## Jeff Clark

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- Sent: Wednesday, April 20, 2011 9:41 AM
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Subject: Mack SP Teleconference Minutes - April 18, 2011

**Attendance**: Greg Shank, Mark Cooper, Jim Rutherford, Bob Campbell, Jim Matasic, Jim Gutzwiller, Doyle Boese, Mike Alessi, Jim McCord, Jim Moritz, Brad Carter, Rich Grundza, Zack Bishop

**Agenda**: Discuss rounding rules and significant digit issues resulting from correction factors applied to T-12 parameters with a transformation.

## **Background:**

There are three parameters in the T-12 that are transformed using the natural log function (Pb, Pb2, and OC). As the TMC transforms the rounded final result reported in original units to determine severity adjustments, errors can be introduced due to the number of significant digits required by the data package. Take the following hypothetical EOT lead result:

Delta Pb at EOT: 35 ppm Transformed Result: 3.5555 (LN of 35) Correction Factor: 0.95 Corrected Transformed Result: 3.3777 Severity Adjustment: 0.0 Final Transformed Result: 3.3777 Final Original Unit Result: 29 ppm (EXP of 3.3777 rounded to whole number) TMC Transformed Result: 3.3672 (LN of 29)

A more accurate lab severity estimate (Zi) and possible severity adjustment would result if the final transformed result reported by the laboratory were used (3.3777). Another approach would be to report the final original unit results to four decimals places (in this case 29.3033).

The panel agreed that the TMC will use the final original results to four decimal places so new severity adjustments can be issued, if applicable. The TMC also agreed to look at the possibility of using the final transformed result to generate lab control charts. A final recommendation will be made after the TMC concludes their investigation.

Regards,

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