

## **Test Monitoring Center**

Carnegie Mellon University 6555 Penn Avenue, Pittsburgh, PA 15206, USA http://astmtmc.cmu.edu 412-365-1000

MEMORANDUM: 13-030

DATE: May 17, 2013

TO: Gil Reinhard, Chairman, CBT Surveillance Panel

FROM: Michael T. Kasimirsky Milas J. Rasimisky

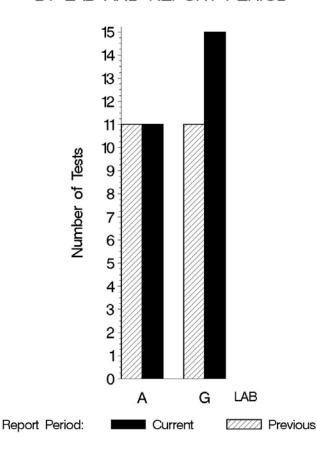
SUBJECT: CBT Testing from October 1, 2012 through March 31, 2013

A total of 26 CBT tests were reported to the Test Monitoring Center during the period from October 1, 2012 through March 31, 2013. Following is a summary of testing activity this period.

	Reporting Data
Number of Labs	2

Tests reported this period were distributed as shown below:

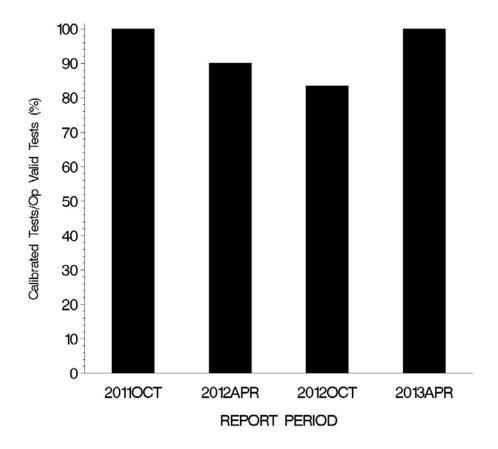
### NUMBER OF TESTS REPORTED BY LAB AND REPORT PERIOD



#### **Test Distribution by Validity**

	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	19
Failed Acceptance Criteria	OC	0
Operationally Invalid	LC, RC	1
Aborted	XC	0
Acceptable Donated Tests	NI	6
Invalid Donated Tests	LI	0
Total		26

# OPERATIONALLY VALID TESTS MEETING ACCEPTANCE CRITERIA



The above chart shows the percentage of accepted operationally valid tests. No 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
No failed tests this period	0

**Summary of Reasons for Invalid Tests** 

	No. of Tests
Lost Temperature Control	1

**Summary of Reasons for Aborted Tests** 

	No. of Tests
No aborted tests this period	0

#### **Industry Severity Summary**

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

Average  $\Delta$ /s by Lab

Lab	n	CUC	PBC
A	8	-0.803	-1.410
G	11	-1.147	-0.977
Industry	19	-1.002	-1.159

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

ftp://ftp.astmtmc.cmu.edu/refdata/bench/cbt/data/

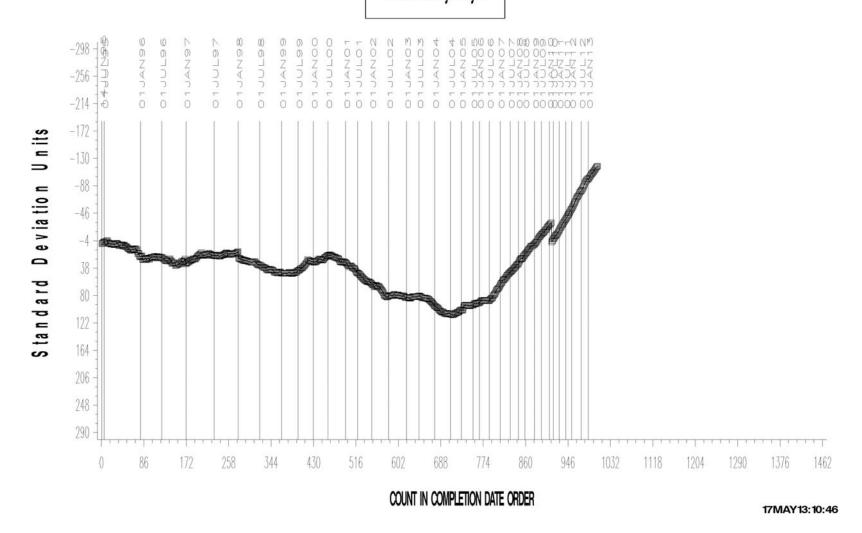
The plots of summation delta/s from target for change in copper and change in lead, respectively, are shown on the following pages. Both copper and lead concentration results are continuing to trend mild.

#### CBT INDUSTRY OPERATIONALLY VALID DATA



#### COPPER CHANGE (ppm)

CUSUM Severity Analysis

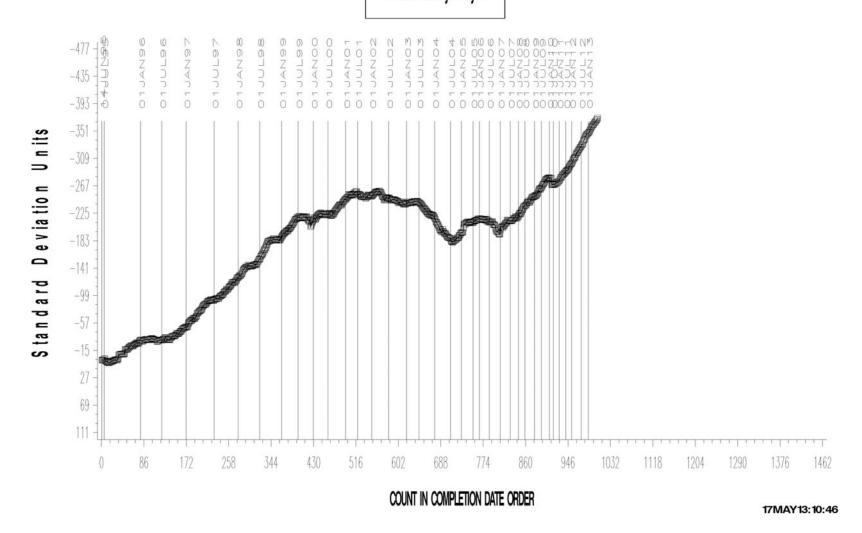


#### CBT INDUSTRY OPERATIONALLY VALID DATA



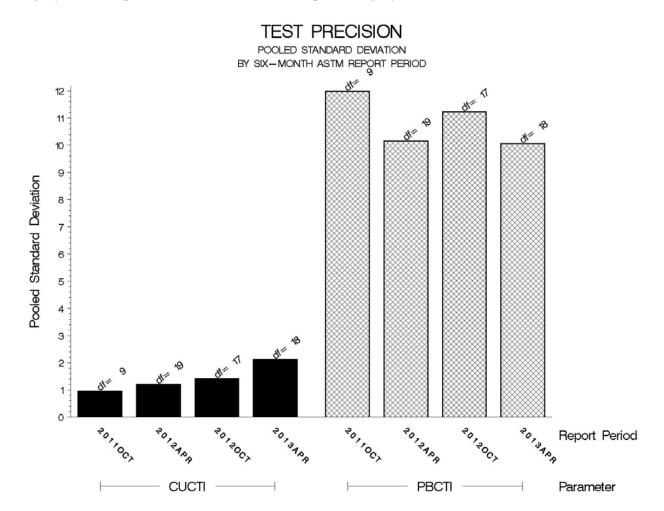
#### LEAD CHANGE (ppm)

CUSUM Severity Analysis



#### **POOLED S**:

Precision estimates, by report period are depicted below. The Precision estimate for copper has degraded slightly, while the precision estimate for lead has improved slightly, but both are still 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:

		@ TMC	
Oil	Samples @ Labs	Samples	Gallons
43	27	1417	44.3

#### **INFORMATION LETTERS:**

No information letters were issued this period.

#### **SUMMARY**

- Over the course of this report period, both copper and lead severity as measured by cusum plotting continued the existing mild trend.
- Precision, as measured by pooled standard deviation, is slightly worse than previous periods for copper and is slightly better than previous periods for lead, but is still within historical levels.

MTK/mtk/astm0413.doc/mem13-030.mtk.doc

c: F. M. Farber

J. A. Clark

**CBT Surveillance Panel** 

ftp://ftp.astmtmc.cmu.edu/docs/bench/cbt/semiannualreports/cbt-04-2013.pdf

Distribution: email