

## Minutes for the ASTM D.02.B0.07 Volatility Surveillance Panel Teleconference

Minutes issued December 23, 2011

Telecon was held on Thursday, November 3, 2011 at 10 am EDT.

### **Attendees:**

Ad Systems	Didier Pigeon
Afton	Damian Beardmore Susan Hatchett
ASTM TMC	Tom Schofield
Conocophillips	Robert Stockwell
ExxonMobil	Art Andrews Dennis Gaal Kristin Breen Allan Thomas
Infineum	Andrew Ritchie
Intertek Automotive Research	Joe Franklin
Lubrizol Corporation	Rick Hartman Kurt Barto Jeff Winfield Eric Rodeheaver Paul Nagy
Savant, Inc.	Michael Habitz Kamika Owen-Robinson Ted Selby
Southwest Research Institute	Mike Birke Rebecca Grinfield
Tannas Company	Greg Miller

### **Agenda**

1. Welcome
2. Agenda Review
3. Statistical review of NOACK severity changes
4. Discussion of next steps
  - a. Questionnaire on equipment
  - b. Checklist for technicians
  - c. Addition of new parameters to the TMC reporting form for D5800
  - d. Development of new reference oils
  - e. Other ideas
5. Define action items
6. Schedule next meeting
7. Adjourn

## 1. Welcome

Volatility surveillance panel chairperson Dennis Gaal welcomed all attendees to the teleconference.

## 2. Agenda Review

No changes were suggested to the proposed agenda.



## 3. Statistical review of ASTM D5800 (NOACK) severity changes – Art Andrews

Art Andrews discussed the statistical analysis of the industry D5800 and D6417 data.

Key conclusions were:

- Severity shift for Oils 52 and 55 are statistically significant
- Severity shift is a function of time
- Root cause for severity shift cannot be determined from this analysis
- There is no severity shift seen for the same oils in D6417

These conclusions match those from previous statistical analyses and confirm that there is a severity issue with these two reference oils in D5800.

## 4. Discussion of next steps/action items

Causes of the severity shift for Oils 52 and 55 were discussed along with and what next steps should be taken.

Changes to the reference oils – A few attendees pointed to possible changes in the oil as the cause of the severity shift. As the oils are from the mid to late 1990's, the age of the reference oil samples is a potential cause for the severity shift.

For reference:

- Oil 52 – Grp I 15W-40 from 1995
- Oil 55 – Grp I 10W-30 from 1995
- Oil 58 – Grp II 5W-30 from 1998

Routine analysis (KV@40C, ICP, and IR) has not shown any discernable changes for any of the oil samples and there has been no change to the D6417 performance for these oils.

Running additional tests, like TGA, on the reference oils was suggested, but as these tests were not run on the initial samples, it would not be possible to determine how much the oils had changed, if at all, over time.

Instrument tuning – QC testing is required for D5800, although the sample to be used is not specified. As a result, many labs use the CEC reference oil as the check sample. A suggestion was made that tuning the instrument for the performance of the check sample may be making the test more severe for the TMC reference oils.

Questions in this area will be included in the questionnaire to the labs.

Workshop – Having a workshop was another option which was discussed, but was tabled to develop a questionnaire to the labs.

Action – D. Gaal to contact Sandra Chirk on possibility of workshop at PAC at a later date. **Done.**

D. Gaal spoke with S. Chirk at the December ASTM meeting, and a workshop at PAC is possible in future if wanted by the Surveillance Panel.

Instrument recalibration – An issue was raised around a discrepancy between the temperature probe calibration in sections 16 and 20 of ASTM D5800.

Action – R. Hartman (Lubrizol Corporation) to raise issue at December ASTM meeting. **Done.**

As a result of this question and others from members of D02.06 B, a task force was formed to review and edit D5800, particularly method B, for improved clarity.

Questionnaire to laboratories – This was selected as the preferred path forward during discussion.

A questionnaire will be developed for the labs receiving the TMC reference oils to request additional information.

Topics for the questionnaire will include:

Identification and results of QC reference oil

Tracking matched sets of cups and lids

Tracking of heating unit

Action – Surveillance Panel members are asked to provide questions or areas of interest for the questionnaire to the panel chair by November 17. **Done.**

Action – D. Gaal to prepare questionnaire to circulate to Surveillance Panel members in early December.

The revised questionnaire will be released in early 2012.

5. Schedule next meeting

The next surveillance panel telecon will be in early 2012, either once the questionnaire has been completed or once when the questionnaires have been returned.

6. Adjourn

The meeting was adjourned at 11:30 am.