

Unapproved Minutes of the July 8, 2013
Sequence VG Surveillance Panel
Conference Call

The meeting was called to order by Chairman Andy Ritchie at 2:00 PM EST.

Mike McMillan agreed to take the minutes of the meeting.

A list of the attendees on the call is included as Attachment 1.

Chairman Ritchie listed the agenda items he would like to cover in this call:

- 1) Review and approval of minutes from June 19, 2013 and June 21, 2013 calls
- 2) Discussion of results from the two Oil 940 runs with Batch No. AK2821NX10-1 fuel
- 3) Decision on whether to approve or reject the fuel batch, or call for additional data analysis or testing
- 4) Old Business.
- 5) New Business.
- 6) Next Meeting

Chairman Ritchie asked if there were any corrections to the minutes from the June 19, 2013 VG Panel conference call. Chairman Ritchie noted that Al Lopez had submitted the following corrections:

- 1) The correct fuel batch number should be AK2821NX10-1.
- 2) Under Old Business, Intertek's supply of the current fuel batch is roughly 3 months worth – not 2 tests worth.

Mike McMillan stated that he would make these corrections and resubmit the minutes for posting. Chairman Ritchie suggested that approval of both the June 19 and June 21 minutes be deferred until the next conference call.

Chairman Ritchie noted that lab engineers from Afton and Lubrizol are planning to visit San Antonio next week to discuss lab and stand differences and their possible impact on VG results.

Chairman Ritchie then asked Rich Grundza to review the results from the two VG runs on Oil 940 with fuel Batch AK2821NX10-1 which had

completed testing this week (see Attachment 2). Rich indicated that, although sludge results look pretty good, the varnish results are again highly variable, with one result 3 standard deviations mild and the other about a half standard deviation severe. Raham Kirkwood stated that Lab A's severe varnish rating was driven mostly by the left baffle rating. Both labs indicated that their runs were clean, other than a missed oil sample in lab A's run. When asked for his comments, Doyle Boese responded that these two data points look to be close to what we'd like to see for sludge, but indicated concern about the continued high variability in the varnish results. Doyle would like to see three more runs on Oil 940 to provide more data to establish correction factors in the failing oil zone.

Chairman Ritchie suggested that we have several choices at this point. We can vote to accept the fuel batch, reject it and ask Haltermann to reblend the fuel, or run additional tests with Oil 940. Jerry Brys offered that blending another batch of fuel would likely not fix the varnish problem. Ed Altman agreed, as did Ron Romano, although Ron stated that he would like more severity on sludge which reblending might achieve.

A long discussion of what happens if the fuel batch is rejected or approved ensued. In an attempt to try to move forward, Chairman Ritchie offered that we might be closer to approving the fuel batch than we were three weeks ago. However, Ed Altman noted that in doing so we would still have the same problem with the lack of being able to calibrate that we had before. All runs with Oil 1006-2 would have failed to calibrate. Chairman Ritchie asked Doyle Boese how long it would take to do the same analysis as had been done previously, but including the new Oil 940 data. Doyle responded that it would take about 10 days. It was pointed out, however, that a new analysis is unlikely to improve the calibration rate for Oil 1006-2. It is also likely that the results of the analysis will be very similar to the last analysis performed excluding Oil 925-3.

Chairman Ritchie again tried to summarize the choices available to the Panel, suggesting that we could: reject the fuel batch under consideration; accept the batch; wait for the Statistical Group to perform the additional analysis suggested above; or run additional VG tests on Oil 940. Intertek and SwRI each have 2 stands which could be made available for the latter option, one calibrated stand and one not calibrated. Ron Romano stated that he is not comfortable setting targets based on only 2 data points, one on each side of the current target. Following another period of discussion it was

agreed that any decision should be postponed until at least the next conference call. Between now and then, Haltermann agreed to try to estimate the costs associated with rejecting this batch of fuel, whether the batch can be adjusted or whether we would need to start over, etc. In addition, the Statistical Group will redo their analysis, including the additional data on the two Oil 940 runs, and eliminating data from the Oil 925-3 runs. The Panel will then reconvene to consider the additional information and attempt to make a decision on whether to accept or reject the Batch AK2821NX10-1 fuel. It was decided that the next conference call will be held on Monday, July 22, at 10:00 am EDT.

Old Business: None

New Business: None

Next Meeting: The next VG Panel conference call was scheduled for Monday, July 22, 2013 at 10:00 AM EDT.

The call was adjourned at 3:25 PM EDT.

Attachment 1

Attendees during 7/8/2013 Sequence VG Surveillance Panel Call

Afton – Ed Altman

Ashland – Timothy Caudill

BP Castrol – Irwin Goldblatt

Ford - Ron Romano

GM – Bruce Matthews

Haltermann – Mark Overaker, Tracey King

Infineum – Andy Ritchie, Mike McMillan, Doyle Boese, Gordon Farnsworth

Intertek – Al Lopez

Lubrizol – Jerome Brys

OHT – Dwight Bowden, Matt Bowden, Jason Bowden

Oronite– Jerry Wang

SwRI – Raham Kirkwood, Bill Buscher, Janet Buckingham

TEI – Clayton Knight

TMC – Rich Grundza