



Test Monitoring Center

203 Armstrong Drive, Freeport, PA 16229, USA

www.astmtmc.org
412-365-1000

MEMORANDUM: 23-007
DATE: April 19, 2023
TO: Nick Schaup, Chairman, L-37 Surveillance Panel
FROM: Dylan Beck *Dylan Beck*
SUBJECT: L-37 Rater Calibration from October 1, 2022, through March 31, 2023

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

DJB/djb/mem23-007.djb.doc

cc: Jeff Clark

Sean Moyer

L-37 Surveillance Panel

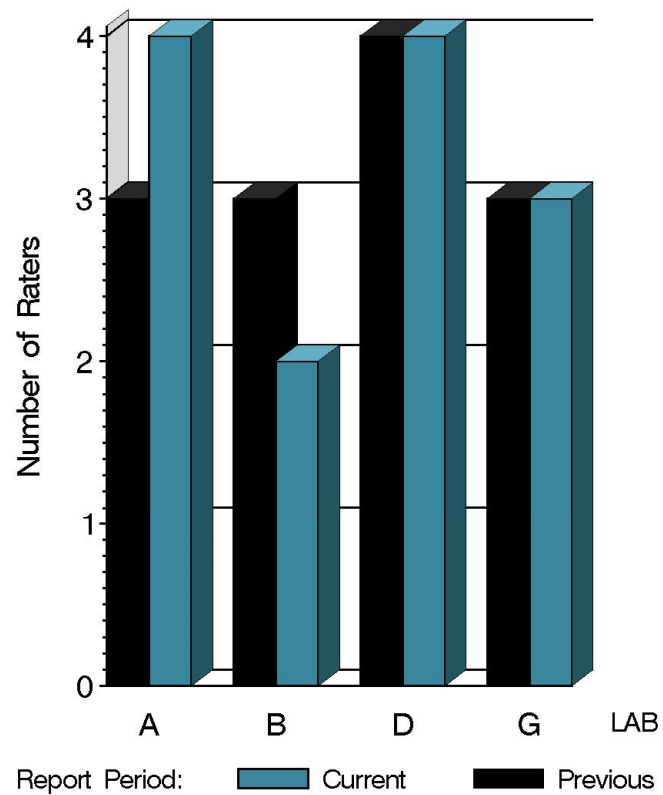
<https://www.astmtmc.org/ftp/docs/gear/137rc/semiannualreports/137rc-04-2023.pdf>

Distribution: email

L-37 Rater Calibration

	Reporting Data	Calibrated on 3-31-23
Number of Labs	4	4
Number of Raters	13	13

BY-LAB RATER DISTRIBUTION



7:42:47 11APR2023



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L-37 Rater Calibration

Test Distribution by Validity

		Totals	
		Last Period	This Period
Accepted for calibration	AC	14	13
Rejected (Mild)	OC	2	1
Rejected (Severe)	OC	3	3
Rejected (Multiple)	OC	0	0
Rejected (Precision)	OC	0	0
Workshop data	AG	9	9
Total		28	26



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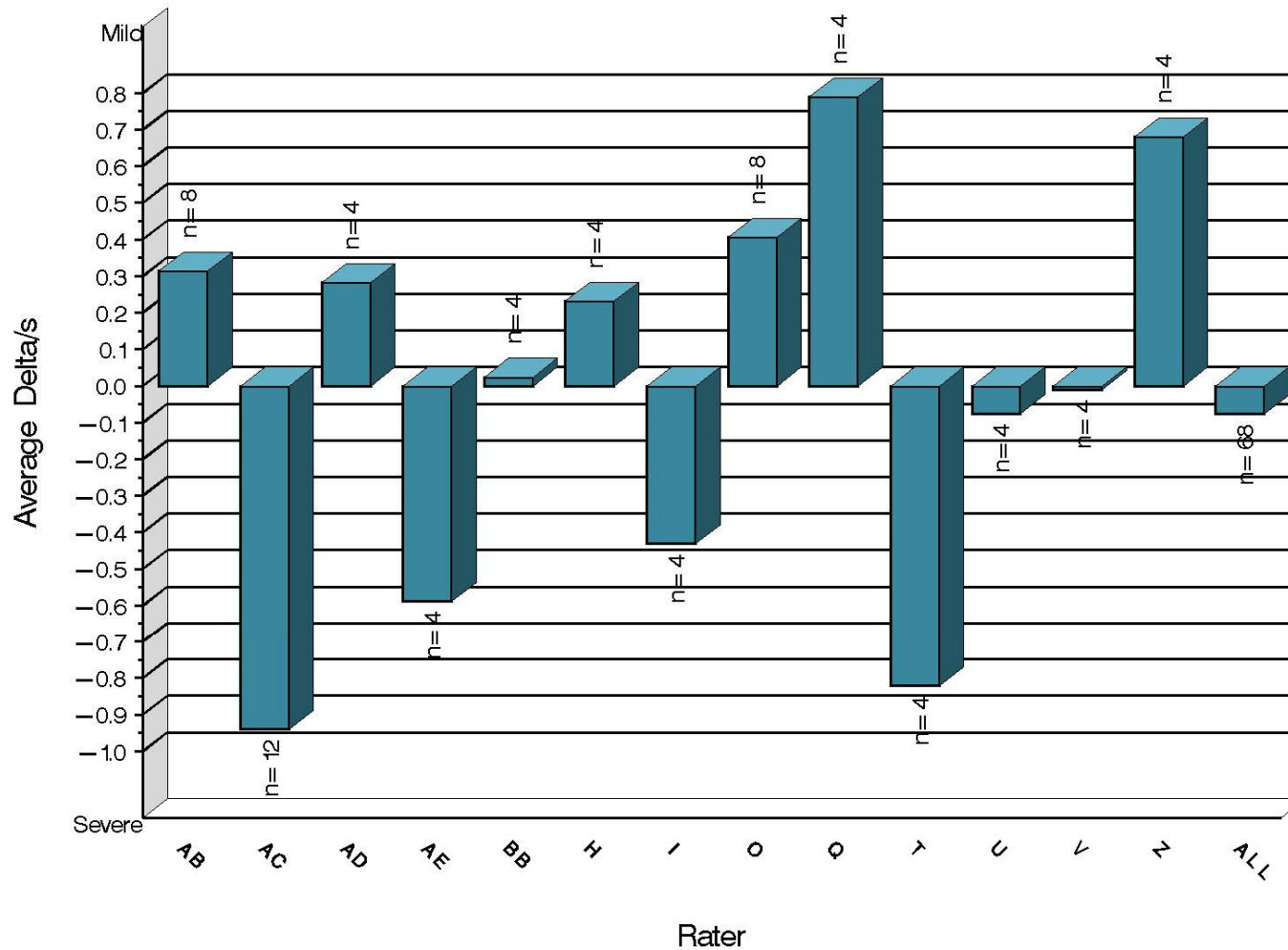
L-37 Rater Calibration

Rater	N	RIDG		RIPP		SPIT		WEAR	
		Avg Yi	STD*	Avg Yi	STD*	Avg Yi	STD*	Avg Yi	STD*
AB	8	0.314	0.960	0.258	1.499	-0.220	1.443	-0.681	1.295
AC	12	-0.940	1.857	-0.773	1.496	0.177	0.395	-0.331	1.005
AD	4	0.282	0.334	-0.202	0.735	0.045	0.286	-0.247	0.565
AE	4	-0.588	1.846	0.492	1.536	-0.004	0.318	0.065	0.770
BB	4	0.024	0.671	0.289	0.877	0.028	0.359	0.367	0.622
H	4	0.231	0.713	-0.386	0.331	-0.272	0.291	-0.048	0.837
I	4	-0.432	0.731	0.156	0.980	-0.128	0.256	-0.037	1.225
O	8	0.406	0.738	-0.020	0.613	-0.230	0.924	-0.031	0.456
Q	4	0.789	0.157	-0.352	0.596	0.041	0.424	-0.430	0.328
T	4	-0.822	1.729	-0.037	0.567	-0.177	0.369	0.243	1.597
U	4	-0.075	0.736	-0.356	0.831	0.338	0.270	-0.086	0.798
V	4	-0.010	0.401	-0.170	0.526	0.074	0.421	0.124	1.011
Z	4	0.681	1.078	0.369	1.110	0.249	0.310	0.011	0.333
ALL	68	-0.076	1.221	-0.120	1.068	-0.010	0.647	-0.144	0.894

* 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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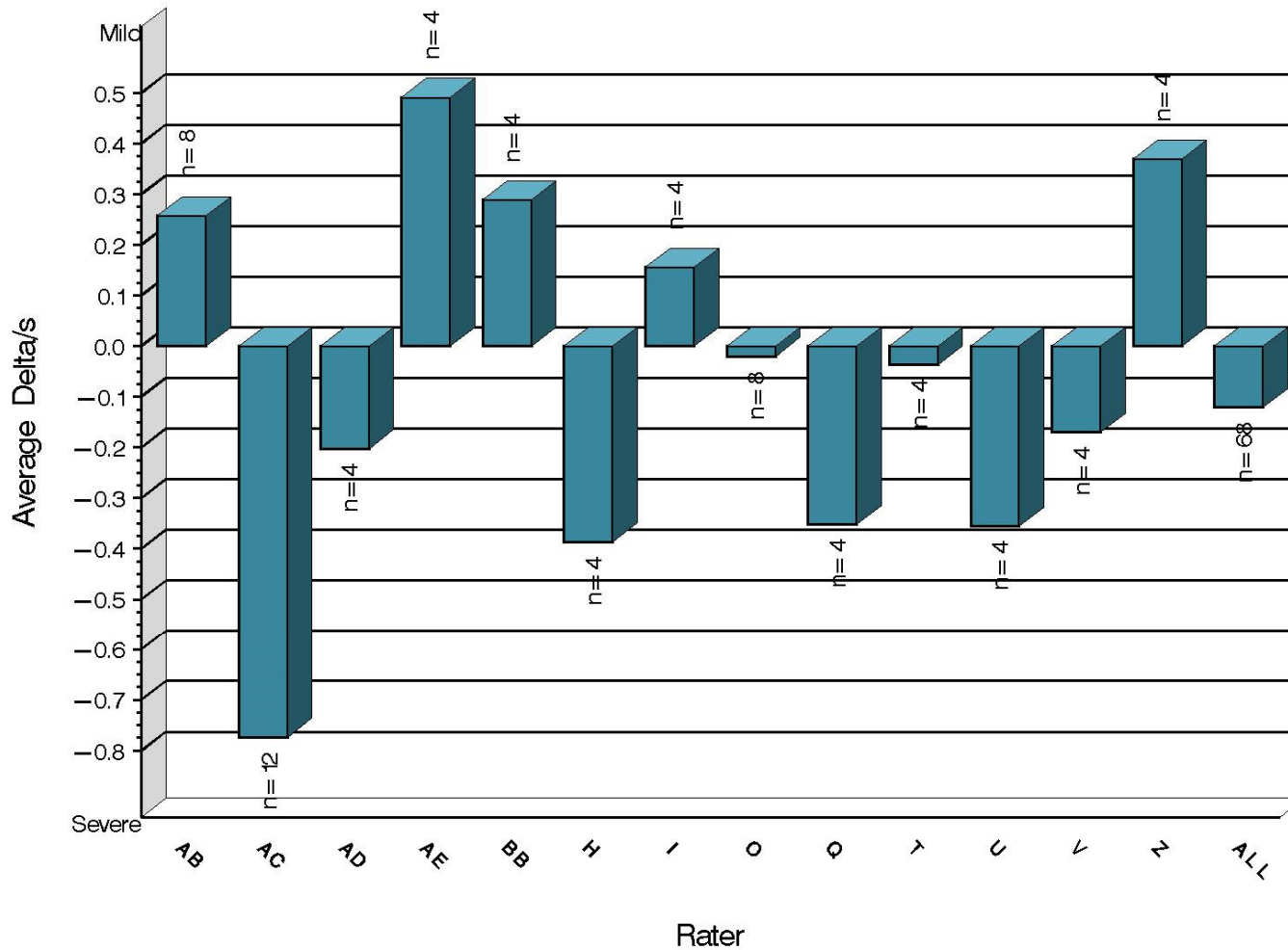
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L-37 Rater Calibration

RIPPLING

Severity as Measured by Delta/s



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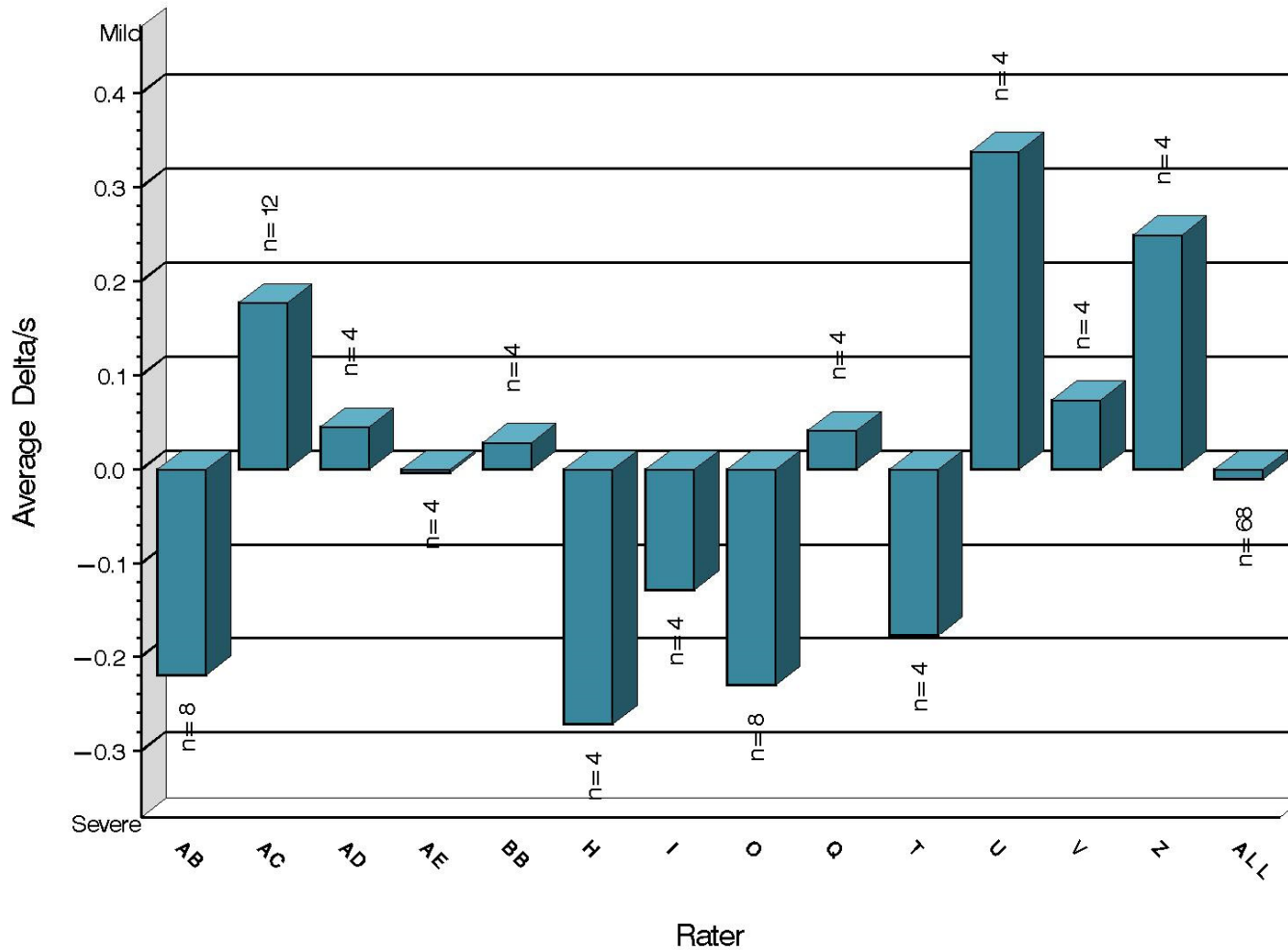
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L-37 Rater Calibration

SPITTING

Severity as Measured by Delta/s



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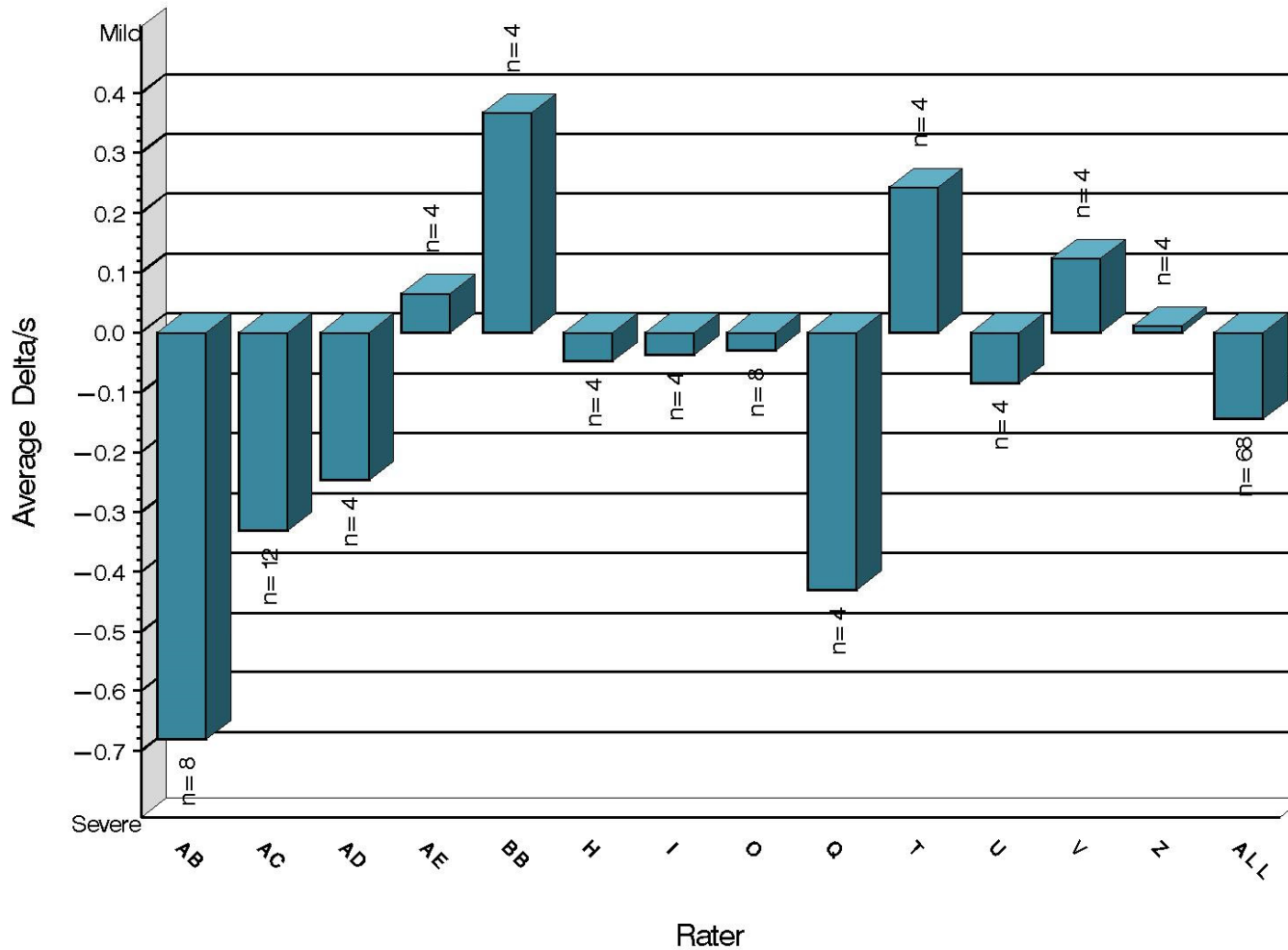
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L-37 Rater Calibration

WEAR

Severity as Measured by Delta/s



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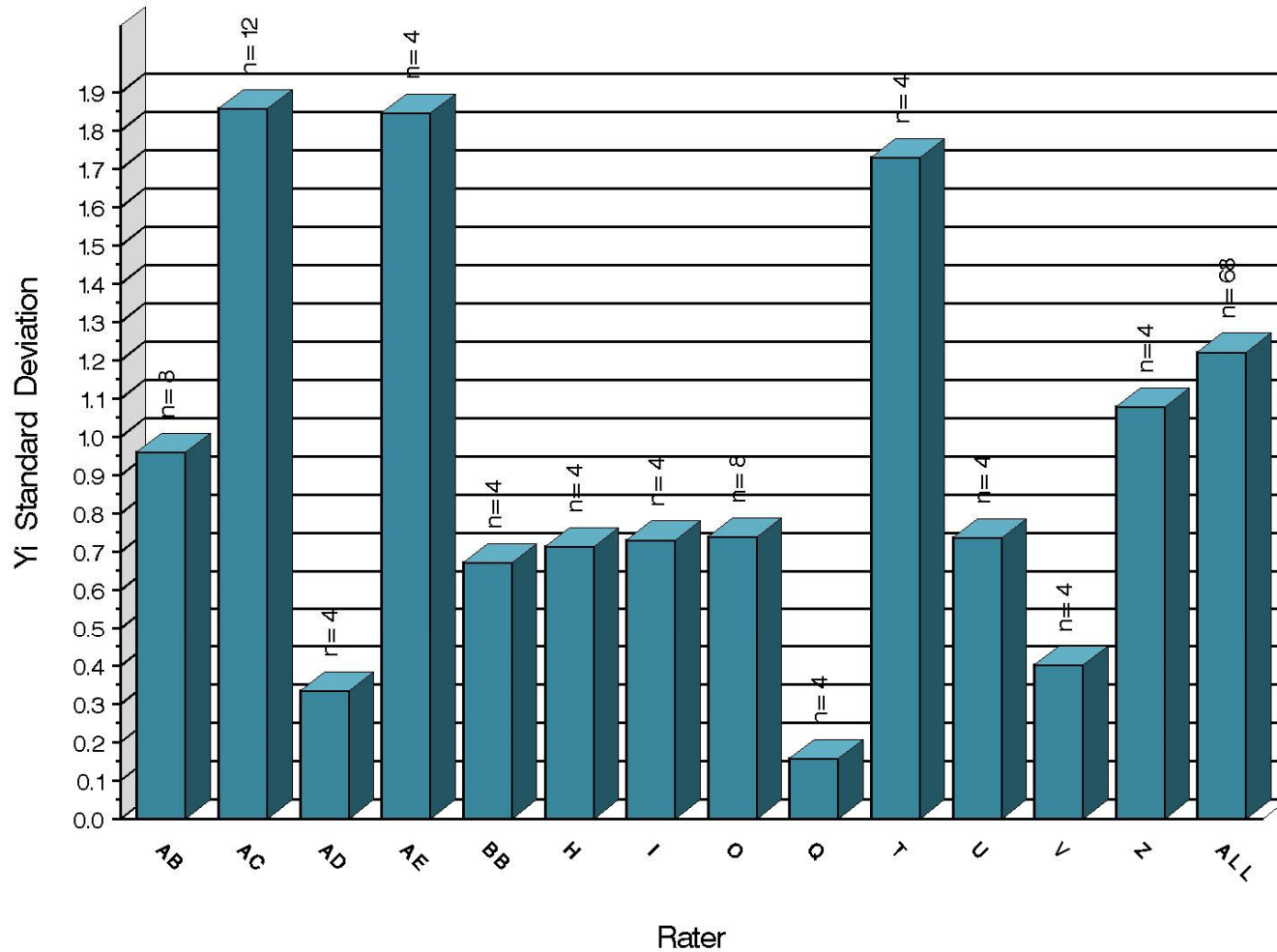
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L-37 Rater Calibration

RIDGING
Precision as Measured by Yi STD



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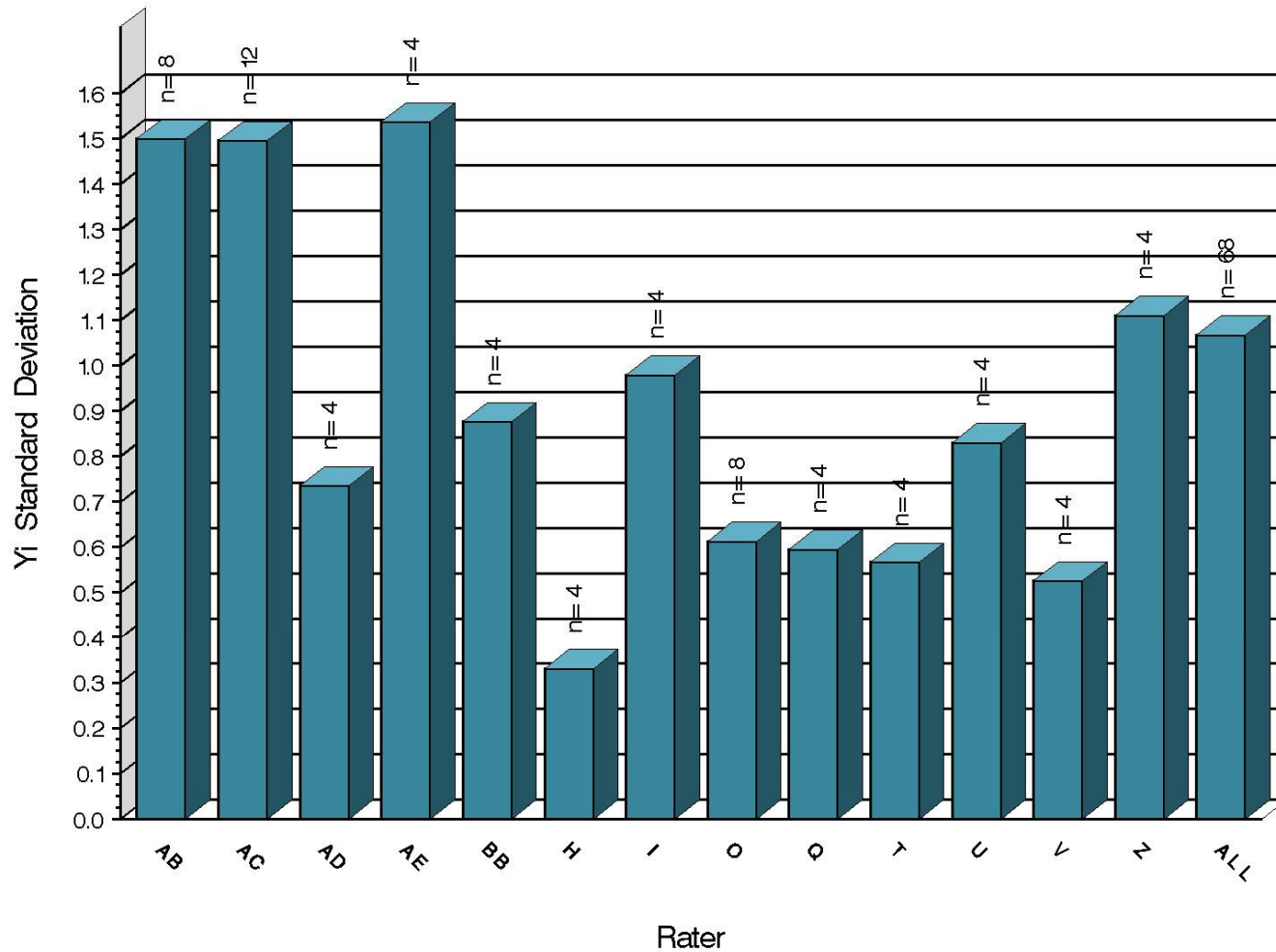
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L-37 Rater Calibration

RIPPLING
Precision as Measured by Yi STD



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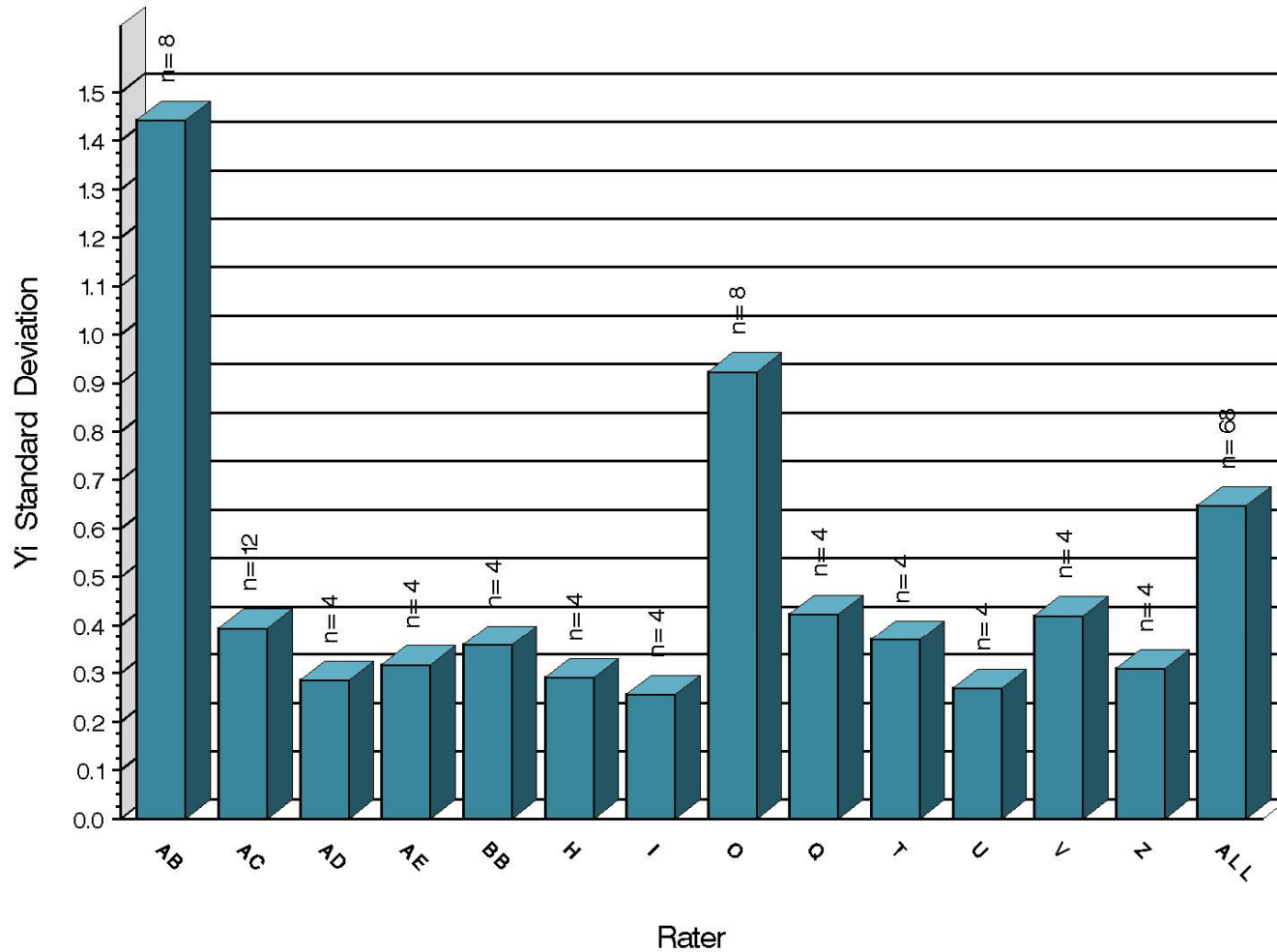
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L-37 Rater Calibration

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Precision as Measured by Y1 STD



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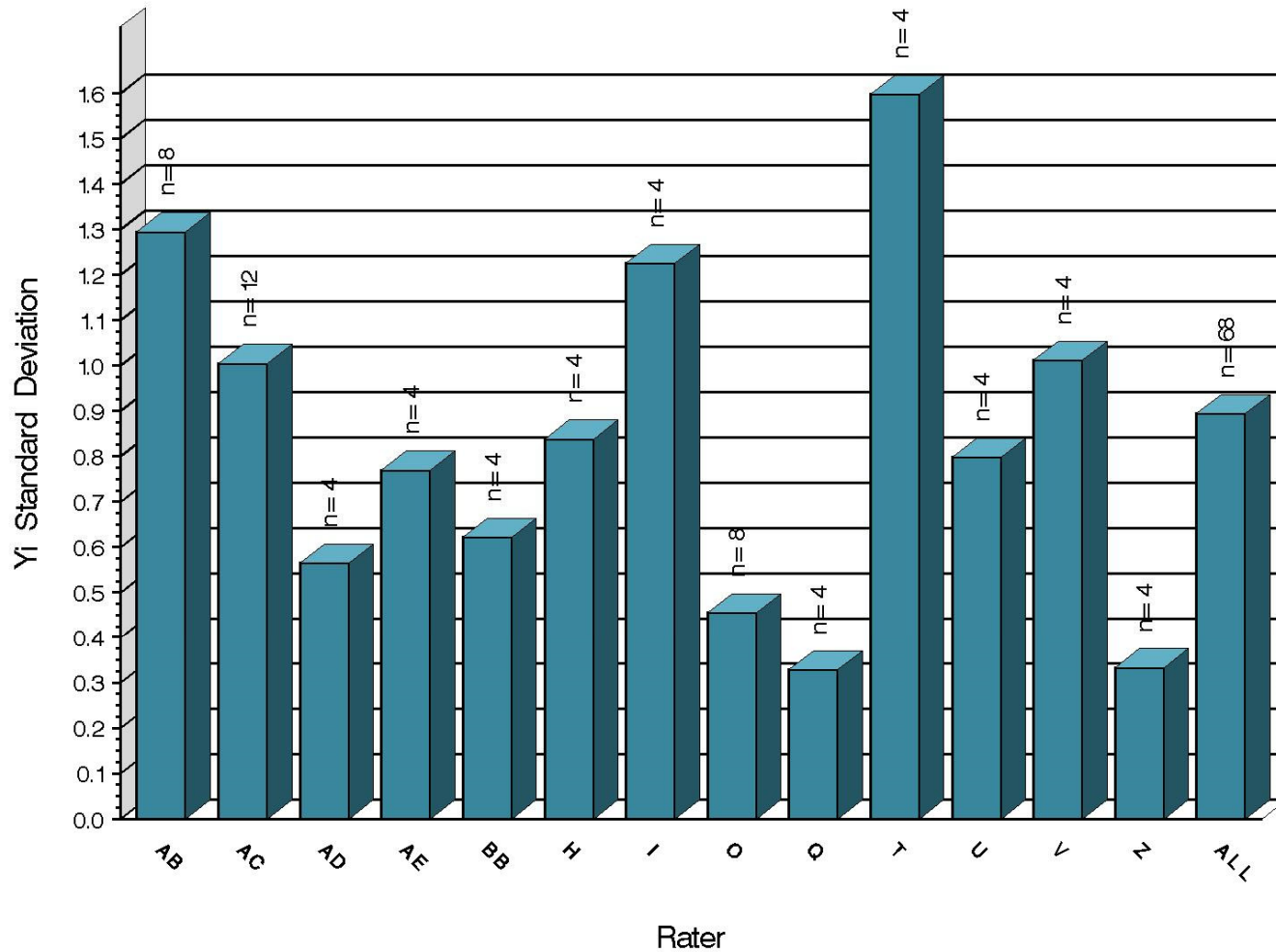
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L-37 Rater Calibration

WEAR
Precision as Measured by Yi STD



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L-37 Rater Calibration

SUMMARY OF SEVERITY & PRECISION

Severity

All parameters remained within limits throughout the period.

Precision

All parameters remained within limits throughout the period.

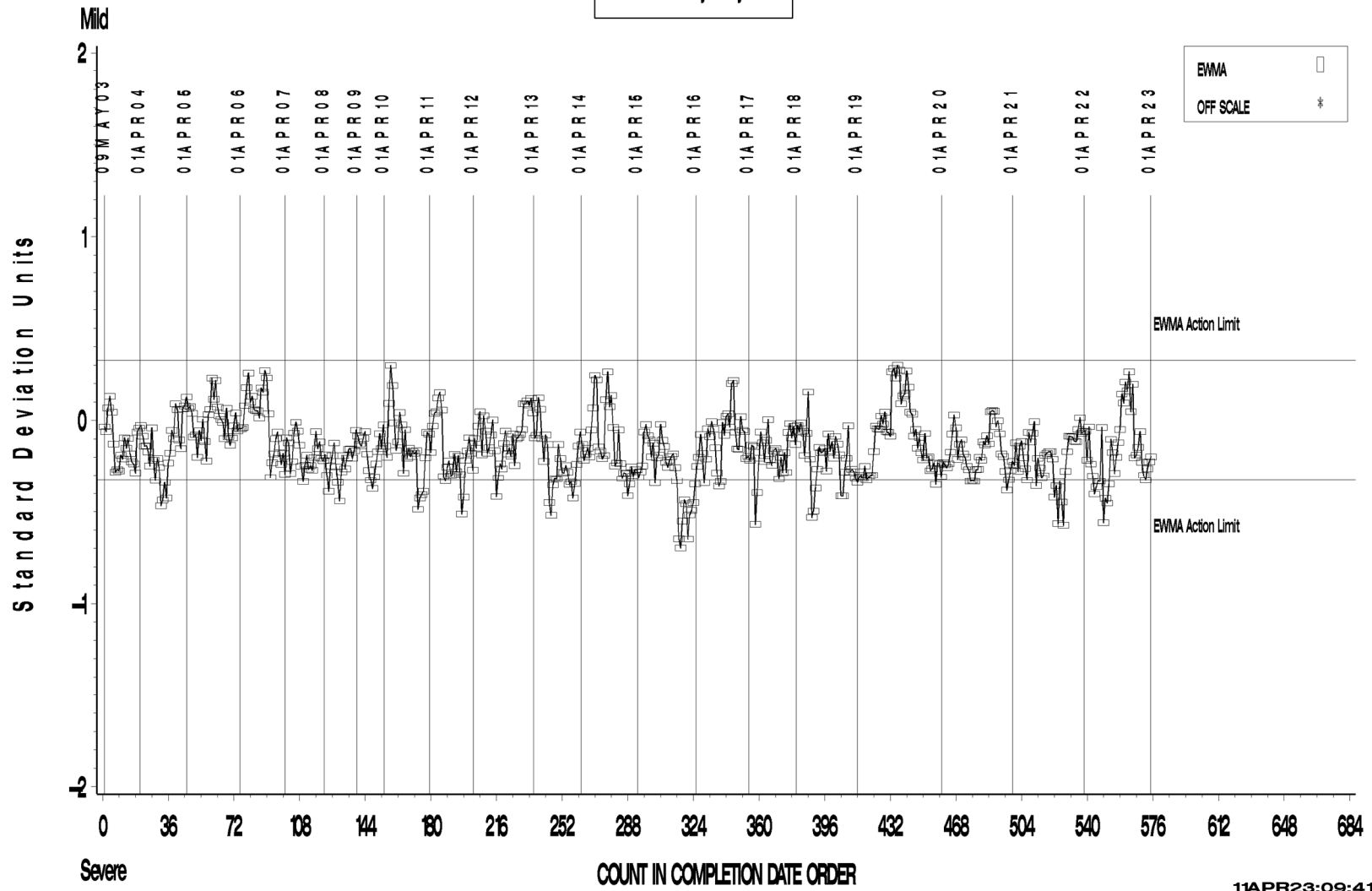
Industry rater control charts follow.

L-37 Rater Calibration

L-37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RIDGING

LTMS Severity Analysis



11APR23:09:41



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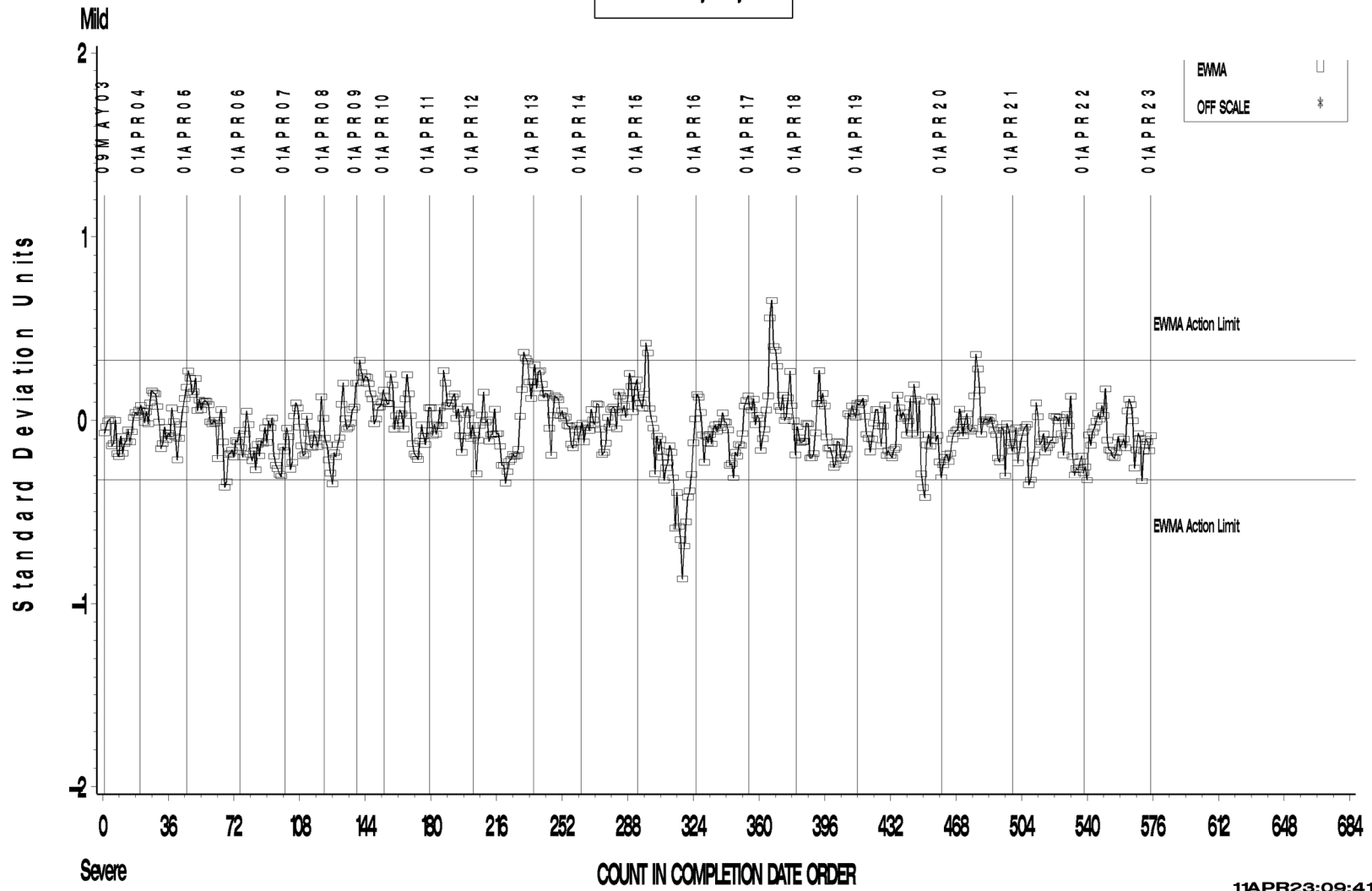
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LTMS Severity Analysis



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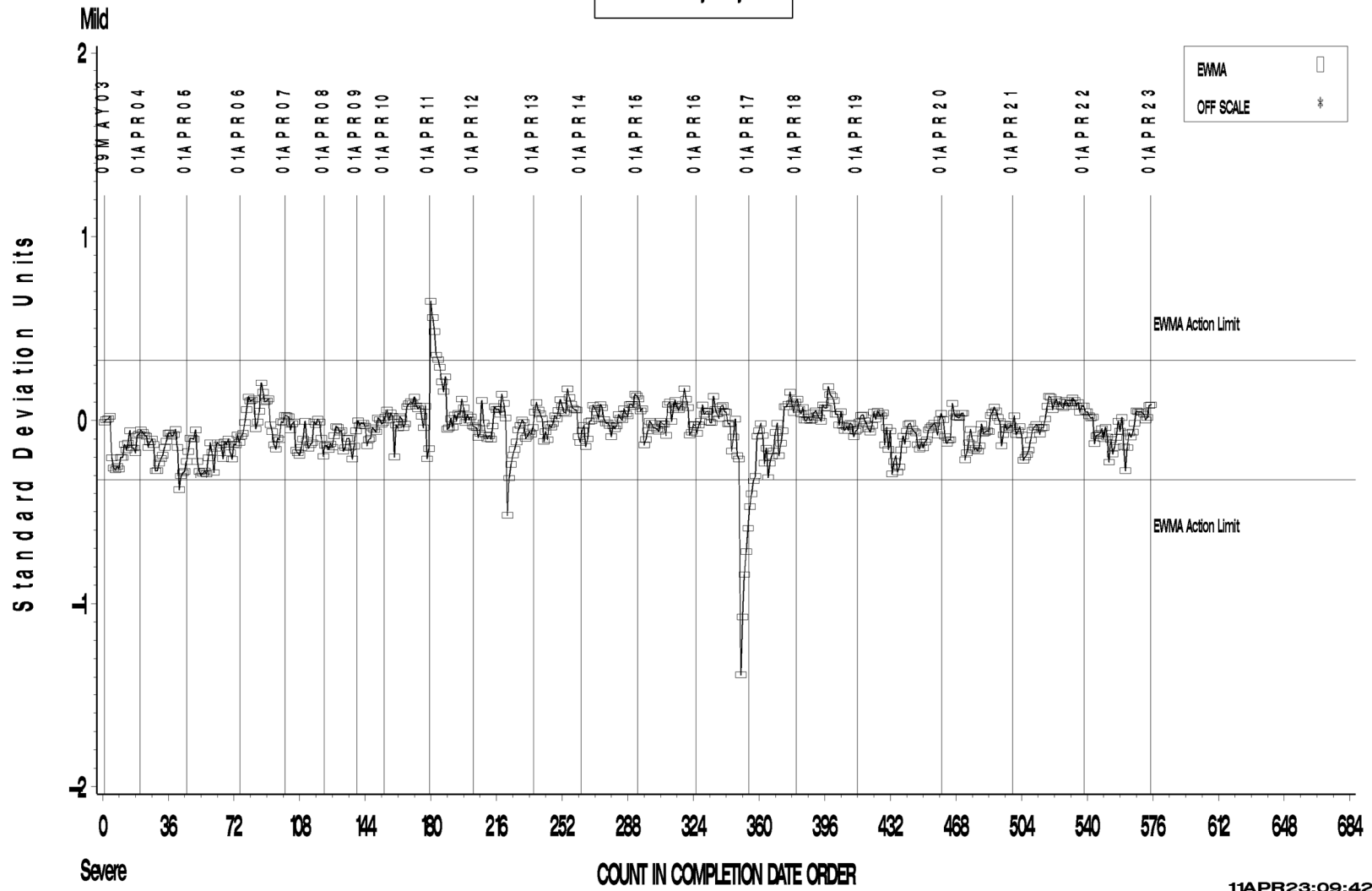
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L-37 Rater Calibration

L-37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

SPITTING

LTMS Severity Analysis



11APR23:09:42



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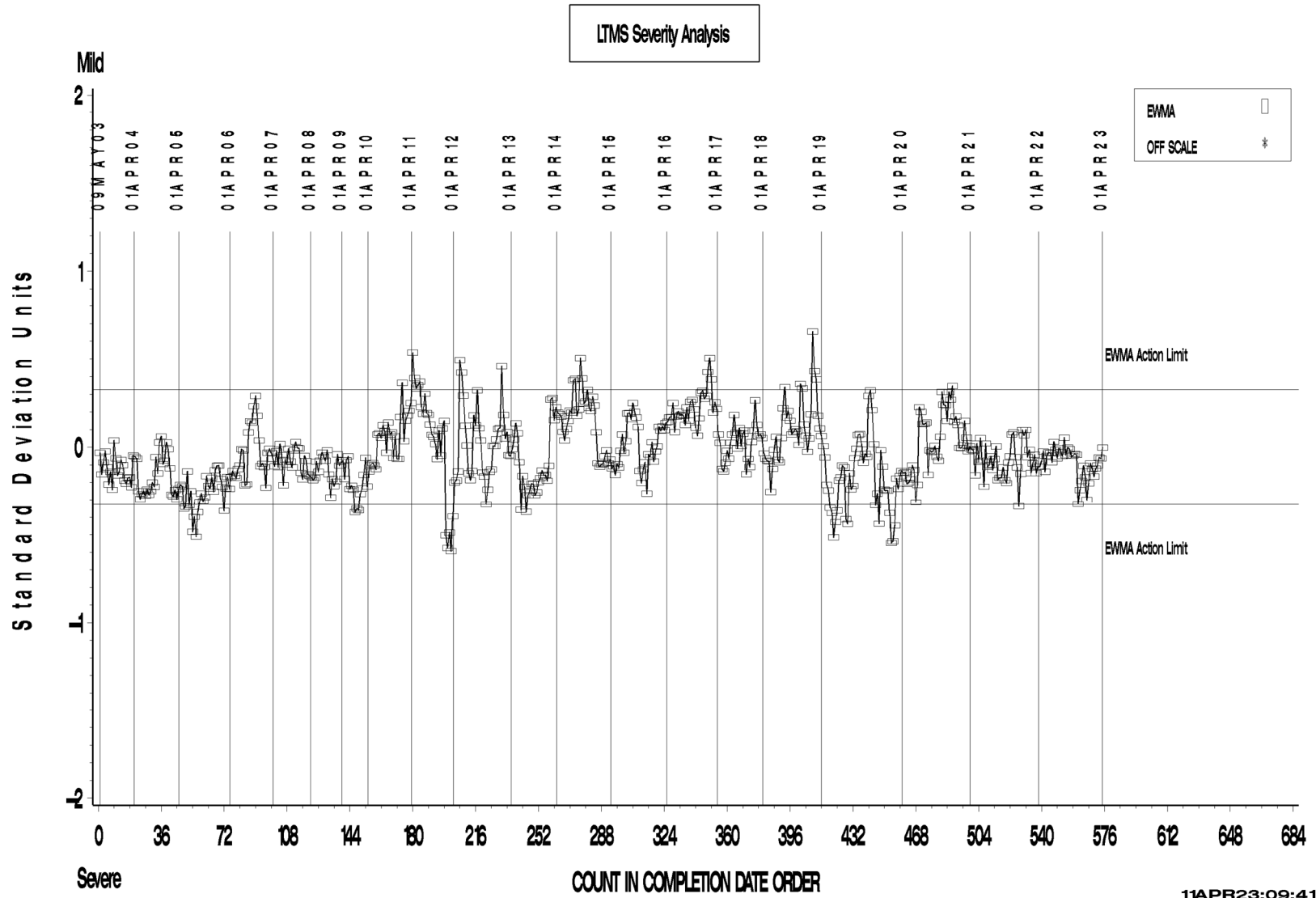
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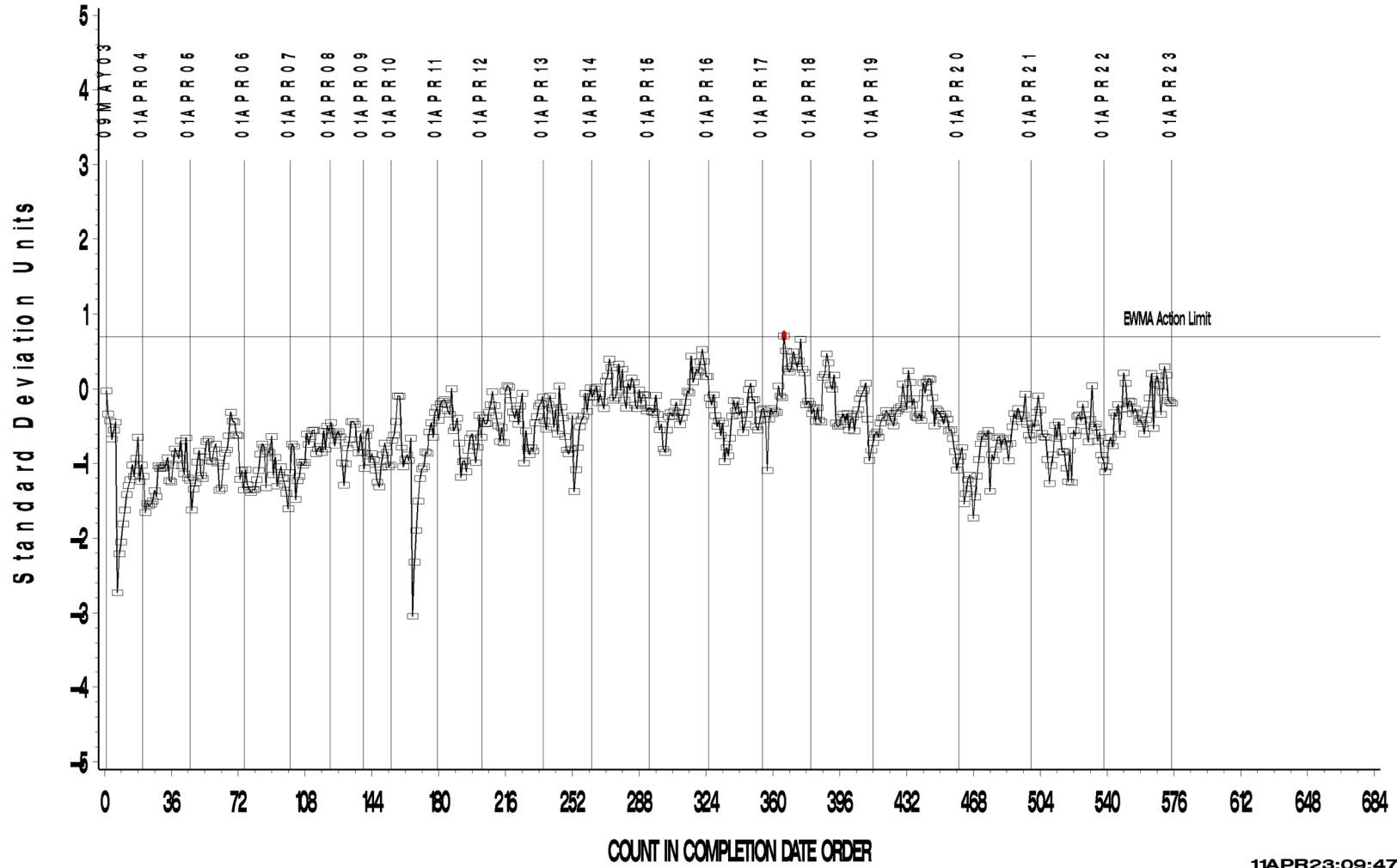
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LTMS Precision Analysis



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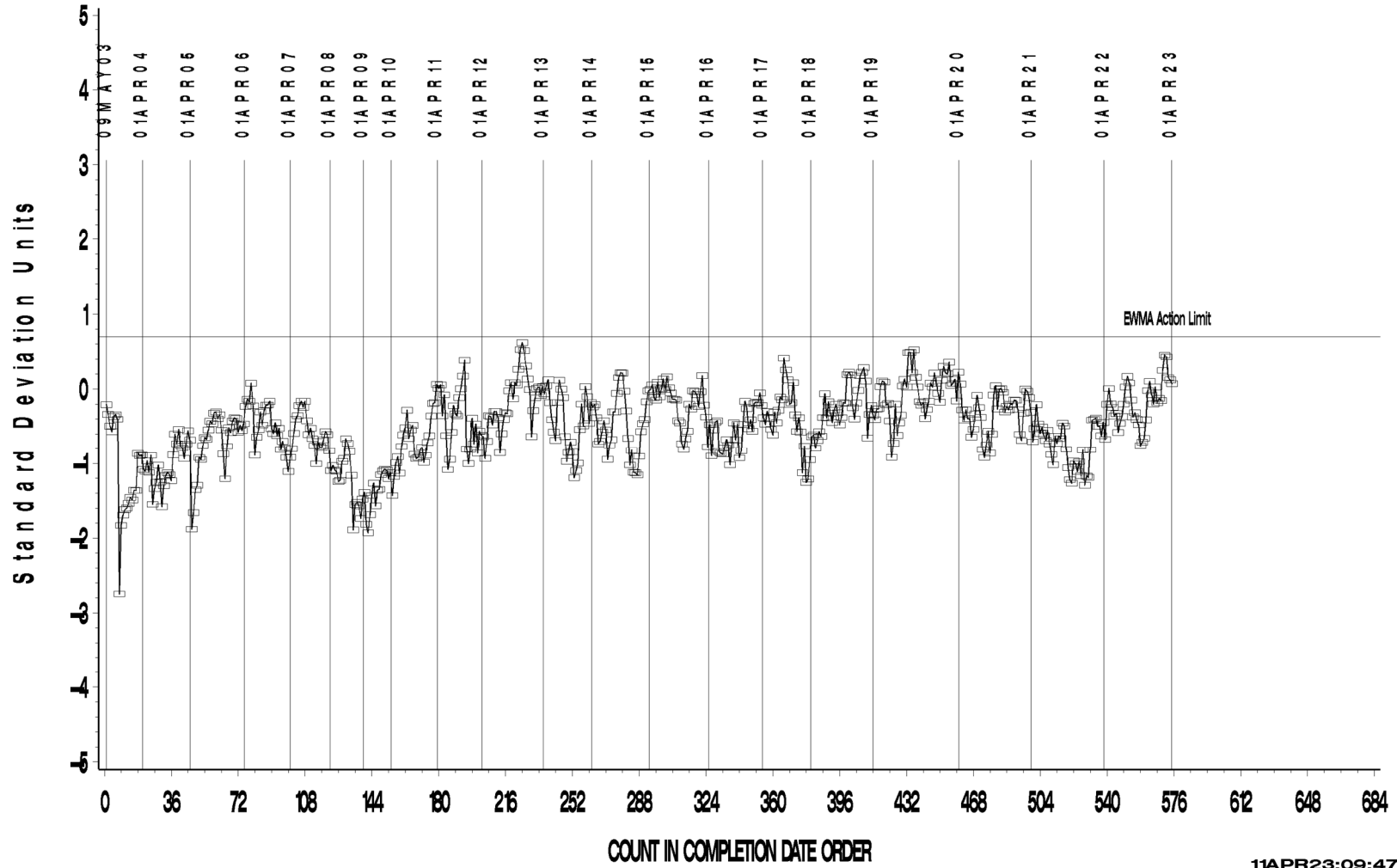
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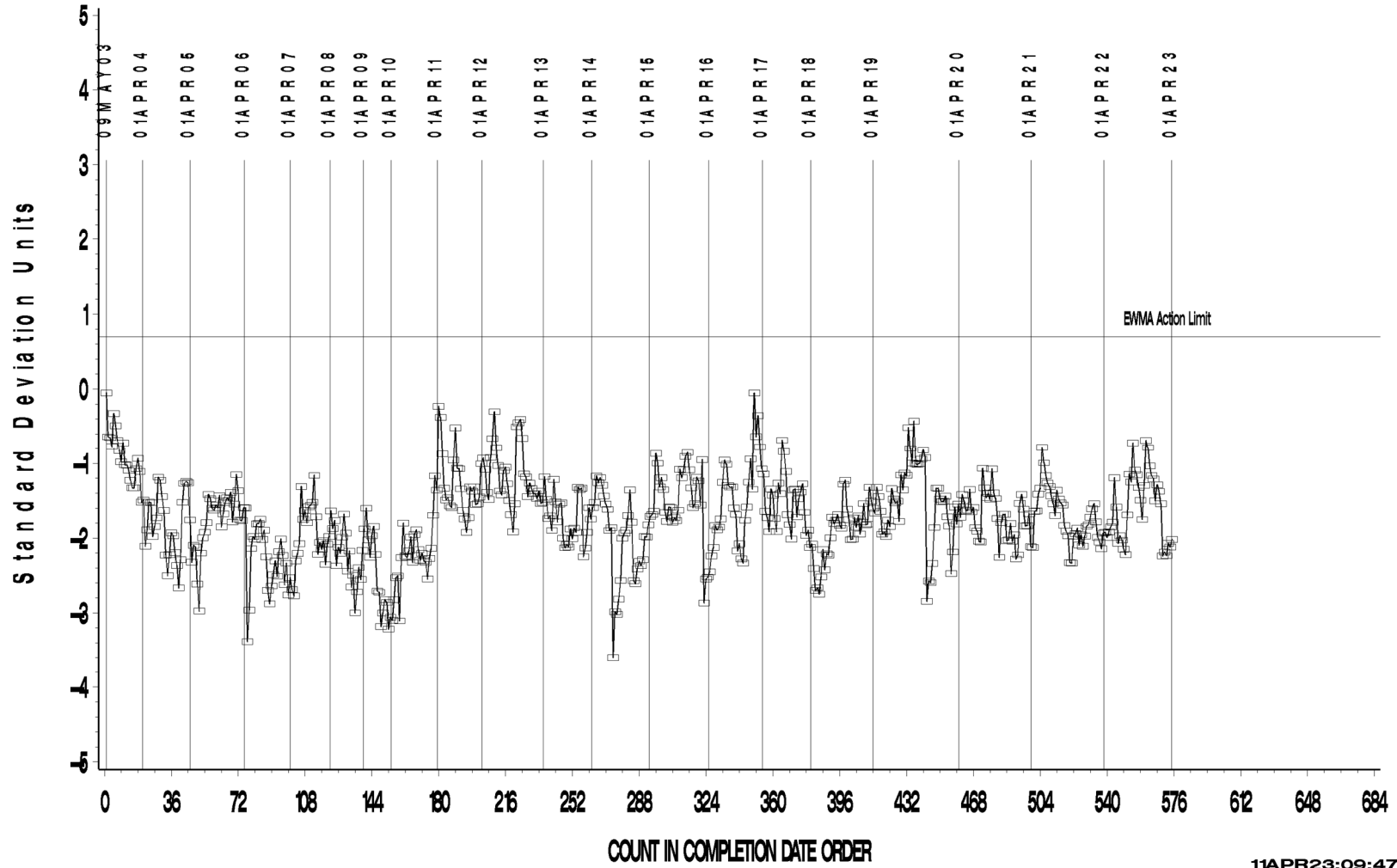
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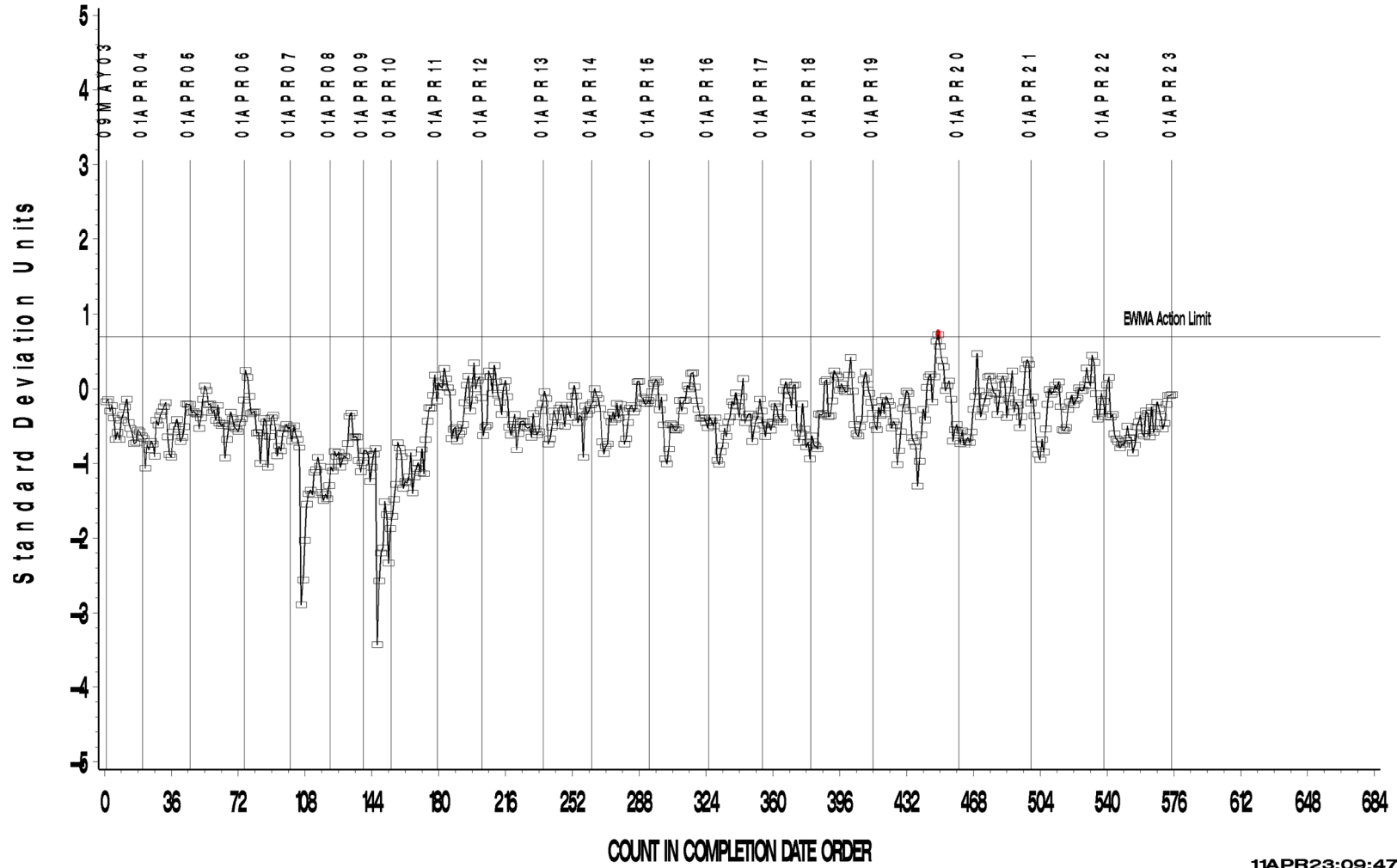
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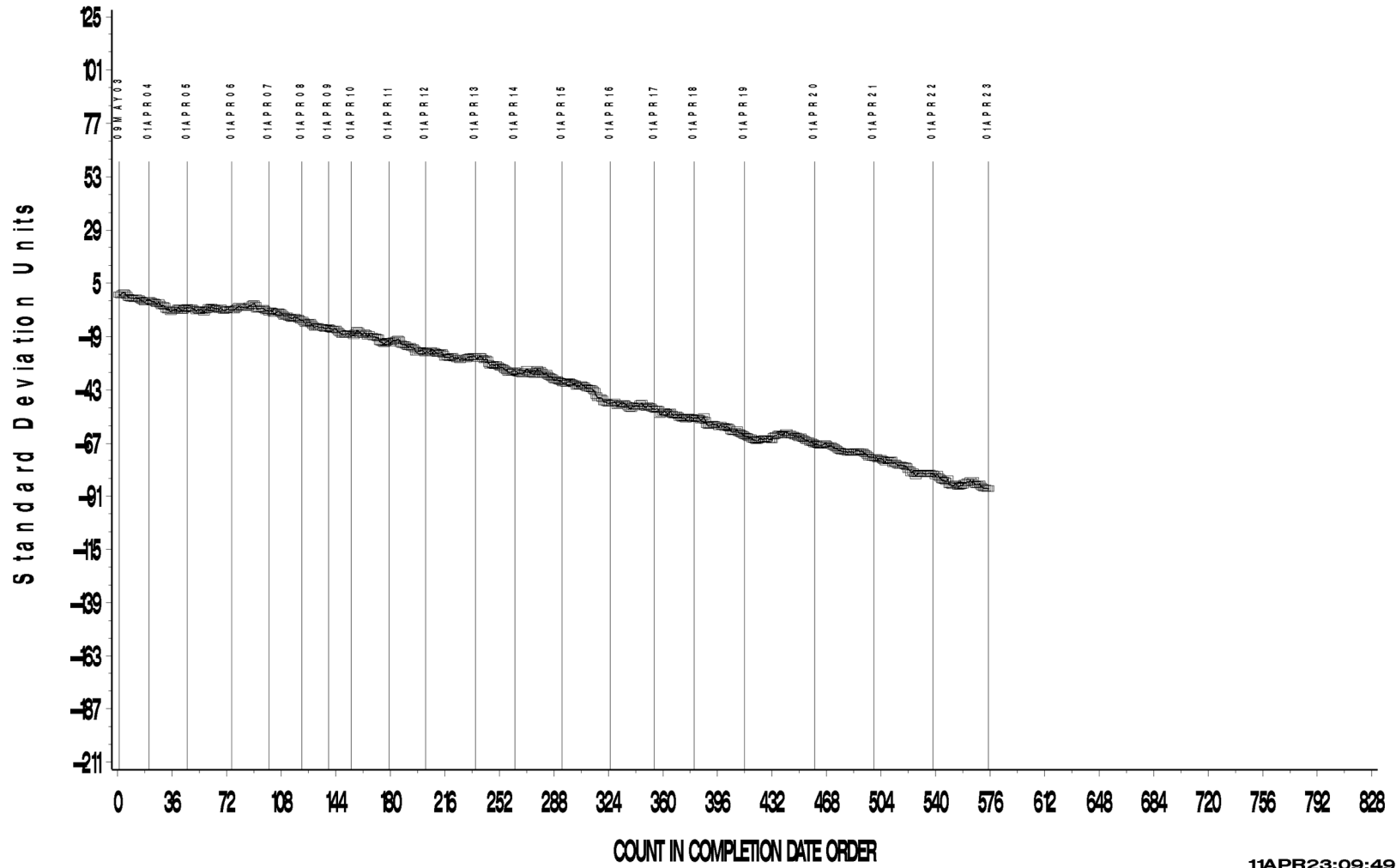
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RIDGING

CUSUM Severity Analysis



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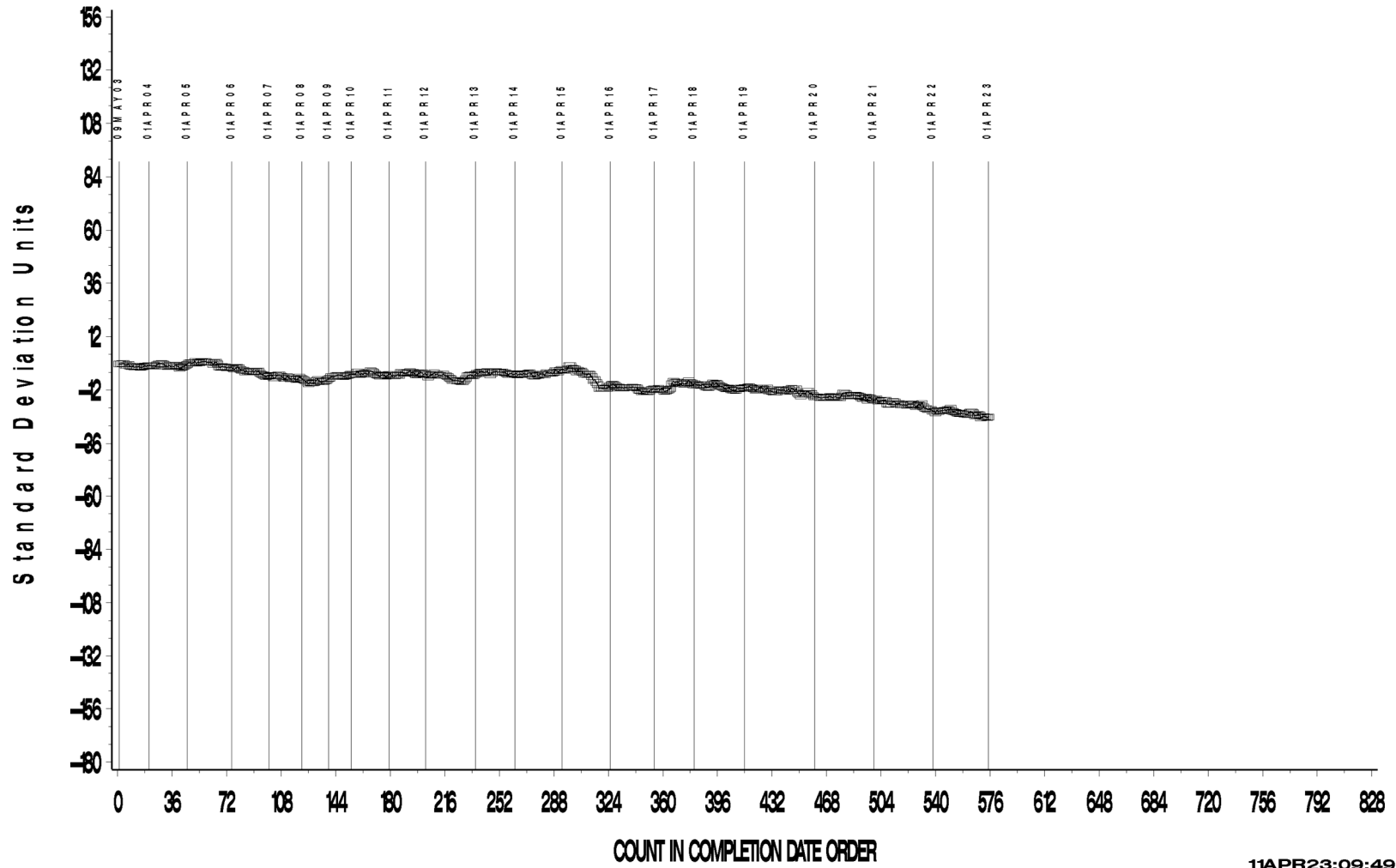
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RIPPLING

CUSUM Severity Analysis



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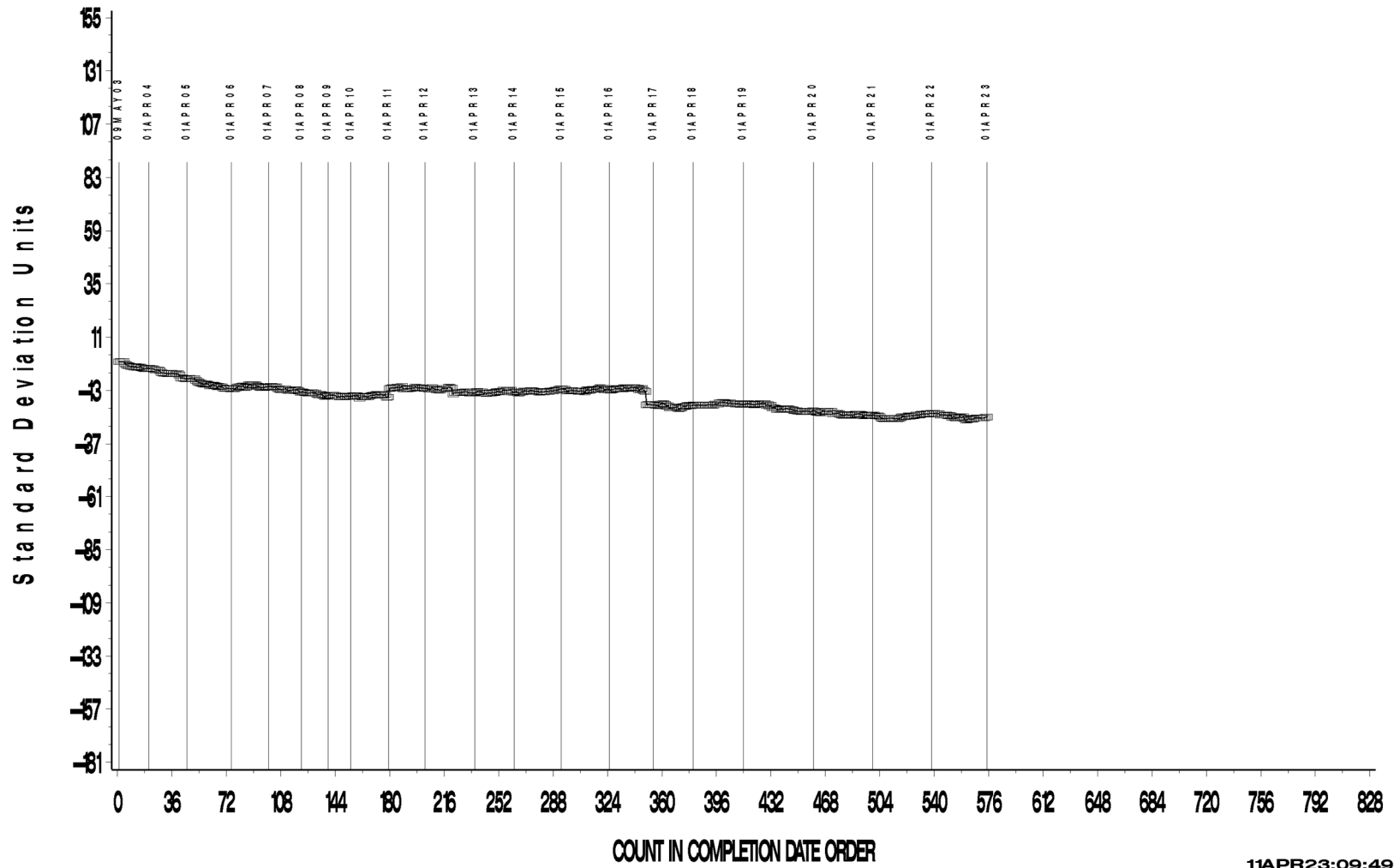
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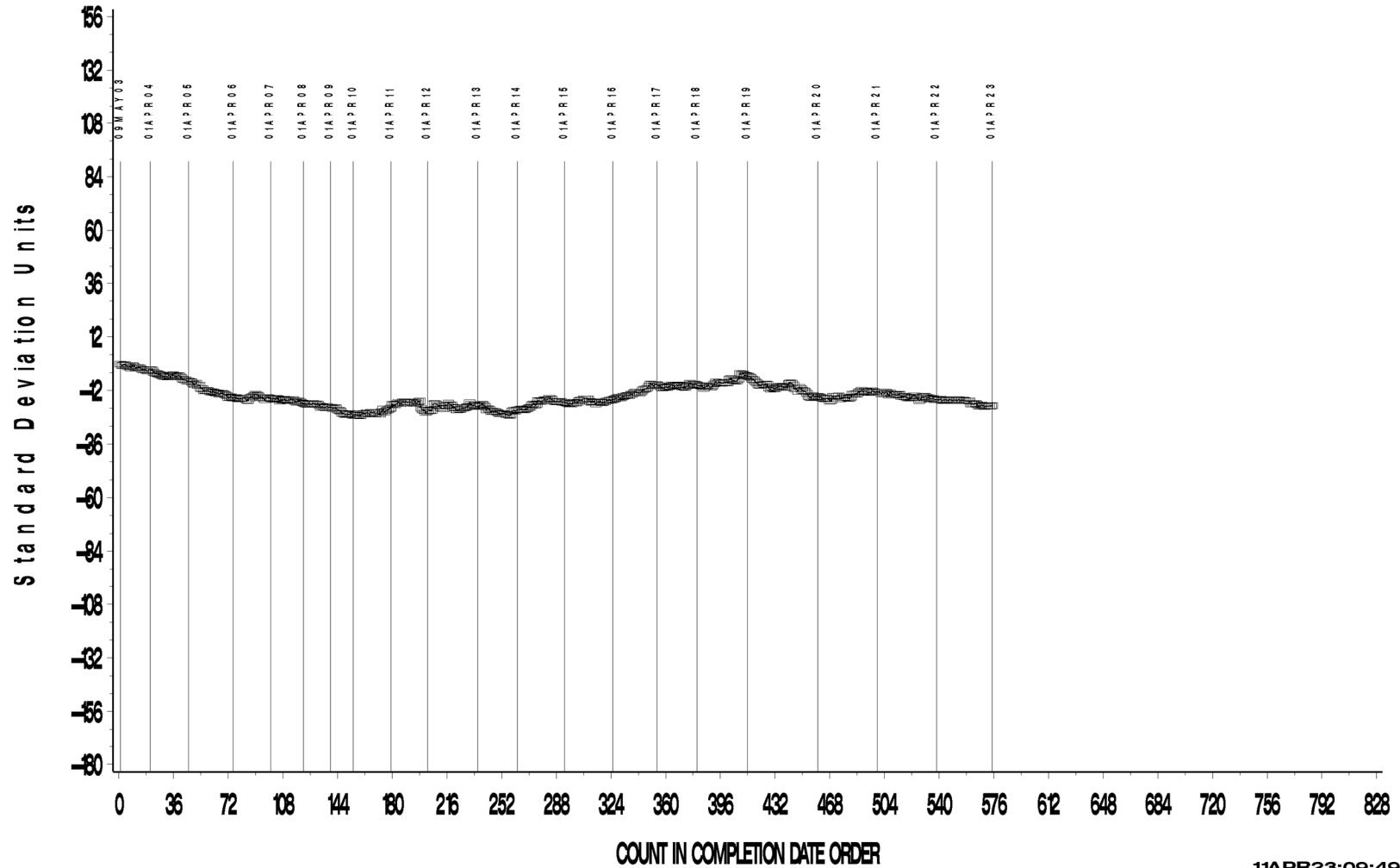
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