

**March 22, 2017**

## **Caterpillar Surveillance Panel Teleconference Minutes**

Teleconference Attendees:

Jim Gutzwiller (Chairman), Caroline Laufer, Elisa Santos, Bob Salgueiro– Infineum  
Jim McCord, Jim Carroll (Secretary) – SwRI  
Hind Abi-Akar, Mark Jarrett – Caterpillar  
Kevin O'Malley, Alex Ebner, Andrew Stevens– Lubrizol  
Sean Moyer – TMC  
Jim Moritz, Tim Griffin – Intertek  
Christian Porter – Afton  
Jim Rutherford, Mark Cooper – Chevron-Oronite  
Jason Bowden – OH Technology  
Barb Goodrich – John Deere  
Dan Lanctot - TEI

### **Review Micromotion Calibration Data and Procedure**

Hind presented an overview of the work done by the three laboratories for the last 2.5 months. Mark Jarrett presented the data from the calibration procedure prove out tests performed at SwRI, Lubrizol, and Intertek.

Action item: Definition of the new calibration parameters to include in LTMS.

Q: Would we use Tim's earlier test be part of this?

Need to get details from Tim before answering.

Wasn't done to high temperatures.

Note: Output range from the Micromotion Sensor was changed by the Density Calibration working group from 0-2 g/cc to 0-1 g/cc.

McCord regarding the filter test matrix plan: Why run a level 2 check at 2 tests?

Since we are running 2 tests, with a CF it may not actually set a level 2 alarm.

A: The third test is contingent on the labs not having a shift in the same direction. Plan to run two tests then wait until the other labs have run to see if a third test is warranted.

Hind: There are two steps needing approval. The new density calibration procedure and the filter test matrix.

Motion 1 by Hind: Motion to approve the new density calibration procedure.

Seconded by Jim Moritz.

JimG: Should this go into the procedure or as a supplement?

Sean: Recommend putting it into the procedure.

Hind: It is an integral part of the whole test.

Sean: It (the procedure) will take some time to put it into ASTM language.

Recommendation: Change line 2 to say standard oils will be current reference oils.

Comment: Need to include a requirement to have Emerson calibrate flow and density every two years.

Response: That should be a separate motion. Flow is done as standard practice at the labs so calibration timing and methodology is up for further discussion and should be discussed later.

The panel corrected some wording in the draft procedure. (See attachment)

The panel decided to include procedural language in the body of the procedure, then put examples in a separate reference document, or as an addendum.

**Motion 1: Move to accept the density calibration procedure as provided, with ASTM editorial changes to be implemented prior to sending out the information letter.**

**Any opposed? No**

**Any waives? No**

**Motion 1 carried.**

Q: Do we allow the labs to run flow calibrations?

Hind: I thought we had a problem with pulling the Micromotion sensor.

Tim: Flow is not as critical as the other parts so it doesn't need to be done as often. Two years is OK.

How often do we do it?

Hind: Is this related to the proposal for filters? Let the small group discuss this.

Alex made a motion: Add the FDM (Flow Density meter) calibration to the fuel calibration section 8.3.2.2 and change the heading appropriately.

Alex retracted his motion about the flow measurement for the time being.

There was more discussion about the flow calibration.

Decided to have a small group meeting next week.

Hind stated she will report today's work discussion next Tuesday at ASTM. Are we at the point to proceed?

**Jim Gutzwiller made the motion (Motion 2) to: Start reference tests per the proposed matrix using Batch A filters.**

**Seconded by Jim McCord.**

**There was a short discussion**

**Any opposition? No**

**Any waivers? No.**

**Motion 2 carried.**

McCord: For clarification do we run a third reference if Level 2 alarm is set? No, wait for all labs to get 2 tests done and do the statistical analysis.

Comment: Need to find procedurally how to get the test available again.

Hind: When can the two tests be completed?

2 weeks plus time for the statisticians to review the data.

Next panel meeting planned for April 11 at 1pm CDT.

### **1N Hardware Discussion**

Group will meet March 31.