

TA21

Dhawan, Neelam, NMENV

From: Ron Rager [rrager@lanl.gov]
Sent: Wednesday, May 16, 2007 11:42 AM
To: Dhawan, Neelam, NMENV; chamberlain, kathryn, NMENV
Cc: allanc@lanl.gov; 'Carolyn A. Mangeng'; 'Dave McInroy'
Subject: SWMU 21-018(a)-99 TA 21, MDA V Hot Spot Field Conditions
Attachments: Hot Spot Conditions.doc

Neelam and Katie,

As discussed, please find attached the description of the field conditions encountered during our recent excavation activities. If you have any questions, please call me at 231-7834.

Thank you,

Ron Rager
EP-TA 21
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HOT SPOT Excavation for SWMU 21-018(a)-99, TA 21, MDA V

On 5/10 and 5/11 the "hot spot" identified in the MDA V Investigation Report (IR) (Section B5.1.2, page 15) and NOD Comment and response number 5 was partially excavated. Although the surface scan indicated a larger area, hand augers and associated field screening taken on 9/19/2006 bounded the area of elevated radioactivity to a smaller area than originally reported in the IR: 6' x 12' and over 3.5' deep (about 1-1/2 times SAL (33 pCi/g) for Plutonium Pu-239/240). The highest analytical result was 322 pCi/g for Pu-239/240 at a depth of 2-2.5 feet.

Excavation of the 6 x 12' area exposed the highest field screening values for RAD (direct reading: 220-1000 alpha and 10,000-30,000 beta/gamma) in a thin 1-2" layer of material appearing to be fibrous in nature with silt to coarse sand size particles, and fine partially decomposed wood pieces of less than 1/4" dimension. Material color ranged from dark brown to brown, to almost black to gray-green. The layer was present at a depth of approximately 2' below the original ground surface prior to excavation. The soil over the layer was brown in color and contained occasional pieces of asphalt. Gray sand was present below the layer, possibly weathered tuff. Gray to tan tuff was encountered at 4' below the ground surface.

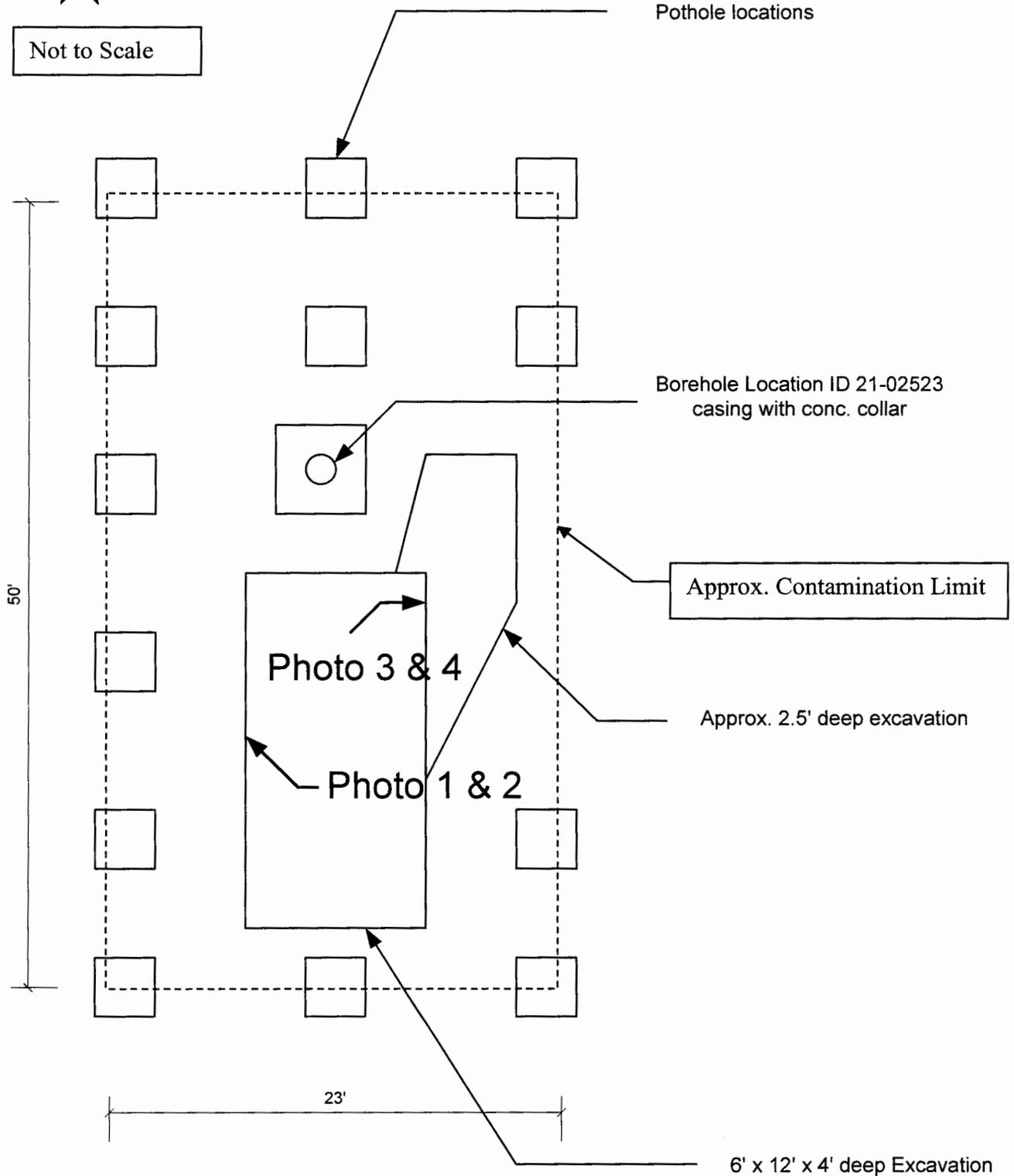
A sample was obtained from the highest RAD field screen location of the layer exposed in the west wall of the excavation and will be assessed for a full suite RAD and NMED/RCRA analytes. Asbestos was added to the suite because of the visual nature of the material. Field screens above and below the layer indicate lesser contamination.

Analytical results will be assessed when available before deciding on a final removal strategy.

A sketch of the area as defined by potholes is shown below:

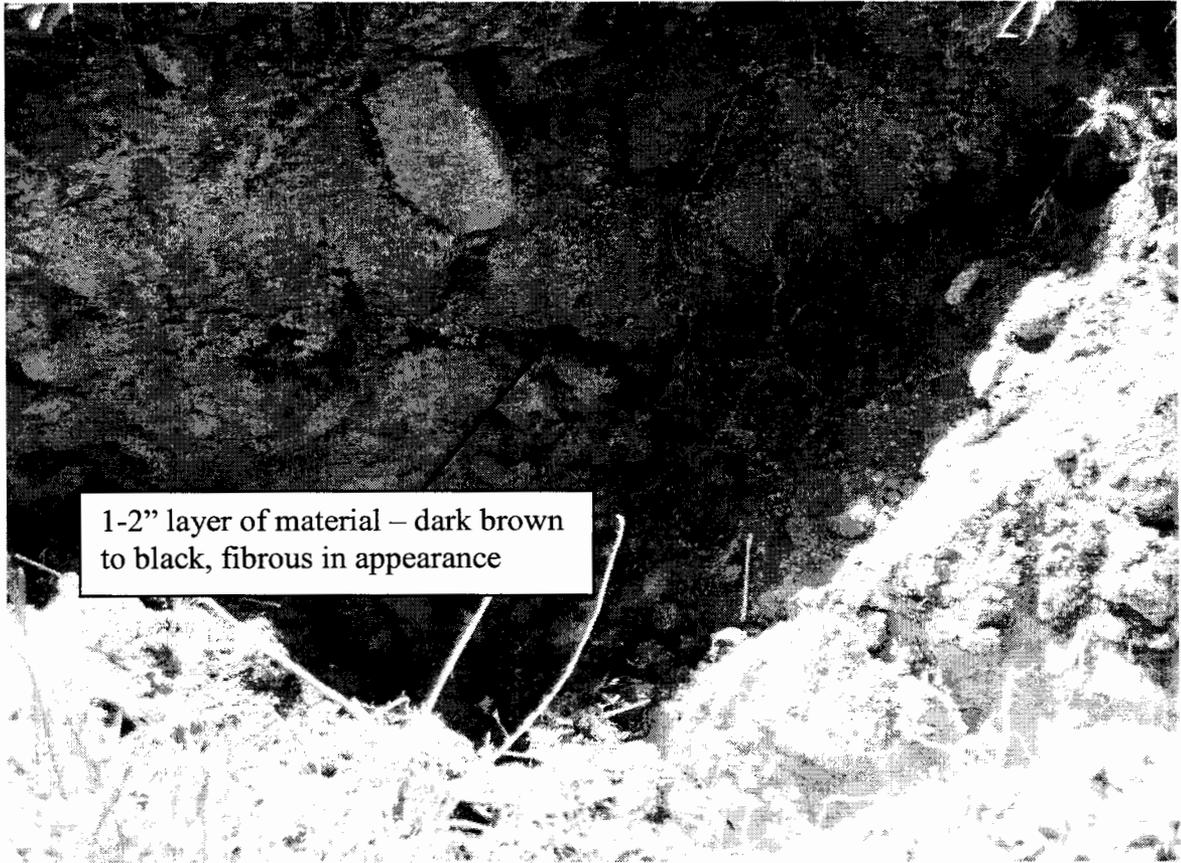


Not to Scale



Note: Area dimensions of layer are further south than reported in 5/15/07 e-mail.
The area extends south of the excavation and into but not through the southern line of potholes.
Dimensions as shown: 23' wide by 50' long

Photos were taken on 5/14/07 and are shown below:



1-2" layer of material – dark brown to black, fibrous in appearance

Photo 1 – Initial excavation side wall looking west – note asphalt chunk above the layer is about 6" long

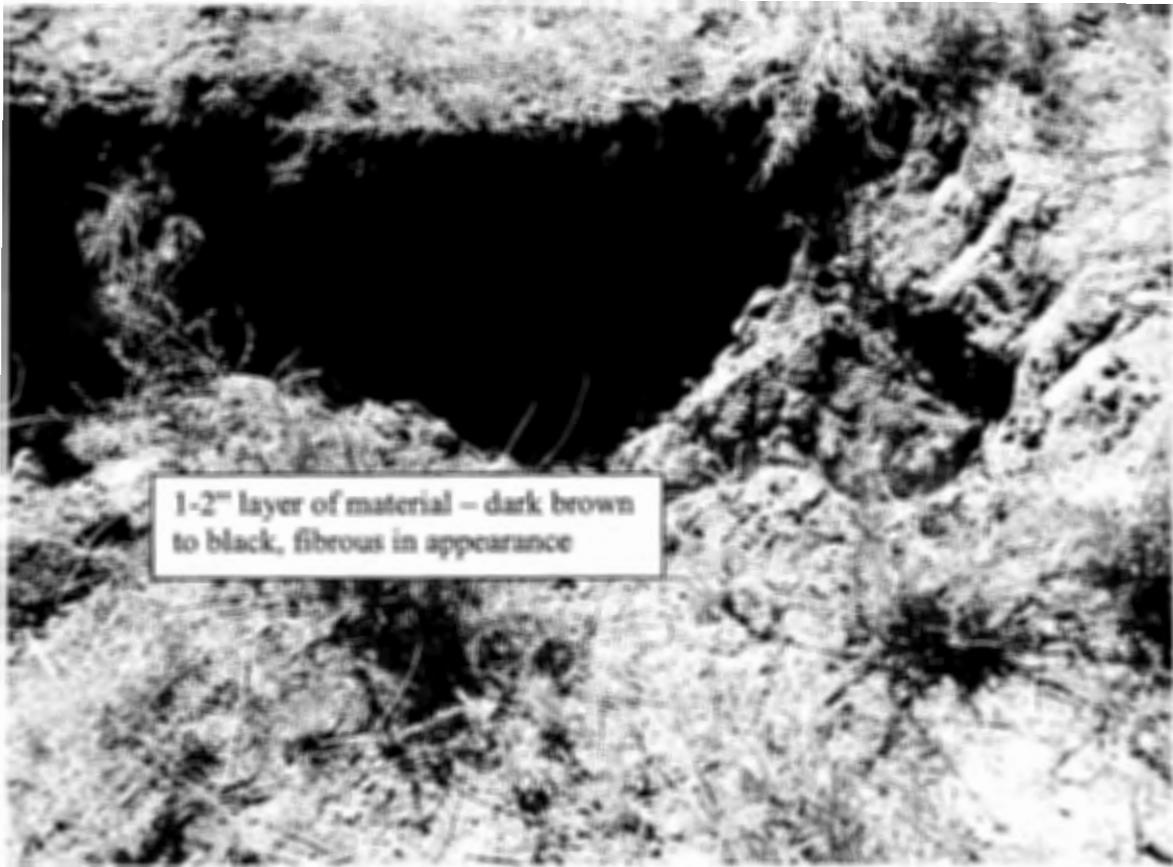


Photo 2 same view



Photo 3 East side wall

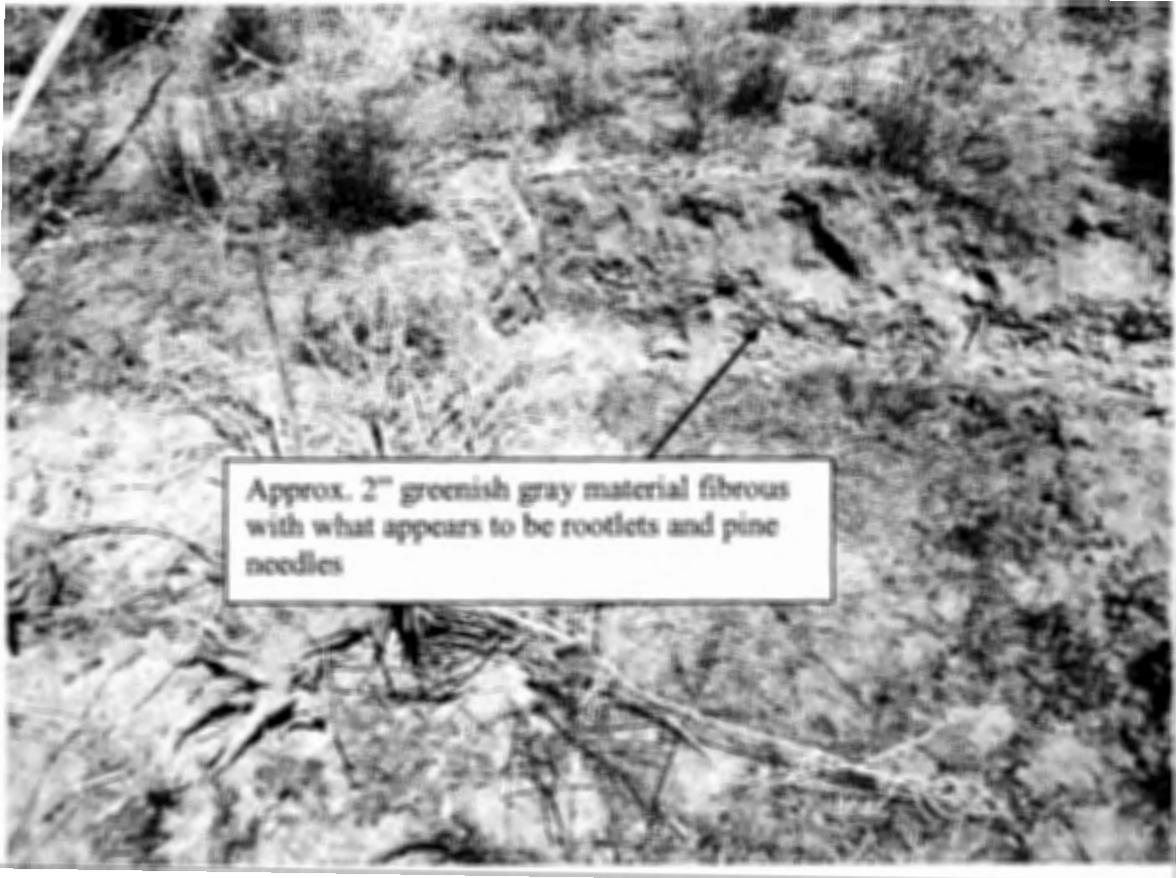


Photo 4 same view as #3