



100 Barr Harbor Drive ■ PO Box C700 ■ West Conshohocken, PA 19428-2959
Telephone: 610-832-9500 ■ Fax: 610-832-9555 ■ e-mail: service@astm.org ■ Website: www.astm.org

Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

Chairman: W. JAMES BOVER, ExxonMobil Biomedical Sciences Inc, 1545 Route 22 East, PO Box 971, Annandale, NJ 08801-0971, (908) 730-1048, FAX: 908-730-1197, EMail: wjbover@erenj.com
First Vice Chairman: KENNETH O. HENDERSON, Cannon Instrument Co, PO Box 16, State College, PA 16804, (814) 353-8000, Ext: 0265, FAX: 814-353-8007, EMail: kenohenderson@worldnet.att.net
Second Vice Chairman: SALVATORE J. RAND, 221 Flamingo Drive, Fort Myers, FL 33908, (941) 481-4729, FAX: 941-481-4729
Secretary: MICHAEL A. COLLIER, Petroleum Analyzer Co LP, PO Box 206, Wilmington, IL 60481, (815) 458-0216, FAX: 815-458-0217, EMail: macvarlen@aol.com
Assistant Secretary: JANET L. LANE, ExxonMobil Research and Engineering, 600 Billingsport Rd, PO Box 480, Paulsboro, NJ 08066-0480, (856) 224-3302, FAX: 856-224-3616, EMail: janet_l_lane@email.mobil.com
Staff Manager: DAVID R. BRADLEY, (610) 832-9681, EMail: dbradley@astm.org

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Reply to: Richard Grundza
ASTM Test Monitoring Center
6555 Penn Avenue
Pittsburgh, PA 15206
Phone: 412-365-1031
Fax: 412-365-1047
Email: reg@astmtmc.cmu.edu

Unapproved Minutes of the May 1, 2013
Sequence III Surveillance Panel Conference Call.

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The call was initiated by Chairman Glaenzer at 11 AM Eastern Time.

The agenda is included as attachment 1.

A listing of participants is included as attachment 2.

Minutes from the April 2, 2013 meeting were approved with no comments.

Critical Parts Inventory/Action items from previous meeting

Dave updated the panel on hardware. There are 1500 – 1600 runs on rods and cranks remaining and 1100 – 1200 runs of cylinder heads and blocks. There will not be sufficient heads and blocks

to see the test through 2016, but the quantity of hardware available is enough to last through 2015. Dwight Bowden questioned the discrepancy in heads and blocks from the last meeting. Scott Stapp indicated that there was a large order that was cancelled and that a number of heads were out for machining. Scott also indicated that there are a number of heads with production issues, including scratches/gouges in the heads. These heads may be used if the production issues can be resolved. Scott was tasked with providing an exact number of heads with production issues. Discussions turned to installation of hardened seats in the intake position. Seat material is being analyzed and Scott will contact the machine shop when this information is available. Labs were requested to send clean used heads to the Race shop and Scott acknowledge that heads from several labs were received. It is estimated that feasibility of reworking heads will be determined in the next month or so. Donated tests on the new ring batch have been reported from three labs and the panel is awaiting a fourth test from another lab. Dave had sent notification to both the Engine Oil and Heavy duty Class Panels regarding the changes to IIIF charting protocol. Changes to the report forms and data dictionary regarding hours to 275% vis increase will take affect 5/14/2013. The panel agreed to make this the effective date for the information letter. One laboratory needs to complete a donated test on the new ring batch. Three donated tests have been reported. The panel agreed to begin introducing reference oil 433-2 for calibration attempts. Motion: Ed Altman, Second George Szappanos.

Screened Average Cam and Lifter Wear Issues

A motion was made by Charlie Leverett, seconded by Bruce Matthews, to remove SACLW as a pass fail parameter. A presentation supporting Charlie's motion is included as attachment 3. Rich Grundza raised concerns about whether additional iron in the oil may alter the viscosity increase, Both Ed Altman and Charlie Leverett stated that results in their labs indicated that the higher wear did not appear to impact viscosity increase. Rich also expressed concerns about test performance, given that APV has been in mild alarm since 2006, the panel has changed the method for calculating and adjusting PVIS and now the dropping of SCALW, is the test capable of providing results at historical levels. After some discussion, the panel approved the removal of SACLW for reference tests only, Motion Charlie Leverett, second, Bruce Matthews. This motion is effective today and was deemed as an immediate change to the LTMS. The motion was approved 6/0/6. Voting summary is included as attachment 4. This change will be reviewed in six months, along with the hours correction.

New Business

The panel reviewed the status of front covers and the gear drop specification. Jason Bowden identified that these front covers were from the GM build out and OHT had procured a cover from the dealer network and it exhibited the excessive clearance as well. Machining the covers would not resolve the problem, as machining the covers to meet the drop specification would put the cover out of specification for other dimensions(s). OHT is following up with GM for corrective action. Jason also indicated that he can't determine if this condition existing on previous hardware, as these measurements were not performed on previous covers. GM engineers indicated that this increased clearance would not be a problem at this speed and oil pressure. Considerable discussions took place regarding the use of these covers and a motion was made by Charlie Leverett, seconded by Bruce Matthews, to increase the gear drop measurement from 0.089 mm to 0.153 mm and continue to try and obtain material that falls within the specified range. This vote was unanimous and both the IIIF and IIIG manuals will be updated to reflect this value.

Allocation of Parts

May 1, 2013 III Conference Call Minutes

Bruce Matthews discussed a proposal to allocate remaining parts at GM race shop. Bruce indicated that the independent labs would be given priority of the parts at the Race Shop, given the delays for GF-6 and to insure test viability with the finite number of parts available. Concerns were raised about potential legal action and that previous methods had 90 day purchase limitations and a six month limitation on the amount of parts to be held in a lab. An action item was assigned to determine if heads with the scratches/gouges can be reworked to remove the damage and make these hardware viable. Discussions took places regarding hardware surveys and additional task force items, but no formal action was taken.

The conference call ended at 12:37 PM Eastern Time.

Attachment 1

May 01, 2013 Teleconference
11:00 EDT
Call-in Number is: (866) 817-9787
Participant Passcode: 2158089
Non Toll-Free: (203) 320-2489

Agenda

1.0) Attendance

2.0) Approval of minutes

- 2.1) April 2, 2013 – San Antonio, TX

3.0) Action Item Review

- 3.1) Conduct critical parts inventory; complete, emailed 04/18/13, Glaenzer
- 3.2) SwRI provide GM information of cylinder head seat work, Lang/Clark
- 3.3) GM to investigate feasibility of installing Intake seats, Kettman/Stap
- 3.4) GM to produce pilot batch of heads with new seats, Kettman/Stap
- 3.5) All labs send one set of cleaned, used heads to GM, All Labs
- 3.6) GM to measure used heads to ensure they fall within specifications, Stap
- 3.7) Notify PCEOCP & HDEOCP of upcoming Sequence IIIF PVIS changes; complete, emailed 04/16/13, Glaenzer
- 3.8) TMC follow up with DCC to expedite IIIF changes; complete, Grundza/Clark
- 3.9) SP chair to schedule follow-up teleconference (IIIF PVIS implementation); complete
- 3.10) Labs recreate IIIF PVIS LTMS history; underway

4.0) Old Business

- 4.1) Update on IIIF RO433-1 tests with BC 11 rings; Grundza
- 4.2) Introduction of RO 433-2 in IIIF test; Grundza
- 4.3) SACLW in Sequence IIIF RO 433 tests; Leverett

5.0) New Business

- 5.1) Front cover oil pump gear drop specification; Bowden, J
- 5.2) Implementation of IIIF PVIS changes to LTMS system; Clark/Grundza
- 5.3) Allocation of remaining Sequence III parts; Matthews

6.0) Review Scope and Objectives

- 6.1) All

7.0) Next Meeting

- 7.1) TBD

8.0) Meeting Adjourned

ASTM Sequence III Surveillance Panel (20 Voting members)

date: 05/01/2013

Name/Address	Phone/Fax/Email		Signature
Ed Altman Afton Chemical Corporation 500 Spring Street Richmond, VA 23219 USA	804-788-5279 804-788-6358 ed.altman@aftonchemical.com	Voting Member	Present <input checked="" type="checkbox"/>
Art Andrews ExxonMobil Products Research 600 Billingsport Rd. Paulsboro, NJ 08066 USA	856-224-3013 arthur.t.andrews@exxonmobil.com	Non-Voting Member	Present <input type="checkbox"/>
Zack Bishop Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249-3423 USA	210-877-0223 210-690-1959 zbishop@tei-net.com	Non-Voting Member	Present <input type="checkbox"/>
Doyle Boese Infineum 1900 E. Linden Avenue Linden, NJ 07036 USA	908-474-3176 908-474-3637 doyle.boese@infineum.com	Non-Voting Member	Present <input checked="" type="checkbox"/>
Adam Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 adbowden@ohtech.com	Non-Voting Member	Present <input type="checkbox"/>
Jason Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 jhbowden@ohtech.com	Voting Member	Present <input checked="" type="checkbox"/>
Dwight H. Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 dhbowden@ohtech.com	Non-Voting Member	Present <input checked="" type="checkbox"/>

ASTM Sequence III Surveillance Panel (20 Voting members)

date:

Name/Address	Phone/Fax/Email		Signature
Matt Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 mjbowden@ohtech.com	Non-Voting Member	Present <input checked="" type="checkbox"/>
Jerome A. Brys Lubrizol Corp. 29400 Lakeland Blvd. Wickliffe, Ohio 44092 USA	440 347-2631 jerome.brys@lubrizol.com	Non-Voting Member	Present <input checked="" type="checkbox"/>
Bill Buscher III Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228 USA	210-522-6802 210-684-7523 william.buscher@swri.org	Non-Voting Member	Present <input type="checkbox"/>
Bob Campbell Afton Chemical Corporation 500 Spring Street Richmond, VA 23219 USA	804-788-5340 804-788-6358 bob.campbell@aftonchemical.com	Non-Voting Member	Present <input checked="" type="checkbox"/>
James Carter Haltermann Solutions 2296 Hulett Rd. Okemos, MI 48864 USA	517-347-3021 517-347-1024 jecarter@jhaltermann.com Cell: 517-896-0897	Non-Voting Member	Present <input type="checkbox"/>
Chris Castanien The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2973 440-944-8112 cca@lubrizol.com	Non-Voting Member	Present <input type="checkbox"/>
Timothy L. Caudill Ashland Oil Inc. 22 nd & Front Streets Ashland, KY 41101 USA	606-329-1960 x5708 606-329-2044 tlcaudill@ashland.com	Voting Member	Present <input type="checkbox"/>
Martin Chadwick Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238 USA	210-706-1543 210-684-6074 martin.chadwick@intertek.com	Non-Voting Member	Present <input type="checkbox"/>

ASTM Sequence III Surveillance Panel (20 Voting members)




date:


Name/Address	Phone/Fax/Email	Non-Voting Member	Signature
Jeff Clark Sequence III Secretary ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 USA	412-365-1032 412-365-1047 jac@atc-erc.org	Non-Voting Member	Present _____
Sid Clark Southwest Research 50481 Peggy Lane Chesterfield, MI 48047 USA	586-873-1255 Sidney.L.Clark@sbcglobal.net	Non-Voting Member	Present _____ ✓
Todd Dvorak Afton Chemical Corporation P.O. Box 2158 Richmond, VA 23218-2158 USA	804-788- 6367 804-788- 6388 todd.dvorak@aftonchemical.com	Non-Voting Member	Present _____ ✓
Frank Farber ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 USA	412-365-1030 412-365-1047 fmf@astmtmc.cmu.edu	Non-Voting Member	Present _____
Gordon R. Farnsworth Infineum RR # 5 Box 211 Montrose, PA 18801 USA	570-934-2776 570-934-0141 gordon.farnsworth@infineum.com	Non-Voting Member	Present _____ ✓
Joe Franklin Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238 USA	210-523-4671 210-523-4607 joe.franklin@intertek.com	Non-Voting Member	Present _____
David L. Glaenzer Afton Chemical Corporation 500 Spring Street P.O. Box 2158 Richmond, VA 23218-2158 USA	804-788-5214 804-788-6358 dave.glaenzer@aftonchemical.com Surveillance Panel Chairman	Non-Voting Member	Present _____ ✓

Name/Address	Phone/Fax/Email		Signature
Richard Grundza ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 USA	412-365-1031 412-365-1047 reg@astmtmc.cmu.edu	Voting Member	Present <input checked="" type="checkbox"/>
Jeff Kettman GM Racing 5388 Hill 23 Drive Flint, MI 48507 USA	313-667-0493 313-319-0139 – cell jeff.kettman@gm.com	Voting Member	Present <input type="checkbox"/>
Tracey King Haltermann Solutions MI USA	947-517-4107 tking@jhaltermann.com	Voting Member	Present <input checked="" type="checkbox"/>
Clayton Knight Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249-3423 USA	210-690-1958 210-690-1959 cknight@tei-net.com	Voting Member	Present <input checked="" type="checkbox"/> <i>MARIC SUTHERLAND</i> <i>Representing</i>
Teri Kowalski Toyota Motor North America, Inc. 1555 Woodridge Ann Arbor, MI 48105	734-995-4032 734-995-9049 teri.kowalski@tema.toyota.com	Voting Member	Present <input type="checkbox"/>
Patrick Lang Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228 USA	210-522-2820 210-684-7523 plang@swri.edu	Voting Member	Present <input checked="" type="checkbox"/>
Charlie Leverett Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238 USA	210-647-9422 210-523-4607 charlie.leverett@intertek.com	Voting Member	Present <input checked="" type="checkbox"/>
Josephine G. Martinez Chevron Oronite Company LLC 100 Chevron Way Richmond, CA 94802 USA	510-242-5563 510-242-3173 jogm@chevrontexaco.com	Voting Member	Present <input checked="" type="checkbox"/>

ASTM Sequence III Surveillance Panel (20 Voting members)

date:

Name/Address	Phone/Fax/Email		Signature
Bruce Matthews GM Powertrain Mail Code 483-730-472 823 Jocelyn Avenue Pontiac, MI 48340 USA	248-830-9197 248-857-4441 bruce.matthews@gm.com Test Sponsor Representative	Voting Member	Present <u></u>
Mike McMillan	mmcmillan123@comcast.net	Non-Voting Member	Present _____
Timothy Miranda BP Castrol Lubricants USA 1500 Valley Road Wayne, NJ 07470 USA	973-305-3334 973-686-4039 Timothy.Miranda@bp.com	Voting Member	Present _____
Mark Mosher ExxonMobil Technology Co. Billingsport Road Paulsboro, NJ 08066 USA	856-224-2132 856-224-3628 mark.r.mosher@exxonmobil.com	Voting Member	Present <u></u>
Siamak Moshiri Cad Railway Industries Ltd. 155 Montreal – Toronto Highway H8S 1B4 Montreal, QC, CANADA	1-634-3131, ext. 412 smoshiri@cadrail.ca	Non-Voting Member	Present _____
Bob Olree 5388 Hill 23 Drive Flint, MI 48507 USA	248-689-3078 olree@netzero.net	Non-Voting Member	Present _____
Christian Porter Afton Chemical Corp. 500 Spring Street Richmond, VA 23219 USA	804-788-5837 804-788-6358 christian.porter@aftonchemical.com	Non-Voting Member	Present <u></u>
Phil Rabbat BASF Corporation 500 White Plains Road Tarrytown, NY 10591-9005 USA	914-785-2217 914-785-3681 phil.rabbat@basf.com	Non-Voting Member	Present _____

Name/Address	Phone/Fax/Email		Signature
Allison Rajakumar The Lubrizol Corporation Drop 152A 29400 Lakeland Blvd. Wickliffe, OH 44092 USA	440-347-4679 440-347-2014 Allison.Rajakumar@Lubrizol.com	Non-Voting Member	Present _____
Scott Rajala Idemitsu Lubricants America Corp.	srajala@ilacorp.com	Non-Voting Member	Present _____
Andrew Ritchie Infineum 1900 East Linden Avenue P.O. Box 735 Linden, NJ 07036 USA	908-474-2097 908-474-3637 Andrew.Ritchie@Infineum.com	Voting Member	Present  _____
Ron Romano Ford Motor Company Diagnostic Service Center II Room 410. 1800 Fairlane Drive Allen Park, MI 48101 USA	313-845-4068 313-32-38042 rromano@ford.com	Voting Member	Present _____
Jim Rutherford Chevron Oronite Company LLC 100 Chevron Way Richmond, CA 94802 USA	510-242-3410 510-242-3173 jaru@chevrontexaco.com	Non-Voting Member	Present _____
Philip R. Scinto The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2161 440-347-9031 prs@lubrizol.com	Non-Voting Member	Present _____
Greg Shank Volvo	301-790-5817 greg.shank@volvo.com	Voting Member	Present _____
Thomas Smith Valvoline P.O. Box 14000 Lexington, KY 40512-1400 USA	859-357-2766 859-357-7084 trsmith@ashland.com PCEOCP Chair	Voting Member	Present _____

ASTM Sequence III Surveillance Panel (20 Voting members)

date:

Name/Address	Phone/Fax/Email		Signature
Don Smolenski GM	248-255-7892 donald.j.smolenski@gm.com	Non-Voting Member	Present _____
Mark Sutherland Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249-3423 USA	msutherland@tei-net.com	Non-Voting Member	Present <input checked="" type="checkbox"/>
George Szappanos The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2352 440-347-4096 greg.seman@lubrizol.com	Voting Member	Present <input checked="" type="checkbox"/>
Haiying Tang Chrysler LLC USA	248-512-0593 ht146@chrysler.com	Voting Member	Present _____
Joe Vujica The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2057 440-347-4096 jvu@lubrizol.com	<i>Remove</i> Non-Voting Member	Present _____
Ben O. Weber Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228 USA	210-522-5911 210-684-7530 bweber@swri.edu Sub-Committee D02.B01 Chair	Non-Voting Member	Present _____
Tom Wingfield Chevron Phillips Chemical Co.	wingftm@cpchem.com	Non-Voting Member	Present _____

Stockwell

Karen SWRI

Scott Stapp

Addison IAR

IIIF SACLW Reference Limits

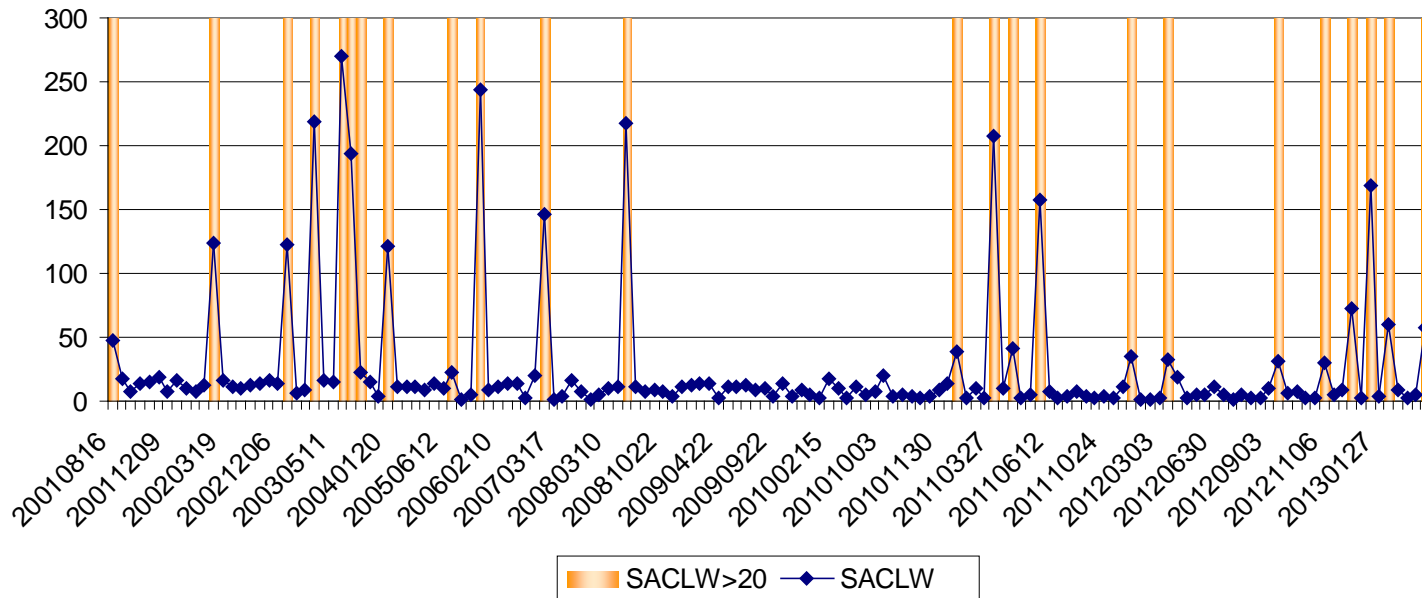
- **Currently IIF SACLW is judged against the same limits that candidates are judged against.**
 - **SACLW (Screened Average Cam + Lifter Wear) ≤ 20.0 is an acceptable reference**
 - **Early in the life of the IIF reference acceptance was judged against ACLW (unscreened). All data reviewed for this purpose uses the SACLW from the TMC database for charted tests only.**
- **A review of IIF charted tests finds that failing SACLW results are likely formulation related.**

	433	1006	1008	1006-2	1008-1	433-1
SACLW > 20	1	0	3	0	2	24
N Size	19	42	57	76	40	144
Fail Rate	5%	0%	5%	0%	5%	17%

Charted IIF reference tests only through 04/15/2013

- A review of 433-1 performance over time shows that **SACLW>20.0** has been occurring since the oil was introduced.

IIIF Charted Reference Tests on 433-1 SACLW Performance



- **Early in the life of the IIF test it was determined that high SACLW results were often caused by cam lobe failures during the timing run. A review of timing run iron indicates this could be the case for 433-1.**

	SACLW<=20	SACLW>20
433-1 Timing Run Iron Average	4	13

Chrated IIF reference tests only through 04/15/2013

- **Additional review of cam and lifter wear on failing 433-1 tests finds that the failure is a result of cam lobe failures on 23 of 24 failing tests.**

	SACLW<=20 (n=120)		SACLW>20 (n=24)	
	ACW	ALW	ACW	ALW
433-1 Average Wear	2.7	8.0	118.3	8.2

Chrated IIF reference tests only through 04/15/2013

Motion to Remove
~~III~~ E.O. ACLW

Voting Members (20)

Ed Altman	Afton Chemical	Y
Jason Bowden	OH Technologies	W
Tim Caudill	Ashland Oil	
Richard Grundza	ASTM-Test Monitoring Center	W
Jeff Kettman	GM Racing	
Tracey King	Haltermann	W
Clayton Knight	Test Engineering, Inc.	W
Teri Kowalski	Toyota Motor North America	
Patrick Lang	Southwest Research Institute	Y
Charlie Leverett	Intertek Automotive Research	Y
Josephine Martinez	Chevron Oronite	W
Bruce Matthews	GM Powertrain	Y
Timothy Miranda	BP Castrol Lubricants	
Mark Mosher	ExxonMobil Technology Co.	W
Andrew Ritchie	Infineum	Y
Ron Romano	Ford Motor Company	
Greg Shank	Volvo	
George Szappanos	The Lubrizol Corporation	Y
Thomas Smith	Valvoline	
Haiying Tang	Chrysler LLC	

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