

Sequence VH Surveillance Panel Meeting

Teams

Thursday, January 15, 2026, 3:00 pm – 4:00 pm EST

1.0) Attendance

Afton:	B. Maddock, A. Stone
Exxon	L. Salvi
Ford:	M. Deegan, R. Zdrodowski
Haltermann Solutions:	I. Mathur
Infineum:	J. Anthony
Intertek:	J. Franklin, A. Lopez
Lubrizol:	T. Catanese
OHT:	J. Bowden
Oronite:	R. Affinito, J. Martinez, R. Stockwell
SwRI:	C. Exposito, T. Kostan, P. Lang, M. Lochte
TMC:	S. Moyer, W. Venhoff
TEI:	D. Lanctot
Toyota:	V. Deshpande
Valvoline:	B. Duchene, A. Sawant,

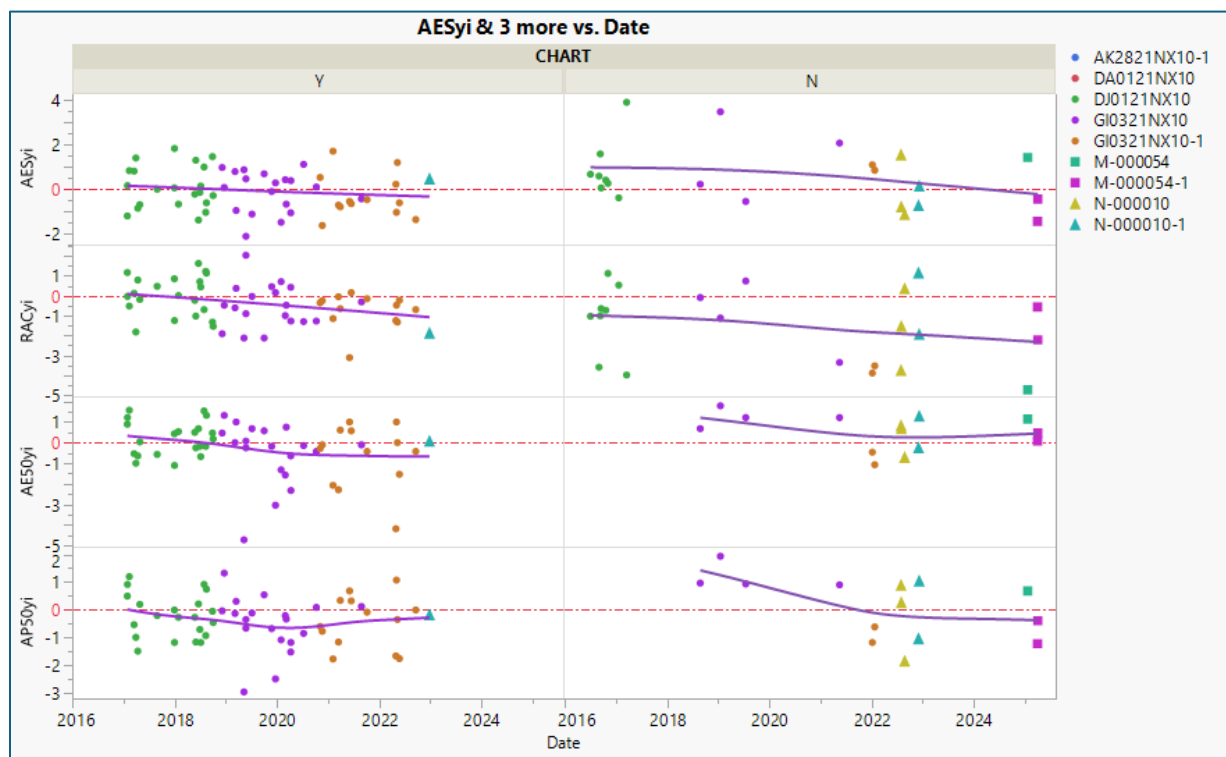
2.0) Executive Summary

Reference oil (RO) 940 is nearly depleted. The SP discussed how to approve the use of reference 940-1.

3.0) RO 940 is no longer used to calibrate VH stands

3.1)J. Anthony presented T. Dvorak's historical RO 940 reference data and proposed options:

Plot of Reference Oil 940 data – chartable = “Y” and “N” for all (4) y_i parameters



The last RO 940 chartable tests were run in 2023 on a different fuel batch.

Potential Reference Oil RO940-1 Introduction Options:

1) Run references on RO940 with current targets – for VH Lab calibration

- a. We have no chartable results on current fuel batch M000054-1 & RO940
 - i. Unknown if RO940 targets are correct with current fuel batch – but RO940 tests will be treated as regular tests for calibration
- b. Follow with reference tests on 940-1 re-blend to compare/contrast test results
 - i. Caveat – RO940 and RO940-1 repeats are in the same Lab/Stand

2) Run a mini-matrix on RO940 & RO940-1 to establish how it performs with current fuel batch with a contrast between RO940 & RO940-1

- a. Emphasis is for generating a dataset to confirm similar performance
- b. Need to establish a benchmark on the performance level of RO940.

- i. Can be used for referencing – following a stats analysis of the data
- c. Follow-up with reference tests on 940-1 re-blend to compare/contrast reference test results.

3) Save the remaining RO940 - without any planned VH tests.

- a. Potential future uses:
 - i. To be used for next fuel batch qualification
 - ii. Discrimination & test severity shift checks
 - iii. Other uses?

4) Use RO940-1 in VJ testing to confirm similar performance.

- a. Compare and contrast RO940-1 vs. RO940 in Seq. VJ to check for differences
 - i. In the same Lab/Stand

3.2) SP discussion

- J. Anthony argued RO940 is only used as a rough estimate of fuel batch severity and VJ test severity, the difference between performance of 940 and 940-1 is not as important as a reference oil used to calibrate or for precision matrices.
 - Given the purpose of RO940/940-1, it does not seem like a good use of time, money, test hardware, or test fuel to run a dedicated precision matrix for RO940-1.
 - Motion to retain remaining RO940 and only use RO940-1 for test development and fuel approval screening through development of VJ. After gaining experience with 940-1 during VJ development, running A-B tests with RO940 and RO940-1 can be conducted if the SP decides it's a worthwhile project. If not, 940 may be used for the same purpose as it is now until the supply is depleted.
- B. Maddock agreed that the difference between RO940 and RO940-1 is not worth running a precision matrix given its purpose is not calibrate stands, only to verify sludge generation.
- A. Lopez: Oil sponsor runs 2 tests at 2 labs at introduction. Who runs it can be worked out.

- There is no RO940 data on this fuel adjustment, so it is not possible compare previous RO940 tests to RO940-1 using this fuel batch.
- There are (4) 940 samples. IAR is using retains of RO940 for development work.
- TMC's RO940-1 QA showed that the blend was in spec, but doesn't mean it performs the same.
- A. Lopez: This was the original Ford oil that must never pass to prove that test can sort out a dirty oil.
- T. Kostan agreed that we hold on to the RO940 samples until we get to the end of VJ development
- M. Deegan requested the RO940 and RO940-1 VH tests be run back-to-back t on this fuel. Al wants to run a chartable RO940 and RO940-1 back to back.
- R. Stockwell: As the SP, we could grant calibration on the RO940 test. And someone pays for the RO940-1.
 - T. Kostan advised that the VH tests with the current fuel batch, M-000054-3, cannot discriminate oils for rocker cover sludge.

It was agreed that The RO940 samples will not be used until the SP agrees on how to approve RO940-1 for fuel batch approvals

It was agreed that labs should order RO940-1 from TMC for VJ development

4.0) Meeting Adjourned

- Meeting adjourned at 4:00 pm EST
- Next meeting in-person in San Antonio, TX during the afternoon of February 9th at IAR