MEMORANDUM: 04-011

DATE: April 5, 2004

TO: Brian Koehler, Chairman, High Temperature Cyclic Durability Test

Surveillance Panel

FROM: Donald Lind

SUBJECT: High Temperature Cyclic Durability Reference Test Status from October 1,

2003 through March 31, 2004

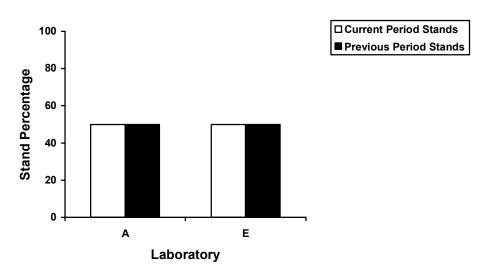
The following is a summary of High Temperature Cyclic Durability reference oil tests that were reported to the Test Monitoring Center during the period October 1, 2003 through March 31, 2004.

#### **Lab/Stand Distribution**

	Reporting Data	Calibrated as of 3/31/04
Laboratories	2	2
Stands	2	2

The following chart shows the laboratory/stand distribution:

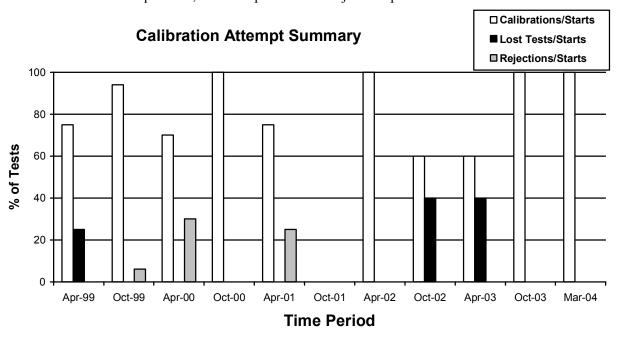
# **Laboratory/Stand Distribution**



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

	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	2
Statistically Unacceptable	OC	0
Operationally Invalid, Laboratory Determination	LC	0
Total		2

Calibrations per start, lost tests per start and rejections per start rates are summarized below:



The calibration per start, rejections per start, and the lost test per start rates have remained the same with respect to the previous period.

#### Severity and Precision

Figure 1 is the industry control chart. The average  $\Delta$ /s for this period was -1.29 severe. There was one EWMA severity warning alarm and no EWMA precision alarms this report period. The alarm does not appear to be related to any one lab, stand, or oil.

## Information Letters

There were no information letters issued during this report period.

## Reference Oil

The following is a listing of reference oils with the expected number of tests remaining at the Test Monitoring Center and at the testing laboratories. HTCT reference oils are shipped in quantities of 15 gallons per test.

Oil	Volume at TMC	Number of Tests	Number of Tests	Total Number of
	(Gallons)	Remaining at TMC	Remaining at Labs	Tests Remaining
150-2	183	12	3	15
151-3	*	*	5	*

\* 201 Gallons (Multiple test area usage)

DML/dml

Attachments

c: High Temperature Cyclic Durability Test Surveillance Panel Frank M. Farber ftp://ftp.astmtmc.cmu.edu/docs/gears/htct/semiannualreports/htct-04-2004.pdf

Distribution: Email

# <u>Listing of Tables and Figures Included as Part of This Report to the High Temperature Cyclic Durability</u> <u>Test Surveillance Panel</u>

Table 1 is the High Temperature Cyclic Durability Test Industry Timeline.

Figure 1 is the Industry control chart for Cycles to Unsynchronized Shifts.

# Table 1

	High Temperature Cyclic Durability Industry Timeline		
Effective	Торіс	IL#	
Date			
19960701	Surveillance Panel Approved Acceptance Bands and Targets		
19970324	Forms and Data Dictionary Changes, Version 19970128	97-1	
19961210	Change to Allow Replacement of Main Box Shift Rail Cover With Aluminum Plate	97-1	
19970918	Replacement of Appendix X1 With Annex A5 (Editorial Changes)	97-2	
19971110	Revision to Coast Down Time Measurement	97-3	
19980209	Revisions to Shift Time Definition and Inclusion of Shift Time Plot	98-1	
19980215	First Test on New Synchronizer Assembly (Part Number 320KB459)		
19980626	Defined Acceptable Hardware Configurations. Revised Report Forms and Data Dictionary to	98-2	
	Document Hardware Configuration Utilized.		
19990413	Clarified the Calibration Period, Allows Non-reference Oil Tests to Start Up to and Including	99-1	
	the Last Day of the Calibration Period.		
19990625	Redefined Acceptable Hardware Configurations.	99-2	
20000613	Required the Use of Wellman Single Batch Friction Plates for Tests Starting On or After	00-1	
	6/13/00		
20020920	Failing Reference Oil Run Requirement	02-1	
20020920	Test Hardware Correction and Revisions	02-1	
20030916	Report Forms and Data Dictionary	03-1	
20040101	Cleaning Solvent Specification	03-1	

## HTCT INDUSTRY OPERATIONALLY VALID DATA

#### END OF TEST CYCLES

