

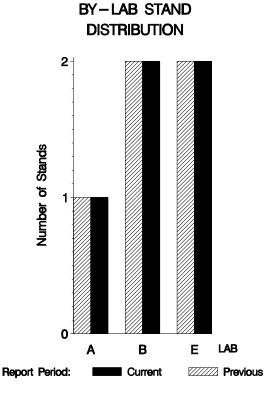
## **Test Monitoring Center**

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

| MEMORANDUM: | 10-027   |
|-------------|--|
| DATE:       | June 15, 2010  |
| TO:         | Dale Smith, Chairman, L-33-1 Surveillance Panel            |
| FROM:       | Scott Parke Stall  |
| SUBJECT:    | L-33-1 Testing from October 1, 2009 through March 31, 2010 |

A total of 19 L-33-1 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.

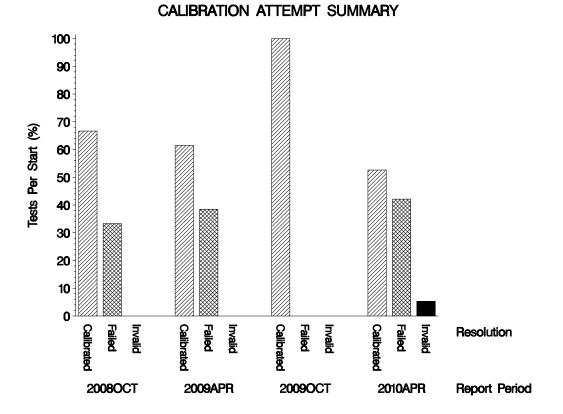
|                  | Reporting Data | Calibrated on 3-31-10 |
|------------------|----------------|-----------------------|
| Number of Labs   | 3              | 3                     |
| Number of Stands | 5              | 3                     |

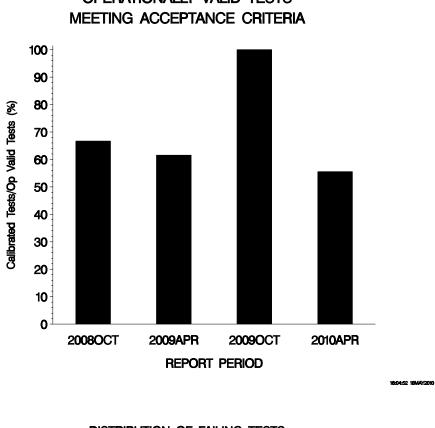


13:50:18 21MAY2010

### Test Distribution by Oil and Validity

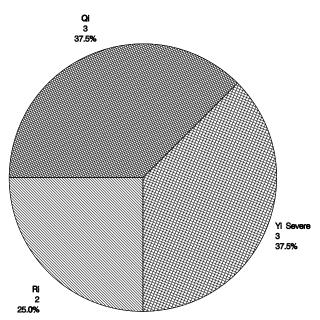
|                          |    |       |     | Totals      |             |  |
|--------------------------|----|-------|-----|-------------|-------------|--|
|                          |    | 123-2 | 155 | Last Period | This Period |  |
| Accepted for calibration | AC | 4     | 6   | 7           | 10          |  |
| Rejected (Mild)          | OC | 0     | 0   | 0           | 0           |  |
| Rejected (Severe)        | OC | 0     | 3   | 0           | 3           |  |
| Rejected (Precision)     | OC | 3     | 2   | 0           | 5           |  |
| Aborted                  | XC | 0     | 1   | 0           | 1           |  |
| Total                    |    | 7     | 12  | 7           | 19          |  |





# **OPERATIONALLY VALID TESTS**

DISTRIBUTION OF FAILING TESTS (By Severity)



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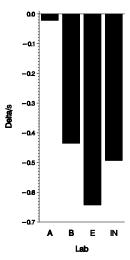
#### CAUSES FOR LOST TESTS:

| _   |   |        |       | Oil   |     |    | Validity |    |      | Loss Rate | ;   |
|-----|---|--------|-------|-------|-----|----|----------|----|------|-----------|-----|
| Lab | Cause   |        | 123-2 | 151-3 | 155 | LC | RC       | XC | Lost | Starts    | %   |
| Е   | E Failed to start test within 8h of blasting. |        |       |       | •   |    |          | •  | 1    | 10        | 10% |
|     |   | Lost   | 0     | 0     | 1   | 0  | 0        | 1  |      |           |     |
|     |   | Starts | 7     | 0     | 12  | 19 | 19       | 19 |      |           |     |
|     |   | %      | 0%    | 0%    | 8%  | 0% | 0%       | 1% |      |           |     |

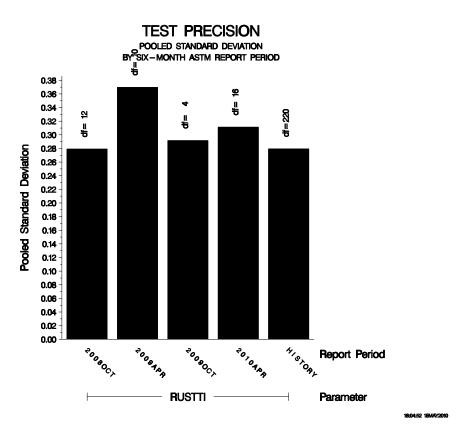
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| Average ∆/s by Lab |    |        |  |  |  |
|--------------------|----|--------|--|--|--|
| Lab                | n  | TGF    |  |  |  |
| А                  | 2  | -0.022 |  |  |  |
| В                  | 7  | -0.435 |  |  |  |
| E                  | 9  | -0.643 |  |  |  |
| Industry           | 18 | -0.493 |  |  |  |

AVERAGE RUST DELTA/S BY LAB



11:48:57 2014/2018

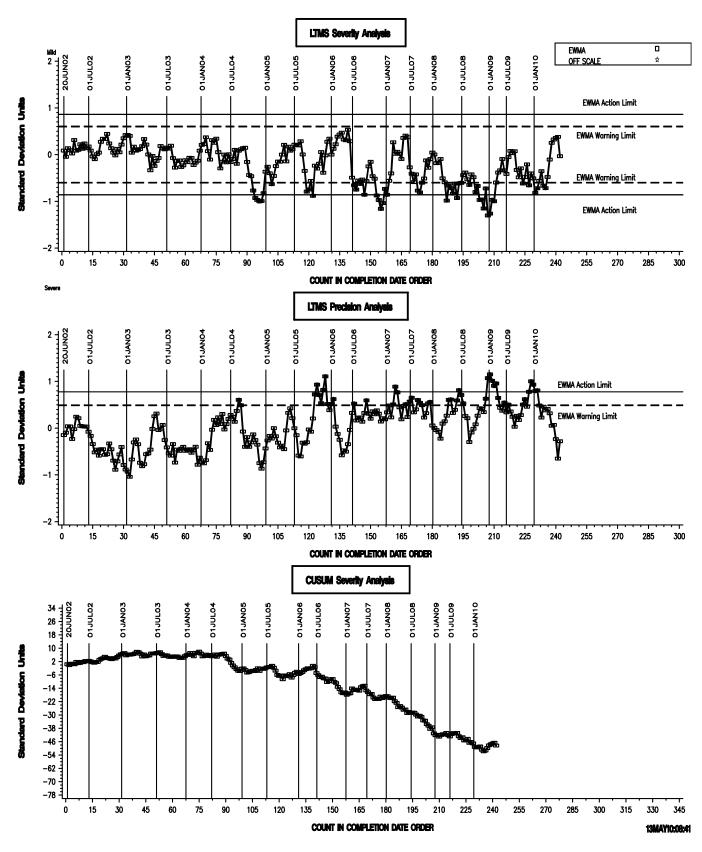


#### **INDUSTRY CONTROL CHART:**

The industry control chart is shown on the following page. Both precision and severity performance are currently performing within control chart alarm limits.

#### L-33-1 INDUSTRY OPERATIONALLY VALID DATA





## TIMELINE OF SIGNIFICANT EVENTS IN THE HISTORY OF THE L-33-1 TEST:

| Effective Date | Informatio<br>n Letter | Event  |  |
|----------------|------------------------|--|--|
| 20030106       | 02-1                   | New L-33-1 Test Procedure  |  |
| 20030507       | 03-1                   | Revised test unit assembly procedure   |  |
| 20030507       | 03-1                   | Revise specification for the abrasive blasting cabinet regulator                               |  |
| 20030507       | 03-1                   | Revised electric fan motor RPM specification   |  |
| 20030507       | 03-1                   | Non-interpretable tests  |  |
| 20030507       | 03-1                   | Revision to light rust definition  |  |
| 20030507       | 03-1                   | Editorial changes  |  |
| 20030916       | 03-2                   | Bearing replacement  |  |
| 20030916       | 03-2                   | Addition of Dana bulletin No. 5304-2   |  |
| 20040101       | 03-2                   | Change in solvent specification  |  |
| 20050221       | 05-1                   | Revised Solvent Specification  |  |
| 20050221       | 05-1                   | Revised Cover Plate Guide Pin Requirement  |  |
| 20050221       | 05-1                   | Updated Test Precision   |  |
| 20050221       | 05-1                   | Donated Reference Oil Test Programs/Calibration Period Length                                  |  |
|                |                        | Adjustment   |  |
| 20050221       | 05-1                   | Revised Footnote 2   |  |
| 20060207       | 06-1                   | Axle Cover Rating Template   |  |
| 20060721       | 06-2                   | Housing Cover Gasket Supplier Name and Address Change  |  |
| 20061009       | 06-3                   | Aluminum Differential Case, Area 2, Hub Inside Diameter Rating Template                        |  |
| 20061009       | 06-3                   | Editorial changes  |  |
| 20070214       | 07-1                   | Revised Area 1 Rating Surface Description  |  |
| 20070214       | 07-1                   | Editorial Changes to Figures A1.8, A1.14, and A1.15  |  |
| 20070411       | 07-2                   | Editorial Changes to Sections A2.2.1 and A2.2.2  |  |
| 20070525       | 07-3                   | Rating Procedure Using Aluminum Differential Case, Area 2, Hub Inside Diameter Rating Template |  |
| 20071114       | 07-4                   | Revised Start-up Procedure   |  |
| 20080114       | 08-1                   | Revised Section 11.1.6.1   |  |
| 20090323       | 09-1                   | Revision to Percent Deviation Calculation  |  |

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#### TMC LAB VISITS:

One L33-1 lab visit was conducted during this report period. No noteworthy deviations from procedure were discovered.

#### **INFORMATION LETTERS:**

Information Letter 09-2 was issued December 2, 2009 to document a revision to the calibration frequency requirement for certain stand instrumentation.

#### STATUS OF REFERENCE OIL SUPPLY:

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

|       |             | @ TMC |         |  |  |
|-------|-------------|-------|---------|--|--|
| Oil   | Cans @ Labs | Cans  | Gallons |  |  |
| 123   | 1           | 0     | 0.0     |  |  |
| 123-2 | 15          | 275   | 275.0   |  |  |
| 151-3 | 4           | 0     | 0.0     |  |  |
| 155   | 7           | 550   | 550.0   |  |  |
| Total | 27          | 825   | 825.0   |  |  |

The TMC quantity remaining presumes usage only for L-33-1 testing. Oils 151-3 and 155 are also used in other test areas.

SDP/sdp/astm0410.doc/mem10-027.sdp.doc

Frank Farber Jeff Clark Don Lind L-33-1 Surveillance Panel ftp://ftp.astmtmc.cmu.edu/docs/gears/1331/semiannualreports/1331-04-2010.pdf

Distribution: email

c: