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Originally Issued: July 23, 2020

Reply to: Richard Grundza
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Unapproved Minutes of the July 22, 2020
Sequence IV Surveillance Panel Conference Call.

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The meeting was called to order by Chairman Buscher at 9:30 AM Central Time.

A copy of the agenda is included as attachment 1.

A list of attendees is included as attachment 2.

The panel discussed several comments received during the Subcommittee B ballot of the draft IVB Method. The panel agreed to correct these via information letter (see attachment 3). During this review, it was noted that the procedure being balloted did not address adjusted iron measurements taken in duplicate which are currently being measured and documented on form 4 of the test report. Sid Clark (facilitator)

and Bill Buscher agreed to review the previous drafts to determine if and when this item may have gotten dropped.

The panel reviewed and discussed severity differences between labs and discussed recent industry warning and action alarms for AVLI. During a previous meeting, a request was made of the TMC to review current industry data to determine if the differences in lab severity noted during the precision matrix are still evident. The TMC had conducted that review and found those differences are still evident for both AVLI and Fe. During review of the industry control charts, it was noted that four stands, all recently trending severe may have been responsible for the recent alarm in AVLI. It should be noted that the alarm has cleared. A request was made of the TMC to continue to keep the panel informed of any changes in severity in the upcoming weeks. The TMC presentation regarding severity is included as attachment 5.

The panel discussed introduction of reference oil SL-107 as a replacement for reference oil 1006-2. Labs agreed to break in an engine with SL-107 and compare silicone results with results from engines broken in with reference oil. Labs were also to introduce the engine broken in with SL-107 with a reference test. The TMC was asked to redirect the 1006-2 in a labs inventory to Sequence IVA.

The panel discussed some test numbering discrepancies where labs had been including the break in runs using 1006-2 and 1012 in the runs on stand an engine. The panel agreed to revise the procedure to direct that these runs not be included in the stand and engine run count but be tracked separately.(see attachment 4).

The panel addressed number of data point discrepancies in test reporting. Some labs occasionally have extra data points at the end of test and it was agreed that several extra data points. It was also re iterated that tests with more than 1% missing data are to be declared invalid and tests with as little as one BQD or missing data point need to be explained in the comments section of the test report. (see attachment 4)

The panel discussed several minor modifications to the stand requested by a laboratory. The changes were deemed acceptable by the panel and Toyota. The panel agreed that were minor modifications are felt to be needed by a laboratory, they would be taken to Toyota for their concurrence and then addressed by the surveillance panel. Changes to add hinges to the driveshaft shield and allow different fittings for the pressure transducer connections. The panel also was advised that two parameters not identified in the table identifying items requiring six month calibration were added to the balloted test method. Also, the panel was informed that some action needs to be taken to clarify how to calibrate the weights used for load cell verification. This will be addressed on another call.

The meeting was adjourned at 10:09 AM CST.

Attachment 5 includes the motion and action items recorded during this meeting.

Sequence IV Surveillance Panel

Conference Call

July 22, 2020

9:30 a.m. - 11:30 a.m.







A G E N D A

1. Chairman comments.
2. Attendance.
3. Membership changes.
4. Review ASTM Ballot D02.B0 (20-04) results.
5. Address ASTM Ballot D02.B0 (20-04) comments.
6. Consider SL 107 as a replacement for 1006-2 for Sequence IVB aging.
7. Sequence IVB inconsistencies in numbering practices between labs (aging and break-in).
8. Sequence IVB inconsistencies in number of operational data points.
9. Minor modifications to Sequence IVB Golden Stand.
10. Old business.
11. New business.
12. Motion and action item review.
13. Next meeting.
14. Adjourn.

NOTE: ASTM Ballot D02.B0 (20-04) was the ballot for accepting the Sequence IVB test method as an ASTM standard.

**MEMBERSHIP
SEQUENCE IV SURVEILLANCE PANEL**

July 22, 2020

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Affirmative with Comment

Jim Linden

Ballot Number: D02.B0 (20-04) Close Date: JUNE 14, 2020
Item Number: 001 Test Method for Standard Test Method for Evaluation of Automotive Engine Oils in the Sequence IVB Spark-Ignition Engine WK72772 (REFERENCE Z0305Z)
TECHNICAL CONTACT: Sidney Clark
slclark@comcast.net
(586) 873-1255

Member's Name: James L Linden
Address: Linden Consulting, LLC
673 Campus Rd
Rochester Hills MI 48309

Phone Nr: 2483215343 Fax Nr: 5869862094
Email Address: lindenjim@jlindenconsulting.com
File Attachment:

Statement:

Section	Statement
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Section 5	I believe Note 4 needs to be modified, but I expect my proposed modifications can be handled as editorial changes. As shown in the ballot: (NOTE 4 —This test method may be used for engine oil specifications such as API SN, SN-Plus, SP, and ILSAC GF-6.)
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The API has not approved the use of the Sequence IVB Test for qualifying lubricants against API SN or SN-Plus specifications, therefore reference to SN and SN-Plus in Note 4 should be removed. Additionally, ILSAC GF-6 should be listed in Note 4 as ILSAC GF-6A and GF-6B since GF-6A and 6B are two different specifications.

Sequence IVB Surveillance Panel Information Letter 20-01

Editorial Change Proposal

Section 5

Note - 4

NOTE 4 — This test method may be used for engine oil specifications such as API SP, and ILSAC GF-6A and GF-6B.

Sequence IVB Surveillance Panel Information Letter 20-01

Editorial Change Proposal

Section 2.5

Note - 1

2.5 GMNA Standards:

GMW3420⁷ – Coolant – Extended Life – Ethylene Glycol (**Warning**—Health hazard—see appropriate MSDS)

Note 1 — Shellzone⁸ dex-cool 50/50 pre-diluted with de-ionized H₂O meeting the specification for **GMW3420**, GM North American Standard has been found satisfactory for this purpose.

Nathan Siebert

Affirmative with Comment

Ballot Number: D02.B0 (20-04) Close Date: JUNE 14, 2020
Item Number: 001 Test Method for Standard Test Method for Evaluation of Automotive Engine
Oils in the Sequence IVB Spark-Ignition Engine WK72772
(REFERENCE Z0305Z)
TECHNICAL CONTACT: Sidney Clark
slclark@comcast.net
(586) 873-1255

Member's Name: Nathan W Siebert
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Phone Nr: 2483437274 Fax Nr:
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File Attachment:

Statement:

Section	Statement
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section 2.5	GM6277M is an obsolete spec current GMW spec. is GMW3420 This also applies to note 1
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There should be a test shutdown log.

Motion:

The Sequence IVB Surveillance Panel recommends the introduction of Information Letter 20-01 to incorporate changes to the Sequence IVB Procedure to include editorial change requirements to sections;

Section 5, Note – 4 (*Jim Linden IVB Ballot Editorial Change Comment*)

NOTE 4 —This test method may be used for engine oil specifications such as API SP, and ILSAC GF-6A and GF-6B.

Section 2.5 & Note – 1 (*Nathan Siebert IVB Ballot Editorial Change Comment*)

2.5 GMNA Standards:

GMW3420— Coolant – Extended Life – Ethylene Glycol (**Warning**—Health hazard—see appropriate MSDS)

Note 1 — Shellzone dex-cool 50/50 pre-diluted with de-ionized H₂O meeting the specification for GMW3420, GM North American Standard has been found satisfactory for this purpose.

Attachment 4

Sequence IVB Items for Surveillance Panel Discussion

Discussed during 4/21/2020 Sequence IVB Procedure Review Sub-group WEBEX

- Inconsistencies in numbering practices between labs:
 - **Recommendation is to address with an information letter.**
 - Test numbering.
 - **Only increment the number of tests since the last calibration test on the stand and the total number of tests conducted on the stand, for reference oil and candidate oil tests.**
 - Aging numbering (original 95 min break-in + 50 hr aging).
 - **Use a separate numbering scheme and increment separate from the test numbering scheme.**
 - **Do not increment the number of tests since the last calibration test on the stand and the total number of tests conducted on the stand, included in the test numbering scheme, when conducting an engine aging sequence.**
 - Break-in numbering (50 hr extended break-in).
 - **Use a separate numbering scheme and increment separate from the test numbering scheme.**
 - **Do not increment the number of tests since the last calibration test on the stand and the total number of tests conducted on the stand, included in the test numbering scheme, when conducting an engine break-in sequence.**
- Inconsistencies in number of operational data points.
 - **Multiple labs experience small discrepancies in total number of operational data points on a periodic or regular basis.**
 - **Recommendation is to continue as is. If a test is missing more than 1% then it is invalid. If a test is missing less than 1%, but at least 1 of the 720,000 data points, then comments describing the anomaly must be included in the test report.**
- Modification to driveline guard.
 - **Lubrizol wants to add hinges.**
 - **Recommendation is to petition for small Golden Stand modifications on a case-by-case basis at the Surveillance Panel level.**
- Use of alternate pressure transducer fittings.
 - **Recommendation is to petition for small Golden Stand modifications on a case-by-case basis at the Surveillance Panel level.**
- Do we have or need to have a specific method for calibrating the standardized weight set manufactured for the Sequence IVB's load cell calibration?
 - **Recommendation is to add verbiage to procedure for labs to follow internal weight calibration procedures, with the option to send them back to the manufacturer for calibration.**
- There were two controlled parameters (with associated QI, BQD, etc.) that were not included in the list of 6-month calibrations. These are coolant pressure and load cell temperature. Sid has added them to Table 6 of the ASTM draft procedure.
 - **Done.**

Sequence IV Surveillance Panel
July 22, 2020
9:30AM – 11:30AM
Conference Call

Motions and Action Items

As Recorded at the Meeting by Bill Buscher

1. Motion – The Sequence IV Surveillance Panel approves the editorial revisions of Section 2.5 & Note – 1 and Section 5, Note – 4 of the Sequence IVB ASTM test method, included in Sid Clark’s (ASTM facilitator) PowerPoint slides. Effective 7/22/2020.
Teri Kowalski / Bill Buscher / Passed Unanimously 16 – 0 – 0
2. Motion – The Sequence IV Surveillance Panel approves replacing 1006-2 with SL 107 for Sequence IVB aging. Labs to compare used oil Si results from their first SL 107 aging to their historical 1006-2 aging and if comparable then labs will continue to introduce SL-107 with a reference test on the first test engine that has been aged with SL 107. Labs will be allowed to use up any remaining decoded 1006-2 for Sequence IVB aging as they transition to SL 107. Effective 7/22/2020.
Bill Buscher / Khaled Rais / Passed Unanimously 16 – 0 – 0
3. Motion – The Sequence IV Surveillance Panel approves the addition of a test numbering practice scheme for aging numbering (original 95 min break-in + 50 hr aging) and break-in numbering (50 hr extended break-in) into the Sequence IVB ASTM test method.
Rich Grundza / Andrew Stevens / Passed Unanimously 16 – 0 – 0
4. Action Item – When a lab has the need for a small Sequence IVB Golden Stand modification they can petition Toyota and the Sequence IV Surveillance Panel in writing on a case-by-case basis.

Action Item – Lubrizol to draft verbiage for the Sequence IVB ASTM test method for labs to follow internal weight calibration procedures for calibrating the standardized weight set manufactured for the Sequence IVB’s load cell calibration, with the option to send them back to the manufacturer for calibration. The Surveillance Panel will then follow up with a motion to approve this procedural revision.