



Test Monitoring Center

@ Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 19-014
DATE: April 19, 2019
TO: Mike Lopez, Chairman, CBT Surveillance Panel
FROM: Michael T. Kasimirsky *Michael T. Kasimirsky*
SUBJECT: HTCBT Testing from October 1, 2018 through March 31, 2019

A total of 335 HTCBT tests were reported to the Test Monitoring Center during the report period from October 1, 2018 through March 31, 2019.

Please find attached a summary of testing activity this period.

MTK/mtk/astm0419.doc/mem19-014.mtk.doc

cc: F. M. Farber
J. A. Clark

CBT Surveillance Panel

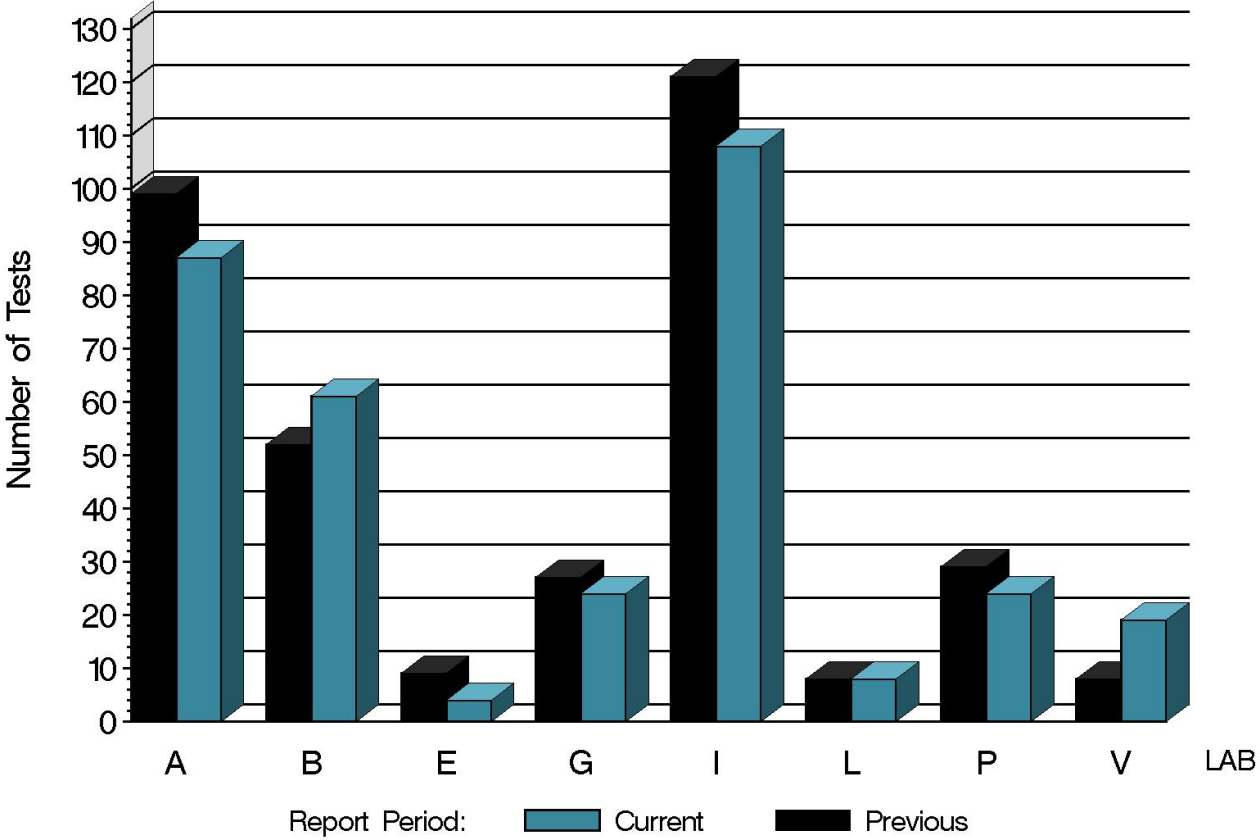
<http://www.astmtmc.cmu.edu/ftp/docs/bench/htcbt/semiannualreports//htcbt-04-2019.pdf>

Distribution: email

HTCBT (D 6594)

	Reporting Data
Number of Labs	8

NUMBER OF TESTS REPORTED
BY LAB AND REPORT PERIOD



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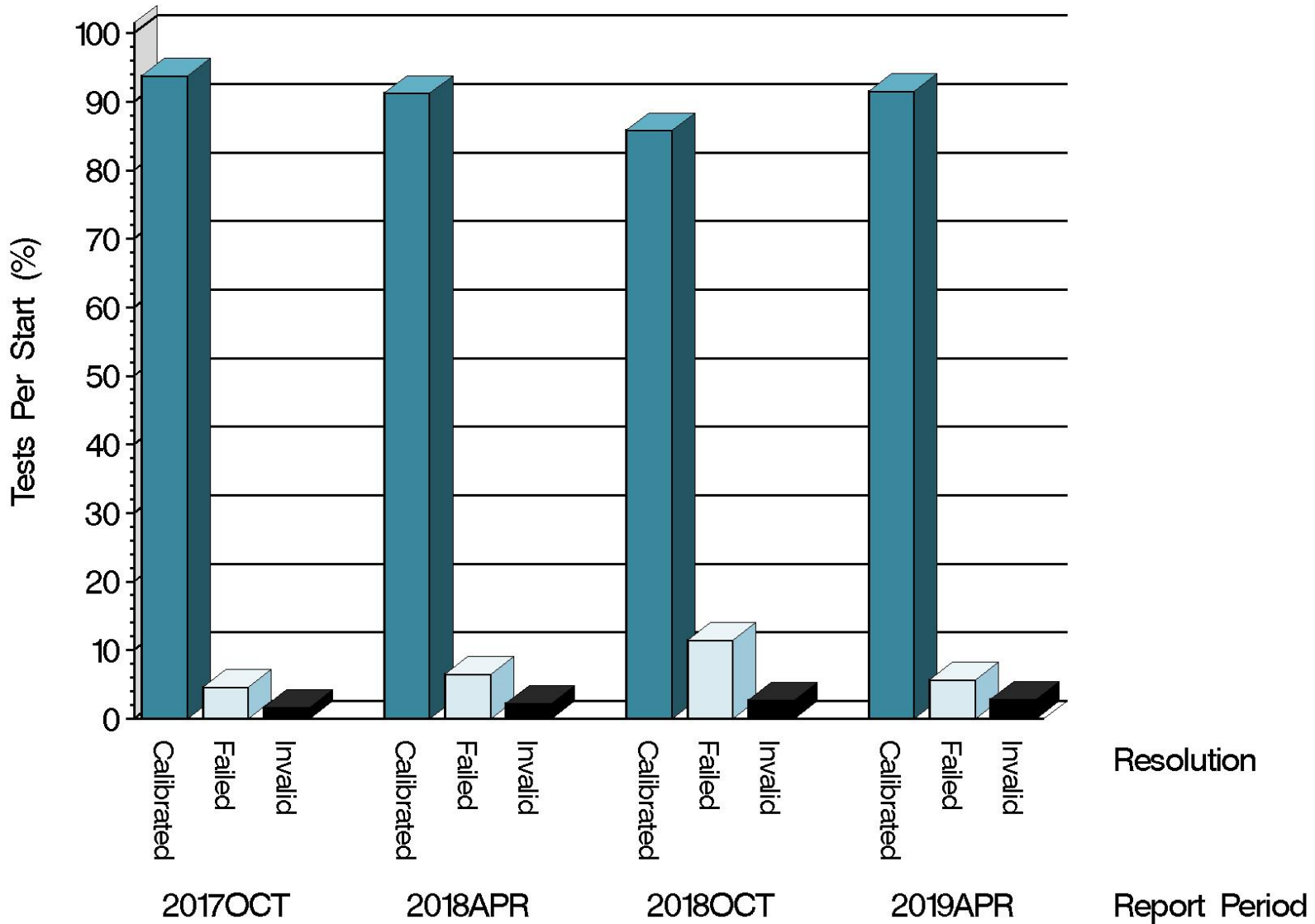
HTCBT (D 6594)

Test Distribution by Validity

		Number of Tests
Acceptable Calibration Test	AC	291
Unacceptable Calibration Test	OC	18
Invalid Calibration Test	LC	5
Invalid by TMC Calibration Test	RC	0
Aborted Calibration Test	XC	4
Acceptable Shakedown Run	NN	2
Unacceptable Shakedown Run	MN	3
Invalid Shakedown Run	LN	2
Donated Test - N Coupons	NI	10
<hr/>		
Total		335

HTCBT (D 6594)

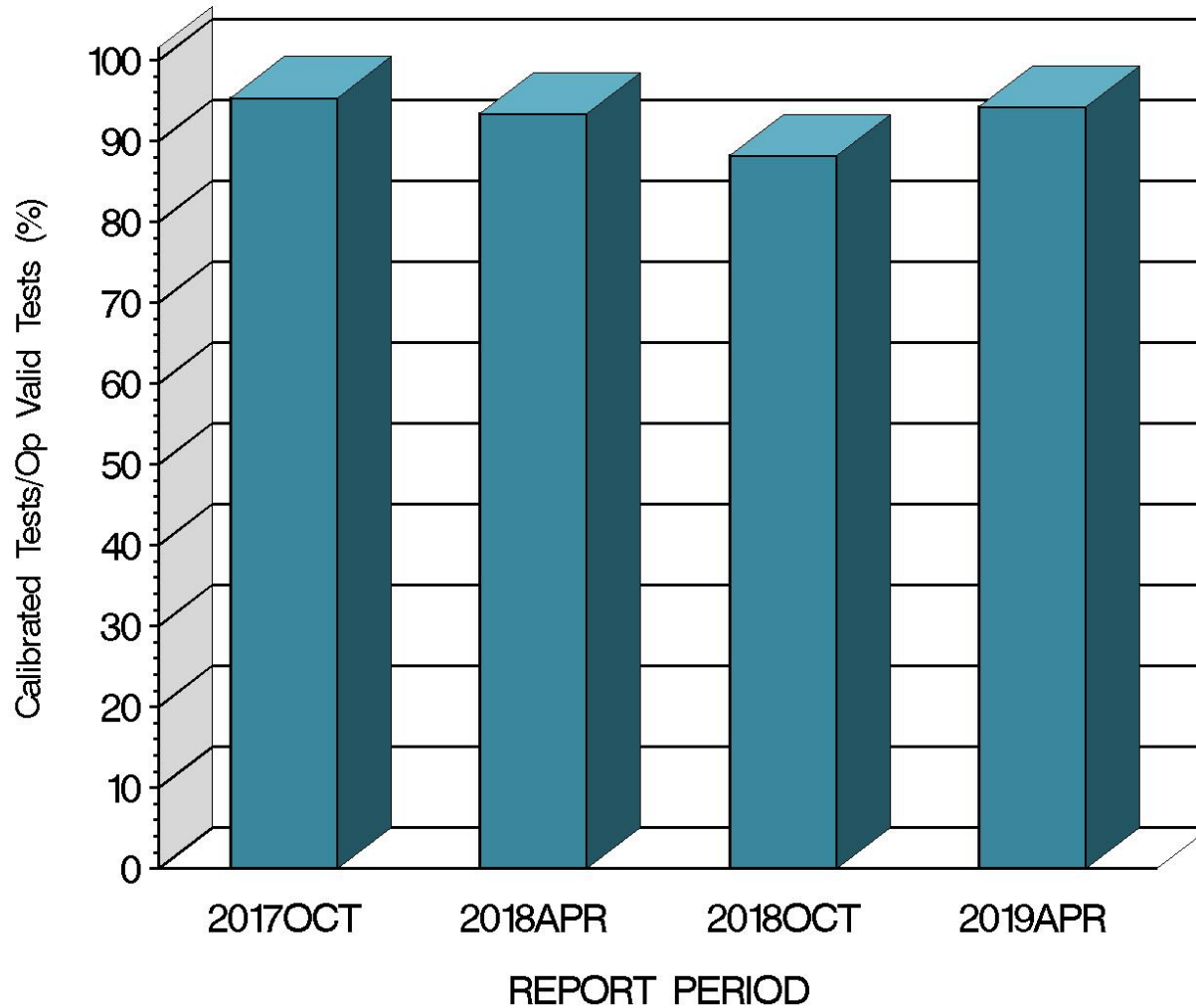
CALIBRATION ATTEMPT SUMMARY



11:43:10 16APR2019

HTCBT (D 6594)

OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA



11:43:10 16APR2019

HTCBT (D 6594)

CAUSES FOR LOST TESTS

Summary of Reasons for Failed Tests	No. of Tests
Severe Lead Concentration	11
Severe Copper Concentration	2
Severe Copper & Lead Concentration	1
Mild Copper Concentration	3
Mild Copper & Lead Concentration	1

HTCBT (D 6594)

CAUSES FOR LOST TESTS (CONTINUED)

Summary of Reasons for Invalid Tests	No. of Tests
Wrong Test Length	2
Temperature Control Problems	3

HTCBT (D 6594)

CAUSES FOR LOST TESTS (CONTINUED)

Summary of Reasons for Aborted Tests	No. of Tests
Sample Spilled	2
Power Failure	1
Water Leak	1

HTCBT (D 6594)

Average Δ /s By Laboratory			
Lab	n	CUC	PBC
A	84	0.468	0.599
B	50	0.473	0.255
C	-	-	-
E	-	-	-
G	19	0.068	1.382
I	106	-0.081	-0.029
L	7	0.879	1.931
P	24	1.239	0.768
V	19	0.749	0.761
Industry	309	0.342	0.430

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

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

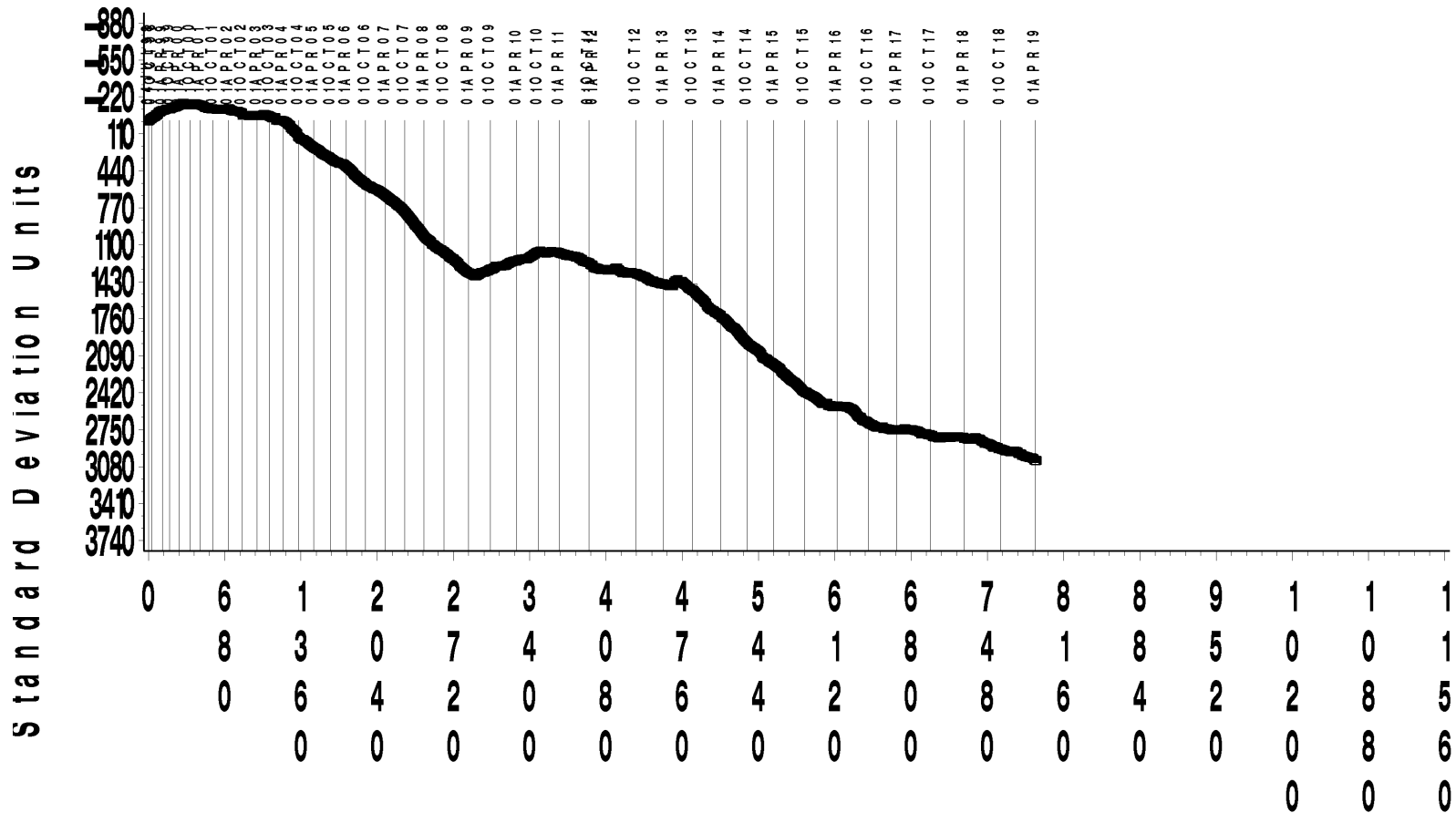
HTCBT (D 6594)

HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA



COPPER CHANGE (ppm)

CUSUM Severity Analysis



COUNT IN COMPLETION DATE ORDER

16APR19:10:38

Test Monitoring Center

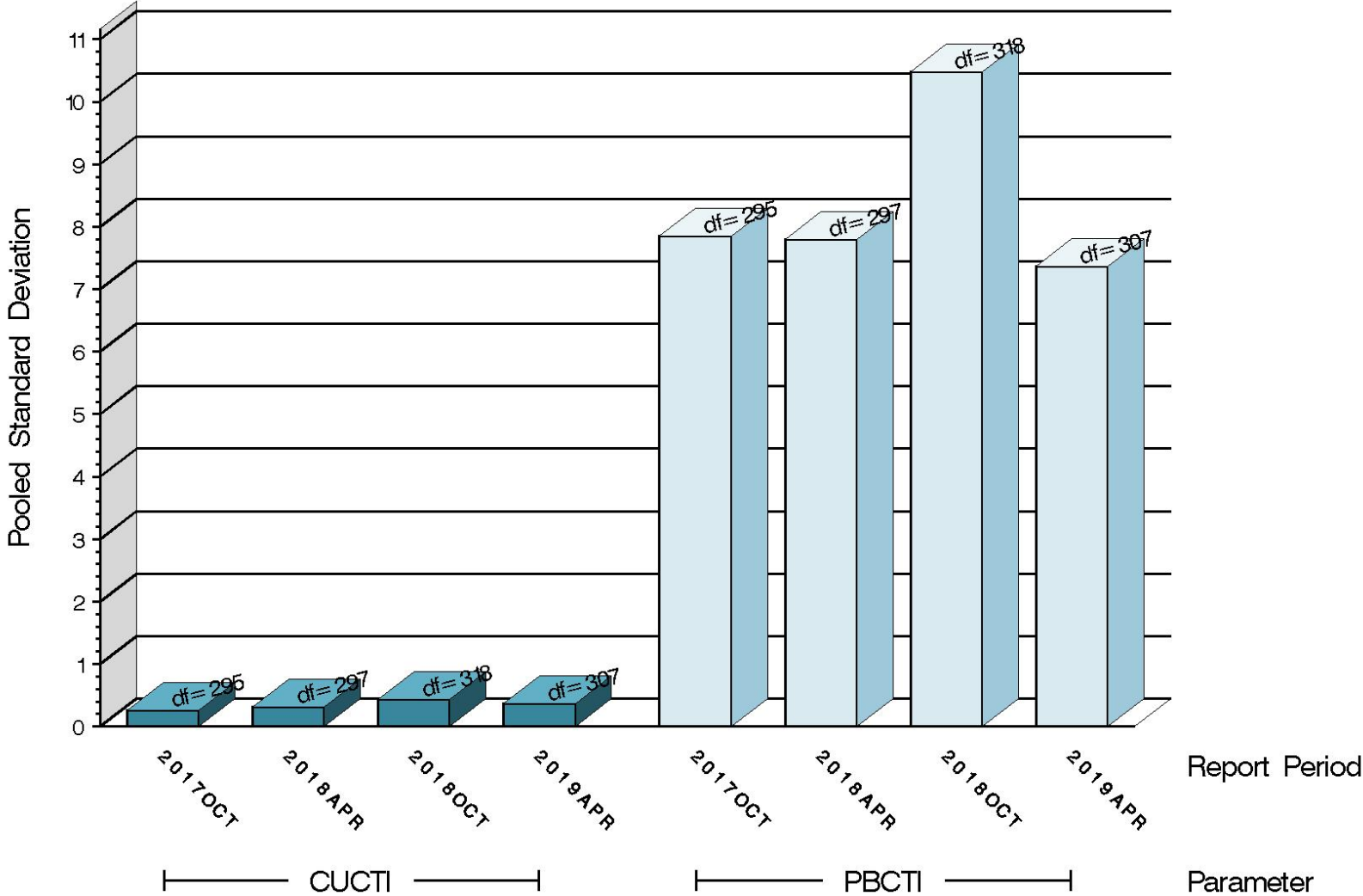
<http://astmtmc.cmu.edu>



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HTCBT (D 6594)

TEST PRECISION
 POOLED STANDARD DEVIATION
 BY SIX-MONTH ASTM REPORT PERIOD



11:43:10 16APR2019

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 0.37 for copper and 7.37 for lead.

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

HTCBT (D 6594)

INFORMATION LETTERS

No HTCBT Information Letters issued this period.

HTCBT (D 6594)

STATUS OF REFERENCE OIL SUPPLY

Reference Oil	Samples @ Labs	@ TMC	
		Samples (4 oz)	Gallons
44-3	0	0	0.0
44-4	73	824	25.8
1005-1	0	0	0.0
1005-3	0	0	0.0
1005-5	157	1730	54.1
Total	230	2554	79.9