



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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TO: John J. Linehan, Director, HLPD  
Division of High-Level Waste Management, M/S 4-H-3

FROM: Paul T. Prestholt, Sr. On-Site Licensing Representative

DATE: August 22, 1989

SUBJECT: WEEKLY ACTIVITY REPORT, PROTOTYPE TESTING

Please find enclosed the above-referenced report received in this office, i.e., week ending July 16, 1989.

PTP:nan  
Enclosure

cc: Carl Johnson  
Agency for Nuclear Projects  
Nuclear Waste Project Office  
Capitol Complex  
Carson City, Nevada 89710

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WEEKLY ACTIVITY REPORT  
PROTOTYPE TESTING  
Week Ending - July 16, 1989

LLNL

**Engineered Barrier:**

There has not been any NTS activity during this reporting period. LLNL is planning to overcore at least three 12 inch diameter holes, and possibly five. Holes NE-2A and P1 will be drilled in the small heater alcove. If these holes are successful, the drill will be moved to the Rock Mechanics incline to drill drill hole P2. If drill holes NE-2A and P1 are not successful, the drill will be moved to the Rock Mechanics incline, and holes NE-3 and NE-5 will be drilled before drilling of P2 commences. Overcoring is still scheduled to begin August 1, 1989.

USGS

**Cross Hole:**

There has not been any NTS activity during this reporting period. Modification of packers and instrumentation is continuing. Tentatively, field work for this test should begin on October 2, 1989.

**Wet and Dry Drilling:**

Data collection is continuing on the four test holes located in the U12g12 drift. No further field work is planned for this test.

**Drill Hole Instrumentation:**

Data collection is continuing on the two test holes located near the end of the U12g12 drift. No further field work is anticipated for this test.

**Blast Effects:**

There has not been any NTS activity during this reporting period. Field work for this test is tentatively scheduled to begin on August 21, 1989.

**Excavation Effects:**

There has not been any NTS activity during this reporting period. Field work for this test is tentatively scheduled to begin on September 14, 1989.

**Perched Water:**

Drilling on PW #4 began on July 12, 1989. A HQ core bit and water are being used to drill this hole. The PI is not saving any core, as he will use PW #4 to install instrumentation. Drilled depth of this hole at the end of the reporting period is 76.2 feet. Drilling will continue next week to a total depth of approximately 100 feet.

**Controlled Blasting:**

There has not been any NTS activity during this reporting period. The Controlled Blasting Test is tentatively scheduled to begin on August 14, 1989.

**In-Situ Stress:**

The In-Situ Stress hole U12G-IS #3, located in the left arch of the Demonstration Drift, was drilled from 37 feet to a total depth of 44 feet using an EX size bit. The PI then ran a TV borehole camera to determine potential fractures and rubble zones. A 6 inch rock bit was installed to drill through the fracture zones, and a 6 inch borehole was drilled to a depth of 23.2 feet. The PI then began running another TV log, but the probe fell into the hole. After this, the test was concluded due to lack of funding and schedule constraints. In-Situ Stress hole U12G-IS #4 was overcored to a depth of 41 feet using the same technique as explained above. While continuing overcoring this hole, the drill rod twisted off at the expander head, leaving the 6 inch core barrel in the hole. The driller tried to fish the barrel out of the hole, but without success. The PI decided to leave the core barrel in the hole, and terminate this test. Core recovery on this hole was 100%, and the longest piece of core wrapped and waxed was .9 feet. The field work for the In-Situ Stress Test is now complete.

**Intact Fracture:**

A decision was made by the PI where the Intact Fracture holes will be drilled. Three holes will be drilled in the left side of the face of the Experimental Drift, approximately 4-6 feet above the invert. Field work for this test is scheduled to begin on July 17, 1989.

**Fran Ridge Mapping:**

There has not been any NTS activity during this reporting period. The prototype mapping at Fran Ridge cannot begin until the proper permits are obtained from the state.

LANL

**Diffusion Test:**

Data collection is continuing for DH #2 in the Experiment Drift, and DH #3 in the CFE 3 and 4 drift. Phase II (instrumentation overcoring) cannot proceed until the CMM-2 drill is procured and delivered to G-Tunnel.

SNL

**Thermal Stress:**

There has not been any NTS activity during this reporting period. Field work for this test is tentatively scheduled to start on October 2, 1989.

PROBLEMS AND ISSUES:

None

EXPENDITURES

	Work Days Remain		Expended	%
.Prototype Testing:	<u>54</u>			
.REECO: Current Week-Prototype Testing	\$ 50,023	Year to Date	\$ 428,883	
Current Week-G-Tunnel Operation	\$ 20,594	Year to Date	\$ 797,945	
.H&N: Current Week-Prototype Testing	\$ 5,367	Year to Date	\$ 227,756	
.F&S: Current Week-Prototype Testing	\$ *	Year to Date	\$ *	

\*Information not available at the time of this report.