



## Test Monitoring Center

203 Armstrong Drive, Freeport, PA 16229, USA

www.astmtmc.org  
412-365-1000

MEMORANDUM: 23-034  
DATE: October 26, 2023  
TO: Nick Schaup, Chairman, L-37 Surveillance Panel  
FROM: Dylan Beck *Dylan Beck*  
SUBJECT: L-37 Rater Calibration from April 1, 2023, through September 30, 2023

Attached is a summary of L-37 rater calibration activity this period.

DJB/djb/mem23-034.djb.doc

cc: Jeff Clark

Sean Moyer

L-37 Surveillance Panel

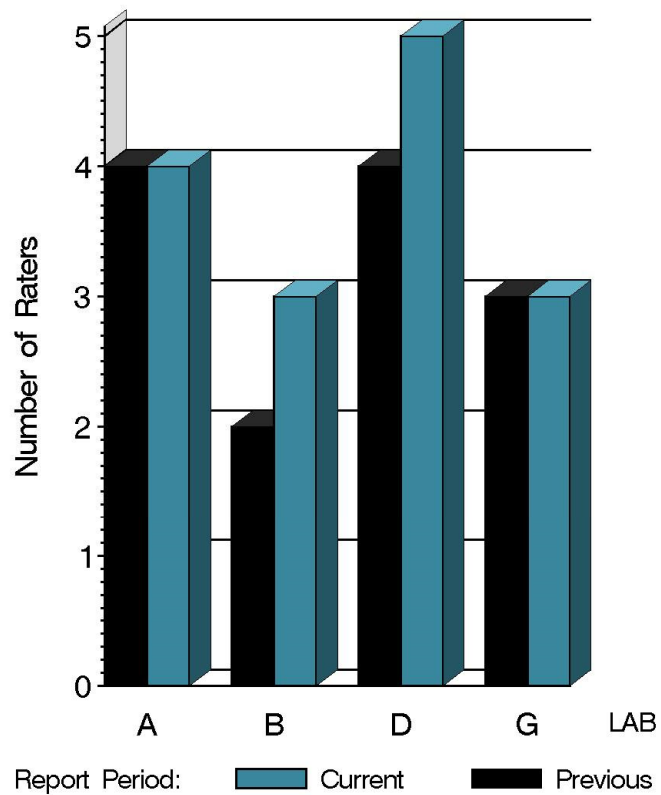
<https://www.astmtmc.org/ftp/docs/gear/l37rc/semiannualreports/l37rc-10-2023.pdf>

Distribution: email

# L-37 Rater Calibration

	Reporting Data	Calibrated on 9-30-23
Number of Labs	4	4
Number of Raters	15	15

BY-LAB RATER DISTRIBUTION



14:13:27 24OCT2023



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# L-37 Rater Calibration

## Test Distribution by Validity

		Totals	
		Last Period	This Period
Accepted for calibration	AC	13	18
Rejected (Mild)	OC	1	1
Rejected (Severe)	OC	3	4
Rejected (Multiple)	OC	0	3
Rejected (Precision)	OC	0	0
Workshop data	AG	9	4
Total		26	30



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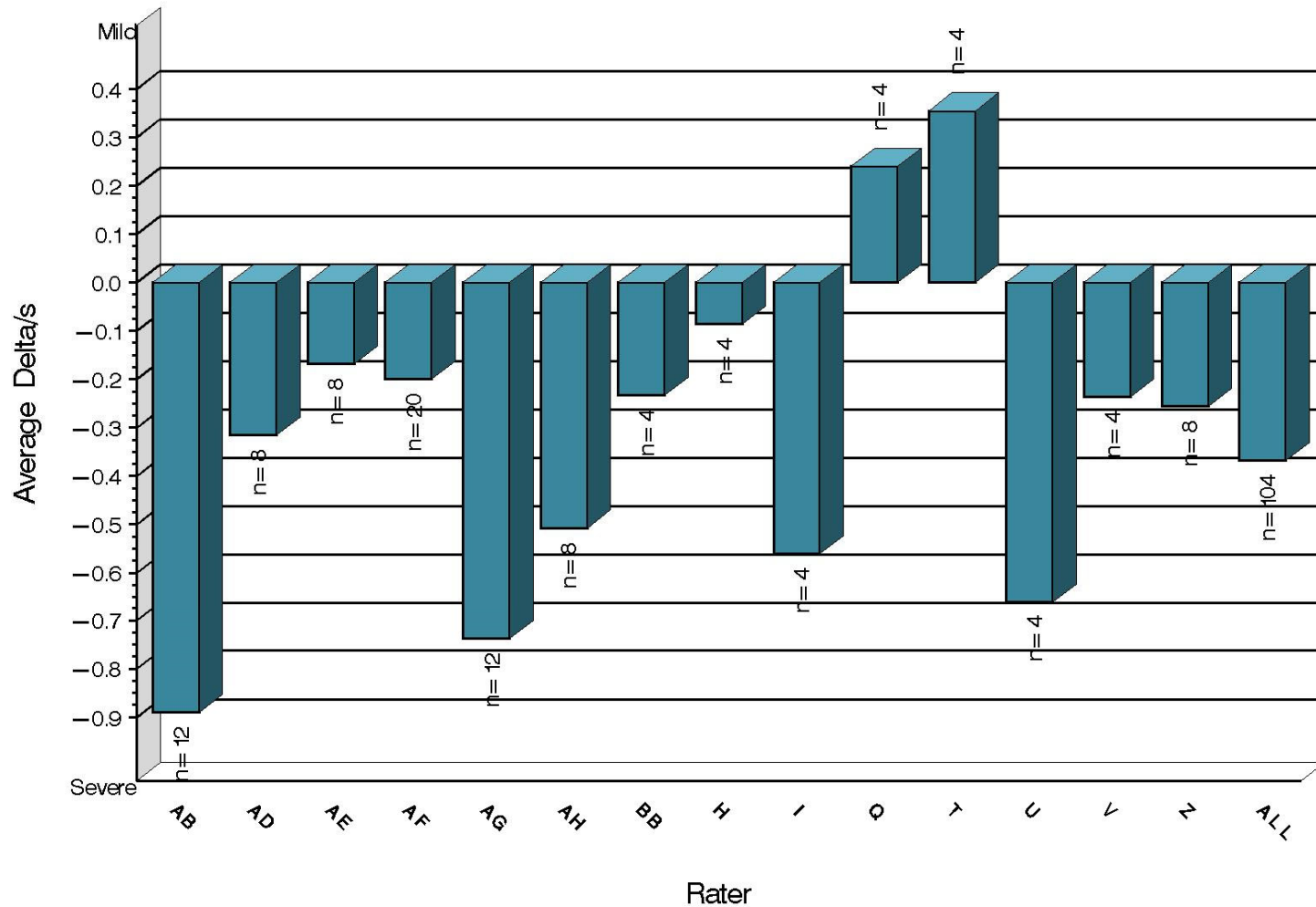
# L-37 Rater Calibration

Rater	N	RIDG		RIPP		SPIT		WEAR	
		Avg Yi	STD*	Avg Yi	STD*	Avg Yi	STD*	Avg Yi	STD*
AB	12	-0.891	1.931	0.234	1.473	0.115	0.277	-0.544	0.608
AD	8	-0.315	0.777	-0.359	1.211	0.206	0.359	-0.126	1.051
AE	8	-0.169	0.639	0.383	0.752	-0.199	0.455	-0.086	1.211
AF	20	-0.200	0.855	0.033	1.568	-0.276	1.292	-0.074	1.656
AG	12	-0.738	1.104	-0.961	1.631	-0.047	1.167	-0.560	0.851
AH	8	-0.507	1.648	0.099	2.073	-2.327	3.699	-0.300	1.018
BB	4	-0.233	0.599	0.025	1.141	0.412	0.396	-0.328	0.720
H	4	-0.086	0.739	0.241	0.781	0.100	0.381	0.240	0.825
I	4	-0.561	0.833	-0.651	0.765	-0.603	1.024	0.315	1.326
Q	4	0.241	0.888	0.004	0.728	0.435	0.230	-0.121	0.700
T	4	0.355	0.389	-0.042	0.184	0.136	0.382	0.725	1.194
U	4	-0.660	0.533	-0.566	0.702	-0.078	0.156	-0.625	0.910
V	4	-0.237	0.716	0.088	0.571	0.012	0.601	-0.209	0.554
Z	8	-0.256	1.321	-0.321	1.166	0.137	0.447	-0.005	0.927
ALL	104	-0.368	1.111	-0.127	1.328	-0.197	1.385	-0.181	1.094

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

# L-37 Rater Calibration

RIDGING  
Severity as Measured by Delta/s



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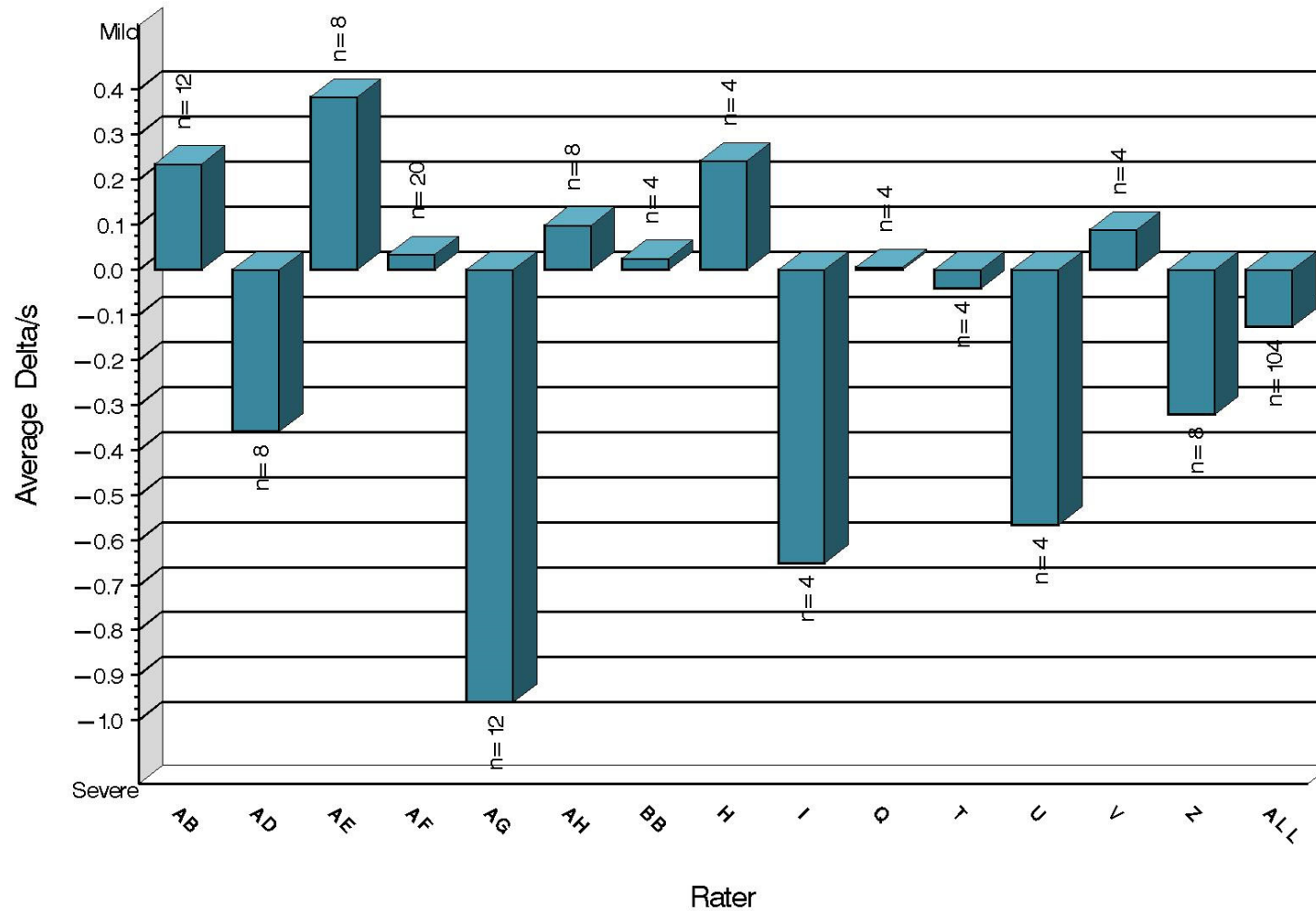
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# L-37 Rater Calibration

## RIPPLING

Severity as Measured by Delta/s



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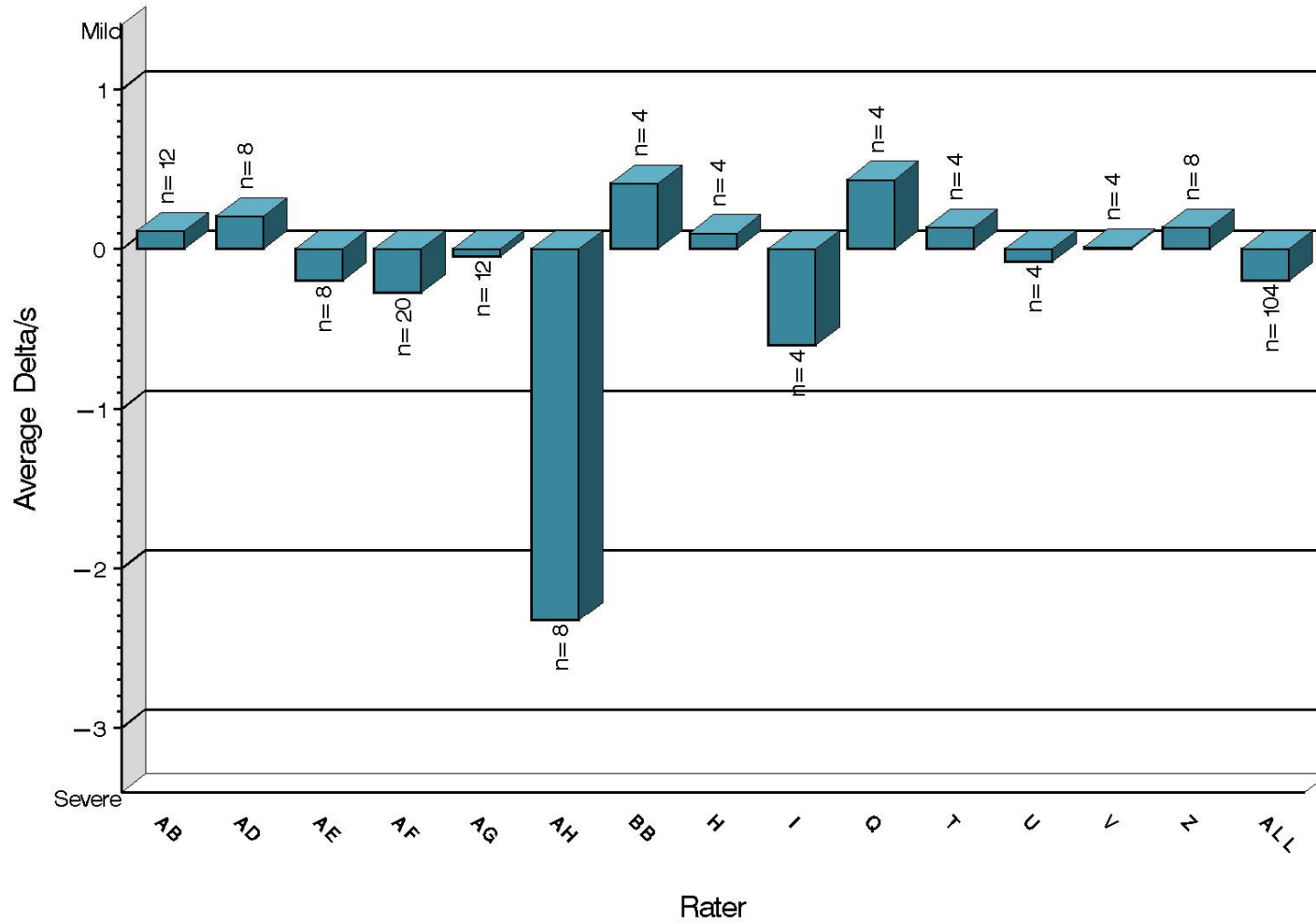
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# L-37 Rater Calibration

SPITTING

Severity as Measured by Delta/s



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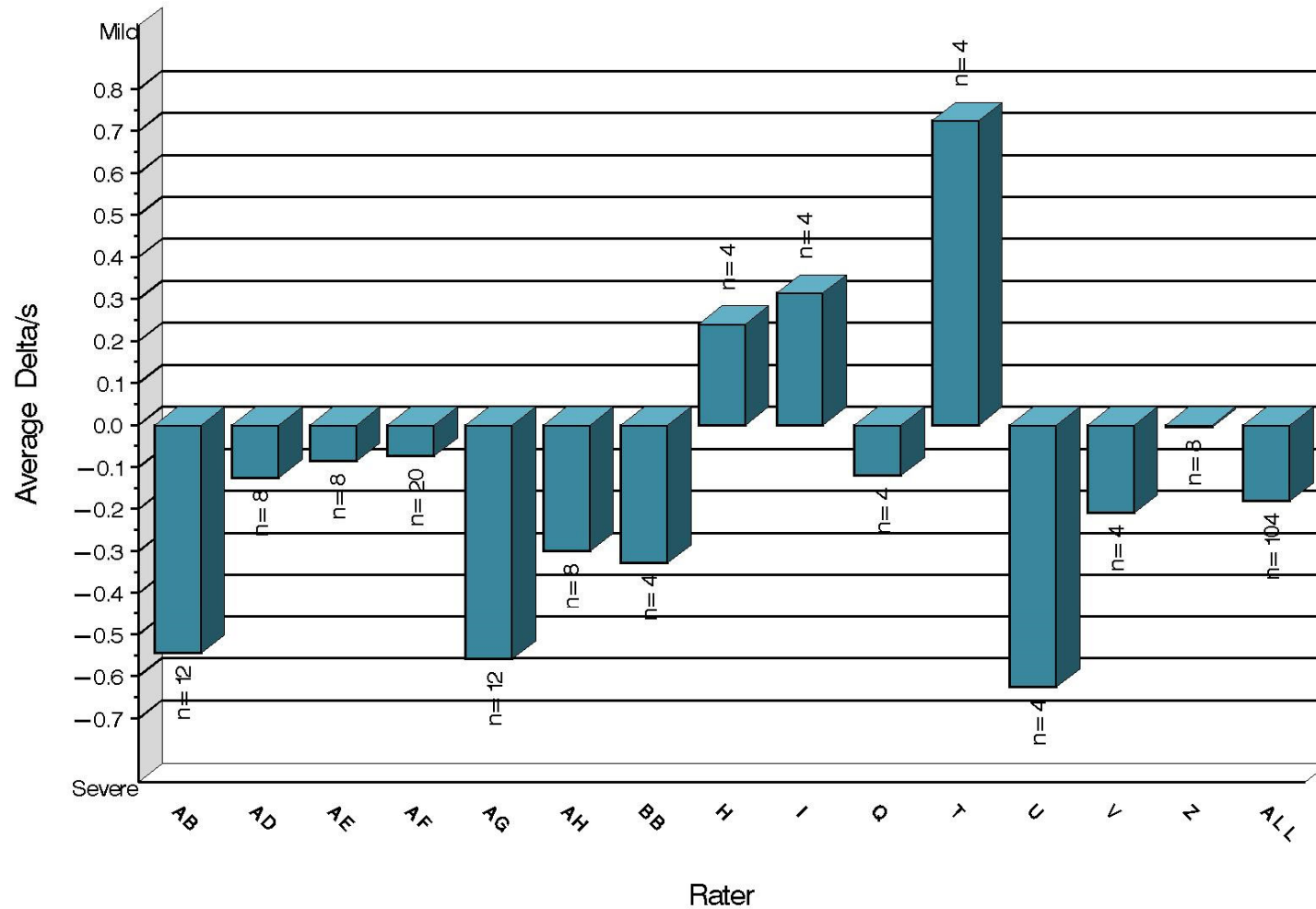
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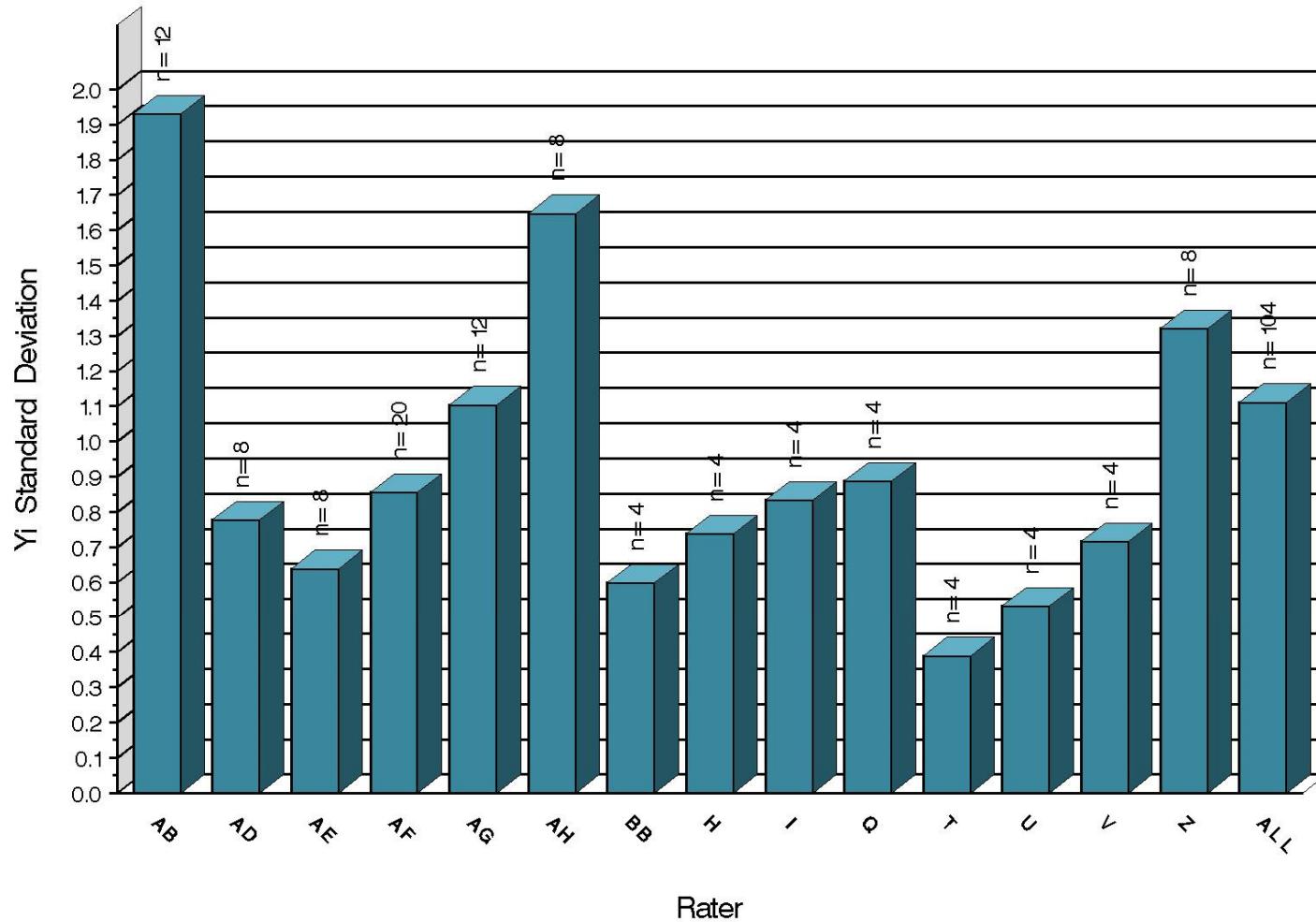
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# L-37 Rater Calibration

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Precision as Measured by Y1 STD



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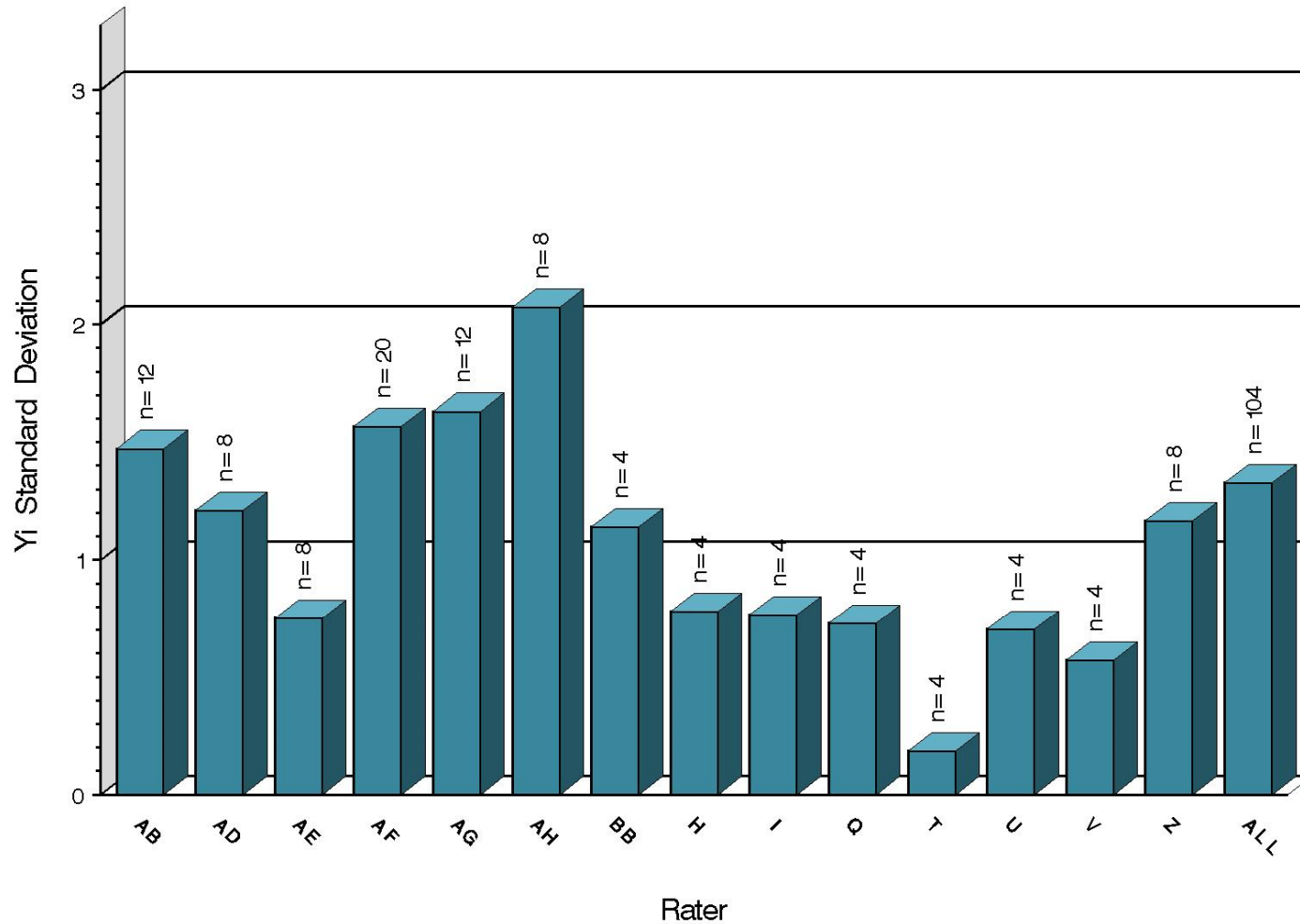
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RIPPLING  
Precision as Measured by Yi STD



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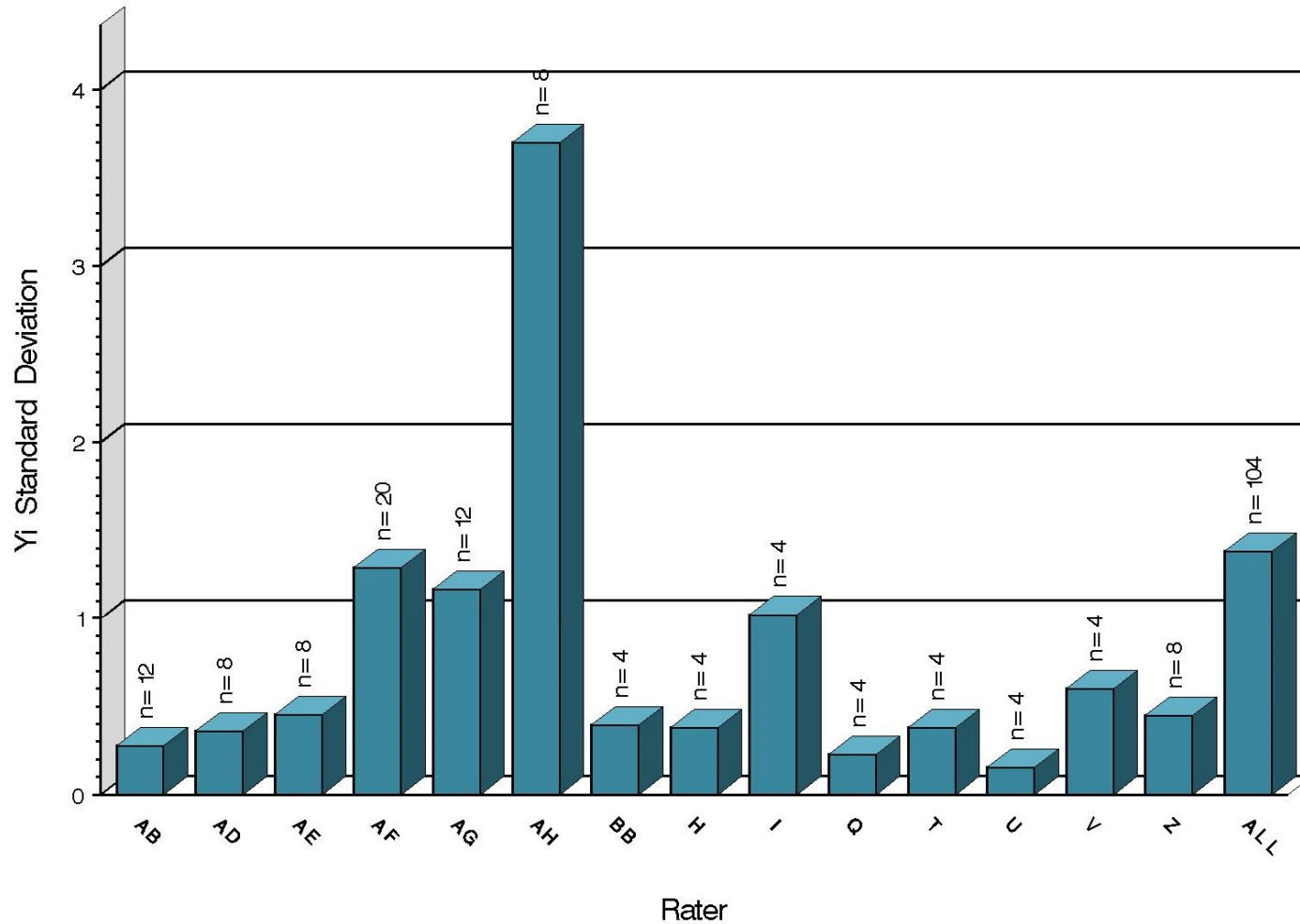
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Precision as Measured by Y1 STD



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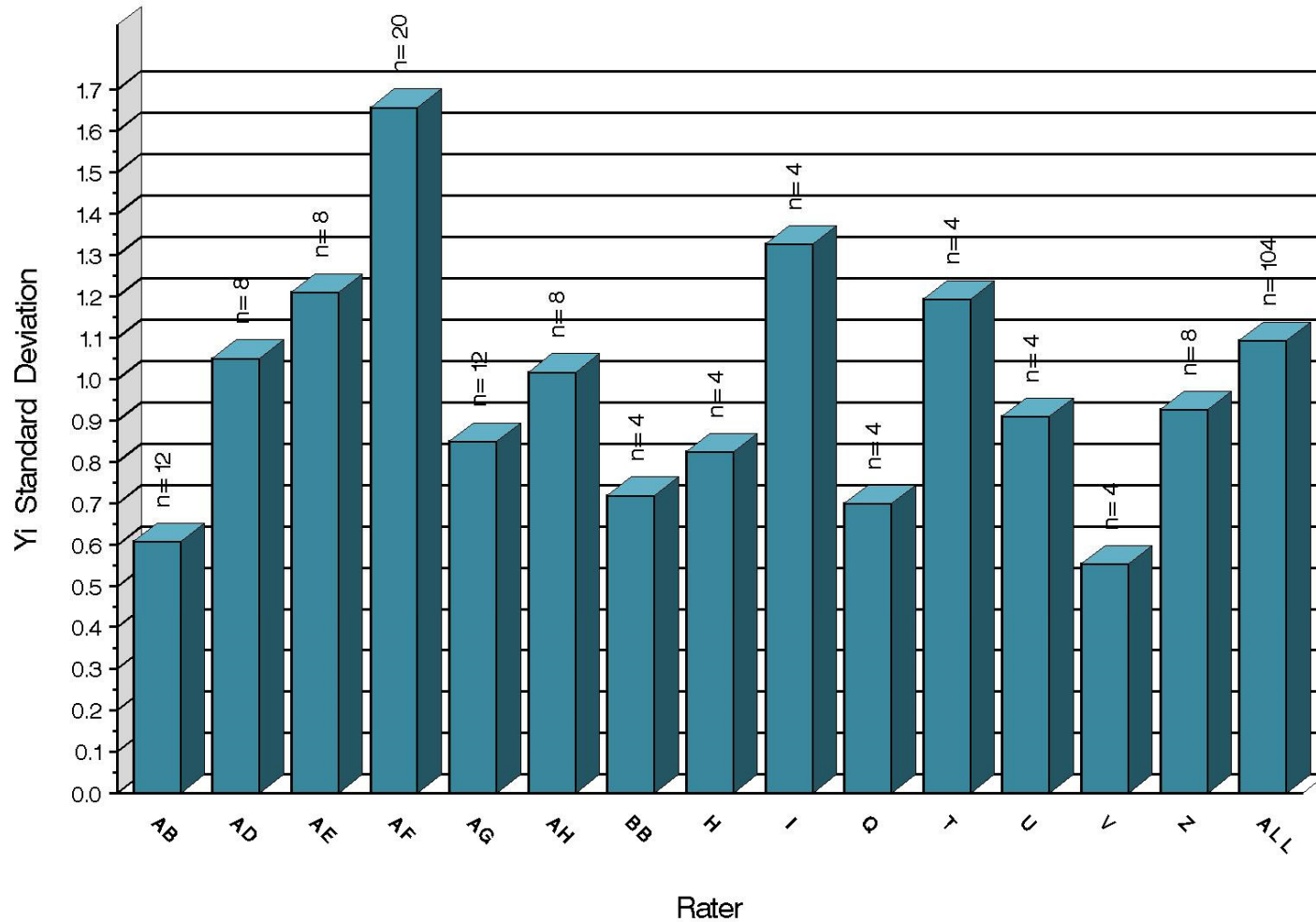
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# L-37 Rater Calibration

## SUMMARY OF SEVERITY & PRECISION

### Severity

RIDG ended the reporting period exceeding the action limit. RIPP and SPIT briefly exceeded the action limit this period but have since returned within limits. WEAR remained within limits throughout the period.

### Precision

All parameters remained within limits throughout the period.

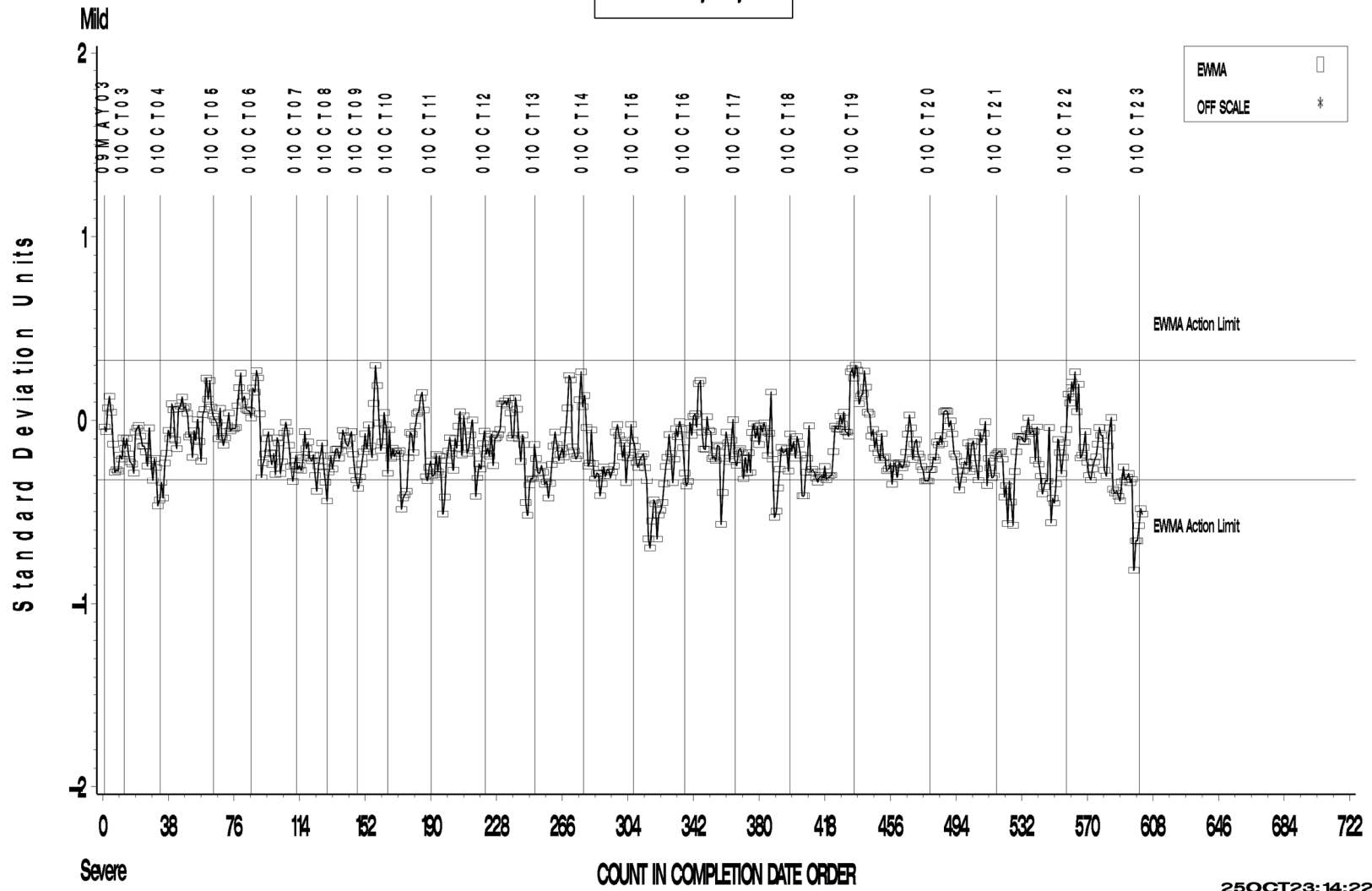
Industry rater control charts follow.

# L-37 Rater Calibration

L-37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

## RIDGING

LTMS Severity Analysis



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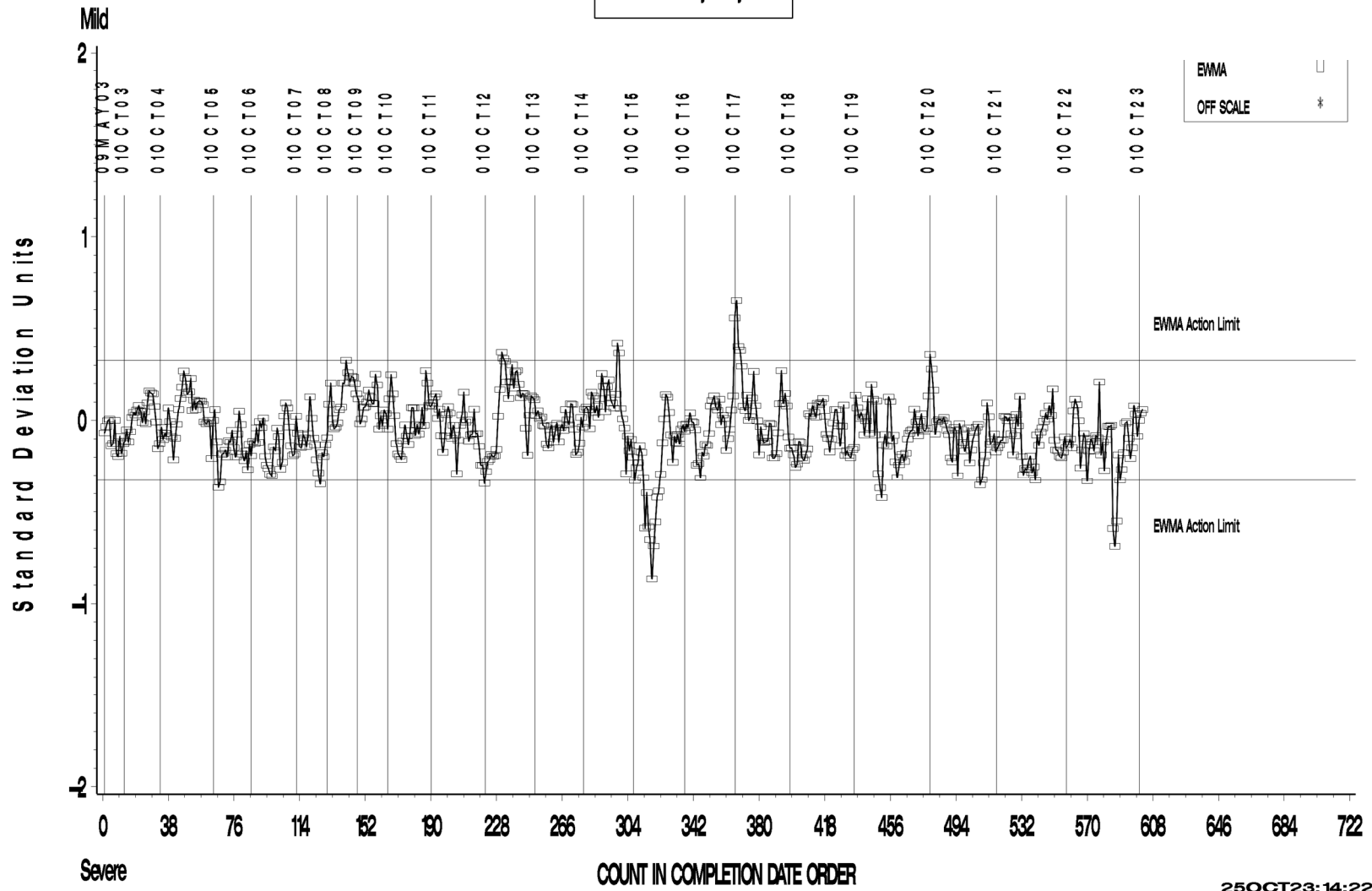
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# L-37 Rater Calibration

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## RIPPLING

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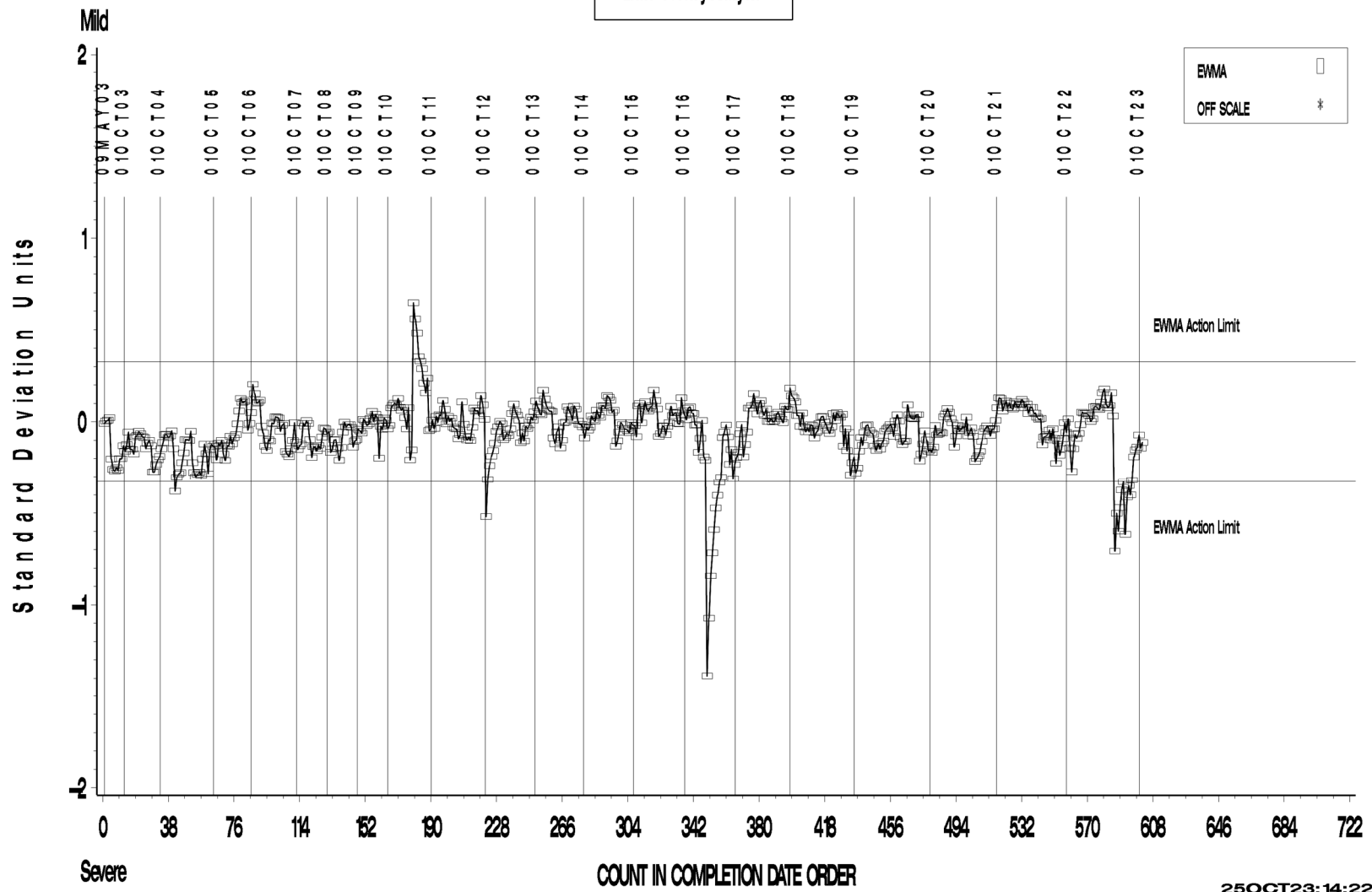
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## SPITTING

LTMS Severity Analysis



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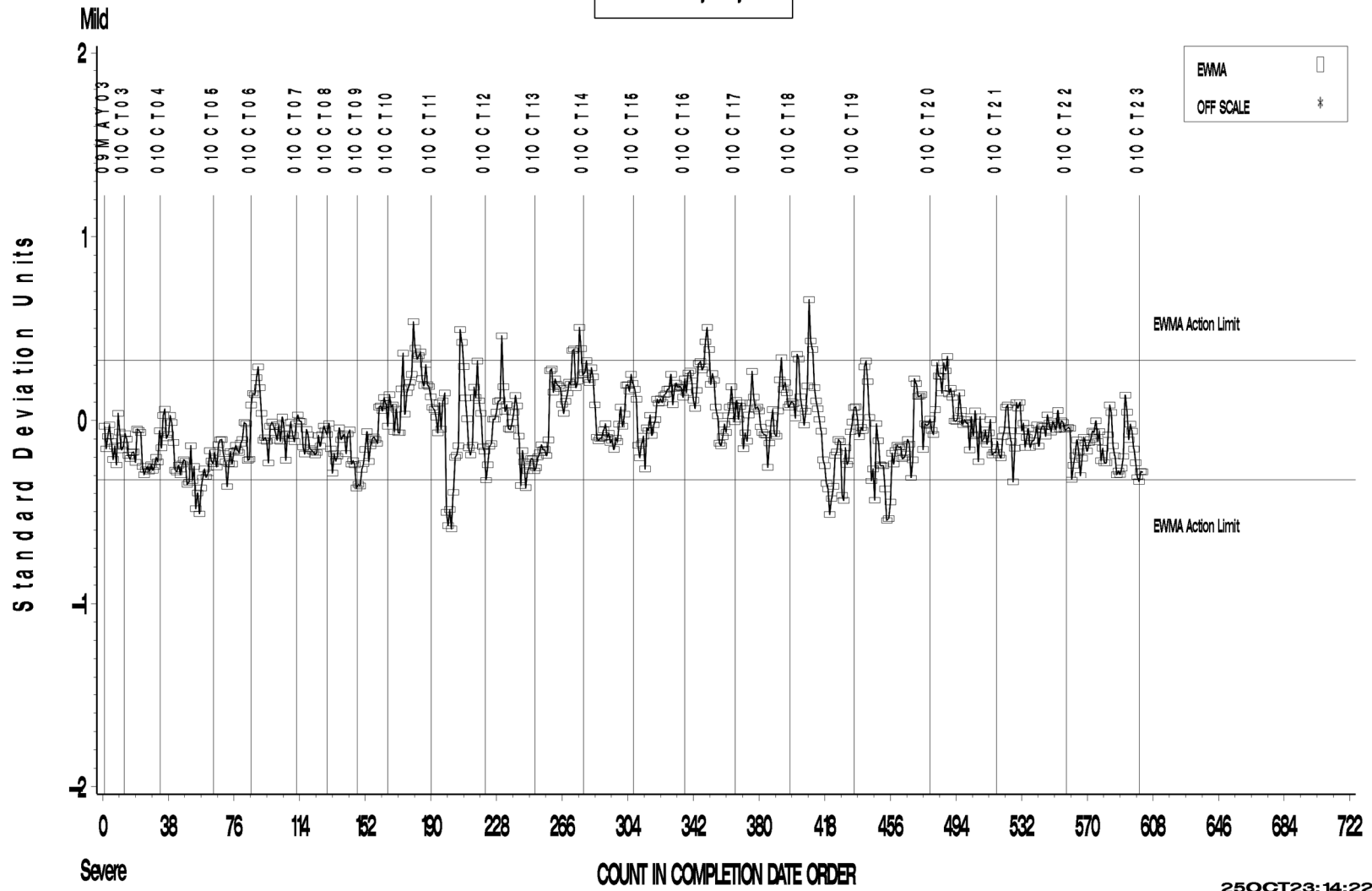


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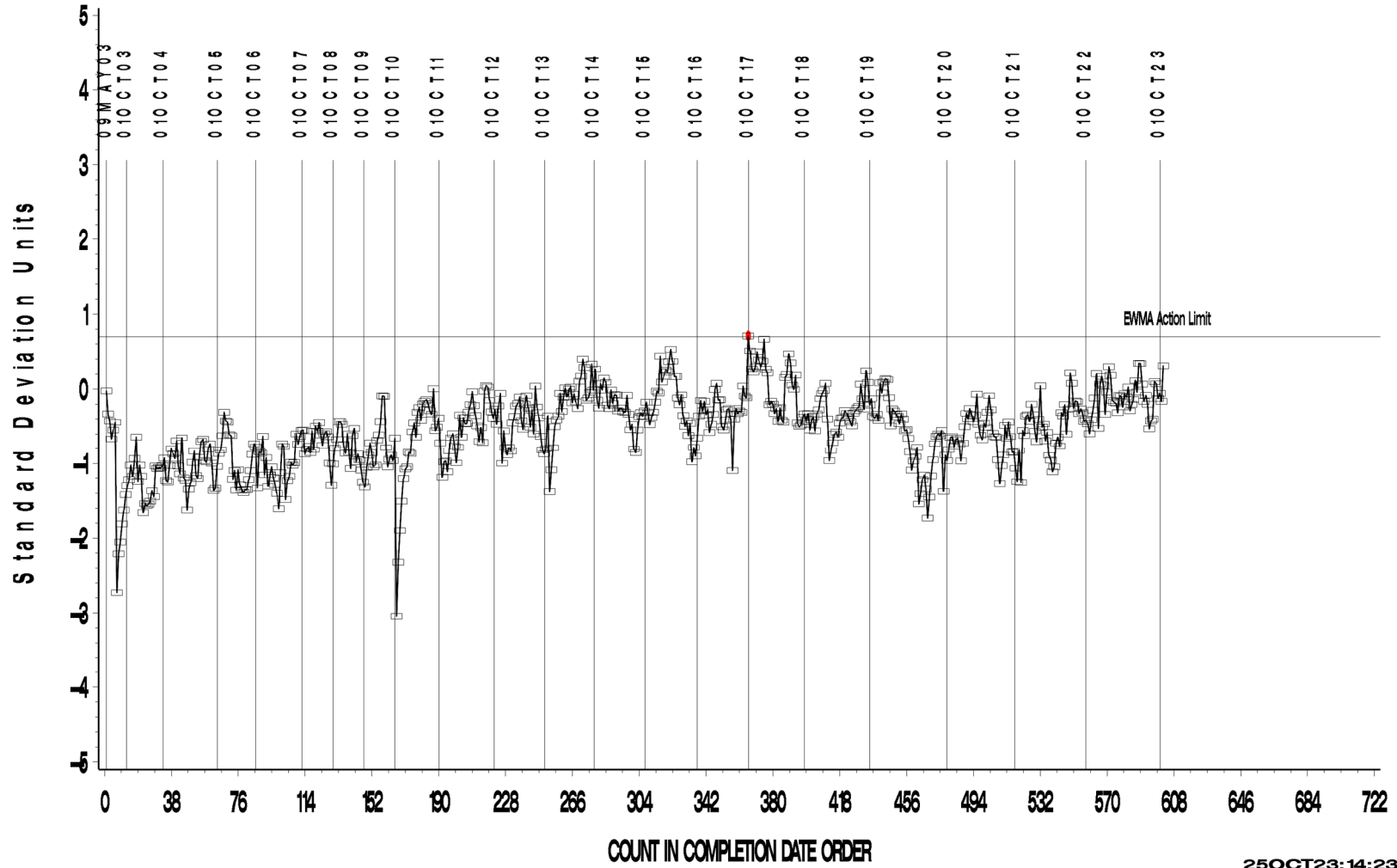
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## RIDGING

LTMS Precision Analysis



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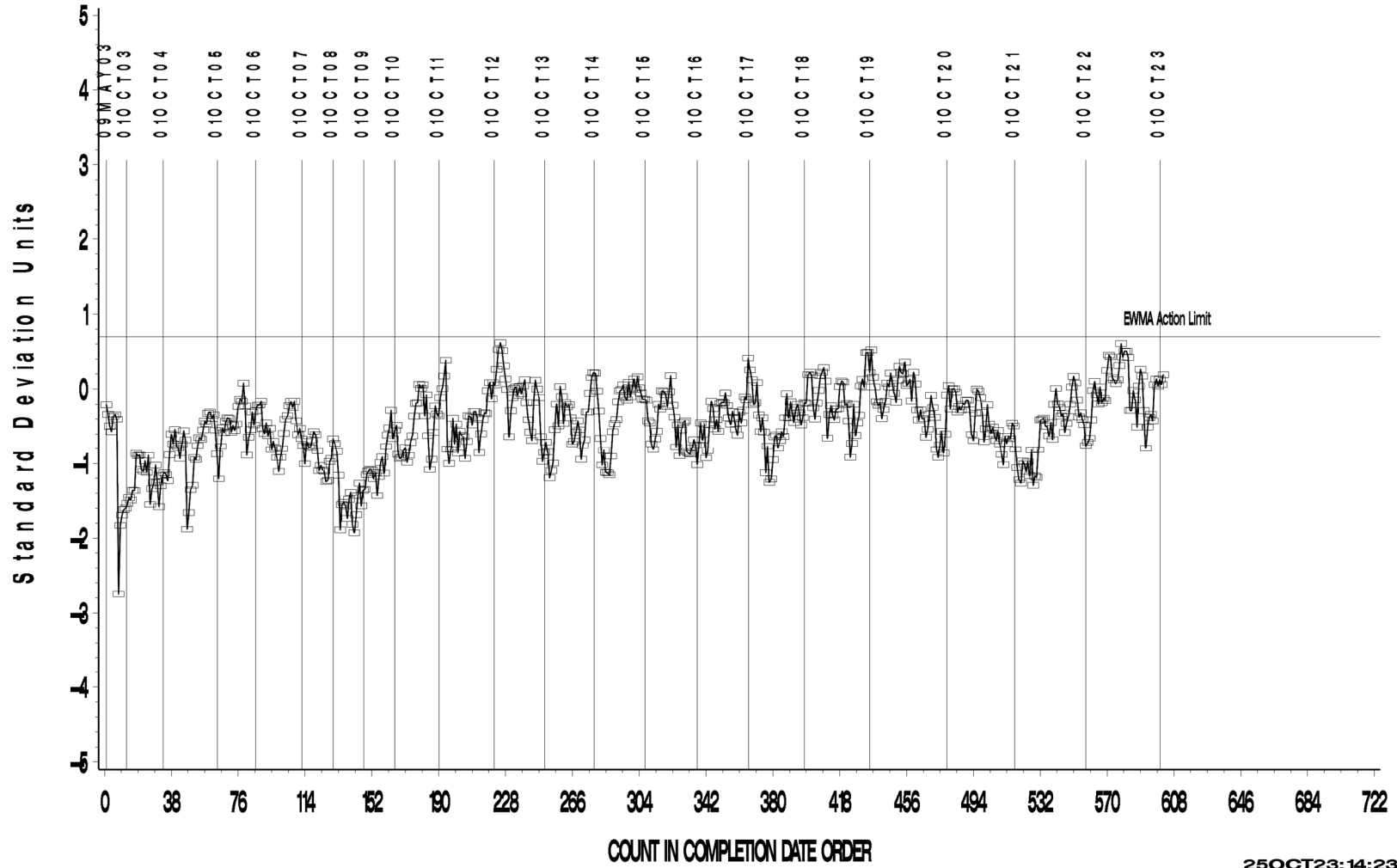
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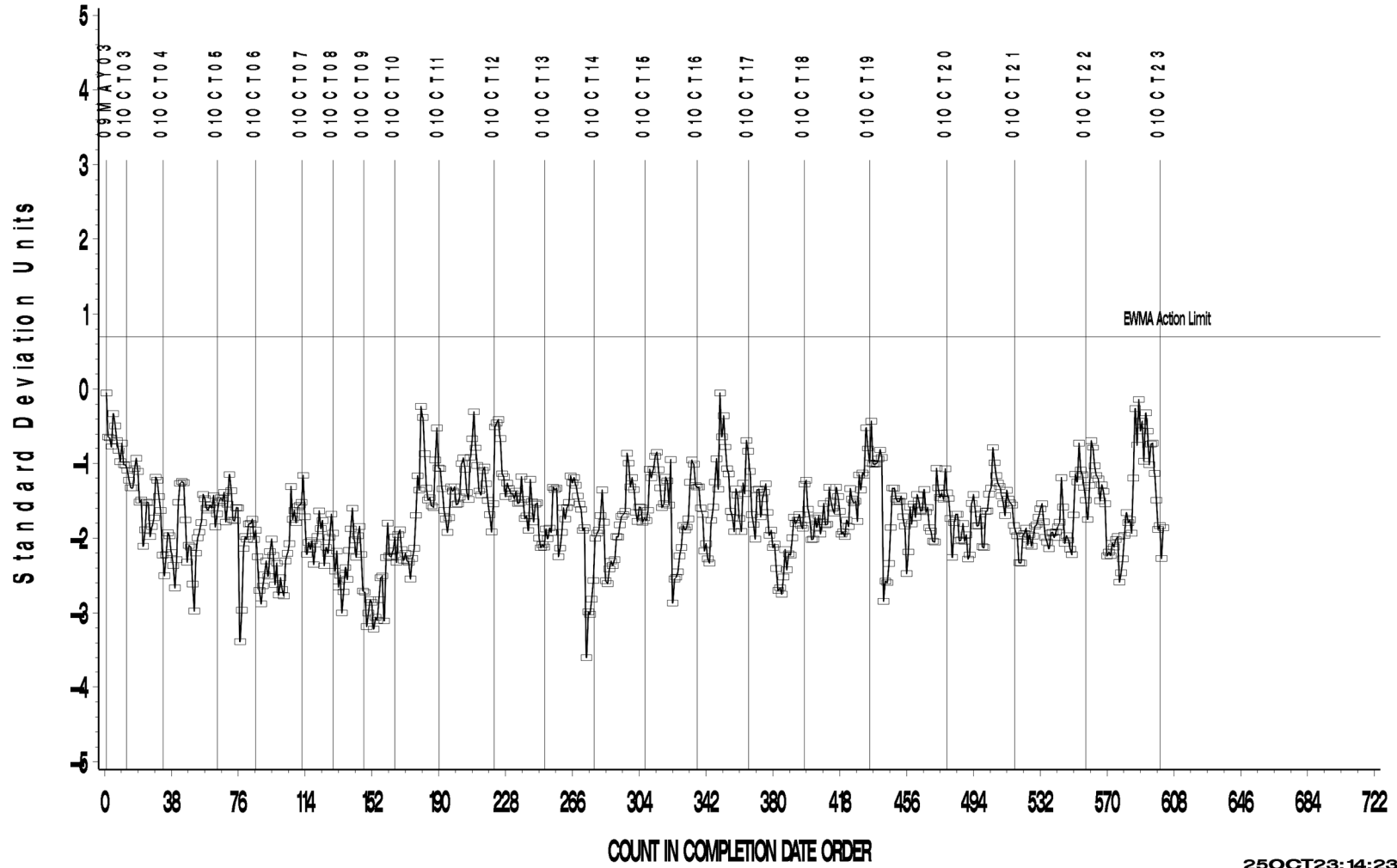
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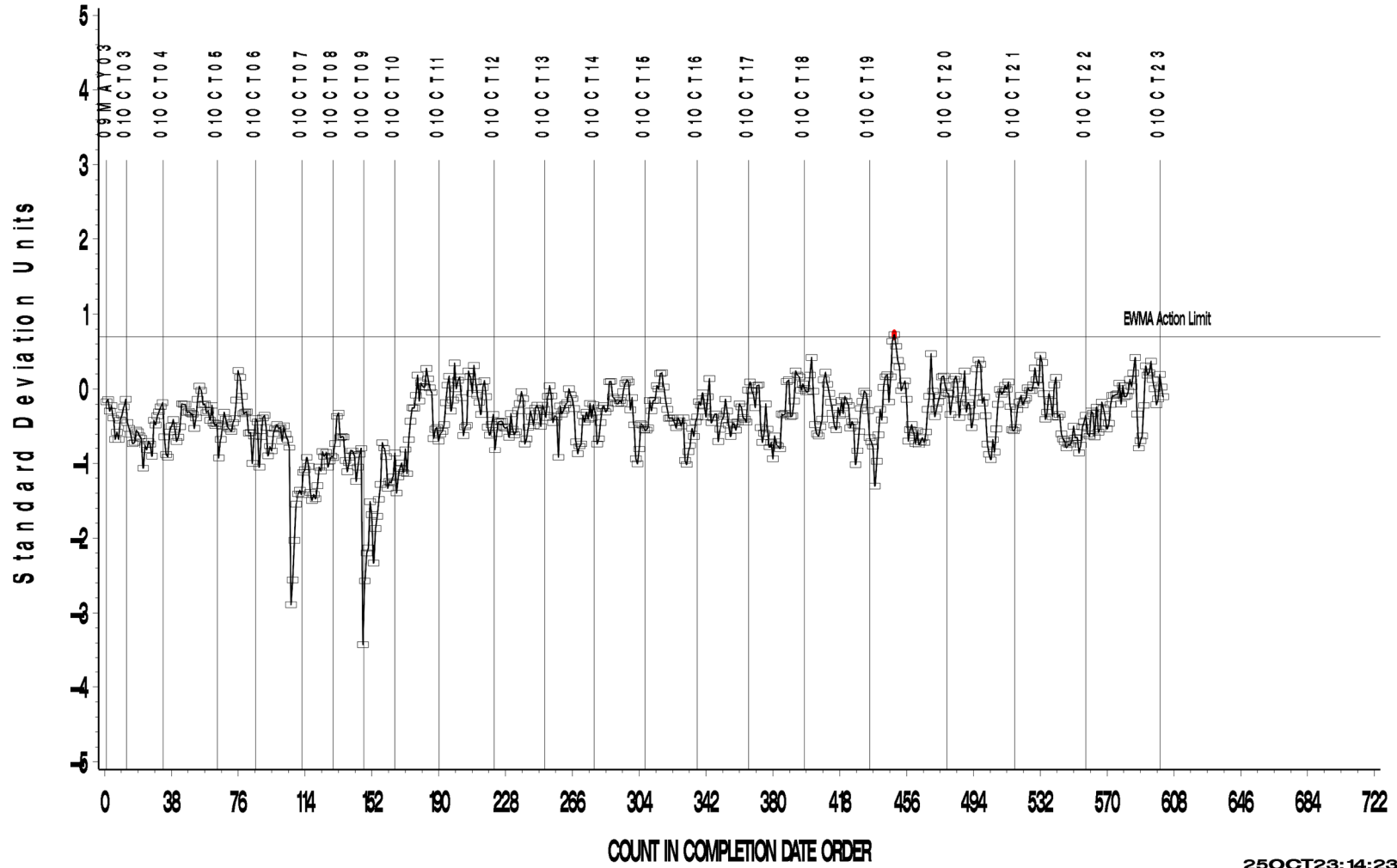
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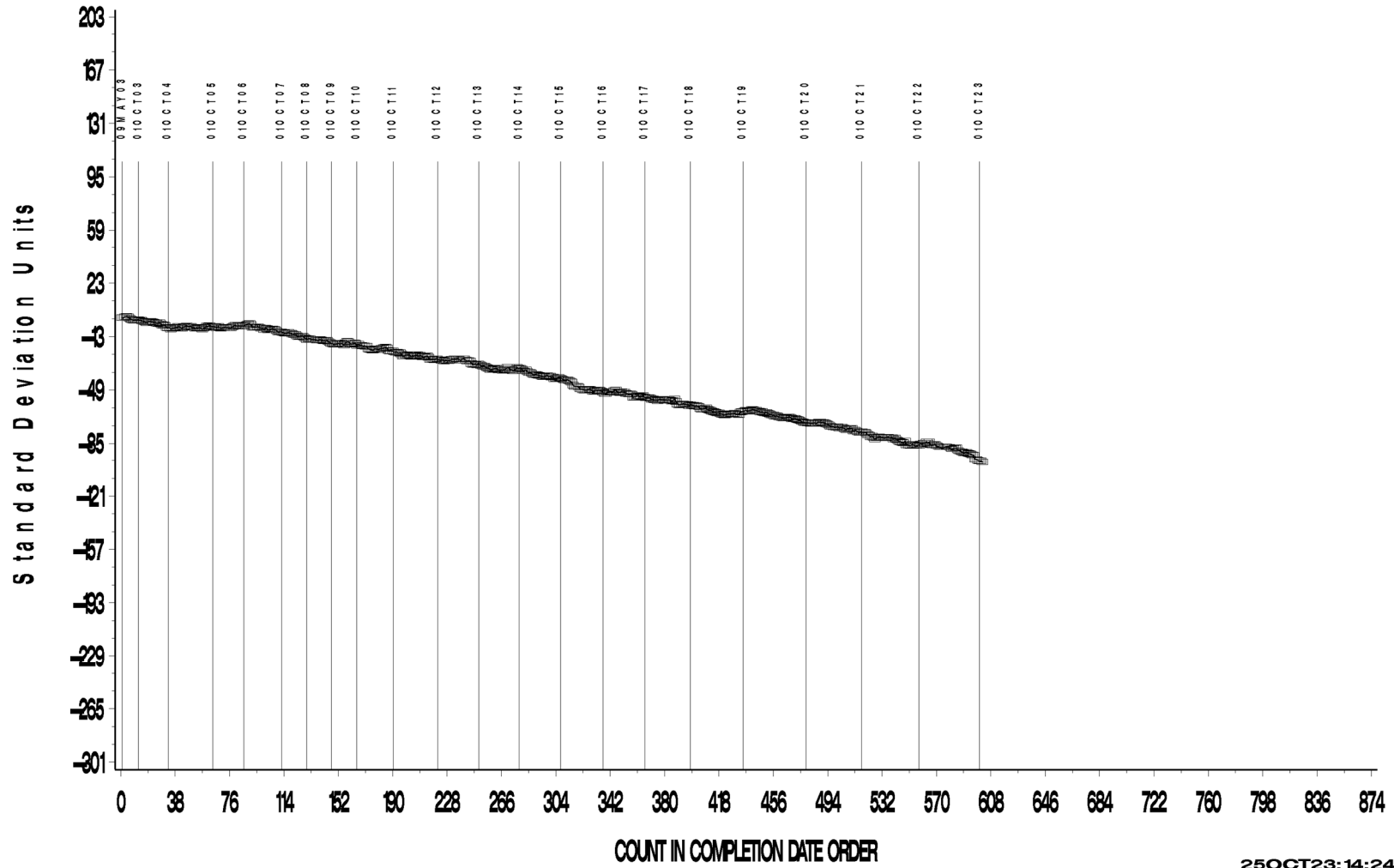
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# L-37 Rater Calibration

L-37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

## RIDGING

CUSUM Severity Analysis



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CUSUM Severity Analysis



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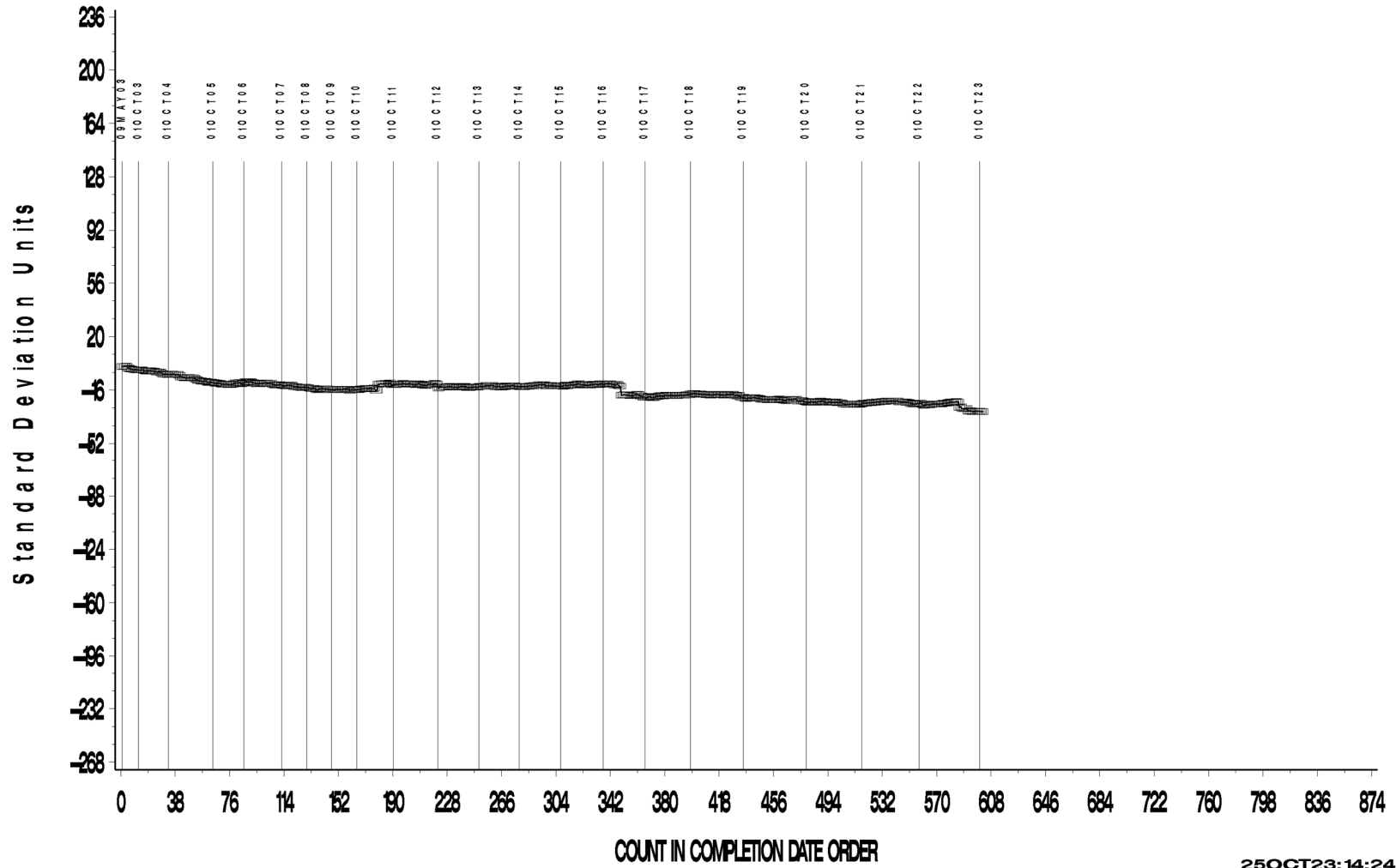
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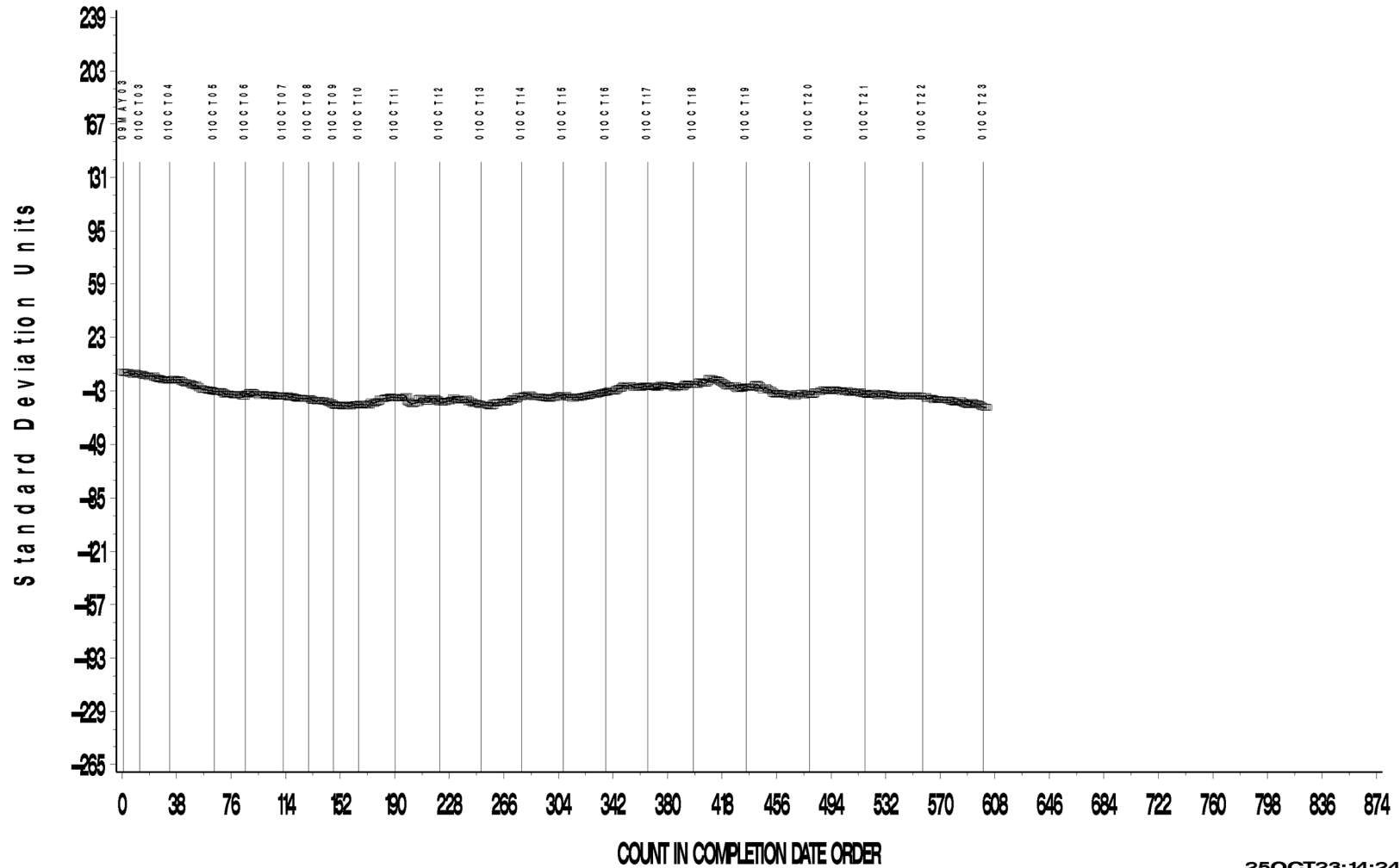


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