



Test Monitoring Center

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MEMORANDUM: 05-045
DATE: May 27, 2005
TO: Wim Van Dam, Chairman, Mack Surveillance Panel
FROM: Jeff Clark
SUBJECT: T-10 / T-10A Calibration Testing for the April 2005 ASTM Report Period

The following is a summary of T-10 reference oil tests completed during the April 2005 ASTM report period, which began on October 1, 2004 and ended on March 31, 2005.

Test Status	TMC Validity Code	Number of Tests
Acceptable Calibration Test	AC	3
Failed Calibration Test (LTMS Criteria)	OC	0
Operationally Invalid Calibration Test	LC	0
Aborted Calibration Test	XC	0
Total		3

Severity and Precision:

Figures 1 through 5 (attached) show the current industry EWMA severity, EWMA precision, and cusum charts Delta Pb @ EOT (PB), Cylinder Liner Wear (CLW), Top Ring Weight Loss (TRWL), Oil Consumption (OC), and Delta Pb 250-300 Hours (PB2). Low testing activity makes it difficult to offer any meaningful commentary regarding severity trends for any of the parameters.

Due to extremely low activity, precision will not be presented.

Reference Oils:

The current reference oil test targets are shown below:

Oil	N	Parameter	Mean (cSt)	S
820-2	20	PB	3.2106	0.2339
		CLW	32.0	4.2
		TRWL	109	18
		OC	52.9	7.2
		PB2	9.0	3.5

Once 30 tests on oil 820-2 have been completed, the TMC will provide a target update for surveillance panel consideration. To date, 26 tests have been completed on 820-2.

Abbreviated Length Test T-10A:

The TMC monitors the T-10A for the determination of laboratory severity adjustments for MRV viscosity. Figure 6 (attached) shows the current industry EWMA severity, EWMA precision, and CUSUM charts for MRV viscosity.

Information Letters:

T-10 Information Letter 04-5, Sequence No. 10 was issued December 9, 2004. This letter dealt with the implementation of revised correction equations to adjust lead results for a new conrod bearing batch.

T-10 Information Letter 05-1, Sequence No. 11 was issued January 17, 2005. This letter dealt with an updated cleaning solvent specification, donated reference oil test programs, calibration period adjustments, and an updated estimate of precision.

TMC Laboratory Visits:

No TMC laboratory visits were conducted this ASTM period.

Quality Index:

No Quality Index deviations were issued this ASTM report period. For the history of the T-10/T-10A, one QI deviation has been issued.

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Additional Information:

The T-10 and T-10A databases, industry timeline, and industry alarm logs can be accessed on the TMC's homepage. If you have any questions on how to access this information, contact the TMC.

JAC/jac/mem05-045.jac.doc

Attachments

c: J.L. Zalar, TMC

F.M. Farber, TMC

Mack Surveillance Panel

<ftp://ftp.astmtmc.cmu.edu/docs/diesel/mack/semiannualreports/T10-04-2005.pdf>

Distribution: Email

FIGURE 1
T-10 INDUSTRY OPERATIONALLY VALID DATA

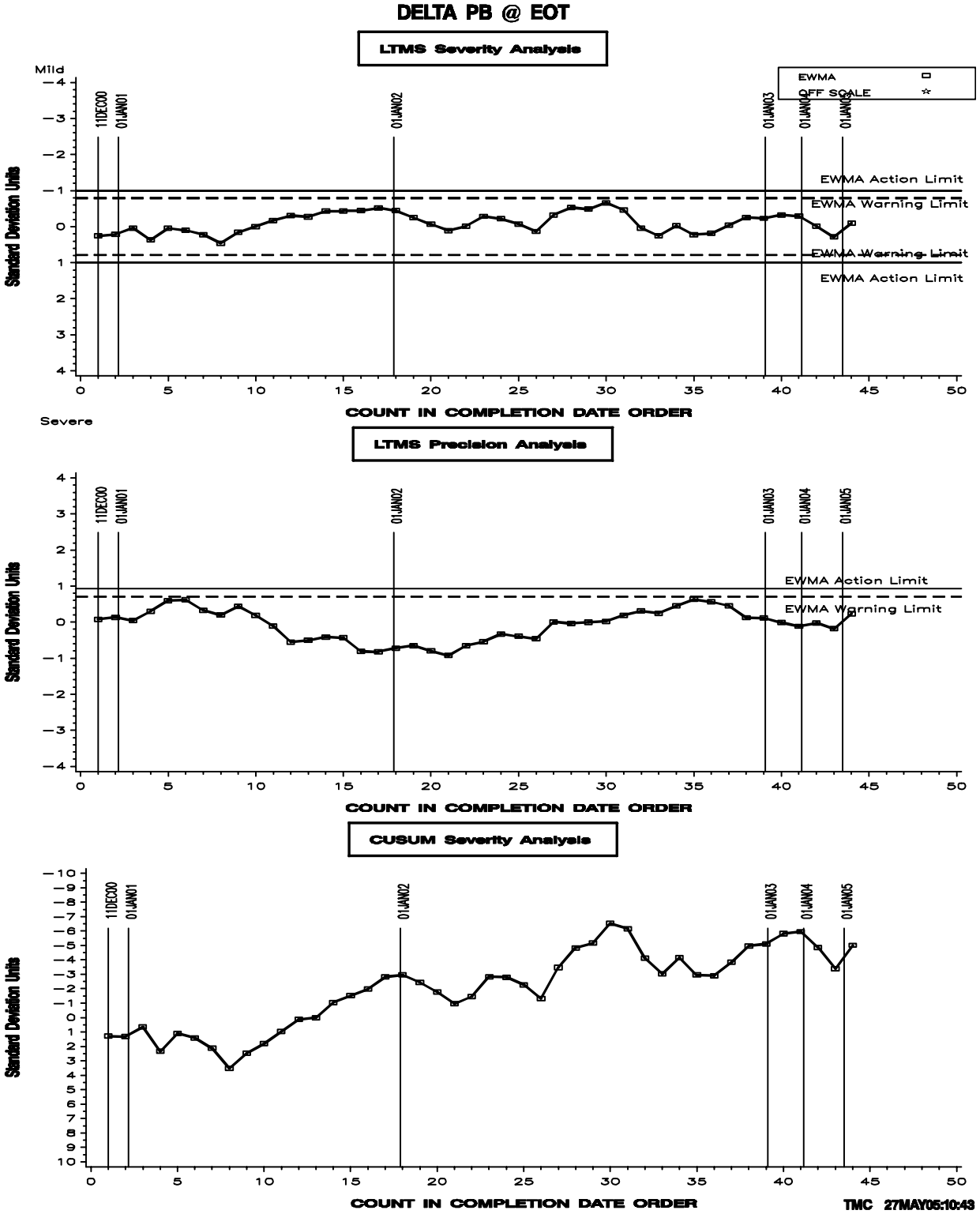


FIGURE 2
T-10 INDUSTRY OPERATIONALLY VALID DATA

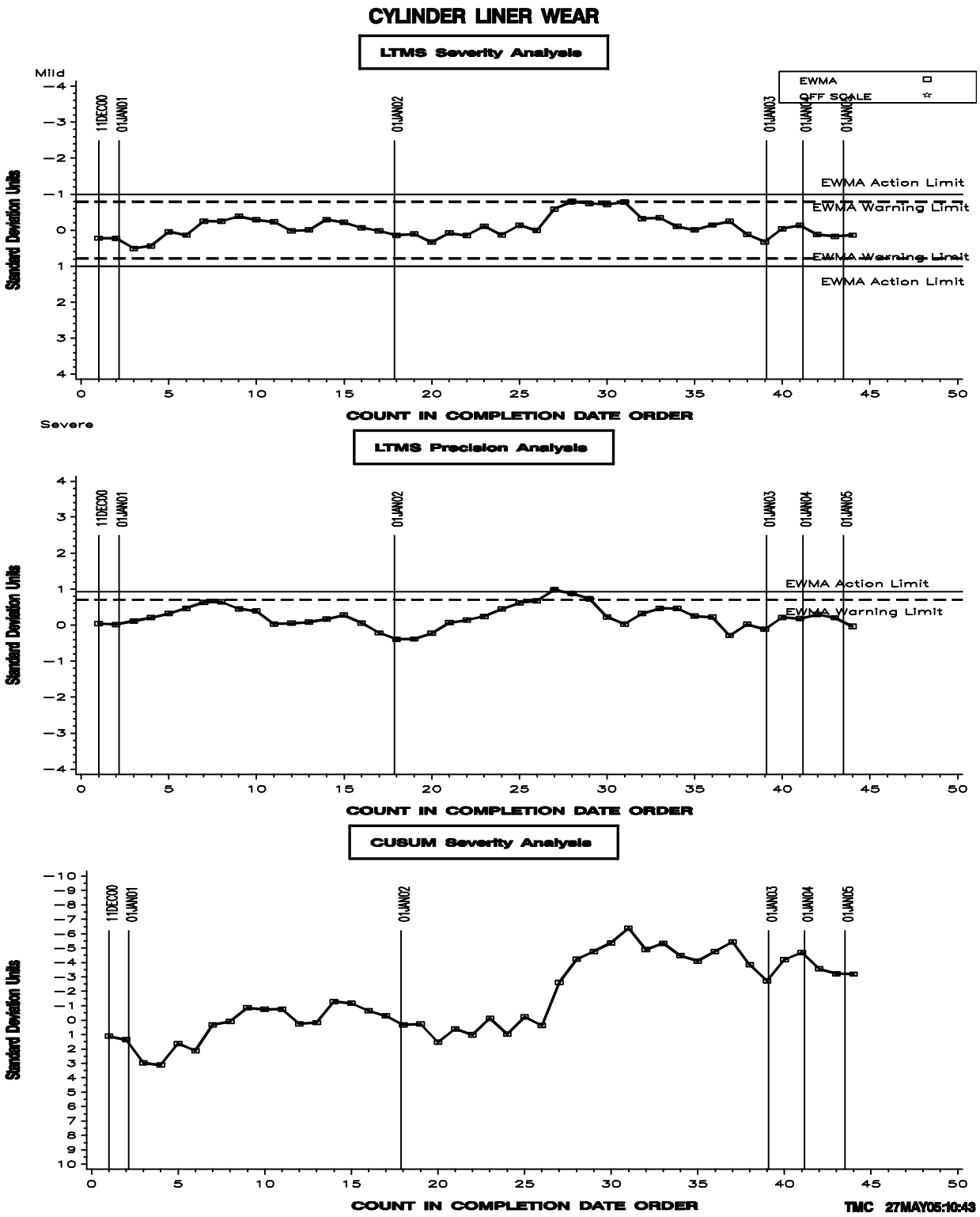


FIGURE 3
T-10 INDUSTRY OPERATIONALLY VALID DATA

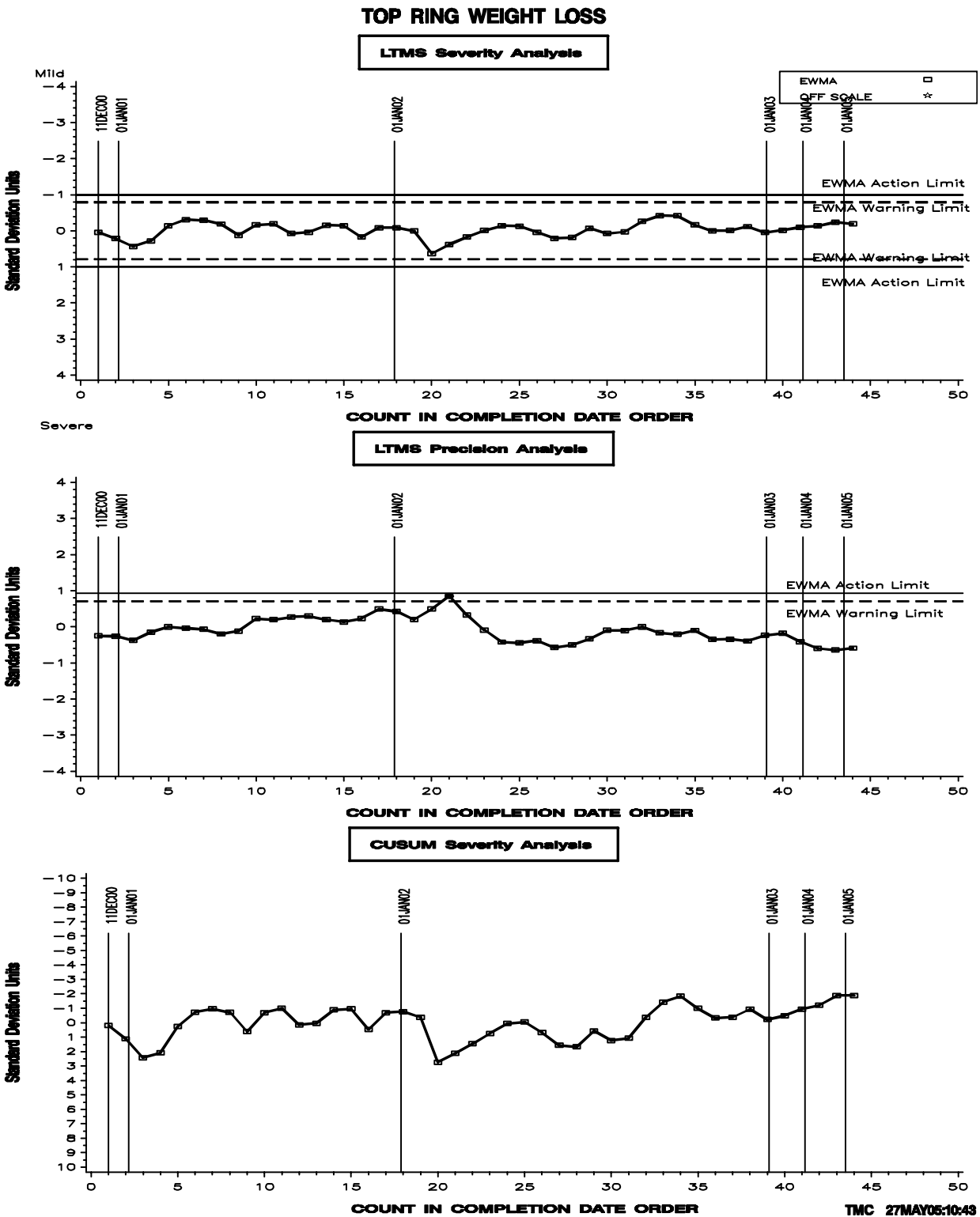


FIGURE 4
T-10 INDUSTRY OPERATIONALLY VALID DATA

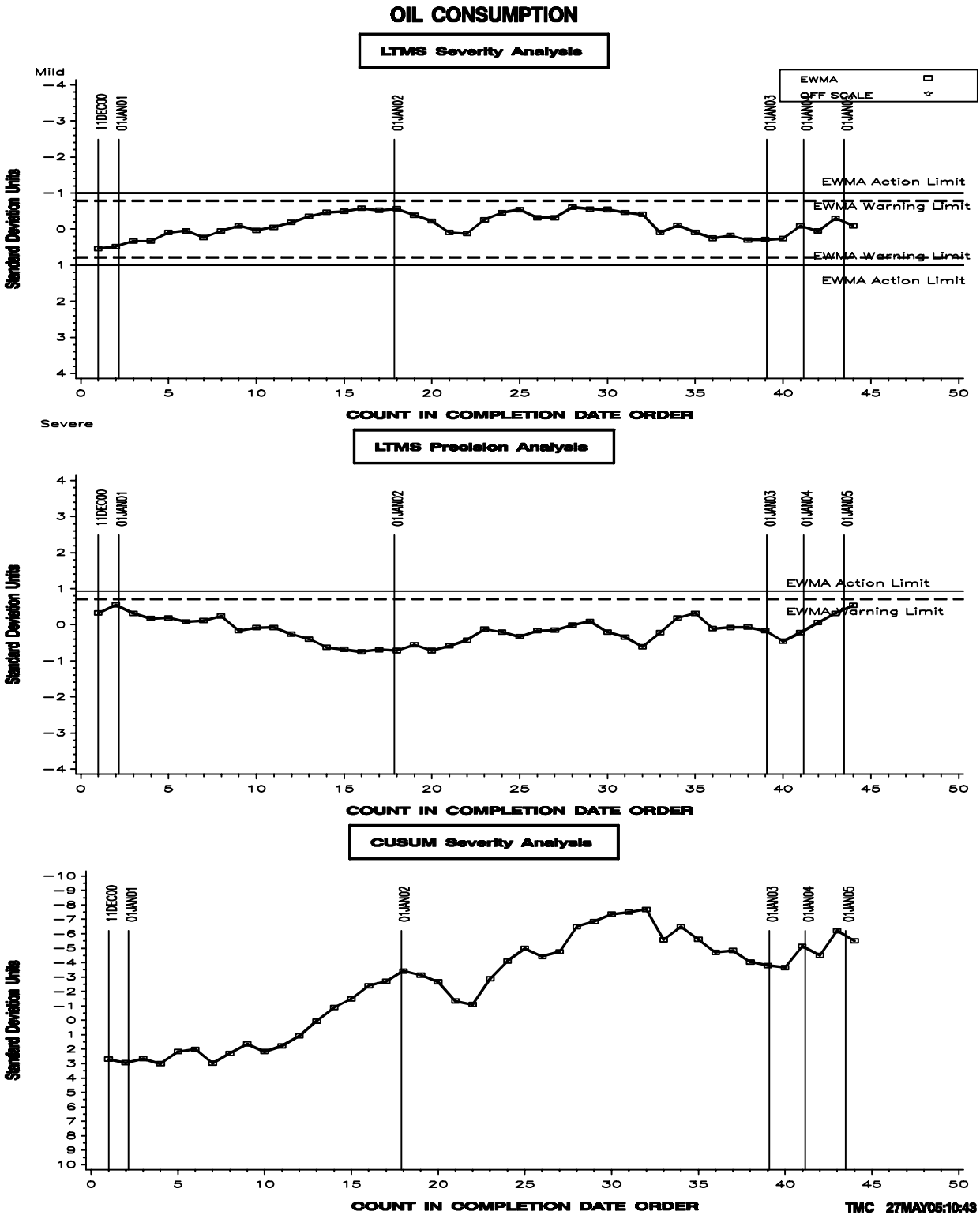


FIGURE 5
T-10 INDUSTRY OPERATIONALLY VALID DATA

DELTA PB 250-300 HOURS

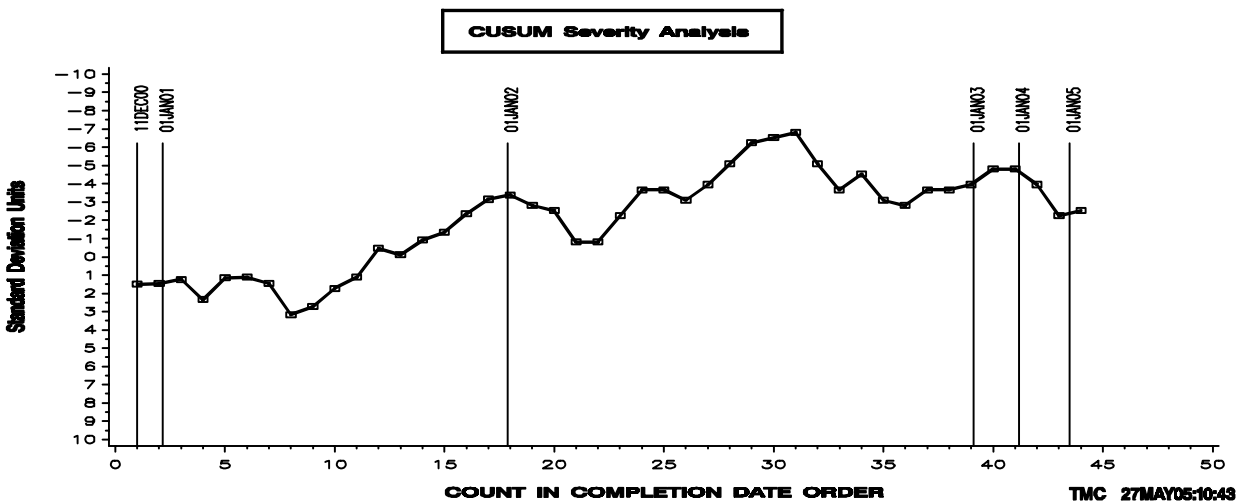
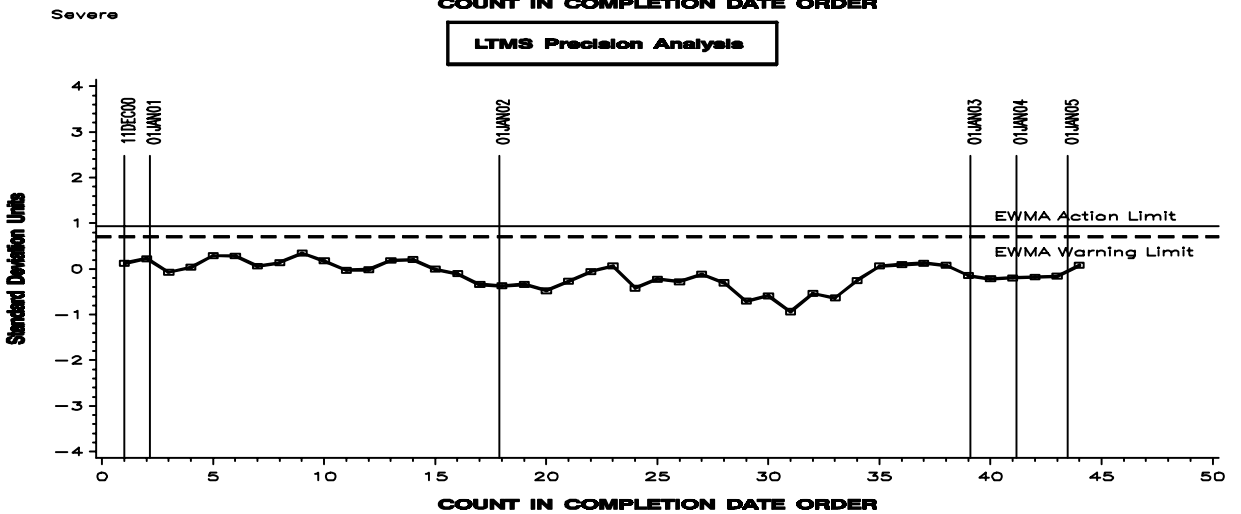
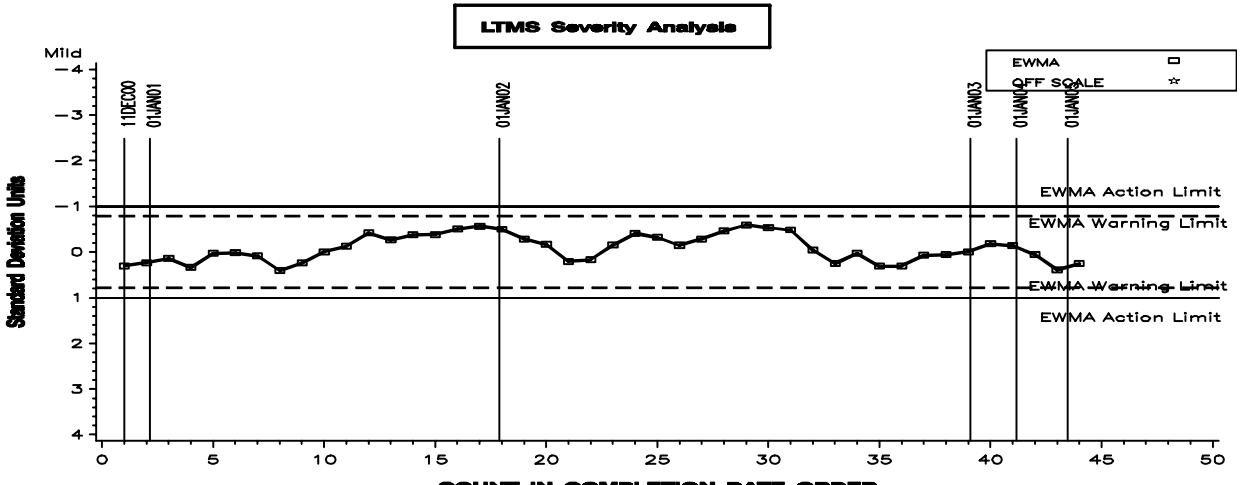
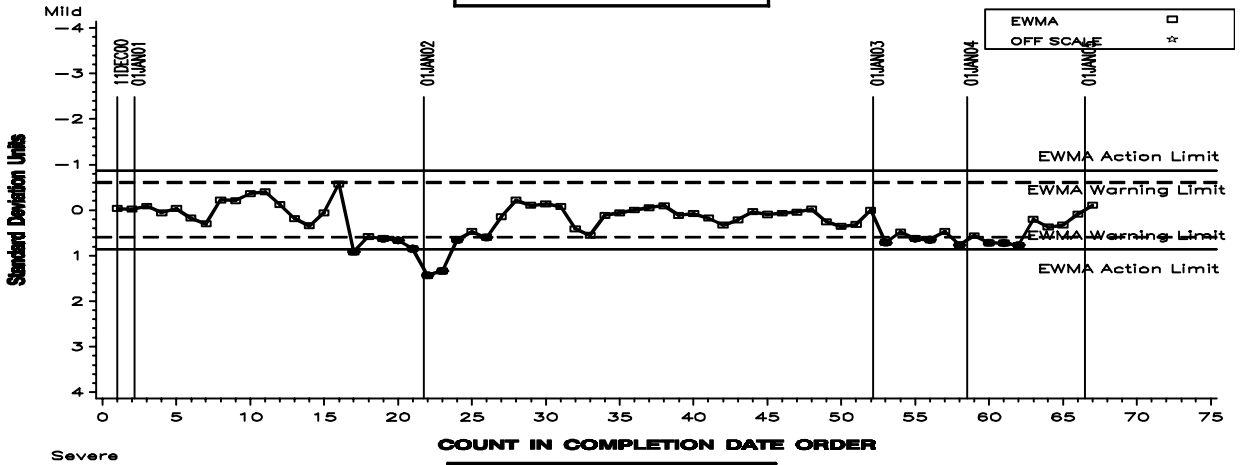


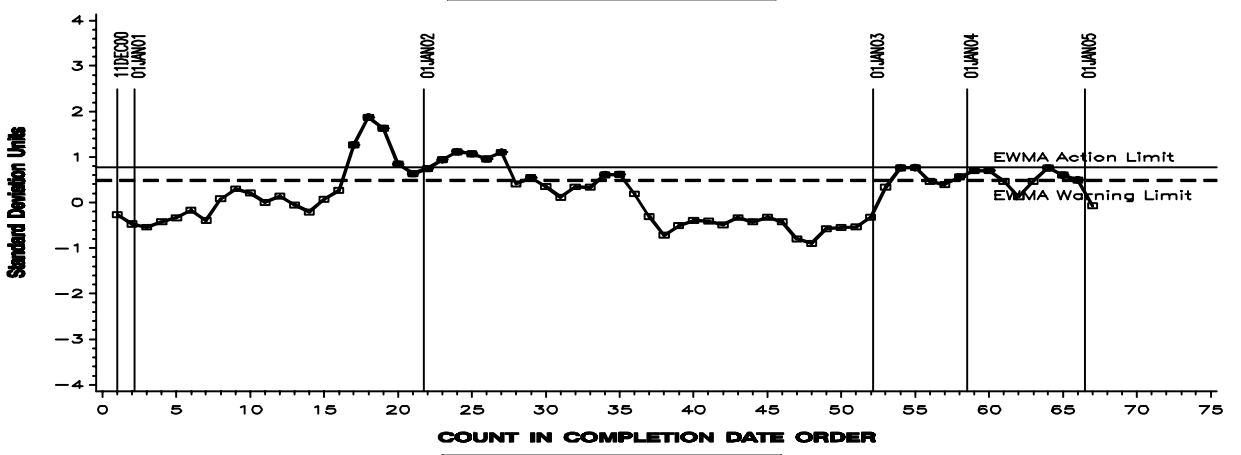
FIGURE 6
T10A INDUSTRY OPERATIONALLY VALID DATA

MRV VISCOSITY @ 75H

LTMS Severity Analysis



LTMS Precision Analysis



CUSUM Severity Analysis

