NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

1190 St. Francis Drive, P. O. Box 5469
Santa Fe, NM 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965
www.nmenv.state.nm.us

BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

Memorandum

To: **LaDonna Turner, Site Assessment Manager**
Technical and Enforcement Branch
U.S. Environmental Protection Agency, Region 6

From: **Dana Bahar, Manager, Superfund Oversight Section**
Ground Water Quality Bureau, New Mexico Environment Department.

Date: **September 10, 2009**

Subject: **Pre-CERCLIS Screening Assessment of Haystack Section 31 Mine, McKinley County, New Mexico: Further action under CERCLA recommended**

Site name	Haystack Section 31 Mine				
City	not applicable	**State**	New Mexico	**Zip code**	not applicable
County	McKinley				
Latitude	35° 19' 19.07"	**Longitude**	107° 49' 10.07"		

Site physical description: NMED personnel assessed the Haystack Section 31 Mine from Haystack Road because access to the private property could not be arranged. Several large poorly-vegetated piles of presumed waste material are visible from this viewpoint. Anderson (1980) describes the site as comprising several open pits and trenches that were excavated to exploit small uranium deposits within the Todilto Limestone.

Site identification: Potential alluvial ground water contamination within the Grants Mineral Belt was identified because background standards established for the contaminants of concern for ongoing remedial action associated with the Homestake Mining Company NPL site (CERCLIS NMD0007860935) are generally higher than Maximum Contaminant Levels (MCLs). NMED conducted sampling of private residential wells in subdivisions located in the vicinity of the HMC site, and found that the majority had one or more contaminant concentrations exceeding MCLs.

Site summary: Observations made during NMED's Site reconnaissance are shown on the accompanying figures. As indicated, only piles of presumed waste materials

associated with this site could be seen from Haystack Road. Anderson (1980) includes pictures of large pits and trenches, and states that the maximum radioactivity at this site was 3000 counts per second.

Targets: The closest residence to the Site is approximately 1.5 miles northwest of the site on Haystack Road; a second residence on Haystack Road is located approximately 2 miles northwest, from which another residence is visible further to the west. Residences located near the junction of State Hwy. 605 and 509 are approximately 3 air-miles northeast of the Site. Other potential targets may include cattle and wildlife.

Closest well sampled to date: livestock well SMC-33 (0.4 air-miles; 164 µg/l total uranium in 2009 sampling).

Site ownership and Potentially Responsible Parties: Surface rights for the site are privately-held, possibly by the successor to the Isabella O. Marquez trust. Newmont Mining Company reportedly holds the mineral rights. United Nuclear Corporation reportedly last operated the mine in 1975.

File review: NMED staff reviewed the following files:

- Database compiled by Mining and Minerals Division of the New Mexico Energy, Minerals, and Natural Resources Department (07/20/2007).
- Anderson, Orin J., 1980. "Abandoned or inactive uranium mines in New Mexico".
- McLemore, Virginia T. and William L. Chenoweth, 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.
- Rappaport, Linda, "Uranium deposits of the Poison Canyon ore trend, Grants District," in "Geology and technology of the Grants Uranium Region, 1963. State Bureau of Mines and Mineral Resources.
- U.S. Geological Survey, 1997. "Gallup quadrangle NURE HSSR study." OFR-97-492.

Site reconnaissance: NMED staff conducted a Site reconnaissance on July 2, 2009.

Recommendation: A release of CERCLA hazardous substances has been documented at the site. NMED recommends further investigation under CERCLA to assess the risk posed by the site using the Hazard Ranking System.

NMED recommends that the investigation include the following:

1. Sample sediments along drainages to characterize extent of Site-derived waste dispersion.
2. Investigate and characterize surface and ground water impacts.

In addition NMED recommends the following actions be performed to address immediate threats to public health and the environment:

1. Remove waste with elevated radioactivity.
2. Reclaim unstable pit highwalls
3. Characterize ground water impacts through drilling

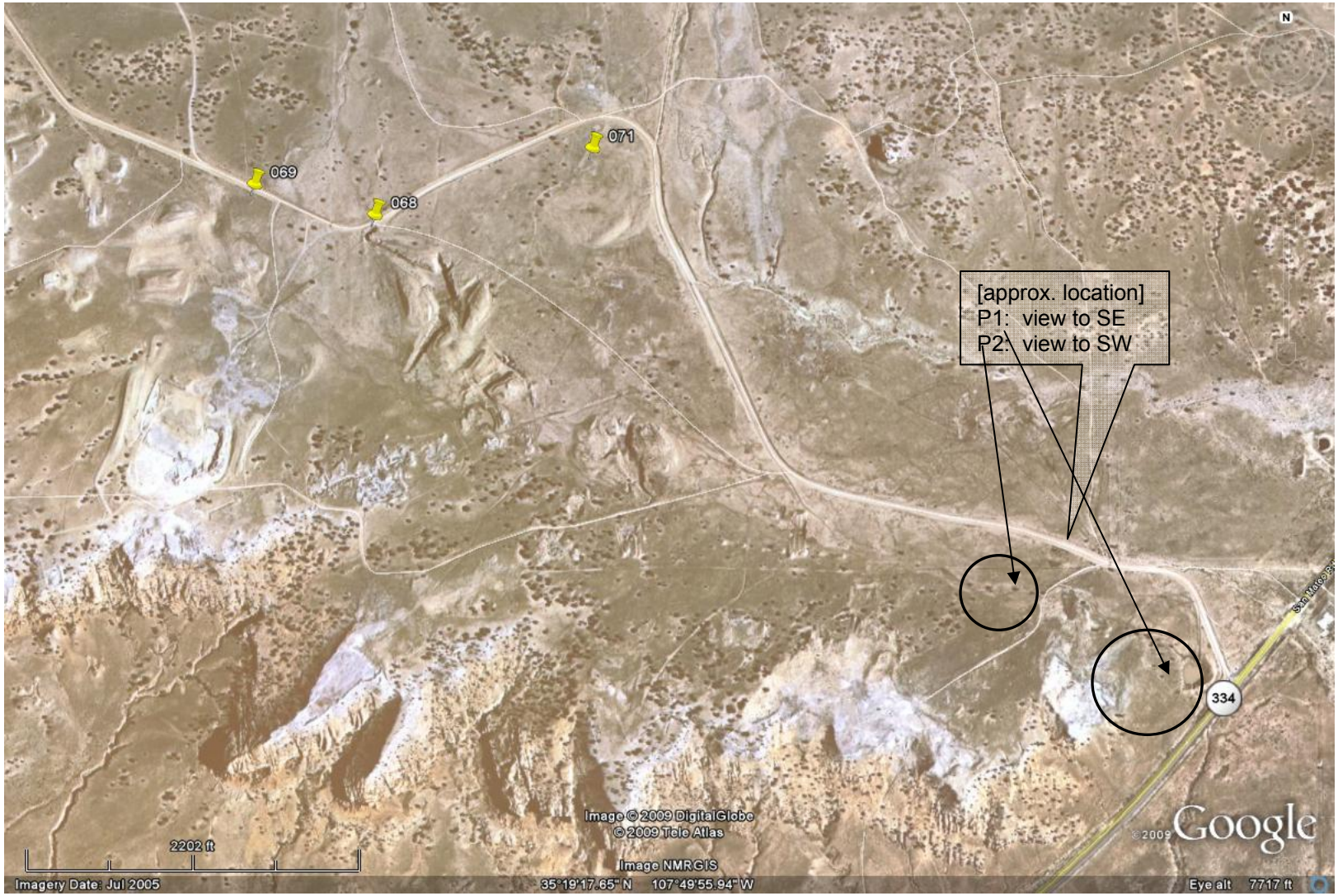

Figure 1: Haystack Section 31 mine—photographs taken on July 2, 2009

"Px" reference the location of photographs on pages following.

P1: Haystack Section 31 mine, view to SE

P2: Haystack Section 31 mine, view to SW