DD13 Surveillance Panel Teleconference Meeting July 29, 2016 1:00 p.m. EDT Meeting Minutes

Attendance:

Intertek – Jim Moritz, Jacob Goodale SwRI – Jim McCord, Jose Starling, Travis Kostan Lubrizol – Patrick Joyce Oronite – Mark Cooper , Jim Rutherford Infineum – Elisa Santos, David Brass TEI – Mark Sutherland TMC – Sean Moyer Daimler – Suzanne Neal

Agenda:

- Approval of minutes (Surveillance Panel)
- o Reports
- Parts Update (Mark Sutherland)
- Fuel Update (Mark Cooper)
- Unfinished Business
- o New Ring Stats Analysis (Jim Rutherford)
- New Business
- Future Build Oil (Suzanne Neal)
- Set next meet date/time

Approval of minutes (Surveillance Panel) - Minutes of last meeting were approved

Reports - All labs about a week out from finalizing their report generation system and will then be able to start submitting reference data for runs completed. This should facilitate data mining thru LTMS.

The question was asked if the group could be flagged by TMC when new reference data is available. It was agreed that the best method would be to review the reference data once new data from each lab is available.

Parts Update (Mark Sutherland) – Some liners recently measured by TEI have been found to have a higher roughness value than typical. Daimler is to gather this data from TEI and compare with the precision matrix liner data. Conclusions on this will be brought to the SP.

TEI mentioned that the large batch of pistons has been delayed about a month due to an issue with getting rings out of Europe. At the moment the earliest they expect to have these piston assemblies (piston, second ring, oil control ring, wrist clips) available is the last week in August.

TEI is currently running short on kits with approximately 6 kits remaining at TEI (Limiting factor being the delay in the piston assembly). Labs still have an internal stock that they should be able to work with during this time period.

Fuel Update (Mark Cooper) - Mark has a meeting with Mike Lochte of SwRI and TGC will be participating to discuss some of the language related to alternative suppliers (which is an issue across all SP's). Mark will have more information available after this meeting and will update the group on his findings in the next meeting.

New Ring Stats Analysis (Jim Rutherford) – The recent reference runs by each of the labs on the batch B rings was compared to the precision matrix data by Jim Rutherford (The slides are attached).

The results were separated by oil C, oil X and B ring tests (1st slide) and hours to scuff compared. A "histogram" of the data with the number of runs separated by same selections as above with hours to scuff on the X axis was shown on slide two(not to scale). All batch B tests scuffed at 31 hours.

<u>Conclusion</u>: No evidence that batch B rings are any different than batch A at least with the data from these three tests.

The motion was made to approve batch B rings with the stipulation that labs run batch A rings first if they are in their inventory for candidate tests and that the taskforce will review data after each of the labs has completed another reference. The batch B rings must be used on the next reference from each lab. (Motion: Patrick Joyce, Second: Jacob Goodale). The motion passed unanimously.

TEI still has batch A rings available (about 7 sets) that were held back in case the batch B rings did not go thru according to Mark. The discussion was that these are to be held by TEI and no future references should be run on batch A rings.

New pistons will be a rolling change and will not be required to be brought in on a reference since they are from the same source and pistons were not previously batched.

New Business - None at this time.

Future Build Oil (Suzanne Neal) - Detroit branded oil will change to a CK-4 formulation in the near future. The reference oil was suggested as the future build oil, however this would cause issues with TMC among other factors. Also the comment was made that on other test types the build oil formulation may change over time but will still be used as specified in the procedure. Suzanne will get with Greg on these new comments and get back to the SP on the next meeting or email out with a decision on what build oil to use. At the moment the build oil is still

available in the current formulation and labs could add additional inventory to their stock if necessary.

Set next meet date/time – Next meeting will be based on Suzanne's update regarding build oil and also pending on further information regarding parts delay from Mark Sutherland.