

Phoenix National Laboratories, Inc.
 2837 E. Chambers Street, Phoenix, AZ 85040
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CLIENT		PROJECT		CLIENT ORDER NO.
Proglass		Proof Load Testing		JD4722
MATERIAL DESCRIPTION	PNL PROJECT NO.	SERVICE ORDER NO	PNL LAB NO.	
37" x 60" Trench Cover	26-209037	005	ML808745	
MATERIAL SUBMITTED BY		DATE SUBMITTED	REPORT DATE	
Proglass		07/01/2009	07/02/2009	
SPECIFICATION	QUALITY REQUIREMENTS	PART NO.	#TESTED IN LOT	
AASHTO M306-7	40,000 Proof Load	HT 6037	1	

TEST SAMPLE DESCRIPTION

Foam filled (FRP) stiffeners running across the 37" direction, extra layer of fiberglass over stiffener

TEST PROCEDURE/DESCRIPTION

The Trench Cover and test frame was set up in the universal press. A 9 in. X 9 in. pad and steel plates were placed on the center of the trench cover. Potentiometers were used to measure displacement on opposite sides of the 9 in. X 9 in. loading area (See Photographs below). Once the test setup was complete, data acquisition was started and the vertical load was applied to the 9 in. X 9 in. area at the center of the cover (See Photographs below). Time, displacement, and load were recorded during the test.

Following client instruction, the cover was loaded to 16,000 lbs and held for 2 minutes then load was increased by 5000 lb increments to a final load of 40,000 lbs. The load was held for a few seconds at each increment to observe any sounds of cracking or other indications of failure. The load at 40,000 lbs was held for a minimum of 3 minutes. The load was removed and the trench cover was removed from the test apparatus.

TEST RESULTS

SPECIMEN NO.	TEST LOAD (lbs)	DURATION (min)	MAX LOAD (lbs)	OBSERVATIONS	REQUIREMENT	RESULTS
1	40000	3	47316	No visible failures were found during or after test.	No cracks. No permanent deformation exceeding 1/8 in.	PASS

REMARKS:



Alexander Zuran III
 Expires 09/30/2010

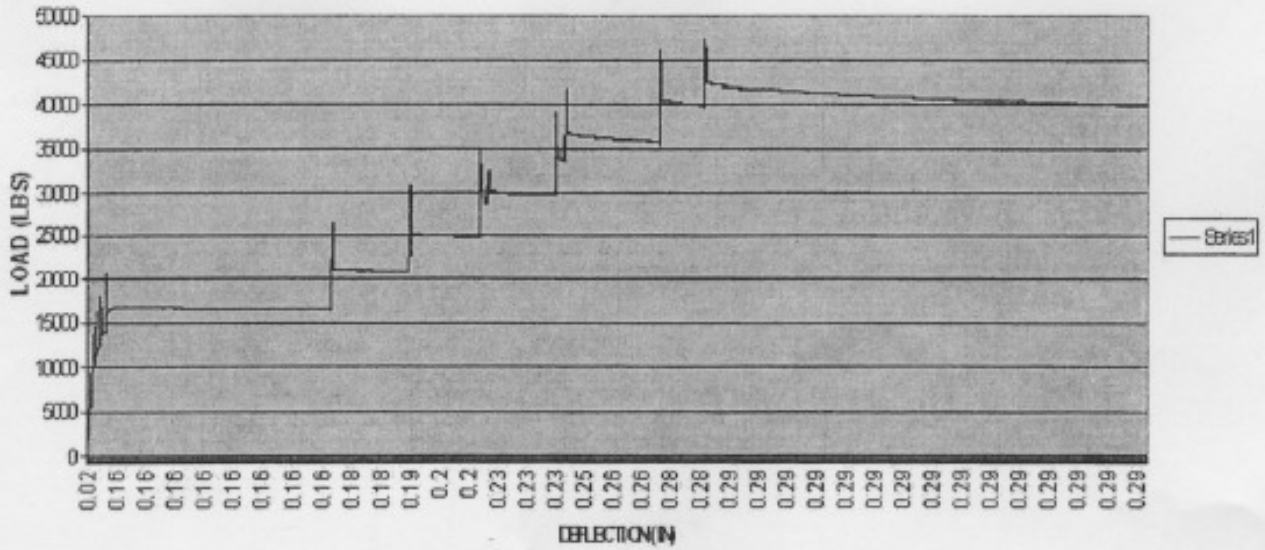
PNL warrants that the above services and report were performed under the appropriate standard of care, including the skill and judgment that is reasonably expected from similarly situated technical personnel. No other warranty, guaranty, or representation, either expressed or implied is included or intended.

REVIEWED BY Alex Zuran

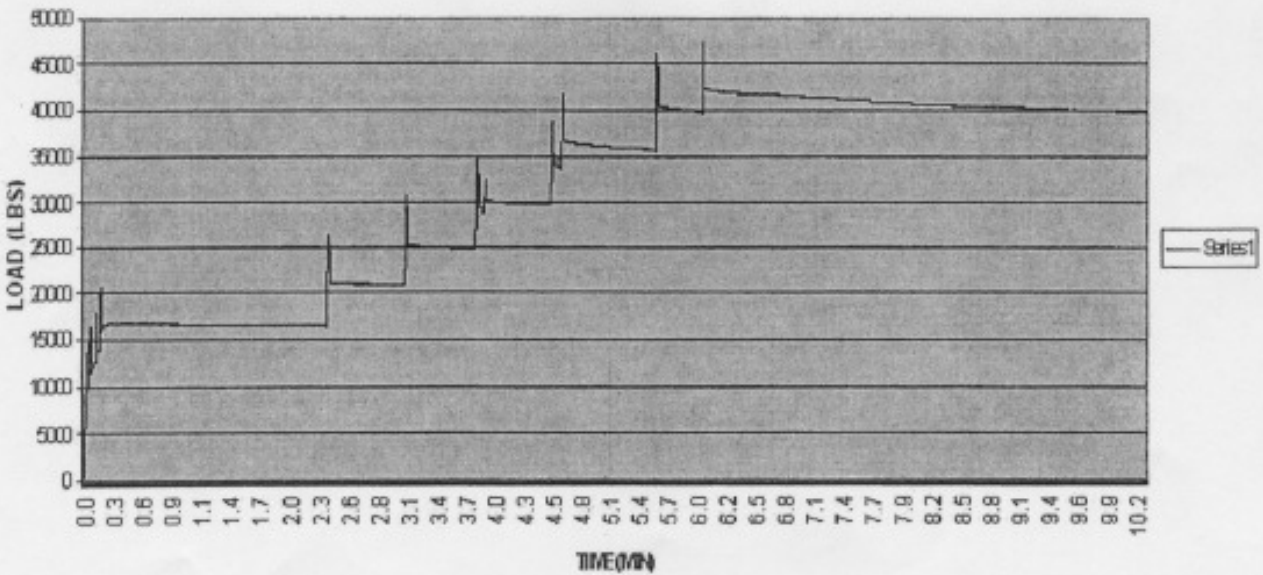


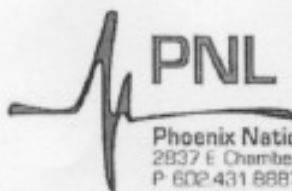
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Load vs Deflection



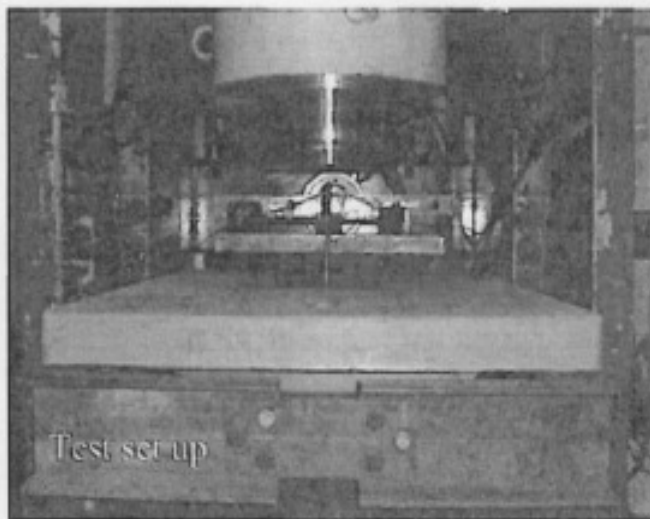
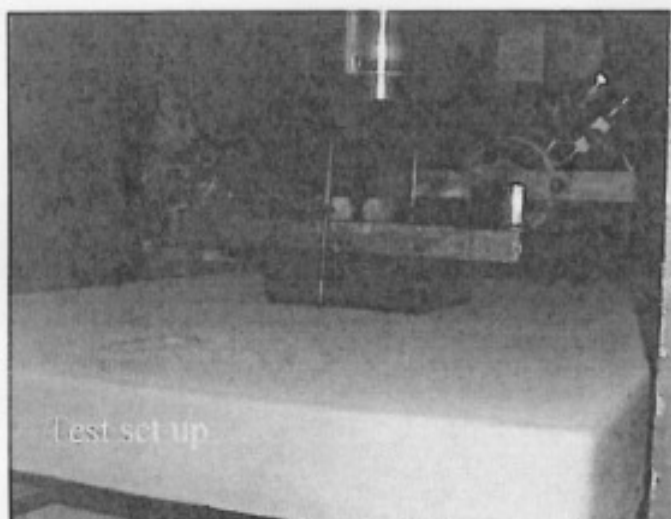
Load vs Time





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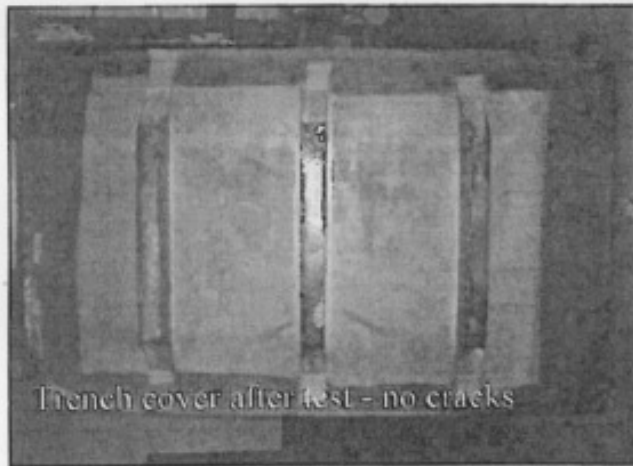
PHOTOGRAPHS:





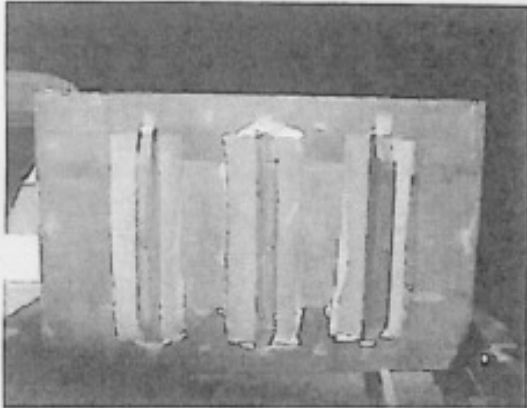
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PHOTOGRAPHS:





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Original design: Stiffener material not continuous across part



Latest version: stiffener material is continuous across part

