



Test Monitoring Center

@ Carnegie Mellon University
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<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 19-049
DATE: November 26, 2019
TO: Matthew Sangpeal, Chairman, L-42 Surveillance Panel
FROM: Dylan Beck *Dylan Beck*
SUBJECT: L-42 Rater Calibration from April 1, 2019 through September 30, 2019

Attached is a summary of L-42 rater calibration activity this period.

DJB/djb/mem19-049.djb.doc

cc: Frank Farber
Jeff Clark

L-42 Surveillance Panel

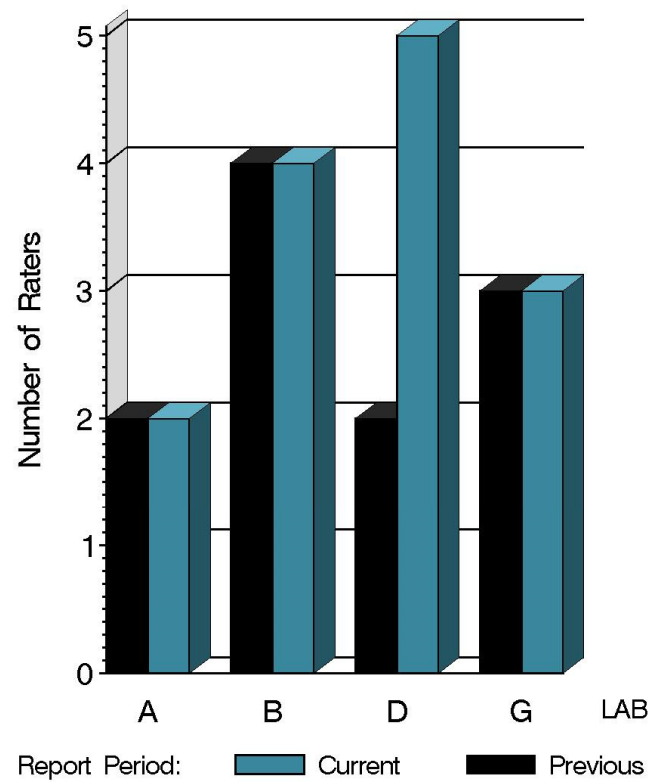
<http://www.astmtmc.cmu.edu/ftp/docs/gear/l42rc/semiannualreports/l42rc-10-2019.pdf>

Distribution: email

L-42 Rater Calibration

	Reporting Data	Calibrated on 9-30-19
Number of Labs	4	4
Number of Raters	14	14

BY-LAB RATER
DISTRIBUTION



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L-42 Rater Calibration

Test Distribution by Validity

		Totals	
		Last Period	This Period
Accepted for calibration	AC	12	18
Rejected (Mild)	OC	1	0
Rejected (Severe)	OC	1	2
Rejected (Multiple)	OC	0	0
Rejected (Precision)	OC	0	0
Workshop data	AG	26	9
Total		40	29

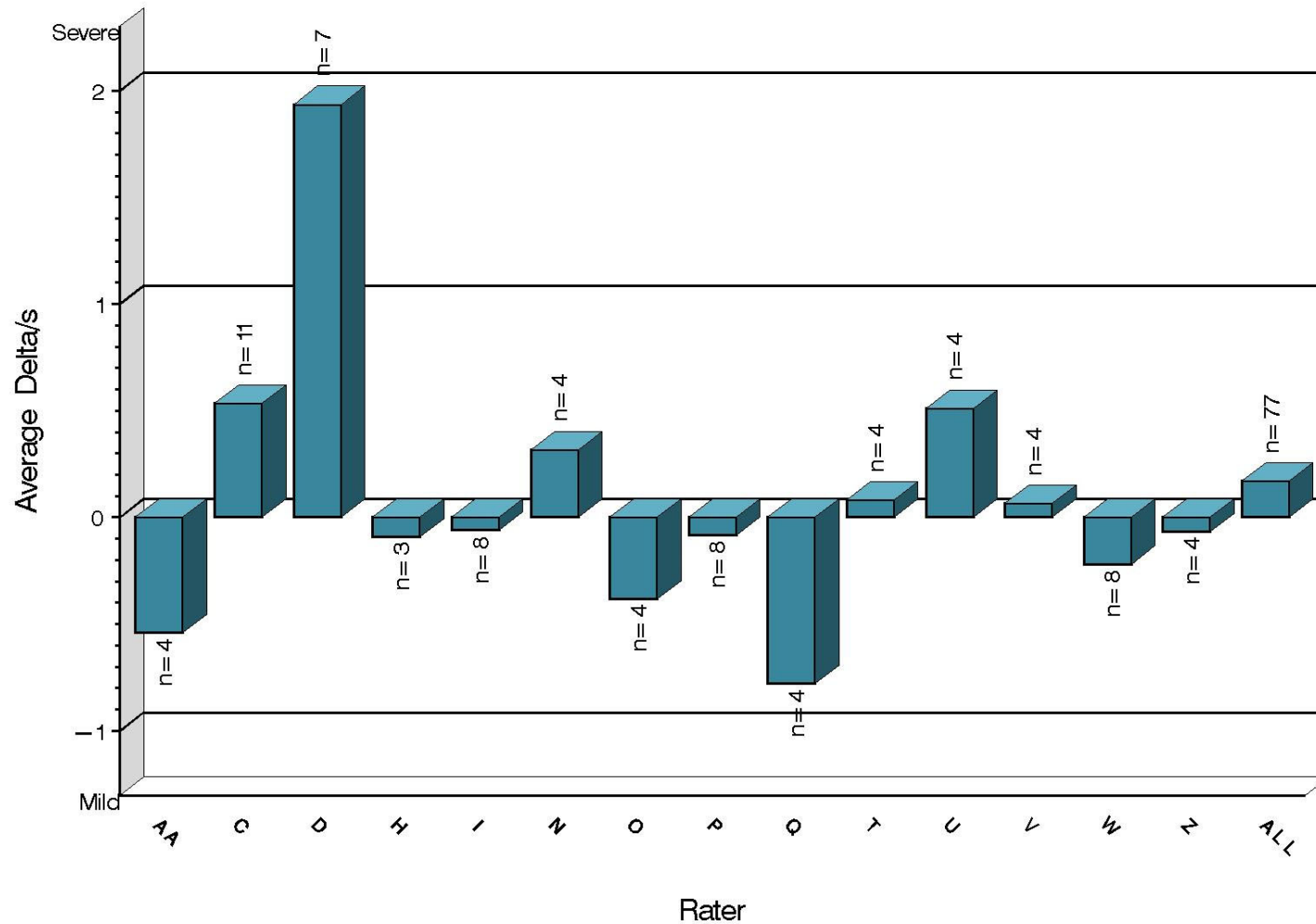
L-42 Rater Calibration

Rater	N	PSCR		RSCR	
		Avg Yi	STD*	Avg Yi	STD*
AA	4	-0.541	1.119	-1.177	0.931
C	11	0.534	1.056	-0.256	1.361
D	7	1.936	2.746	0.770	0.779
H	3	-0.091	0.050	-0.128	0.239
I	4	0.523	0.738	-0.168	0.936
N	4	0.318	0.308	0.307	0.212
O	4	-0.382	0.685	-0.872	0.960
P	4	0.021	1.366	0.192	0.951
Q	4	-0.780	1.652	-0.225	0.398
T	4	0.083	0.580	-0.306	0.569
U	4	0.511	0.629	1.050	0.943
V	4	0.066	0.321	0.184	0.250
W	4	0.219	0.718	-0.211	0.459
Z	4	-0.066	0.283	-0.644	0.733
ALL	77	0.170	1.272	-0.142	0.957

* Due to the small number of ratings per part, the standard deviation of the Yi values is given in place of a pooled standard deviation.

L-42 Rater Calibration

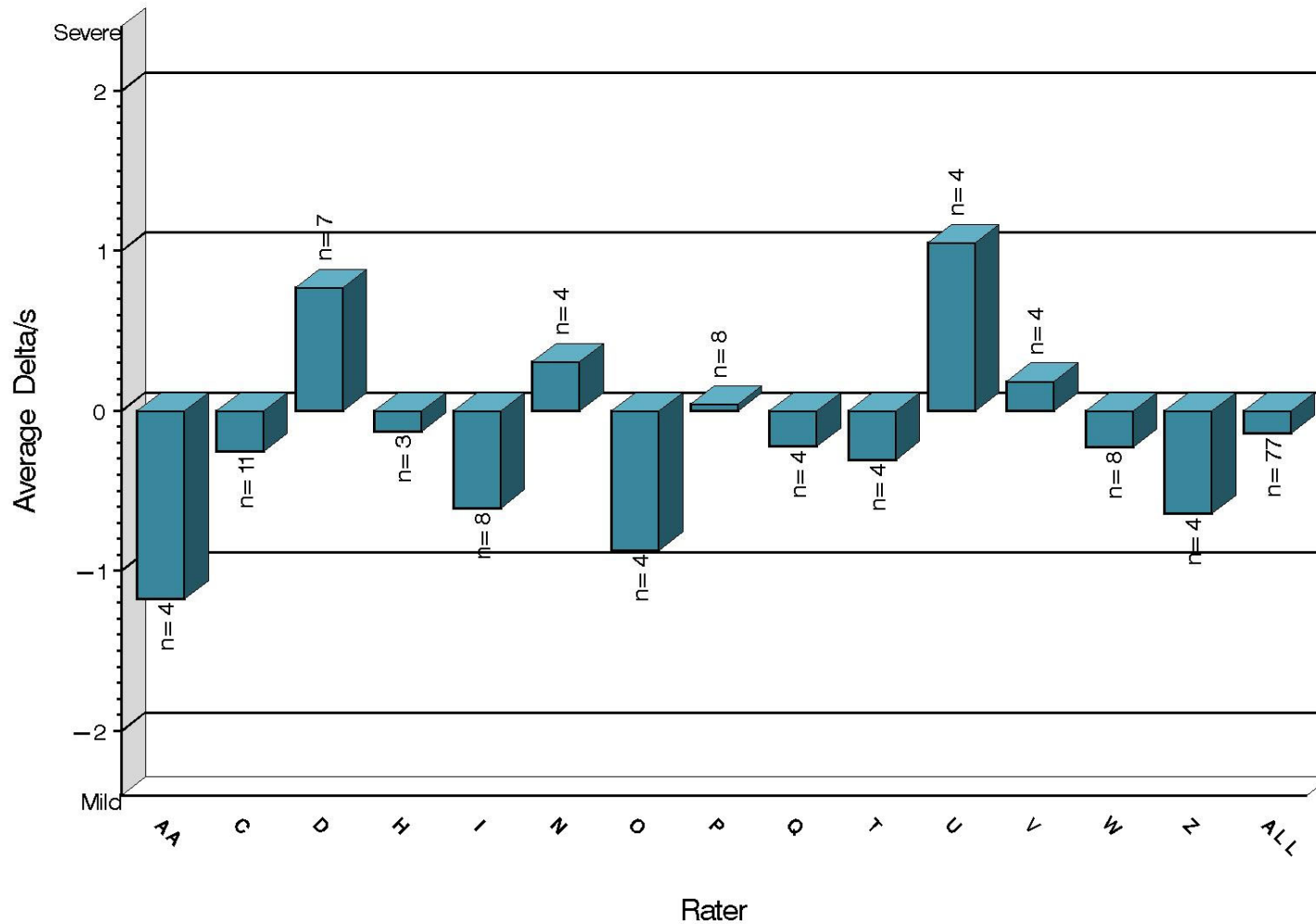
PINION SCORING
Severity as Measured by Delta/s



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L-42 Rater Calibration

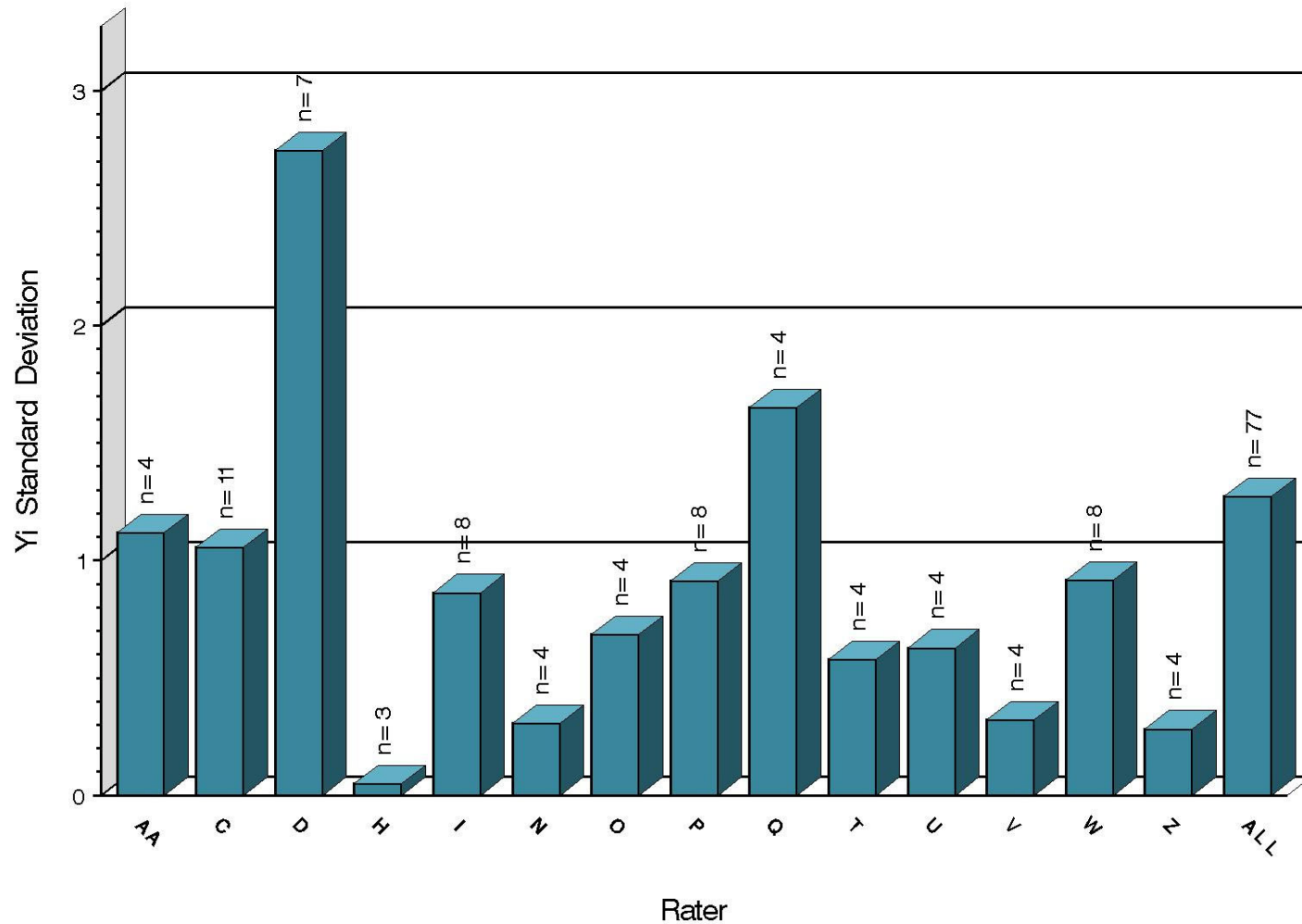
RING SCORING
Severity as Measured by Delta/s



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L-42 Rater Calibration

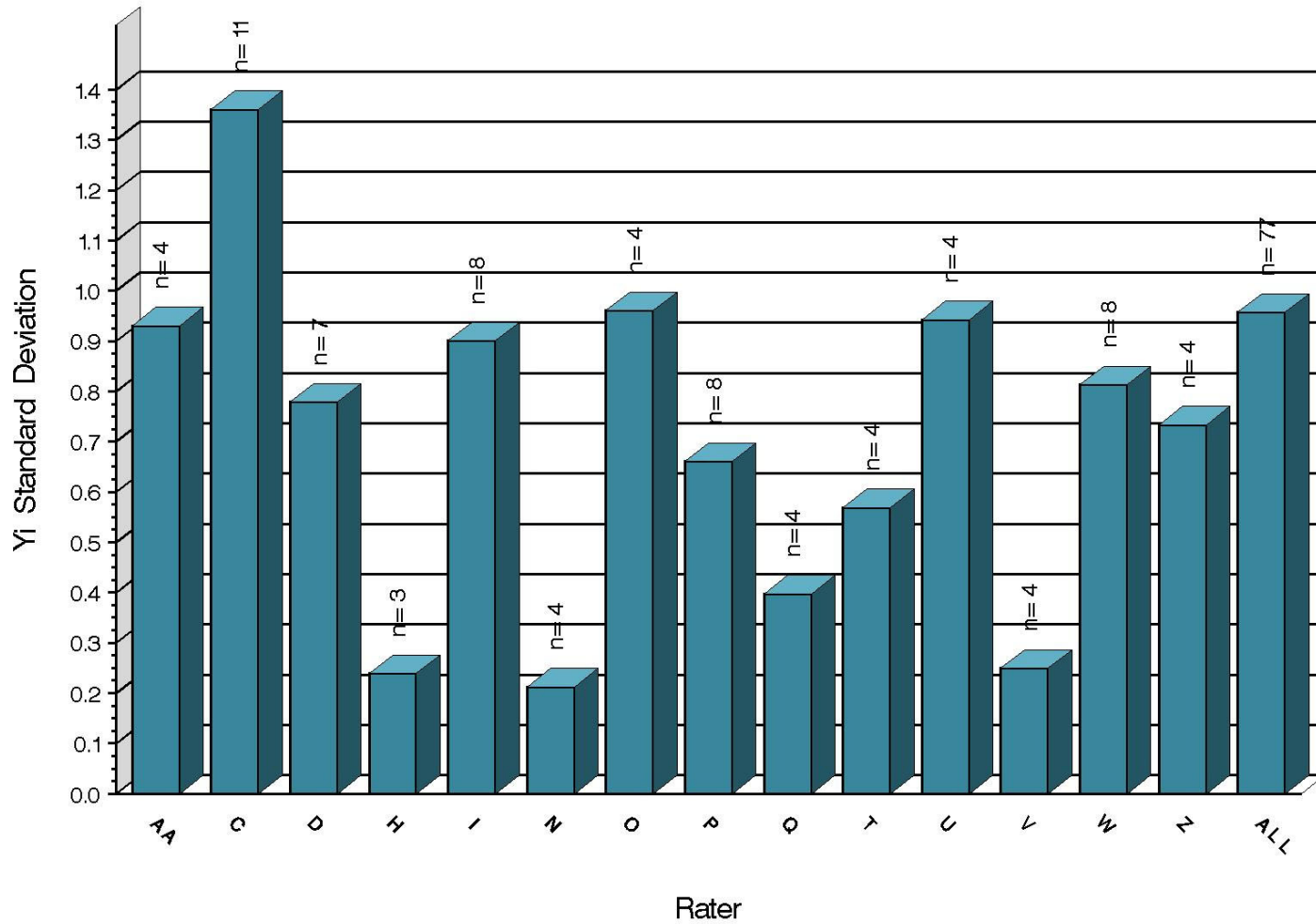
PINION SCORING
Precision as Measured by Yi STD



8:31:44 26NOV2019

L-42 Rater Calibration

RING SCORING
Precision as Measured by Yi STD



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L-42 Rater Calibration

SUMMARY OF SEVERITY & PRECISION

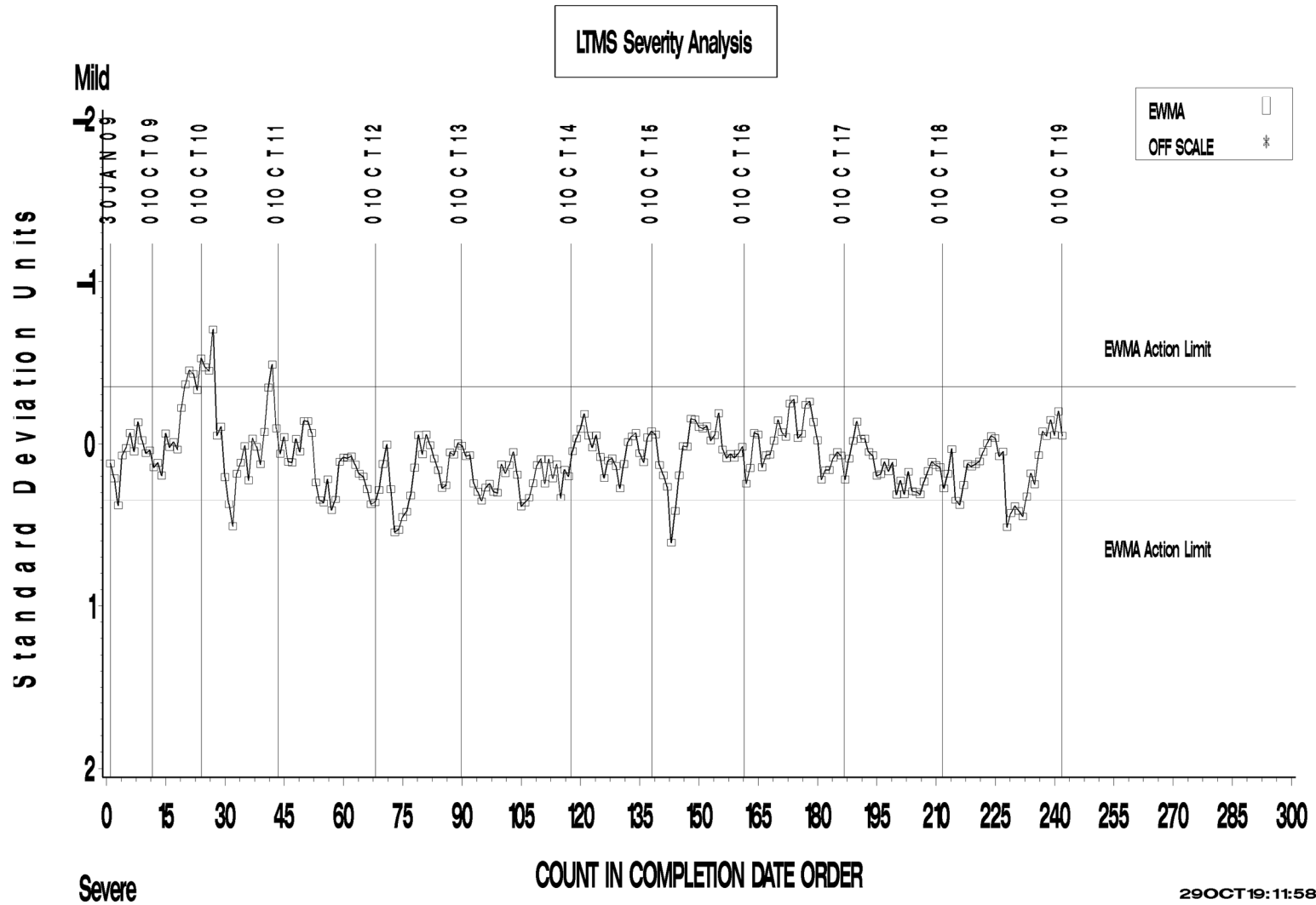
Severity
PSCR and RSCR both exceeded the action limit this period but both have returned within limits.
Precision
Precision for both parameters remained within acceptable limits.

Industry control charts follow.

L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

PINION SCORING



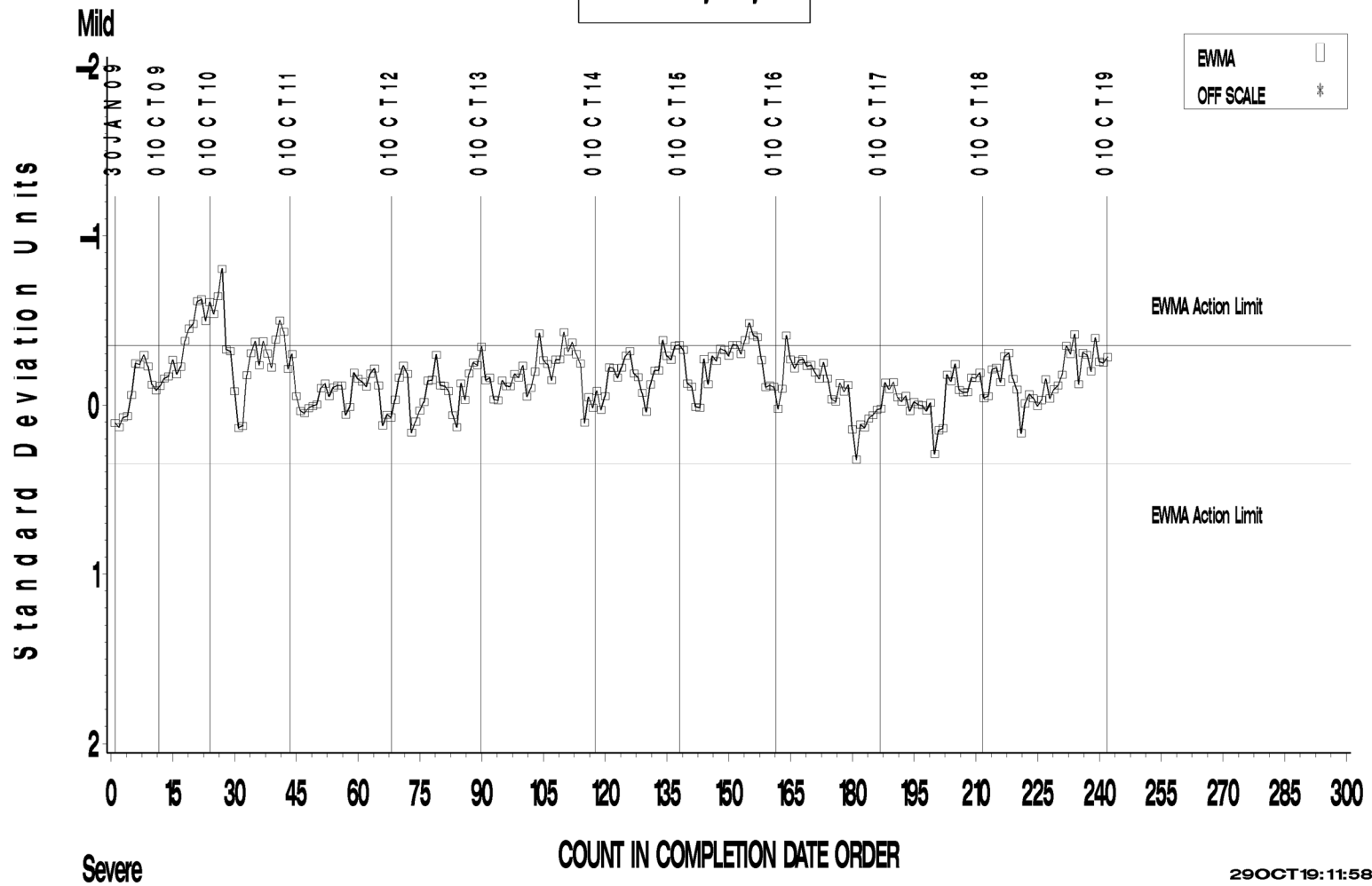
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RING SCORING

LTMS Severity Analysis



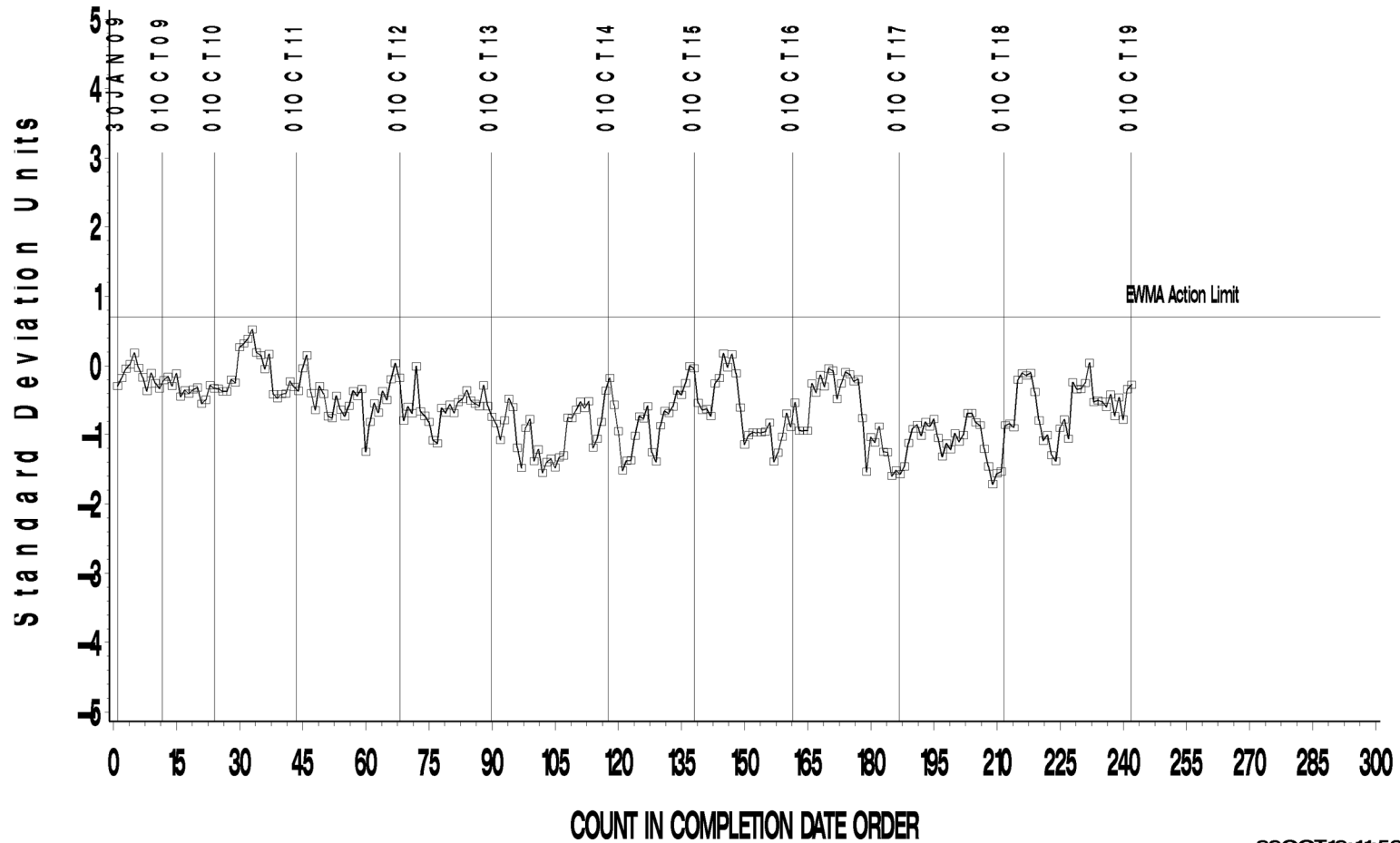
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

PINION SCORING

LTMS Precision Analysis



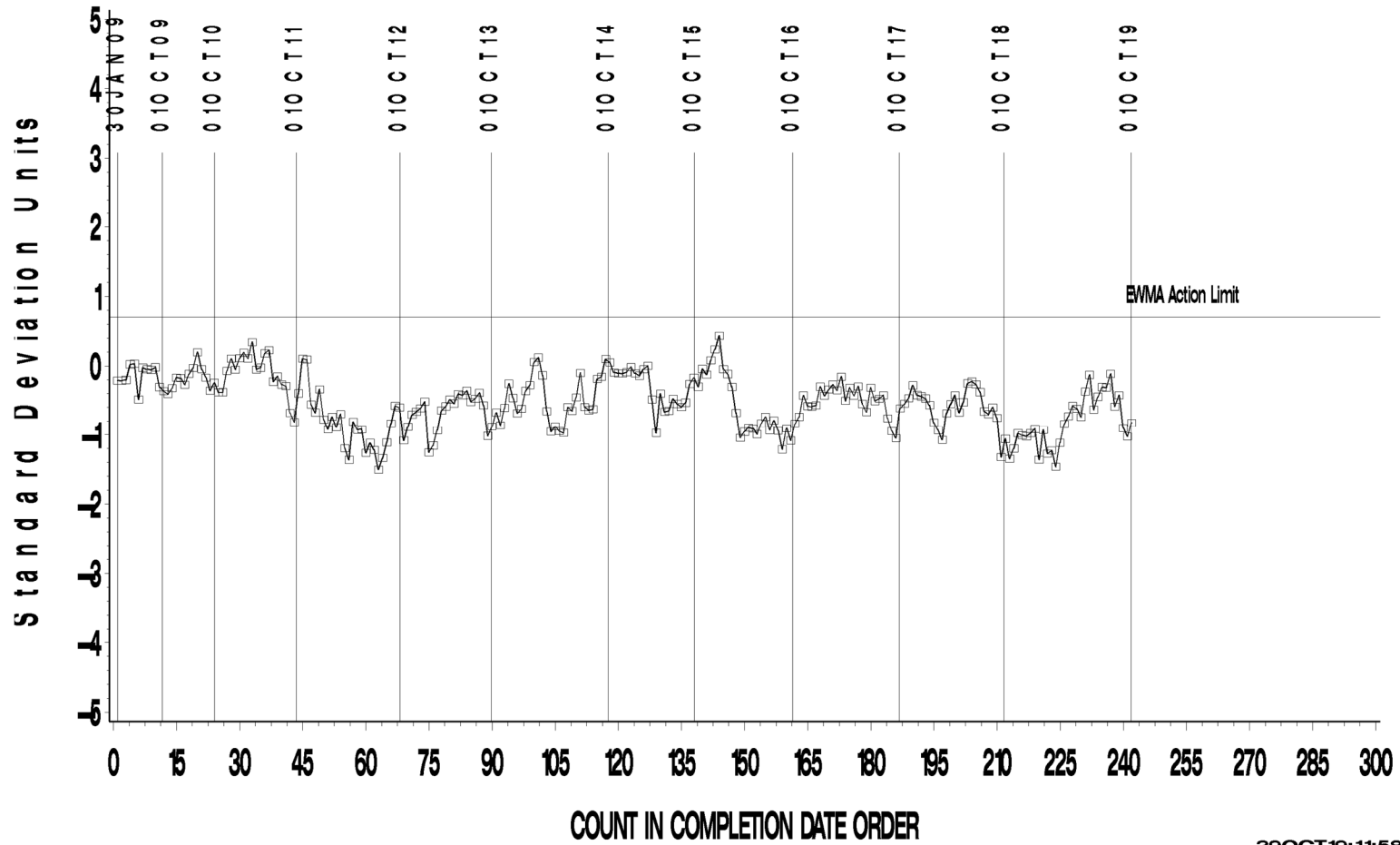
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RING SCORING

LTMS Precision Analysis



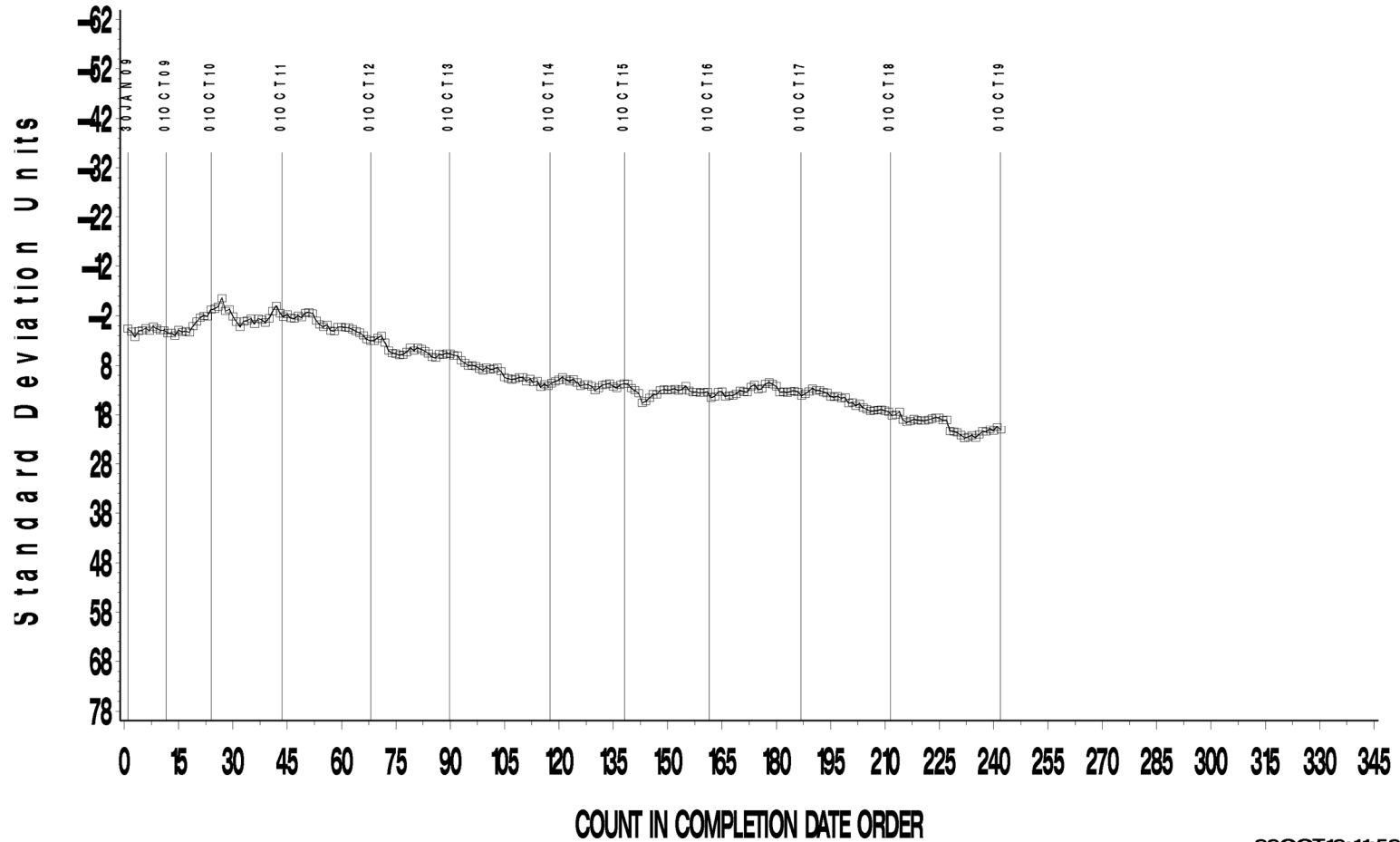
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

PINION SCORING

CUSUM Severity Analysis



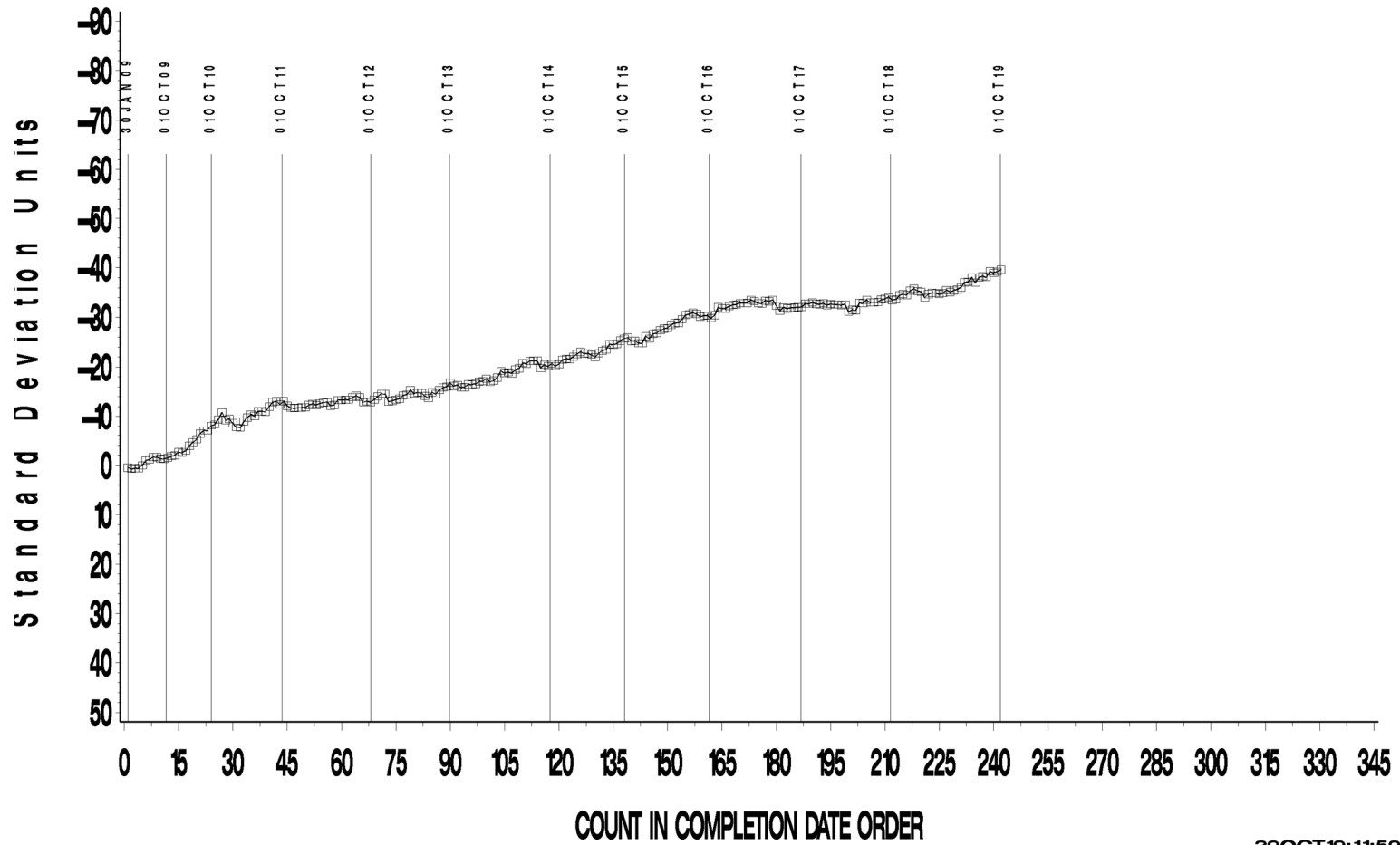
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RING SCORING

CUSUM Severity Analysis



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