

Oil Seal Compatibility Test (OSCT) Surveillance Panel Meeting Minutes

October 29, 2024

Don Bell

Participants listed on attachment in Appendix.

An OSCT Surveillance Panel meeting was called to order by D. Bell at 10:02 am on 10/29/2024.

The qualification data (Appendix) generated by Labs C and G on a new lot of fluoroelastomer (FL419) in the two reference oils, TMC 169 and TMC 171, was reviewed by the Panel. Lab G's initial %volume change in TMC 169 was low outside of the TMC 169 limits but the repeat was well within the limits. Similarly, Lab G's %elongation initial result in TMC 171 was high outside of the 171 limits but a repeat was within the limits. All other parameters in both reference oils were within the reference oils acceptance bands and some parameters matched well between the labs.

A motion made by D. Bell and 2nd by B. Grinfield was unanimously (9 votes) approved to effectively immediately approve FL419 elastomer batch for use in ASTM D5662 testing. TEI will release FL419 for sale as orders are submitted.

TEI also just received NI356 and FL420, so will distribute both to the labs for qualification testing.

The Panel discussed the approval matrices proposed for the three new OSCT TMC Reference oils since all three of the current oils are beyond their 5 year shelf lives.

TMC 169 (PA, FL & NI) could not be rebleded because the base stocks are obsolete, but the supplier provided TMC a similar replacement now called TMC 172. The Stats Group proposed an approval matrix of 4 runs per bath per elastomer, thus for 5 baths in 2 labs that would be a total of 20 results/elastomer. However, Lab G only has 1 bath while Lab C has 4 baths. Therefore, the Panel will vote on at the Nov 13th OSCT Panel meeting as to whether this is an acceptable approval matrix or if it can be reduced to a smaller n size and split-up the testing to have the same number of runs at both labs to avoid Lab C running most of the testing. At the upcoming Nov. 13th OSCT meeting, the Panel will consider donating seals and reference oils for the approval matrices.

TMC 170 (NI) was rebleded as TMC 170-1 and shipped to TMC. The labs were not able to identify a root cause of the increased variability observed in 2022. The Stats Group analyzes the average of the 12 runs/elastomer parameter and not the individual 12 reported values for each. We may want to consider eliminating outliers from the average calculation. The Panel will vote on at the Nov 13th OSCT Panel meeting for an acceptable approval matrix.

TMC 171-1 (PA & FL) was rebled and shipped to TMC. A motion made by D. Bell and 2nd by K. Gutierrez was unanimously approved (9 votes) for an approval matrix to be 2 runs per bath per elastomer at the same time, along side an accompanying reference on TMC 171 or TMC 169.

A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 9 votes to adjourn the meeting at 10:36 am.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Donald R. Bell". The signature is fluid and cursive, with the first name "Donald" and last name "Bell" clearly distinguishable.

Donald R. Bell/Chairman

Appendix



FL419 Approval Testing

Oct. 2024

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3

FL419 Approval Table

		testkey	ltmslab	val	ind	ltmsdate	CHART	com1	com2	com3	com4	PVCA	SAHA	PELA	EBC	PELAYI	SAHAYI	PVCAYI
171	Approval Run	189858-OSCT	G	N	171	20241017	N	FL419	APPROVAL			3.3	-1.2	-43	FL419	0.832184	-1.3143	0.943381
	Accompanying Ref	189853-OSCT	G	AC	169	20241017	Y	FL419	REF			3.8	-1.2	-41.7	FL418	-0.31474	-1	-0.84507
	Approval Run	189968-OSCT	C	N	171	20241007	N	FL419	APPROVAL			1.3	1	-36.7	FL419	1.891542	0.007813	-0.7219
	Accompanying Ref	189995-OSCT	C	AC	171	20241007	Y					1.4	-0.3	-51.2	FL418	-0.54666	-0.77344	-0.63863
169	Approval Run	189852-OSCT	G	N	169	20241017	N	FL419	APPROVAL			4.6	-1.2	-34.7	FL419	0.686695	-1	0.28169
	Accompanying Ref	189853-OSCT	G	AC	169	20241017	Y	FL419	REF			3.8	-1.2	-41.7	FL418	-0.31474	-1	-0.84507
	Approval Run	189990-OSCT	C	N	169	20241007	N	FL419	APPROVAL			4.2	0	-28.2	FL419	1.616595	-0.07692	-0.28169
	Accompanying Ref	189995-OSCT	C	AC	171	20241007	Y					1.4	-0.3	-51.2	FL418	-0.54666	-0.77344	-0.63863

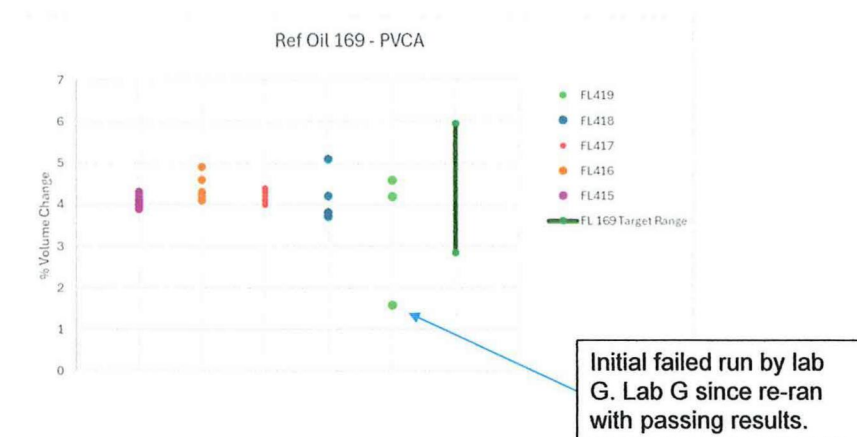
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4

Reference Oil 169 - PVCA



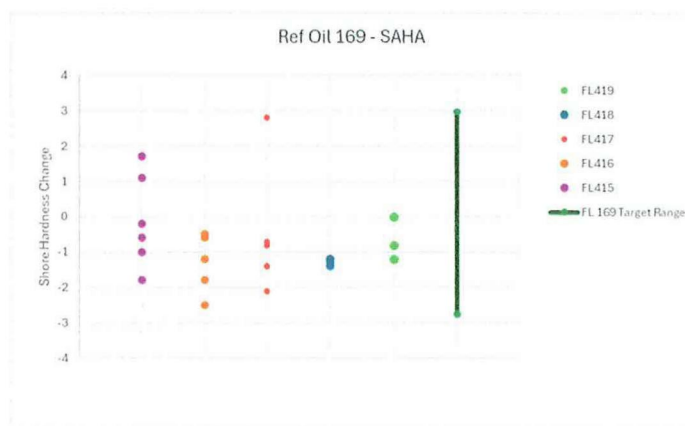
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Reference Oil 169 - SAHA



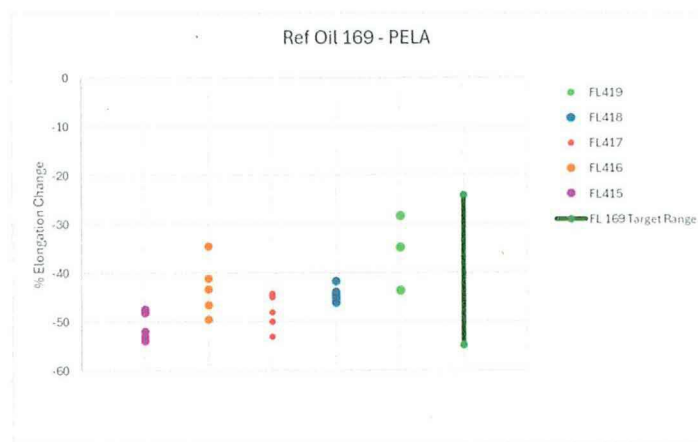
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Reference Oil 169 - PELA



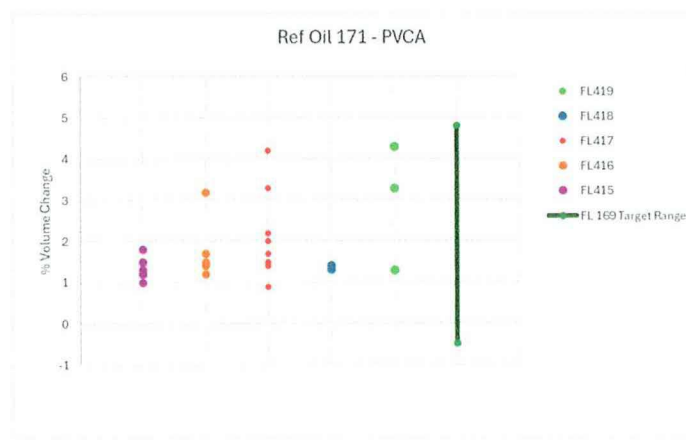
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7

Reference Oil 171 - PVCA



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Reference Oil 171 - SAHA



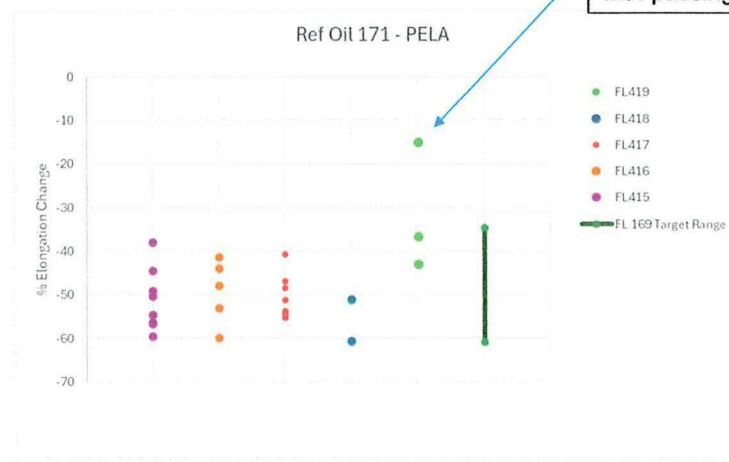
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9

Reference Oil 171 - PELA



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10

Oil Seal Compatibility Surveillance Panel

Date: 11/13/2024

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