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**Test Monitoring Center**

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MEMORANDUM: 13-018

DATE: April 10, 2013

TO: TEOST Bench Test Mailing List

FROM: Tom Schofield

SUBJECT: D6335 TEOST-33C Technical Update: Revised Reference Oil Targets

Per the ASTM D02.B0.07 TEOST Surveillance Panel teleconference of 2013-04-09, the panel approved an update of the TMC D6335 TEOST-33C reference oil performance targets and acceptance bands. Effective 2013-04-15, the new reference oil targets and acceptance bands will be:

| | | | Target | | 95% Acceptance Bands* | |
|---|---|---|---|---|---|---|
| **Oil ID** | **Parameter** | **n** | **Mean** | **sR** | **Lower** | **Upper** |
| 75 | Total Deposits, wt (mg) | 30 | 53.66 | 6.56 | 40.8 | 66.5 |
| 435-2 | Total Deposits, wt (mg) | 30 | 28.71 | 4.76 | 19.4 | 38.0 |

*95% Acceptance Bands = Mean +/- (1.960 x sR)

These updated performance targets and bands include the data from original round robin results used to set the initial targets on the oils when they were first introduced, and additional calibration data to bring the sample sizes (n) up to 30 data points on each oil. The panel had previously agreed to re-evaluate the targets based on the additional calibration data.

The data used for estimating these performance targets follows in Attachment 1, with initial round robin data in green font and subsequent calibration data in blue. Plots of the individual *Total Deposits* test results by lab, and initial & new test target acceptance range spreads for Reference Oils 435-2 & 75 are in Attachment 2, Figures 1 and 2, respectively.

For additional supporting documentation of these changes, please refer to the surveillance panel teleconference minutes of 2013-04-10.

Please direct any inquiries to the TMC.

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c: ftp://ftp.astmtmc.cmu.edu/docs/bench/teost/memos

Distribution: Email

TMC Memo 13-018
Attachment 1A

**TMC Oil 435-2 Data Set for Estimating New Performance Targets**

| TESTKEY | DTCOMP | LAB | APPARATUS | OIL | TDEP | VAL | COM1 | COM2 |
|---|---|---|---|---|---|---|---|---|
| 80540-TEOST | 20110108 | B | B 6 | 435-2 | 22.9 | AG | SCREENER | 435-2 RR |
| 80545-TEOST | 20110502 | G | G 2 | 435-2 | 25.9 | AG | SCREENER | 435-2 RR |
| 82157-TEOST | 20110517 | V | V 5 | 435-2 | 23.7 | AG | GIME | 435-2 RR |
| 82158-TEOST | 20110517 | V | V 5 | 435-2 | 27.5 | AG | GIME | 435-2 RR |
| 82177-TEOST | 20110520 | G | G 2 | 435-2 | 32.2 | AG | GIME | 435-2 RR |
| 82139-TEOST | 20110521 | D | D 2 | 435-2 | 24 | AG | GIME | 435-2 RR |
| 82140-TEOST | 20110521 | D | D 2 | 435-2 | 24.2 | AG | GIME | 435-2 RR |
| 82149-TEOST | 20110524 | A | A 3 | 435-2 | 27.7 | AG | GIME | 435-2 RR |
| 82150-TEOST | 20110524 | A | A 3 | 435-2 | 31 | AG | GIME | 435-2 RR |
| 82151-TEOST | 20110524 | A | A 4 | 435-2 | 29.9 | AG | GIME | 435-2 RR |
| 82152-TEOST | 20110524 | A | A 4 | 435-2 | 25.6 | AG | GIME | 435-2 RR |
| 82143-TEOST | 20110609 | B | B 5 | 435-2 | 26.4 | AG | GIME | 435-2 RR |
| 82144-TEOST | 20110609 | B | B 5 | 435-2 | 25 | AG | GIME | 435-2 RR |
| 82145-TEOST | 20110623 | B | B 6 | 435-2 | 28.4 | AG | GIME | 435-2 RR |
| 80541-TEOST | 20110628 | B | B 6 | 435-2 | 29.9 | AG | GIME | 435-2 RR |
| 83542-TEOST | 20111213 | B | B 5 | 435-2 | 39.4 | OC | DEPS | |
| 83543-TEOST | 20111213 | B | B 6 | 435-2 | 28.3 | AC | | |
| 83544-TEOST | 20111214 | B | B 5 | 435-2 | 36.8 | OC | DEPS | |
| 83616-TEOST | 20111219 | A | A 3 | 435-2 | 16.8 | OC | DEPM | |
| 83545-TEOST | 20120402 | B | B 5 | 435-2 | 28.8 | AC | | |
| 83618-TEOST | 20120405 | A | A 3 | 435-2 | 32 | AC | | |
| 83638-TEOST | 20120501 | G | G 2 | 435-2 | 38.6 | OC | DEPS | |
| 83639-TEOST | 20120503 | G | G 2 | 435-2 | 31 | AC | | |
| 83617-TEOST | 20120604 | A | A 4 | 435-2 | 34.9 | OC | DEPS | |
| 83619-TEOST | 20120625 | A | A 4 | 435-2 | 30.3 | AC | | |
| 83546-TEOST | 20120628 | B | B 6 | 435-2 | 27.4 | AC | | |
| 83547-TEOST | 20120706 | B | B 5 | 435-2 | 28 | AC | | |
| 83515-TEOST | 20120725 | D | D 2 | 435-2 | 28.9 | AC | | |
| 83583-TEOST | 20120725 | V | V 7 | 435-2 | 30.6 | AC | | |
| 87410-TEOST | 20121008 | A | A 3 | 435-2 | 25.1 | AC | | |

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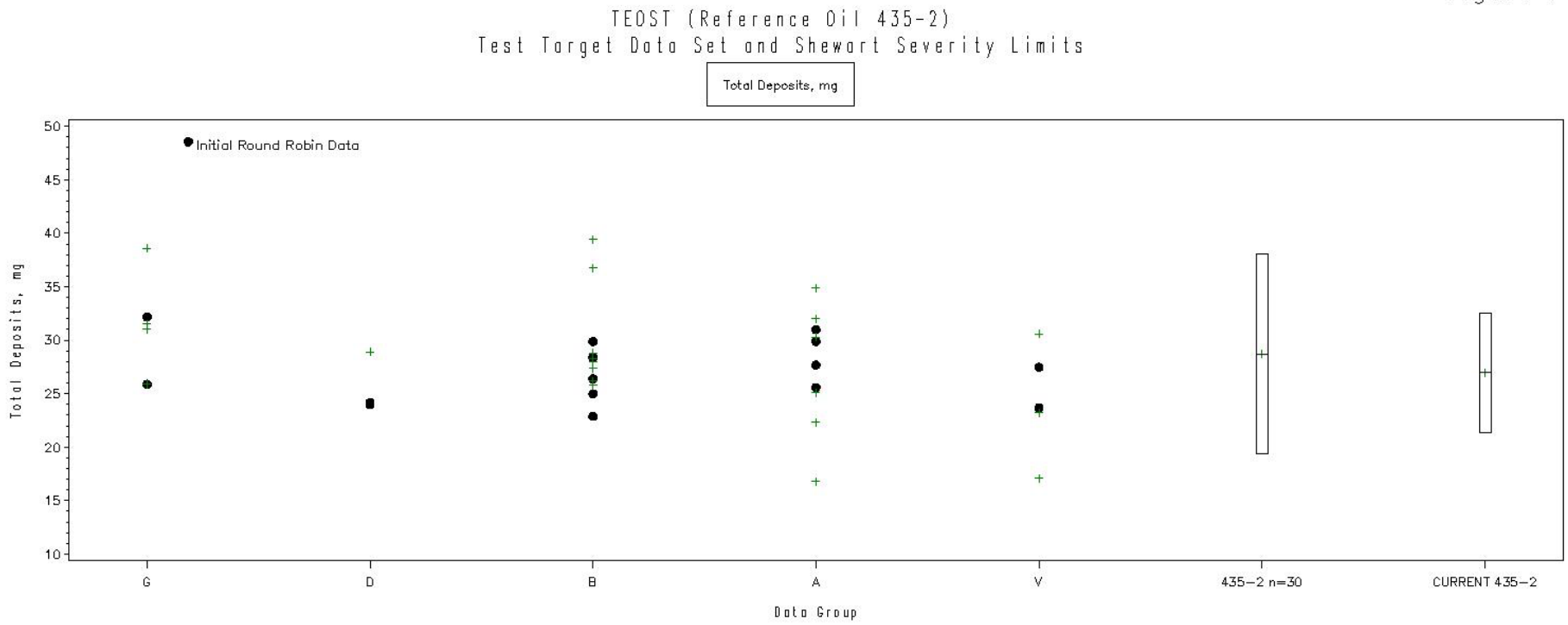
Attachment 1B

**TMC Oil 75 Data Set for Estimating New Performance Targets**

| TESTKEY | DTCOMP | LAB | APPARATUS | OIL | TDEP | VAL | CHART | COM1 | COM2 |
|---|---|---|---|---|---|---|---|---|---|
| 80538-TEOST | 20110108 | B | B 5 | 75 | 60.3 | AG | Y | SCREENER | 75 RR |
| 80543-TEOST | 20110503 | G | G 2 | 75 | 61.3 | AG | Y | SCREENER | 75 RR |
| 82159-TEOST | 20110518 | V | V 5 | 75 | 54.8 | AG | Y | GIME | 75 RR |
| 82160-TEOST | 20110518 | V | V 5 | 75 | 58.2 | AG | Y | GIME | 75 RR |
| 82178-TEOST | 20110520 | G | G 2 | 75 | 53.6 | AG | Y | GIME | 75 RR |
| 82142-TEOST | 20110523 | D | D 2 | 75 | 48.1 | AG | Y | GIME | 75 RR |
| 82141-TEOST | 20110523 | D | D 2 | 75 | 47.5 | AG | Y | GIME | 75 RR |
| 82156-TEOST | 20110525 | A | A 4 | 75 | 65.1 | AG | Y | GIME | 75 RR |
| 82402-TEOST | 20110607 | A | A 3 | 75 | 55.1 | AG | Y | GIME | 75 RR |
| 82403-TEOST | 20110607 | A | A 4 | 75 | 63.2 | AG | Y | GIME | 75 RR |
| 82147-TEOST | 20110623 | B | B 6 | 75 | 52.5 | AG | Y | GIME | 75 RR |
| 82148-TEOST | 20110628 | B | B 6 | 75 | 51.9 | AG | Y | GIME | 75 RR |
| 80539-TEOST | 20110630 | B | B 6 | 75 | 52.1 | AG | Y | GIME | 75 RR |
| 82405-TEOST | 20110711 | A | A 3 | 75 | 48.5 | AG | Y | GIME | 75 RR |
| 83548-TEOST | 20110913 | B | B 6 | 75 | 47.9 | AC | Y | | |
| 83586-TEOST | 20111102 | V | V 7 | 75 | 45 | AC | Y | | |
| 83549-TEOST | 20111222 | B | B 5 | 75 | 56.6 | AC | Y | | |
| 83620-TEOST | 20120104 | A | A 3 | 75 | 62.3 | AC | Y | | |
| 83587-TEOST | 20120125 | V | V 1 | 75 | 40.7 | OC | Y | DEPM | 3RD FAIL |
| 83642-TEOST | 20120131 | G | G 2 | 75 | 59.5 | AC | Y | | |
| 83621-TEOST | 20120210 | A | A 4 | 75 | 66.8 | OC | Y | DEPS | |
| 83622-TEOST | 20120306 | A | A 4 | 75 | 57.8 | AC | Y | | |
| 83550-TEOST | 20120402 | B | B 6 | 75 | 44.9 | AC | Y | | |
| 83588-TEOST | 20120501 | V | V 1 | 75 | 46.5 | AC | Y | | |
| 83551-TEOST | 20120628 | B | B 5 | 75 | 57.5 | AC | Y | | |
| 83623-TEOST | 20120709 | A | A 3 | 75 | 48.2 | AC | Y | | |
| 83644-TEOST | 20120815 | G | G 2 | 75 | 52.7 | AC | Y | | |
| 87411-TEOST | 20120929 | A | A 4 | 75 | 52.6 | AC | Y | | |
| 83552-TEOST | 20121001 | B | B 5 | 75 | 50.7 | AC | Y | | |
| 83553-TEOST | 20121001 | B | B 6 | 75 | 48 | AC | Y | | |

TMC Memo 13-018
Attachment 2A

Figure 1



TMC Memo 13-018
Attachment 2B

Figure 2