A Program of ASTM International

Test Monitoring Center

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

MEMORANDUM: 10-021

DATE: May 19, 2010

TO: Gil Reinhard, Chairman, CBT Surveillance Panel

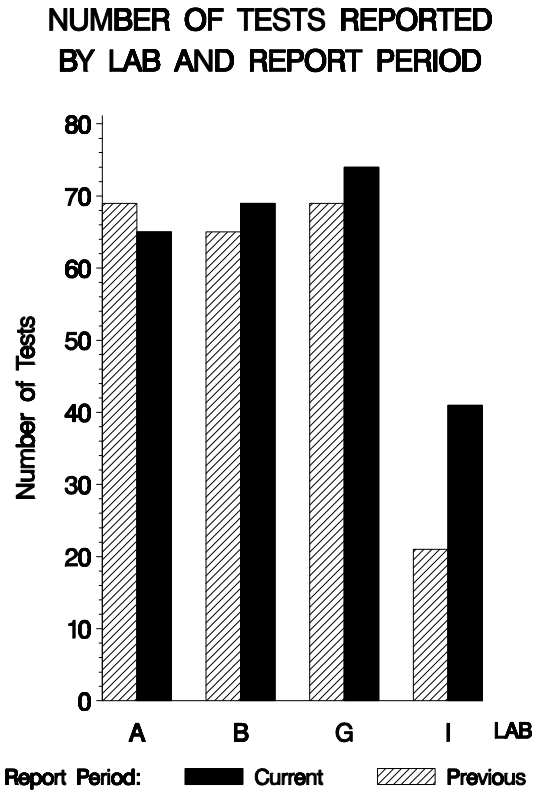
FROM: Michael T. Kasimirsky

SUBJECT: HTCBT Testing from October 1, 2009 through March 31, 2010

A total of 249 HTCBT tests were reported to the Test Monitoring Center during the period from October 1, 2009 through March 31, 2010. Following is a summary of testing activity this period.

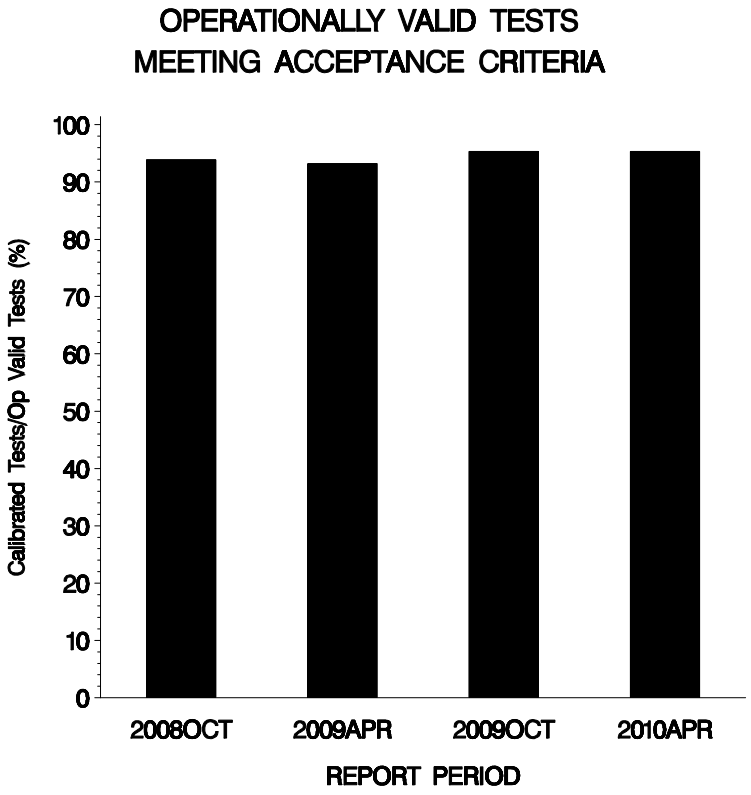
	Reporting Data
Number of Labs	4

Tests reported this period were distributed as shown below:



Test Distribution by Validity

	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	226
Failed Acceptance Criteria	OC	11
Operationally Invalid	LC, RC	0
Aborted	XC	2
Acceptable Donated Tests	NI	8
Unacceptable Donated Tests	MI	2
Total		249



The above chart shows the percentage of accepted operationally valid tests. Eleven 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	4
Copper, severe	4
Lead, severe	2
Copper & Lead, both severe	1

Summary of Reasons for Invalid Tests

	No. of Tests
No invalid tests	0

Summary of Reasons for Aborted Tests

	No. of Tests
Bath Failure	2

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.

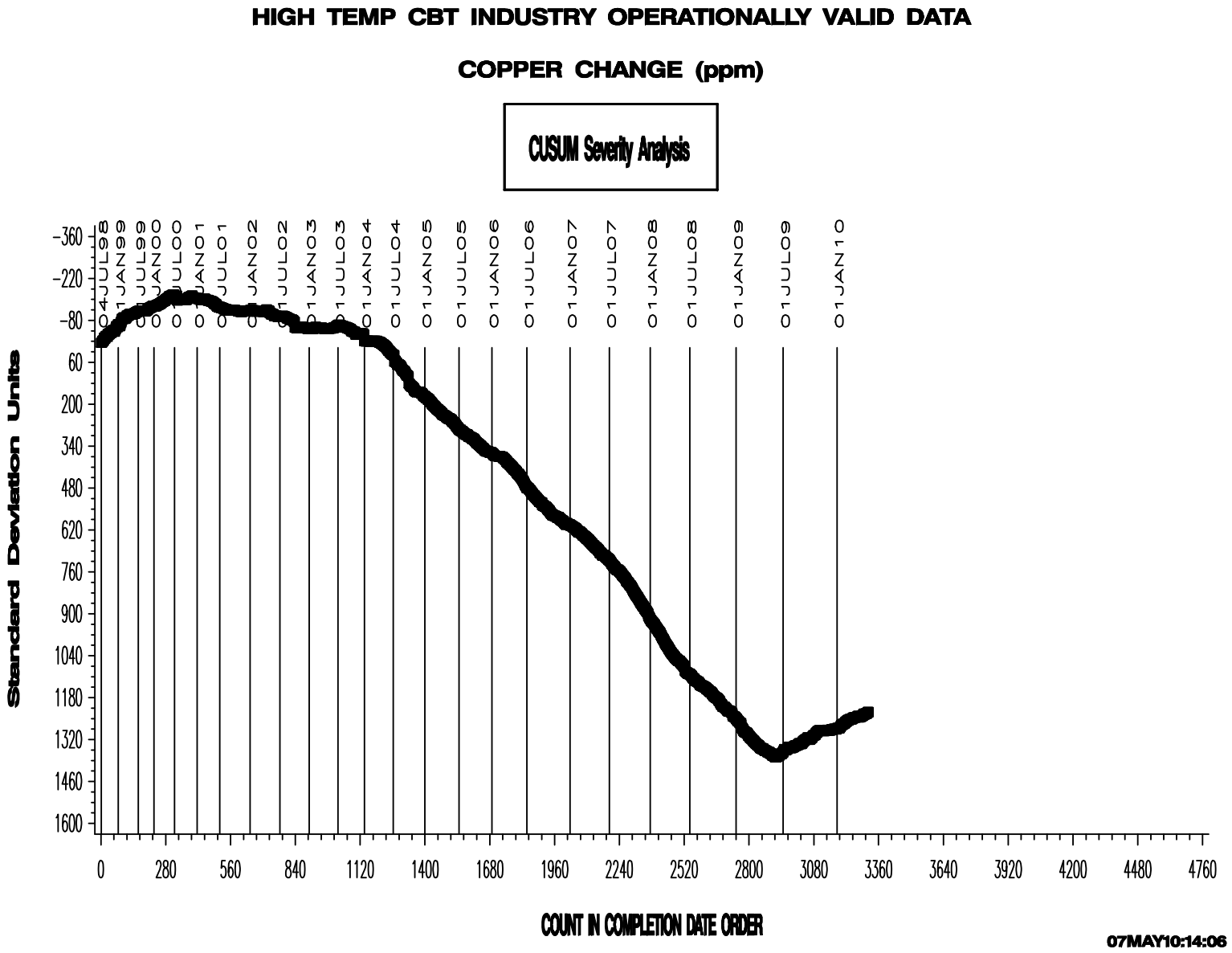
Average Δ/s by Lab

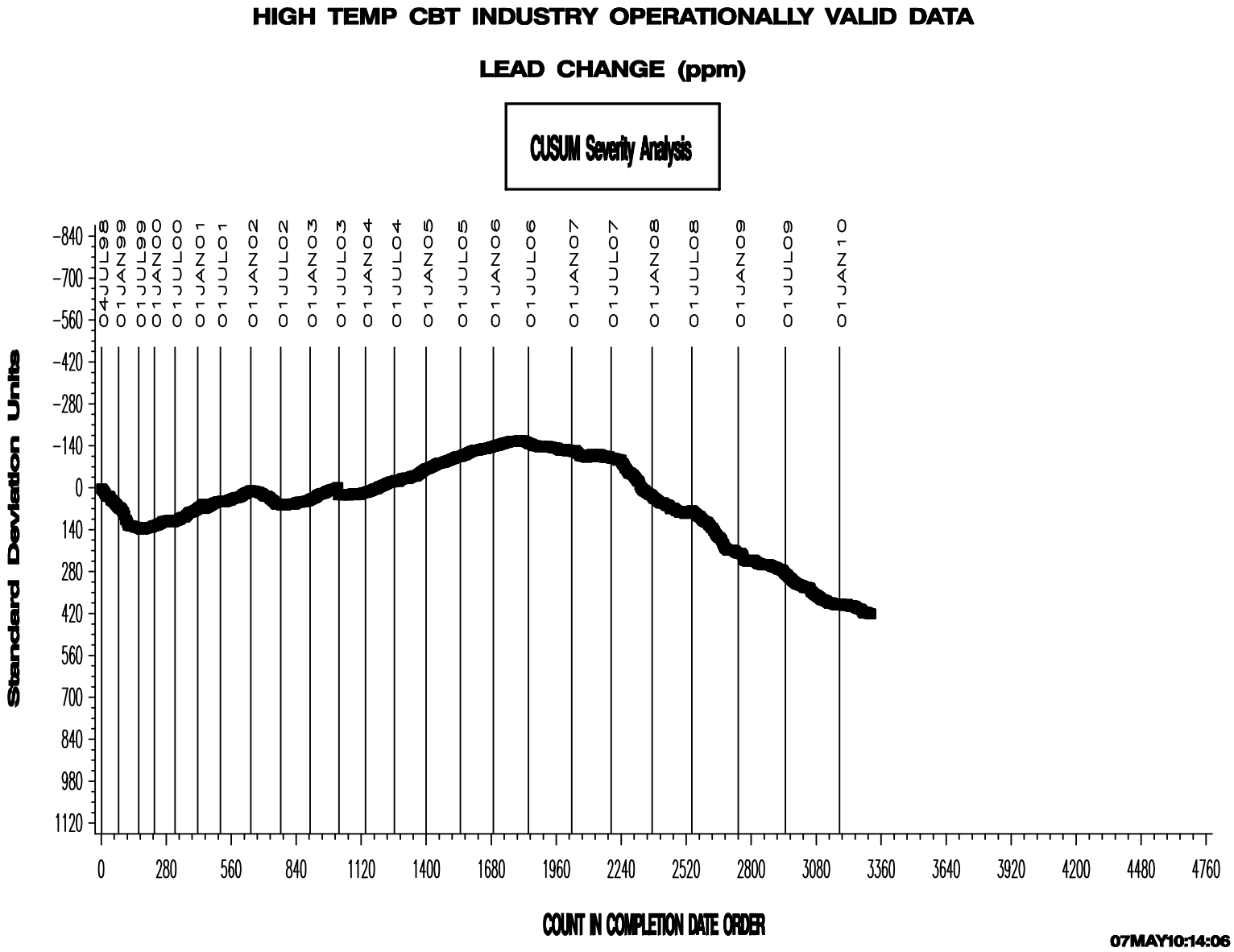
Lab	n	CUC	PBC
A	61	-0.869	-0.529
B	66	-0.427	-0.292
G	71	0.519	1.096
I	39	-0.810	1.554
Industry	237	-0.321	0.367

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
Standard Deviation Units
-360
-220
-80
60
200
340
480
620
760
900
1040
1180
1320
1460
1600
01JUL98
01JAN99
01JUL99
01JAN00
01JUL00
01JAN01
01JUL01
01JAN02
01JUL02
01JAN03
01JUL03
01JAN04
01JUL04
01JAN05
01JUL05
01JAN06
01JUL06
01JAN07
01JUL07
01JAN08
01JUL08
01JAN09
01JUL09
01JAN10
0
280
560
840
1120
1400
1680
1960
2240
2520
2800
3080
3360
3640
3920
4200
4480
4760
COUNT IN COMPLETION DATE ORDER
07MAY10:14:06


HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA
LEAD CHANGE (ppm)
CUSUM Severity Analysis
Standard Deviation Units
-840
-700
-560
-420
-280
-140
0
140
280
420
560
700
840
980
1120
04JUL98
01JAN99
01JUL99
01JAN00
01JUL00
01JAN01
01JUL01
01JAN02
01JUL02
01JAN03
01JUL03
01JAN04
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COUNT IN COMPLETION DATE ORDER
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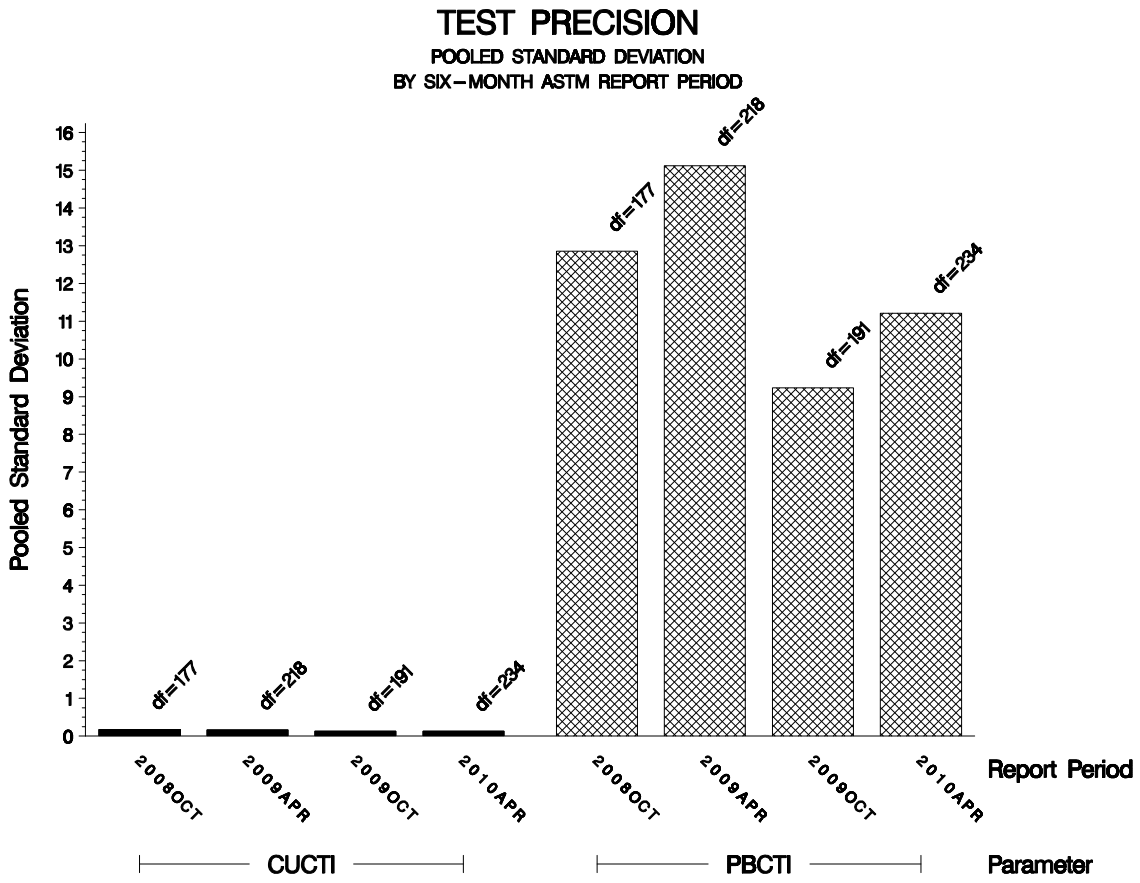
POOLED S:

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:

		@ TMC	
Oil	Samples @ Labs	Samples	Gallons
44-1	11	89	2.8
44-2	21	435	13.6
1005-1	8	57	1.8
1005-3	21	1280	40.0
Total	61	1861	58.2

As approved by the HTCBT Surveillance Panel, Reference Oil 1005-1 was introduced into the calibration system using test targets based upon eight data points. The initial targets are shown in Table 1, below:

Table 1: Reference Oil 1005-1 Initial Test Targets (N=8)			
Parameter	Mean	Standard Deviation	Acceptance Range
Copper Concentration	2.5986	0.1069	10.9 to 16.6
Lead Concentration	56.2	6.8	42.7 to 69.6

These targets were effective on December 21, 2009.

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.

  Precision as measured by pooled standard deviation is worse than last period for lead concentration, while copper concentration is comparable to previous levels.

MTK/mtk/astm0410.doc/mem10-021.mtk.doc
c: F. M. Farber
J. A. Clark
CBT Surveillance Panel
ftp://ftp.astmtmc.cmu.edu/docs/bench/htcbt/semiannualreports/htcbt-04-2010.pdf

Distribution: email