APPENDIX F

Memorandum - Results of Additional Trenching May 27 to May 29, 2008

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MEMORANDUM

To: **Alan Kuhn**

From: **Greg Schlenker**

Date: **June 16, 2008**

Subject: **Results of Additional Trenching May 27 to May 29, 2008**

Alan,

Regarding results of the additional trenching at the Piñon Mill Site.

Our exploration trenches were constructed on the site as shown on attached Figure 1. The trenches were constructed generally north to south on the east and west side of Trench 2 which was constructed and backfilled during our December 2007 field program. The trenches were constructed to the east and west of Station 545-feet North and Station 560-feet North of Trench 2 where we observed an apparent soil subsidence during our December 2007 field program. The additional trenches are labeled Trench 2-B and Trench 2-C on Figure 1. The purpose of the additional trenches were to evaluate the lateral extent of the possible soil subsidence feature along the axis of the inferred faults interpreted at depth from seismic refraction and reflection surveys previously conducted on the site, and to further investigate the origin or genesis of the apparent subsidence feature.

Trenches 2-B and 2-C were constructed from depths ranging from 8 to 12 feet in depth with benched 4-foot riser and tread configurations. The trenches were logged continuously in the field at a scale of 1 inch to 5 feet. Stratigraphy in the trenches was based primarily on the identification of carbonate soil horizons observed in the trenches previous and current field investigations. The results of our trenching indicated that the apparent subsidence feature observed in Trench 2 did not extend laterally into Trench 2-B or Trench 2-C.

We observed zones in Trench 2-B where younger soils had penetrated downward through the upper Soil S-2 carbonate horizon into the lower Soil S-1 carbonate horizon similar to the soils observed as the apparent subsidence feature (see attached photo IMG_0394). Our trench was deepened to 12 feet in this zone to reveal that the younger soil features did not fully penetrate the Soil S-1 carbonate horizon. Based on this observation, we believe that the occurrence of the younger soils penetrating the carbonate horizons in not the results of bottom-up phenomenon such as karst subsidence or fault rupture, but is likely related to surficial processes such as erosion or bioturbation.

Mr. Edgar Ethington of the Colorado Department of Public Health and Environment visited the site on May 29, 2008 and observed the soils exposed in our trenches and observed a sinkhole location off the northeast boundary of the site. Mr. Ethington was given our interpretation of the soils observed trenches during this site visit.

The trenches were backfilled after Mr. Ethington's visit on May 29 and May 30, 2008.

Attachments:

Figure 1.pdf
Photo IMG_0394

Tailings Cell C

Boring 1

Boring 3

Boring 2

Trench 2

Boring 4

Tailings Cell B

Line 1

Tailings Cell A2

Tailings Cell A1

Line 2

Line 3

Trench 1

Mill Facility

Trench 3

Ore Pad

Explanation

- Seismic Survey Line Locations
- Exploration Trench Locations
- Inferred Faults From Seismic Survey
- Boring Locations

Base Image, 2005 1-Meter NRSCS Color
NAIP Image Titled "co085_2005_12.jpg"

200 100 0 200 400 600 800 Feet

1:4,800

	Seismic Survey Line, Exploration Trench Locations and Geologic Boring Locations Piñon Ridge Mill Site, Montrose County, Colorado		FIGURE 1
Originator: G. Schlenker	Drawn By: G.Schlenker	Date: February 2009	
Checked By:	Project No: 83088	Drawing No: 83088_1.4.1-TBA	
Approved By:	Scale: 1" = 400'	Drawing Catagory: TBA