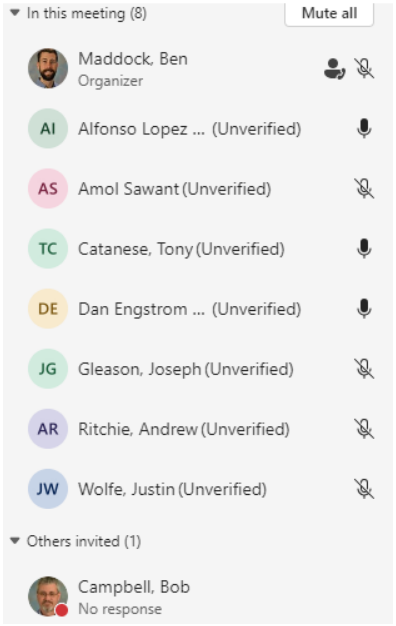
Sequence VH O&H Panel Meeting
February 22, 2024 9AM EST via Teams

Attendees:



Topics:

1. **Fuel Analysis**
    a. (Discussion deferred to 2PM EST Surveillance Panel Call)
    b. Haltermann conducting analyses on current samples from SWRI & IAR
    c. Afton, LZ, SWRI conducting separate analysis via Saybolt
    d. Notes from email discussion down below

2. **Cam Bearing Update**
    a. References with set aside batch cam bearings
        i. IAR complete – 185340 – AES Yi -1.1167
        ii. SwRI complete – 175647 – AES Yi -1.2281
    b. References with King cam bearings
        i. Intertek currently running with no observable issues
        ii. SWRI currently running with no observable issues
        iii. Afton expected SOT 3/5/24

Motion: Mandate the application of sealant between camshaft cap and cylinder head (needs wordsmithing)

c. Seq X example:

> 7.6.2 *Motorcraft Gasket Maker TA-16 or equivalent*—Use between the 6th intake and exhaust camshaft cap and the cylinder head.

3. **Build Workshop Date**
    a. Targeting April 16th and 17th in San Antonio, TX

i. Afton: 2 build technicians
ii. Intertek: 1 build technician
iii. Lubrizol: 2 build technicians
iv. SWRI: 2 build technicians
v. Valvoline: 1 build technician

4. **Hardware**
   a. The group has not been focused on this topic but plan to address in the coming meetings
   b. Part Numbers
      i. Gasket kit

Motion: SwRI to motion for the acceptance of new superseded part numbers found in the latest gasket kit

      ii. Sunnen honing stones
   c. Inventory
      i. Pistons
      ii. Oil Pans
      iii. Blocks
      iv. FCS order

Appendix:

Notes on Fuel discussion that happened via email.

a. Sandra Kaluza at Saybolt provided the following costs per analysis type.
b. Ben spoke with Afton's fuel expert and she suggested also testing for composition (D1319, D5769), oxid stability (D525) and gums (D381)
c. With the high price for a full Certificate of Analysis, I would like for us to capture some combinations of Options 2, 3 and/or 4. I've proposed the following:

		Full CoA	DHA	RVP, Grav, Distillation	RVP, Grav, Distillation, Composition, oxid, gums	Tests
		$4,980.60	$665.70	$300	$2,164.80	Est. Cost
		3-5 days	2-3 days	2-3 days	2-3 days	Turnaround Time
		1 USG	10 mL	1qt	1qt	Sample Size
Lab	**Batch**	**Option 1**	**Option 2**	**Option 3**	**Option 4**	**Status**
Afton	GI0321NX10-1		x		x	Arrived
Afton	GI0321NX10-1			x		Arrived
Afton	N-000010			x		Arrived
Afton	N-000010			x		Arrived
Afton	N-000010-2			x		Arrived
Afton	N-000010-5			x		Arrived
Afton	N-000010-8			x		Arrived

Afton	N-000010-11		x		x	Arrived
Valvoline			x		x	
Lubrizol	N-000010-4		x		x	Shipped
SwRI	N-000010-12		x		x	Shipped
Intertek	N-000010-13	x				Haltermann analysis

Sandra Kaluza
Laboratory Coordinator
Saybolt LP
201 Deerwood Glen Drive
Deer Park, Texas 77536

T. 281-478-1326
E. Sandra.kaluza@corelab.com
M. 713-553-8607
W. www.corelab.com

d. No results have been received yet.
e. SwRI & IAR have given samples of their latest batch to Haltermann directly to be analyzed.
f. Intertek met with Haltermann last week in person.
   v. Indresh showed carbon analysis and distillation curves that showed the fuel was still within spec.
   vi. IAR questioned the lack of distillation data. They were not running the D86 with every RVP adjustment. They kept posting the same numbers from Batch N-00010-7 all through batch 13
   vii. By contract every time the fuel is adjusted, the complete slate of COA analysis must be performed and data forwarded to the TMC and new COA with each load delivered.
g. Reminder for labs to conduct quarterly analyses and send samples to Haltermann
   viii. Haltermann Solutions
   Attn: Jarvis Brown
   15600 West Hardy Road
   Houston, TX 77044

   Jarvis J. Brown
   Lab Supervisor / Technical Services Leader
   Office: (832) 376-2222
   Mobile: (832) 795-1480

   8.2.6 *Laboratory Storage Tank Fuel Analysis*—Analyze the fuel stored at laboratories and for calibrated Sequence VH tests quarterly. Laboratories should take composite samples using Table 1 in Practice D4057, as a guideline. The fuel supplier shall have the capability to analyze the fuel samples using the test methods specified in Table 3 and this section. The fuel

   ix.

supplier shall provide an adequate supply of fuel sample containers with packaging and pre-addressed return labels to each Sequence VH laboratory. Upon receipt of all fuel samples required in 8.2.6 from the laboratories, the fuel supplier shall perform the following analyses, report the results to the submitting laboratory, and tabulate the results in a database.

Reid vapor pressure (Test Method D323)
API gravity (Test Method D287 or D1298)
Distillation (Test Method D86)
Lead (Test Method D3237 or D5059)
Washed gums (Test Method D381)
Unwashed gums (Test Method D381)

x.