

## Minutes of Sequence VIII Conference Call July 11, 2007

1. Roll Call - 8 voting members on the call. See Attachment 1
2. Motion and Action Items Recorder
3. Preservation of Bearings
  - a. Fred reviewed his email - see Attachment 2
  - b. Charlie has problems with new bearings already was 5 ppm is now 33 ppm
  - c. Motion made for TEI to clean and pentane wipe and repack the 0306 bearings into EF411 using new containers. TEI is to also inspect, clean, and repack the bearings into fresh EF411 on an annual basis. Passed
4. Action Alarm TBWL Severity
  - TMC - 704-1 and 1006-2 severities are not equivalent
  - TMC - Lead levels do not seem to impact reference results
  - TMC - both labs have experienced severity shifts.
  - Statisticians want to wait and see while the panel works on bearing storage issues.
5. Restore Sequence VIII reference interval back to six months or 15 tests.
  - a. Targets have been obtained on 1006-2.
  - b. Three additional references should occur based on time before fall meeting
  - c. Motion made to change reference interval from 3 months or 8 runs to 3 months and 12 runs. Passed.

**ASTM SEQUENCE VIII SURVEILLANCE PANEL  
ATTACHMENT 1 - VOTING MEMBERSHIP ATTENDANCE RECORD**

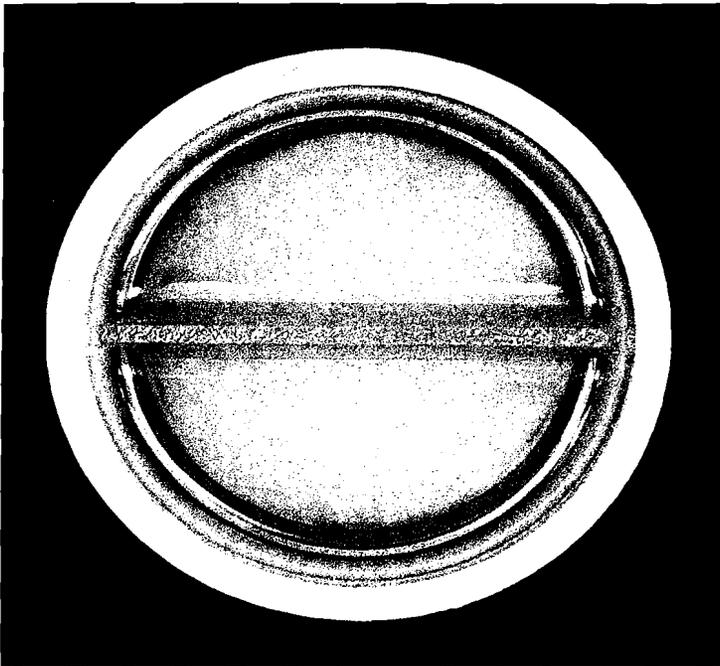
Name	Address	Phone/Fax/Email	Attendance
Knight, Clayton	Test Engineering Inc. 12718 Cimarron Path San Antonio, TX 78249-3423	Phone: 210-690-1958 Fax: 210-690-1959 cknight@tei-net.com	Present
Caudill, Timothy	Valvoline 21st and Front Streets Ashland, KY 41101	Phone: 606-329-1960 ext 5708 Fax: 606-329-2044 Tcaudill@ashland.com	
Bowden, Dwight	OH Technologies, Inc. P.O. Box 5039 Mentor, OH 44061-5039	Phone: 440-354-7007 Fax: 440-354-7080 dhbowden@ohtech.com	
Buscher, Jr., Bill	Buscher Consulting Services P.O. Box 112 Hopewell Jct., NY 12533	Phone: 845-897-8069 Fax: 845-897-8069 <u>BuschWA@aol.com</u>	
Clark, Sid	GM Powertrain Engine Engineering Building 823 Joslyn Rd. MC 483-730-322 Pontiac, MI 48340-2920	Phone: 248-857-9959 Fax: sidney.l.clark@gm.com	Present
Ritchie, Andy	Infineum P.O. Box 735 1900 East Linden Ave. Linden, NJ 07036-0735	Phone: Fax:	Present - Gordon
Gerhart, Fred	Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228-0510	Phone: 210-522-3842 Fax: 210-684-7523 fgerhart@swri.org	Present
Glaenger, David	Afton Chemical 500 Spring Street P.O. Box 2158 Richmond, VA 23218	Phone: 804-788-5214 Fax: 804-788-6358 Dave.Glaenger@aftonchemical.com	Present
Ramono, Ron	FCSD, Service Product Development, SEO Diagnostic Service Center II Room 410 1800 Fairlane Drive Allen Park, MI 48101	Phone: Fax:	
Grundza, Rich	ASTM/TMC 6555 Penn Ave Pittsburgh, PA 15206-4489	Phone: 412-365-1031 Fax: 412-365-1047 reg@astmtmc.cmu.edu	Present
Leverett, Charlie	Intertek 5404 Bandera Road San Antonio, TX 78238	Phone: 210-647-9422 Fax: 210-523-4607 charlie.leverett@perkinelmer.com	Present
Miranda, Timothy	BP Lubricants USA 1500 Valley Rd Wayne, NJ 07470	Phone: 973-305-3334 Fax: 973-686-4039 Timothy.Miranda@BP.com	Present
Szappanos, George	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	Phone: 440-347-2631 Fax: 440-347-4096 George.Szappanos@lubrizol.com	
Sutherland, Mark	Chevron Oronite Company LLC 4502 Centerview Ste. 210 San Antonio, TX 78228	Phone: 731-5605 Fax: 731-5621 <u>MSUT@chevrontexaco.com</u>	

**Fred Gerhart**

---

**From:** Fred Gerhart [fgerhart@swri.org]  
**Sent:** Tuesday, July 10, 2007 8:36 PM  
**To:** Andrew Ritchie; Bill Buscher; Charlie Leverett; Clayton Knight; Dave Glaenger; Dwight Bowden; George Szappanos; Mark Sutherland; Rich Grundza; Sid Clark; Timothy Caudill; Timothy Miranda  
**Cc:** Ben Weber; Frank Farber; Gordon Farnsworth; Irwin Goldblatt; Jim Carter; Jo Martinez; Johnny De La Zerda; Jon Carlson; Lew Williams; Martin Chadwick; Patrick M Lang; Phil Scinto; Robert Olree; William A. Buscher III; Zack Bishop  
**Subject:** Proposal to change bearing storage oil back to EF-411

This set was 11-93 lot 12 changed to PAO8 at TEI on June 2005 per Surveillance Panel request. Please remember that TEI was told by the Surveillance panel to simply remove the bearings from the container of EF-411, allow the bearings to drain, and then place the bearings into a new container filled with PAO8. No cleaning of the bearings was permitted.



When I opened this container the PAO8 had a slight green tint and I saw the brown/tan color displacement at the bottom of the container like we have been occasionally observing on the O306 bearings.

D5185 metals was Cu of 28 ppm and PB 190 ppm for the fluid immediately around the edge of the bearings at the bottom of the container.

I then swished and stirred the oil and took a homogenous sample from the same container. D5185 metals were Cu 26 ppm and Pb 161 ppm for the homogenous sample.

These bearings had been stored at our facility since the repacking date.

On June 28 of 2007, I started an experiment with a set of O306 bearings that had been stored at our facility since completion of the prove out matrix. The bearings were removed from the container, identifying marks applied to the back of the bearing tangs, and wiped and cleaned as per the current procedure.

One bearing half was then placed into a 250 ml Pyrex beaker and enough new EF-411 added to cover the bearing completely. The beaker was then placed into a vacuum desiccator at 25 in hg vacuum. On July 7, 2007 this bearing was removed from EF-411 and the bearing half cleaned and weighed again. There was no change in mass.

The other bearing half was also placed into a 250 ml Pyrex beaker but without the benefit of any storage oil. The beaker was then placed into the same vacuum desiccator at 25 in hg vacuum. On July 7, 2007 this bearing was removed from the Pyrex beaker and cleaned and weighed again. The mass increased by 0.7 mg.

Based on this data and the fact that EF-411 has been shown in the past to protect the bearings for about 3 years before things start changing, SwRI is in favor of changing the bearing storage fluid back to EF-411 but only if the bearings are cleaned first with Pentane and then placed into new containers with EF-411 and the bearings are cleaned, inspected, and the EF-411 replaced with new EF-411 on an annual basis.

Thanks for your considerations and time.

Fred Gerhart  
Senior Research Technologist  
Fuels and Lubricants Research Division  
Southwest Research Institute  
Office: (210) 522-3842  
Mobile: (210) 317-8303  
Fax : (210) 684-7523

Recipients are advised to apply their own virus check to e-mail messages and all incoming e-mail on delivery.