

# ASTM New Engine Oil Gelation Test (EOGT) WK86363 Update

EOFT and EOWTT Surveillance Panel Meeting  
August 21, 2023

Yong-Li McFarland, Chair



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# Agenda

- New EOGT
  - Update on Screening Tests
  - Any changes
- Next meeting



# EOFT and EOWTT Surveillance Panel Membership

## 20 members

Beth Schwab, Afton Chemical

Michael Kunselman, Center for Quality Assurance

Robert Stockwell, Chevron Oronite

Dennis Gaal, Exxonmobil

Michael Deegan, Ford

Ron Shah, Infineum

Joe Franklin, Intertek

Karina Gil, Intertek

Michael Johnscher, ISP

Litchi Xie, Lubrizol Additive (Zhuhai) Co., Ltd.

Victoria Fein, Lubrizol

Jason Bowden, OH Technologies Inc

Greg Miiller, Savant Group

Maggie Smerdon, Savant Labs

Sean Alston, SGS North America

Jared Cavaliere, SwRI

Becky Grinfield, SwRI

Yong-Li McFarland\*, SwRI

John Loop, TMC

Amy Ross, Valvoline

\*Chair



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# New EOGT WK86363, ILS# 1854

- Ford request for a new Engine Oil Gelation Test (EOGT): request to add a new test filterability test to better screen oils for field issues
- Current status
  - Method: 2 drafts (large volume (600g) and small volume (200 g)) uploaded on ASTM Collaboration Area, email Jared with procedure questions
  - Oils: **13** potential reference oils offered; 17 oils received at TMC
  - Screening Tests, Pilot Study, and ILS: Report form completed, 6 labs running Screening Tests
  - Timing: Estimate Screening Tests run in August, Pilot Study tests run by November, ILS tests to be run by March, and final method ballot in May or June 2024



# Oil Matrix

Participants	Potential Reference Oils Offered	Oil Sample Received at TMC	Comments
Ford	2 oils (low and high known performance oils) - eligible to be reference oils	2 oil samples received	
Toyota	2 oils - not eligible to be reference oil	2 oil samples received	Offer 2 field samples for later testing; Awaiting Physical and Chemical data
Afton	4 oils– eligible to be reference oils	4 oil samples received	
Lubrizol	4 oils – eligible to be reference oils	4 oil samples received	
Infineum	1 oil – eligible to be reference oil	1 oil sample received	
Oronite	3 oils –2 oils eligible to be reference oils	3 oil samples received	Awaiting Physical and Chemical data
Subaru	1 oil – not eligible to be reference oil	1 oil sample received	Offer 1 field sample for later testing
<b>Total Oils</b>	<b><u>13 potential reference oils confirmed</u></b>	<b><u>17 oils received</u></b>	

John Loop to manage Sample Information



# Testing Status – updated Aug 18

[EOGT report form Rev4.5](#)

Test Phase	Description	Status	Comments
1. Screening Tests	<p>-4 tests; 2 oils: low performance oil in duplicate, high performance oil in duplicate; 6 labs</p> <p>-Run LV method</p> <p>-Intent: check labs can run test as set up</p>	<p>Samples arrived at labs</p> <p>-SwRI: complete tests by Aug 25, send data by Aug 29</p> <p>-Intertek: complete tests by Aug 28 week, send data by Sept 8</p> <p>-Savant: complete tests by Aug 21, send data by Aug 25</p> <p>-Afton: complete tests by Aug 21, send data by Aug 28</p> <p>-ISP: complete tests by week of Aug 21, send data by Aug 25</p> <p>-Valvoline: complete tests by mid Sept, send data by Sept 18</p>	<p>Run SOT &amp; 14 day EOT only.</p> <p><b>-Will move forward without Valvoline data</b></p>
2. Pilot Study	<p>-? Tests; ? Oils; 4 labs</p> <p>-Run SV and LV methods</p> <p>-Intent: determine samples, method, and intervals for procedure and ILS</p>	<p>Waiting to determine samples</p>	
3. Interlaboratory Study (ILS)	<p>-? Tests; ? Oils; 6 labs</p> <p>-Run _ method</p> <p>-Intent: generate repeatability and reproducibility data on samples, determine at least 2 reference oils</p>	<p>Waiting to determine samples</p>	

# Next Steps

- All labs (SwRI, ISP, Intertek, Afton, Valvoline, Savant ) run Screening tests (LV tests on high and low performance oils) and send Data Report Form by email to John Loop by early Sept
- Travis to analyze Screening Test data if all labs can participate in Pilot Study and ILS or if labs need to make adjustments before starting next tests
- Determine Pilot Study samples (# and which samples, and # repeats), and method (LV, SV, all intervals)
- Send out Pilot Study samples to Pilot Study labs
- Labs run Pilot Study



# Draft Timeline

Task	Date						
	May-Jun 2023	Jul-Aug 2023	Sept-Oct 2023	Nov-Dec 2023	Jan-Feb 2024	Mar-Apr 2024	May-Jun 2024
Develop test procedure and report form (ILS)	█						
Collect and prepare donated oil samples (18 oils)	█	█					
Screening samples shipped to Screening labs (6 labs)		█					
Screening labs run 4 tests			█				
Data analysis for Screening tests			█				
Pilot Study samples shipped to Pilot Study labs (4 labs)			█				
Pilot Study labs run ? tests				█	█		
Data analysis for Pilot Study					█		
ILS samples shipped to ILS labs (6 labs)					█	█	
ILS Labs run tests						█	█
Data analysis for ILS, generate Research Report (RR) & Precision							█
Ballot test procedure and RR							█
<b>Generate pass/fail limits [Outside this Surveillance Panel]</b>							



# Thank you for your support!

Participants		
Method Development	Oil Donations	Testing Labs
Afton	Afton	Afton (Screening, Pilot, and ILS)
ExxonMobil	Ford	Intertek (Screening, Pilot, and ILS)
Ford	Infineum	ISP (Screening, Pilot, and ILS)
Infineum	Lubrizol	Savant (Screening and ILS)
Intertek	OH Technologies (donate filters only)	SwRI (Screening, Pilot, and ILS)
ISP	Oronite	TMC (monitoring system only)
Lubrizol	Subaru	Valvoline (Screening and ILS)
Oronite	TMC (collection, shipping only)	
Savant	Toyota	
SwRI		
TMC		

