

Unapproved Minutes of the October 1, 2013
Sequence VG Surveillance Panel
Conference Call

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

Gordon Farnsworth 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) Any comments from members on fuel batch AK2821NX10-1
- 2) VH development update
- 3) Next face to face meeting

Chairman Ritchie asked if there were any corrections to the minutes from the September 12, 2013 VG Panel conference call. Only comment was that Dan Worcester's name was spelled incorrectly under new business on page 4. Ed Altman moved and Jason Bowden seconded to approve the minutes. The motion was approved unanimously.

Chairman Ritchie informed the group that Information Letter 13-2, which contains the information on correction factors for fuel batch AK2821NX10-1, had just issued. Rich Grundza stated that the LTMS updates regarding this fuel usage would issue in a few days. Rich also indicated that the first calibration attempt with fuel batch AK2821NX10-1 is expected to start on 10/2/2013.

Al Lopez mentioned that the panel needs to address how to handle the rating of the black tar like deposits that have been observed on the cam baffles from tests with reference oil 940 using fuel batch AK2821NX10-1. After discussion it was agreed that the rating technique should remain for now as that used during the recent fuel batch approval testing. Since there will be a rating workshop in San Antonio next week, Dan Worcester agreed to coordinate an adhoc review with the VG raters available to assure all are using the same wiping and rating technique until a more detailed understanding of this type deposit is available. Tentatively the next VG face to face meeting will be in San Antonio in November and the topic of these

tar like deposits will be reviewed to determine if a rating procedure change is needed.

Ron Romano updated the VG panel on VH development progress. Two test, one each on oil 940 and 1009, have been completed. A summary of the test ratings is included as attachment 2. The test appears to be discriminating the sludge performance of these two oils at 180 test hours. Both tests had fuel dilution of about 20%. Repeat testing of these oils is planned but three changes are being made to improve test operation and address long term parts availability.

- 1) Current production piston rings will be used.
- 2) The stock Ford exhaust manifold will be used.
- 3) The initial oil charge volume will be increased to allow operation with no oil adds.

The VH development group is compiling a VH engine stand parts list.

Chairman Andy Ritchie will work with the Chairs of the Sequence III and VIII in an attempt to coordinate the next face to face VG panel meeting with these groups. Chairman Ritchie will issue a meeting date announcement within the next week.

Chairman Ritchie would like to continue VG conference call at 2:00 PM on the first Tuesday of every month. Thus the next scheduled VG Surveillance Panel call is for November 5, 2013 at 2:00 PM EST.

Attachment 1

Sequence VG Attendance for 10/1/13 Call

Infineum: Andrew Ritchie Gordon Farnsworth Doyle Boese

Chevron: Jo Martinez

Ford: Ron Romano

GM: Bruce Mathews

SwRI Dan Worcester Chad Stovell Janet Buckingham

Intertek Al Lopez

Afton: Ed Altman

TMC Rich Grundza

Lubrizol: Jerry Brys Chris Mileti

Halterman: Tracy King

BP Castrol: Irwin Goldblatt

OHT: Jason Bowden Mathew Bowden

	Test hours	AES	AEV	RAC	APV	OSCR	RACLSRT	RACRSRT	CAMBLVRT	CAMBLSRT
940 historic		6.55	8.60	8.68	7.10	77.71	8.39	9.01	9.05	6.22
VH 940	144 Hours	7.78					8.25	9.10		6.62
	168 Hours	7.18					7.72	8.36		6.34
	180 Hours	6.90	7.86	7.99	6.71	95.00	7.69	8.29	8.39	6.31
1009 Tar/Hist		7.94	8.99	9.29	7.79	8.00	9.22			7.95
VH 1009	144 Hours							9.39		
	168 Hours	8.57					9.36	9.17		7.47
	180 Hours	7.57		9.14		5.00	9.20	9.07		6.97
	192 Hours									
	216 Hours	7.10	8.56	9.15	7.34	40.00	9.18	9.12	8.89	6.48

CAMBRVRT	CAMBSRT	OILPBSRT	OILPNSRT	VLVDLSRT	OILRING	VLVDRSRT
9.67	6.19	7.58	6.42	5.37	28.57	3.30
	6.82			8.52		7.36
	6.34			8.02		6.26
8.49	6.28	8.48	6.13	6.94	52.00	4.98
	7.94	7.47	6.68	7.24	25.00	4.76
	8.70					9.25
	7.50			8.89		9.00
	6.65	6.09	5.82	8.62		8.11
				7.81		6.97
9.45	6.36	6.17	6.36	6.26	25.00	5.76