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Test Monitoring Center

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

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

MEMORANDUM: 16-036

DATE: November 3, 2016

TO: Gil Reinhard, Chairman, CBT Surveillance Panel

FROM: Michael T. Kasimirsky

SUBJECT: HTCBT Testing from April 1, 2016 through September 30, 2016

A total of 324 HTCBT tests were reported to the Test Monitoring Center during the report period from April 1, 2016 through September 30, 2016.

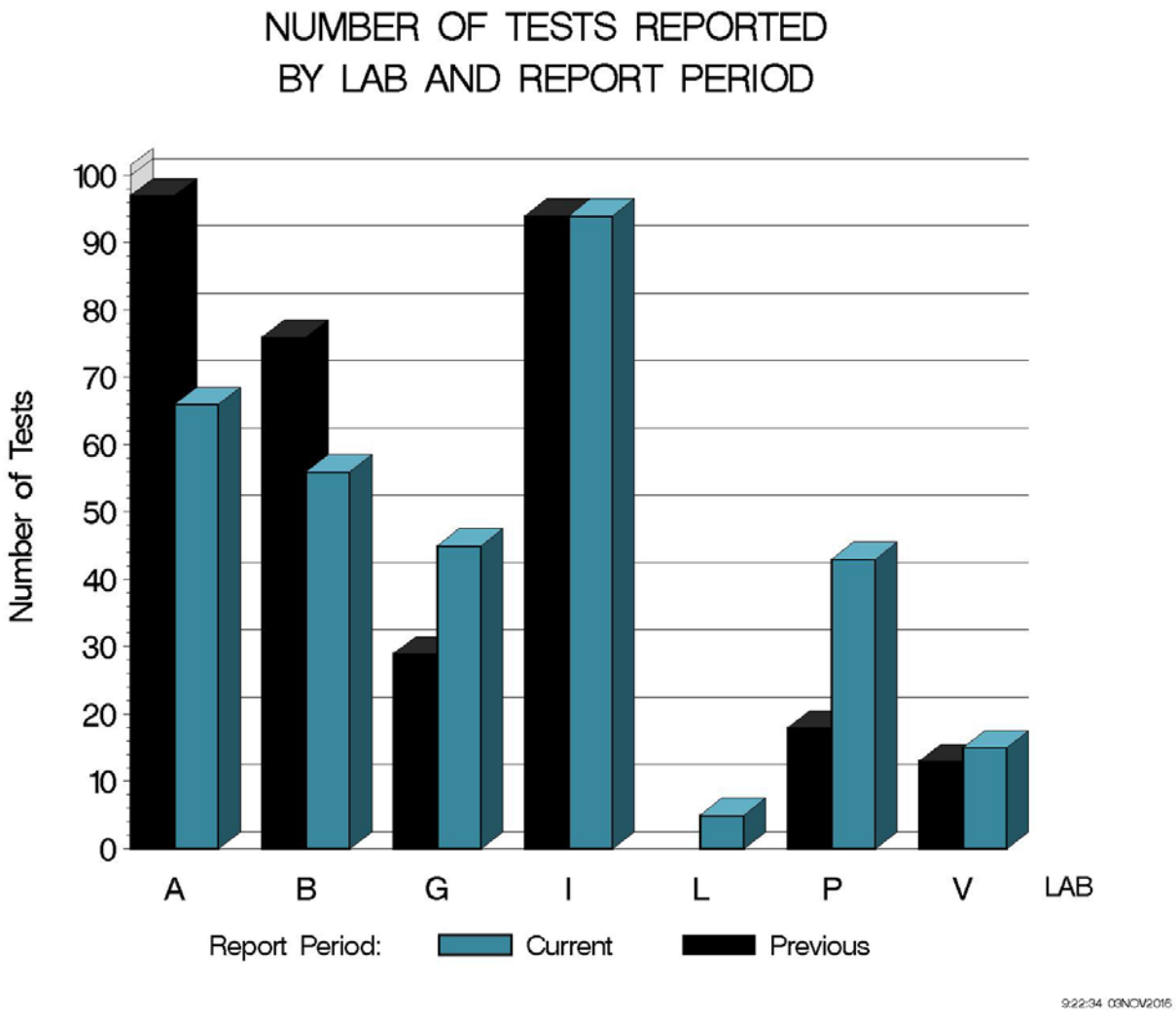
Please find attached a summary of testing activity this period.

MTK/mtk/astm1016.doc/mem16-036.mtk.doc
cc: F. M. Farber
J. A. Clark
CBT Surveillance Panel
ftp://ftp.astmtmc.cmu.edu/docs/bench/htcbt/semiannualreports/htcbt-10-2016.pdf

Distribution: email

HTCBT (D 6594)

	Reporting Data
Number of Labs	7

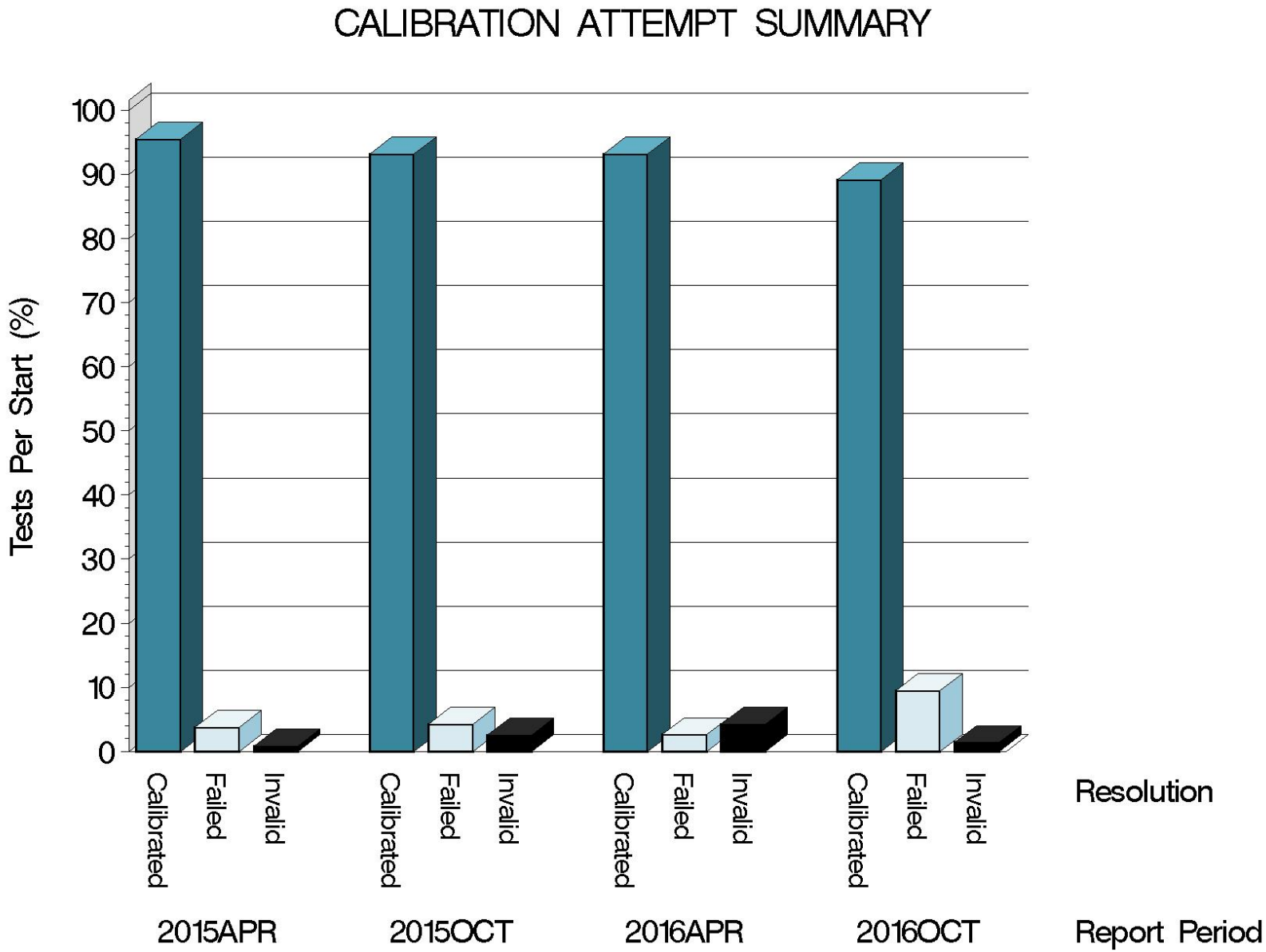


HTCBT (D 6594)

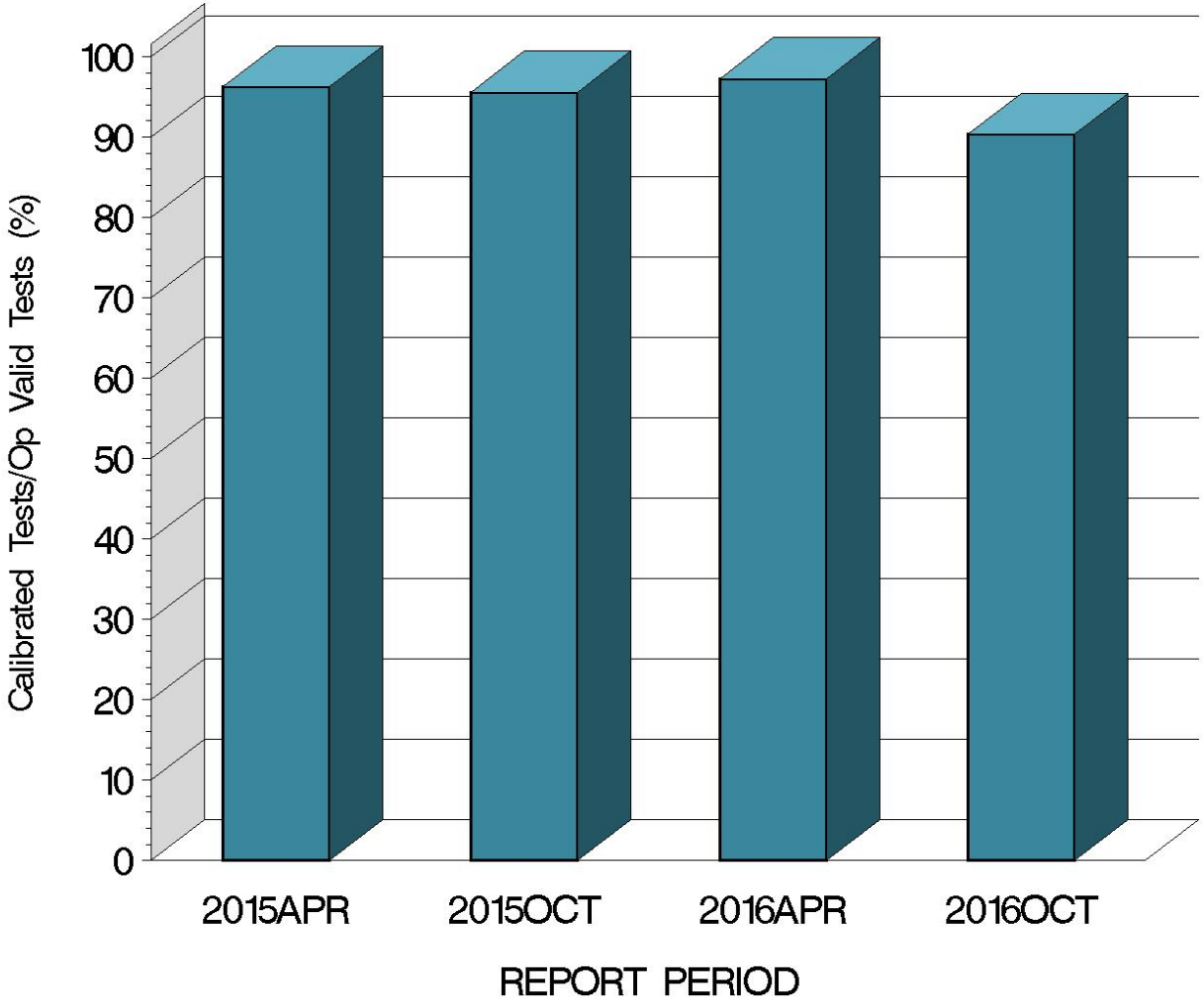
Test Distribution by Validity

		Number of Tests
Acceptable Calibration Test	AC	253
Unacceptable Calibration Test	OC	27
Invalid Calibration Test	LC	3
Aborted Calibration Test	XC	1
Acceptable Donated Test	NI	22
Invalid Donated Test	LI	0
Acceptable Shakedown Run	AS	9
Aborted Shakedown Run	XS	0
Unacceptable Shakedown Run	OS	8
Invalid Shakedown Run	LS	1
Total		324

HTCBT (D 6594)


CALIBRATION ATTEMPT SUMMARY
Tests Per Start (%)
100
90
80
70
60
50
40
30
20
10
0
Calibrated
Failed
Invalid
Calibrated
Failed
Invalid
Calibrated
Failed
Invalid
Calibrated
Failed
Invalid
Resolution
2015APR
2015OCT
2016APR
2016OCT
Report Period
9:22:34 03NOV2016

HTCBT (D 6594)



9:22:34 03NOV2016

HTCBT (D 6594)

CAUSES FOR LOST TESTS

Summary of Reasons for Failed Tests	No. of Tests
Copper, severe	7
Copper, mild	3
Lead, severe	8
Lead, mild	1
Copper, mild, & Lead, severe	1
Copper & Lead, mild	0
Copper & Lead, severe	7

HTCBT (D 6594)

CAUSES FOR LOST TESTS (CONTINUED)

Summary of Reasons for Invalid Tests	No. of Tests
Airflow Problem	3
Non-standard shakedown test	1

HTCBT (D 6594)

CAUSES FOR LOST TESTS (CONTINUED)

Summary of Reasons for Aborted Tests	No. of Tests
Power Failure	1

HTCBT (D 6594)

Average Δ/s By Laboratory			
Lab	n	CUC	PBC
A	62	0.901	0.934
B	52	0.287	-0.319
G	28	-0.905	0.863
I	90	0.023	-0.035
L	2	1.690	1.467
P	36	2.514	0.561
V	10	0.691	0.733
Industry	280	0.530	0.332

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

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COPPER CHANGE (ppm)

CUSUM Severity Analysis

03NOV16:11:06

Test Monitoring Center

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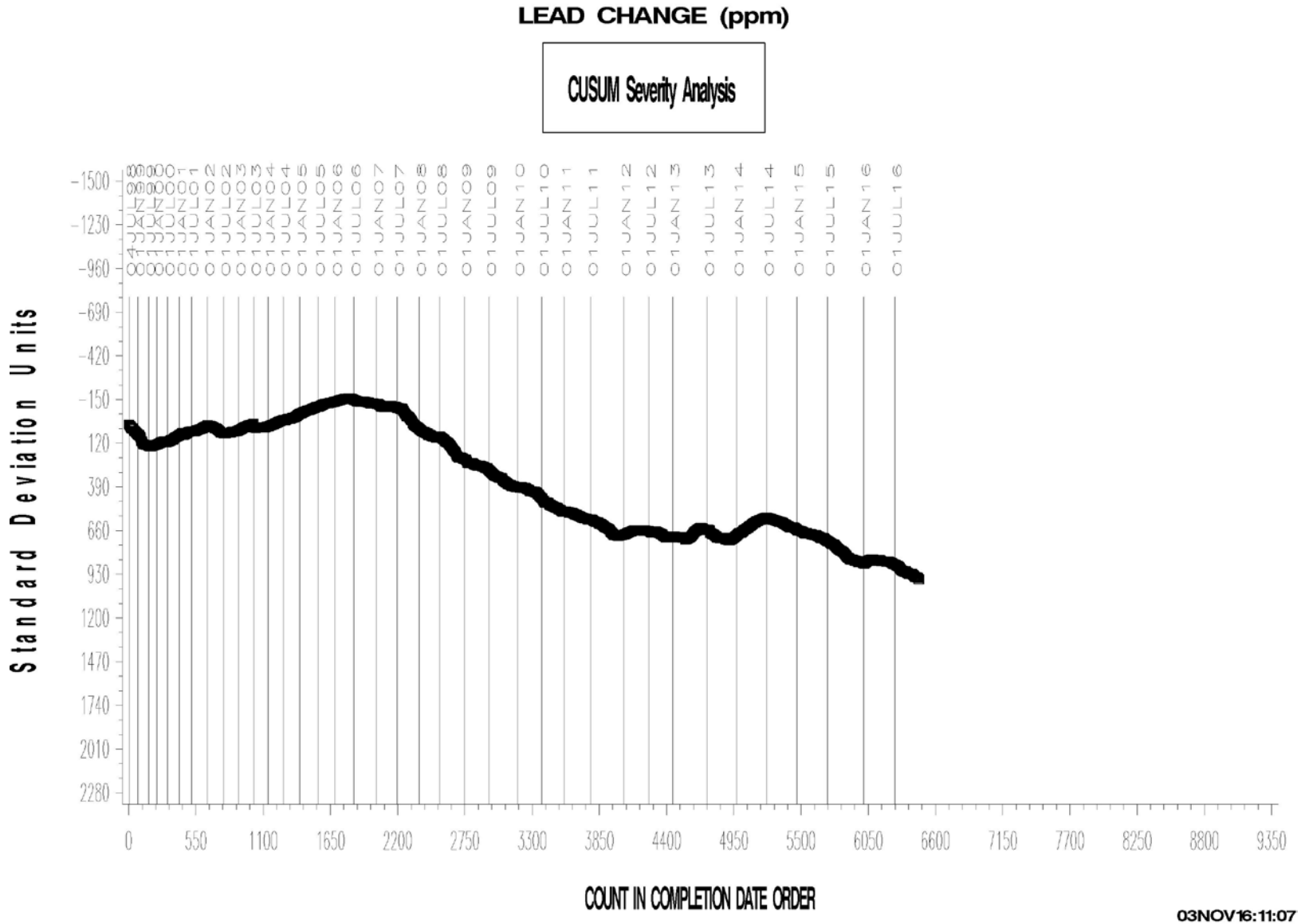
HTCBT (D 6594)



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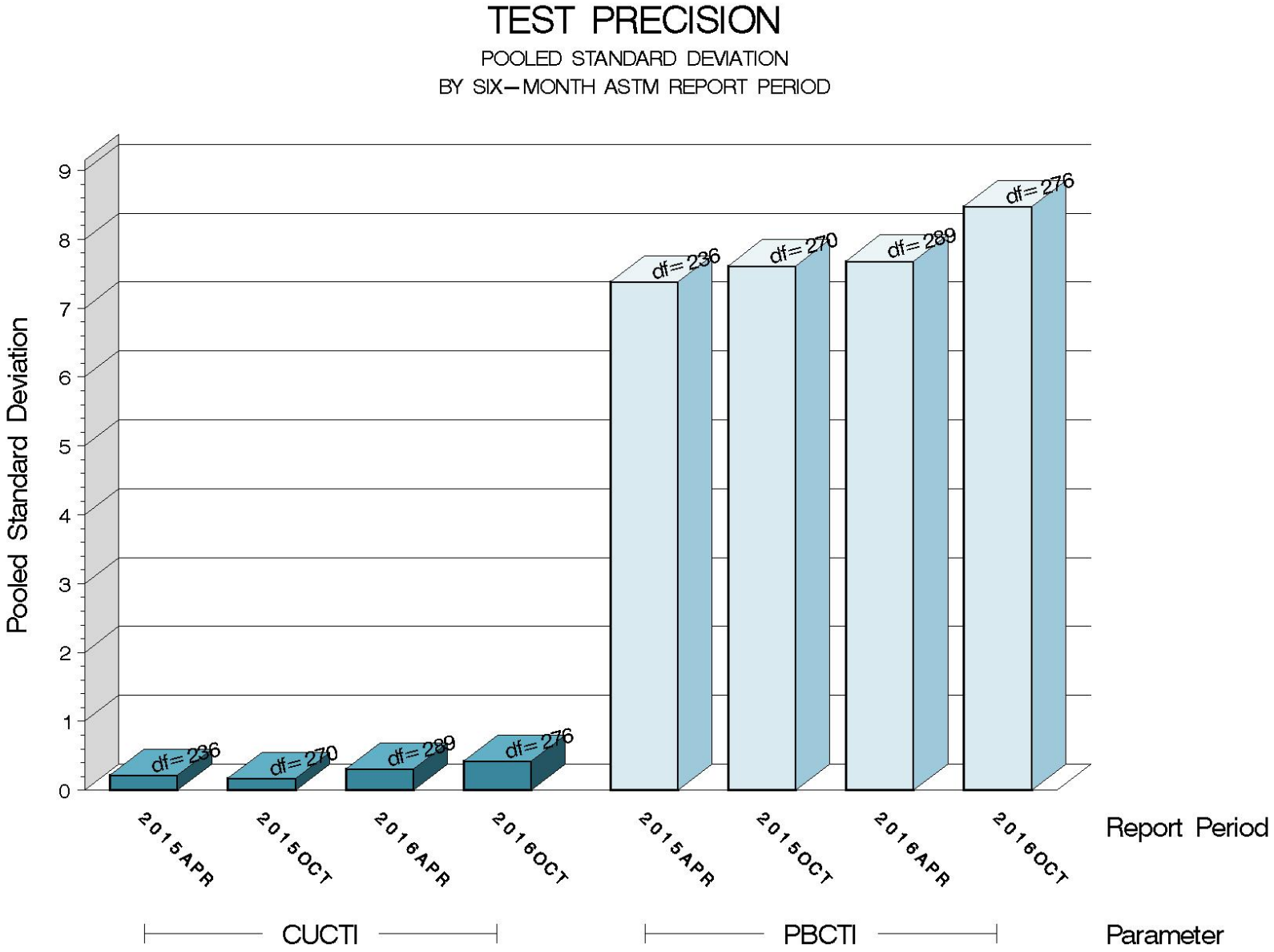

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HTCBT (D 6594)

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 0.42 for copper and 8.47 for lead. Over the course of this report period, Precision, as measured by pooled standard deviation, is slightly worse than last period for both copper and lead concentration, but is still within historical levels.

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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	23	0	0.0
44-4	82	1468	45.9
1005-1	0	0	0.0
1005-3	17	0	0.0
1005-5	106	1299	40.6
Total	228	2767	86.5

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