



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: September 11, 1989

SUBJECT: WEEKLY ACTIVITY REPORT, PROTOTYPE TESTING

Please find enclosed the above-referenced report received in this office, i.e., week ending August 6, 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 - August 6, 1989

LLNL

**Engineered Barrier:**

The LY 38 drill rig was installed in the LLNL alcove. Drilling proceeded on August 3, 1989. A 12 inch overcore will be drilled at the P1 location. Water will be used to overcore the LLNL core holes. Total depth reached during this reporting period is 6.3 feet.

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 September 25, 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 October 9, 1989.

**Perched Water:**

There has not been any NTS activity during this reporting period.

**In-Situ Stress:**

There has not been any NTS activity during this reporting period. Phase I field work for this test is now complete. Phase II field work will tentatively begin November 13, 1989.

**Intact Fracture:**

There was no NTS activity during this reporting period. The PI for this test returned to USGS, Denver for equipment evaluation and readjustment. The PI will begin overcoring samples on August 7, 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.

**Optimal Rubble:**

There was no NTS activity during this reporting period. The controlled blasting phase of this test is tentatively scheduled to begin on August 21, 1989.

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.

**G-Tunnel Drifting:**

The Alpine Miner was down for three days due to a broken roller. Drifting began again on August 3, 1989, and advanced 7 feet. Total distance is 32 feet from the centerline of the EV-6 drift. Rock bolts and wire mesh were installed during this down time.

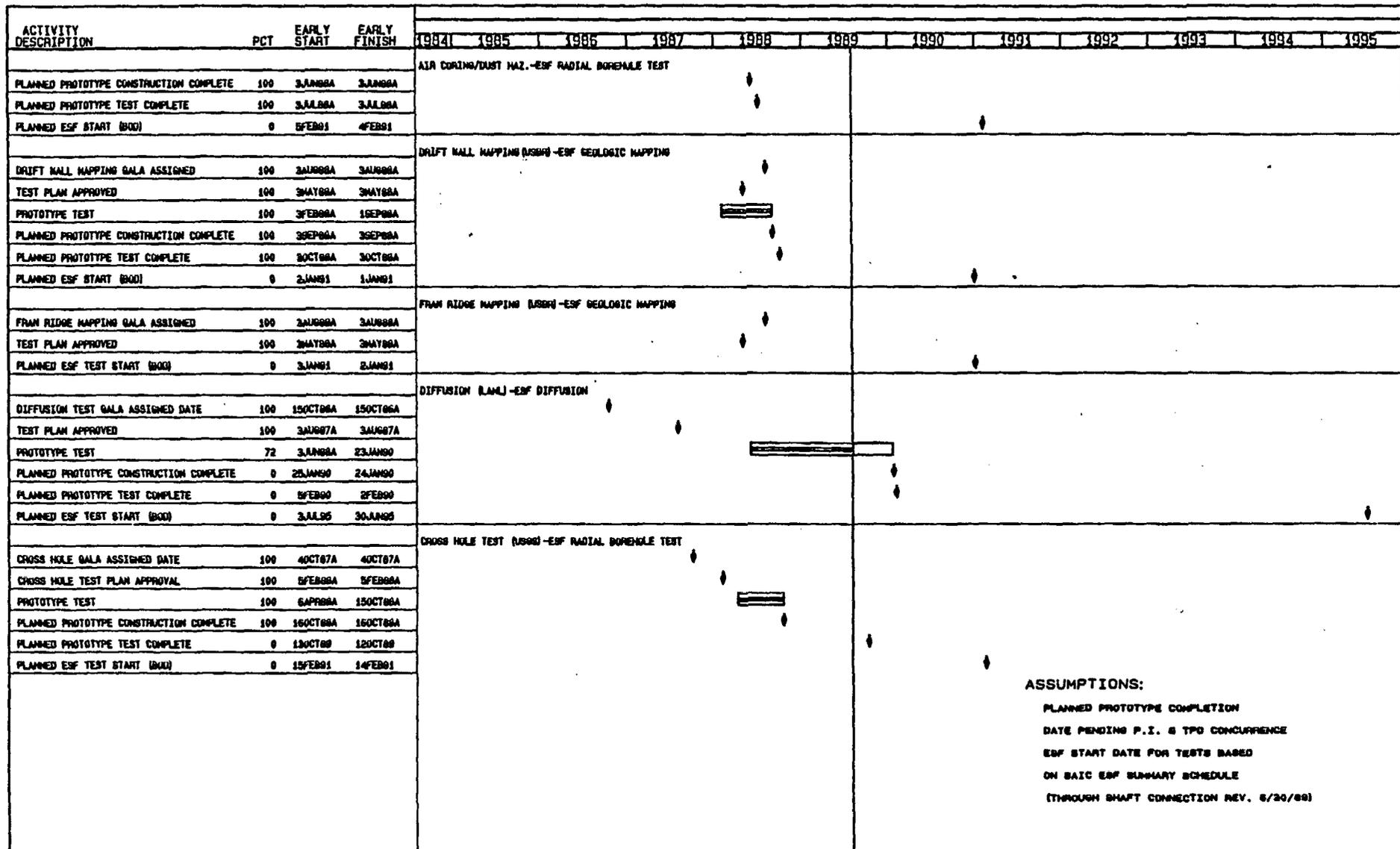
**EXPENDITURES**

.Prototype Testing:	Work Days Remain	<u>39</u>	Expended	<u>84</u> %
.REECO: Current Week-Prototype Testing	\$ 13,278		Year to Date	\$ 492,246
Current Week-G-Tunnel Operation	\$ 35,865		Year to Date	\$ 903,160
.H&N: Current Week-Prototype Testing	\$ 22,062		Year to Date	\$ 259,155
.F&S: Current Week-Prototype Testing	\$ *		Year to Date	\$ *

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

ACTIVITY DESCRIPTION	PCT	EARLY START	EARLY FINISH	Year											
				1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<b>THERMAL STRESS (BML) -ESF THERMAL STRESS</b>															
THERMAL STRESS BALA ASSIGNED DATE	100	17SEP86A	17SEP86A												
THERMAL STRESS TEST PLAN APPROVAL	100	13MAY87A	13MAY87A												
PROTOTYPE TEST	0	30CT89	26FEB90	[Bar]											
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	0	19MAR90	19MAR90												
PLANNED PROTOTYPE TEST COMPLETE	0	2APR90	30MAR90												
PLANNED ESF TEST START (B00)	0	3JUL95	30JUN95												
<b>ENGINEER BARRIER TEST (LML) -ESF ENGINEER BARRIER</b>															
ENGINEERED BARRIER TEST BALA ASSIGNED	100	30OCT86A	30OCT86A												
PROTOTYPE TEST PLAN APPROVAL	100	12AUG87A	12AUG87A												
PROTOTYPE TEST	94	14AUG87A	27SEP89	[Bar]											
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	0	30CT89	20CT89												
PLANNED PROTOTYPE TEST COMPLETE	0	2NOV89	2NOV89												
PLANNED ESF TEST START (B00)	0	2MAR95	2MAR95												
<b>INTACT FRACTURE (B988) -ESF INTACT FRACTURE</b>															
INTACT FRACTURE BALA ASSIGNED	100	10AUG87A	10AUG87A												
TEST PLAN APPROVED	100	31AUG88A	31AUG88A												
PROTOTYPE TEST	98	2FEB89A	15AUG89	[Bar]											
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	0	16AUG89	15AUG89												
PLANNED PROTOTYPE TEST COMPLETE	0	15SEP89	14SEP89												
PLANNED ESF TEST START (B00)	0	2JUL91	2JUL91												
<b>DRILL HOLE INST. (B988) -ESF RADIAL BOREHOLE TEST</b>															
DRILL HOLE INSTRUMENTATION BALA ASSIGNED	100	31AUG87A	31AUG87A												
TEST PLAN APPROVED	100	16FEB88A	16FEB88A												
PROTOTYPE TEST	100	20JUL88A	20CT88A	[Bar]											
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	100	30CT88A	30CT88A												
PLANNED PROTOTYPE TEST COMPLETE	100	2NOV88A	2NOV88A												
PLANNED ESF START (B00)	0	5FEB91	4FEB91												
<b>WET AND DRY DRILLING (B988) -ESF RADIAL B/H TEST</b>															
WET & DRY DRILLING (B988) BALA ASSIGNED	100	31AUG87A	31AUG87A												
TEST PLAN APPROVED	100	9MAR88A	9MAR88A												
PROTOTYPE TEST	100	7JUL88A	20CT88A	[Bar]											
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	100	30CT88A	30CT88A												
PLANNED PROTOTYPE TEST COMPLETE	100	2NOV88A	2NOV88A												
PLANNED ESF START (B00)	0	1FEB91	31JAN91												
<b>OPTIMUM RUBBLE SIZE (B988) -ESF HYDROCHEMISTRY</b>															
OPTIMUM RUBBLE SIZE BALA ASSIGNED	100	2AUG87A	2AUG87A												
TEST PLAN APPROVED	100	3FEB88A	3FEB88A												
PROTOTYPE TEST	87	3MAR89A	16AUG89	[Bar]											
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	0	18AUG89	17AUG89												
PLANNED PROTOTYPE TEST COMPLETE	0	25AUG89	24AUG89												

ACTIVITY DESCRIPTION	PCT	EARLY START	EARLY FINISH	1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995											
OPTIMUM RUBBLE SIZE (M90) -ESF HYDROCHEMISTRY															
PLANNED ESF TEST START (900)	0	3JAN91	2JAN91												
RUBBLE CORING GALA ASSIGNED															
RUBBLE CORING GALA ASSIGNED	100	3AUG87A	3AUG87A												
TEST PLAN APPROVED	100	3FEB88A	3FEB88A												
PROTOTYPE TEST	100	3FEB88A	2JUL89A												
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	100	3JUL89A	3JUL89A												
PLANNED PROTOTYPE TEST COMPLETE	0	3AUG89	2AUG89												
PLANNED ESF START (900)	0	3JAN91	2JAN91												
PERCHED WATER GALA ASSIGNED															
PERCHED WATER GALA ASSIGNED	100	3AUG87A	3AUG87A												
TEST PLAN APPROVED	100	3OCT88A	3OCT88A												
PROTOTYPE TEST	100	3APR89A	2JUL89A												
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	100	3JUL89A	3JUL89A												
PLANNED PROTOTYPE TEST COMPLETE	0	4AUG89	3AUG89												
PLANNED ESF START (900)	0	3JAN91	2JAN91												
IN SITU STRESS (M90) -ESF OVERCORE STRESS TEST															
IN SITU STRESS (M90)	100	3OCT87A	3OCT87A												
TEST PLAN APPROVED	100	3JAN88A	3JAN88A												
PROTOTYPE TEST	100	2MAY88A	2JUL89A												
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	100	3JUL89A	3JUL89A												
PLANNED PROTOTYPE TEST COMPLETE	0	4AUG89	3AUG89												
PLANNED ESF START (900)	0	2NOV92	2NOV92												
EXCAVATION EFFECTS (M90) -ESF EXCAVATION EFFECTS															
EXCAVATION EFFECTS GALA ASSIGNED	100	3OCT87A	3OCT87A												
TEST PLAN APPROVED	100	3FEB88A	3FEB88A												
PROTOTYPE TEST	0	1SEP89	1FEB90												
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	0	2FEB90	1FEB90												
PLANNED PROTOTYPE TEST COMPLETE	0	2MAR90	1MAR90												
PLANNED ESF START (900)	0	2NOV92	2NOV92												
BLAST EFFECTS (M4/M90) -ESF RADIAL BOREHOLE TEST															
BLAST EFFECTS TEST GALA ASSIGNED	100	3OCT87A	3OCT87A												
TEST PLAN APPROVED	100	3APR88A	3APR88A												
PROTOTYPE TEST	0	3AUG89	2FEB90												
PLANNED PROTOTYPE CONSTRUCTION COMPLETE	0	8FEB90	7FEB90												
PLANNED PROTOTYPE TEST COMPLETE	0	2MAR90	1MAR90												
PLANNED ESF START (900)	0	4FEB91	1FEB91												
AIR CORING/DUST HAZ. -ESF RADIAL BOREHOLE TEST															
AIR CORING/DUST HAZ. GALA ASSIGNED	100	4JUL86A	4JUL86A												
TEST PLAN APPROVED	100	23JUL86A	23JUL86A												
PROTOTYPE TEST	100	2MAR88A	15MAY88A												



ASSUMPTIONS:  
 PLANNED PROTOTYPE COMPLETION  
 DATE PENDING P.I. & TPO CONCURRENCE  
 ESF START DATE FOR TESTS BASED  
 ON SAIC ESF SUMMARY SCHEDULE  
 (THROUGH SHAFT CONNECTION REV. 6/30/89)

Activity Bar/Early Dates  
 Critical Activity  
 Progress Bar

LOS ALAMOS NATIONAL LABORATORY  
 PROTOTYPE ESF NTS TESTING SUMMARY  
 G-TUNNEL PROTOTYPE TESTING SCHEDULE

Project Start : 1JUL84  
 Project Finish: 30JUN95

Sheet 3 of 3

Data Date: 1AUG89  
 Plot Date: 31AUG89

Date	Revision	Checked	Approved
8/1/89	REVISION 1	K.B.	B.O.