ASTM Test Monitoring Center

6555 Penn Avenue
Pittsburgh, PA 15206-4489
(412) 365-1000

MEMORANDUM: 02-100

DATE: October 23, 2002

TO: Gordon R. Farnsworth, Chairman, Sequence VG Surveillance Panel

FROM: Richard Grundza

SUBJECT: Sequence VG Reference Oil Tests Statistics, Reference Oil 1009

The following are the statistics for Sequence VG reference oil 1009, based on five test results. These targets are effective for reference oil tests completing on or after October 5, 2002.

Parameter	Mean	Standard Deviation
AES	7.78	0.36
RAC	9.15	0.22
AEV	8.93	0.11
APV	7.84	0.40
OSCR	2.670	1.303
HSR	None Allowed	

Figures 1 through 5 plot the results by laboratory and the Shewhart acceptance ranges for AES, RAC, AEV, APV and OSCR, respectively. Hot stuck ring data was not plotted since no hot stuck rings are allowed and no tests exhibited hot ring sticking. Please note that laboratory results in Figures 1 through 5 have not been severity adjusted. Figure 6 summarizes the uncorrected results used in the target calculation, while Figure 7 tabulates the corrected results, where appropriate.

Attachments

REG/reg

c: Sequence VG Surveillance Panel
   Sequence VG Test Engineers
   John Zalar, TMC
   Frank Farber, TMC
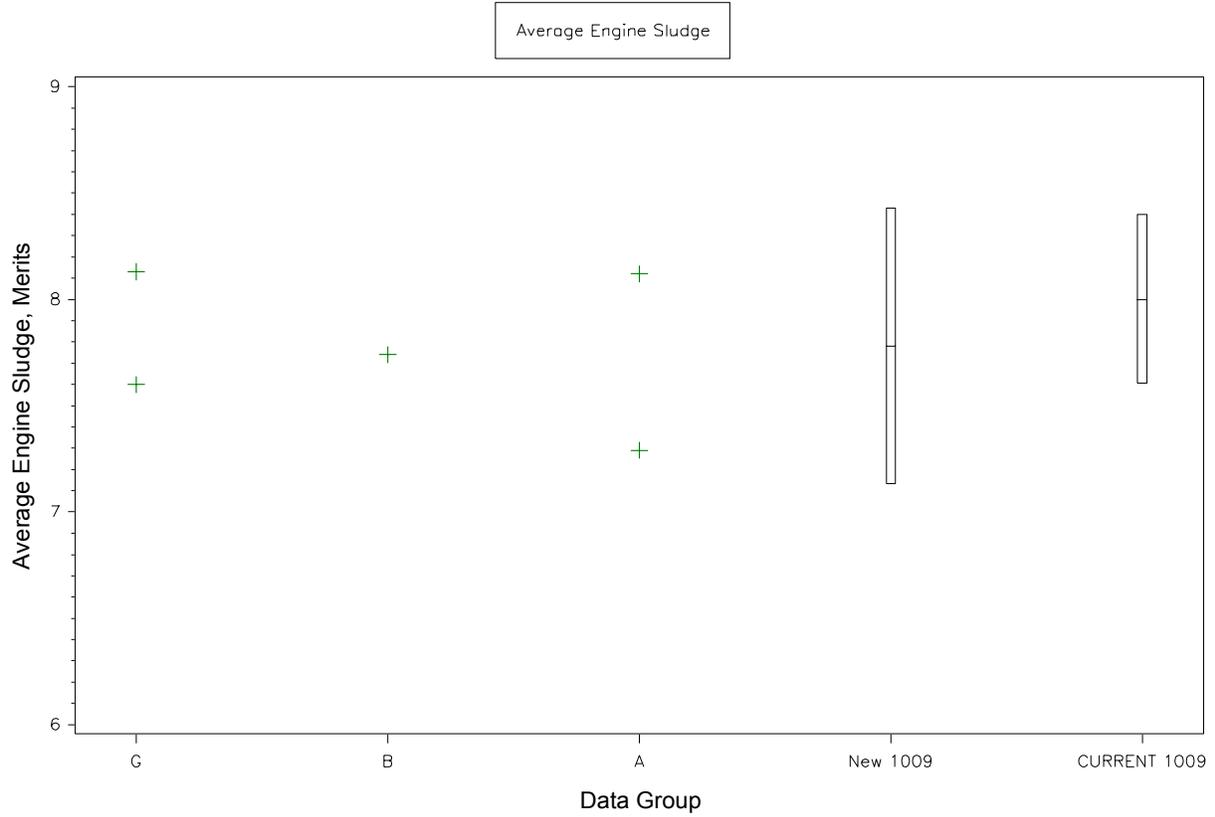   ftp://ftp.astmtmc.cmu.edu/docs/gas/sequencev/memos/mem02-100.pdf

Distribution: email

Figure 1

Sequence VG (Reference Oil 1009)
Test Target Data Set and Shewart Severity Limits

Average Engine Sludge
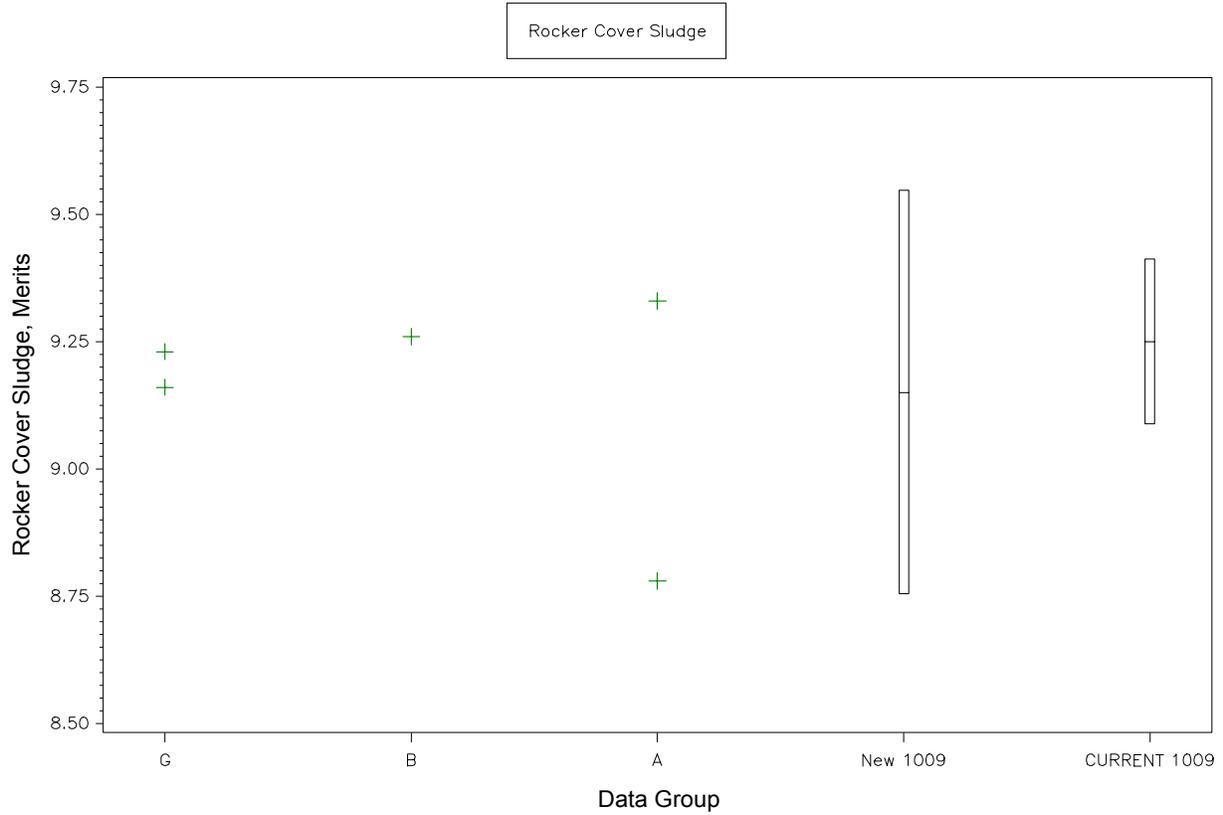

Figure 2

Sequence VG (Reference Oil 1009)
Test Target Data Set and Shewart Severity Limits

Rocker Cover Sludge

Figure 3

Sequence VG (Reference Oil 1009)
Test Target Data Set and Shewart Severity Limits

Average Engine Varnish, Merits

Figure 4

Sequence VG (Reference Oil 1009)
Test Target Data Set and Shewart Severity Limits

Average Piston Varnish
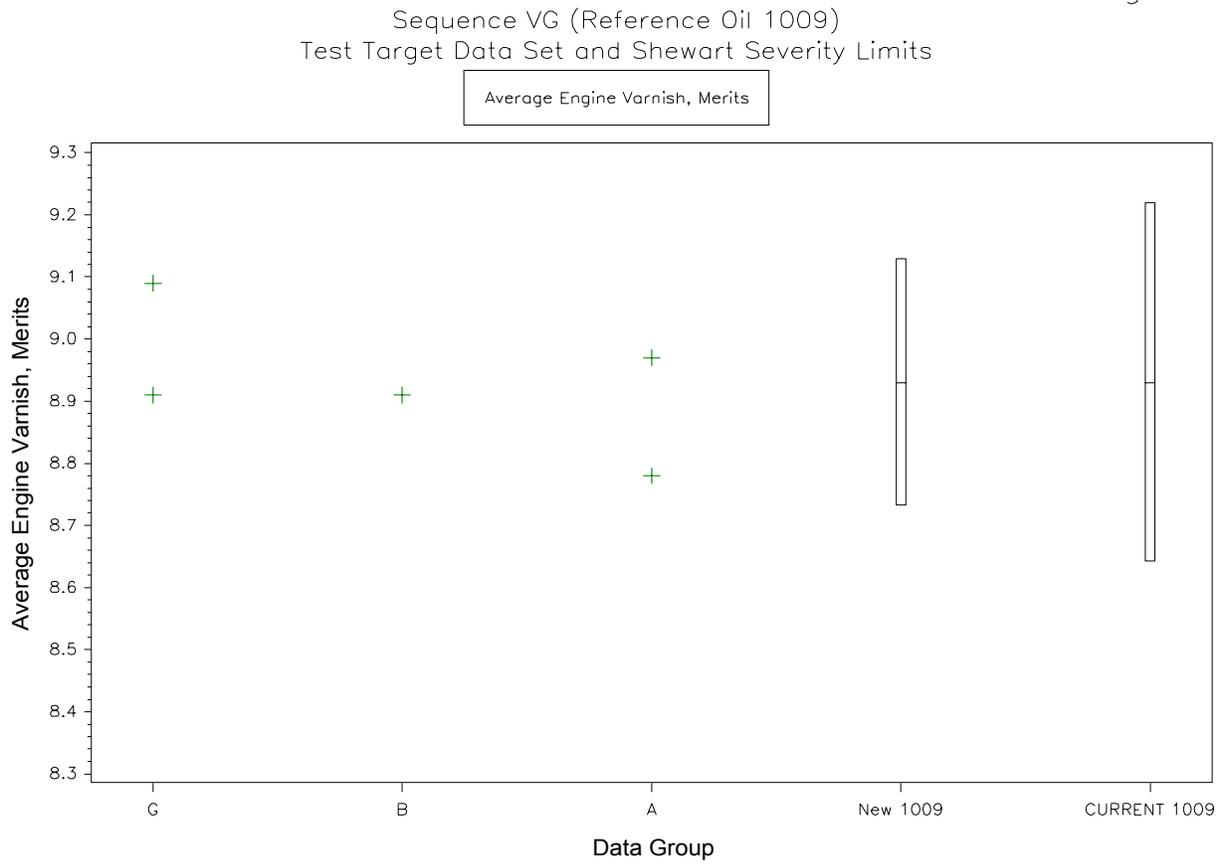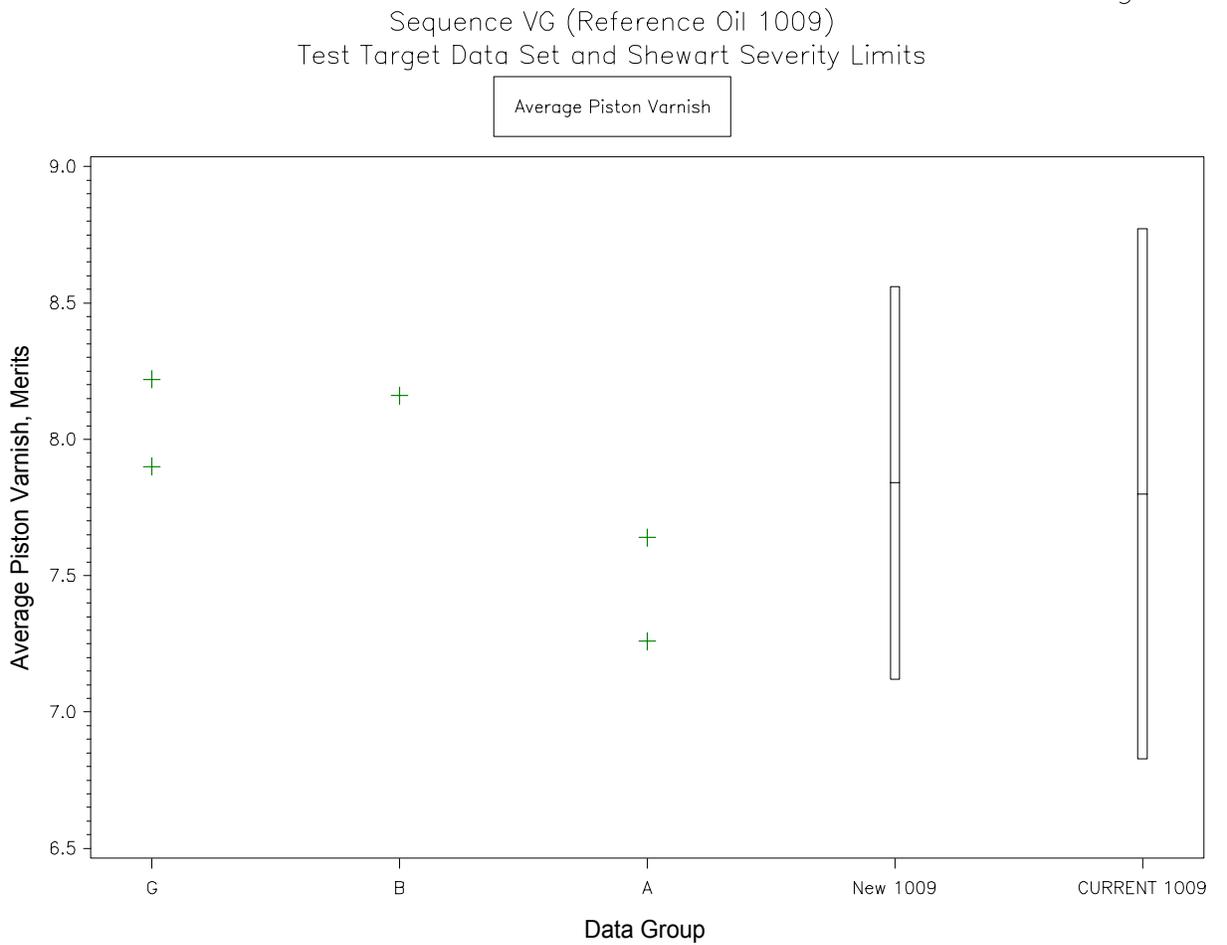
Figure 5

Sequence VG (Reference Oil 1009)
Test Target Data Set and Shewart Severity Limits

Oil Screen Clogging, Transformed Units
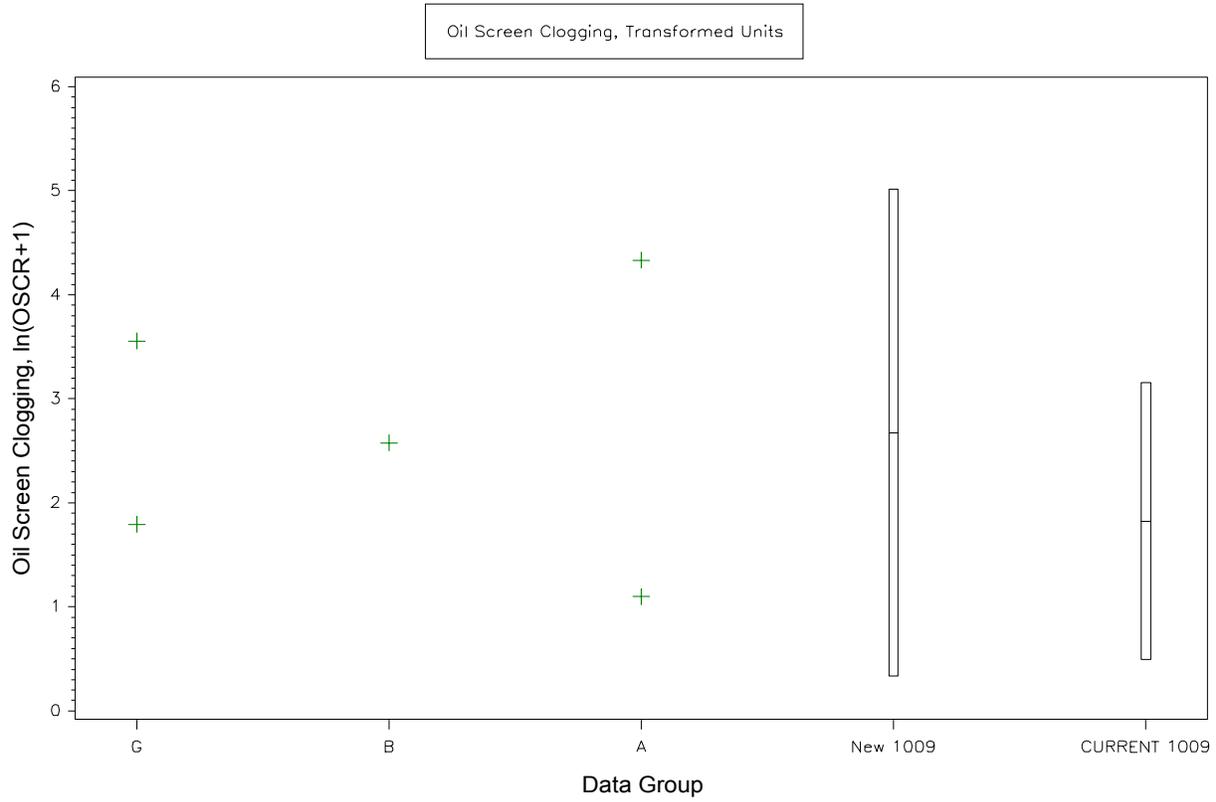
Figure 6

Lab	AES	RAC	AEV	APV	OSCR	HSR
A	8.12	9.33	8.78	7.26	2	0
B	7.74	9.26	8.91	8.16	22	0
G	8.13	9.16	9.09	8.22	5	0
A	7.29	8.78	8.97	7.64	75	0
G	7.60	9.23	8.91	7.90	34	0

Figure 7

Lab	AES	RAC	AEV	APV	OSCR	HSR
A	8.12	9.33	8.78	7.26	2	0
B	7.74	9.26	8.91	8.16	12.14	0
G	8.13	9.16	9.09	8.22	5	0
A	7.29	8.78	8.97	7.64	75	0
G	7.60	9.23	8.91	7.90	34	0