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Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

Reply to:

Scott Parke
ASTM Test Monitoring Center
6555 Penn Avenue
Pittsburgh, PA 15206

October 24, 2006

To: Single Cylinder Diesel Surveillance Panel

Enclosed are the minutes of the SCOTE Surveillance panel teleconference held September 7, 2006. Please address any corrections during the time allotted for minutes approval at the next meeting.

Scott Parke
Secretary SCOTE Surveillance Panel

Attachments
cc: ftp://ftp.astmtmc.cmu.edu/docs/diesel/scote/minutes/TELECONFERENCE%202006-09-07.pdf

distribution: Email

TELECONFERENCE MINUTES

SINGLE CYLINDER DIESEL SURVEILLANCE PANEL

HELD SEPTEMBER 7, 2006

09:08cdt REDUCED K FOR 1M-PC

Chairman Jim McCord (Southwest Research) called the teleconference to order at 10:08cdt. The participant list is shown as attachment 1.

Elisa Santos (Infineum) briefly discussed the email message she sent out that simplified her analysis of the 1M-PC data (attachment 2).

Scott Parke (TMC) reviewed the history of how the current 1M-PC Shewhart K value of 2.0 came to be. The value had been 1.75 from 1994 to February 2002. The introduction of the 1Y3995 cylinder liners caused a severity shift that made it difficult for already-severe labs to pass reference tests. The remedy the panel enacted was to raise the Shewhart K value to 2.0. Scott asked that the panel keep that history in mind as they considered the correct value for the proposed reduced K and suggested that they might consider basing the reduced K on 1.75 as opposed to 2.0.

Jim Moritz (Intertek) moved that a reduced K value of 1.43 for Shewhart severity and precision (along with all the usual and customary requirements) be implemented in the 1M-PC test. Bob Campbell seconded. The motion was approved with a vote of 9-0-0 (for-against-waive).

09:23cdt 1P CALIBRATION EXTENSIONS AND PARTS STATUS

Britt Pulley (Caterpillar) reported that the projection for liner availability remains January 2007.

Jim McCord asked Scott Parke to remind the panel when the current 1P calibration extensions expire and what would happen after that. November 16, Scott replied, and after that the stands would have to recalibrate absent any further panel action.

Britt said that the liner batch available in January would be on the order of 250 or so pieces.

Jim McCord asked if there had been a final decision yet on 1P substituting for 1R (see minutes of August 17 teleconference). Not yet, was the reply.

Scott asked the panel if they still considered 1P to have a parts shortage (while 1R does not). Jim Moritz asked that the question be revisited in one month.

09:35cdt "NEW STAND" DEFINITION

Jim McCord would like the panel to consider revising the definition of what is considered a "new" stand. He feels that there's no reason that any of the labs that participated in the 1P matrix should ever be considered to have a "new" stand. Bob Campbell urged the panel to consider uniting the 1P

and 1R test types. He doesn't consider the two to be different tests; he feels that demonstrating ability to run one proves ability to run either just as with the 1K/1N tests. Several members pointed out that unlike the 1K/1N tests, the 1P and 1R run different hardware and run for a different test length at different operating conditions. Scott Parke added that such action was also probably outside the scope of this panel.

The panel engaged in some brief discussion of how to reword the LTMS requirements for new stands but ultimately decided that trying to cobble together wording of such significance on-the-fly was unwise. Jim McCord agreed to return at a future date with written proposed wording.

09:42cdt SDTF2 FUEL SUPPLY

Bob Campbell asked Jim Carter (Dow/Haltermann) if they could consider making SDTF2 fuel in larger batches. The supply of the initial batch ran out this week. Jim admitted that they were a bit caught out by the initial demand for SDTF2. They have the capacity for 60,000 gallons per year but were already at 48,000 gallons for 2006 through the beginning of September. Jim McCord said that demand for the fuel will depend on whether or not the CF4 category is dropped. Recent reports are that EMA wants support for CH category and newer. Jim Carter wants to try to keep sales for SDTF2 targeted at 10,000 gallons/month.

The call concluded at 09:49cdt.

Attendance:

Representative	Organization
Jerry Brys	Lubrizol
Phil Scinto	Lubrizol
Bob Campbell	Afton Chemical
Jim Gutzwiller	Infinium
Elisa Santos	Infinium
Hind Abi-Akar	Caterpillar
Britt Pulley	Caterpillar
Jim Moritz	Intertek
John Haegelin	Intertek
Stacy Bond	Intertek
Jim McCord	Southwest Research
Mark Sutherland	ChevronTexaco
Jim Rutherford	ChevronTexaco
Jim Carter	Dow/Haltermann
Riccardo Conti	ExxonMobil
Frank Farber	Test Monitoring Center
Scott Parke	Test Monitoring Center

Folks: I would like to make a few comments about the comparison between 1Y3590 and 5H5657NEW.
Plots of TGF and WDT versus Date are attached.
I hope this helps the discussion.
Elisa

There are only 8 tests with LINER 5H5657 NEW, four in each fuel type.

Number of tests by LINER and FUEL types

LINER	FUEL	N Rows
1Y3590	SDTF	327
1Y3995	SDTF	87
1Y3995	SDTF2	2
5H5657OLD	SDTF	8
5H5657NEW	SDTF	4
5H5657NEW	SDTF2	4

The estimated average TGF (LSMEANS) for each Liner type is presented below (3rd column). The differences between each liner with respect to the original liner are presented in the last column of the table.

TGF	Coefficients	Estimate TGF	Differences wrt 3590
Intercept	53.43748759	-	-
Lab	0	-	-
Stand /Lab	0	-	-
1Y3590	-7.6006058	45.836882	Base 45.83688179
1Y3995	2.543006	55.980494	10.1436118
5H5657Old	8.76964	62.207128	16.3702458
5H5657New	-3.71204	49.725448	3.8885658

There is no statistical evidence that the average TGF corresponding to the current liner is different from the average TGF corresponding to the original liner (1Y3590).
The average difference between the original and current liner is -4 and the 95% confidence interval is [-15, 23]. Differences of the order of magnitude of 20 are consistent with the data. The questions is “Are these differences considered big or small by engineering judgment?”.

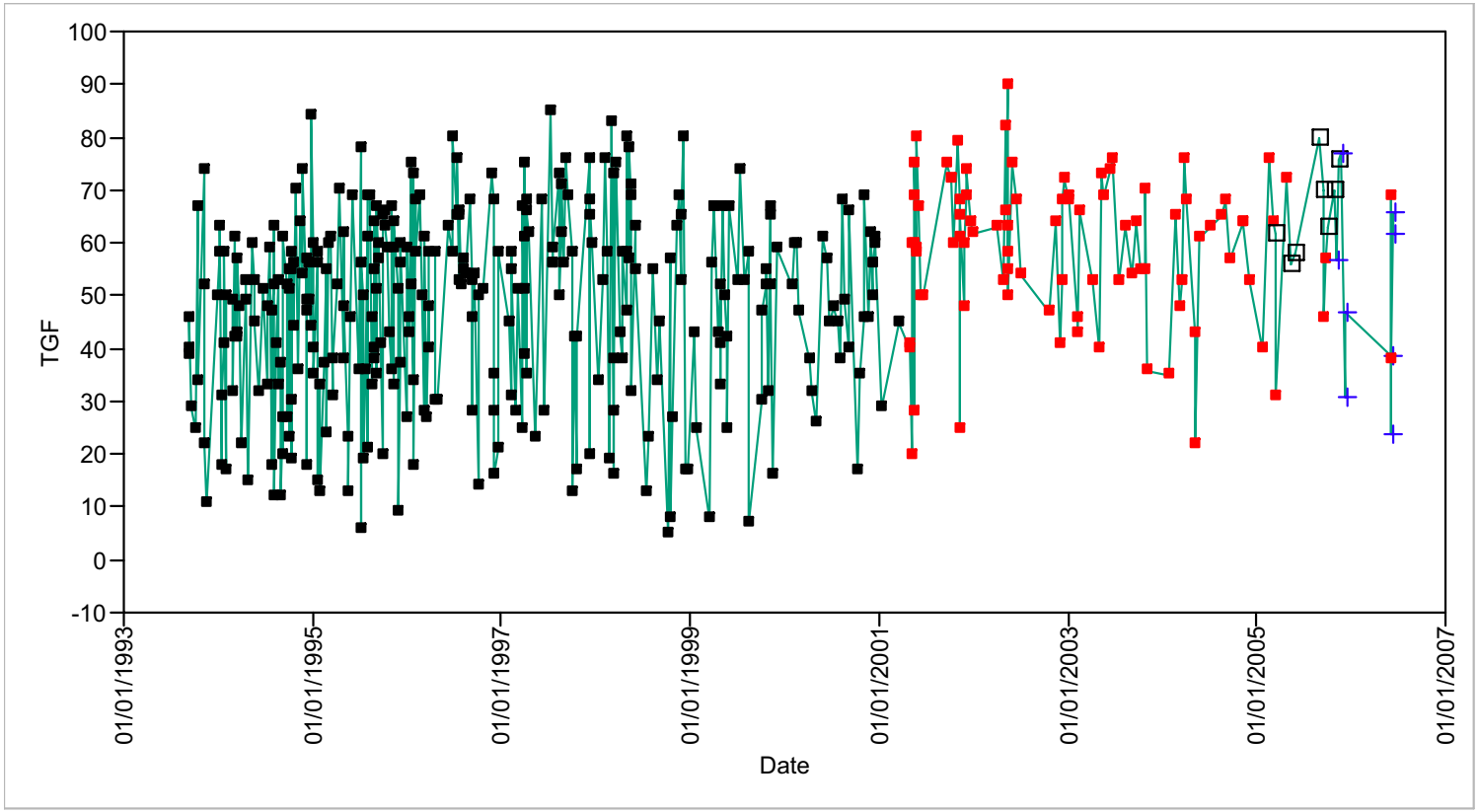
The estimated average WTD (LSMEANS) for each Liner type is presented below (3rd column). The differences between each liner with respect to the original liner are presented in the last column of the table.

WTD	Coefficients	Estimate	Differences wrt 3590
Intercept	248.87752	-	-
Lab	0	-	-
Stand /Lab	0	-	-
IND	0	-	-
1Y3590	-9.482	239.39552	239.39552
1Y3995	6.142235893	255.01976	15.62423589
5H5657Old	17.152643	266.03016	26.634643
5H5657New	-13.81288	235.06464	-4.33088

There is no statistical evidence that the average WTD corresponding to the current liner is different from the average WTD corresponding to the original liner (1Y3590). The average difference between the original and current liner is -4 and the 95% confidence interval is [-62, 53]. Differences of the order of magnitude of 50 are consistent with the data. The questions is "Are these differences considered big or small by engineering judgment?".

Black markers correspond to LINER 1Y3590
Red markers correspond to LINER 1Y3995
Open Black Squares correspond to LINER 5H5657 OLD
Blue Crosses correspond to LINER 5H5657 NEW

1MPC ref. data: TGF versus Date



Black markers correspond to LINER 1Y3590
Red markers correspond to LINER 1Y3995
Open Black Squares correspond to LINER 5H5657 OLD
Blue Crosses correspond to LINER 5H5657 NEW

1MPC ref. data: WTD versus Date