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Date: October 15, 2007
Refer To: EP2007-0635

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

Subject: Submittal of Certification of Culvert Repair behind the SM-30 Warehouse, in the Vicinity of Solid Waste Management Units 03-010(a) and 03-001(e)

Dear Mr. Bearzi:

This letter provides written certification that the repair of the culvert located behind the SM-30 warehouse at Los Alamos National Laboratory (LANL) was completed on October 5, 2007. The corrugated metal pipe (CMP) culvert receives stormwater from the warehouse roof drains and discharges to a nearby tributary of Twomile Canyon. Results of camera logging of the culvert, conducted in April 2007, indicated a break in the CMP near its junction with the building, potentially resulting in leakage of rain water in the vicinity of solid waste management units (SWMUs) 03-010(a) and 03-001(e). This leakage is believed to be the primary source of the perched water observed in existing monitor wells at SWMUs 03-010(a) and 03-001(e). Quarterly groundwater sampling will continue. In addition, data loggers are in place to monitor fluctuations in water surface elevations in the existing monitor wells. Prior to the repair of the drainline, water levels increased within a few minutes in response to precipitation events at the site. The effectiveness of the drain repair in reducing recharge to the perched aquifer below the site will be verified following the next significant precipitation event.

Excavation of the culvert began on October 4, 2007, following construction of a sheltered frame over the line to eliminate potential stormwater impacts. The entire line was hand-excavated to avoid damaging the existing utilities that cross the culvert. The original culvert was found to be damaged near the junction with the building foundation, as the camera logging showed. In addition, the bottom of the culvert was found to be significantly deteriorated. On October 5, 2007, the new CMP was installed in the original trench. All joints of the new CMP were connected with couplings, sealed with mastic, and encased in concrete. The photographs included with this letter document the culvert repair.

If you have any questions, please contact Becky Coel-Roback at (505) 665-5011 (becky_cr@lanl.gov) or Cheryl Rodriguez at (505) 665-5330 (crodriguez2@doeal.gov).

Sincerely,

Susan G. Stiger, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

David R. Gregory, Project Director
Environmental Operations
Los Alamos Site Office

SGS/DRG/DM/BCR:sm

Cy: Laurie King, EPA Region 6, Dallas, TX
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Photo 1. Removal of old culvert.

Photo 2. Break in old culvert.

Photo 3. New CMP and existing utility line.

Photo 4. Mastic sealing of coupling.

Photo 5. Encasing the coupling in concrete.