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Unapproved Minutes of the February 1, 2005

Sequence III Surveillance Panel Teleconference

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Attendees on 2-1-05: Sid Clark, Mike Kasimirsky, Ben Weber, Bill Buscher, Jr., Bill Nahumck, Phil Scinto, Larry Hamilton, Monica Beyer, Gordon Farnsworth, Andrew Ritchie, Jason Bowden, Adam Bowden, Dwight Bowden, Irwin Goldblatt, Tim Miranda, Charlie Leverett, Martin Chadwick, Mark Sutherland, Jo Martinez, Dave Glaenzer, Ed Altman, Tim Caudill, James Carter

Meeting was called to order at 3:05 ET on 2-1-05.

Discussion of Sequence IIIG Test Severity

The purpose of this teleconference was to specifically discuss the issues of test severity related to PVIS and WPD. As a starting point the chairman put the following thoughts out to begin the discussion.

What do we want to accomplish?

- define the issues
- possible causes and effects

- need for data collection and analysis
- sharing of individual laboratory data and possibly industry data
- to consider plans for a full, sit down meeting

The following are some of the issues that were brought for general discussion.

All of the labs are concerned with the mild severity shift for PVIS and the severe trend for WPD. Lab referencing has been a little more challenging over the last 6-9 months. Part of what has raised concerns earlier is that labs seem to be performing differently with respect to WPD. Two labs had an adjustment for being severe, one lab had an SA for being mild, and other labs had no SA. When this had been discussed previously, the membership felt that more data and time was needed to evaluate if all labs would experience the shift over time or continue on diverging paths.

Historically, when PVIS goes mild, WPD will usually go in the opposite direction. Mike Kasimirsky reviewed TMC Memorandum 05-005, dated January 20, 2005, An Analysis of Current Sequence IIIG Severity Trends, for the membership (available on the TMC website). This sparked discussion related to several aspects of the test. It was brought to the attention of the group that it appears we have lost discrimination on WPD in the referencing oil system. With this trend, all three reference oils are performing at near the same severity level. Pat Land sent out a file with two plots that illustrate the current trends with the reference oils. (See Attachments 1 and 2.)

In general, three major items were discussed that most felt had the highest probability of influencing test severity; ring batches, introduction of powdered metal (PM) connecting rods and the change to the cylinder bore honing. Although we had a lot of spirited discussion, no conclusions or specific corrective actions were an outcome of this teleconference. Some issues were noteworthy and are briefly included below.

The O&H prove out runs with PM rods need to be reviewed more closely and particularly the torquing sequence involved. The physical configuration of the rod (dimensions, oiling slots, etc.) needs to be better defined. As this is a permanent change at General Motors, we need to understand any possible influence so that it can be quantified. Only then can adjustments be considered for targets and Severity Adjustments (SAs).

In hind sight, the introduction of the PM rods was not as uniform as we would have liked. The Afton lab indicated that they were still using cast iron (CI) rods. This was obvious from trying to identify any of the introduction dates with specific changes to the TMC control charts.

The reference oils are not responding uniformly with the severity shift. We need to better understand this.

Based on the data in the TMC database, Lab F is tracking differently than the rest of the industry during the same time frame. In general, the magnitude of severity shifts and the direction are not necessarily the same in all labs which is confounding the situation.

Could the effort that was put into better controlling the oil consumption have had a significant influence on the test severity? The members believe there is likely an influence but we will not change back to what we had. The honing modifications are here to stay as we have gained too much to go back.

Is the Sequence IIIF seeing the same shifts in severity? This needs to be reviewed.

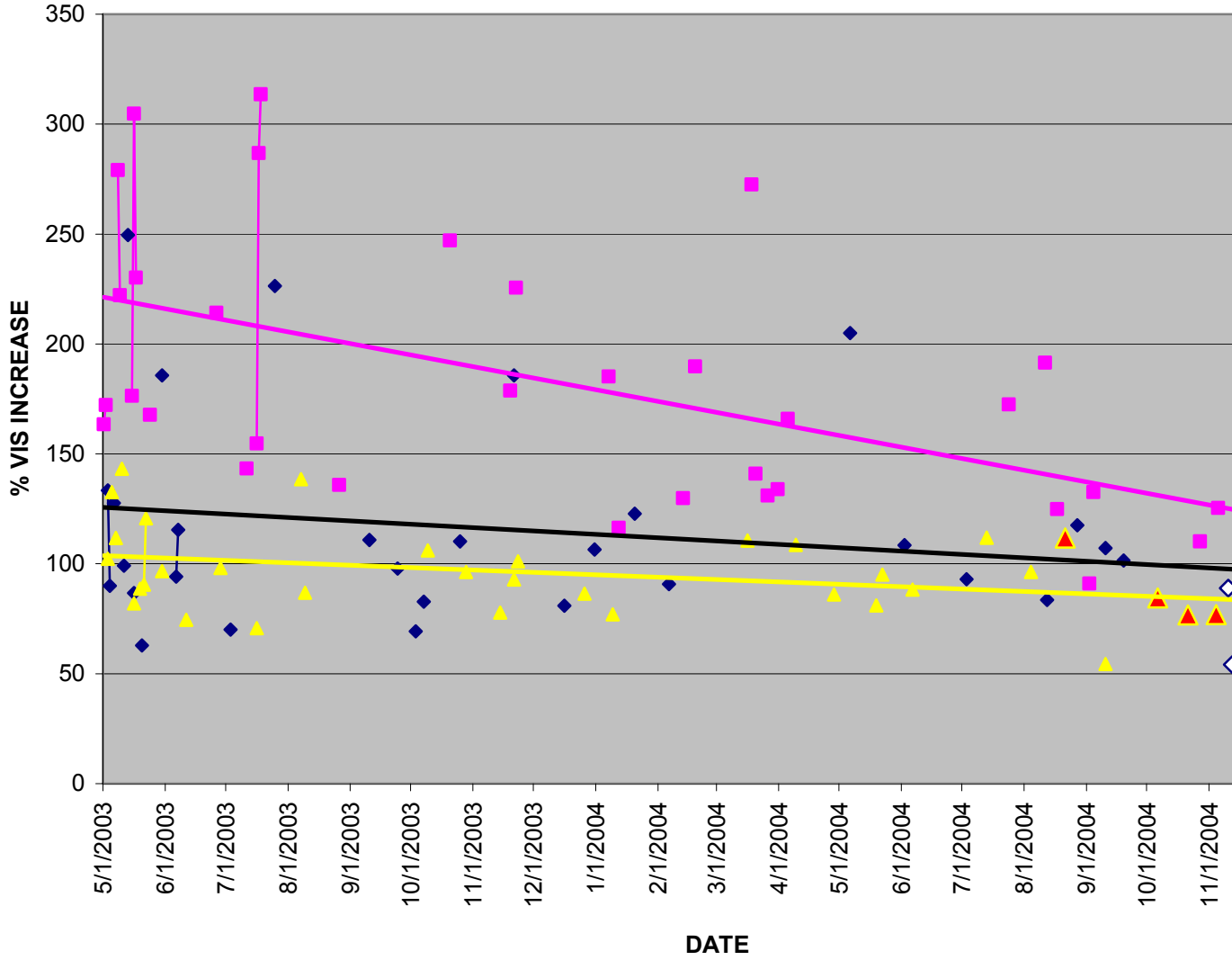
It was brought out during the meeting that there are enough runs with each reference oil to finalize the reference oil targets for each oil. The membership agreed that in light of the severity concerns, that the targets will not be fixed until we better understand what may be driving the severity for the PVIS and WPD parameters.

The membership felt we needed to give more time to better analyze the existing data. Any and all ideas and theories will be put on the table at this point, including items that may have been taken off the table. We agreed to consider an additional teleconference in 3-4 weeks to develop an action plan with which to investigate various aspects of the test that may be influencing test severity.

Adjournment

The meeting was adjourned at approximately 4:35 pm. The next meeting will be at the call of the chairman.

IIIG VISCOSITY INCREASE



IIIG WEIGHTED PISTON DEPOSITS

