

**Cobrain, Dave, NMENV**

**From:** Cobrain, Dave, NMENV  
**Sent:** Friday, January 27, 2006 2:59 PM  
**To:** 'John Hopkins (johnhopkins@lanl.gov)'; 'KEN KISIEL (kkisiel@seabase.com)'; 'Gregory, David R.'; 'Gabriela Lopez Escobedo'  
**Cc:** 'Ken Kisiel'; Kieling, John, NMENV; chamberlain, kathryn, NMENV; Lynnes, Kate, NMENV; Dhawan, Neelam, NMENV; Bearzi, James, NMENV  
**Subject:** MDA H borings and subsurface air sampling

John,

I've reviewed a couple of documents related to the borings at MDA H.

NMED's letter to DOE/UC dated December 3, 2001 acknowledges the presence of slough in the boreholes Boring 54-1023 was drilled to 260 ft bgs, boring 54-15462 was drilled to 300 ft bgs and boring 54-15461 was drilled to 100 bgs. Based on the drilling logs, the Cerro Toledo interval extends from approximately 255 to 265 ft bgs. The letter requested removal of the slough and collection of air samples at 50 and 100 ft depths bgs in each borehole and at depths of 260 ft bgs in borings 54-1023 and 54-15462 (from the Cerro Toledo Interval).

LANL's letter dated January 29, 2002 indicated that the total depths of the borings were 258 ft bgs in 54-1023, 257 ft bgs in 54-15462 and 99 ft in 54-15461. Table 1 in the letter listed measurements of methane, CO2 and oxygen and air sample collection at depths of 250 ft in borings 54-1023 and 54-15462. Is that what you're citing as reporting that the Cerro Toledo interval was not sampled? If so, the letter doesn't specifically point that out; however, the interval sampled appears to be above the top of the Cerro Toledo. Why were the samples collected at 250 feet instead of from the intervals requested in NMED's letter to DOE/UC dated December 3, 2001?

The December 2005 Periodic Monitoring Report indicates that the boring depths were measured during the 2nd, 3rd and 4th quarter sampling events and that the total depths of 54-1023 and 54-15462 were 261 and 254 ft bgs, respectively, in the 2nd quarter and 255.5 and 260 ft bgs, respectively (possibly a typo that reversed the depths?), in the fourth quarter. Those depths are within the estimated interval of the Cerro Toledo, based on the drilling logs except for the 254 ft depth.

In our meeting on January 25, 2006, Ken Kisiel indicated that the slough in the MDA H deep borings prevented sampling of the Cerro Toledo. I'm not sure that matches with all of the information provided in the documents listed above and there also appears to be discrepancies regarding the depths of 54-1023 and 54-15462 between LANL's letter dated January 29, 2002 and the December 2005 Periodic Monitoring Report (at least one of them appears to get deeper between 2002, the 2nd quarter of 2005 and the 4th quarter of 2005).

Some clarification would be helpful.

- 1) Please clarify whether borings 54-1023 and 54-15462 are open to the Cerro Toledo.
- 2) Please clarify whether air samples have been obtained from the Cerro Toledo interval.
- 3) If the Cerro Toledo Interval is not accessible in borings 54-1023 and 54-15462, please identify the depth(s) above the Cerro Toledo that have been sampled in each boring during all of the previous periodic monitoring events.

NMED will need these clarifications to help with CMS remedy selection. Thanks.

Dave

