

Sequence IVB Sub Groups | MINUTES

REVISION DATE: 8/29/2018 9:03:00 AM

Relevant Test:	Sequence IVB
Note Taker:	Chris Mileti
Meeting Date:	08-21-2018
Comments:	Conference call for Sequence IVB Precision and Procedure Sub-Groups.

1. DISCUSSION:

1.1. Lubrizol Update:

1.1.1. During the last sub-group discussion, Lubrizol offered to host a conference call during the week of August 13th to discuss the master database that it is compiling for the Statistics Group.

1.1.2. Lubrizol did not actually schedule this meeting because the database was too incomplete to present to the IVB sub-groups.

1.1.3. **The following information is still missing from the database:**

1.1.3.1. Intertek's engine history data.

1.1.3.2. Intertek's repeat measurements of the 2nd Precision Matrix end-of-test oil samples.

1.1.3.3. Supplemental camshaft lobe failure audit data (i.e. test hours at failure, associated lifter position, etc.).

1.1.4. **Engine Life Study:**

1.1.4.1. Lubrizol had an engine in which the first two runs were used for candidate testing.

1.1.4.2. The 3rd, 4th and 5th runs were all made using REO1011.

1.1.4.3. The objective of the 3rd through 5th runs was to determine if there is a measurable shift in lifter wear or end-of-test iron over time.

1.1.4.4. Lubrizol did not identify any clear trends between severity and engine hours.

1.1.4.5. This data will be made available to the Industry via the master database.

1.2. Intertek Update:

1.2.1. The repeat measurements of the 2nd Precision Matrix end-of-test oil samples should already be complete.

1.2.2. Intertek will focus on getting their engine history data to Lubrizol so that it can be incorporated into the master database.

1.2.3. **Revised Camshaft Lobe Failure Audit Template:**

1.2.3.1. Intertek still needs to create a revised camshaft lobe failure audit template that it can provide to the TMC.

1.2.3.2. This revised template will contain supplementary data fields that were not present in the original ACC audit.

1.2.3.3. Lubrizol reiterated that it would like to incorporate this supplementary data into the master database.

1.2.3.4. Intertek and the TMC have no objection to Lubrizol's request if the data is limited to reference tests.

1.2.3.5. Intertek would like to see the audit data updated because the original data is already over a month old.

1.2.3.5.1. They have had additional camshaft lobe failures (on candidate tests) within that time.

1.2.4. Calcium Adjusted Iron Measurements at Individual Labs:

1.2.4.1. Four of the five labs (Intertek, Southwest, Lubrizol and Afton) have retested their Precision Matrix end-of-test oil samples using the revised calcium adjustment procedure.

1.2.4.1.1. Afton retested the end-of-test oil samples from its two prove-out tests.

1.2.4.1.2. Lubrizol offered to contact Exxon to get a status on their revised measurements.

1.2.5. Procedure for Servicing Stand after Camshaft Lobe Failure:

1.2.5.1. Intertek completed this draft document and distributed it to the other labs for review.

1.2.5.2. They also reviewed it directly with Southwest.

1.2.5.2.1. Southwest confirmed that the Intertek draft matches what they are already doing in their lab.

1.2.6. Intertek recently issued a draft procedure for dealing with extended shutdowns.

1.3. Afton Update:

1.3.1. Afton has almost completed its pre-test measurements of the round-robin lifters.

1.3.2. They will ship the lifters to Intertek once their measurements are complete.

1.3.3. Comments from Intertek:

1.3.3.1. They will start the round-robin test after their Keyence measurements are complete.

1.3.3.2. The test will be run on IAR101.

1.3.3.3. They will use the newest batch of the REO300 reference oil (REO300-1).

1.4. E-Ballot (Lubrizol):

1.4.1. Lubrizol reviewed some of the key action items from the previous conference call.

1.4.2. One of the previous action items was to issue an e-Ballot to the Sequence IV Surveillance Panel so that it can vote to approve some of the work completed by the three IVB sub-groups.

1.5. Forward Action Plan:

1.5.1. Continue with the Keyence round robin.

1.5.2. Provide Lubrizol with the remaining engine life and camshaft lobe failure data so that the master database can be completed.

1.5.3. Submit an e-Ballot so that the Surveillance Panel can vote on action items that have been closed by the three IVB sub-groups.

1.5.4. Summary Slide for Upcoming Industry Meetings:

1.5.4.1. Lubrizol will create several slides that can be added to the Toyota presentation for the September industry meetings.

1.5.4.2. These slides will briefly summarize the action items that have been completed by the three IVB sub-groups.

Action Items	Person responsible	Completion Date

Follow-up Notes/Updates	Initials	Date Added

Attendees	Organization	Contact Information