

## Jeff Clark

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**From:** Jeff Clark  
**Sent:** Friday, September 10, 2010 11:00 AM  
**To:** Abi-Akar, Hind; Bishop, Zack; Doyle.Boese@Infineum.com; Bond, Stacy; Buck, Ron; Budd, Arnel; Buscher, Bill; Campbell, Bob; Carabell, Kevin (kedc) (KCarabell); bradley.carter@intertek.com; Castanien, Chris; Jeff Clark; Conti, Riccardo; Devlin, Cathy; Fetterman, Pat; Franklin, Joe (Intertek); Goshorn, Ken; Rich Grundza; Gutzwiller, Jim; Haeglin, John (Intertek); Hamilton, Jesse; Johnson, Ryan; Jones, Ron; Kennedy, Steve; Kersey, Victor; Larch, Bill; Lu, WenTong; Matasic, Jim; McGeehan, James; Menasco, Michael (ENAS); Miiller, Greg; Minotti, Michael; Moritz, Jim (Intertek); Nann, Norbert; Parsons, Gary (GMPA); Passut, Charlie; Patrick, Dick; Polley, Kris; Pridemore, Dan; Rajakumar, Allison; Richards, Scott M. (srichards) (SwRI); Rutherford, Jim (JARU); Selby, Keith; Shank, Greg; Sztenderowicz, Mark; Urbanak, Matt; Van Dam, Wim (WVDA); Weber, Ben; Wingfield, Tom M; Xie, JingChun  
**Subject:** Mack SP Teleconference Minutes - Sept. 9, 2010

Many thanks to Andy Ritchie for taking the meeting minutes!!

September 9th 2010 Mack Surveillance Panel Call

On call:

Z. Bishop - TEI  
A Ritchie/P. Fetterman/D Boese - Infineum  
J Clark/R. Grundza - TMC  
B. Campbell - Afton  
J. Matasic - LZ  
M. Cooper - Oronite  
G. Shank/K. Goshorn - VolvoMack  
B. Carter/J. Moritz - IAR  
R. Conti - ExxonMobil  
S. Richards - SwRI  
W. Petersen/J. Carter - Haltermann  
T. Wingfield - ChevronPhillips

T-11 fuels runs to resolve severity:

1) Haltermann fuel test results were mild but still hit all of the soot and viscosity windows and directionally better than recent results. Fuel is similar to fuel batch from several years ago and meets the PC-9 specification. Fuel could be made long term.

Haltermann offered to blend and supply the labs with a new test fuel which they believe will be more severe but still meet the PC-9 fuel specifications.

2) Chevron Philips test results were slightly severe of target. Fuel blend recipe was adjusted to ensure a response was seen and may explain why the results were more severe than the original test. The fuel missed the PC-9 fuel specification in regard to 3 parameters and further test batches could make smaller adjustments, meet the PC-9 specification and presumably dial the severity back. Fuel changes which were made appear to be consistent with declining trend of certain fuel properties over many years which are presumably associated with the mild severity shift over a period of time. Questions were raised about where we wanted to set the future severity for the T-11 and how much of adjustment should be made to the fuel which was tested here. Concerns were expressed about the impact of changing the fuel on other engine tests which use the PC-9 fuel. Sulfur component has been secured for the next 4 years and a consistent secure supply of fuel can be supplied. New fuel batch could be made in less than a week and at least one lab is ready to run a test on this.

ChevronPhilips will check with their management to see if a new batch of fuel can be provided for further T11 testing. Question of staggering test starts on a further fuel batch was considered. First test could run through to soot 12cSt window before starting

further tests.

MOTION: Proceed with a new fuel batch from Chevron Phillips which meets the PC-9 fuel specification and targets the same test severity as the previous test results. Objective is to start 2 T-11 tests as soon as possible.

Proposed: G Shank (VolvoMack), Second: P.Fetterman (Infineum)

VOTE: 8 FOR, 0 AGAINST, 2 WAIVE

Hardware and reference oil batches for these tests will be selected offline. ChevronPhillips should blend enough fuel for 5 T-11 tests.

Panel requested ChevronPhillips to provide information on future fuel cost and potential size of future fuel batches with respect to economics and shelf life for 9/22/10 meeting.

T-12 references with new hardware:

Limited data shows significantly higher oil consumption with T batch rings. SP group does not want to progress with these rings but it is unlikely that a new batch of plasma coated rings could be made. New batch of rings could be made with a different face coating. VolvoMack will check this with the ring supplier to see if there is any possibility that a new batch of rings could be made. The impact of ring porosity on oil consumption was discussed at length. Many felt that the effect of ring property on oil consumption extended beyond this one parameter and that a set of measurements should be made on the different batches of rings.

Next call; Thursday September 16th 9.30 Eastern - Call in number will be provided

Respectfully Submitted,  
Andy Ritchie