



Test Monitoring Center

203 Armstrong Drive, Freeport, PA 16229, USA

www.astmtmc.org
412-365-1000

MEMORANDUM: 22-033
DATE: October 31, 2022
TO: Rob Slocum, Chairman, L-37 Surveillance Panel
FROM: Dylan Beck *Dylan Beck*
SUBJECT: L-37 Rater Calibration from April 1, 2022, through September 30, 2022

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

DJB/djb/mem22-033.djb.doc

cc: Jeff Clark

Sean Moyer

L-37 Surveillance Panel

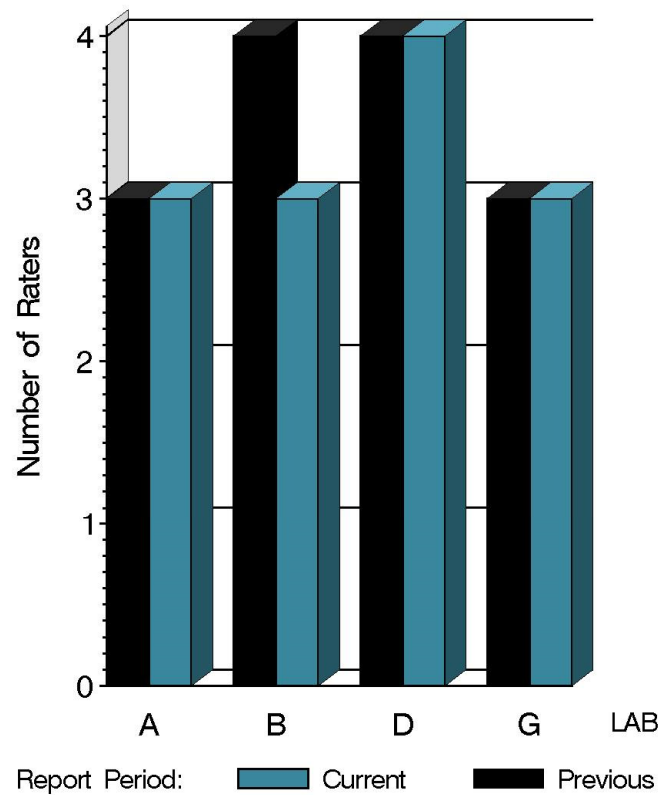
<https://www.astmtmc.org/ftp/docs/gear/l37rc/semiannualreports/l37rc-10-2022.pdf>

Distribution: email

L-37 Rater Calibration

	Reporting Data	Calibrated on 9-30-22
Number of Labs	4	4
Number of Raters	13	13

BY-LAB RATER DISTRIBUTION



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L-37 Rater Calibration

Test Distribution by Validity

		Totals	
		Last Period	This Period
Accepted for calibration	AC	14	14
Rejected (Mild)	OC	2	2
Rejected (Severe)	OC	5	3
Rejected (Multiple)	OC	0	0
Rejected (Precision)	OC	0	0
Workshop data	AG	10	9
Total		31	28

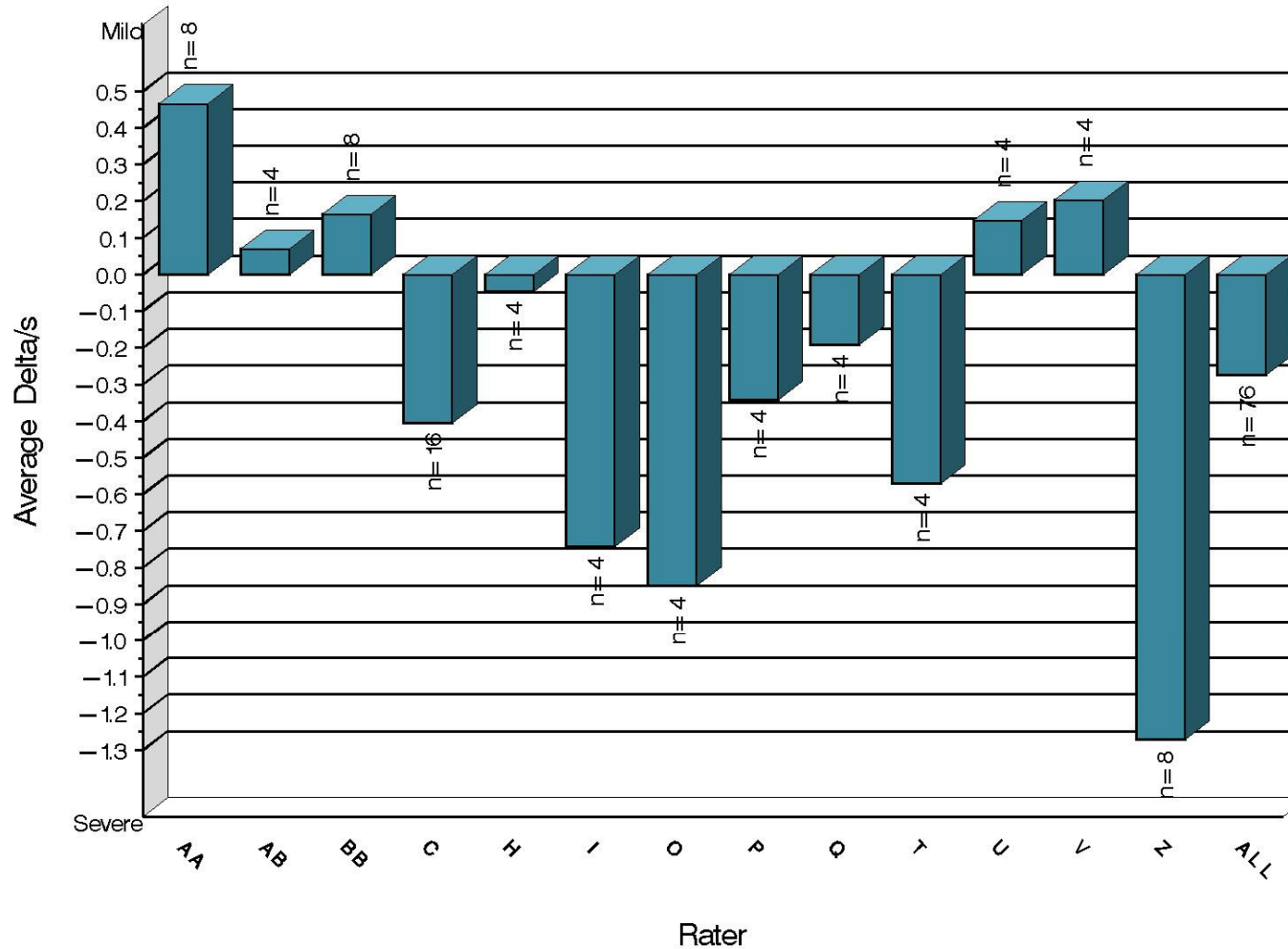
L-37 Rater Calibration

Rater	N	RIDG		RIPP		SPIT		WEAR	
		Avg Yi	STD*	Avg Yi	STD*	Avg Yi	STD*	Avg Yi	STD*
AA	8	0.466	1.240	0.256	0.749	0.073	0.216	-0.125	0.557
AB	4	0.069	0.939	-0.368	0.729	-0.773	1.380	-0.147	0.450
BB	8	0.164	0.948	-0.703	1.009	0.045	0.802	0.184	0.803
C	16	-0.405	1.208	0.072	0.863	-0.322	1.059	-0.200	0.651
H	4	-0.047	0.356	-0.122	0.386	-0.073	0.337	-0.106	0.472
I	4	-0.743	0.832	-0.122	0.386	-0.006	0.237	0.177	0.721
O	4	-0.850	0.569	-0.625	1.885	0.047	0.276	0.044	1.929
P	4	-0.342	0.287	-0.126	0.839	-0.037	0.392	0.493	0.471
Q	4	-0.192	1.020	0.212	0.385	-0.059	0.119	-0.292	0.556
T	4	-0.570	0.451	0.226	0.673	0.030	0.393	0.313	0.751
U	4	0.147	0.647	-0.041	0.573	0.127	0.422	-0.045	1.048
V	4	0.203	0.541	0.238	0.577	0.341	0.314	-0.200	0.766
Z	8	-1.272	2.179	0.282	1.206	-0.054	0.357	-0.014	0.625
ALL	76	-0.275	1.175	-0.047	0.902	-0.082	0.683	-0.025	0.741

* 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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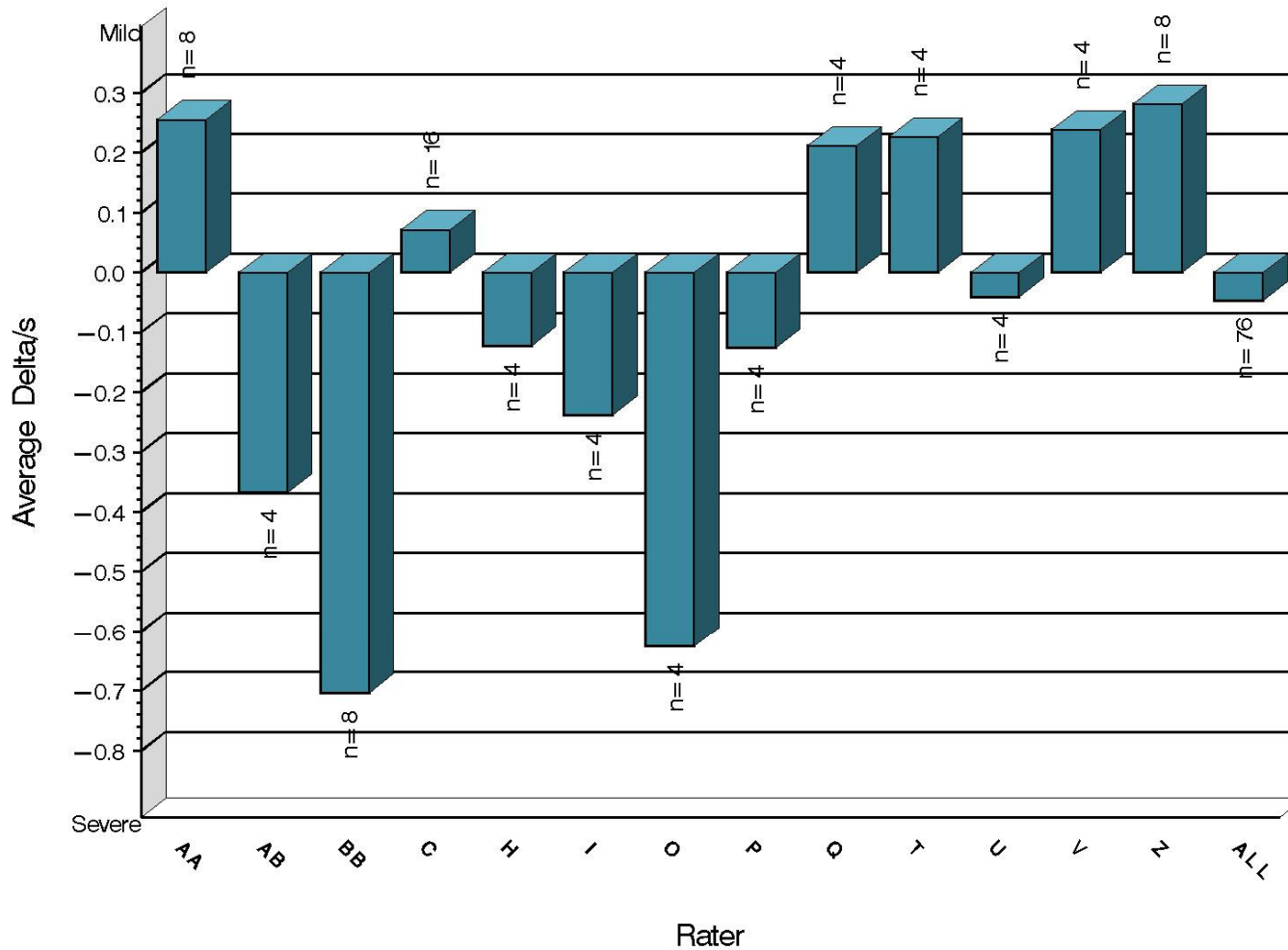
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L-37 Rater Calibration

RIPPLING

Severity as Measured by Delta/s



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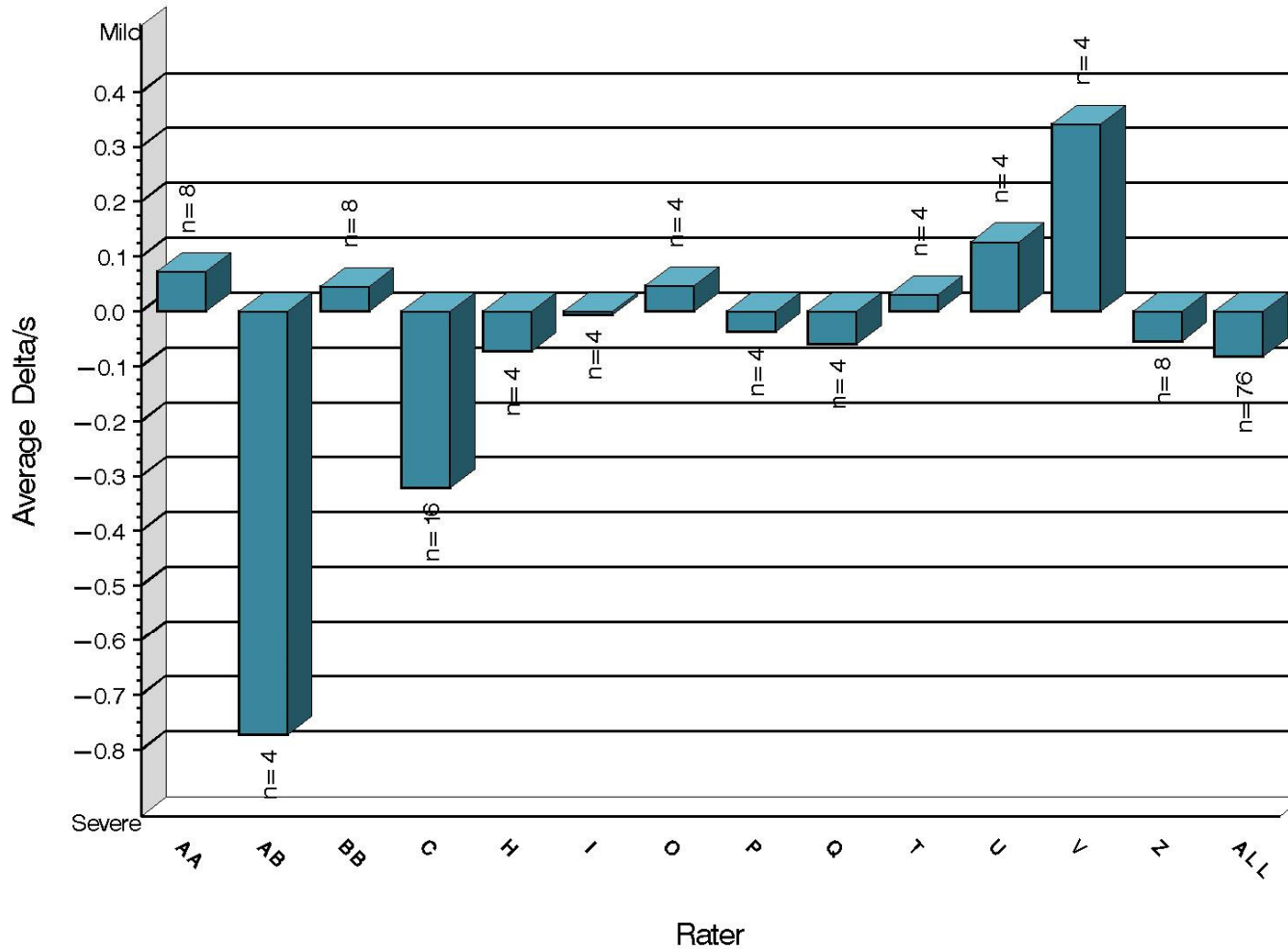
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L-37 Rater Calibration

SPITTING

Severity as Measured by Delta/s



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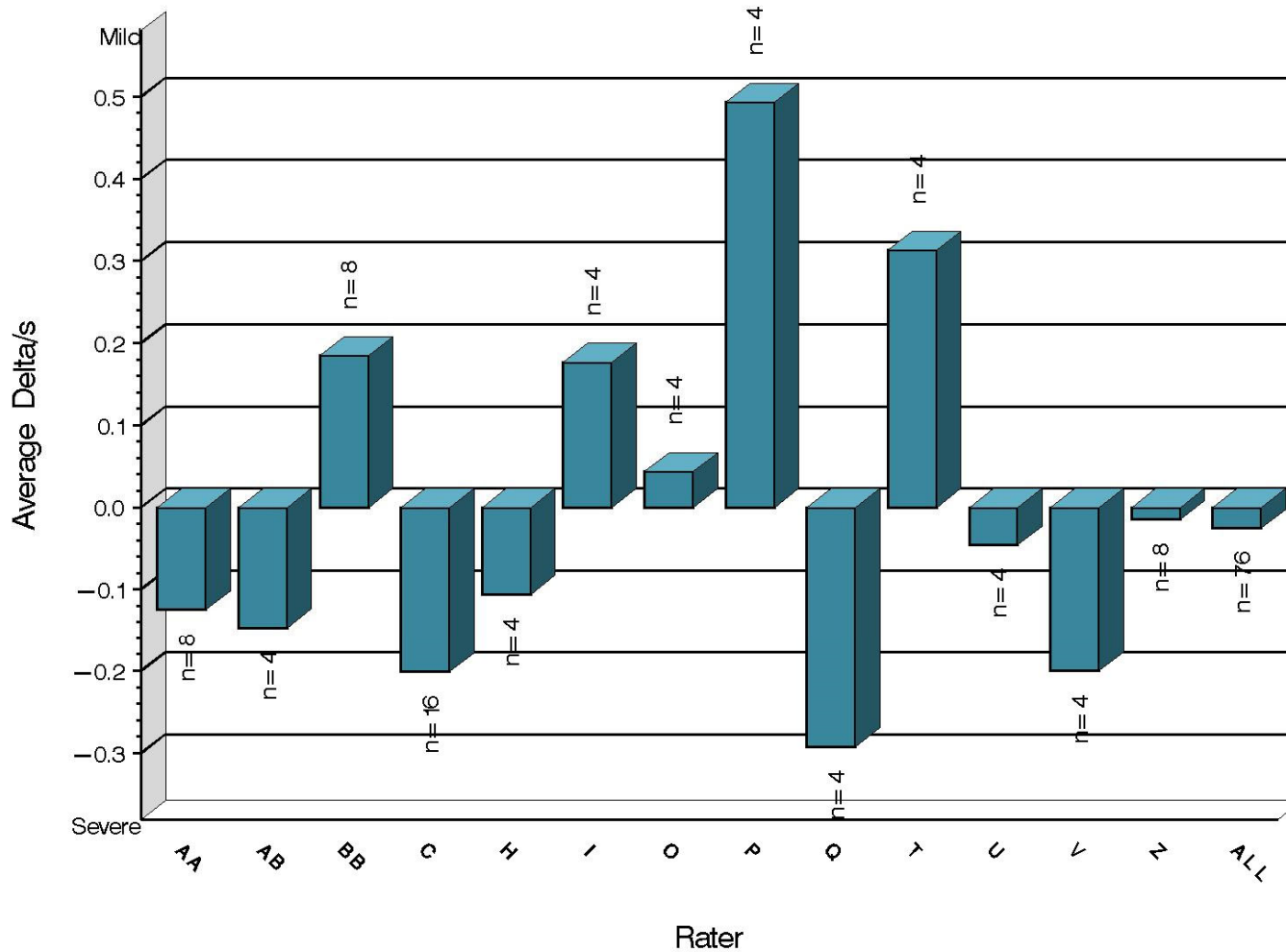
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WEAR
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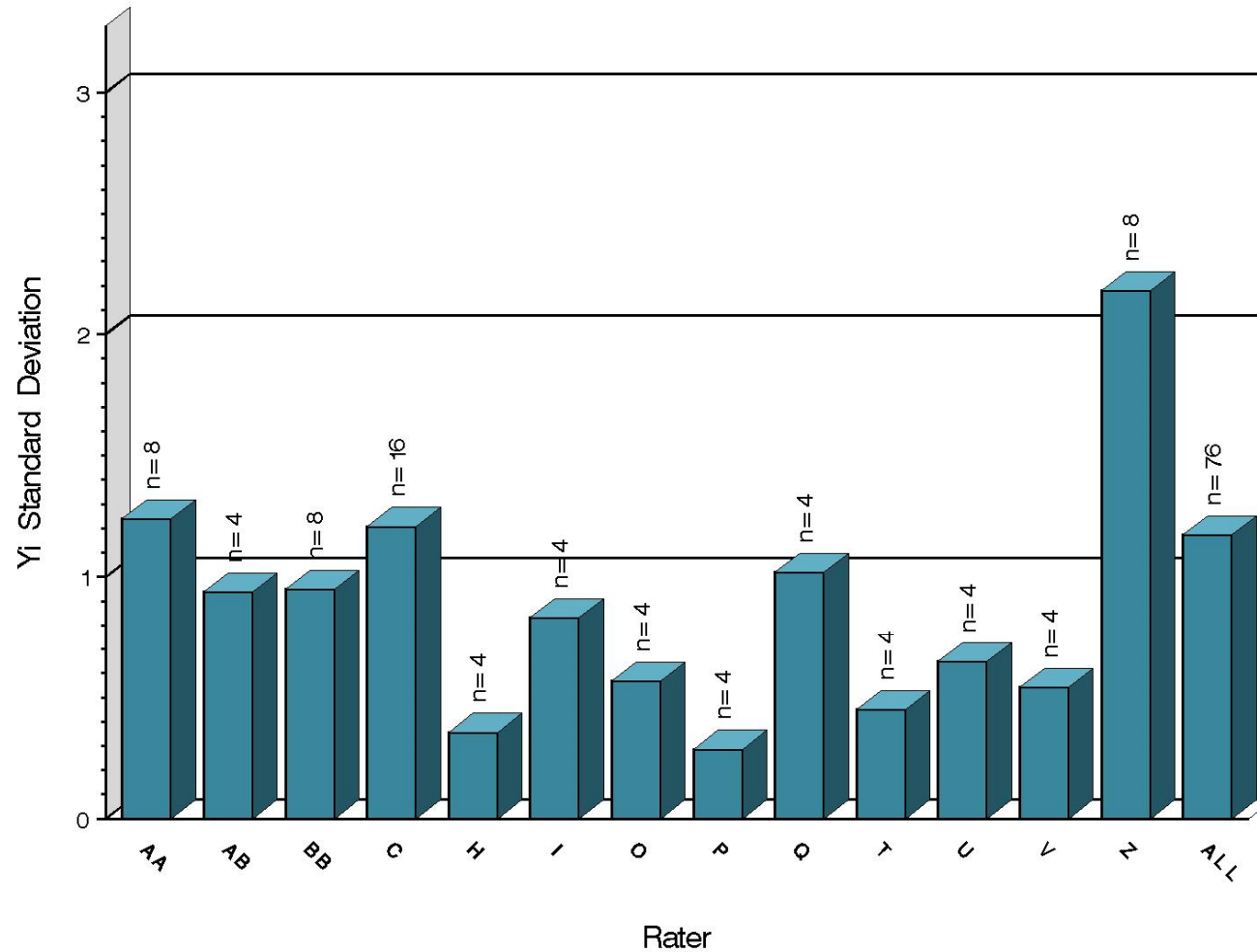
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L-37 Rater Calibration

RIDGING
Precision as Measured by Y1 STD



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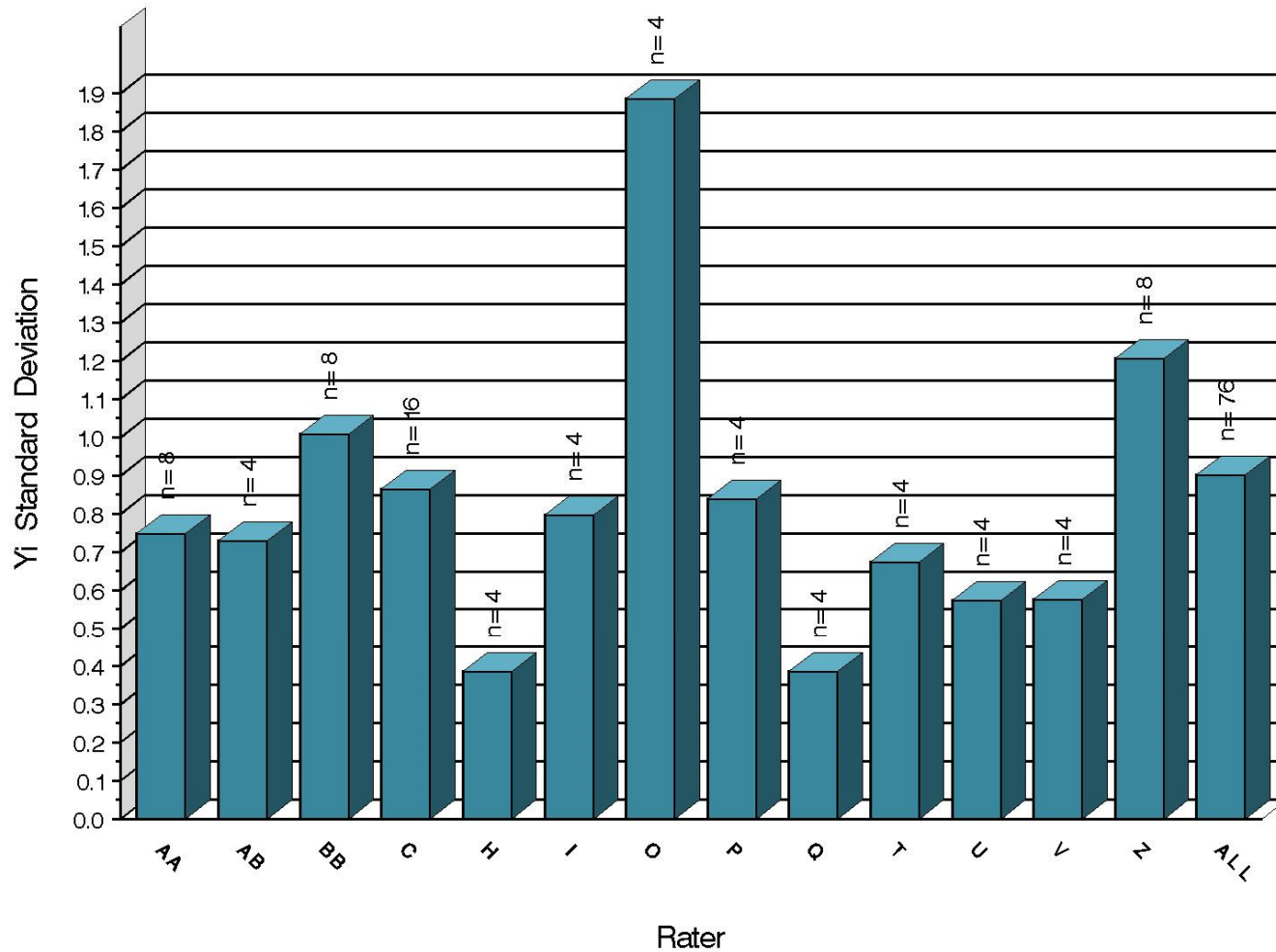
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RIPPLING
Precision as Measured by Y1 STD



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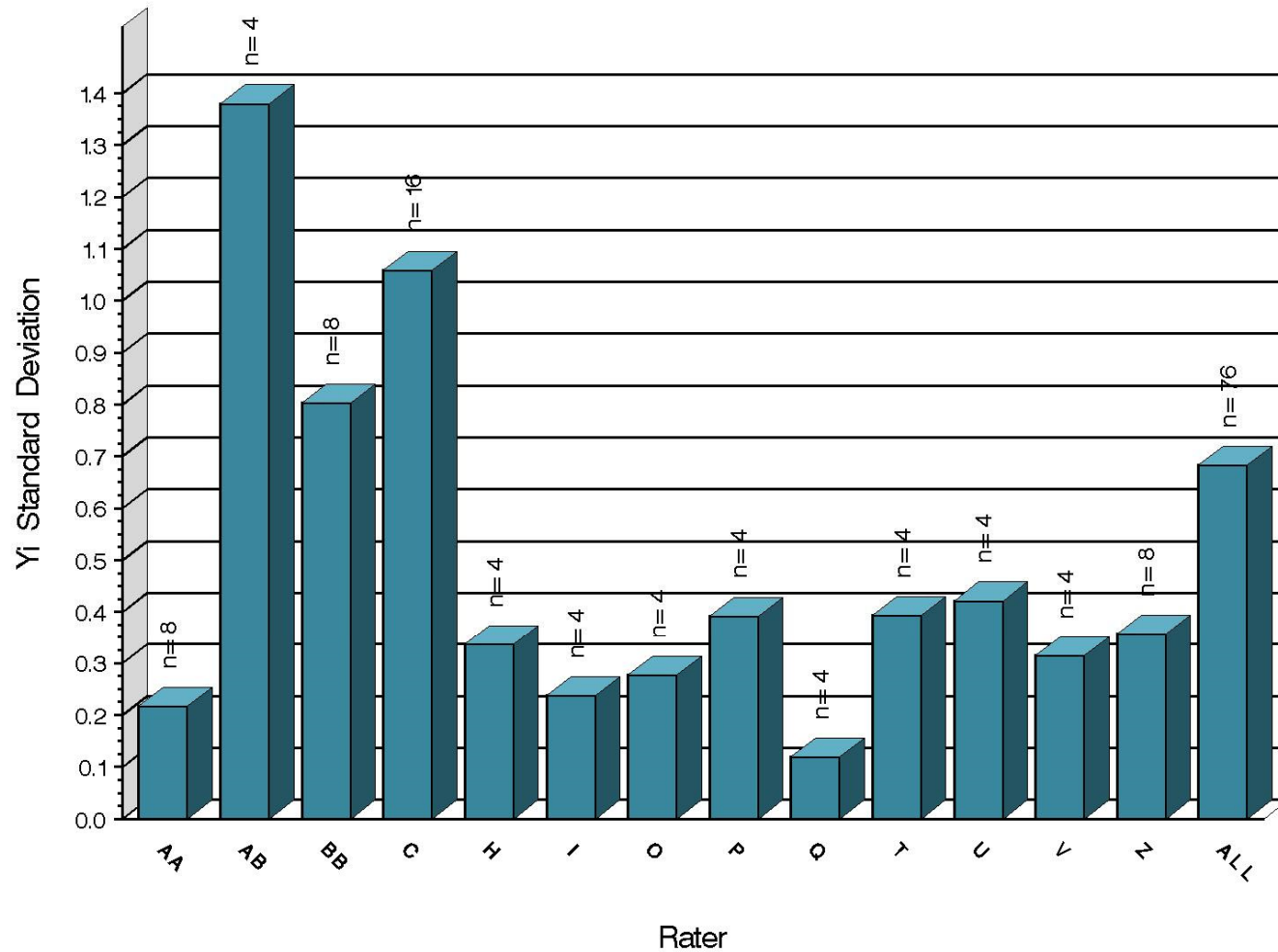
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Precision as Measured by Yi STD



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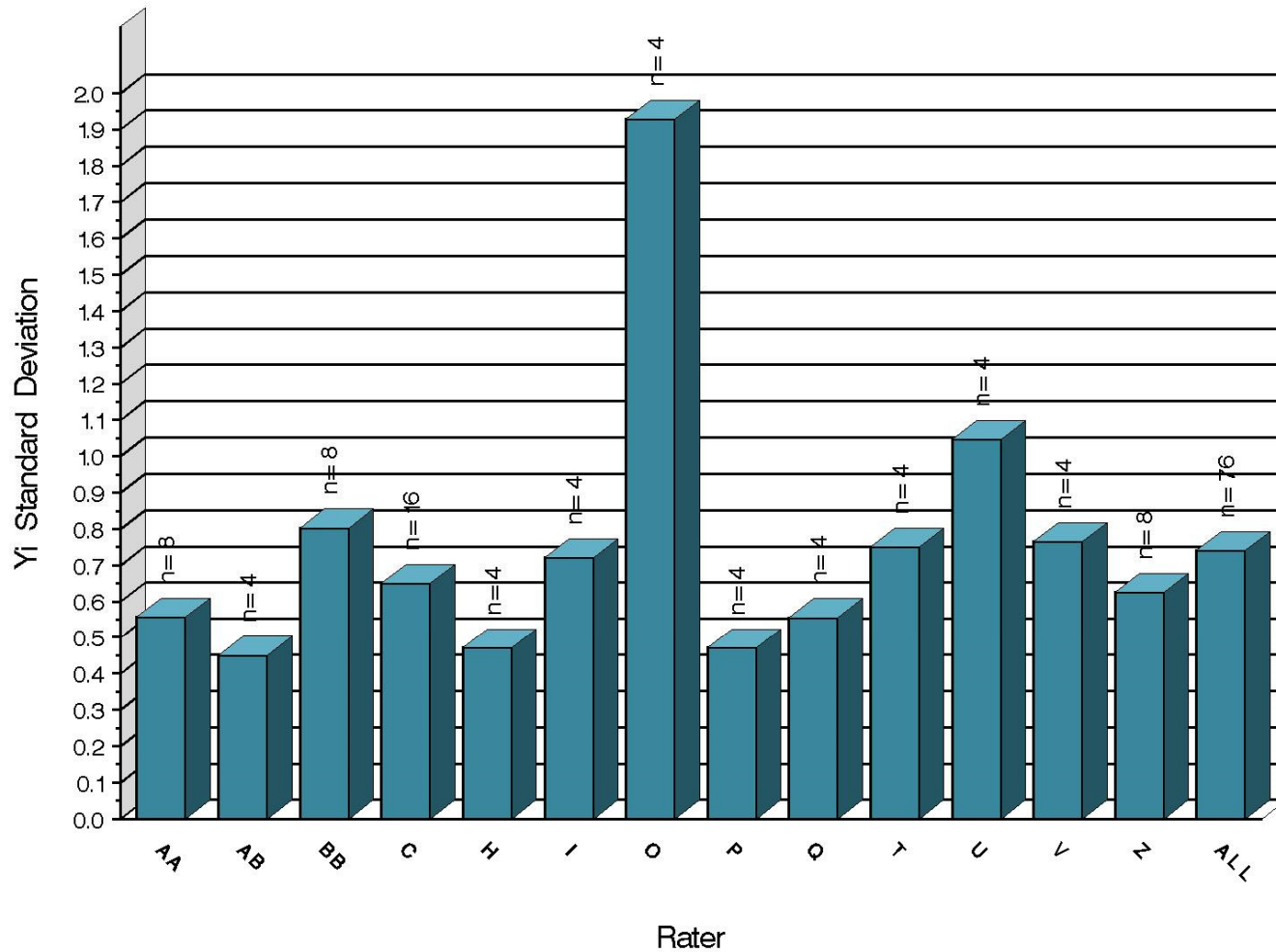
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Precision as Measured by Y1 STD



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L-37 Rater Calibration

SUMMARY OF SEVERITY & PRECISION

Severity

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

Precision

All parameters remained within limits throughout the period.

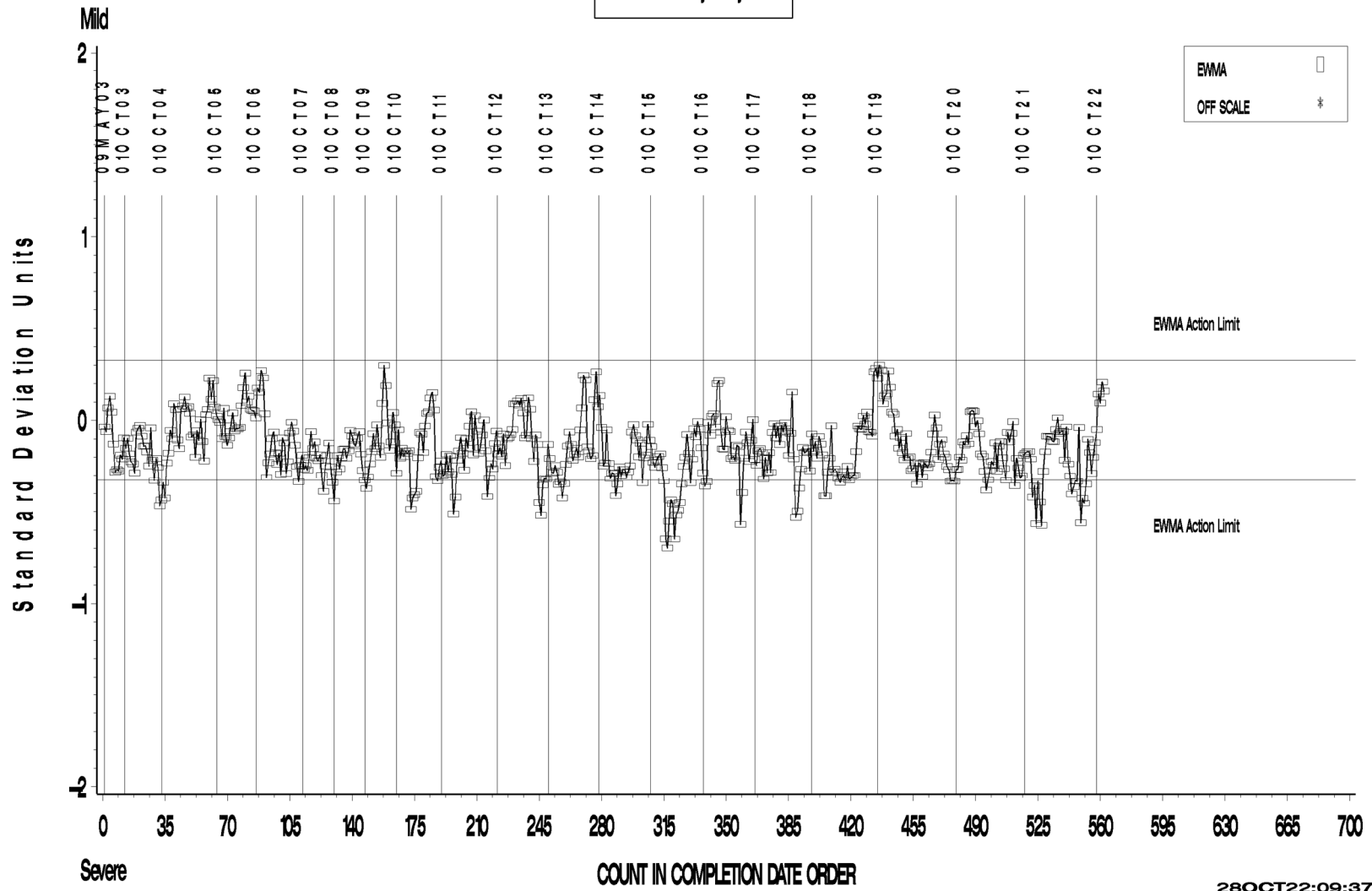
Industry rater control charts follow.

L-37 Rater Calibration

L-37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RIDGING

LTMS Severity Analysis



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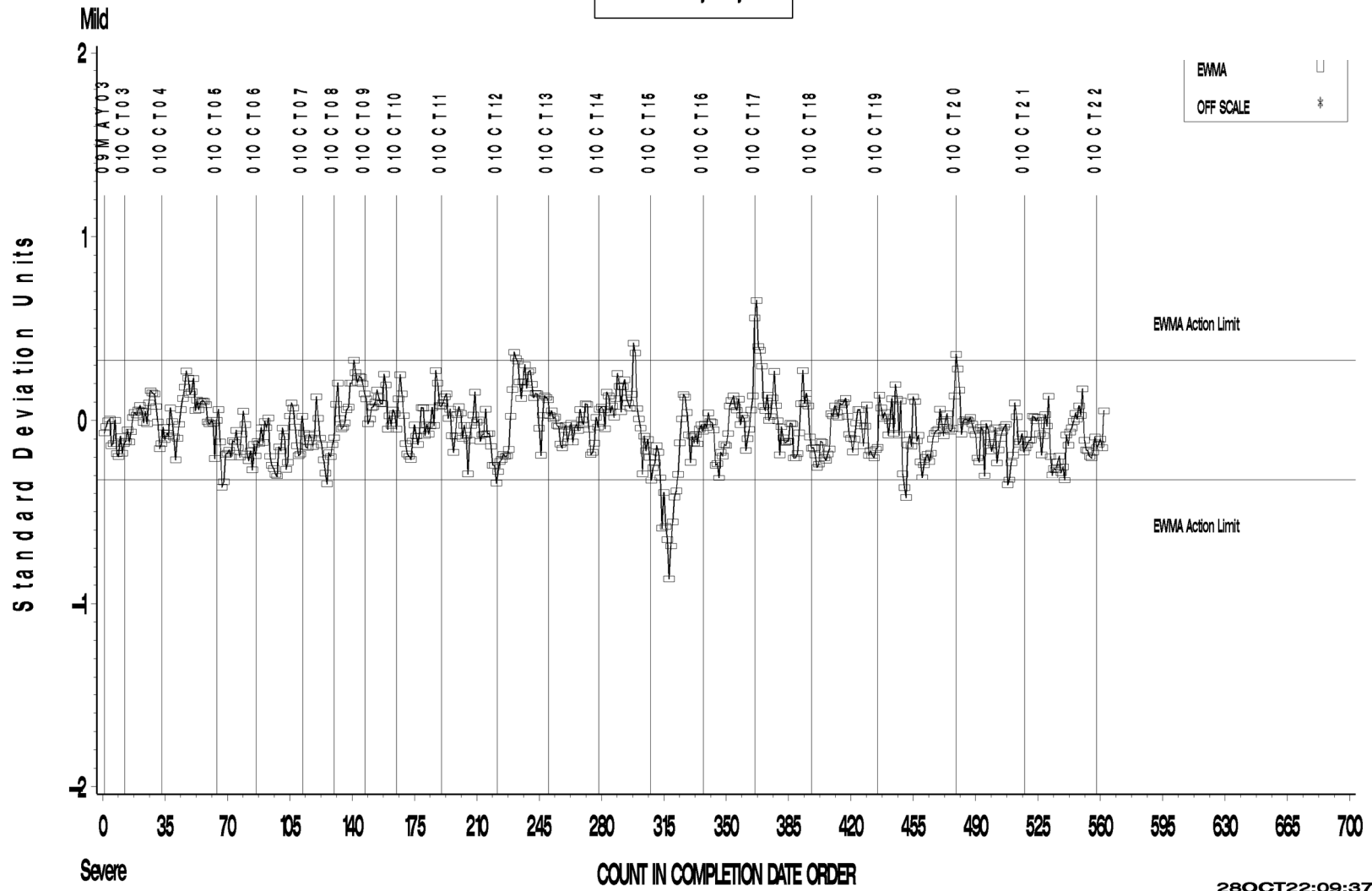


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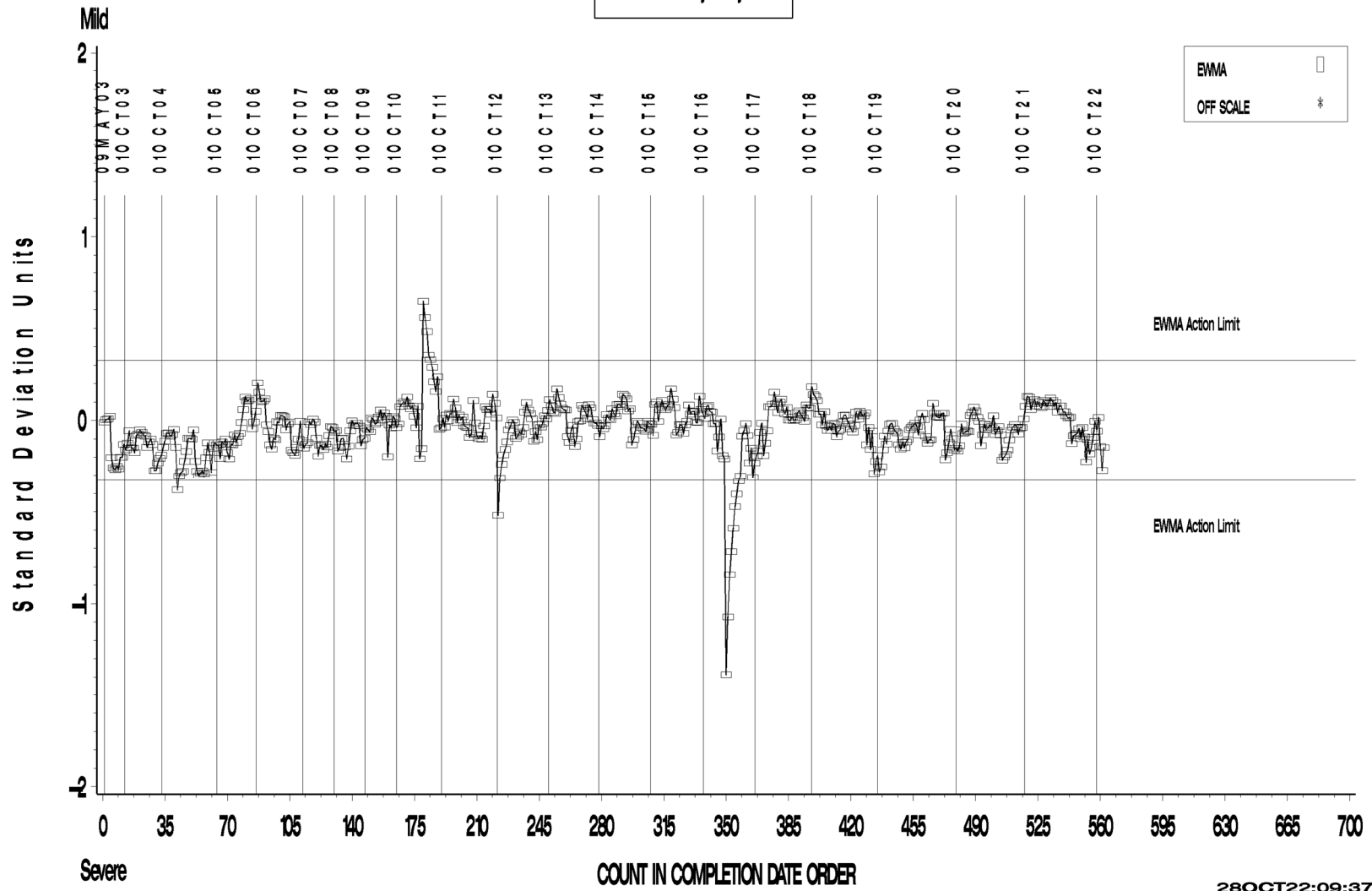
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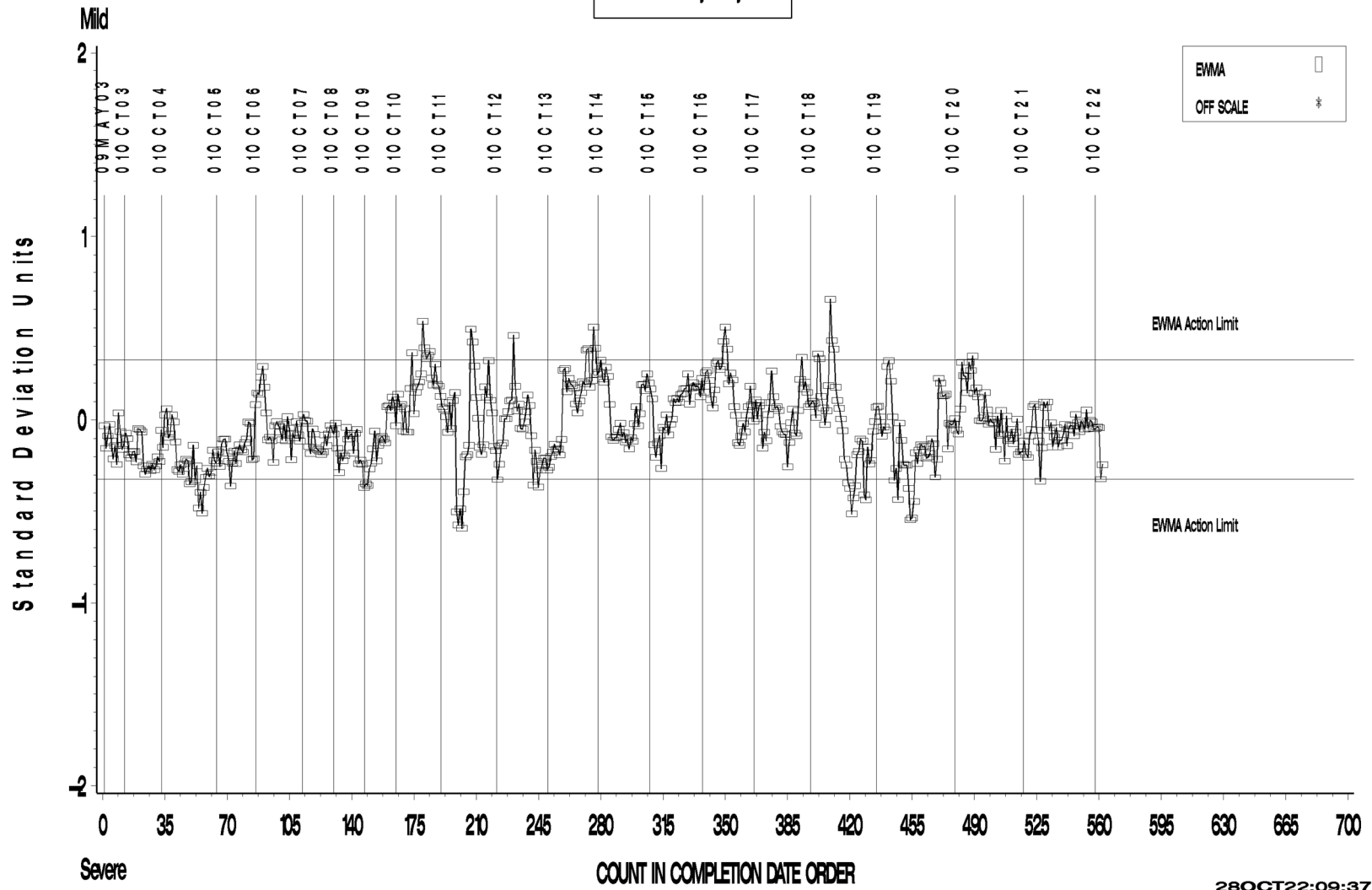
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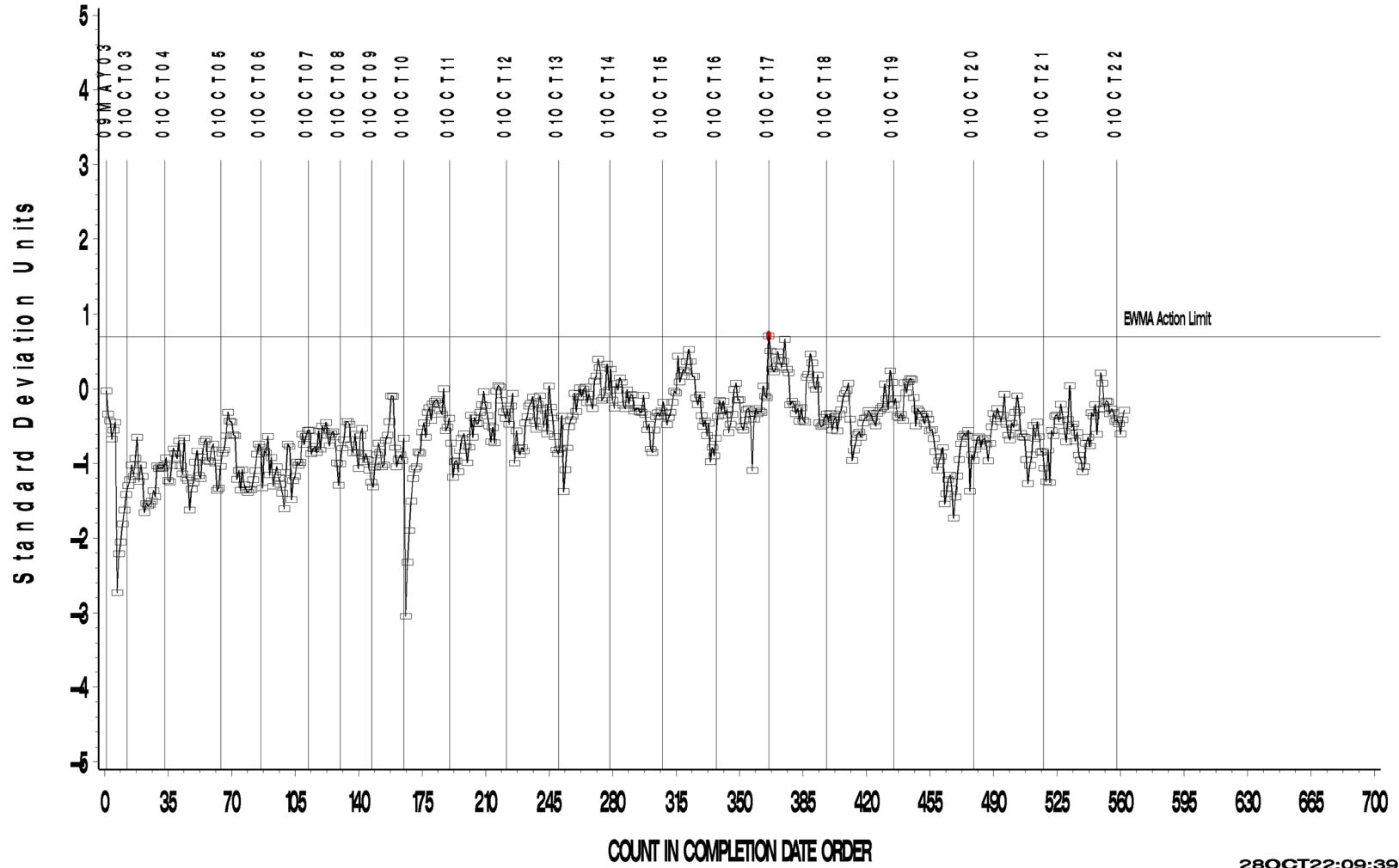
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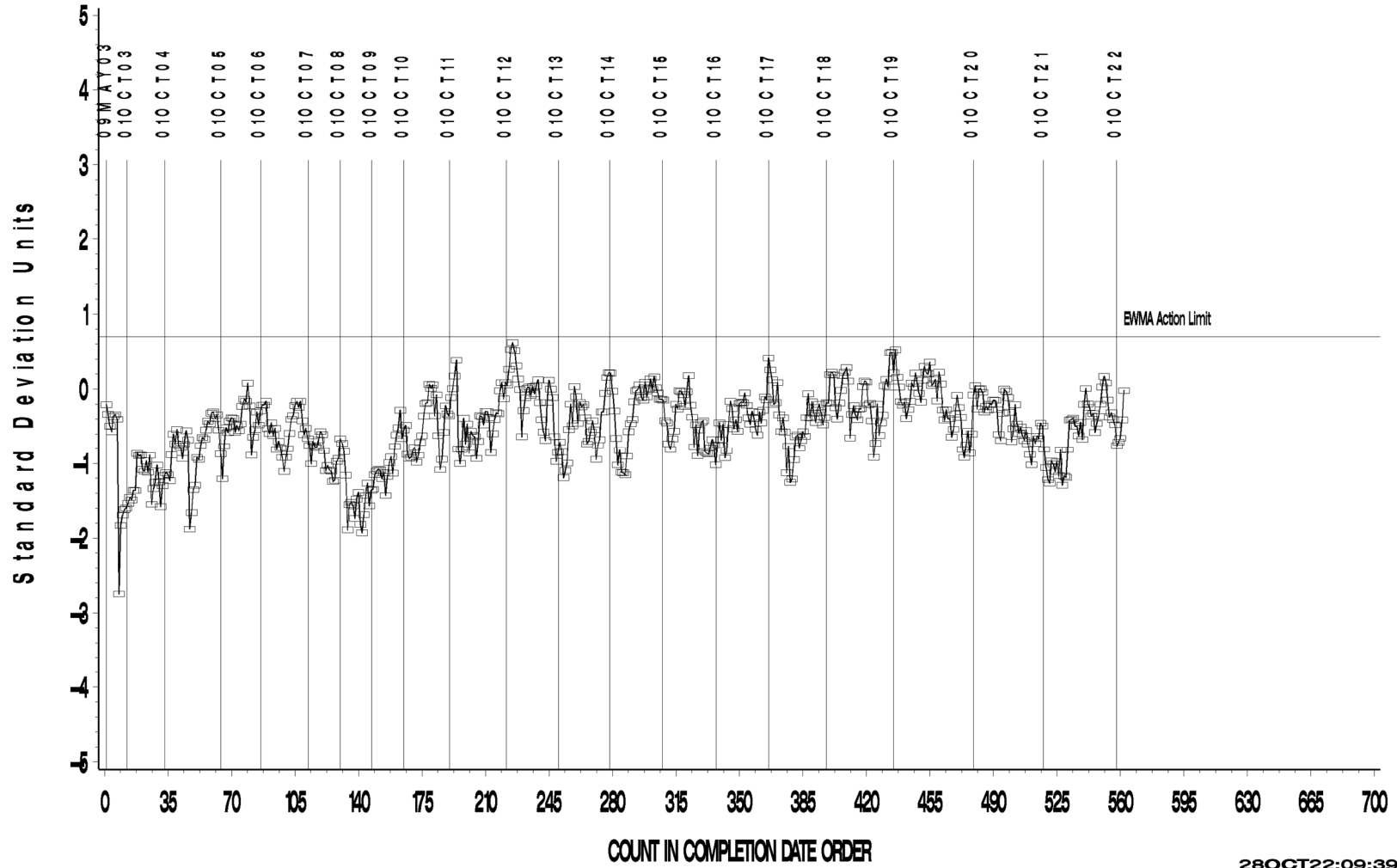
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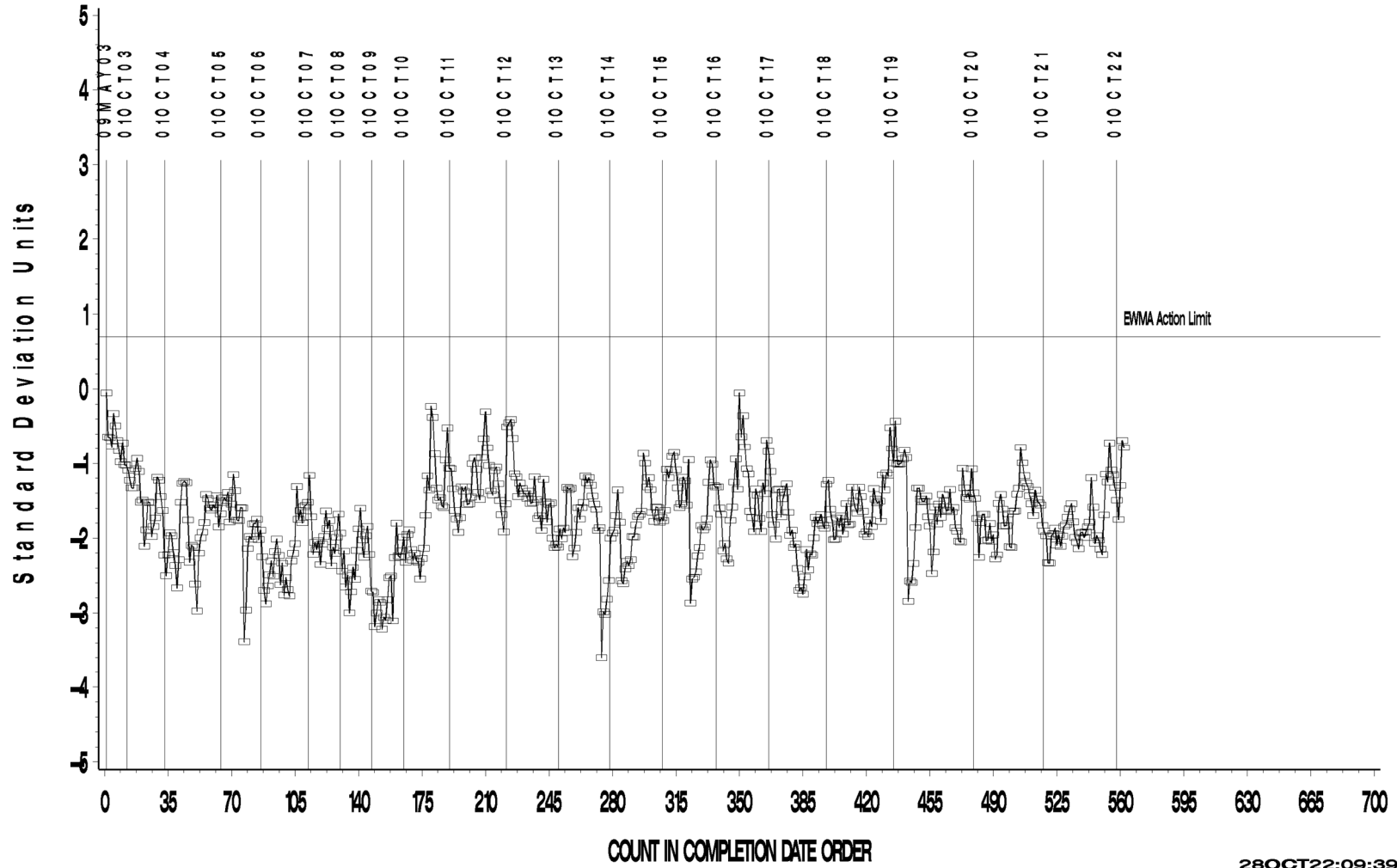
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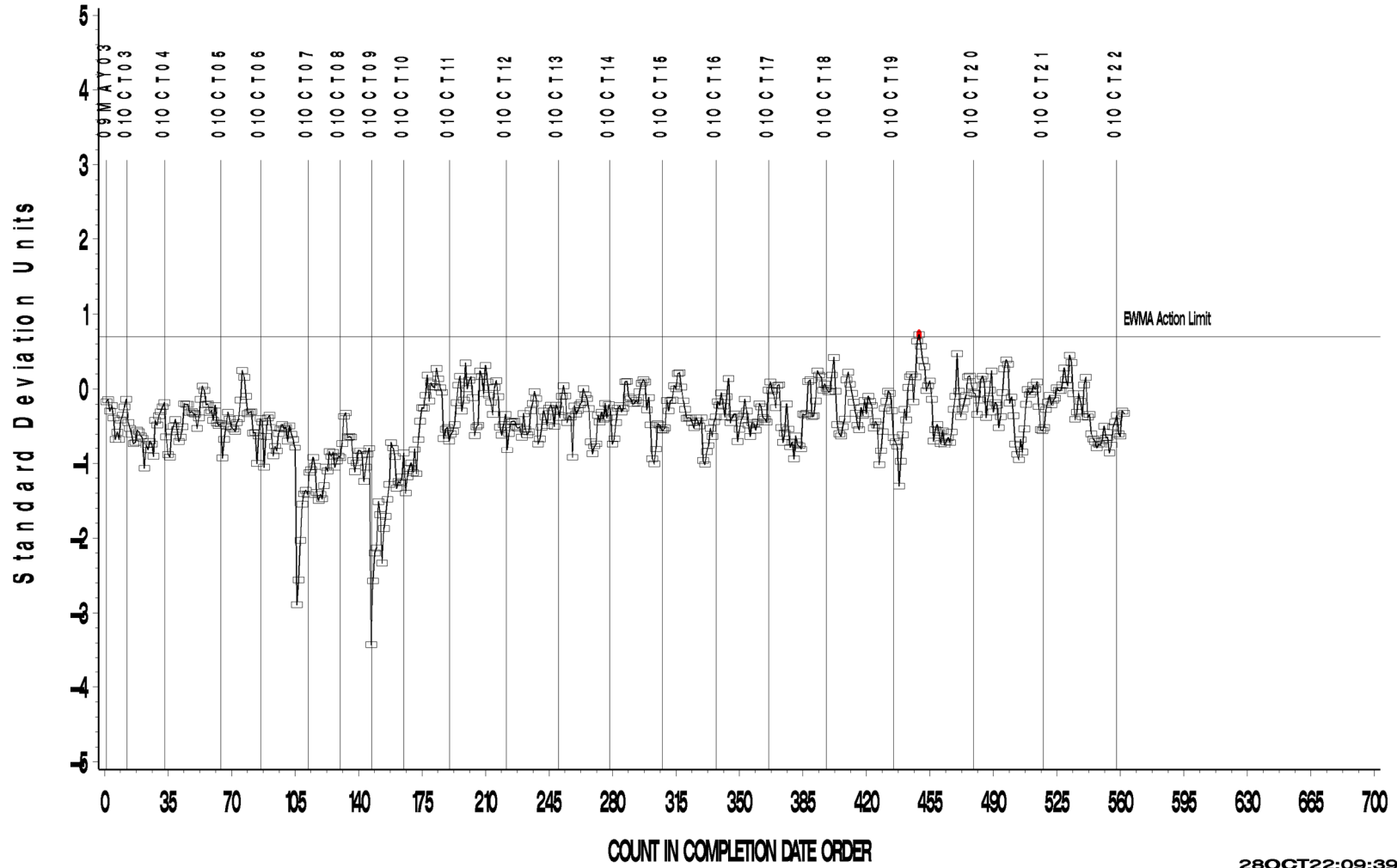
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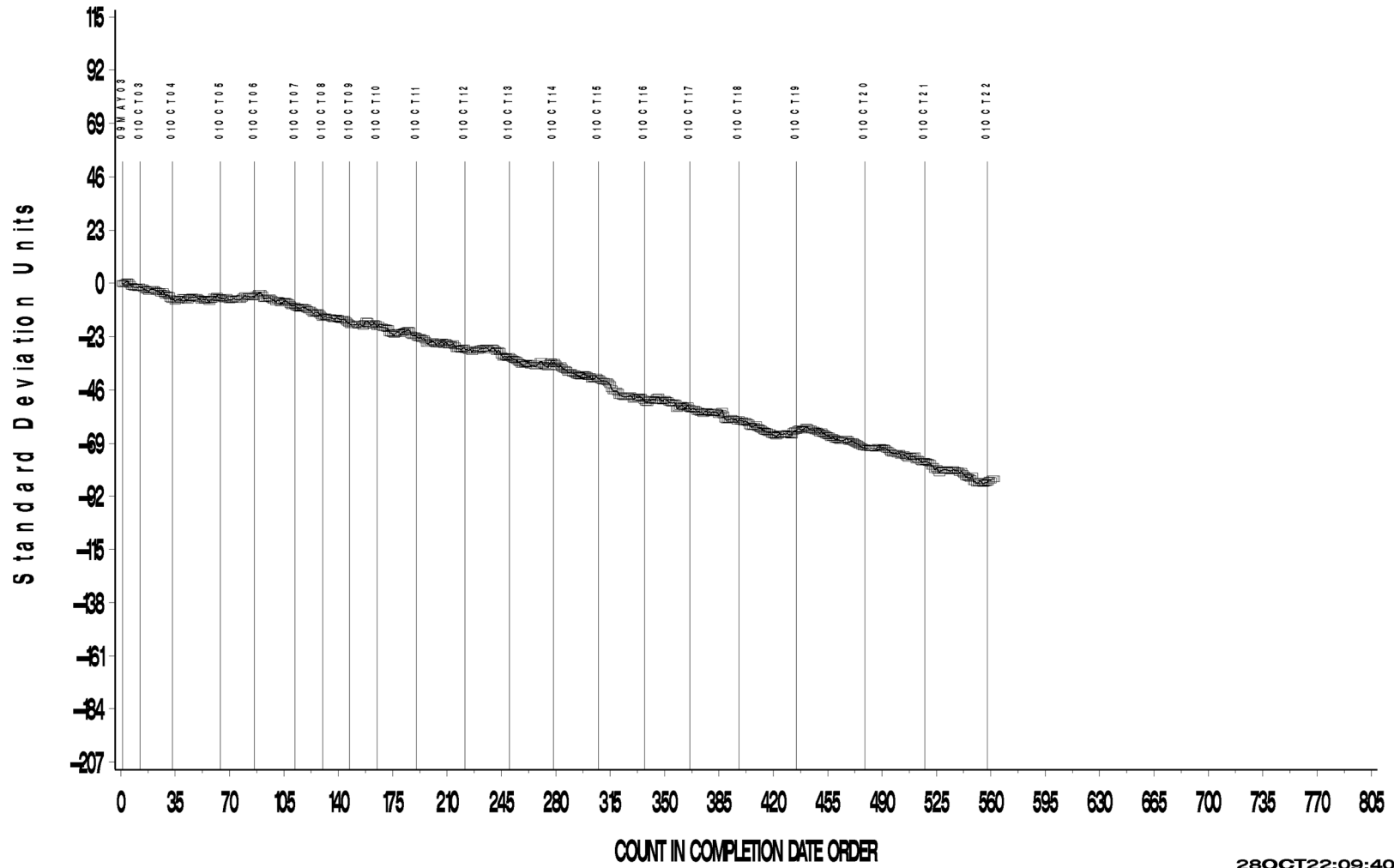
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RIDGING

CUSUM Severity Analysis



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CUSUM Severity Analysis



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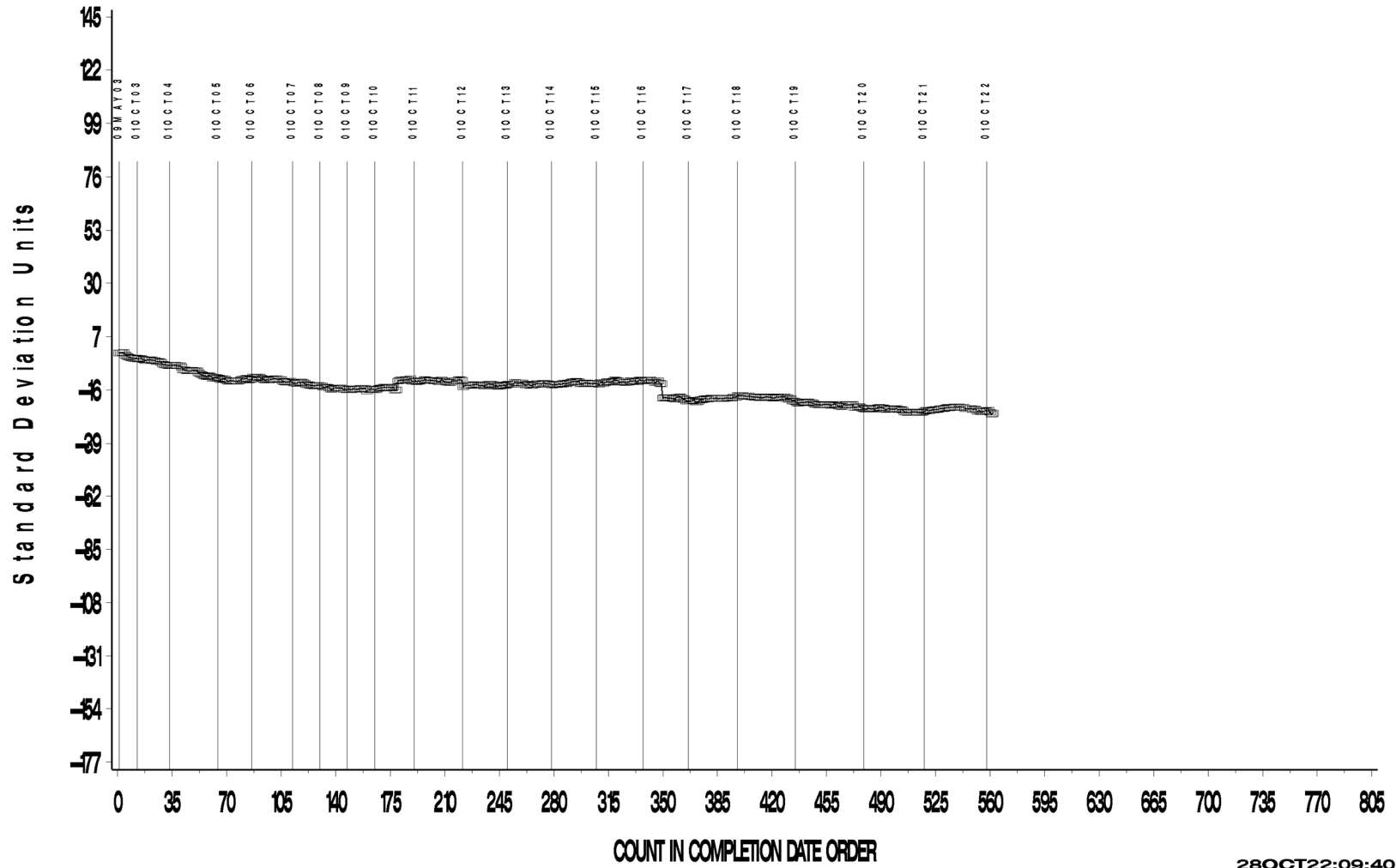
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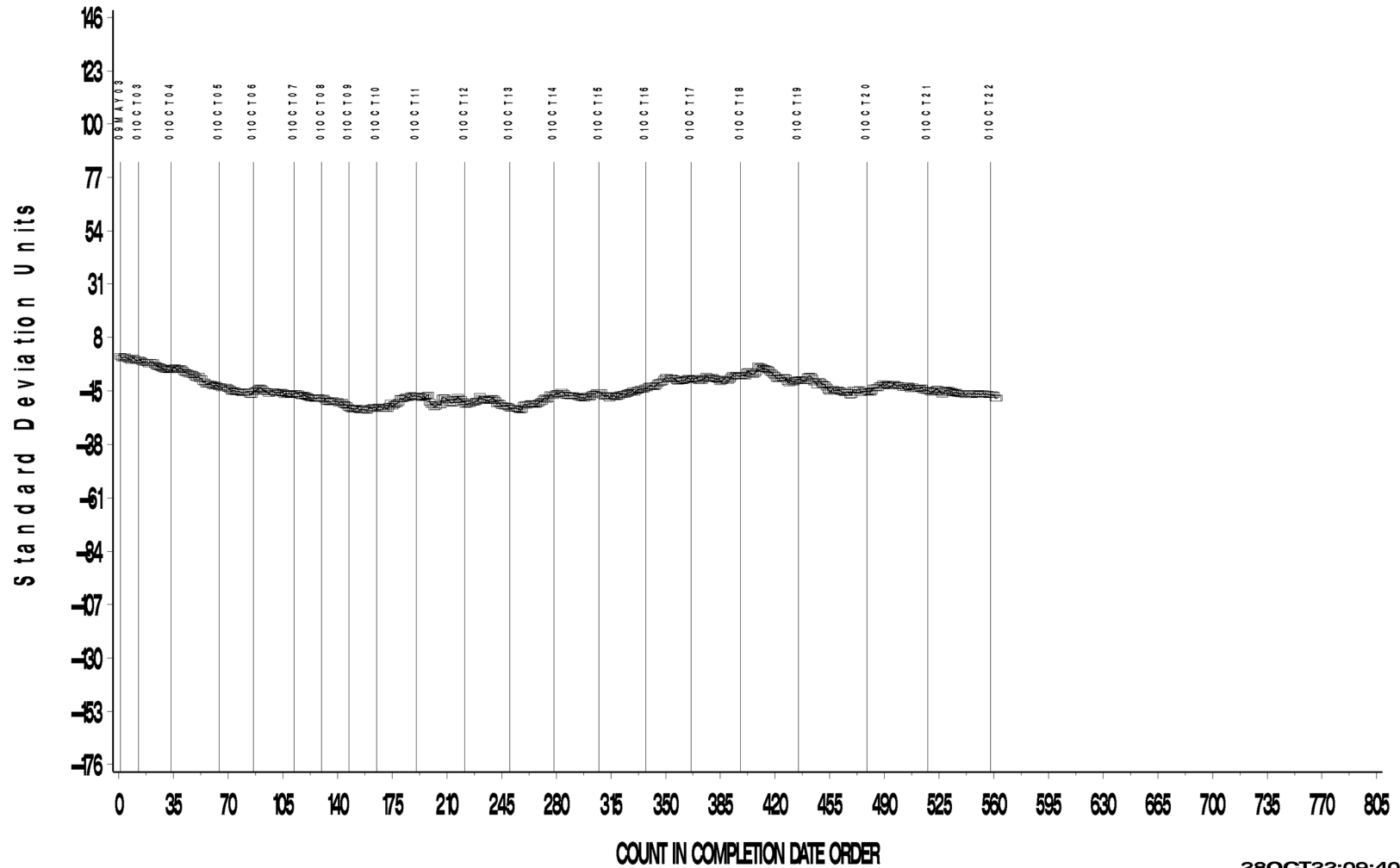
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