

Unapproved Minutes of the December 19, 2013

Sequence VG Surveillance Panel Conference Call

The meeting was called to order by Chairman Andy Ritchie at 11:00 AM 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 November 20, 2013 Sequence VG Panel face-to-face meeting in San Antonio, TX
- 2) Discussion of planning decisions which need to be addressed for future batches of Sequence V test fuel
- 3) Decision of next Sequence VG Panel meeting/conference call

Chairman Ritchie asked if there were any corrections to the minutes from the November 20, 2013 VG Panel meeting. There being none, Ed Altman moved and Jason Bowden seconded a motion to approve the minutes. The motion was approved unanimously.

Chairman Ritchie read a section from the minutes of the November 20 meeting in which Mark Overaker indicated he would be asking for Panel guidance on the size of the next Sequence V fuel batch and assurances that Haltermann would be selected as the fuel supplier. Chairman Ritchie referenced a memo (see Attachment 2) in which Mark outlined plans for producing and storing a 1-million gallon batch of fuel, with approximate pricing. Mark indicated that he would like a commitment from the Panel that Haltermann would be selected as the producer of such a fuel batch, if indeed it was the desire of the Panel to move forward with producing such a large fuel batch.

Chairman Ritchie commented that, in principle, he supports a larger batch based on the extended time between fuel batch approvals that a larger batch would offer. The 300K gallon batch seems to be lasting about 18 months, whereas a 1-million gallon batch could last about 5 years. Ron Romano

agreed with this strategy as well but commented that he felt this is really a business decision for Haltermann to make. Chairman Ritchie concurred, saying there is really nothing this Panel can do to guarantee Haltermann would be selected as the supplier for the next batch sometime in the future, since the Panel is not a legal entity and could not enter into such an agreement. He went on to say, however, that because Haltermann is the current supplier, and because they are the only ones with knowledge of the current fuel formulation details, they are in an extremely advantageous position when it comes to deciding who to select to formulate future batches. Jerry Brys commented he believes it would be very difficult for another company to come in without knowledge of the current recipe and expect to be able to formulate a satisfactory fuel for a Sequence V test as easily and probably as economically as Haltermann.

The discussion then turned to what it would take to establish a larger 1-million gallon batch of fuel. Ed Altman said he would like to see more exact cost figures on such a batch. Bill Buscher commented he believes it is technically the right decision to move to a larger batch. He further echoed others who anticipated that a larger batch would be less expensive because qualification testing costs would be spread out over a larger fuel volume, but this doesn't factor in the cost of a larger storage facility.

Because several Panel members indicated they needed additional time to study and weigh the advantages of a larger fuel batch, Chairman Ritchie proposed delaying any kind of decision until after January 1. Based on all the discussion, the most forceful response the VG Panel can make to Mark's original request is the following:

Haltermann, as the current Sequence VG fuel supplier, has done everything asked of them by the Panel, and has supplied a satisfactory product for the last several fuel batches. Based on this performance, Haltermann would certainly be the first company to be considered by the Sequence V Panel when a new fuel batch is required.

Mark indicated he would take this statement back to his management for consideration and a response. After some discussion of the best time for the next conference call, it was decided that January 21, 2014 was best for all participants.

Chairman Ritchie indicated he would like to convene the next VG conference call at 2:00 PM EST on Tuesday, January 21, 2014.

Attachment 1

Sequence VG Attendance for 12/19/13 Call

Infineum: Andrew Ritchie, Gordon Farnsworth, Mike McMillan,
Doyle Boese

Ford: Ron Romano

GM: Bruce Mathews, Robert Stockwell

SwRI Dan Worcester, Chad Stovell, Bill Buscher, Fred Gerhard

Intertek Al Lopez, Addison Schweitzer, Charlie Leverett

Afton: Ed Altman

TMC Rich Grundza

Lubrizol: Jerry Brys, Chris Mileti, George Szappanos

Haltermann: Mark Overaker

OHT: Jason Bowden, Mathew Bowden

TEI Zack Bishop, Clayton Knight

Next batch of VG/VH fuel

Discussion Points Presented By
Haltermann Solutions Nov. 1, 2013



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Agenda - Discussion Points

1. VG/VH inventory management and dollar exposure
2. Investigation of increased inventory (batch size) of VG/VH fuel as requested
3. Begin new batch in advance of inventory constraints on Batch AK28-01
4. Matrix “redesign” discussion



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VG/VH Inventory Management and Dollar Exposure

- Haltermann bears the “rebuild” monetary exposure throughout the process (several \$MM)
 - Larger batch Issues
 - New infrastructure dedicated to VG/VH fuel
 - 1st large batch will have costs associated with tank preparation
 - 3X raw material costs vs. current batch
 - Economic impact of time-value of working capital not insignificant
- Who bears costs if entire lot must be redone?
 - 1.1M gallons – What if it doesn’t pass?
- Does a “safety net” exist to mitigate risk to Haltermann in worst case scenario?
 - Does Haltermann “push” losses into next batch?



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VG/VH Inventory management and \$ exposure

- Haltermann owns the fuel inventory
- Industry weigh in on how/when/where inventory is allocated (esp. when inventory is strained)
 - Panel sub-committee?
- Haltermann vs. industry discretion on how fuel is allocated.
 - What are the “boundaries”?
 - Criteria for who gets what?
 - Panel discussion?
 - What if sales opportunity? – Haltermann may have opportunity to sell to interested party outside “normal” VG/VH activities....



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Increased inventory of VG/VH fuel

- Move to 32K bbl tank for next batch
 - Construction plans complete
 - Contractor selected
 - Site ready to begin construction
- Plan for approx. 1,100,000 gallon batch
 - Estimated eight (8) year supply
 - Initial price estimates completed – Economic modeling indicates price/gal is equivalent to current fuel (AK28) batch
 - IRR on working capital outlay consistent with previous batches
- Tank to be located in Nixon, TX.
 - Current location of VG/VH inventory



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Risk Mitigation

- End users
 - IRR on working capital to remain consistent with previous batches
 - If product is consumed at a rate <7 years, price will be adjusted lower to achieve IRR target
- Haltermann
 - If product is consumed at a rate >9 years, price will be adjusted up to achieve IRR target
- End users/Panel must agree to purchase batch from Haltermann



Begin new batch in advance of inventory constraints

- Matrix testing to be performed parallel to VG/VH commercial testing efforts.
 - Build new 3Q “pilot” batch in front of new big batch
 - Scale up using data from engine tests
 - Begin new batch 4Q 2014
 - Matrix testing performed on new batch prior to stock-out of batch AK28.
- Complete adjustment(s) decision(s) and further adjustment(s) BEFORE stock out of AK28-01.
 - Use analytical data generated on new batch (DHA, etc.)
 - Use matrix data on large batch (results from stand tests)



Matrix “redesign” discussion

- Panel Taskforce?
 - Review lessons learned from bringing in new batches
 - Consider statistical study of single oil result for matrix pass/fail criteria
 - Consider “independent” statistical analysis of matrix approach



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Matrix “redesign” discussion

- Consider designing matrix around SA Lab (or Labs)
 - Stands would need to be referenced and calibrated?
 - Initial testing on new batch limited to one oil (i.e. 940)
 - Complete “x” number of tests on 940 before moving to other oils
 - If it passes at one lab, then should it work industry-wide?



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