

October 7, 2016

**Caterpillar Surveillance Panel
COAT Task Force Teleconference Minutes**

Teleconference Attendees:

Jim Gutzwiller (Chairman), Caroline Laufer, Elisa Santos, Bob Salgueiro, – Infineum
Jim McCord, Jim Carroll (Secretary) – SwRI
Hind Abi-Akar – CAT
Greg Miranda, Kevin O'Malley, Andrew Stephens, Alex Ebner, Phil Scinto – Lubrizol
Jeff Clark – TMC
Mark Cooper – Chevron Oronite
Tim Griffin, Stacy Bond – Intertek
Bob Campbell, Christian Porter – Afton
Jim Rutherford – Chevron
Jason Bowden – Bowden
Barb Goodrich – John Deere
Dan Lanctot - TEI

AGENDA

COAT

• **MicroMotion**

No discussion

• **Proposed change to Reference Test Numbering (attached note from Sean Moyer)**

No discussion

• **1R1808 Oil Filters**

Caroline Laufer gave an update on the on filter analysis performed at Infineum. (see attached presentation) She noted that the open surface areas between the two filters were quite different. A hypothesis is that the smaller holes make smaller bubbles which tend to stay entrained in the oil, and larger bubbles will rise to the surface in the sump more quickly.

Hind Abi-Akar noted that the filter material was changed toward the end of 2015. She has a couple of pallets (150 filters) set aside for the laboratories.

Panel discussed how to mark the batch of set aside filters. For the current batch CAT can stamp the shrink wrap. For later batches specific 'artwork' could be stamped directly on the filter to denote COAT test usage.

Q. What will the filters cost, how do the labs access them, and where will they be stored?

A. This batch will be free to the laboratories. There is a need to accommodate the current labs as they need filters, and allow for the possibility of a 4th lab in the future. Exact timing and split of this batch shipment was tabled for a later discussion. The filters are to be shipped to TEI.

Q. How long will it take to grab the next batch of filters?

A. About two weeks once need is identified.

Q. What is the plan to validate the new and future batches?

A. Will need to use reference oils, but wait until statistical study of filters is complete to finalize the plan.

Post conference note: TEI has received the pallets of filters from CAT.

CAT 1N

• TGF Severity Shift

Phil Scinto gave a presentation on the severity shift. Mr. Scinto's attached presentation discusses the problem in detail and suggested possible solutions and suggestions.

Greg Miranda proposed another option during discussion: To declare the test out of control, and get a new batch of liners.

Hind Abi-Akar asked for parts to be sent back to find if anything had changed.

Jim McCord agreed to send parts.

Phil Scinto stated that the TGF mean is statistically different.

Elisa Santos showed a chart with the TGF over time, and questioned whether the trend is valid. There was much discussion over whether the trend is real.

Hind Abi-Akar asked what to do now.

Ms. Santos replied we need to compare parts.

Andrew noted that Lab B's shakedown runs gave the same results and stated there is a difference running the 811 reference over all.

There was a question whether fuel batches had changed. Jim McCord stated that T8's had a fuel batch change on March 1, 2015 but does not know if it affects the 1N. Jim said his lab would run a reference soon with newer parts.

Hind Abi-Akar said she would check with the suppliers of the liners, rings, and piston, and analyze the parts sent by the labs.

Jim Gutzwiller noted that the undercrown of the piston shows the foundry date code, and the top of the piston shows the machining date. He will also ask Sean Moyer if there is any other data available.

Discussion was tabled without any resolutions.