

**Jeff Clark**

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**From:** Jeff Clark  
**Sent:** Wednesday, March 16, 2011 2:03 PM  
**To:** Jim Moritz Intertek; Allison Rajakumar; Bill Larch; Bob Campbell; Boese, Doyle; bradley.carter@intertek.com; Carter, James; cathy.devlin@aftonchemical.com; cca@lubrizol.com; charlie.passut@aftonchemical.com; Dan Pridemore; Greg Shank; James McCord; Jan Peters; Jim Gutzwiller; James.Matasic@Lubrizol.com; jiam@chevron.com; Jim Rutherford; xjc@luberdi.com.cn; joe.franklin@intertek.com; john.haegelin@intertek.com; Ken Goshorn; Mark Cooper; Mark Sutherland; michael.l.alessi@exxonmobil.com; Pat Fetterman; Perry Grosch; Philip Scinto; philipe.f.saad@cummins.com; Riccardo Conti; Ron Buck; ryan.johnson@swri.org; Scott Richards; shawn.whitacre@cummins.com; Steven Kennedy; Tom Wingfield; Torreman, Marnix; vlkersey@ashland.com; luwt@ripp-sinopec.com; wvda@chevrontexaco.com; zbishop@tei-net.com; Jeff Clark  
**Subject:** Cummins Conference Call Minutes - Wednesday March 16, 2011  
**Attachments:** ISB Industry Data 3-10-11 with Yi plots.xls; ISB Data Review A1.pptx; ISB Data Review A2.pptx; ISB Data Review.pptx

Attendance - Jim Moritz, Jim Rutherford, Jim Matasic, Zack Bishop, Scott Richards, Jeff Clark, Bob Campbell, Jim Gutzwiller, Jim McCord, Tom Wingfield, Doyle Boese, Shawn Whitacre, Philipe Saad

**ISM Test Update**

Intertek's test is at 125 hours, two tests (Afton & SwRI) are completed. Lubrizol is running a candidate test, with the reference to follow.

**ISB Severity**

There are no calibrated stands and tappet weight loss is very severe, cam wear severe. The main function of this call was to brainstorm a cause for the current situation. Jim Rutherford took a look at the data (attached). After much discussion, Jim Rutherford was asked to examine possible effects of soot differences. He provided plots prior to the end of the meeting (attached). Jim Matasic also supplied several plots (attached), which spurred discussion. No obvious causes were apparent. Lubrizol will look into a possible metrology study on different parts batches.

Zack Bishop indicated Batch C tappets are due in about six weeks; Batch G cams are being inspected now and so far things are going well.

**ACTION ITEM SUMMARY:**

1. Lubrizol will conduct a metrology study.
2. Jim Rutherford will try to examine cam/tappet interactions.
3. Cummins will investigate tappet batch A & B manufacturing history.
4. Labs will confirm ECM cal files and re-flash if necessary.

Next meeting - tentatively set for Monday 3/28 at 2:00pm Eastern.

Best Regards,

Jeff Clark  
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ASTM Test Monitoring Center  
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