



General



Environmental Programs

P.O. Box 1663, MS J591
Los Alamos, New Mexico 87545
505-606-2337/FAX 505-665-1812

National Nuclear Security Administration

Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
505-606-0397/FAX 505-667-5948

Date: March 21, 2007
Refer To: EP2007-0174

Mr. James Bearzi
Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303



Subject: Amendment to Drilling Methodology for Regional Groundwater Monitoring Well R-35

Dear Mr. Bearzi:

This letter documents discussions with your staff during the week of March 12-16 regarding the Laboratory's amended approach to the drilling methodology for regional groundwater monitoring well R-35. The amended approach is responsive to your staff's request to investigate alternatives to the use of drilling fluids. The amended approach is also consistent with recent communications with Northern New Mexico Citizens' Advisory Board members and other knowledgeable external stakeholders. Pursuant to discussions with your staff, the details of the amended drilling approach will be documented in the R-35 well completion report.

Summary of Amended Drilling Approach

Within the approved drilling plan for R-35 dated June 28, 2006, a graded approach is proposed for the use of drilling fluids to extract cuttings and maintain borehole stability. This revised approach is to drill using casing-advance air-rotary with intent to maximize the potential for success of the air rotary method to accomplish the objectives. As with all other drilling approaches, there are risks involved and the use of fluids in a graded approach may be required. Each borehole will initially be drilled open hole with air-rotary foam-assist through the vadose zone to a depth above regional aquifer. Casing will be set to hold back any perched water encountered and to prevent caving of the borehole wall. Casing will then be advanced while drilling the remainder of the borehole using



conventional air-rotary to total depth. In the deeper borehole, 12-inch casing will be advanced to the top of the louvers in PM-3 (approximately 950') and 10-in casing will be used to accomplish the target depth at the top of the Miocene basalts at approximately 1200'. In the shallower borehole, 12-inch casing will be advanced to the top of the regional aquifer and 10-inch casing will be used to accomplish the target depth of about 900'. The goal is to drill by adding only a small amount of potable water to cool the bit. Potable water will be the only fluid added except if serious caving or lost circulation problems are encountered, then some foam may be added to maintain borehole stability, maintain circulation, and improve the ability to remove cuttings from the borehole. Geophysics will be run through the 10-in casing in both holes to supplement cuttings data and drillers logs to determine screen placement.

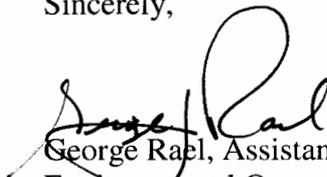
If you have any questions please contact Mat Johansen at (505) 665-5046 or Danny Katzman at (505) 667-6333.

Sincerely,



Carolyn A. Mangeng, Acting Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,



George Rael, Assistant Manager
Environmental Operations
Department of Energy
Los Alamos Site Office

AKP/GR/DK:tml

Cy: David Gregory, DOE-LASO, MS A316
T. Skitbiski, NMED-OB
Carolyn Mangeng, ADEP, MS J591
Tina Behr-Andres, LWSP, MS M992
Jean Dewart, LWSP, MS M992
Danny Katzman, LWSP, MS M992
Matt Riggs, LWSP, MS M992
Mark Everett, ERSS-RS, MS M992
Alison Dorries, EP-ERSS, MS M992
P. Reneau, EP-ERSS, MS M992
LWSP File, MS M992
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