



Test Monitoring Center

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

MEMORANDUM: 17-030
DATE: October 30, 2017
TO: Eric Donovan, Chairman, L-42 Surveillance Panel
FROM: Dylan Beck *Dylan Beck*
SUBJECT: L-42 Reference Oil Testing from April 1, 2017 through September 30, 2017

Attached is a summary of reference oil testing activity this period.

DJB/djb/mem17-030.djb.doc

cc: Frank Farber
Jeff Clark
Scott Parke

L-42 Surveillance Panel

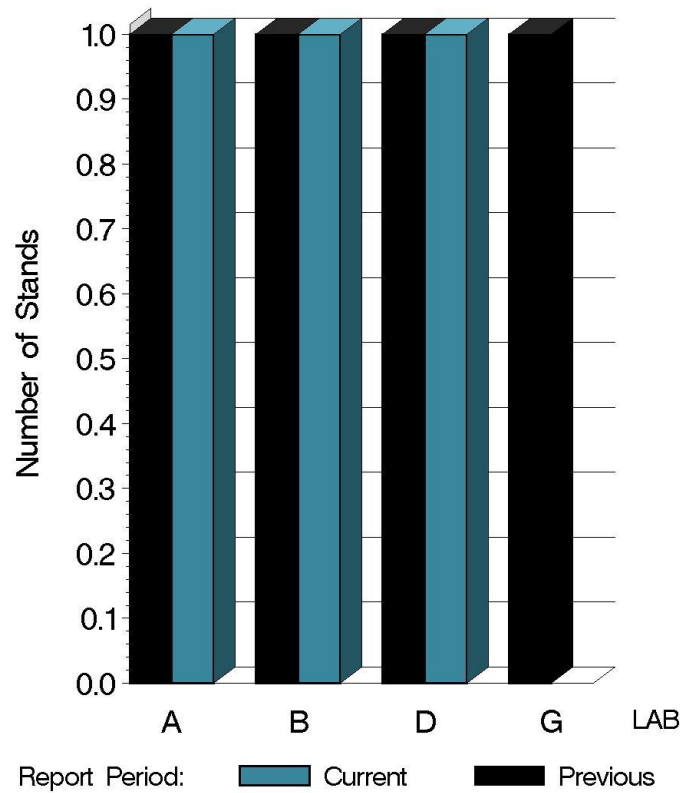
<http://www.astmtmc.cmu.edu/ftp/docs/gear/142/semiannualreports/142-10-2017.pdf>

Distribution: email

L-42 (D7452)

	Reporting Data	Calibrated on 9-30-17
Number of Labs	3	3
Number of Stands	3	3

BY-LAB STAND
DISTRIBUTION



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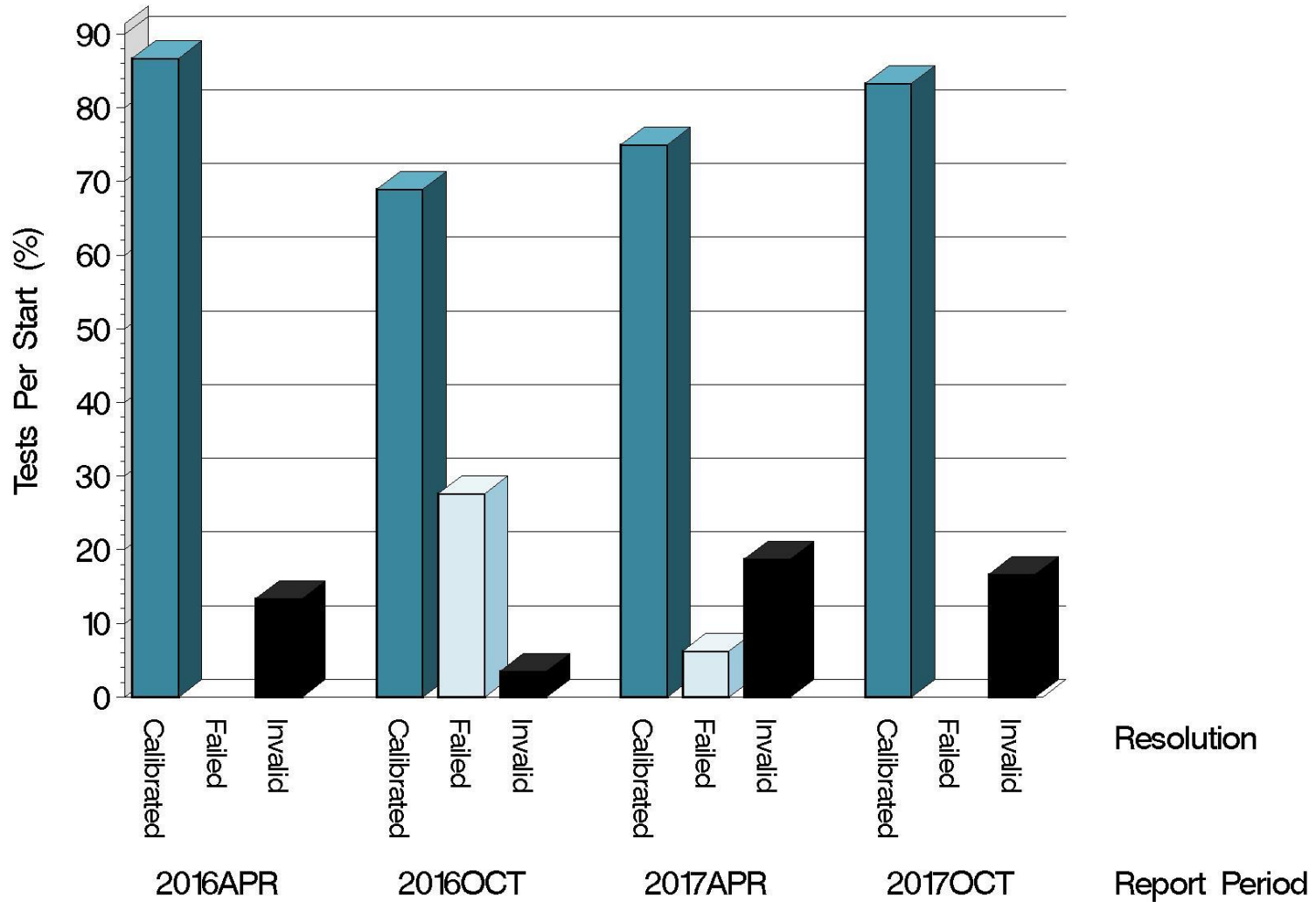
L-42 (D7452)

Test Distribution by Oil and Validity

					Totals	
		113	116-1	117	Last Period	This Period
Accepted for calibration	AC	0	0	10	12	10
Rejected (Mild)	OC	0	0	0	0	0
Rejected (Severe)	OC	0	0	0	1	0
Rejected (Precision)	OC	0	0	0	0	0
Accepted discrimination	AS	2	0	0	4	2
Unacceptable discrimination	MS	2	0	0	0	2
Invalidated discrimination	LS	0	0	0	1	0
Invalidated calibration	LC	0	0	1	2	1
Unacceptable calibration	MC	0	0	0	0	0
Aborted	XC	0	0	1	0	1
Acceptable information run	NI	0	0	1	0	1
Aborted information run	XI	0	0	1	0	1
Total		4	0	14	20	18

L-42 (D7452)

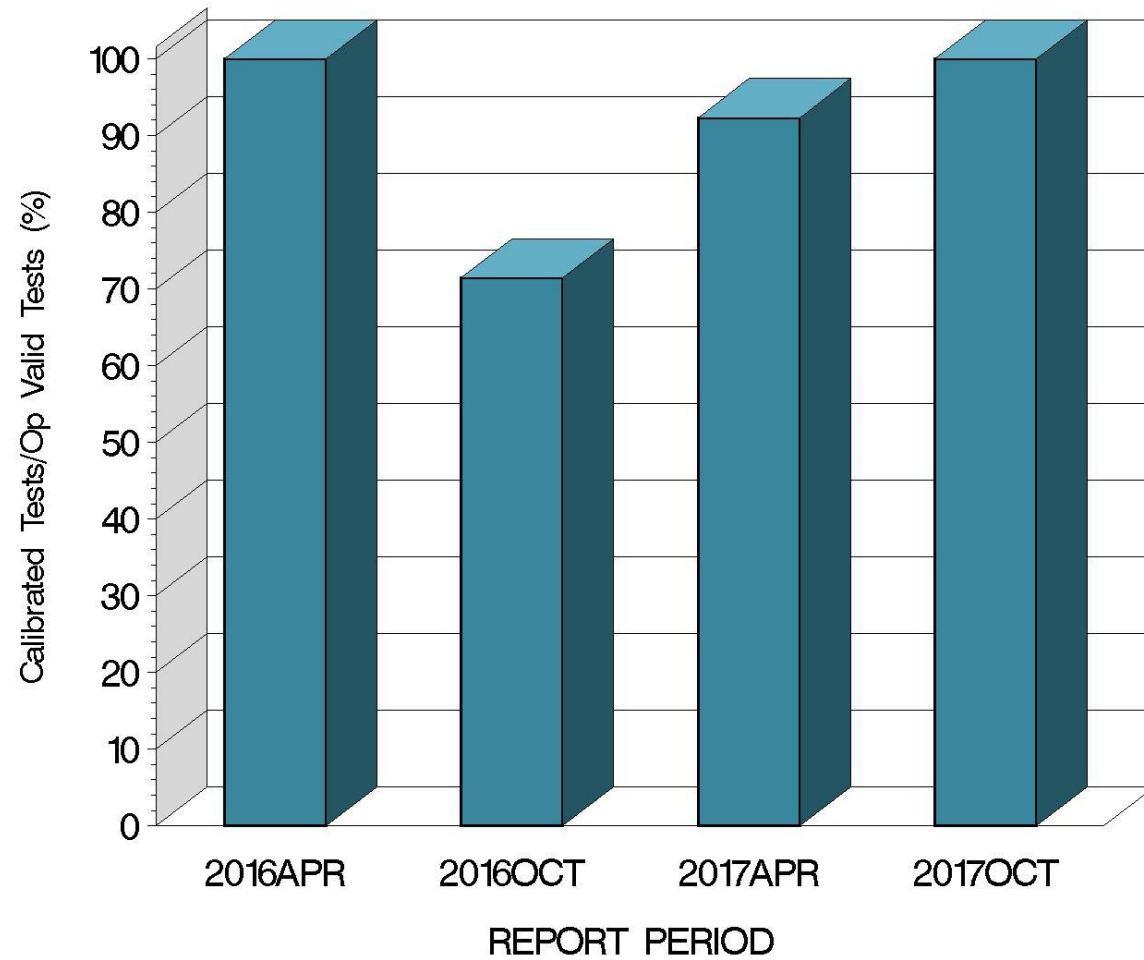
CALIBRATION ATTEMPT SUMMARY



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L-42 (D7452)

OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA



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L-42 (D7452)

CAUSES FOR LOST TESTS

Lab	Cause	Oil			Validity				Loss Rate		
		113	116-1	117	MS	LC	XC	XI	Lost	Starts	%
D	Ring score greater than pinion score	●			●				3	9	33%
	Shock 1 torque greater than 15%	●			●						
	Power outage			●			●				
B	Oil leak			●		●		2	5	40%	
	Dyno signal lost			●		●					
Lost		2	0	2	2	1	1	1			
Starts		4	0	14	18	18	18	18			
%		50%	0%	14%	11%	6%	6%	6%			

L-42 (D7452)

			Coast Side Pinion Scoring		
Oil	Gear Batch	N	Mean	Std. Dev.	Average Δ/s
117	C1L925/P8AD078X	7	21.9	2.79	-0.21
117	V1L637/P8L604	3	22.7	6.43	-0.06

		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	-0.06	2	2.31	2.00	0
B	-0.06	2	6.43	8.39	0
D	-0.32	3	3.30	0.50	0

L-42 (D7452)

SUMMARY OF SEVERITY & PRECISION

Severity
ECSP severity remained within control chart limits throughout the period.
Precision
Precision also remained within limits throughout the period.

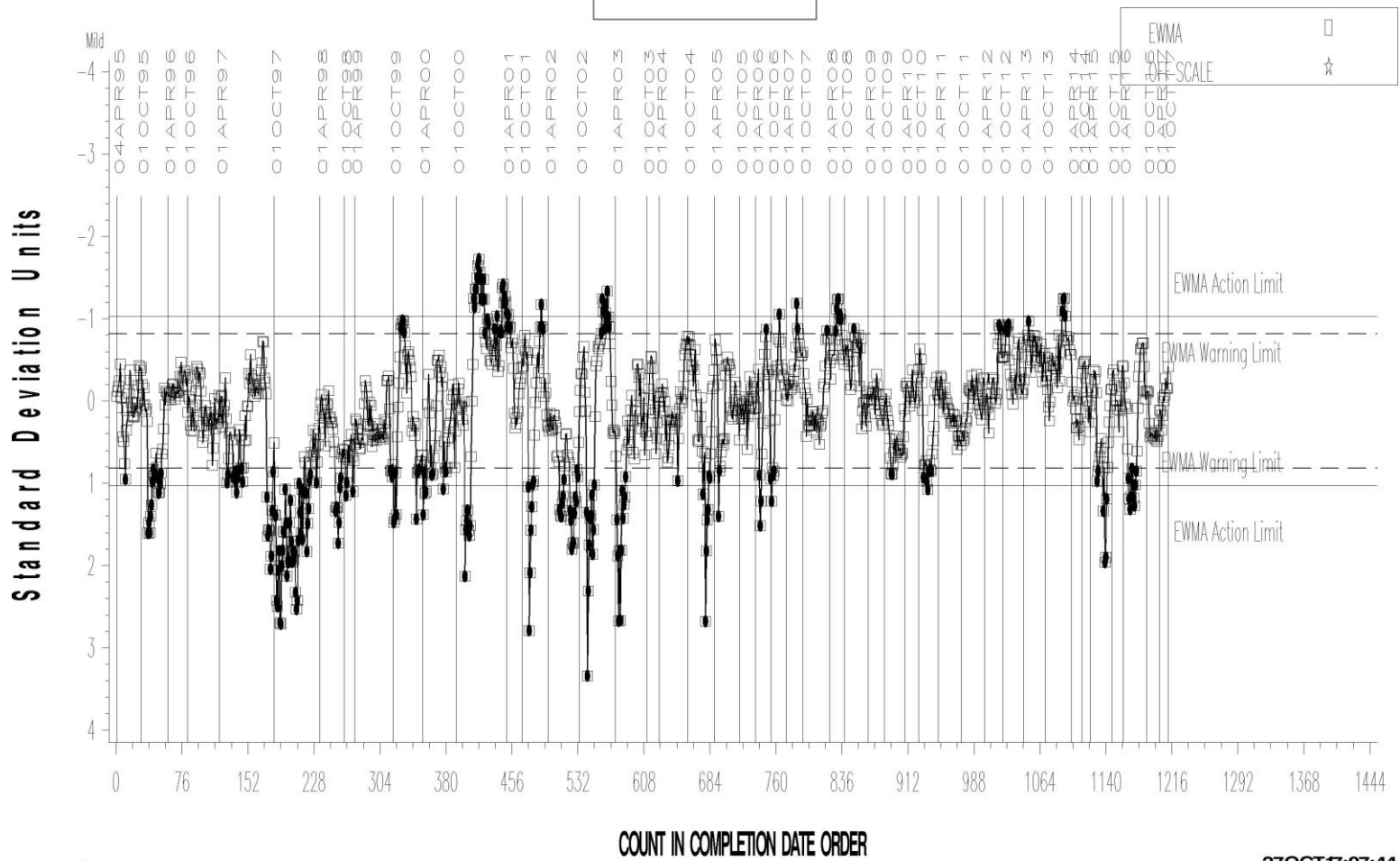
Industry control charts follow.

L-42 (D7452)

L-42 INDUSTRY OPERATIONALLY VALID DATA

FINAL EOT PINION SCORING COAST SIDE

LTMS Severity Analysis



Spvrrp

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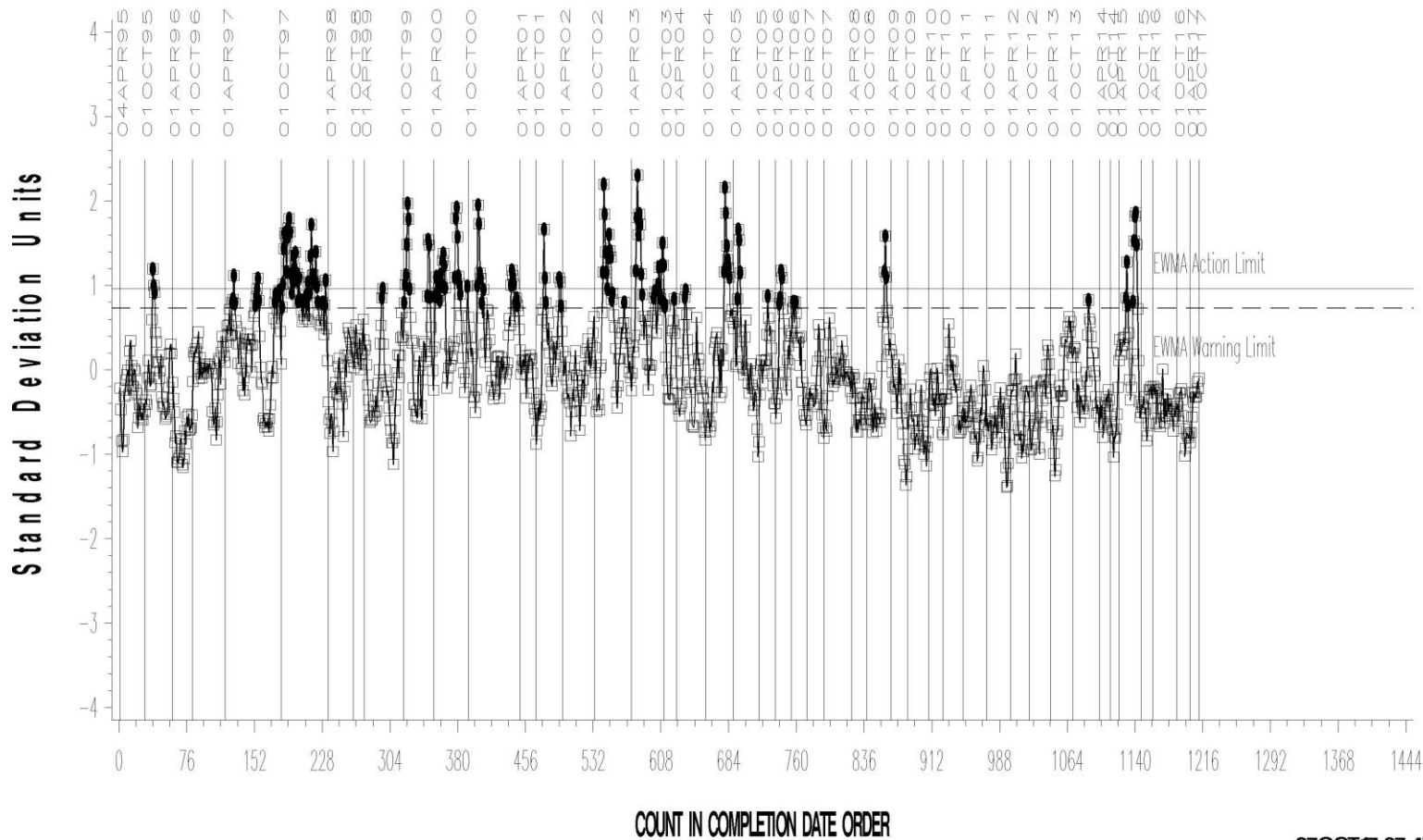
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L-42 INDUSTRY OPERATIONALLY VALID DATA

FINAL EOT PINION SCORING COAST SIDE

LTMS Precision Analysis

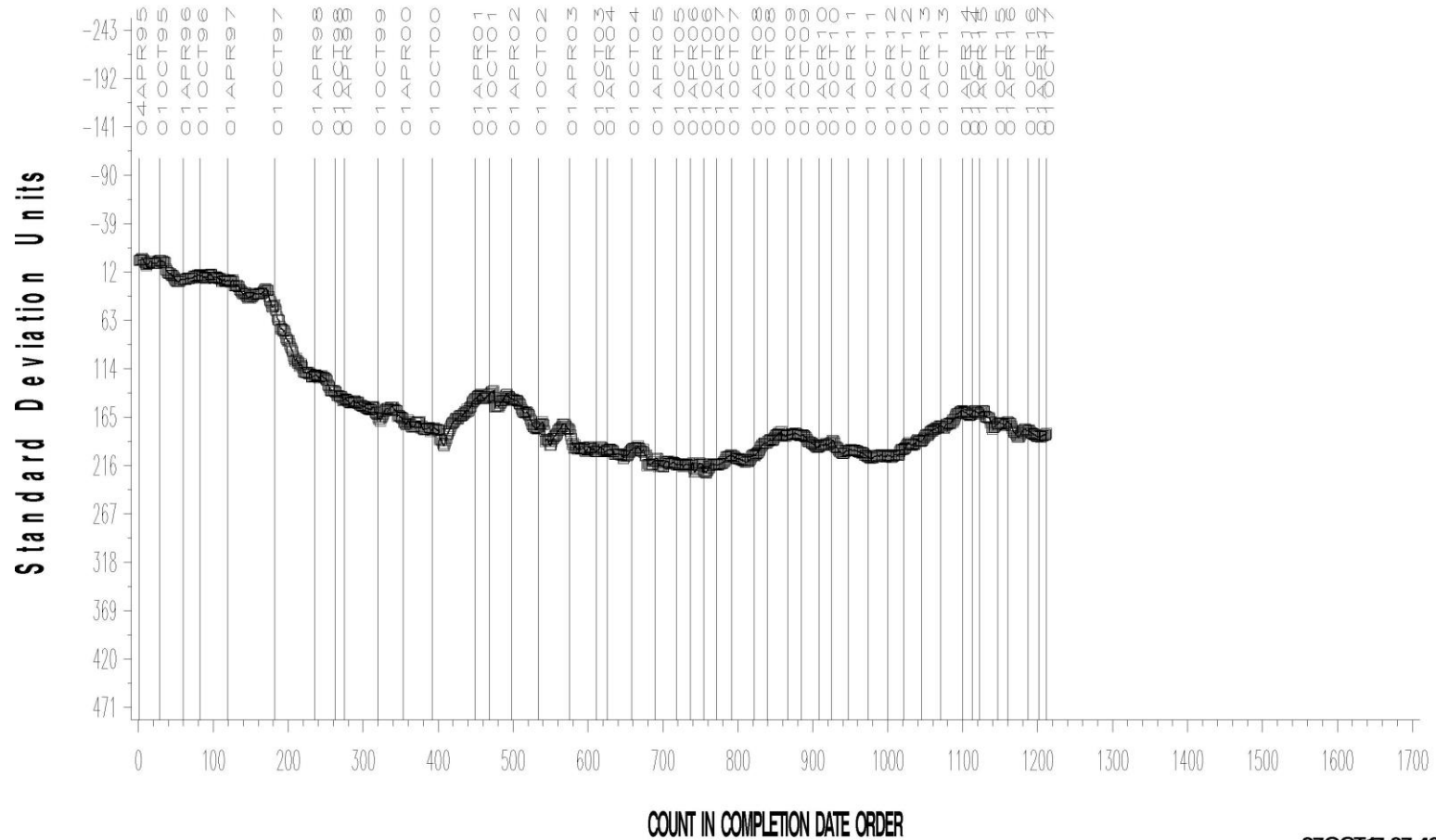


L-42 (D7452)

L-42 INDUSTRY OPERATIONALLY VALID DATA

FINAL EOT PINION SCORING COAST SIDE

CUSUM Severity Analysis



27OCT17:07:49

L-42 (D7452)

TIMELINE ADDITIONS

Effective Date	Information Letter	Event
		No industry timeline additions were made this period.

L-42 (D7452)

LAB VISITS

No L-42 lab visits were conducted during this period.

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	0	0.0
113	11	100	50.0
116-1	0	0	0.0
117	22	798	399.0
Total	33	898	449.0

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.