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Test Monitoring Center

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MEMORANDUM: 09-001

DATE: February 11, 2009

TO: Charlie Leverett Chairman, Sequence VIB Surveillance Panel Chair

FROM: Richard Grundza

SUBJECT: Sequence VIB Reference Oil Test Statistics, Reference Oil 538-1

The following are the statistics for Sequence VIB reference oil 538-1, based on 20 test results. These targets are effective for reference oil tests completing on or after February 11, 2009. Targets were calculated using severity adjusted results.

Parameter	Mean	Standard Deviation
FEI1	2.02	0.22
FEI2	1.47	0.21

Figures 1 and 2 plot the results by laboratory and the Shewhart acceptance ranges for FEI1 and FEI2, respectively. Please note that laboratory results in Figures 1 and 2 have not been severity adjusted. Figure 3 summarizes both the uncorrected and corrected results, where appropriate.

Attachments

REG/reg

c: Sequence VIB Surveillance Panel
Sequence VIB Test Engineers
John Zalar, TMC
Frank Farber, TMC
ftp://ftp.astmtmc.cmu.edu/docs/gas/sequencevi/memos/mem09-001.pdf

Distribution: email

Figure 1

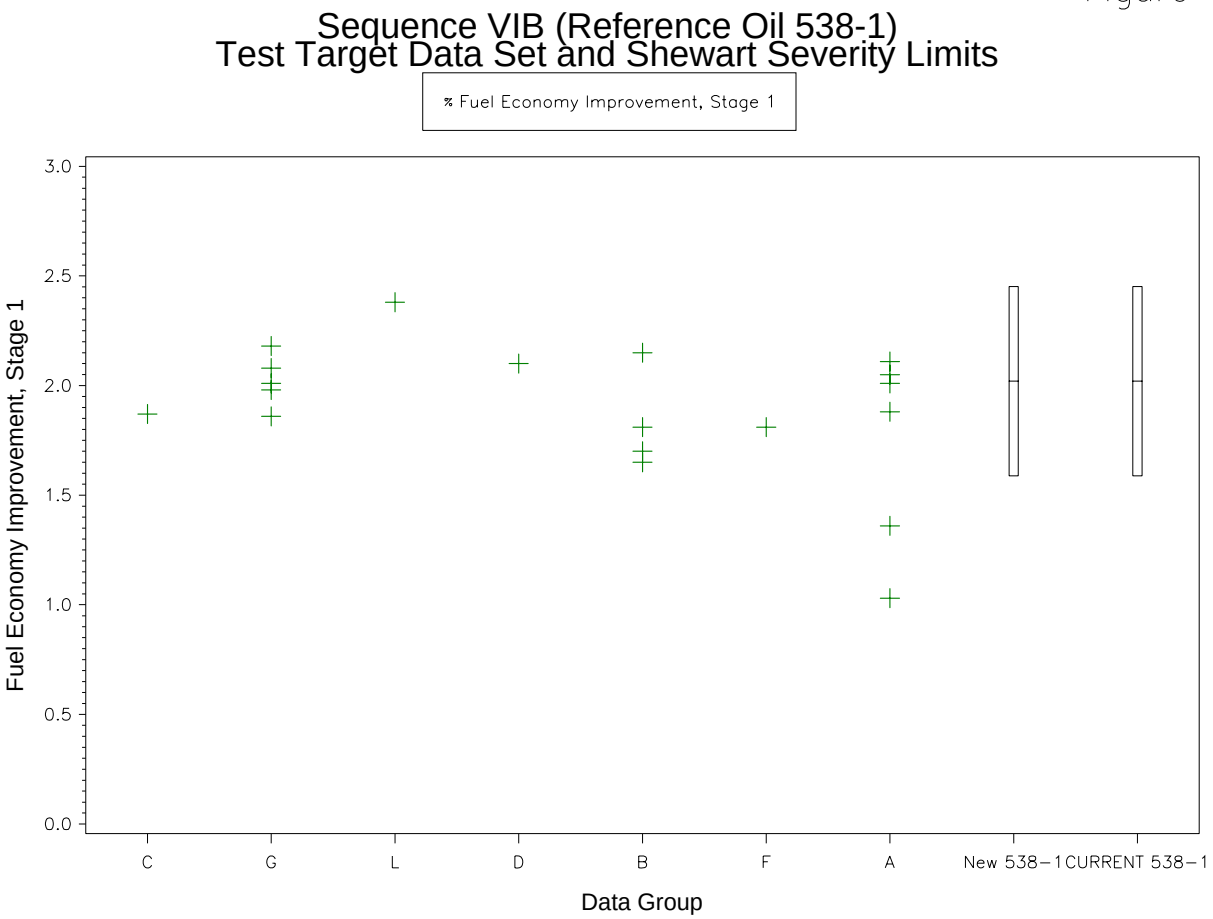
Sequence VIB (Reference Oil 538-1)
Test Target Data Set and Shewart Severity Limits
% Fuel Economy Improvement, Stage 1
Fuel Economy Improvement, Stage 1
3.0
2.5
2.0
1.5
1.0
0.5
0.0
C
G
L
D
B
F
A
New 538-1
CURRENT 538-1
Data Group

Figure 2

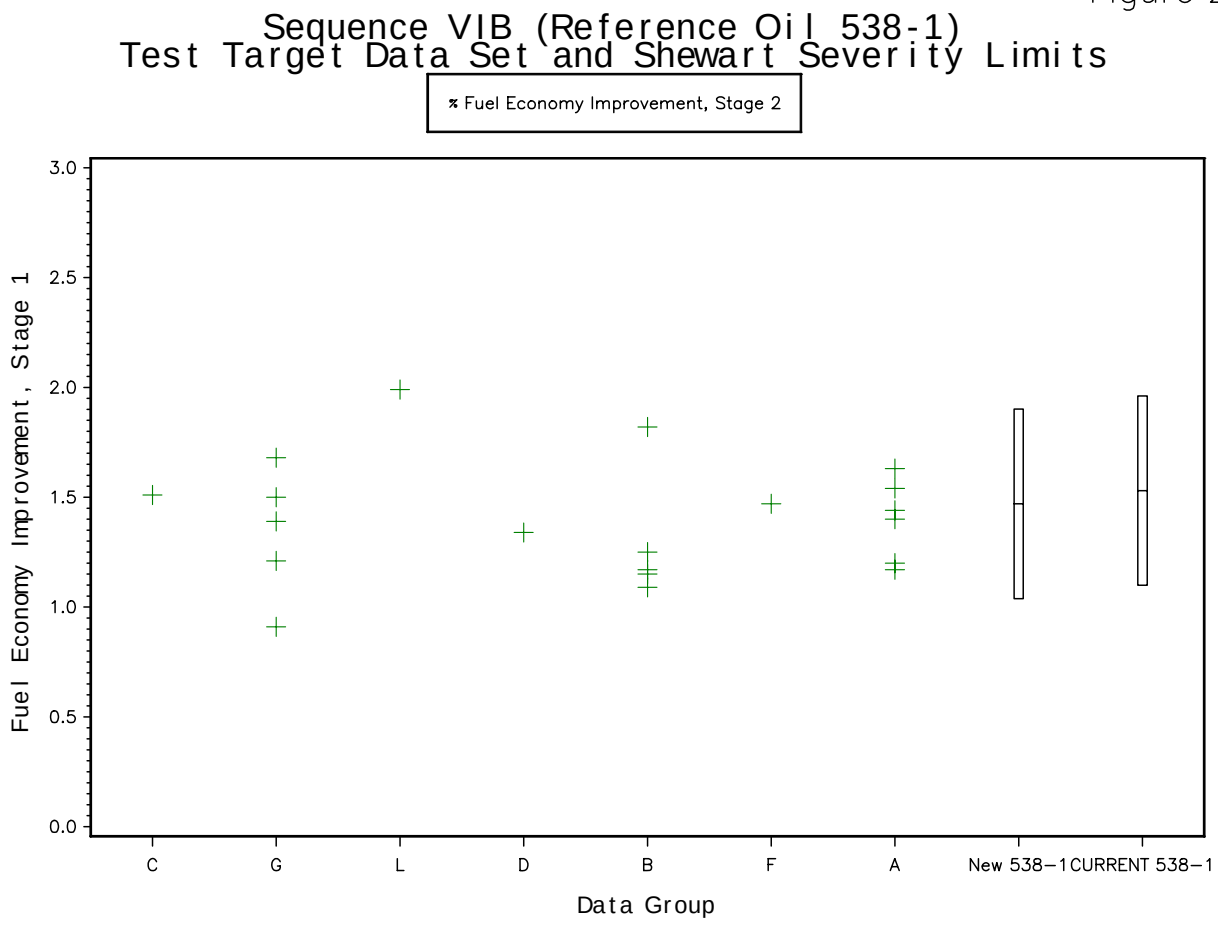
Sequence VIB (Reference Oil 538-1)
Test Target Data Set and Shewart Severity Limits
Fuel Economy Improvement, Stage 2
Fuel Economy Improvement, Stage 1
3.0
2.5
2.0
1.5
1.0
0.5
0.0
C
G
L
D
B
F
A
New 538-1
CURRENT 538-1
Data Group

Figure 3

Lab	FEI1	SA	Corrected FEI1	FEI2	SA	Corrected FEI2	New Engine
F	1.81	0.26	2.07	1.47	0.17	1.64	No
A	1.03	-0.06	0.97	1.17	0.04	1.21	No
D	2.10	0.15	2.25	1.34	0.20	1.54	No
G	2.08	-0.08	2.00	1.5	-0.00	1.50	No
L	2.38	-0.09	2.29	1.99	-0.28	1.71	Yes
B	2.56	-0.30	2.26	1.82	-0.07	1.75	No
C	1.87	0.18	2.05	1.51	0.22	1.73	Yes
A	2.05	0.37	2.42	1.63	0.00	1.63	Yes
B	1.70	0.25	1.95	1.09	0.17	1.26	Yes
B	1.65	0.26	1.91	1.15	0.27	1.42	Yes
A	2.01	-0.22	1.79	1.20	0.00	1.20	No
B	1.81	0.28	2.09	1.25	0.32	1.57	No
B	2.15	0.29	2.44	1.17	0.14	1.31	No
G	1.98	-0.08	1.90	1.39	0.00	1.39	No
G	2.18	0.18	2.36	0.91	0.04	0.95	No
G	1.86	0.02	1.88	1.21	0.17	1.38	No
A	2.11	0.19	2.30	1.40	-0.12	1.28	No
A	1.88	0.11	1.99	1.44	-0.04	1.40	No
A	1.36	0.00	1.36	1.54	0.00	1.54	Yes
G	2.01	0.03	2.04	1.68	0.24	1.92	No