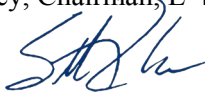




Test Monitoring Center

@ Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 15-010
DATE: April 16, 2015
TO: Jarrod Chalkley, Chairman, L-42 Surveillance Panel
FROM: Scott Parke 
SUBJECT: L-42 Reference Oil Testing from October 1, 2014 through March 31, 2015

Please find attached a summary of reference oil testing activity this period.

SDP/sdp/mem15-010.sdp.doc

cc: Frank Farber

Jeff Clark

L-42 Surveillance Panel

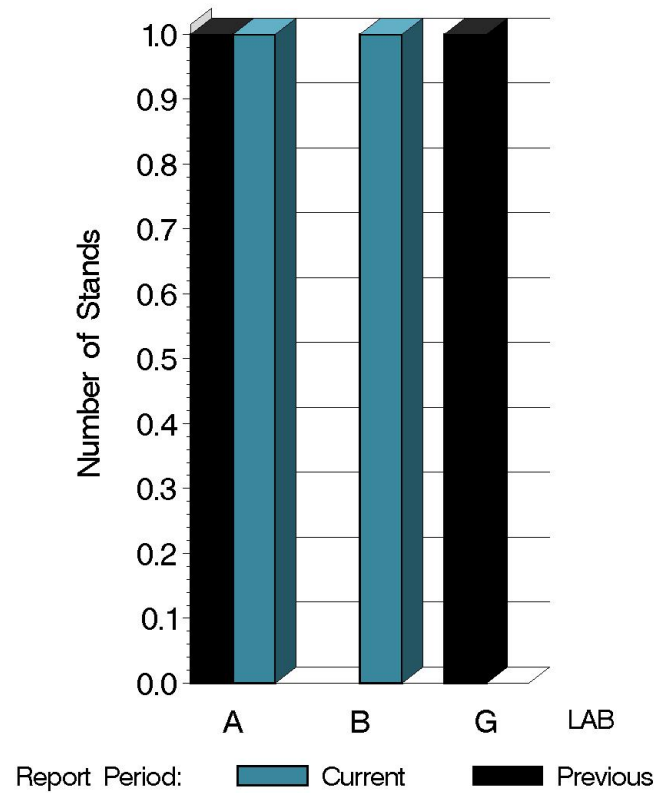
<ftp://ftp.astmtmc.cmu.edu/docs/gear/l42/semiannualreports/l42-04-2015.pdf>

Distribution: email

L-42 (D7452)

	Reporting Data	Calibrated on 3-31-15
Number of Labs	2	0
Number of Stands	2	0

BY-LAB STAND
DISTRIBUTION



14:39:13 15APR2015

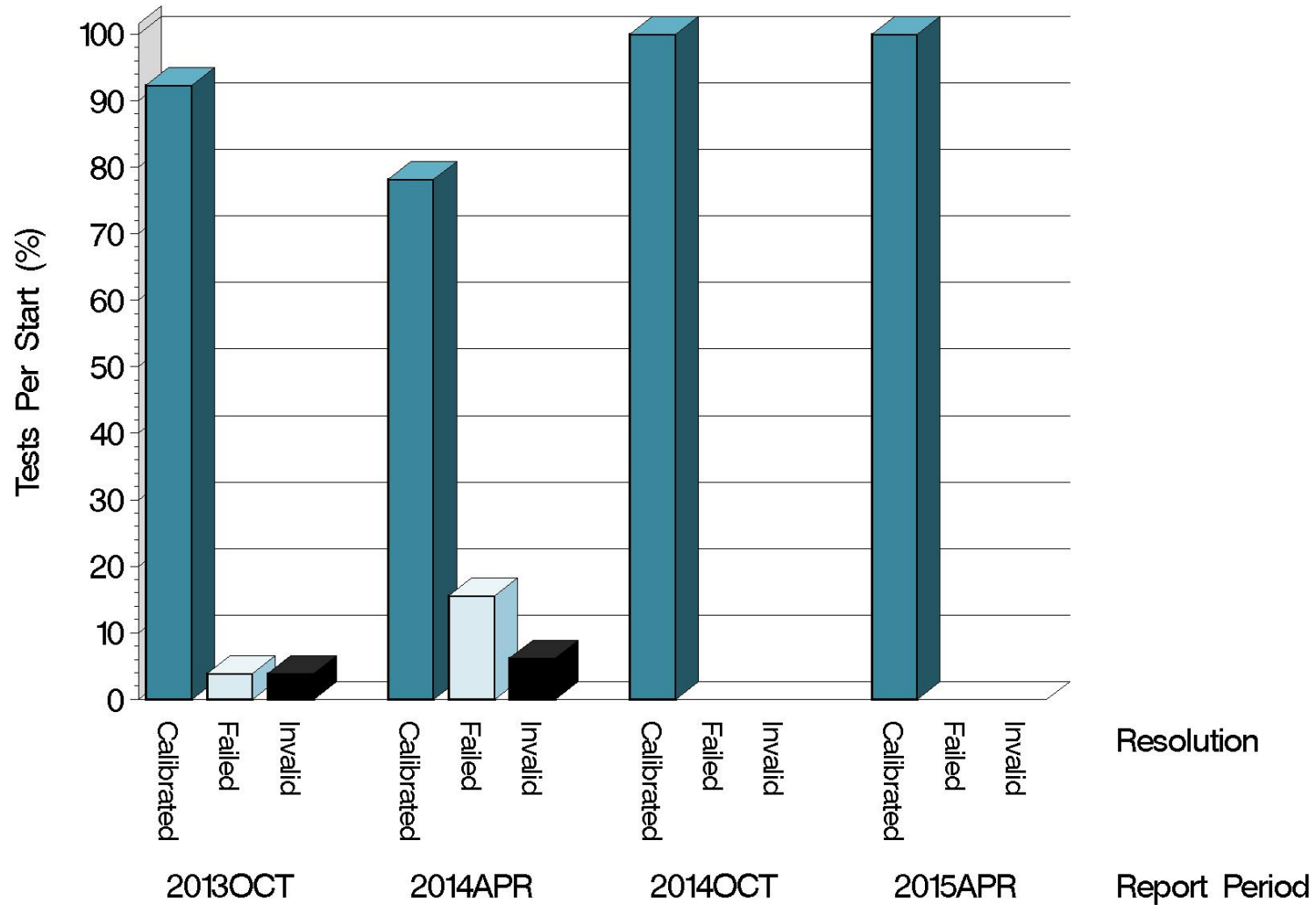
L-42 (D7452)

Test Distribution by Oil and Validity

						Totals	
		112-2	113	116-1	117	Last Period	This Period
Accepted for calibration	AC	0	0	0	7	12	7
Rejected (Mild)	OC	0	0	0	0	0	0
Rejected (Severe)	OC	0	0	0	0	0	0
Rejected (Precision)	OC	0	0	0	0	0	0
Accepted discrimination	AS	1	0	0	0	2	1
Unacceptable discrimination	MS	0	0	0	0	1	0
Invalidated discrimination	LS	0	0	0	0	0	0
Invalidated calibration	LC	0	0	0	0	0	0
Unacceptable calibration	MC	0	0	0	0	0	0
Aborted	XC	0	0	0	0	0	0
Acceptable information run	NI	0	2	0	3	0	5
Unacceptable information run	MI	0	0	1	2	0	3
Total		1	2	1	12	15	16

L-42 (D7452)

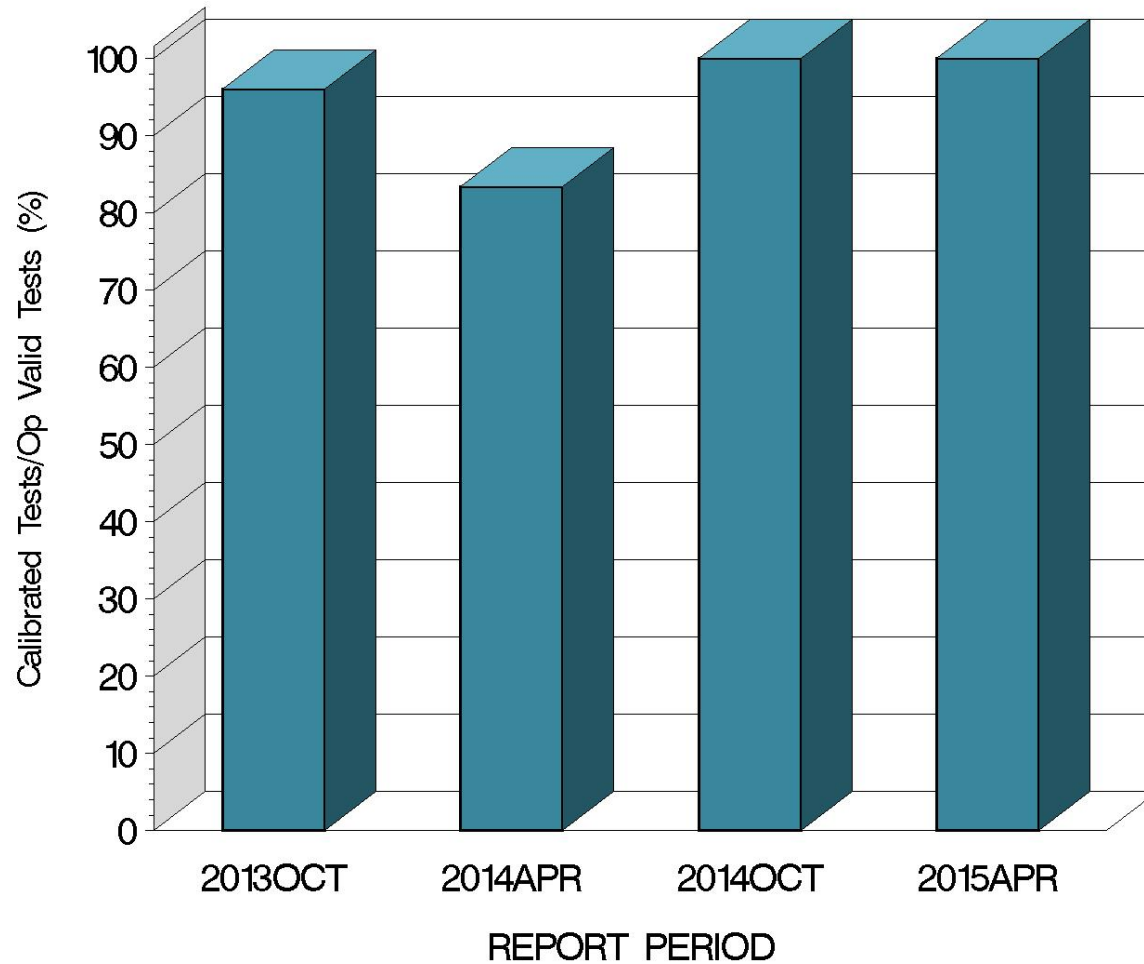
CALIBRATION ATTEMPT SUMMARY



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L-42 (D7452)

OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA



14:39:13 15APR2015

L-42 (D7452)

CAUSES FOR LOST TESTS

Lab	Cause	Oil				Validity				Loss Rate		
		112-2	113	116-1	117	MS	LS	LC	MI	Lost	Starts	%
	No tests were lost this period.									0	16	0%
	Lost	0	0	0	0	0	0	0	0			
	Starts	1	3	1	12	16	16	16	16			
	%	0%	0%	0%	0%	0%	0%	0%	0%			

Three tests from the same lab intended to provide information on the new hardware batch were unusable due to having been run with shock series 2 coast side wheel speed too low. These tests are marked with an “MI” validity in the database.

L-42 (D7452)

			Coast Side Pinion Scoring		
Oil	Gear Batch	N	Mean	Std. Dev.	Average Δ/s
117	C1L680/P8T025A	7	21.7	4.39	-0.23

		Pooled Standard Deviation			
Lab	Coast Side Pinion Scoring Δ/s	df	Coast Side Pinion Scoring	Coast Side Ring Scoring	Shock Series I Coast Side Ring Scoring
A	-0.23	6	4.39	4.34	0.00

L-42 (D7452)

SUMMARY OF SEVERITY & PRECISION

Severity

ECSP severity remained within control chart limits throughout this period.

Precision

ECSP precision remained within control chart limits throughout this period.

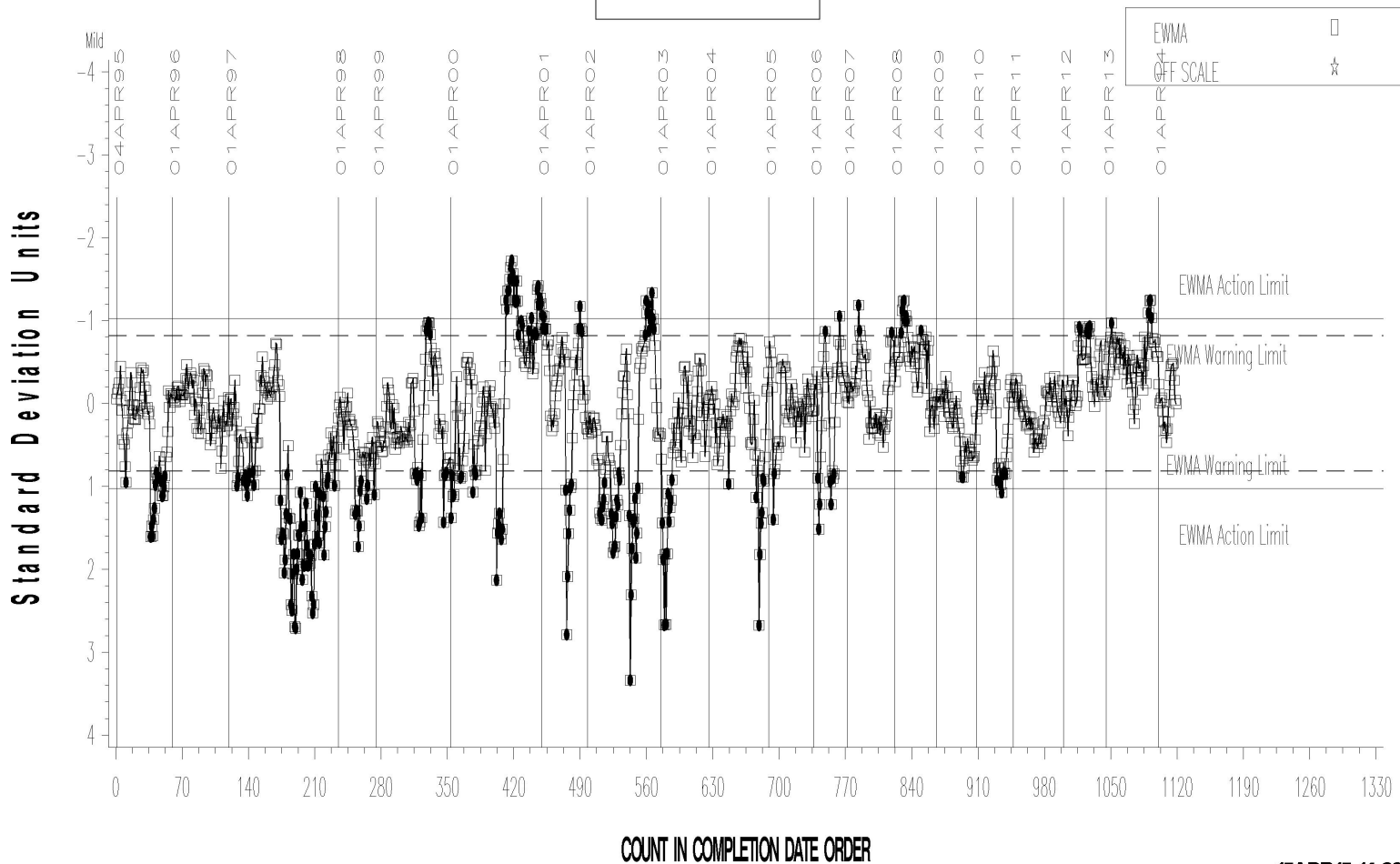
Industry control charts follow.

L-42 (D7452)

L-42 INDUSTRY OPERATIONALLY VALID DATA

FINAL EOT PINION SCORING COAST SIDE

LTMS Severity Analysis



Severe

15APR15:14:32

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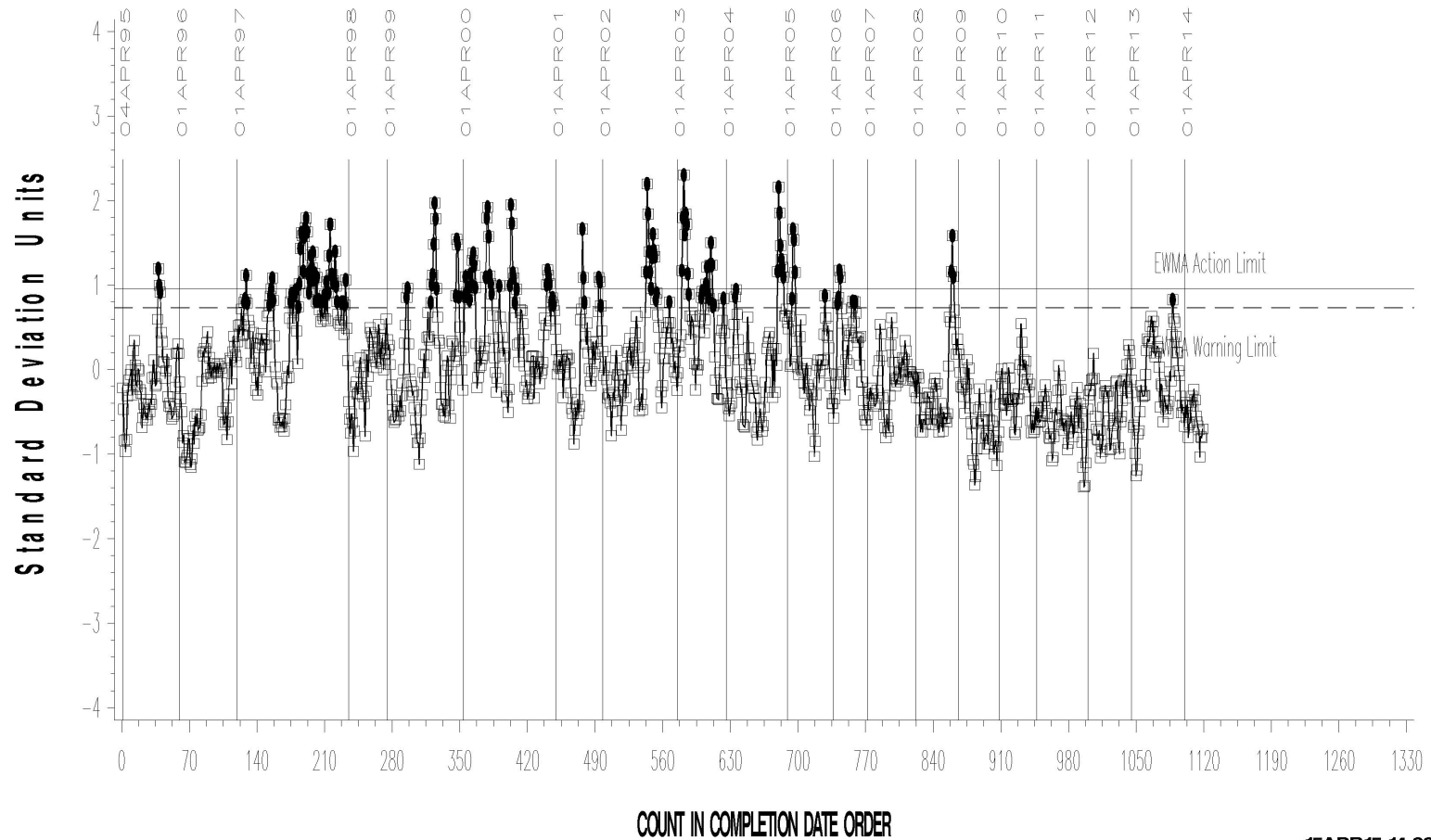
A Program of ASTM International

L-42 (D7452)

L-42 INDUSTRY OPERATIONALLY VALID DATA

FINAL EOT PINION SCORING COAST SIDE

LTMS Precision Analysis



15APR15:14:33

Test Monitoring Center
<http://astmtmc.cmu.edu>



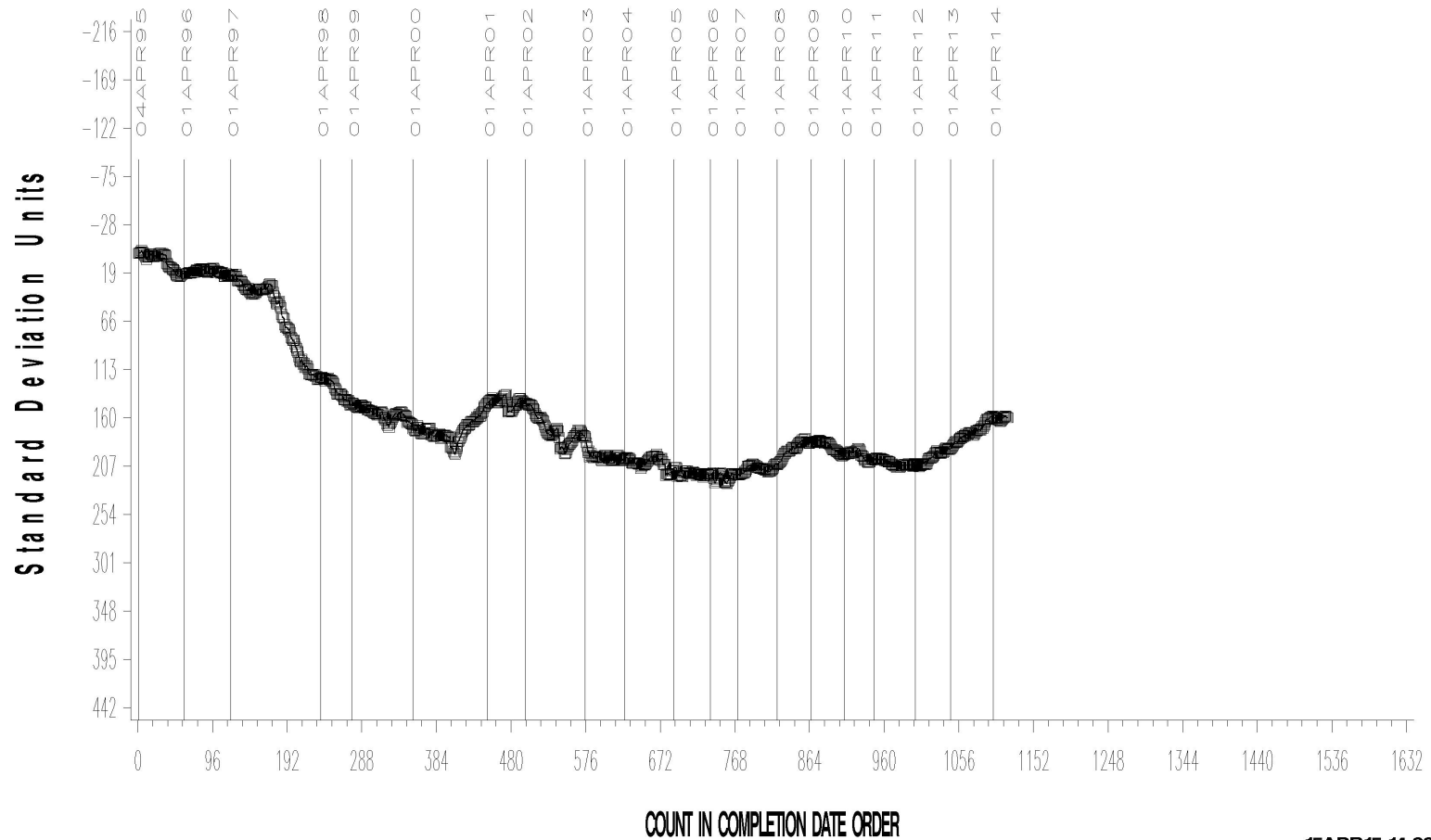
A Program of ASTM International

L-42 (D7452)

L-42 INDUSTRY OPERATIONALLY VALID DATA

FINAL EOT PINION SCORING COAST SIDE

CUSUM Severity Analysis



15APR15:14:33

L-42 (D7452)

TIMELINE ADDITIONS

Effective Date	Information Letter	Event
		There were no timeline additions.

L-42 (D7452)

LAB VISITS

One L-42 lab visit was conducted during this period. No procedural non-conformances were found.

INFORMATION LETTERS

No information letters were issued this period.

L-42 (D7452)

STATUS OF REFERENCE OIL SUPPLY

Oil	Cans @ Labs	@ TMC	
		Cans	Gallons
112-2	0	15	7.5
113	10	136	68.0
116-1	8	0	0.0
117	38	942	471.0
Total	56	1093	546.5

At surveillance panel direction, the TMC has procured oil 117 as a replacement oil for 116-1. This is a J2360 oil which produces somewhat milder scoring. The oil has been implemented for use as the new “pass” oil with a correction factor +6% for the pinion scoring result and +4% for the ring scoring result.