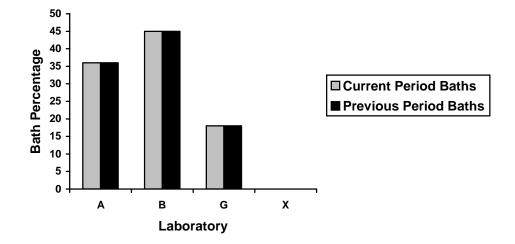


MEMORANDUM:	07-069
DATE:	October 25, 2007
TO:	Gil Reinhard, Chairman, CBT Surveillance Panel
FROM:	Jeff Clark
SUBJECT:	High Temperature Corrosion Bench Testing for the October 2007 Report Period

A total of 175 High Temperature Corrosion Bench Test results from eleven baths in three labs were reported to the TMC during the October 2007 ASTM report period, which began on April 1, 2007 and ended on September 30, 2007.

The following chart shows the distribution by laboratory.



Laboratory/Bath Distribution

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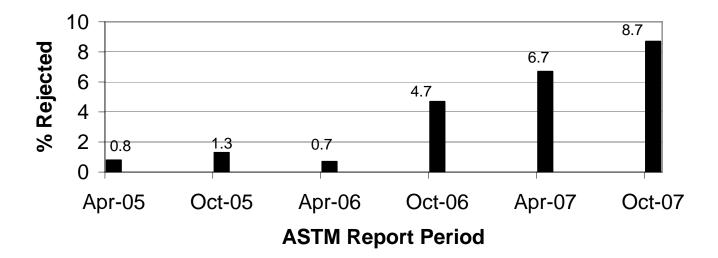
	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	158
Failed Acceptance Criteria	OC	15
Declared Invalid by Laboratory	LC	2
Aborted	XC	0
Total		175

The following summarizes the status of the reference oil tests reported to the TMC:

Tables 1, 2, and 3 (attached) summarize any failed, invalid and aborted tests.

The following presents the fail rate for this period with the fail rates of previous periods. The recent rise in rejection rate is due primarily to a rise in rejections at one lab. For this period, 11 of the 15 failed tests were from Lab A.

Comparison of Rejection Rates for This Period Versus Previous Periods



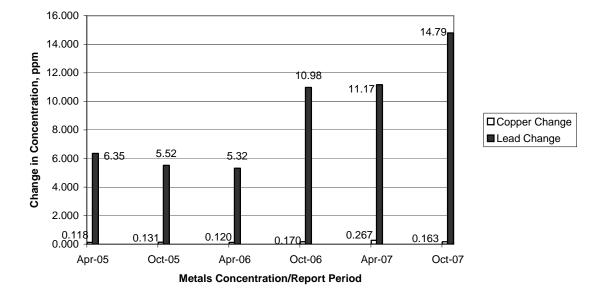
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Industry Severity and Precision

Period	n	Δ Cu	Δ Pb
		Mean Δ /s	Mean Δ/s
4/1/07 through 9/30/07	173	0.84	0.36
10/1/06 through 3/31/07	176	0.58	0.15
4/1/06 through 9/30/06	172	0.90	0.11
10/1/05 through 3/31/06	137	0.50	-0.21
4/1/05 through 9/30/05	154	0.65	-0.28

The current severity for the change in metals concentration parameters on all operationally valid tests, for the current and previous periods, is tabulated below.

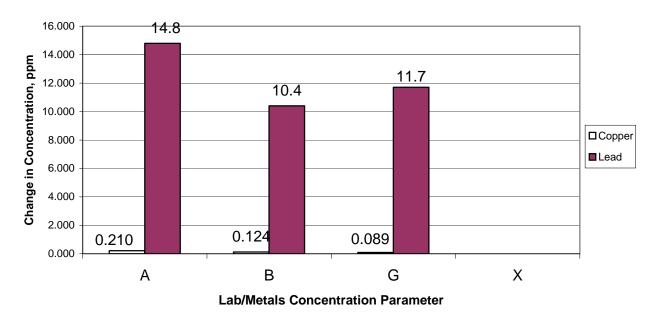
Figures 1 and 2 plot the Summation delta/s from target for change in copper and change in lead, respectively. Figure 1 shows copper change to be severe for the period. Figure 2 shows lead change to be severe for the period. Precision estimates, by report period are depicted below. Precision for Cu change is within historical levels. Precision for Pb change continues to show some degradation compared to past periods.



Precision Estimates by ASTM Report Period

Laboratory Severity and Precision

The following plot shows the precision for this period, by lab.

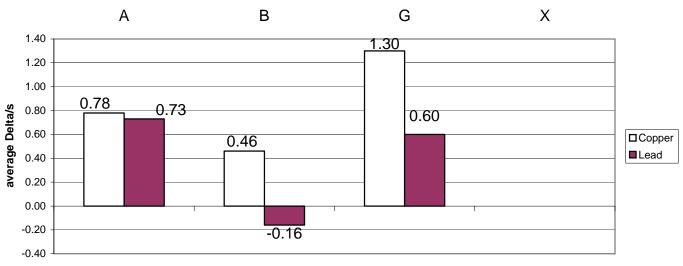


Precision By Lab

Precision estimates for Copper show better precision at Lab G than at Labs A and B. Precision estimates for Lead show better precision at Lab B than at Labs A and G.

The following plot shows the average Δ /s by laboratory and concentration parameter for this ASTM report period. For Copper and Lead, Lab B was the mildest. Lab G was the most severe for Copper and Lab A was the most severe for Lead.





Lab/Metals Concentration Parameter

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Reference Oil

Reference oil quantities available at the laboratories and TMC, as well as estimated life of these oils, are tabulated below.

Oil	TMC Inventory	TMC Inventory	Lab Inventory	Usage Ratio	Estimated life
	(gallons)	(tests)	(tests)	(%)	
1005	19.9	~597	112	~75	2.5 years
44	1	~30	48	~25	0.8 years

The current reference oil acceptance bands are shown in the table below.

Oil	Copper Change (ppm)	Lead Change (ppm)
1005	7.2 – 12.6	6.7 - 57.8
44	45.1 - 172.7	24.2 - 84.0

Information Letters

No Information Letters were issued this period.

Additional Information

The HTCBT database is available on the TMC's website. If you have any questions on how to access this information, contact the TMC.

JAC/jac/mem07-069.jac.doc

c: HTCBT Surveillance Panel

ftp://ftp.astmtmc.cmu.edu/docs/bench/htcbt/semiannualreports/htcbt-10-2007.pdf

- J. L. Zalar
- F. M. Farber

Distribution: Email

<u>Table 1</u>
Summary of Reasons for Failed Tests

	No. of Tests
Lead, severe	4
Lead, mild	8
Copper, mild	1
Copper and Lead, severe	2

<u>Table 2</u> Summary of Reasons for Invalid Tests

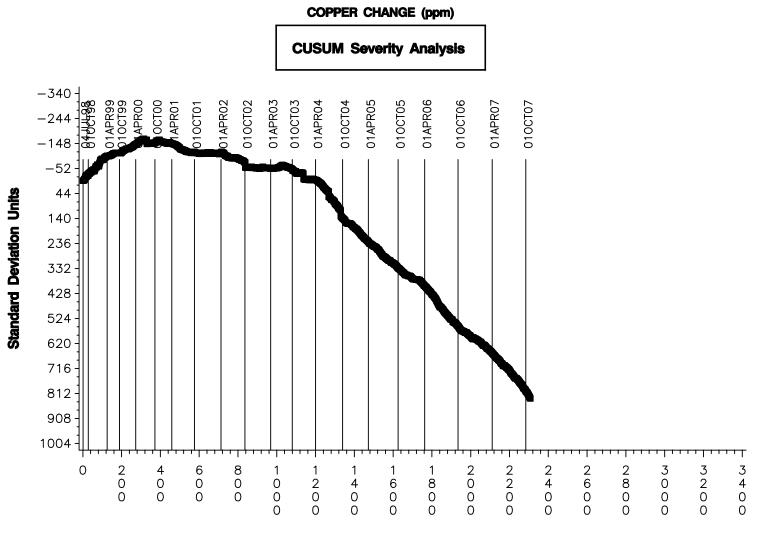
	No. of Tests
Broken tube	1
Condenser malfunction	1

 Table 3

 Summary of Reasons for Aborted Tests

	No. of Tests
No aborted tests	-

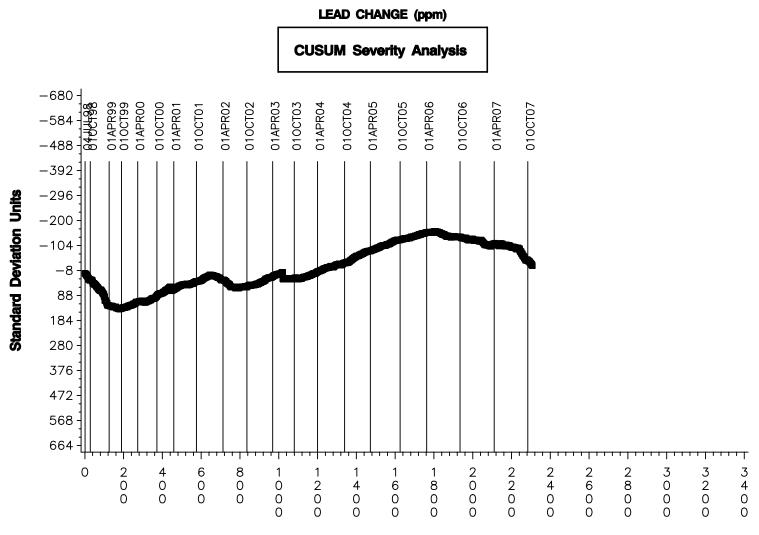
Figure 1 HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA



COUNT IN COMPLETION DATE ORDER

TMC 250CT07:13:44

Figure 2 HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA



COUNT IN COMPLETION DATE ORDER

TMC 250CT07:13:44