Unapproved Minutes of the June 11, 2013 Sequence VG Surveillance Panel Conference Call

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

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 May 21, 2013 call
- 2) Discussion of results from the additional tests run in the fuel approval matrix for Batch No. AK2821NX10 fuel
- 3) Plans and completion of data analysis and future testing, if any
- 4) Old Business.
- 5) New Business.
- 6) Next Meeting

Chairman Ritchie asked if there were any corrections to the minutes from the May 21, 2013 VG Panel conference call. There being none, Ed Altman made a motion to approve the minutes. Matthew Bowden seconded the motion. The motion was approved unanimously.

Chairman Ritchie asked the lab engineers to report on the testing completed this week. Raham Kirkwood indicated that in Lab A, the Stand 2 run on Oil 1009 had high fuel dilution, but the other run was fine. Al Lopez indicated that there were no problems with either of his two runs in Lab G. All of the results are included in a spreadsheet prepared by Rich Grundza, which is included as Attachment 2.

Chairman Ritchie then asked Jo Martinez to go through the highlights of the analysis she had prepared on the matrix results to date. (See Attachment 3) She noted that her analysis did not include the latest Afton run. Her preliminary analysis suggests that Oil 925-3 is significantly different from Oil 1006-2 with respect to AES, but Oil 925-3 does not discriminate with Oil 1009 on AES. Ron Romano asked if there was any way to correct for the overlap in the results for Oils 925-3 and 1009. Doyle Boese answered that it might be possible to do so with a quadratic correction, but questioned whether this was practical. In further discussion, it was agreed to defer this

question until further analysis of the data is completed. (After further consideration, Doyle Boese offers that there is no way to fix the overlap). Attention then shifted to the run on Oil 1009 that experienced high fuel dilution and whether that data point should be dropped from the analysis. Rich Grundza noted that the fuel dilution at 24 hours on this run was 23%, which was higher than any reported result with any of the other runs on any of the oils. However, Raham indicated that, despite this, in his opinion the run was operationally valid. This being the case, the Panel members agreed that the results from this run should be included in the data analysis. Gordon Farnsworth noted the widely varying OSCR results, particularly with Oil 1009, and suggested this also needed to be looked at in more depth.

Chairman Ritchie suggested that in his opinion more time is needed to analyze all of the data and to form conclusions, and suggested that further discussion of the results by postponed until after the Statistical Group had completed their analyses of the data. Jo and Doyle agreed, and Doyle suggested that the Statistical Group hold a conference call after they had completed some individual analyses but before the next Panel meeting. This was agreed to be held on Monday, June 17 at 2:00 pm EDT. Chairman Ritchie also indicated that there was a conflict with the next planned Panel call on June 18, and suggested that the next Panel call be delayed one day until June 19. Most of the Panel members agreed they could accommodate that date.

Chairman Ritchie noted that he had prepared the following table showing the status of the fuel approval matrix testing conducted to date, and suggested that this might help keep track of where we are and what has been done.

Lab	А		G		D
Stand	1	2	1	2	1
Run 1	1009	925-3	925-3	1009	925-3
Run 2	925-3	1009	1009	925-3	1009
Run 3	925-3	1006-2	1006-2	1009	1006-2
Run 4	925-3	1009	925-3	1009	





Old Business: None.

<u>New Business</u>: Chairman Ritchie indicated that he had not circulated the normal semi-annual VG Panel report to Subcommittee B yet. He is waiting until the data analysis of the fuel matrix results is complete, so he can include the findings in the report.

<u>Next Meeting</u>: The next VG Panel conference call was scheduled for Wednesday, June 19, 2013 at 2:00 PM EDT.

Attachment 1

Attendees during 6/11/2013 Sequence VG Surveillance Panel Call

BP Castrol - Timothy Miranda

Afton – Ed Altman

Ford - Ron Romano

Haltermann – Mark Overaker, Tracey King

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

Intertek – Al Lopez

Lubrizol - Chris Mileti, Jerome Brys

OHT – Matthew Bowden, Jason Bowden

Oronite-Jo Martinez

SwRI – Raham Kirkwood, Bill Buscher

TEI - Clayton Knight

TMC – Rich Grundza

Toyota – Jim Linden