

June 5, 2006

Innovative Concrete Solutions PMB 352, 3600 Dallas Hwy. Suite 230, Marietta, GA 30064 Phone:(770)355-8659

Subject:Report of Concrete Testing with Lube 100TEC Services Project No.: TEC 06-0569

Dear Mr. Barrett:

Testing, Engineering and Consulting, Inc. (TEC Services) is pleased to present this report on the concrete testing performed on the concrete pumping agent submitted to TEC Services on May 1, 2006. TEC Services prepared concrete batches in our laboratory. Nine cylinders and two beams were made from each concrete batch in accordance with ASTM C 192-05 *Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory*.

One of the mixtures was dosed with your pumping agent (Lube 100) and one mixture was a control. The Lube 100 was mixed at a ratio of 1.75 fl. oz : 5 gallons of water . The mixture was then added to the concrete mix at a dosage of 0.7 oz/100 lbs of cement (4 oz. per cubic yard of concrete). The control mix did not contain any Lube 100. Three concrete 4x8 cylinders were made from each concrete mixture for 3-day, 7-day, and 28-day compressive strength testing and two concrete beams were made for 28-day flexural strength testing.

Test Procedures

•	ASTM C143-05	Standard Test Method for Slump of Hydraulic-Cement Concrete
•	ASTM C 231-04	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
•	ASTM C138-01	Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
•	ASTM C 39-04	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
•	ASTM C 78-02	Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third Point Loading)

TEC Services Project Name: Innovative Concrete Solutions TEC Services Project No.: TEC 06 - 0569

Material	Control	Lube 100
Cement factor (lbs/yd ³)	564	564
Water (lbs/yd ³)	298.4	298.4
Water-cement ratio	0.529	0.529
Coarse aggregate (lbs/yd ³)	1750	1750
Fine aggregate (lbs/yd ³)	1204	1204
Air Entraining Agent (oz/cwt)	0.45	0.45
Slump (in.)	7	7
Air content (%)	5.0	5.7
Density (lb/ft ³)	139.8	139.4

Table 1. Mixture proportions and fresh concrete properties.

Table 2. Test results of hardened concrete.

Testing Performed	Control	Lube 100		
Compressive strength (psi)				
3 days	2570	2560		
14 days	3290	3260		
28 days	4530	4680		
Flexural strength (psi)				
28 days	595	620		

We appreciate the opportunity to provide our services to you on this project. Please contact us at 770-995-8000 if you have any questions regarding this report or if we may be **of** further service.

Sincerely,

Testing, Engineering and Consulting Services, Inc.

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Shawn P. M^eCormick Laboratory Manager

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Kevin M^eCray Senior Technician