Mack Surveillance Panel

Thursday March 5, 2013 2:00 p.m. – 3:00 p.m. Eastern Time Dial-in number: 877-344-4239 Passcode: 274612#

Mack Surveillance Panel Meeting Notes

The teleconference convened at 10:30 a.m. Eastern time, with Mark Cooper as Surveillance Panel Chair.

Membership / Attendance

Jim Moritz, Jim Matasic, Allison Rajakumar, Christian Porter, Sean Moyer, Elisa Santos, Jim Gutzwiller, Addison Schweitzer, Scott Richards, Mark Cooper, Jim Rutherford, Mark Sutherland, Zack Bishop, Jim Carter, Greg Shank, and Chris Cauley.

Results of the Mack T-11 Reference Tests on 'Tweaked' Oil 822 Group

A statistical comparison of the data from the industry references on reference oil 822 and 822-1 were compiled by Elisa Santos and Jim Rutherford. Elisa Santos began with her presentation. She first presented historical data from reference oil 820-3 and contended that the Severity Adjustments appeared to have been working properly. The latest blend (822-1), however, showed the highest variability. Next, Elisa displayed soot with Severity Adjustment by industry test lab where all but Lab B showed a significant drop with reference oil 822-1. A comparison between reference oils 822 and 822-1 for viscosity at 100°C versus test hours displayed that reference oil 822-1 seemed to be more variable with or without Severity Adjustments. Elisa concluded that there appeared to be a lab effect.

Following Elisa's presentation, Jim Rutherford went through his analysis utilizing an EWMA (Exponential Weighted Moving Average). Jim pointed out that most of the completed references on reference oil 820-3 achieved greater than 15 cSts. that reference oil 822 one out of four tests reached 15 cSts, and that reference oil 822-1 all four tests reached 15 cSts. Jim stated that reference oil 822 seemed to have more variability than reference oil 820-3, but stressed that reference oil 822-1 definitely had more variability. Jim concluded that reference oil 822-1 solved the issue of 822 but with more variability.

Jim Matasic stated that there has been no evidence to show that the variability of the results were driven from an operational standpoint. He further mentioned that nothing from Afton's invalid reference test was operated outside the procedure. Jim Rutherford reiterated that the purpose of this reference test was to verify the reference oil targets prior to the hardware change. Scott Richards guestioned if we were to set targets based upon the current data on reference oil 822-1 what would the standard deviations be? Scott then suggested widening the window and shortening the reference interval. Jim Rutherford agreed to calculate the targets with Severity Adjustments.

Mark Cooper

Soot @ 4 cSts	3.99 (Standard Deviation 0.21)
Soot @ 12 cSts	5.65 (Standard Deviation 0.54)
Soot @ 15 cSts	6.35 (Standard Deviation 0.66)
MRV	14408 (Standard Deviation 314)

Mark Cooper, supported by Greg Shank, requested that the Panel used these targets.

Action Item:

Jim Rutherford agreed to submit the targets with Severity Adjustments to the Mack Surveillance Panel via Table.

Action Item:

Allison Rajakumar agreed to verify Jim Rutherford's calculations on the targets with Severity Adjustments and respond to the Mack Surveillance Panel.

Action Item:

Sean Moyer agreed to review the raw data utilized by Jim Rutherford to calculate the targets with Severity adjustments was correct.

Motion

Mark Cooper initiated a motion that the reference tests on reference oil 822-1 be deemed acceptable and that TMC will then assign the industry test labs Severity Adjustments.

Scott Richards seconded the motion.

All For None Opposed TEI and TMC Waive

*Note: The motion will go into effect (3/5/2013) due to non controversial meeting discussion. Information letter will be issued by TMC in the near future.

The next reference on reference oil 822-1 with existing hardware will have a deadline set by May 1st. At some fixed interval, Jim Moritz stressed that targets will need to be re-calculated. Scott and Jim decided at every new data point the targets will be re-calculated.

Status and Availability of Mack T-12 and T-11 Tests

Mark Cooper

Group

Old Business / New Business

Mark Sutherland of TEI discussed the data that was received from all industry test labs except for one pertaining to the injector labeling. The Mack T-11 injector tip was labeled 5358 while the Mack T-12 1868. The discrepancy that was noticed was the labeling of the injector body. Mark submitted all of his findings to Greg Shank of Mack.

Motion

Scott Richards initiated a motion to declare injectors a critical part on the Mack T-8, T-10, T-11, and T-12 that Mack and TEI will verify via supplier that every industry test lab receives the correct injector.

Greg Shank seconded the motion.

All For None Opposed TEI and TMC Waive

Next Meeting

Mark Cooper

The next proposed Mack Surveillance Panel Meeting is to be determined.

Meeting Adjourned at 3:28 p.m. Eastern time.