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

Reply to:
1050 East Flamingo Road
Suite 319
Las Vegas, Nevada 89119
Tel: (702) 388-6125
FTS: 598-6125

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: December 6, 1989

SUBJECT: WEEKLY ACTIVITY REPORT, PROTOTYPE TESTING

Please find enclosed the above-referenced reports received in this office, i.e., week ending, October 29, November 5, 12, and 19, 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 - October 29, 1989

Participants:

Los Alamos - Manage and Integrate Prototype Testing and conduct tests.

Sandia National Laboratories - Manage the operations at G-Tunnel and perform tests.

U. S. Geological Survey (U. S. Bureau of Reclamation, and Lawrence Berkeley Laboratory) - Perform tests.

Lawrence Livermore National Laboratory - Perform tests.

Holmes and Narver - Provide surveying and other support.

Fenix and Scisson of Nevada - Provide plans, test networks, and cost estimates.

REECo - Provide mining equipment, perform drilling and mining, and provide support labor.

Pan Am - Provide photographic support.

Key Prototype Activities for the Reporting Period:

USGS

Blast Effects:

Demo Drift - U12G#K - This hole is located 195 feet from the beginning of the Demo Drift on the left rib. REECo personnel are mobilizing the LY 34 drill rig at this location, and collecting materials and equipment to commence drilling.

Excavation Effects:

Demo Drift - U12G-#Q - This hole is located 199 feet from the beginning of the Demo Drift on the left rib. NQ hole U12G-#Q was advanced 6.7 feet to a total depth of 30.0 feet. Core recovery was 88%, core was sealed in the lexan liner, logged, and boxed for shipment. The LY 34 drill rig was demobilized and moved to hole U12G-#K for mobilization at that location.

In-Situ Stress:

Blast Alcove - U12G-#C - This hole is located 15 feet from the start of the blast alcove on the left rib. The procedure for drilling this hole is as follows: 1) Using an EX closed bit, drill hole to total depth. 2) Log hole with borehole TV camera to determine fracture or rubble zones. 3) Using a 6 inch tricone bit, drill past rubble zones to stable rock. 4) Attach 6 inch overcore bit to drill steel, and overcore through competent rock to the next fracture or rubble zone. Overcoring commenced on hole U12G-#C. 6.7 feet of overcore was recovered to a depth of 34.2 feet. Core recovery was 100%, and the longest piece of core was 0.9 feet. The 6 inch tricone bit was installed, and .9 feet was drilled. The core barrel hung up at this depth, and the drillers are trying to retrieve it. Drilling should commence next week.

SNL

G-Tunnel Drifting:

Stubb Drift - This drift is located 7 feet from the beginning of the Demo Drift on the right rib. REECo personnel drilled and blasted an 8 foot round. Fifty-two 8 foot X 1-7/8 inch blast holes were drilled. Nineteen perimeter holes, and 33 production holes were drilled. 250 pounds of Iredyne (Ireco) powder was used, and the blast was initiated using non-el millisecond delays. Loading density for the holes was .60 pounds/foot. The round pulled 7 feet. A jackleg drill was used to drill out the round, and an ST LHD was used to muck the round. The drill-jumbo was not used due to oil leaks.

Total depth for the Stubb Drift is 24 feet from the centerline of the Demo Drift. REECo personnel are currently drilling holes for installation of rock bolts.

Demo #2 Drift - This drift is located 315 feet from the intersection of the EV-6 Drift on the right rib. Fifteen 1 1/8 inch X 10 feet and 12 1 1/8 inch X 10 feet resin rock bolts were installed on a 4 foot X 4 foot pattern. Eighty feet of wire mesh was used. The bolts were tested by using the sounding method, and all bolts passed. This completes excavation of this drift.

General Comments:

REECo personnel are continuing clean up of the yard for an environmental inspection.

Scheduled Activities:

1. Thermal Stress - start December 11, 1989.
2. Prototype Air Coring, Phase II - start January 2, 1990.

EXPENDITURES:

.Prototype Testing:	Work Days Remain 232		Expended 8 %	
.REECo:	Current Week-Prototype Testing	$ 17,848	Year to Date	$ 39,863
	Current Week-G-Tunnel Operation	$ 46,399	Year to Date	$160,223
.H&N:	Current Week-Prototype Testing	$ 1,180	Year to Date	$ 3,767
.F&S:	Current Week-Prototype Testing	$ 4,096	Year to Date	$ 15,356

WEEKLY ACTIVITY REPORT
PROTOTYPE TESTING
Week Ending - November 5, 1989

Participants:

Los Alamos - Manage and Integrate Prototype Testing and conduct tests.

Sandia National Laboratories - Manage the operations at G-Tunnel and perform tests.

U. S. Geological Survey (U. S. Bureau of Reclamation, and Lawrence Berkeley Laboratory) - Perform tests.

Lawrence Livermore National Laboratory - Perform tests.

Holmes and Narver - Provide surveying and other support.

Fenix and Scisson of Nevada - Provide plans, test networks, and cost estimates.

REECo - Provide mining equipment, perform drilling and mining, and provide support labor.

Pan Am - Provide photographic support.

Key Prototype Activities for the Reporting Period:

USGS

Blast Effects:

Due to USGS travel restrictions, there was no work accomplished on this test during this reporting period.

Excavation Effects:

Due to USGS travel restrictions, there was no work accomplished on this test during this reporting period.

In-situ Stress:

Blast Alcove - U12G-#C - This hole is located 15 feet from the start of the blast alcove on the left rib. The procedure for drilling this hole is as follows: 1) Using an EX closed bit, drill hole to total depth. 2) Log hole with borehole TV camera to determine fracture or rubble zones. 3) Using a 6 inch tricone bit, drill past rubble zones to stable rock. 4) Attach a 6 inch overcore bit to drill steel and overcore through competent rock to the next fracture or rubble zone. Six hours was spent retrieving the 6 inch core barrel at a 35.1 foot depth. The

tricone bit was used to open the hole 4.7 feet to a depth of 39.8 feet. The 6 inch overcore bit was attached and overcoring was accomplished for 1.4 feet to a depth of 41.2 feet. The tricone bit was reattached and the hole was opened 5.0 feet to a depth of 46.2 feet. The overcore bit was reattached and the hole cored 2.6 feet to a total depth of 48.8 feet. Core recovery was 100%. This completes drilling for this hole.

SNL

G-Tunnel Drifting:

Stubb Drift - This drift is located 7 feet from the beginning of the Demo Drift on the right rib. Twenty-two 8 feet X 1 inch fiber glass rock bolts were installed using resin in 1 5/8 diameter inch holes. No set rock bolt pattern was used. The bolts were tested with a hammer and all passed. The drill-jumbo is being used to drill a 9 foot blast round. Fifty-two 1 1/8 inch diameter blast holes were drilled, 19 perimeter holes, and 33 production holes. 250 pounds of Iredyne (Ireco) powder was used, and the blast was initiated using non-el millisecond delays. Loading density for the blast holes was .60 pounds/foot. The round pulled 8 feet. Total depth for the Stubb Drift is 32 feet from the centerline of the Demo Drift.

General Comments:

REECo personnel are continuing clean up of the yard for an environmental inspection.

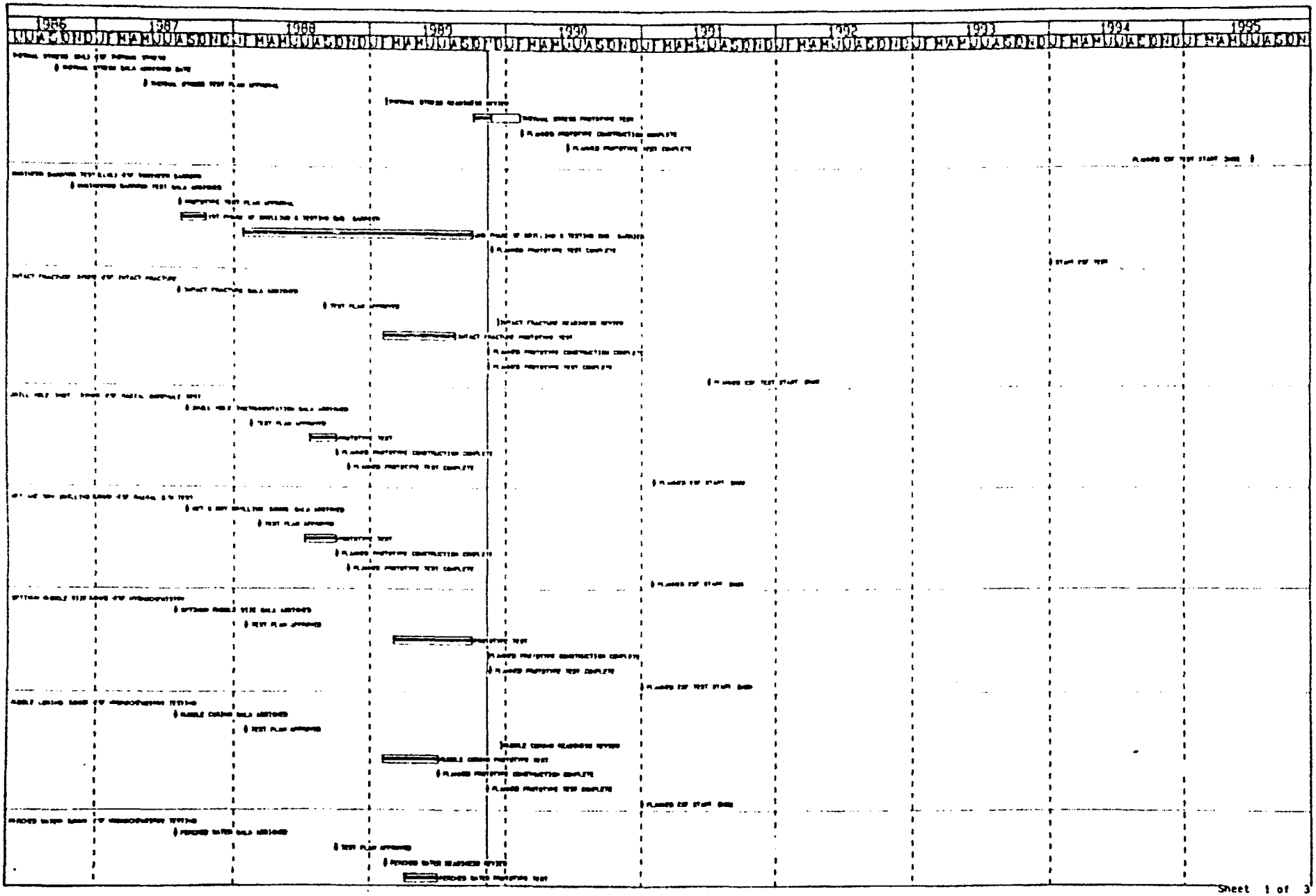
Scheduled Activities:

1. Thermal stress - start December 11, 1989.

2. Prototype Air Coring, Phase II - start January 2, 1989

EXPENDITURES:

.Prototype Testing:	Work Days Remain 227		Expended 10 %	
.REECo:	Current Week-Prototype Testing	$ 11,623	Year to Date	$ 85,247
	Current Week-G-Tunnel Operation	$ 31,894	Year to Date	$192,117
.H&N:	Current Week-Prototype Testing	$ 144	Year to Date	$ 3,911
.F&S:	Current Week-Prototype Testing	$ 4,232	Year to Date	$ 22,901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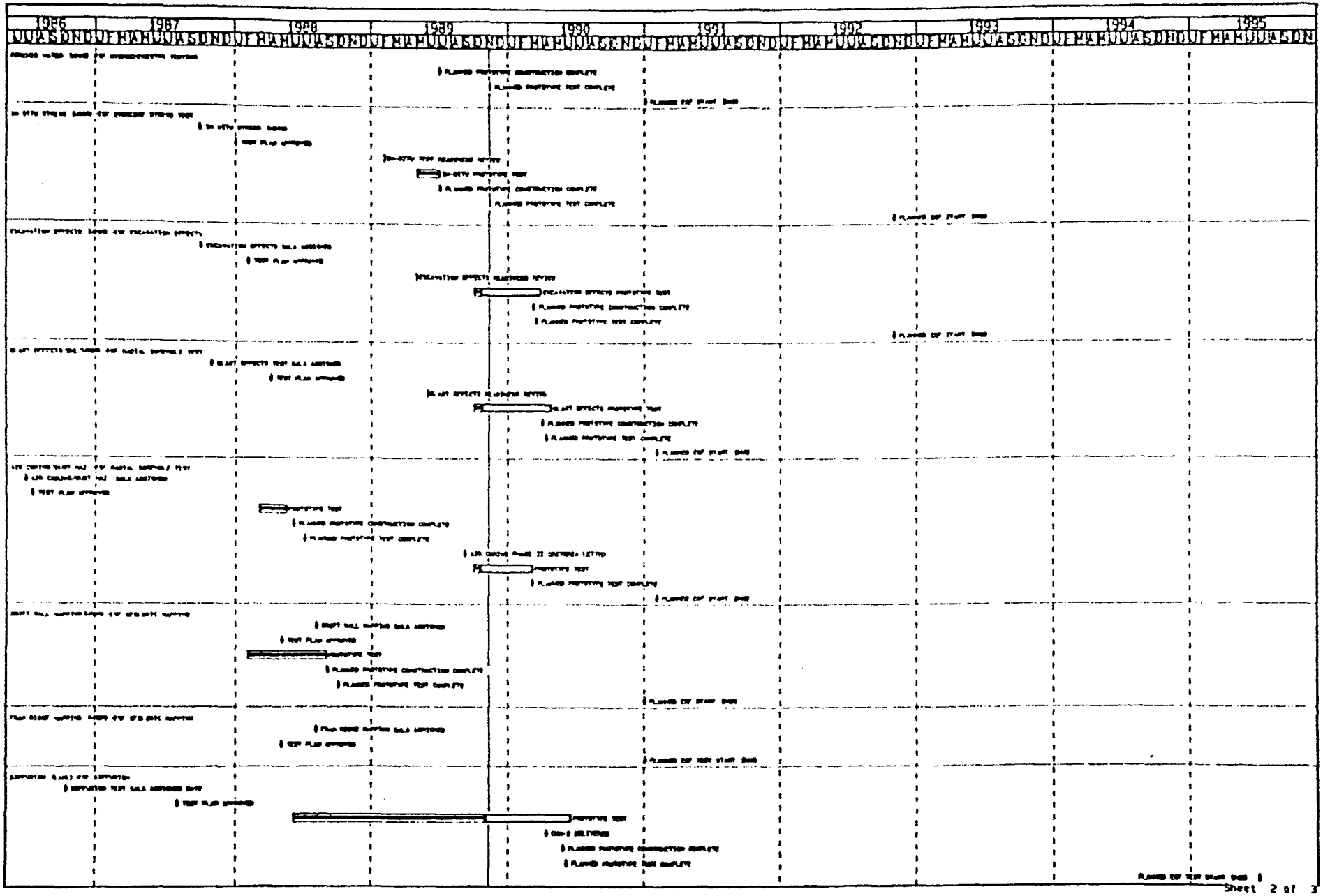
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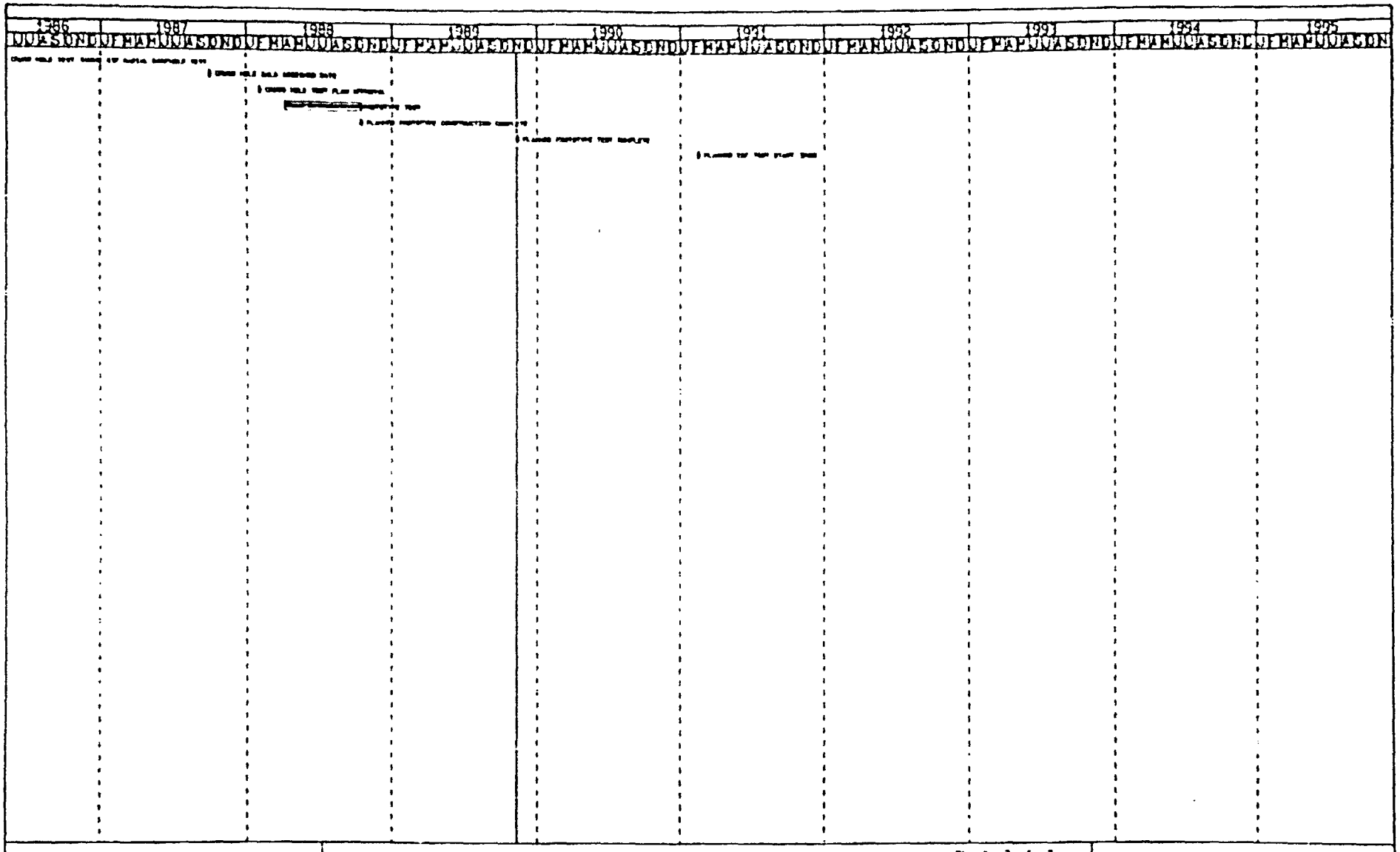
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Activity Bar/Early Dates
Critical Activity
Progress Bar
Primavera Systems Inc 1984-1988
LOS ALAMOS NATIONAL LABORATORY
PROTOTYPE ESF NTS TESTING SUMMARY
G-TUNNEL PROTOTYPE TESTING SCHEDULE
Sheet 3 of 3
Project Start 13JUN86
Project Finish 30JUN95
Data Date: 11NOV89
Plot Date: 27NOV89
Date
Revision
Checked
Approved

WEEKLY ACTIVITY REPORT
PROTOTYPE TESTING
Week Ending - November 12, 1989

Participants:

Los Alamos - Manage and Integrate Prototype Testing and conduct tests.

Sandia National Laboratories - Manage the operations at G-Tunnel and perform tests.

U. S. Geological Survey (U. S. Bureau of Reclamation, and Lawrence Berkeley Laboratory) - Perform tests.

Lawrence Livermore National Laboratory - Perform tests.

Holmes and Narver - Provide surveying and other support.

Fenix and Scisson of Nevada - Provide plans, test networks, and cost estimates.

REECo - Provide mining equipment, perform drilling and mining, and provide support labor.

Pan Am - Provide photographic support.

Key Prototype Activities for the Reporting Period:

USGS

Blast Effects:

Due to USGS travel restrictions, there was no work accomplished on this test during this reporting period.

Excavation Effects:

Due to USGS travel restrictions, there was no work accomplished on this test during this reporting period.

SNL

G-Tunnel Drifting:

Stubb Drift - This drift is located 7 feet from the beginning of the Demo Drift on the right rib. The round was mucked out using an Eimco 913 one yd^3 LHD. The shotcreting equipment was brought into the Demo Drift and

set up to shotcrete the Stubb Drift. Approximately 5 yd^3 of shotcrete was used. An average depth of 3 inches of shotcrete was applied to the ribs and back. Total depth for the Stubb Drift is 32 feet from the centerline of the Demo Drift.

General Comments:

REECo personnel are continuing clean up of the yard for an environmental inspection.

Scheduled Activities:

1. Thermal Stress - start December 11, 1989.
2. Prototype Air Coring, Phase II - start January 2, 1990.

EXPENDITURES:

.Prototype Testing:	Work Days Remain 223		Expended 12	%
.REECo:	Current Week-Prototype Testing	$ 3,472	Year to Date	$ 88,719
	Current Week-G-Tunnel Operation	$ 24,502	Year to Date	$216,619
.H&N:	Current Week-Prototype Testing	$ 1,592	Year to Date	$ 5,503
.F&S:	Current Week-Prototype Testing	$ 2,714	Year to Date	$ 25,615

WEEKLY ACTIVITY REPORT
PROTOTYPE TESTING
Week Ending - November 19, 1989

Participants:

Los Alamos - Manage and Integrate Prototype Testing and conduct tests.

Sandia National Laboratories - Manage the operations at G-Tunnel and perform tests.

U. S. Geological Survey (U. S. Bureau of Reclamation, and Lawrence Berkeley Laboratory) - Perform tests.

Lawrence Livermore National Laboratory - Perform tests.

Holmes and Narver - Provide surveying and other support.

Fenix and Scisson of Nevada - Provide plans, test networks, and cost estimates.

REECo - Provide mining equipment, perform drilling and mining, and provide support labor.

Pan Am - Provide photographic support.

Key Prototype Activities for the Reporting Period:

USGS

Blast Effects:

Due to USGS travel restrictions, there was no work accomplished on this test during this reporting period.

In-Situ Stress:

Blast Alcove-U12G-#D - This hole is located 19 feet from the start of the blast alcove on the left rib. Mobilization of the LY38 drill rig was completed, and drilling commenced on U12G-#D. Hole U12G#D will be dry drilled to NQ diameter, at a dip of 2 degrees. This 50 foot hole was cored to a depth of 3.3 feet. Core recovery was 100%, and was sealed in lexan liner, boxed, and prepared for shipment. Drilling will continue next week.

SNL

G-Tunnel Drifting:

Stubb Drift - This drift is located 7 feet from the beginning of the Demo Drift on the right rib. REECo miners are currently drilling an 8 foot blast round. Drilling is approximately 25% complete, and will continue next week.

General Comments:

1. REECo personnel are continuing clean up of the yard for an environmental inspection.

2. The tunnel was shut down November 15, 1989, due to a work lock-out.

3. The tunnel was closed November 16, 1989. REECo electricians replaced a transformer that had PCB in it.

Scheduled Activities:

1. Thermal Stress - start December 11, 1989.
2. Prototype Air Coring, Phase II - start January 2, 1990.

EXPENDITURES:

.Prototype Testing:	Work Days Remain 218		Expended 15 %	
.REECo:	Current Week-Prototype Testing	$ 2,290	Year to Date	$ 91,009
	Current Week-G-Tunnel Operation	$ 31,125	Year to Date	$247,744
.H&N:	Current Week-Prototype Testing	$ 3,740	Year to Date	$ 9,243
.F&S:	Current Week-Prototype Testing	$ 3,394	Year to Date	$ 29,009