



Test Monitoring Center

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

MEMORANDUM: 17-008
DATE: May 3, 2017
TO: Gil Reinhard, Chairman, CBT Surveillance Panel
FROM: Michael T. Kasimirsky *Michael T. Kasimirsky*
SUBJECT: HTCBT Testing from October 1, 2016 through March 31, 2017

A total of 269 HTCBT tests were reported to the Test Monitoring Center during the report period from October 1, 2016 through March 31, 2017.

Please find attached a summary of testing activity this period.

MTK/mtk/astm0417.doc/mem17-008.mtk.doc

cc: F. M. Farber

J. A. Clark

CBT Surveillance Panel

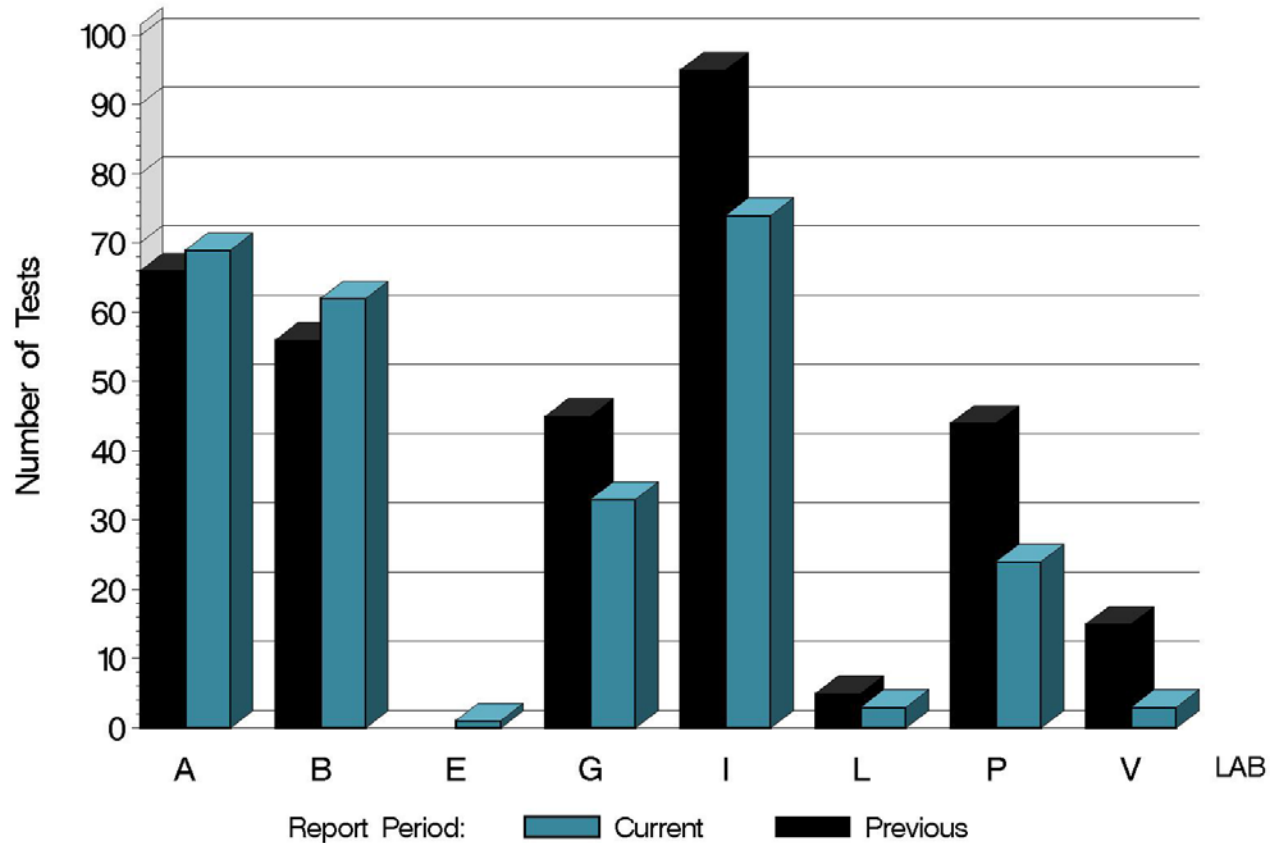
<ftp://ftp.astmtmc.cmu.edu/docs/bench/htcvt/semiannualreports/htcvt-04-2017.pdf>

Distribution: email

HTCBT (D 6594)

	Reporting Data
Number of Labs	8

NUMBER OF TESTS REPORTED
BY LAB AND REPORT PERIOD



9:33:09 03MAY2017

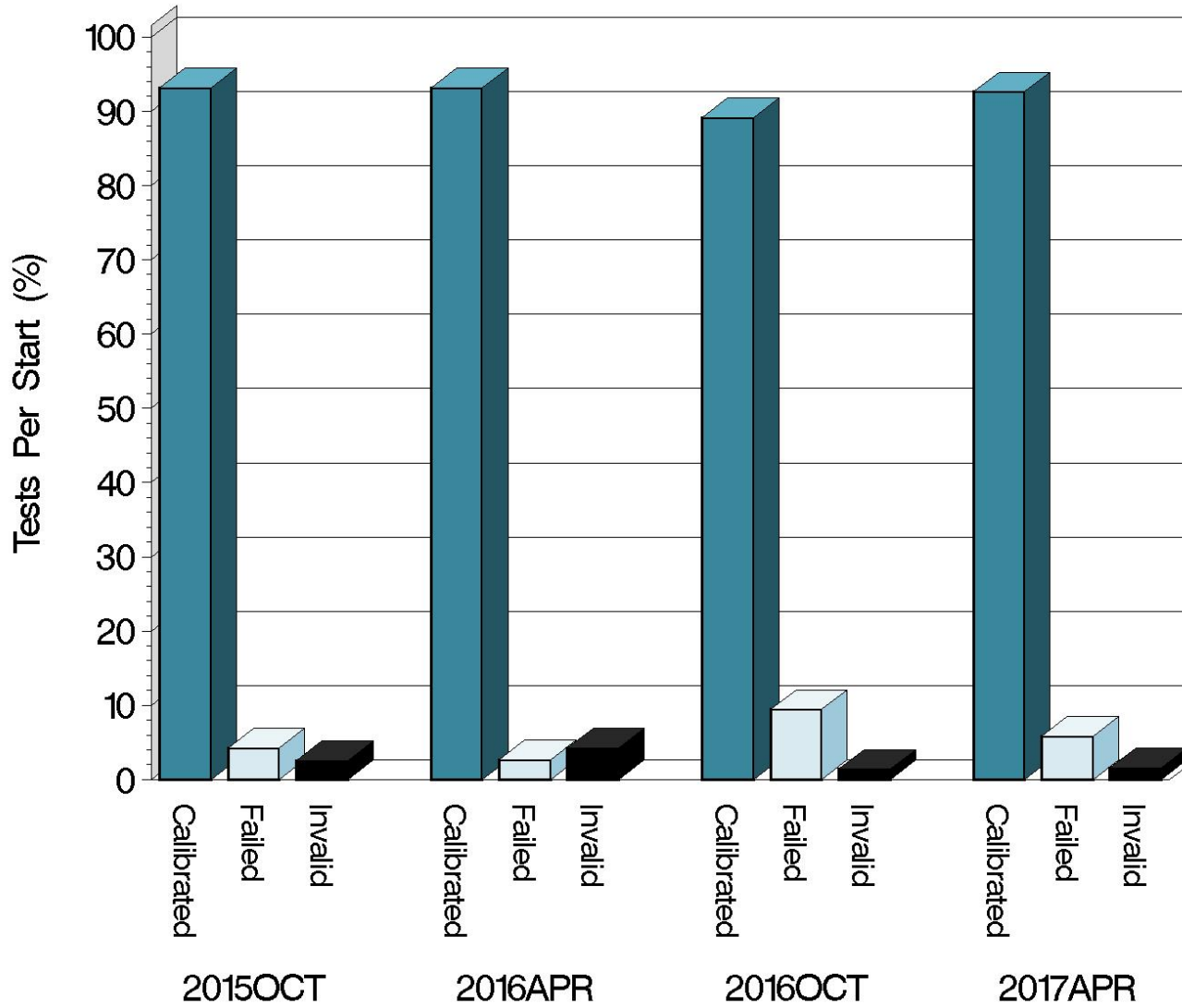
HTCBT (D 6594)

Test Distribution by Validity

		Number of Tests
Acceptable Calibration Test	AC	238
Unacceptable Calibration Test	OC	15
Invalid Calibration Test	LC	2
Aborted Calibration Test	XC	2
Acceptable Donated Test	NI	0
Invalid Donated Test	LI	0
Acceptable Shakedown Run	AS	3
Aborted Shakedown Run	XS	2
Unacceptable Shakedown Run	OS	4
Invalid Shakedown Run	LS	3
Total		269

HTCBT (D 6594)

CALIBRATION ATTEMPT SUMMARY



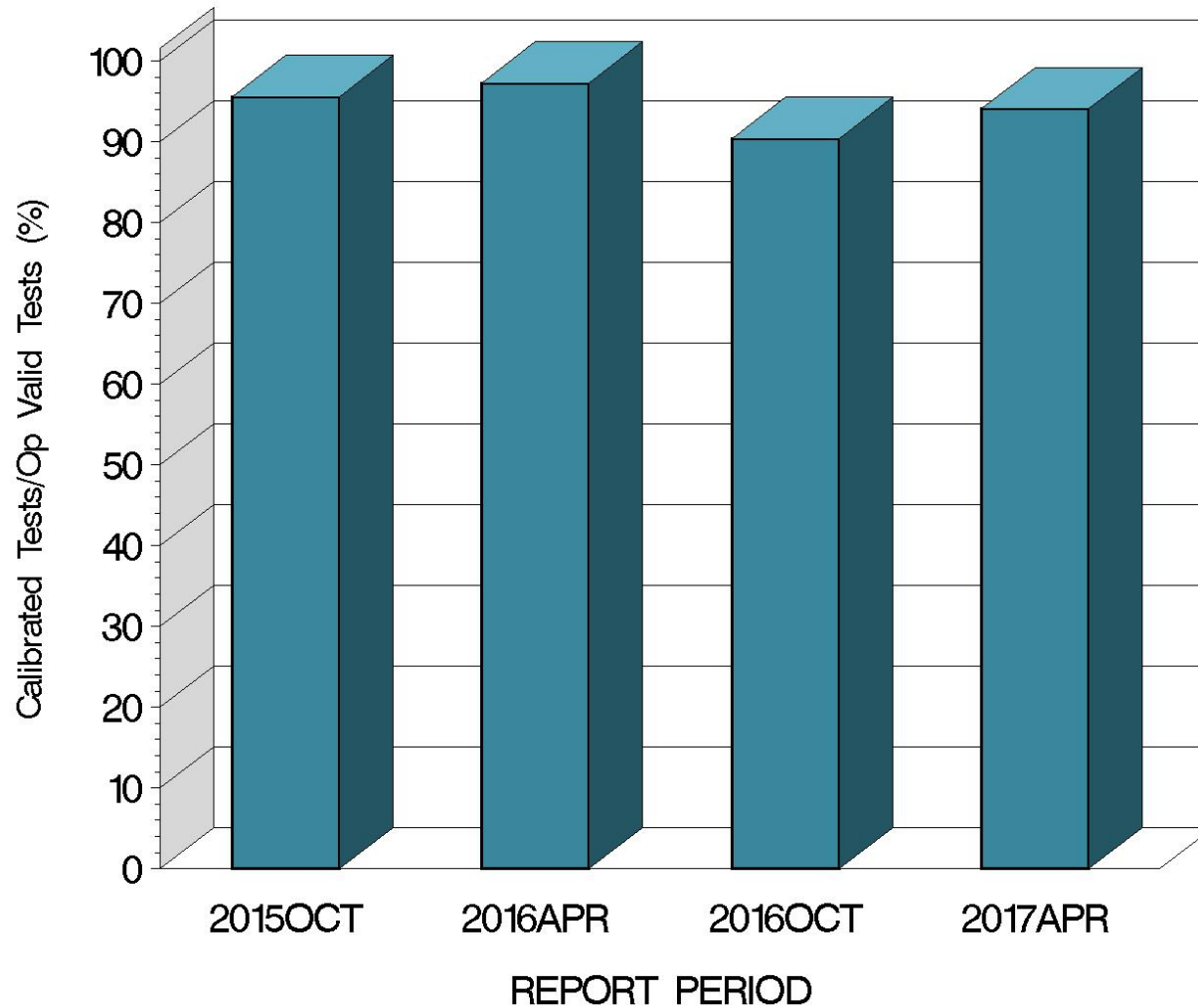
Resolution

Report Period

9:33:09 03MAY2017

HTCBT (D 6594)

OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA



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HTCBT (D 6594)

CAUSES FOR LOST TESTS

Summary of Reasons for Failed Tests	No. of Tests
Copper, severe	3
Copper, mild	0
Lead, severe	11
Lead, mild	0
Copper, mild, & Lead, severe	0
Copper & Lead, mild	1
Copper & Lead, severe	4

HTCBT (D 6594)

CAUSES FOR LOST TESTS (CONTINUED)

Summary of Reasons for Invalid Tests	No. of Tests
Airflow Problem	3
Cooling Water Problem	1
Non-standard Shakedown Run	1

HTCBT (D 6594)

CAUSES FOR LOST TESTS (CONTINUED)

Summary of Reasons for Aborted Tests	No. of Tests
Power Failure	2
Heater Failure	2

HTCBT (D 6594)

Average Δ /s By Laboratory			
Lab	n	CUC	PBC
A	66	0.437	0.449
B	61	0.422	-0.145
E	1	-0.803	3.012
G	21	0.882	1.844
I	74	-0.413	-0.265
L	3	0.638	0.493
P	24	0.575	-0.040
V	3	1.091	1.071
Industry	253	0.240	0.184

Individual test results can be found on the TMC Web Page at the following link:

<ftp://ftp.astmtmc.cmu.edu/refdata/bench/htcbt/data/>

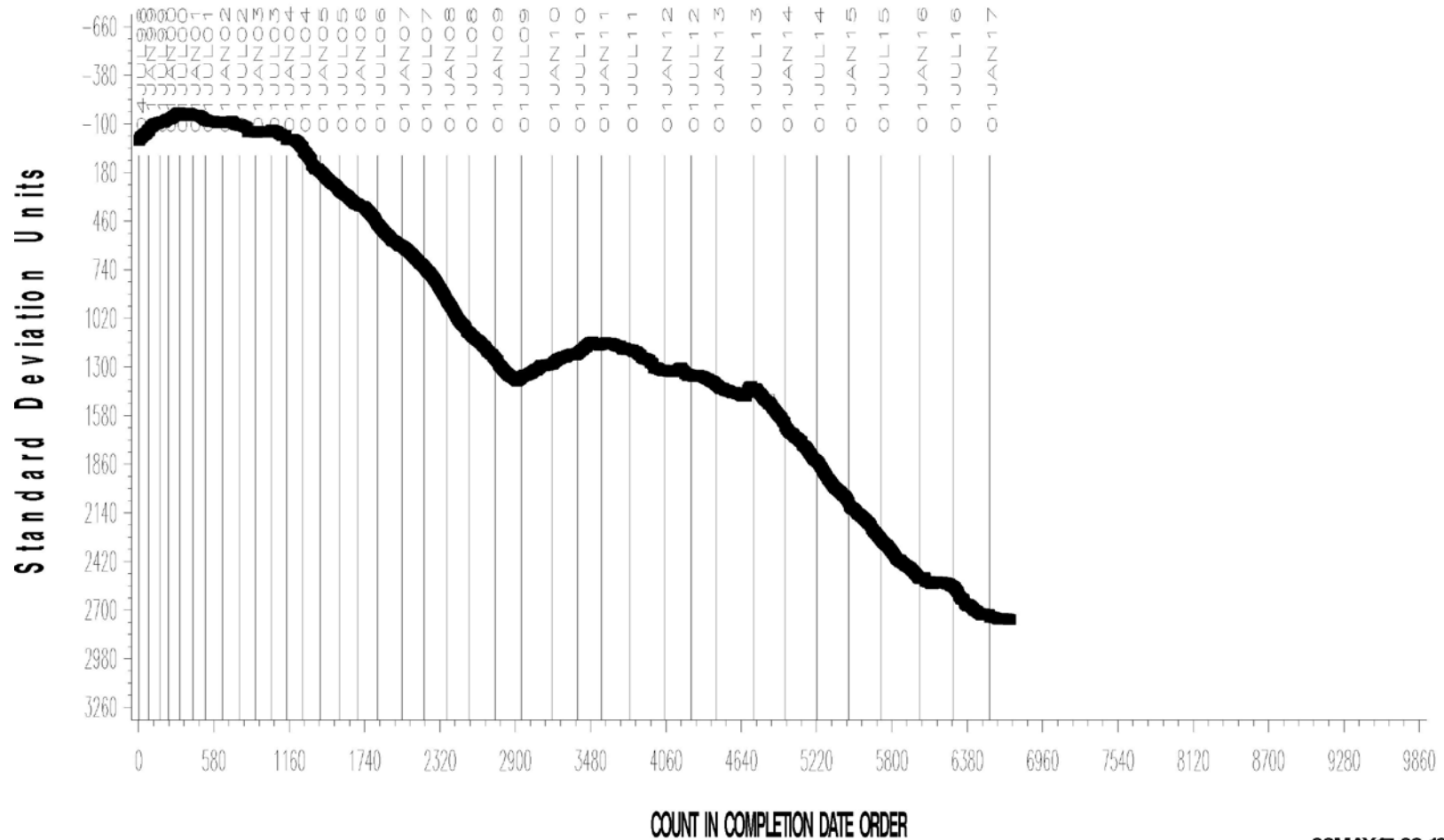
HTCBT (D 6594)

HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA



COPPER CHANGE (ppm)

CUSUM Severity Analysis



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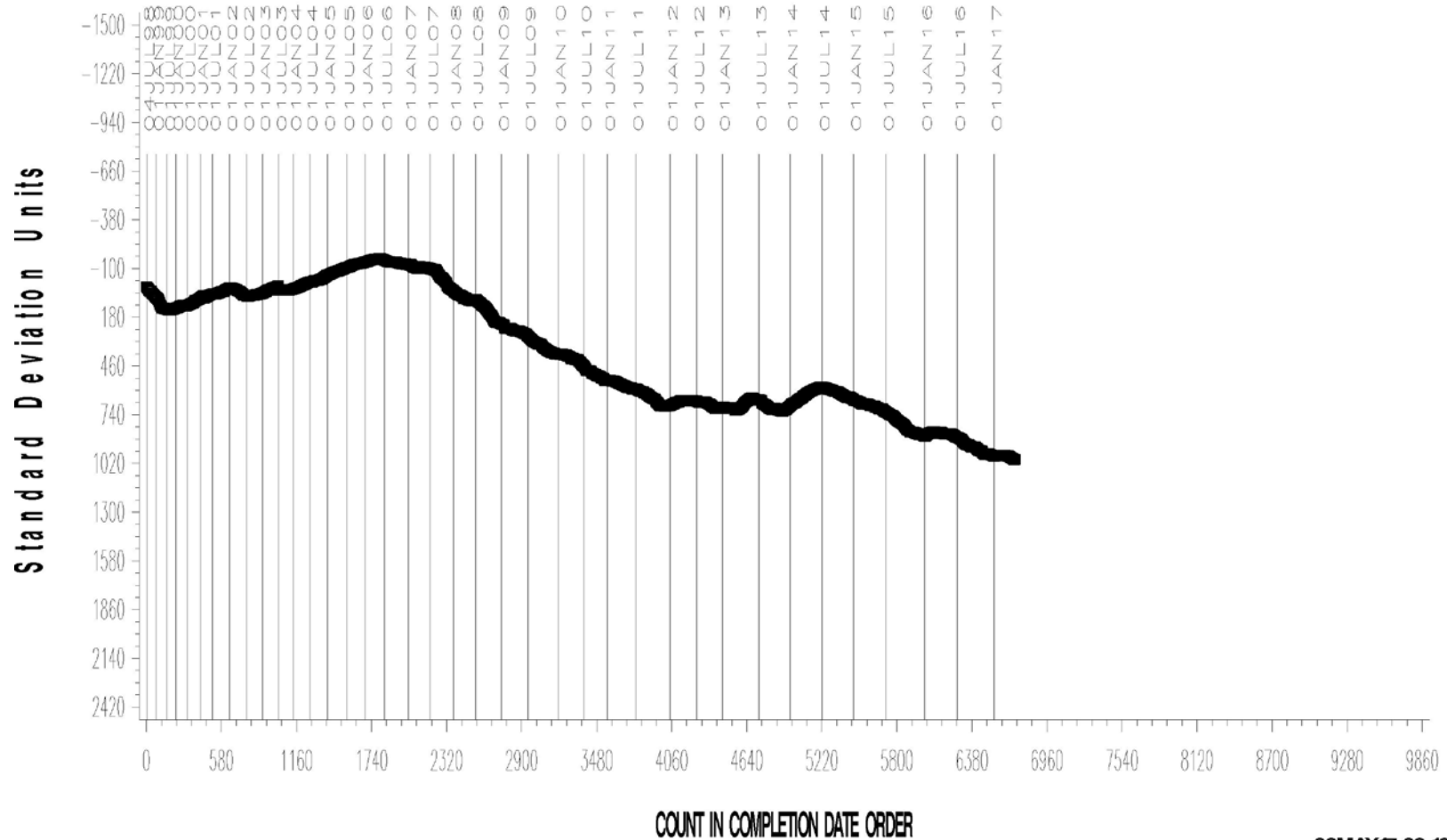
HTCBT (D 6594)

HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA



LEAD CHANGE (ppm)

CUSUM Severity Analysis



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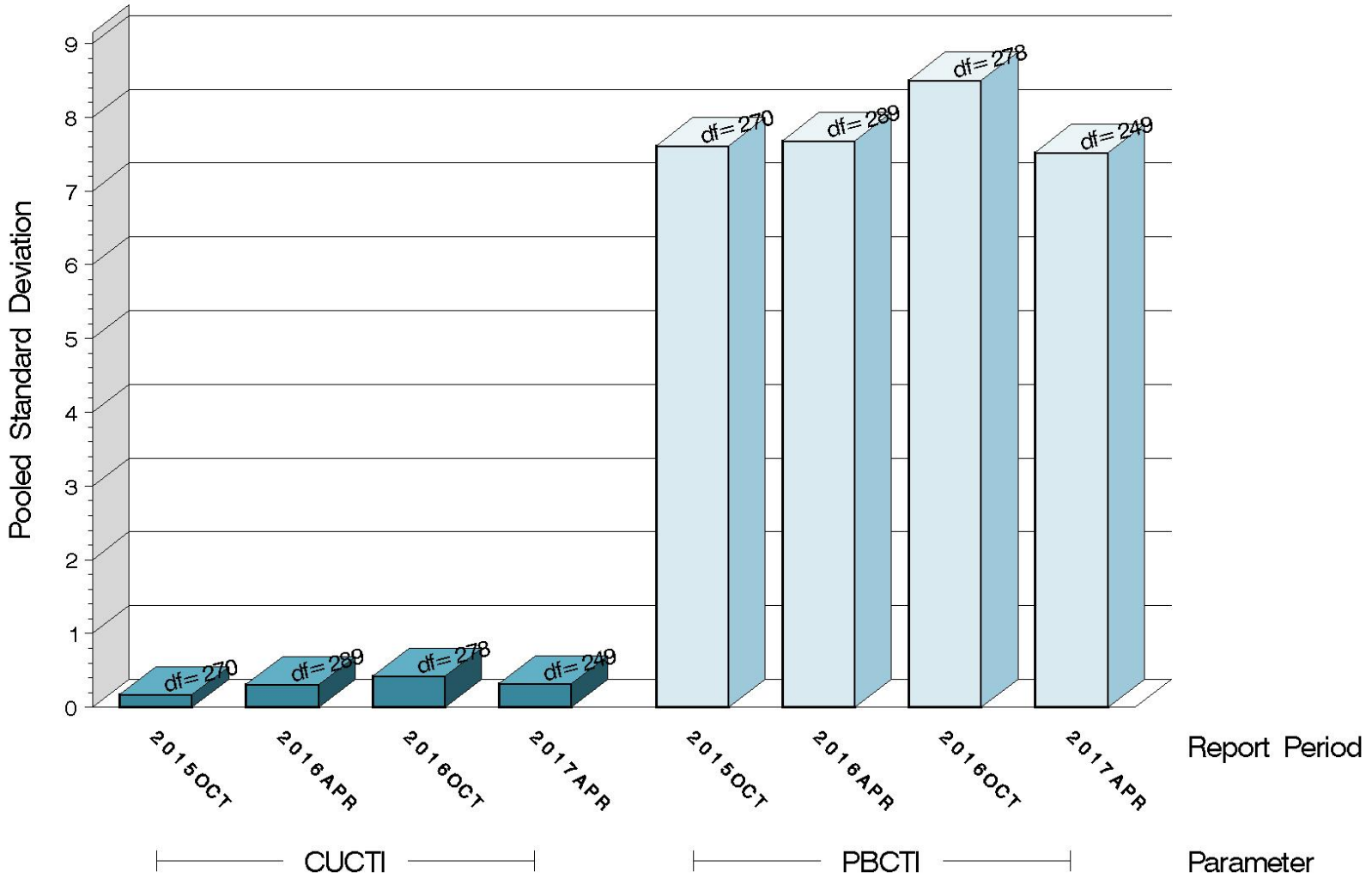
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HTCBT (D 6594)

TEST PRECISION

POOLED STANDARD DEVIATION
BY SIX-MONTH ASTM REPORT PERIOD



9:33:09 03MAY2017

HTCBT (D 6594)

SUMMARY OF SEVERITY & PRECISION

Severity

Over the course of this report period, copper severity, as measured by cusum plotting, was severe.

Over the course of this report period, lead severity, as measured by cusum plotting, was severe.

Precision

Pooled s for this period is 0.32 for copper and 7.52 for lead.

Over the course of this report period, Precision, as measured by pooled standard deviation, is slightly better than last period for both copper and lead concentration, but is still within historical levels.

HTCBT (D 6594)

INFORMATION LETTERS

No HTCBT Information Letters were issued this period.

HTCBT (D 6594)

STATUS OF REFERENCE OIL SUPPLY

Reference Oil	Samples @ Labs	@ TMC	
		Samples (4 oz)	Gallons
44-1	0	0	0.0
44-2	0	0	0.0
44-3	13	0	0.0
44-4	142	1366	42.7
1005-1	0	0	0.0
1005-3	18	0	0.0
1005-5	71	1129	35.3
Total	244	2495	78.0

TMC inventories of Reference Oils 44-3 and 1005-3 have been depleted.