

July 15, 2016

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

Teleconference Attendees:

Jim Gutzwiller (Chairman), Caroline Laufer, Elisa Santos – Infineum

Jim Carroll (Secretary), Jim McCord, Randy Harmon – SwRI

Hind Abi-Akar – CAT

Greg Miranda, Kevin O'Mally – Lubrizol

Sean Moyer – TMC

Mark Cooper – Chevron Oronite

Jim Moritz, Tim Griffin – Intertek

Bob Campbell – Afton

Jim Rutherford – Chevron

AGENDA

CAT 1R-1808 Filters

Caterpillar is investigating if any changes were made to the 1R-1808 filters in 2015. They requested that laboratories keep all their used filters until further notice.

InterTek and SwRI showed charts of COAT test results from some of their reference tests. It was apparent to all that the profiles and final aeration results could be quite different with identical reference oils. These charts are attached.

The panel discussed the need for a statistical analysis of the COAT final aeration results and the profile of aeration over the 50 hour test. The attached file from Infineum (MM and Filter Data Collection) suggested the starting point of the data to be requested from the laboratories and Emerson.

Comments were discussed regarding the lack of determination of the root cause of the changes seen between two filters at Lubrizol. The pressure in the gallery also differed between the two filters. Elisa Santos is planning to design an experiment once the data analysis is completed to separate causes of variability.

The question came up 'What is the validation plan for new filters?' This was not answered but Lubrizol offered to run filter validations in their lab.

Tim Griffin suggested that a correction factor could be assigned if there was a production wide change after a certain date. In that case filter usage would need to be coordinated, and a correction factor could be implemented for any changes to final aeration results.

CAT has set aside one pallet of 144 filters for COAT tests. It was suggested that many more pallets may need to be set aside in the future.

The question came up 'How do we choose the right filter? Wait for CAT's internal review.

SwRI requested that TMC donate a reference oil once experimentation is completed in order to assess the need for a Correction Factor. SwRI would run the test(s) gratis.

The question came up 'What do we do now to protect candidates? Nothing, since we do not know enough yet.

All on the conference agreed that a face-to-face meeting will be required to resolve both the filter and Micromotion calibration issues. A September time-frame is envisioned.

Elisa Santos was charged with setting up another conference call between herself and the laboratories to discuss data collection. This is now scheduled for 7-22-16 at 10am CDT.