



July 31, 2012

Mr. Colin Durante
 President
 Pavement Technology, Inc.
 24144 Detroit Road
 Westlake, OH 44145

**Re.: Final Treated Cores from NC 903 and I-40
 Duplin, Pender and New Hanover Counties, NC
 Trimat Project # 12-520**

Mr. Durante,

As per your request Trimat Materials Testing, Inc. (Trimat) has revisited the roadways described above and have extracted asphalt cores for post treatment laboratory testing. These cores represent the treated sections of NC 903 and I-40. A total of 17 cores were taken for laboratory testing; 10 cores from I-40 for post treatment rejuvenation testing and seven cores from NC 903 for mixture evaluation testing.

I-40 Core Results

The 10 post treatment cores were returned to our lab, then the top 3/8 inch saw cut and removed from each, then each set of two were combined for extraction and recovery testing. Extraction and recovery testing was performed as per ASTM D1856 and D5404, respectively. Once the asphalt binder was recovered, it was tested for viscosity as per AASHTO Test Method T315. The results along with the original pretreated results and percent improvement are presented in Table 1 below.

Table 1 - Core Results for Pre and Post Treatment

Test	Sample Number and Location				
	3374	3375	3376	3377	3378
	MM 418 W	MM 418E	MM 411 In	MM 411 Out	MM 409
<i>Pre-Treatment</i>					
Complex Modulus, 60C, G* (kPa)	230.0	209.0	283.0	294.0	257.0
Viscosity, 60C, (Pa-s)	230000	209000	283000	294000	257000
Phase Angle, 60C (degrees)	60.6	60.8	58.3	59.9	59.6
<i>Post-Treatment</i>					
Complex Modulus, 60C, G* (kPa)	227.0	125.0	160.0	174.0	162.0
Viscosity, 60C, (Pa-s)	227000	125000	160000	174000	162000
Phase Angle, 60C (degrees)	57.6	57.5	59.7	58.1	58.6
Percent Reduction	1%	40%	43%	41%	37%

