

Unapproved Minutes of the April 1, 2014
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) Approval of the minutes from the February 4, 2014 Sequence VG Panel conference call
- 2) Discussion of test development and surveillance panel meetings in April and May
- 3) Report on calibration testing results with new fuel batch
- 4) Old Business
- 5) New Business – Update on VH and Chain Wear Test Development
- 6) Next meeting/call

Chairman Ritchie asked if there were any corrections to the minutes from the February 4, 2014 VG Panel Conference call. There being none, Ed Altman moved and Al Lopez seconded a motion to approve the minutes. The motion was approved unanimously.

Chairman Ritchie informed the Panel that the various surveillance panel chairs had held a conference call last week and decided to delay Surveillance Panel week this year until May to avoid confusion with meetings which have been scheduled for various new test developments in April. Chairman Ritchie commented that, in his view, the April meetings were scheduled to bring the test engineers, OHT and TMC together to discuss common issues, make sure everybody was setting the tests up the same way, etc., and that while anybody was free to attend these April meetings, he planned not to, since he felt these meetings would be better served if they included primarily those intimately involved in the test developments. He further indicated that for Sequence V-related issues, he wishes to continue to convene VG/VH SP

conference calls on the first Tuesday of each month for the foreseeable future. This means the next two VG SP meetings will be convened at 2:00 PM EDT on May 6 and June 3.

Chairman Ritchie then asked Rich Grundza to summarize the status of reference oil testing which has been conducted with the new VG fuel batch (Batch No. AK2821NX10-1). Rich reported that 11 calibration runs have been made with the new fuel batch. Applying the correction factors developed by the Statistical Group, results to date with oils 1006-2 and 1009 were slightly milder than the target results, while results for Oil 940 were just about on target. The Statistical Group was applauded for doing such a fine job developing the correction factors for the new fuel batch.

Based on these results, Dan Worcester made a motion that Sequence VG testing revert back to a calibration period of 180 days or 15 tests on all currently calibrated stands. This would be effective today. Al Lopez seconded the motion. After some discussion, the question was called and a vote taken. Upon polling the Panel members individually, the motion was approved with 12 affirmative, 0 negatives and 2 waives. Rich Grundza will draft an Information Letter documenting this change. In discussion after the vote, the Panel agreed that the acceptance bands should remain at 2 standard deviations for the time being, rather than reverting back to 1.8 standard deviations. This will be reviewed again in May after additional data have been developed.

Old Business: The question was raised whether there had been any further action on the possibility of developing a larger fuel batch the next time a new fuel batch is needed. It was noted that this item was discussed during the last VG Panel call on February 4, 2014, at which time the Panel indicated to Haltermann that the VG Panel has no authority to make a commitment for future fuel batches, although based on a number of factors the Panel believes Haltermann is in an extremely advantageous position when it comes to deciding who to select to formulate future batches. Following that discussion in February, Mark Overaker from Haltermann indicated he would take this position of the VG Panel back to his management and report Haltermann's response back to the Panel at a later date. Since no one from Haltermann is present on this call, this report will be included on the agenda for the next VG Panel conference call. (Note: Tracey King from Haltermann joined the call late, and was not present for the above discussion.)

New Business: Dan Worcester questioned whether Section 13.7 of the VG test procedure should be removed, as roller follower pin wear is no longer being measured. Ron Romano confirmed that this measurement will not be part of the VH test procedure. In discussing this point, it was questioned whether roller follower pin wear measurement is listed as a requirement in any of the existing specifications (e.g., ASTM D4485, API 1509, etc.). Dan took an action item to check on this and report back to the Panel at the next conference call.

Bill Buscher Informed the Panel that SwRI is having a problem with Bishop blocks, having to reject 30% or more of them after honing. Al Lopez expressed concern, stating that if we have to start using VH blocks instead of re-honed blocks, we could run short by the end of GF-6 since there was a lifetime build-out of VH blocks. Al further commented that Intertek is not experiencing nearly that high of a rejection rate. The Panel agreed that this was an issue to keep an eye on.

Ron Romano provided an update on Sequence VH test development. Three more tests have been run. One was severe on Oil 1009, one was mild on Oil 940, and on the third the operational validity was being questioned. Ron further indicated that they are considering going back to the marine manifold in the test. The availability of these manifolds was questioned, to which Jason Bowden indicated OHT has a two-and-a-half year supply of these manifolds and is working with the supplier to cast additional manifolds if needed.

In further discussion of the VH development, it was noted that new tests are being set up now with an external water pump. Ed Altman questioned why the older Sequence VIB and some other tests use an orifice to restrict flow in the coolant system, whereas the VH doesn't intend to. Ed questioned the reason for use of such an orifice to restrict flow. During discussion of this issue Jason Bowden dug thru his old files and found a diagram from the VIB test (developed by Kurt Schriever of Ford) with a note from Kurt stating, "Attached are the dimensions of an orifice plate which gives equivalent flow to the blocked open thermostat currently used for the Seq. VIA." The group discussed whether this was intended to ensure there was no bypass in the coolant system and agreed to review this matter further.

Next Meeting: The next VG Panel conference call will be held Tuesday, May 6, 2014 at 2:00 PM EDT.

Attachment 1

Sequence VG Attendance for 4/1/14 Call

Infineum:	Andrew Ritchie, Mike McMillan, Doyle Boese
Ashland	Tim Caudell
Ford:	Ron Romano
GM:	Robert Stockwell
SwRI :	Dan Worcester, Bill Buscher
Intertek:	Al Lopez
Afton:	Ed Altman, Christian Porter
TMC:	Rich Grundza
Lubrizol:	Jerry Brys, Chris Mileti, Kevin O'Malley
Haltermann:	Tracey King
Oronite:	Kaustav Sinha, Jo Martinez, Ricardo Efiniteo
OHT:	Jason Bowden
TEI:	Clayton Knight