into CERCLIS (explain below).

Crackpot Mine, Pre CERCLIS Screen
Laguna Pueblo, New Mexico

DECISION/DISCUSSION/RATIONALE:

Site Physical Description:

The Crackpot Mine is located within the Laguna Mining Sub-district of the Grants Uranium Mining District, on the Laguna Pueblo in Cibola County, New Mexico. The site may be reached by leaving I40 at the Mesita exit and proceeding southward and southwestward on an unmarked dirt road approximately 8 miles. The elevation is approximately 6,300 feet.

Site Identification:

The Crackpot Mine is one of the 19 legacy uranium mine sites identified within the Laguna Mining Sub-district of the Grants Mining District (Ref. 1). The Crackpot Mine is located on the Laguna Pueblo.

Site Ownership and Potential Responsible Parties:

The Crackpot Mine is located on the Laguna Pueblo. Anaconda Company was identified as the producer and/or shippers (Ref 2 and 3).

Site Reconnaissance:

EPA Region 6, Laguna Natural Resources and Weston Contractor conducted a site recon at the Crackpot Mine. The mine consists of a 120 foot long elongated open cut, with short adits along the anticline. Entrance to the mine area is dry but evidence shows that water has pooled in the past. Run off flows down toward the mine entrance. The entrance area for the mine has been used as a corral or holding area for sheep and/or cattle. Secondary uranium mineralization is visible along the face and walls of the mine/adits. One adit is supported by a wooden beam. The mine workings are approximately 6 to 8 feet in depth. No bore/vents holes were visible during the recon. Waste rock piles surround the outskirts of the mine area. A waste rock pile approximately 100 feet east of the mine is located in an arroyo. The waste rock pile frames the edge of the mesa and is approximately 30 to 40 feet wide and 200 to 300 feet in length. The waste rock pile northwest of the mine is approximately 15 feet wide and 20 feet in length. The southwest waste rock pile is approximately 200 feet from the mine area and is 40 feet wide and 50 feet long. A 5 foot by 5 foot explosives storage area/dugout is located in the side of a mounded area about half of a mile to the west of the mine.

There are cultural uses in and around the mine area. Vegetation is used around the mine site area. Cattle/sheep grazing are conducted in the mine area through the Dough Mountain Cattle Association. The nearest residence is approximately 5.7 miles northeast of the mine.

Weston Contractors conducted a preliminary screening at the mine site using the Rapid Assessment Tools (RAT) and Ludlum instruments. Gamma readings were taken in and around the mine area in counts per minute (cpm). Readings within and around the mine opening ranged from 30,000 to 360,000 cpm. The highest reading along the mine wall was 611,925 cpm. Readings outside of the mine ranged between 20,000 to 44,000 cpm. Readings at the waste rock piles range between 22,300 to 103,000 cpm. Several one minute stationary readings were taken and are as follows: CPSP-01, outer area of mine were 30,383 cpm; CPSP-02, inner area of mine were 44,212 cpm; CPSP-03, inner area of mine close to the entrance were 92,466 cpm; and at the top of waste rock pile number 2, 141, 969 cpm. Readings were taken at the drainage area from the mine site approximately three and a quarter miles from the mine site. The readings for the drainage area ranged from 5,000 to 8,000 cpm.

Recommendation:

Data collected during the site recon suggests that further action under CERCLA is needed at this mine site.

Crackpot Mine, Pre-CERCLIS Screen
Laguna Pueblo, New Mexico

References:

- 1 New Mexico Energy Minerals and Natural Resources Department, 2007, Abandoned and Inactive Uranium Mines in New Mexico database, Mining and Mineral Division.
- 2 Anderson, Orin J., 1980. "Abandoned or Inactive Uranium Mines in New Mexico." New Mexico Bureau of Mines and Mineral Resources Open-file report 148.
- 3 McLemore, Virginia T., and Chenoweth, William L., 1991. "Uranium Mines and Deposits in the Grants District, Cibola and McKinley Counties, New Mexico." New Mexico Bureau of Mines and Mineral Resources Open-file Report 353.

Attachments:

Photo Documentation
Map of Distance to Closest Residences or Residential Areas
US EPA Region 6, Start-3, Property Assessment Map
Copy of Log Book dated 03/30/11



Entrance to Crackpot Mine. Photo taken March 2011, by LaDonna Turner, EPA R6.



Wooden beam supporting the adit. Evidence of past pooling water as hoof prints were left behind in the now dried mud. Photo taken March 2011, by LaDonna Turner, EPA R6.



Exposed face of the mine with yellowing on the rocks from exposed areas of uranium. Ludlum reading in this area was over 600,000 cpm. Photo taken March 2011, by LaDonna Turner, EPA.



Waste rock piles along the edge of the mesa. Photo taken March 2011, by LaDonna Turner, EPA R6.



Waste rock piles to the southwest of Crackpot Mine. Photo taken March 2011, by LaDonna Turner, EPA R6.



Waste rock piles toward the northwest of Crackpot Mine. Photo taken March 2011, by LaDonna Turner, EPA R6.



Dugout approximately half a mile from Crackpot Mine. Possible storage area for mine explosives. Photo taken March 2011, by LaDonna Turner, EPA R6.



Interior of the dugout. Photo taken March 2011, by LaDonna Turner, EPA R6.

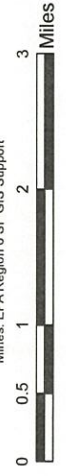


Distance to Closest Residences or Residential Areas from Crackpot Mine

- Mine of Interest
- Laguna Pueblo
- Census Block with Population > 0

Residential Area 5.6 mi.
Residence 5.7 mi.

Map created 4/11/2012.
Imagery: Esri/USGS/GeoEye/etc.
Population: 2010 US Census Bureau
Mines: EPA Region 6 SF GIS Support





Legend
RESULTS

- 0 - 10890
- 10891 - 11891
- 11892 - 11999
- 12000 - 14999
- 15000 - 19999
- 20000 - 39999
- 40000 - 99999
- 100000 - 199999
- 200000 - 299553



SOURCE: ESRI World Imagery

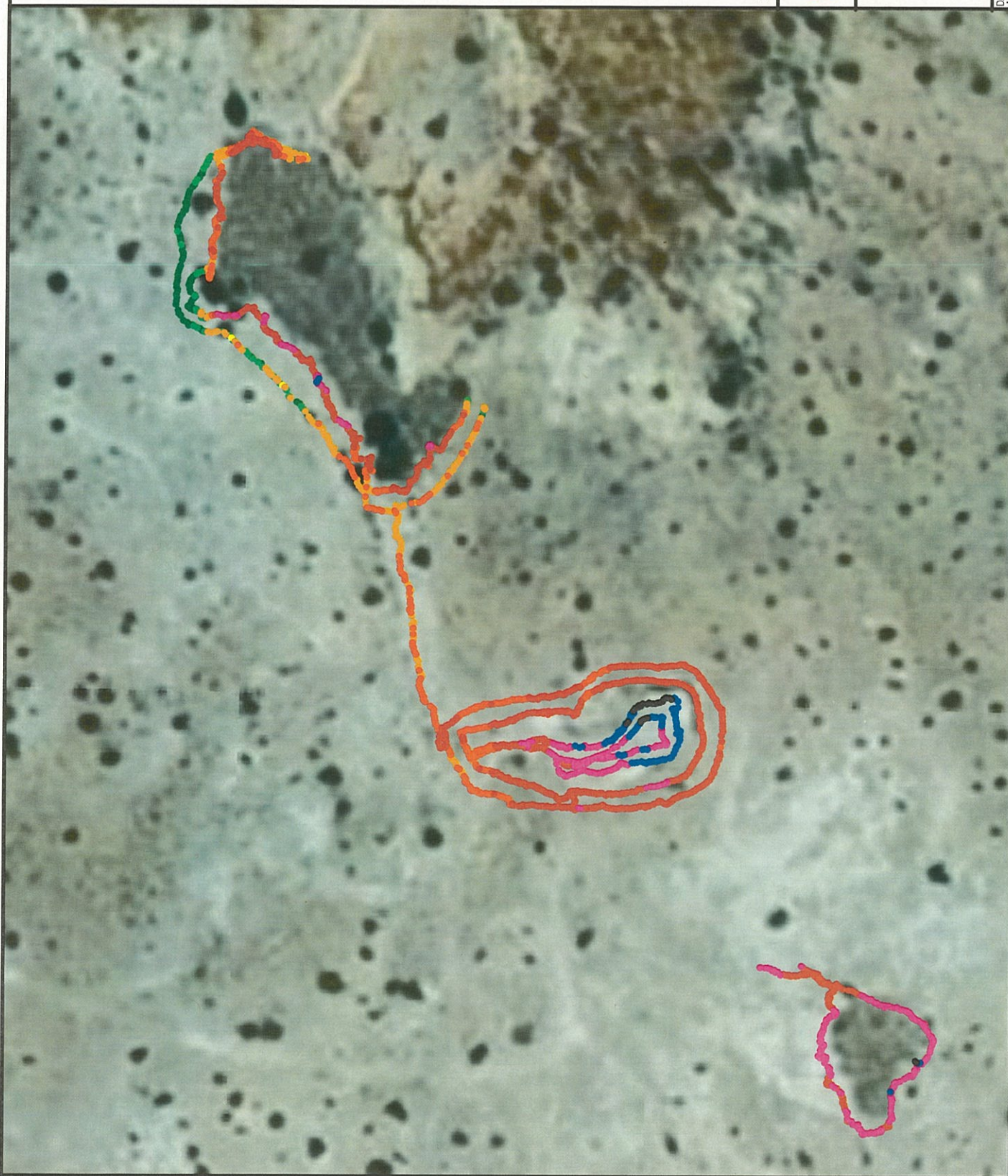


US EPA REGION 6
START-3

FIGURE 1

PROPERTY ASSESSMENT MAP
LAGUNA (OAK CANYON)
URANIUM ASSESSMENT
PROPERTY - (CRACKPOT MINE)
ASSESSMENT DATE: 3/30/2011
CIBOLA COUNTY, NEW MEXICO

DATE	PROJECT NO	SCALE
MAR 2011	201006.012.005.0538.01	AS SHOWN



3/30/2011 Oak Canyon Assessment. — EPA/STDET

Special request - Health Safety topics = anaerobic

Team 2: Stet Vasquez / Phillip Walsh

0725 Stet Vasquez at Command Post.

Today's activities: Preliminary Assessment of

Laguna mines. On Site. EPA OSC Warden Z,

Stet Vasquez / Walsh. EPA LaBonne turner,

Keneth (EPA Safety officer) Laguna natural

resources Marjorie and Steacy.

925 Stet Team 2 / EPA rep arrived at

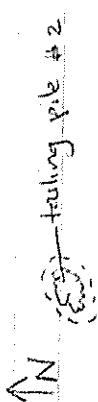
Laguna natural resources office.

Stet Team 2 screening crackpot mine

with RAT kit # 2, Ludlum 149949

PE 03398.

Sketch of crackpot mine area



Stet Vasquez walked around tailing pile #1

with Ludlum 163687 PK 112840

CPM range when walking around pile #1

= 22300 - 93400 cpm.

(Pile 1) path walked

EPA/STDET Oak Canyon Assessment 3/30/11

Special Request.

STDET Vasquez walking around Pit #2 with

Ludlum 163687 PK 112840. Range = 23000-103000 cpm

(Pit 2) path walked

1140 STDET Walsh continue with RAT assessment

at area around crackpot mine and pits

Regarding RAT assessment = OSHA printer

of mine and inner perimeter were assessed

using RAT.

ranges 20000-94000

Keeth to lead

file for details.

ranges 30000-230000

1200 STDET Vasquez walked around inner perimeter

of mine with Ludlum 163687 PK 112840

ranges as follows, reading in cpm

Side walls

30000

51000

Range 60000 - 730000

Single point = 141969 cpm one minute count on top of pit 2.

Single point = 611925 cpm. One minute count mine wall

(Pit 1) path walked

Path

Side walls

30000

51000

Range 60000 - 730000

Single point = 141969 cpm one minute count on top of pit 2.

Single point = 611925 cpm. One minute count mine wall

3/30/11 ATM Oak Canyon Assessment. EPA/State
Special Request.

1310 State Team 2. Collecting single points

Point	CPM	Time
CPSP-01	30353	1301
CPSP-02	44212	1305
CPSP-03	42466	1307

Ref to last file for GPS points/coordinates
single point on site performed using well: 149577
1775 57487 / Laguna, start of rooms and Laguna
environmental office / ERM representative
where to other mine sites. - Crumble
to locate old mine sites

1528 Stop at drainage (cross) from built
at Croquet Pile. Start and EPA
walked around average (3/4 mile from
Croquet mine site) led them readings
at drainage area ranges from
5500 cpm to 8000 cpm

1600 En route to Grants, NM. Start
Will continue supporting EPA permit
representatives tomorrow morning
EPA Kenneth / Ludenna, Laguna environmental
representative Martin, Steacy and Curtis
offsite.

particular, _____

3/30/11 Oak Canyon Assessment 3/30/11
Team 2: State Vignos / Welsh

Summary of activities

- Preliminary sampling at Croquet mine using KAT and Ludlum instruments
- Ranges in CPM within mine circuit mine circuit 3000 to 7300000
- Highest reading (1-min scale) ~ 611925 cpm at mine well
- Ranges at other mine (top of mine) 2000 - 64000 cpm

- Few actual readings refer to last file
- Ranges at rock piles 23300 - 43700 cpm and 23000 - 108000
- Single point 1-min count at top of Pile = 14767 cpm

- Other range for 1-min counts recorded:

ID	CPM	location
CPSP-01	30353	at the area of mine - top of mine
CPSP-02	44212	mine area of mine
CPSP-03	42466	mine area of mine (close to entrance)

- Ranges at drainage area - approx 3/4 mile from Croquet mine 2000 - 8000
- end of activities

~~Paul Vignos
3/30/11~~

San Mateo Structural Assessment Project—Historical Uranium Mining and Milling

Property Assessment ID: CRACKPOT MINE / Blue Bird

Date: 3/30/2011

START Team Member (who completed this form): Vazquez

Additional START Team Members: Walsh

① LUDLUM Instrument #: 149949 (BAT instrument) - ② Lucilin 165687

① Detector #: PR033908 (BAT instrument) - ② PR 112870

SCALER READINGS FORM

(Twenty 1-Minute Readings with Ludlum 2221)

Special Request: Preliminary Screening of area around Crackpot mine.
 *Obtain readings (scaler mode) at 20 evenly spaced locations in yard

1-Minute Readings (Total Counts)		Time of Reading
1 <u>30383</u>	ID#1 CPSP-01	1 <u>13:01</u>
2 <u>44212</u>	CPSP-02	2 <u>13:05</u>
3 <u>92466</u>	CPSP-03	3 <u>13:07</u>
4 <u>611925</u>	mine wall crackpot	4 <u>13:10</u>
5 <u>7267</u>	drainage from crackpot mine	5 <u>15:03</u>
6 _____	"	6 _____
7 _____		7 _____
8 _____		8 _____
9 _____		9 _____
10 _____		10 _____
11 _____		11 _____
12 _____		12 _____
13 _____		13 _____
14 _____		14 _____
15 _____		15 _____
16 _____		16 _____
17 _____		17 _____
18 _____		18 _____
19 _____		19 _____
20 _____		20 _____

Sample ID(s): _____

NOTES: Readings around drainage area
 Crackpot Drainage ranges:
 5000, 7000 - 8000 cpm
 (distance from mine approx 3/4 mile)

Sample ID: _____

Vazquez 3/30/11 gzu