



Test Monitoring Center

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

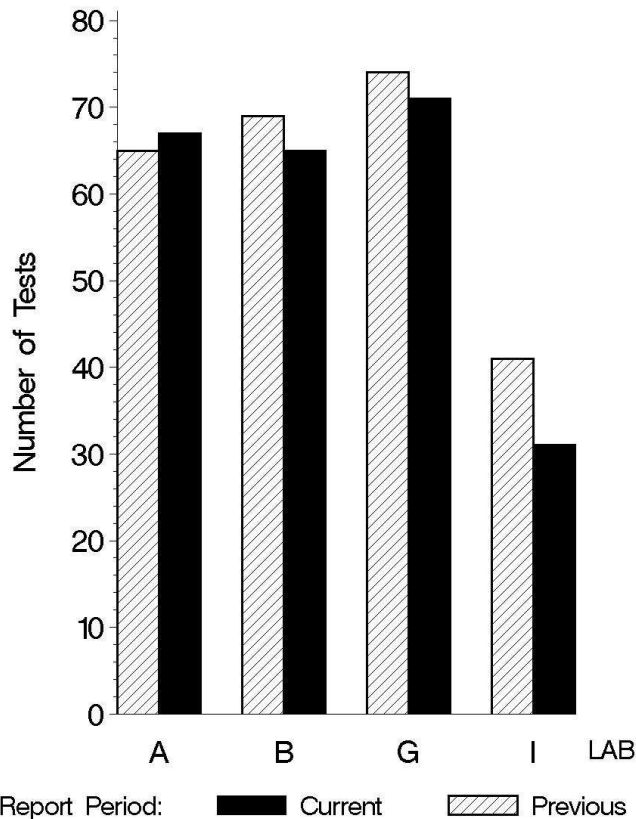
MEMORANDUM: 10-057
DATE: November 23, 2010
TO: Gil Reinhard, Chairman, CBT Surveillance Panel
FROM: Michael T. Kasimirsky *Michael T. Kasimirsky*
SUBJECT: HTCBT Testing from April 1, 2010 through September 30, 2010

A total of 234 HTCBT tests were reported to the Test Monitoring Center during the period from April 1, 2010 through September 30, 2010. Following is a summary of testing activity this period.

	Reporting Data
Number of Labs	4

Tests reported this period were distributed as shown below:

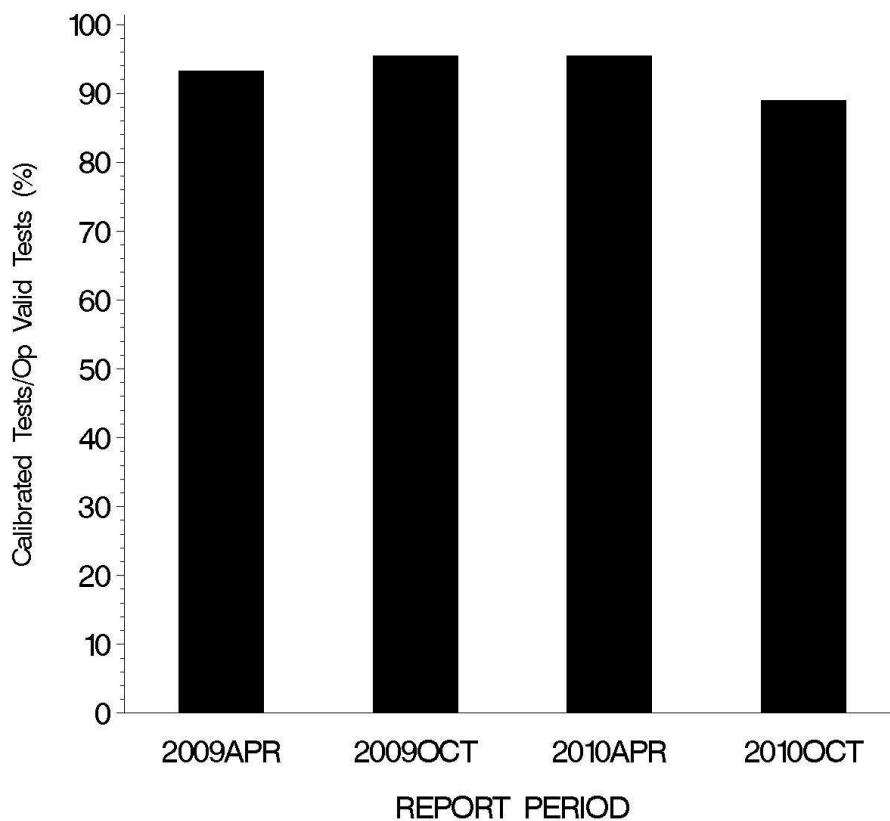
NUMBER OF TESTS REPORTED BY LAB AND REPORT PERIOD



Test Distribution by Validity

	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	168
Failed Acceptance Criteria	OC	21
Operationally Invalid	LC, RC	2
Aborted	XC	5
Acceptable Donated Tests	NI	34
Invalid Donated Tests	LI	4
Total		234

**OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA**



The above chart shows the percentage of accepted operationally valid tests. Twenty-one tests failed to meet the acceptance criteria this period.

The reasons for failed, invalid, or aborted tests are shown in the following tables:

Summary of Reasons for Failed Tests

	No. of Tests
Copper, mild	9
Copper, severe	1
Lead, severe	10
Copper & Lead, severe	1

Summary of Reasons for Invalid Tests

	No. of Tests
Power Failure	2

Summary of Reasons for Aborted Tests

	No. of Tests
Sample Spilled	1
Bath Failure	1
Airflow Problem	2
Discarded EOT sample	1

Industry Severity Summary

The following table shows the average Δ/s , by laboratory and for the industry overall, for both copper and lead concentration for this ASTM report period.

Average Δ/s by Lab

Lab	n	CUC	PBC
A	56	-1.203	0.480
B	52	-0.231	-0.624
G	55	0.251	1.217
I	26	-0.544	1.120
Industry	189	-0.422	0.479

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

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

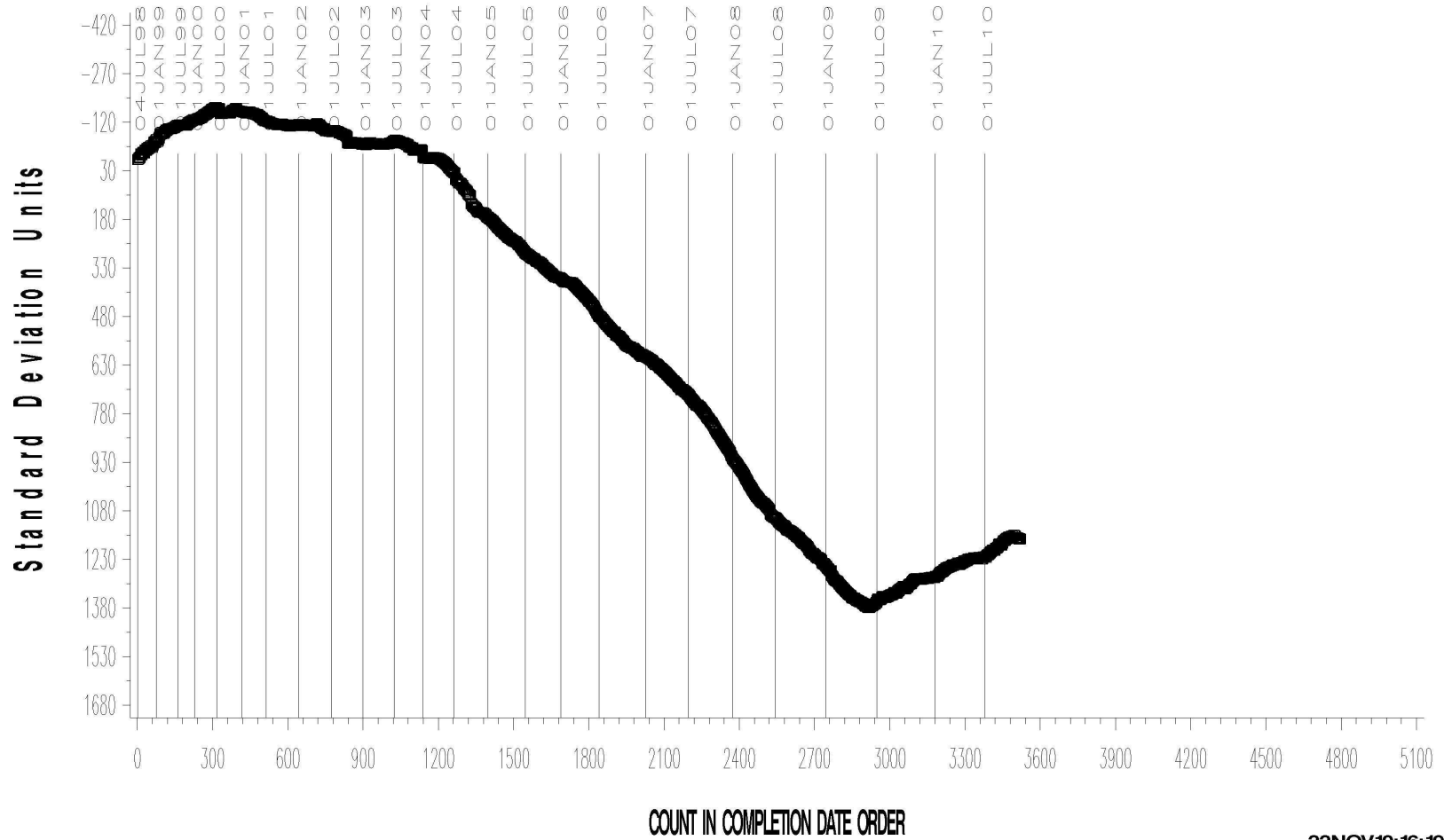
The plots of summation delta/s from target for change in copper and change in lead, respectively, are shown on the following pages. Copper concentration results are continuing the mild trend begun in mid-2009. Lead concentration results are continuing the severe trend begun in 2007.

HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA



COPPER CHANGE (ppm)

CUSUM Severity Analysis

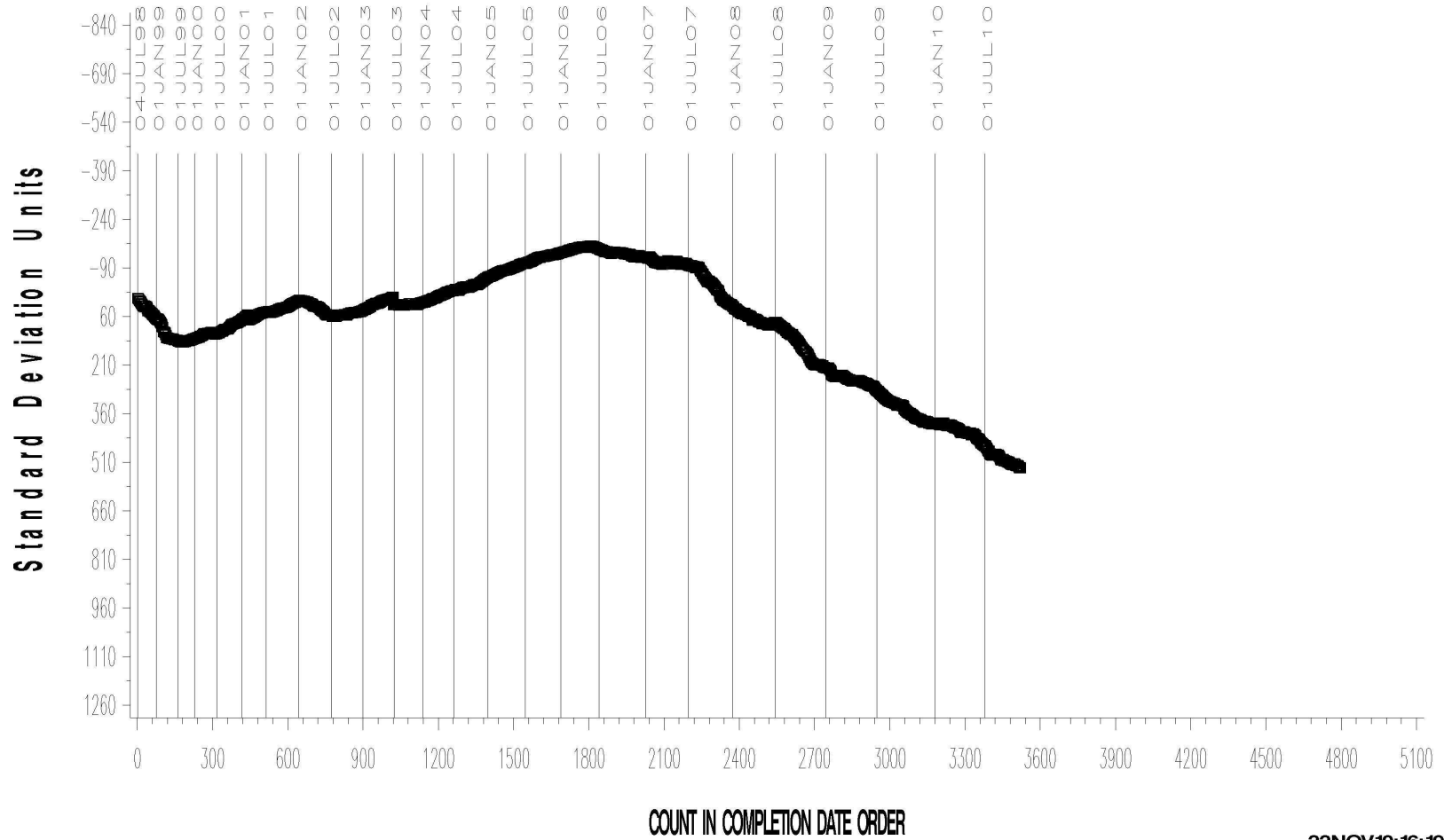


HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA



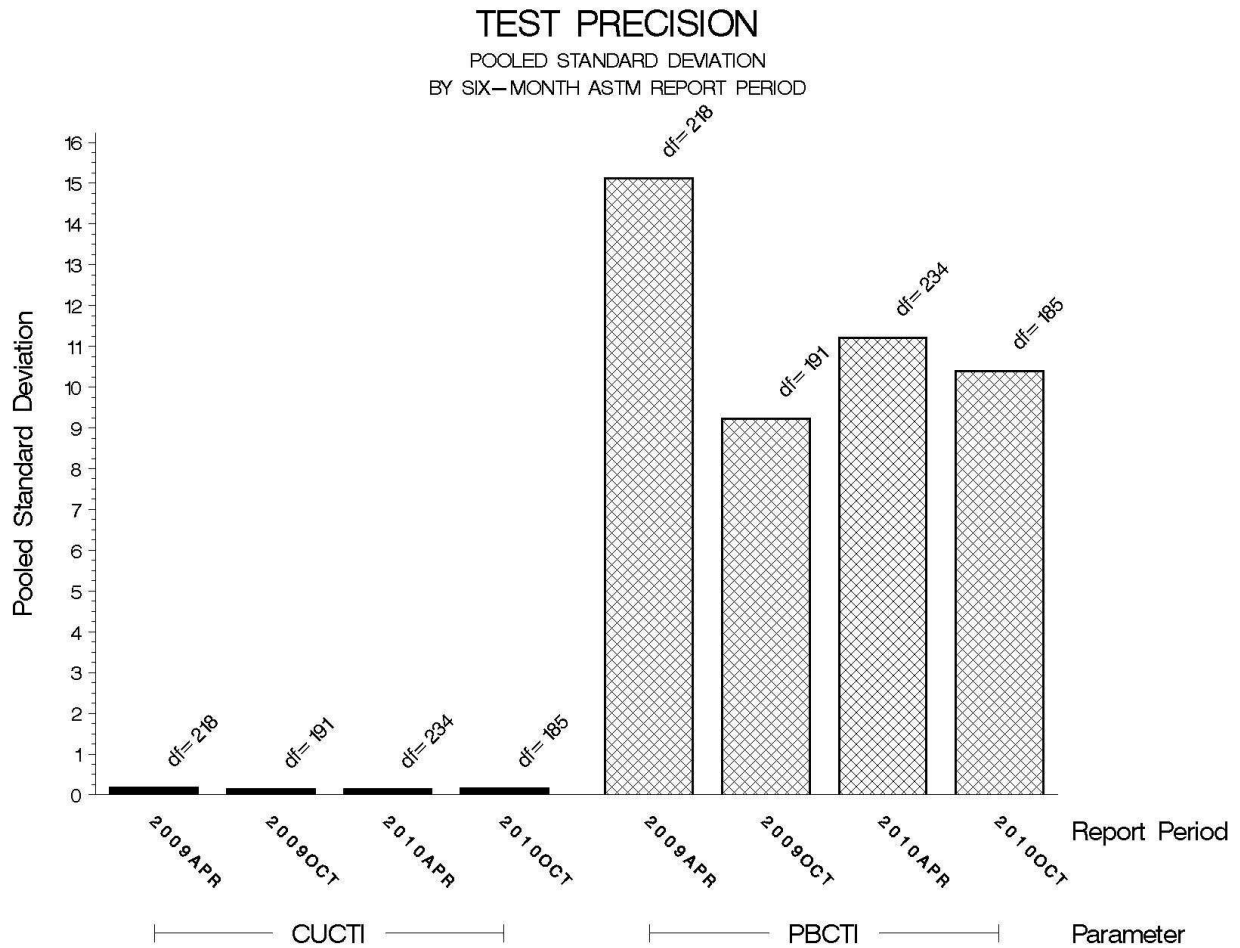
LEAD CHANGE (ppm)

CUSUM Severity Analysis



POOLED S:

Precision estimates, by report period are depicted below. Precision estimates for both copper and lead are within historical levels.



STATUS OF REFERENCE OIL SUPPLY:

At the end of this report period, the testing oil supply stood as outlined in the following table:

Oil	Samples @ Labs	@ TMC	
		Samples	Gallons
44-1	0	0	0.0
44-2	57	329	10.3
1005-1	0	0	0.0
1005-3	116	620	19.4
Total	173	949	29.7

On March 30, 2010, the HTCBT Surveillance Panel approved a motion to introduce Reference Oil 44-2 into the calibration system based upon targets to be generated from a group of donated tests. The initial test targets, based upon the 15 donated tests obtained, are shown in Table A, below:

Table A: Reference Oil 44-2 Initial Test Targets (N=15)			
Parameter	Mean	Standard Deviation	Acceptance Range
Copper Concentration	4.8808*	0.1349*	101.1 to 171.6 ppm
Lead Concentration	43.9	11.1	22.1 to 65.7 ppm

*Transformed units (*natural log*)

On March 30, 2010, the HTCBT Surveillance Panel also approved a motion to introduce Reference Oil 1005-3 into the calibration system based upon targets to be generated from a group of donated tests. The initial test targets, based upon the 15 donated tests obtained, are shown in Table B, below:

Table B: Reference Oil 1005-3 Initial Test Targets (N=15)			
Parameter	Mean	Standard Deviation	Acceptance Range
Copper Concentration	1.8469*	0.1794*	4.5 to 9.0 ppm
Lead Concentration	18.3	7.1	4.4 to 32.2 ppm

*Transformed units (*natural log*)

INFORMATION LETTERS:

No information letters were issued this period.

SUMMARY

- Over the course of this report period, copper severity, as measured by cusum plotting, continued the existing mild trend.
- Over the course of this report period, lead severity, as measured by cusum plotting, continued the existing severe trend.

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- Precision as measured by pooled standard deviation is comparable to previous levels for both copper and lead concentration.

MTK/mtk/astm1010.doc/mem10-057.mtk.doc

c: F. M. Farber

J. A. Clark

CBT Surveillance Panel

<ftp://ftp.astmtmc.cmu.edu/docs/bench/htcbt/semiannualreports/htcbt-10-2010.pdf>

Distribution: email