

Sequence VH Surveillance Panel Meeting
 Intertek, Port San Antonio, In-person and Teams
 Wednesday November 20, 2024, 8:00 am – 10:00 am CST

1.0) Attendance

Afton:	B. Campbell, J. Lekavich, B. Maddock, A. Stone, L. Tierney
Exxon:	P. Rubas
Ford:	M. Deegan
GM:	T. Cushing
Haltermann:	W. Hairston, E. Hennessy
IMTS:	S. Clark, D. Passmore
Infineum:	A. Acosta, J. Anthony, T. Dvorak, M. Koricherla, P. Makarucha, A. Ritchie (Chair)
Intertek:	B. Buscher, A. Lopez
Lubrizol:	T. Catanese, G. Szappanos
OHT:	J. Bowden
Oronite:	R. Affinito, R. Stockwell
Shell:	J. Hsu
SwRI:	C. Eickstead, D. Engstrom, T. Kostan, P. Lang, M. Lochte
TEI:	D. Groom, D. Lanctot
TMC:	R. Grundza
Toyota:	V. Deshpande
Valvoline:	A. Sawant

2.0) Approval of minutes

- 3.1) Motion to approve minutes from 5/30/2024 Meeting
- Motion Approved

3.0) Fuel supplier status report.

3.1) New Fuel Batch Status:

- 56,000 gallons of fuel remain
- Fuel expected to last until end of 2025Q1
- Lubrizol will receive drums of high API gravity fuel this week and will run a fuel dilution experiment and calibration test in December.

3.2) New Fuel Batch Status:

- 400,000 gallons are being blended
- New fuel will be ready to ship December 9th, at the earliest

3.3) Extending Calibrations Discussion

- IAR asked if TMC was planning to extend calibrations
- TMC recommends starting new fuel batch precisions matrix on stands coming out of calibration on the old fuel and remaining on new fuel.

4.0) TMC status report – Chair & TMC

4.1) Industry Capacity

- There are 3 calibrated labs.
- Total of 8 calibrated stands.
- Two labs dropped one stand this period.
- One lab added a stand.

4.1) Industry Activity

- There were 85 candidate tests scheduled.
- Ten tests were terminated at customer request, which is the same as previous period.

4.3) Reference Oil Status

- RO 1011-1 Active Reference Oil (Approximately 4 yr)
- RO 931 Active Reference Oil (Approximately 5 yr)
- RO 940 Inactive Reference Oil (Only used for precision matrix)
- No reference oil supply issues

4.2) LTMS Update

4.2.1) Average Engine Sludge (AES)

- AES in action alarm.
- The relatively recent 3-sigma results brought AES into alarm.
- The 2 most recent results have been much closer to target, but AES is still in action alarm.

4.2.2) Rocker Cover Sludge (RCS)

- One result with Yi greater than 5 sigma.
- This result skews estimate in real units because of a very large, transformed result.

4.2.3) Average Engine Varnish (AEV)

- AEV is in action alarm.
- The two most recent results have been severe.
- AEV has historically been primarily driven by APV but doesn't appear to be the case at this time.
- The estimate of shift in real units is driven by these severe results.
- Mean delta/s is heavily influenced by the three 3 sigma severe results.

5.0) ICF Follow-up Discussion

5.1) New Fuel Batch Status:

- J. Hsu (Shell) voted against introducing an ICF at the last VH SP meeting, November 7, 2024, triggering a formal ballot.
- J. Hsu update:
 - Shell's legal team discussed the validity of tests preceding ICF proposal, however, since the industry is aware of the issue, Shell changes its vote from No to Waive.

5.2) Other arguments against ICF:

- Other arguments against ICF:
 - Adding the ICF to already high SAs may allow very sludgy oil to pass GF-6
 - One of the labs argued that their lab is at a disadvantage because their SAs do not reflect the severity of their results.
 - It was noted that the lab could increase their SA value by running more references.
 - It was also argued that the fuel quality is still deteriorating, so applying an ICF only accurately reflects the severity at one point in time.
- Due to the potential of another negative vote from a lack of consensus, the motion could not be passed at this time and will be officially balloted.

5.0) **IMTS Camshaft Prove-Out**

- IAR made a presentation on their experience with the IMTS-machined camshafts.
- IAR performed a test run over the VH cycle and found no significant operational differences.
- The current OEM camshaft supply may be depleted in 5 years and IMTS-machined camshafts are an option.
- No motion was made to approve the IMTS camshafts, as this is just a demonstration at this point.
- There was a concern that the IMTS camshafts may affect test results due to material or wear differences.
 - IMTS to report materials used in OEM and IMTS camshafts at the next SP meeting.

6.0) **Old Business**

D8256 – 24a, Section 7.3 Reusable Engine Parts Discussion

- The meeting minutes from September 5, 2024 read, “IAR noted that a lab is using the camshafts 5 tests.”

- The Chair asked if there were any labs running camshafts 5 or more times. Each of the 4 labs present stated on the record, that were unaware of camshafts being run more than 4 times in calibrated VH tests.
- Based on these updated statements, it was agreed that the meetings minutes from 9/5 would be corrected and re-issued.

7.0) New Business

- Chair Ritchie announced that even though he has the support of his organization, to continue to serve as Sequence V Chair, that he was stepping down.
- Chair Ritchie noted that Chair Surveillance Panel positions traditionally stay with the same company, in this case Infineum, and that his company had nominated Joe Anthony (Infineum) as his successor.
- Mike Deegan stated that the position of the VH Chair would be addressed at the ASTM meeting in December.
- The meeting concluded with a round of applause for Andy Ritchie's contributions to the industry.

8.0) Meeting Adjourned

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