



Test Monitoring Center

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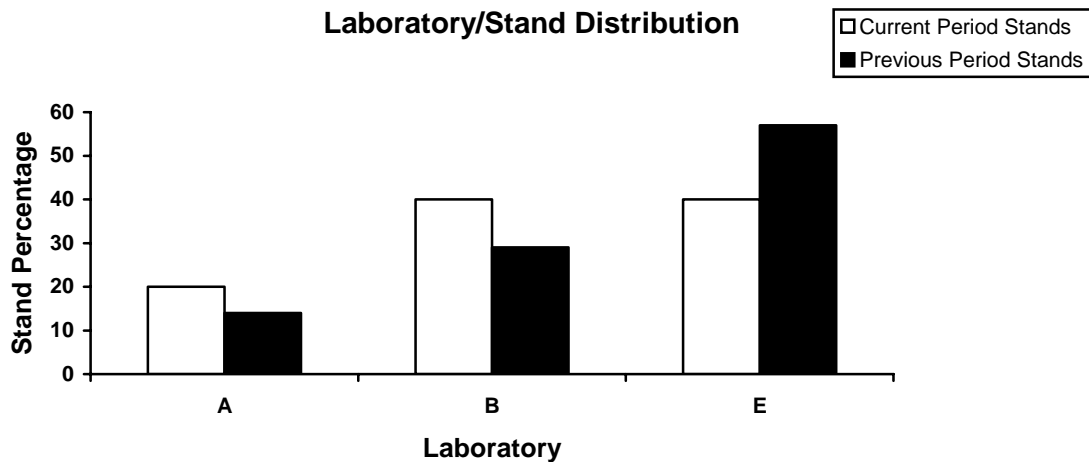
MEMORANDUM: 08-012
DATE: April 2, 2008
TO: Dale Smith, Chairman, L-33-1 Surveillance Panel
FROM: Donald Lind
SUBJECT: L-33-1 Reference Test Status from October 1, 2007 through March 31, 2008

The following is a summary of the L-33-1 reference oil tests that were reported to the Test Monitoring Center during the period October 1, 2007 through March 31, 2008.

Lab and Stand Summary

	Reporting Data	Calibrated as of 3/31/08
Number of Laboratories	3	3
Number of Storage Boxes	5	4

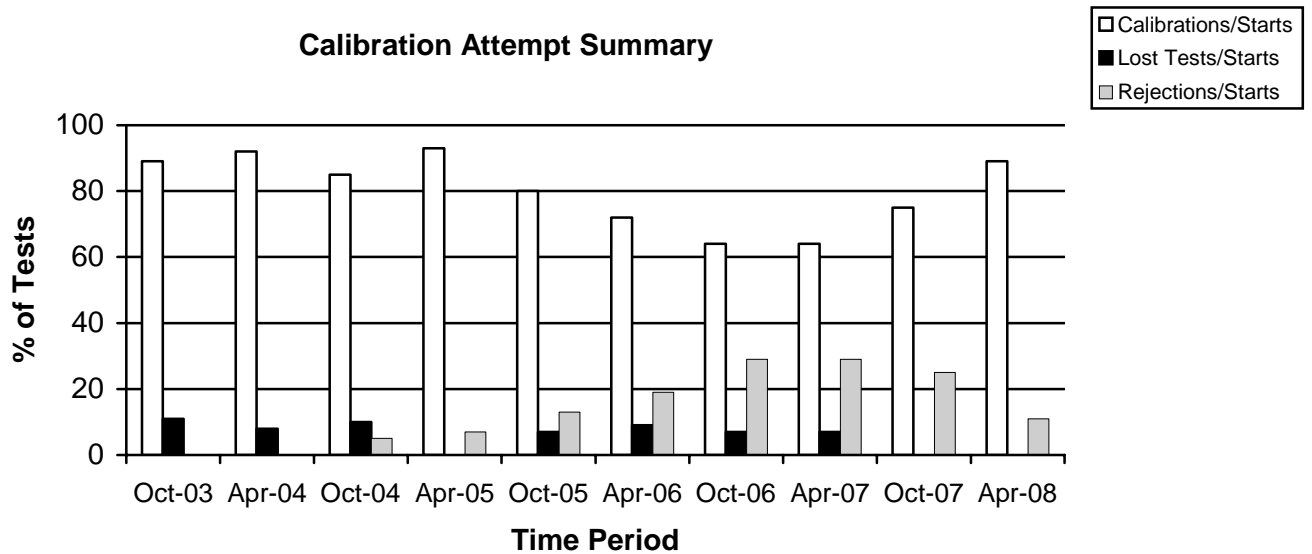
The following chart shows the laboratory/stand distribution:



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

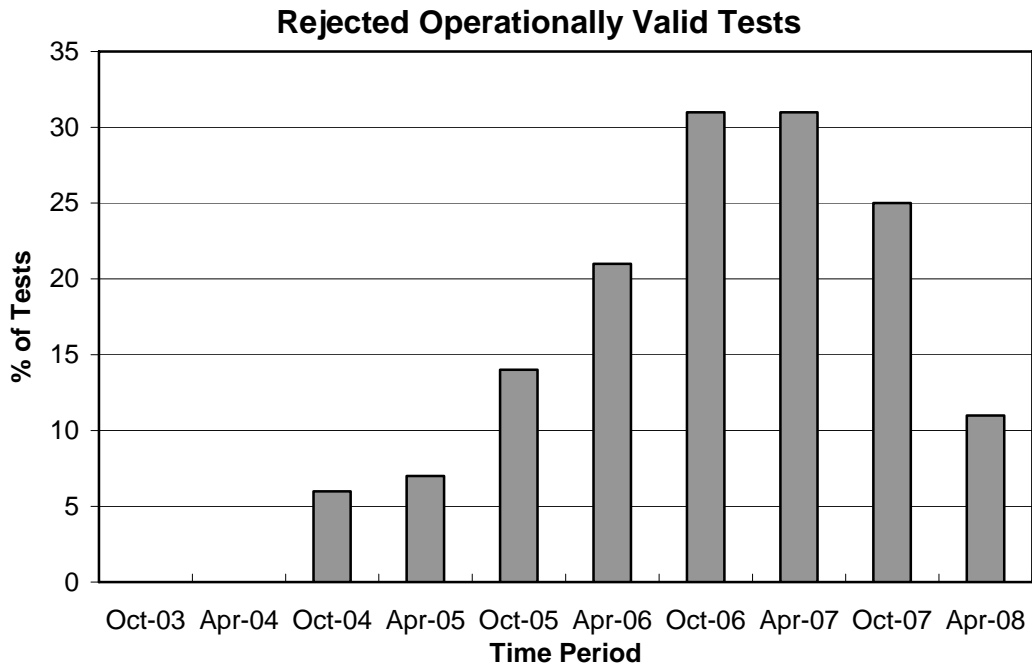
	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	8
Failed Acceptance Criteria	OC	1
Operationally Invalid (Lab Judgement)	LC	0
Operationally Invalid (Lab / TMC Judgement)	RC	0
Aborted	XC	0
Total		9

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

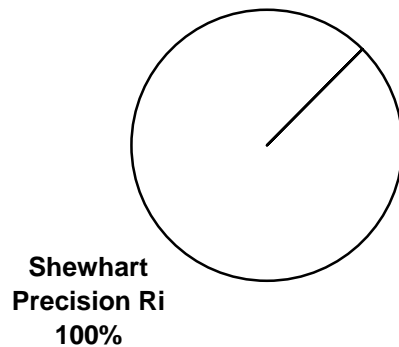


The calibration per start rate has increased with respect to the previous period. The rejected per start rate has decreased with respect to the previous period and the lost test per start rate has remained the same with respect to the previous period.

There was one statistically rejected operationally valid test reported this report period. The statistically rejected operationally valid test rate has decreased with respect to the previous report period.



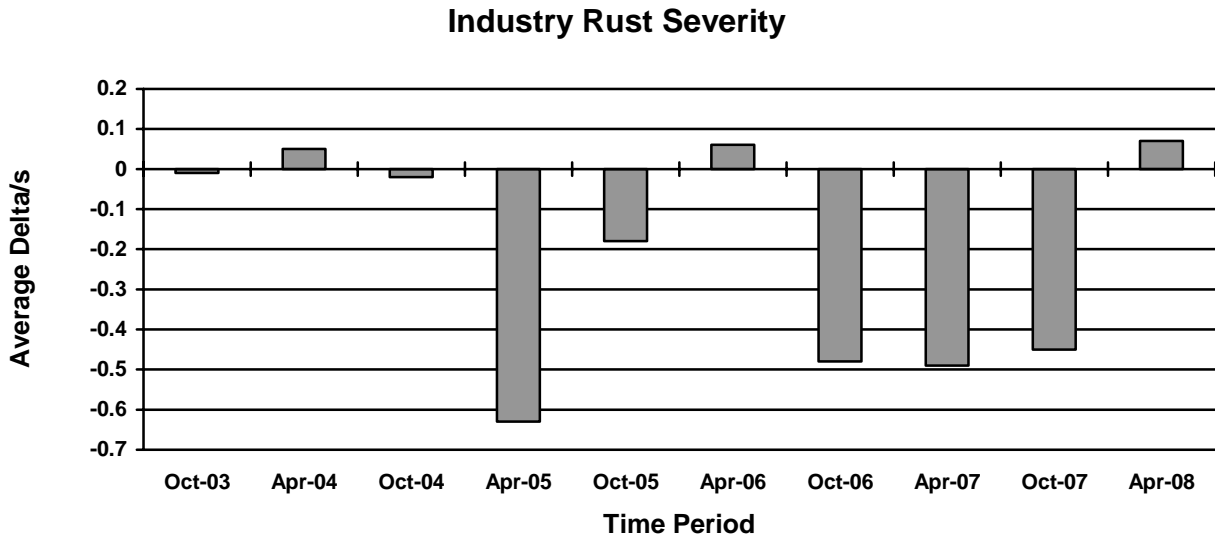
Distribution of LTMS Stand Alarms



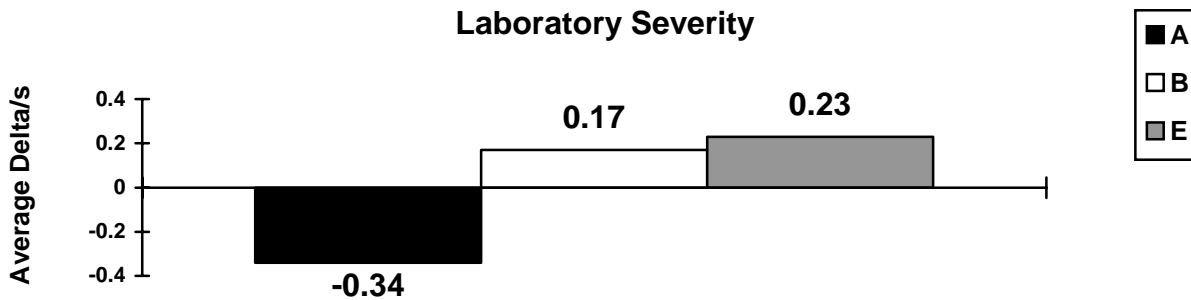
One test failed the shewhart precision (Ri) acceptance criteria this report period.

Severity and Precision

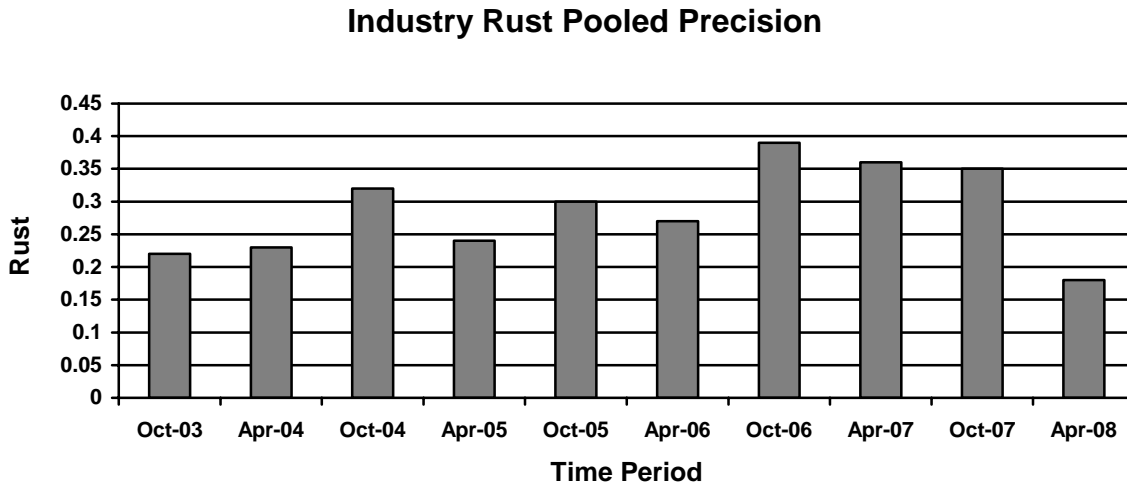
A total of nine operationally valid test results were reported this period. The mean delta/s for this period is 0.07 mild, which equates to 0.01 merits. All of the nine operationally valid tests reported this period were conducted on V01.1 hardware. Severity for the nine operationally valid test results is slightly mild of target as indicated in the chart below and Figure 1.



Shown below is a summary of the average rust Δ/s for all laboratories reporting data this report period.



The industry precision estimate for this report period is 0.18 merits (pooled s). Precision this report period has improved compared to previous period as shown below:



Industry Control Charts

Figure 1 is the Industry EWMA severity and precision charts of tests completed through March 31, 2008. Figure 2 is the Industry EWMA severity and precision charts of the last 30 tests completed through March 31, 2008. There were no industry EWMA severity alarms and two industry EWMA precision warning alarms triggered this report period. The precision alarms were not related to any one lab, stand or reference oil.

TMC Lab Visits

There was one lab visit conducted this report period with no discrepancies to report.

Information Letters

There were two information letters issued this report period. Information Letter 07-04, Sequence Number 11 was issued on November 14, 2007 and Information Letter 08-01, Sequence Number 12 was issued on January 24, 2008. Items changed with these information letters are documented in the L-33-1 timeline (Table 1).

Reference Oils

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. L-33-1 reference oils are shipped in quantities of 1 gallon per test.

Reference Oil	Lab A	Lab B	Lab E	TMC
123-2	5	4	4	216
151-3	7	5	3	*
155	4	2	4	**

* 0 Gallons (Multiple test area usage)

** 424 Gallons (Multiple test area usage)

Attachments

c: L-33-1 Surveillance Panel
<ftp://ftp.astmtmc.cmu.edu/docs/gear/1331/semiannualreports/1331-04-2008.pdf>
J. L. Zalar
F. M. Farber

Distribution: Email

Listing of Tables and Figures Included as Part of This Report to the L-33-1 Surveillance Panel

Table 1 is the L-33-1 Industry Timeline.

Figure 1 is the Industry Control Chart for L-33-1 Rust.

Figure 2 is the Industry Control Chart of the last 30 test results for L-33-1 Rust.

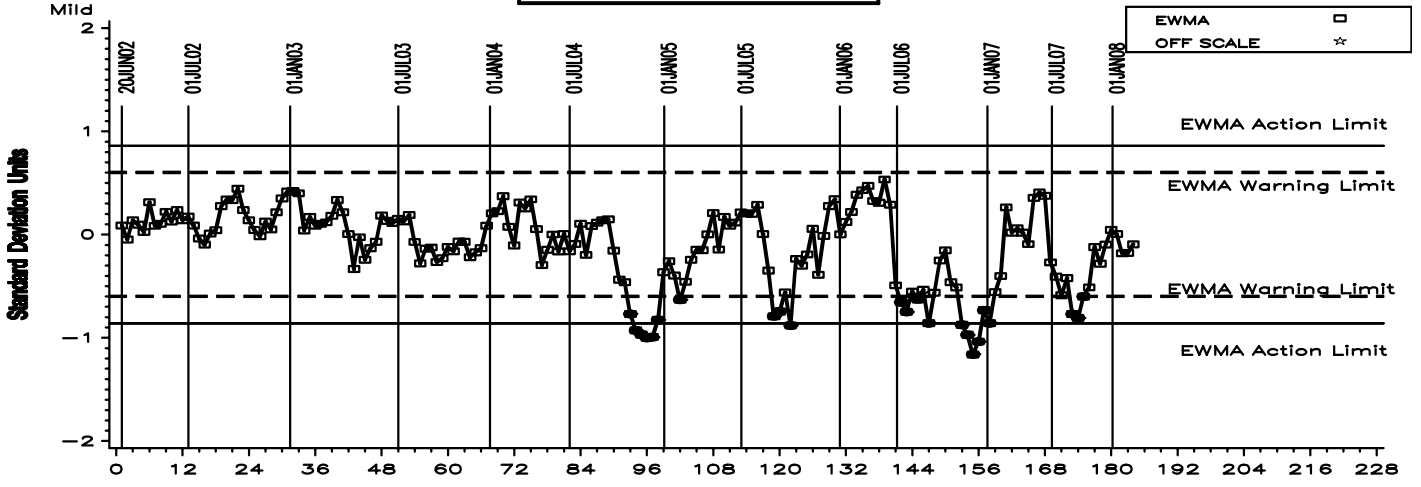
Table 1
L-33-1 Industry Timeline

Effective Date	Topic	Information Letter Number
20030106	New L-33-1 test procedure	02-1
20030507	Revised test unit assembly procedure	03-1
20030507	Revised specification for the abrasive blasting cabinet regulator	03-1
20030507	Revised electric fan motor RPM specification	03-1
20030507	Tests run on non-calibrated stands are deemed non-interpretable tests	03-1
20030507	Revision to light rust definition	03-1
20030507	Editorial changes	03-1
20030916	Addition of bearing replacement guidelines	03-2
20030916	Addition of Dana Bulletin No. 5304-2 for Drive Pinion Shaft Installation	03-2
20040101	Change in cleaning solvent specification	03-2
20050221	Revised Solvent Specification	05-1
20050221	Revised Cover Plate Guide Pin Requirement	05-1
20050221	Updated Test Precision	05-1
20050221	Donated Reference Oil Test Programs/Calibration Period Length Adjustment	05-1
20050221	Revised Footnote 2	05-1
20060207	Axle Cover Rating Template Serialization	06-1
20060721	Housing Cover Gasket Supplier Name and Address Change	06-2
20061009	Aluminum Differential Case, Area 2, Hub Inside Diameter Rating Template	06-3
20061009	Editorial changes	06-3
20070214	Revised Area 1 Rating Surface Description	07-1
20070214	Editorial Changes to Figures A1.8, A1.14, and A1.15	07-1
20070411	Revised Wording for Downtime Occurrences	07-2
20070411	Editorial Changes to Sections A2.2.1 and A2.2.2	07-2
20070525	Rating Procedure Using Aluminum Differential Case, Area 2, Hub Inside Diameter Rating Template	07-3
20071114	Revised Start-up Procedure	07-4
20080114	Revised Section 11.1.6.1	08-1

L-33-1 INDUSTRY OPERATIONALLY VALID DATA

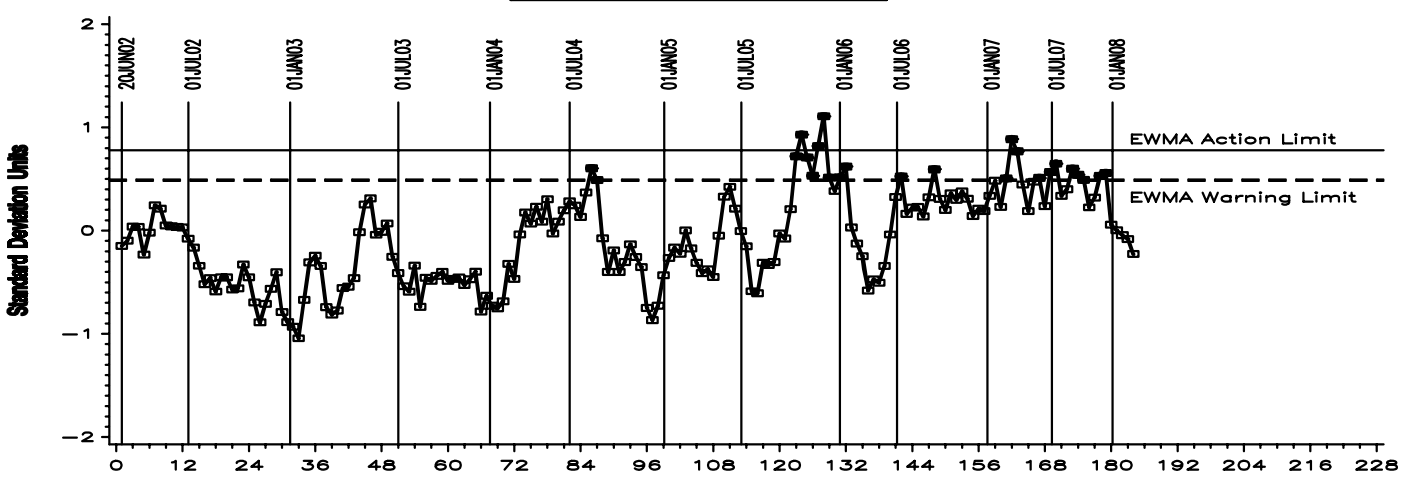
FINAL RUST RESULT

LTMS Severity Analysis

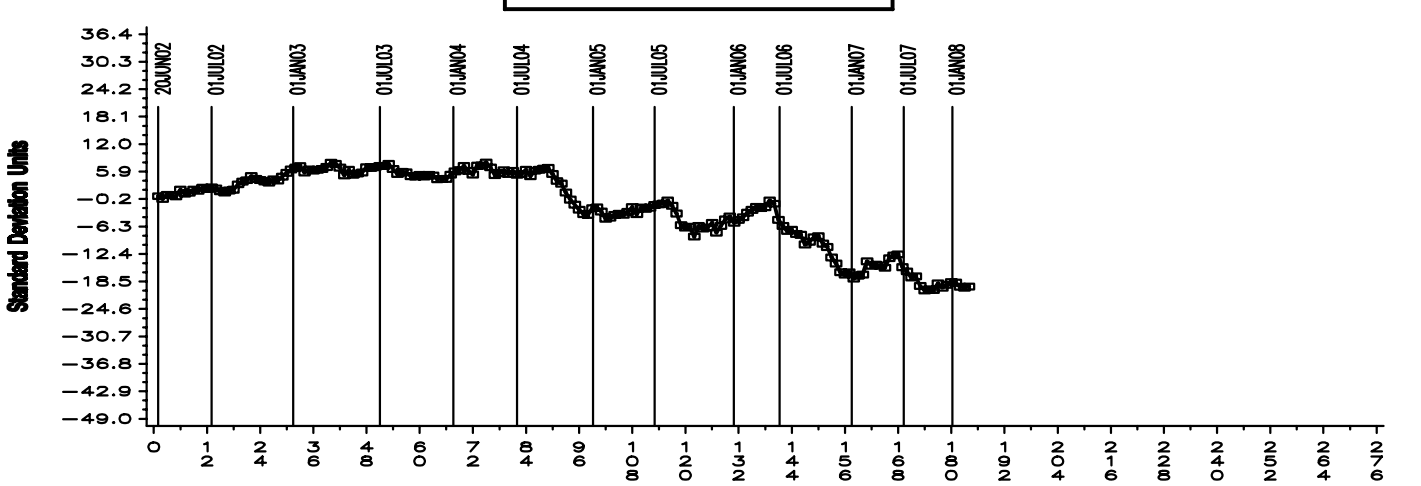


LTMS Precision Analysis

LTMS Precision Analysis



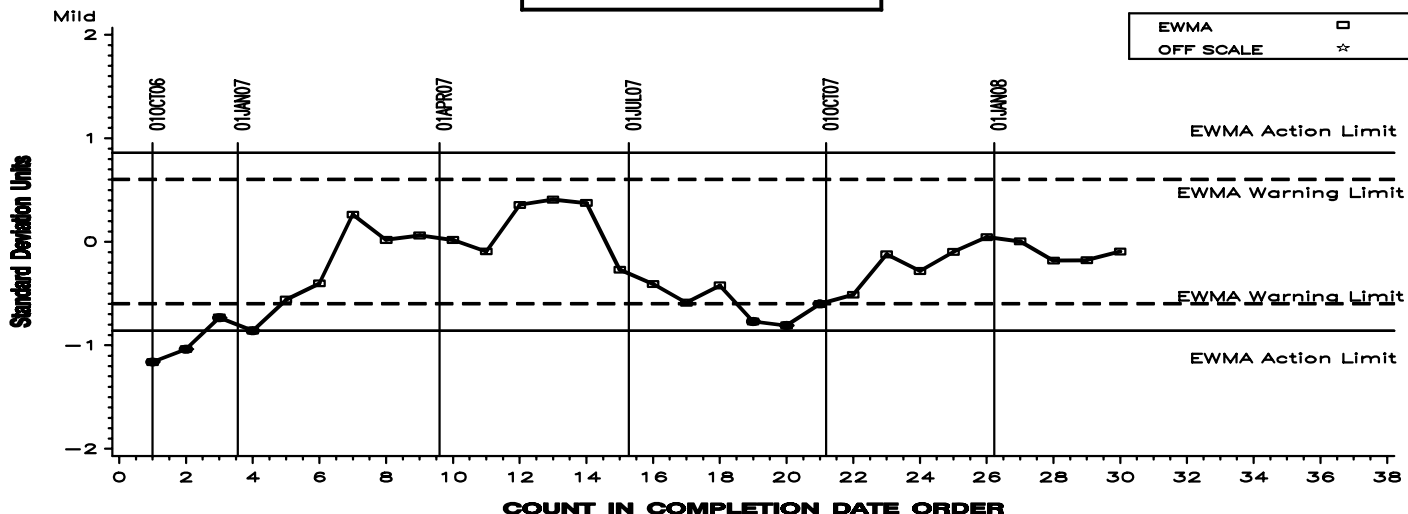
CUSUM Severity Analysis



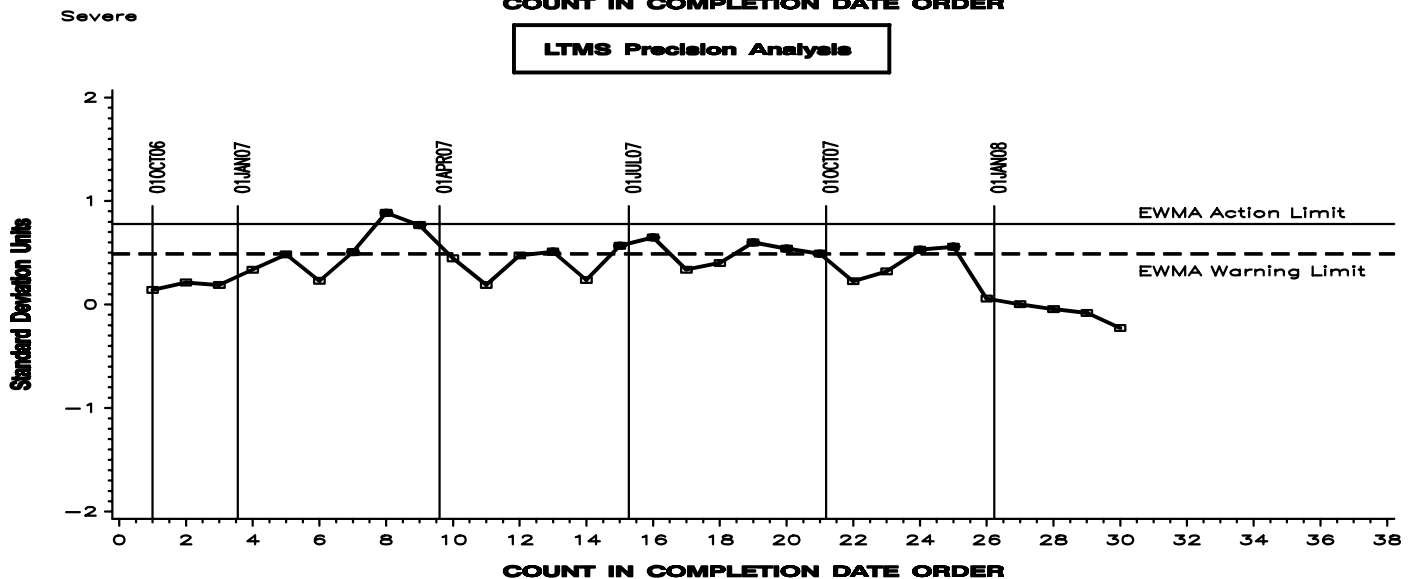
L-33-1 INDUSTRY OPERATIONALLY VALID DATA

FINAL RUST RESULT

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