



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](mailto:service@astm.org) ■ Website: [www.astm.org](http://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](mailto: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](mailto: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](mailto: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](mailto:janet_l.lane@email.mobil.com)  
*Staff Manager:* DAVID R. BRADLEY, (610) 832-9681, EMail: [dbradley@astm.org](mailto: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](mailto:reg@astmtmc.cmu.edu)

Unapproved Minutes of the August 19, 2014  
Sequence IV Surveillance Panel Conference Call.

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The meeting was called to order by Chairman Buscher at 2 PM Eastern Time.

A list of attendees is included as attachment 1.

A copy of the agenda is included as attachment 2

Two membership changes were noted, Ryan Rieth replaces Andy Ritchie as the voting member for Infineum and Dan Lanctot replaces Mark Sutherland as the voting member for TEL..

#### **Status of Nissan Hardware**

Intertek and Lubrizol have received all their ordered hardware and have received all their BC-2 cams.

August 19, 2014 Sequence IV Surveillance Panel

SwRI has received their BC-1 and BC-2 cams and all the other hardware purchased. They are still waiting on BC-3 cams.

#### **Status of OHT Camshaft Regrinding**

OHT has received all the cams from Nissan. OHT had worked with Nissan to devise better packaging and shipping practices and has virtually eliminated the damaged cam issues that were experienced in early shipments. Jason Bowden of OHT indicated that the grinding of BC-3 cams is currently being conducted.

#### **Status of Hardware Currently Available and in use at Test Laboratories/Status of BC-1 and 2 Cams, Other Hardware Challenges**

Labs were asked to discuss the status of new hardware in their lab. SwRI is calibrated on BC-1 cams and have run a “shakedown” test on a BC-2 cam which provided comparable results to BC-1 cams. Intertek is attempting to calibrate on BC-2 cams and have indicated that they are encountering mild results on the stand they are attempting to calibrate. They have started a “shakedown” test on another stand on a BC-2 cam and the Fe results at 50 hours are in line with what they would expect. Al Lopez indicated that they expected to reference on BC-2 cams in the next three weeks.

Lubrizol is due to run a reference at the end of September and will reference on BC-2 cams. None of the laboratories indicated they expected any additional hardware changes for the foreseeable future.

#### **Introduction of ASTM Reference Oil 300**

After some discussion, the panel members agreed to use donated tests on BC cams to introduce reference oil 300 into the LTMS. Tests do not have to be run on the same batch code cam, however, labs donating tests must be calibrated on BC-X cams, prior to conducting a donated test. Each lab will donate one test per calibrated stand, which will result in six tests used for initial targets, five from the laboratories and the sixth data point obtained by using the supplier result on this oil. The calibration period for each stand donating a test will be extended by one test. After some discussion, the panel approved the following motion:

Attempt to introduce ASTM reference oil 300 into the Sequence IVA test with 5 donated tests, provided by Lubrizol, SwRI and Intertek, with each test being conducted on a different, currently calibrated, test stand, using a BC camshaft batch that has been acceptably calibrated in that lab. Initial targets to be established using 6 data points; the 5 donated test results and the supplier provided test result. Each test stand used to conduct a donated test will have its current calibration period extended by one test. If a lab only has one calibrated test stand and has offered to conduct two donated tests, they can conduct both donated tests on their one calibrated test stand, and that stand’s current calibration period will be extended by two tests.

Motion was made by William Buscher, seconded by Fred Gerhart and approved with one waive.

#### **Action Items from Previous Meeting/PDI Software Update**

A review of the status of action items from the previous meeting was under taken. These action items and their status are listed in Attachment 3. The PDI software update was discussed and there appeared to be some misunderstanding on the status of the update. The software distributed was a beta test of software designed to run on Windows 7 OS. As a result of the review of the PDI update, a number of action items were assigned to address the PDI software update. First, Intertek is to verify what PDI software version is currently being used for Sequence IVA camshaft wear measurements. Intertek and SwRI to complete the Sequence IVB wear measurement round robin, on the

August 19, 2014 Sequence IV Surveillance Panel

PDI Windows 98 and updated Window 7 software, that is currently in process on the test parts (camshafts and lifters) from test IVB100-0-1. Both labs will also conduct a Sequence IVA wear measurement round robin, on the PDI Windows 98 and updated Window 7 software, using a recent end of test camshaft provided by one of the labs. If the round robin data is acceptable, the labs will then work out the logistics to purchase the updated software from PDI.

There was no old business.

The meeting was adjourned at 2:52 PM.

A listing of action items from this meeting is included as attachment 4.

A Sequence IV Surveillance Panel conference call has been scheduled for 2:00pm Eastern / 1:00pm Central / 11:00am Pacific time on Tuesday, 8/19/14. The conference call will be focused on the Sequence IVA. The topics for discussion are as follows:

1. Status of 2013 Nissan hardware order.
2. Status of OHT camshaft regrinding.
3. Status of hardware currently available and in use at test laboratories.
4. Status of batch BC-1 and BC-2 camshafts.
5. Any other hardware challenges.
6. Introduction of ASTM reference oil 300.

**Call in Information**

Meeting Number: 1-800-391-9177  
Access Code: 4875645502

**MEMBERSHIP  
ASTM IVA SURVEILLANCE PANEL**

November 20, 2013

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
Bowden, Jason	OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 Phone No.: 440-354-7007 Fax No.: 440-354-7080 Email: <a href="mailto:jhbowden@ohtech.com">jhbowden@ohtech.com</a>	✓ Y
Buscher III, William	<del>Southwest Research Institute 6220 Culebra Road P.O. Drawer 28510 San Antonio, TX 78228-0510 Phone No.: 210-522-6802 or 210-240-8990 cell Fax No.: 210-684-7523 Email: <a href="mailto:william.buscher@swri.org">william.buscher@swri.org</a></del> UPDATE	✓
Buscher, Jr., William	Buscher Consulting Services P.O. Box 112 Hopewell Jct., NY 12533 Phone No.: 914-897-8069 Fax No.: 914-897-8069 Email: <a href="mailto:buschwa@aol.com">buschwa@aol.com</a>	
Caudill, Timothy	Ashland Inc. 22 <sup>nd</sup> & Front Streets Ashland, KY 41114 Phone No.: 606-329-1960 x5708 Fax No.: 606-329-2044 Email: <a href="mailto:tlcaudill@ashland.com">tlcaudill@ashland.com</a>	✓ Y
Gerhart, Fred	Southwest Research Institute 6220 Culebra Road P.O. Drawer 28510 San Antonio, TX 78228-0510 Phone No.: 210-522-3842 or 210-317-8303 cell Fax No.: 210-684-7523 Email: <a href="mailto:fred.gerhart@swri.org">fred.gerhart@swri.org</a>	✓ Y
Glaenzer, Dave	Afton Chemical Corporation 500 Spring Street P.O. Box 2158 Richmond, VA 23217-2158 Phone No.: 804-788-5214 Fax No.: 804-788-6358 Email: <a href="mailto:dave.glaenzer@aftonchemical.com">dave.glaenzer@aftonchemical.com</a>	✓ Y
Grundza, Rich	ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 Phone No.: 412-365-1031 Fax No.: 412-365-1047 Email: <a href="mailto:reg@astmtmc.cmu.edu">reg@astmtmc.cmu.edu</a>	✓ Y
Hsu, Jeffery	Shell Global Solutions 3333 Highway 6 South Houston, TX 77082 Phone No.: 281-544-8619 Fax No.: 281-544-8150 Email: <a href="mailto:j.hsu@shell.com">j.hsu@shell.com</a>	↑ PRESENT
		↑ VOTE ON MOTION

**MEMBERSHIP  
ASTM IVA SURVEILLANCE PANEL**

November 20, 2013

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
King, Tracey	Haltermann Solutions 2296 Hulett Okemos, MI 48864 Phone No.: 947-517-4107 Fax No.: Email: <a href="mailto:tking@jhaltermann.com">tking@jhaltermann.com</a>	
Kowalski, Teri	Toyota Motor North America, Inc. 1555 Woodridge Ann Arbor, MI 48105 Phone No.: 734- 995-4032 or 734-355-8082 cell Fax No.: 734- 995-9049 Email: <a href="mailto:teri.kowalski@tema.toyota.com">teri.kowalski@tema.toyota.com</a>	✓ Y
Lopez, Al	Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238-1993 Phone No.: 210-862-7935 Fax No.: 210-523-4607 Email: <a href="mailto:al.lopez@intertek.com">al.lopez@intertek.com</a>	✓ Y
Matthews, Bruce	GM Powertrain Mail Code 483-730-322 823 Joslyn Rd. Pontiac, MI 48340-2920 Phone No.: 248-830-9197 Fax No.: 248-857-4425 Email: <a href="mailto:bruce.matthews@gm.com">bruce.matthews@gm.com</a>	
Miranda, Timothy	BP Castrol 1500 Valley Road Wayne, NJ 07470 Phone No.: 973-305-3334 Fax No.: 973-686-4039 Email: <a href="mailto:timothy.miranda@bp.com">timothy.miranda@bp.com</a>	✓ Y
Moles, Nathan	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092 Phone No.: Fax No.: <b><u>PLEASE ADD YOUR INFO.</u></b> Email:	✓ Y
Mosher, Mark	ExxonMobil Research & Engineering Co. 600 Billingsport Road P.O. Box 480 Paulsboro, NJ 08066-0480 Phone No.: 856-224-2132 Fax No.: 856-224-3628 Email: <a href="mailto:mark.r.mosher@exxonmobil.com">mark.r.mosher@exxonmobil.com</a>	
Ritchie, Andrew	Infineum USA L.P. 1900 E. Linden Avenue Linden, NJ 07036-0536 Phone No.: 908-474-2097 Fax No.: 908-474-3637 Email: <a href="mailto:andrew.ritchie@infineum.com">andrew.ritchie@infineum.com</a>	✓ → Y REPLACE W/ RYAN

**MEMBERSHIP  
ASTM IVA SURVEILLANCE PANEL**

November 20, 2013

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
Romano, Ron	Ford Motor Company 1800 Fairlane Drive Allen Park, MI 48101 Phone No.: 313-845-4068 Fax No.: 313-323-8042 Email: <a href="mailto:rromano@ford.com">rromano@ford.com</a>	
Sagawa, Takumaru	Nissan Motor Co., Ltd. 560-2, Okatsukoku, Atsugi city Kanagawa 243-0192 Phone No.: 046-270-1515 Fax No.: 046-270-1585 Email: <a href="mailto:t-sagawa@mail.nissan.co.jp">t-sagawa@mail.nissan.co.jp</a>	
Sinha, Kaustav	Chevron Oronite Company LLC 4800 Fournace Place Bellaire, TX 77401 Phone No.: 713-432-6642 Fax No.: 713-432-3330 Email: <a href="mailto:LFNO@chevron.com">LFNO@chevron.com</a>	✓ Y
Sutherland, Mark	Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249 Phone No.: 210-867-8357 Fax No.: 210-690-1959 Email: <a href="mailto:msutherland@tei-net.com">msutherland@tei-net.com</a>	REPLACE W/ DAN → W
Tang, Haiying	Chrysler Group LLC 800 Chrysler Drive Auburn Hills, MI Phone No.: Fax No.: Email: <a href="mailto:HT146@Chrysler.com">HT146@Chrysler.com</a>	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	

**NON-MEMBER MAILING LIST  
ASTM IVA SURVEILLANCE PANEL**

November 20, 2013

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
Altman, Ed	Afton Chemical Corporation 500 Spring Street P.O. Box 2158 Richmond, VA 23217-2158 Phone No.: 804-788-5279 Fax No.: 804-788-6358 Email: <a href="mailto:ed.altman@aftonchemical.com">ed.altman@aftonchemical.com</a>	
Bishop, Zack	Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249 Phone No.: Fax No.: 210-690-1959 Email: <a href="mailto:ZBishop@tei-net.com">ZBishop@tei-net.com</a>	✓
Boese, Doyle	Infineum USA L.P. 1900 E. Linden Avenue Linden, NJ 07036-0536 Phone No.: 908-474-3176 Fax No.: 908-474-3637 Email: <a href="mailto:doyle.boese@infineum.com">doyle.boese@infineum.com</a>	
Bowden, Adam	OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 Phone No.: 440-354-7007 Fax No.: 440-354-7080 Email: <a href="mailto:adbowden@ohtech.com">adbowden@ohtech.com</a>	
Bowden, Dwight	OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 Phone No.: 440-354-7007 Fax No.: 440-354-7080 Email: <a href="mailto:dhbowden@ohtech.com">dhbowden@ohtech.com</a>	
Bowden, Matt	OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 Phone No.: 440-354-7007 Fax No.: 440-354-7080 Email: <a href="mailto:mbowden@ohtech.com">mbowden@ohtech.com</a>	✓
Brys, Jerome	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092 Phone No.: 440-347-2631 / 440-943-1200 Fax No.: 440-943-9013 Email: <a href="mailto:jabs@lubrizol.com">jabs@lubrizol.com</a>	✓
Carlson, Jon	Lubrizol Corporation 14602 Huebner, Suite 116-PMB 198 San Antonio, TX 78230 Phone No.: 210-391-8838 cell Fax No.: 210-522-0391 Email: <a href="mailto:jomc@lubrizol.com">jomc@lubrizol.com</a>	



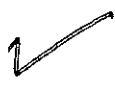


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November 20, 2013

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
Carter, James	Haltermann Solutions 2296 Hulett Okemos, MI 48864 Phone No.: 517-347-3021 Fax No.: 517-347-1024 Email: <a href="mailto:jecarter@jhaltermann.com">jecarter@jhaltermann.com</a>	
Castanien, Chris	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092 Phone No.: 440-347-2973 / 440-943-1200 Fax No.: 440-943-9013 Email: <a href="mailto:cca@lubrizol.com">cca@lubrizol.com</a>	
Clark, Sid	Southwest Research Institute 50481 Peggy Lane Chesterfield, MI 48047 Phone No.: 586-873-1255 Email: <a href="mailto:sidney.clark@swri.org">sidney.clark@swri.org</a>	
Clark, Jeff	ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 Phone No.: 412-365-1032 Fax No.: 412-365-1047 Email: <a href="mailto:jac@astmtmc.cmu.edu">jac@astmtmc.cmu.edu</a>	
Conrad Michael	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092 Phone No.: Fax No.: Email: <a href="mailto:Michael.Conrad@Lubrizol.com">Michael.Conrad@Lubrizol.com</a>	✓
Dvorak, Todd	Afton Chemical Corporation 500 Spring Street P.O. Box 2158 Richmond, VA 23217-2158 Phone No.: 804-788- Fax No.: 804-788-6358 Email: <a href="mailto:todd.dvorak@aftonchemical.com">todd.dvorak@aftonchemical.com</a>	✓
Farnsworth, Gordon	Infineum USA L.P. 1900 E. Linden Avenue Linden, NJ 07036-0536 Phone No.: 570-934-2776 Fax No.: 908-474-3637 Email: <a href="mailto:gordon.farnsworth@infineum.com">gordon.farnsworth@infineum.com</a>	
Ishikawa, Masa	Infineum USA L.P. 1900 East Linden Avenue Linden, NJ 07036 Phone No.: 908-474-2384 Fax No.: 908-474-3597 Email: <a href="mailto:masa.ishikawa@infineum.com">masa.ishikawa@infineum.com</a>	

**NON-MEMBER MAILING LIST  
ASTM IVA SURVEILLANCE PANEL**

November 20, 2013

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
Kelly, Jack	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092 Phone No.: 216-943-1200 Fax No.: Email: <a href="mailto:jack@lubrizol.com">jack@lubrizol.com</a>	
Knight, Clayton	Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249 Phone No.: 210-862-5987 cell Fax No.: 210-690-1959 Email: <a href="mailto:cknight@tei-net.com">cknight@tei-net.com</a>	
Lang, Patrick	Southwest Research Institute 6220 Culebra Road P.O. Drawer 28510 San Antonio, TX 78228-0510 Phone No.: 210-522-2820 or 210-240-9461 cell Fax No.: 210-684-7523 Email: <a href="mailto:patrick.lang@swri.org">patrick.lang@swri.org</a>	
Linden, Jim	Linden Consulting LLC  Phone No.: 248-321-5343 Fax No.: Email: <a href="mailto:lindenjim@jlindenconsulting.com">lindenjim@jlindenconsulting.com</a>	
Liu, Eric	Southwest Research Institute 6220 Culebra Road P.O. Drawer 28510 San Antonio, TX 78228-0510 Phone No.: 210-522-5937 or 210-416-9024 cell Fax No.: 210-684-7523 Email: <a href="mailto:eric.liu@swri.org">eric.liu@swri.org</a>	
Martinez, Jo	Chevron Oronite Company LLC 100 Chevron Way, 60-1211 P.O. Box 1627 Richmond, CA 94802-0627 Phone No.: 510-242-5563 Fax No.: 510-242-1930 Email: <a href="mailto:jogm@chevrontexaco.com">jogm@chevrontexaco.com</a>	
McMillan, Mike	Infineum  Phone No.: Fax No.: Email: <a href="mailto:mmcmillan123@comcast.net">mmcmillan123@comcast.net</a>	
Porter, Christian	Afton Chemical Corporation 500 Spring Street P.O. Box 2158 Richmond, VA 23217-2158 Phone No.: 804-788-5837 Fax No.: 804-788-6358 Email: <a href="mailto:christian.porter@aftonchemical.com">christian.porter@aftonchemical.com</a>	

**NON-MEMBER MAILING LIST  
ASTM IVA SURVEILLANCE PANEL**

November 20, 2013

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
Rutherford, Jim	Chevron Oronite Company LLC 100 Chevron Way, 60-1211 P.O. Box 1627 Richmond, CA 94802-0627 Phone No.: 510-242-3410 Fax No.: 510-242-1930 Email: <a href="mailto:jaru@chevrontexaco.com">jaru@chevrontexaco.com</a>	
Scinto, Phil	Lubrizol Corporation 29400 Lakeland Blvd. Mail Drop 152-A Wickliffe, OH 44092 Phone No.: 440-347-2161 Fax No.: 440-347-9031 Email: <a href="mailto:prs@lubrizol.com">prs@lubrizol.com</a>	
Smolenski, Don	Phone No.: Fax No.: Email:	
Sutherland, Robert	Shell Global Solutions 3333 Highway 6 South Houston, TX 77082 Phone No.: 281-544-8620 Fax No.: 281-544-8150 Email: <a href="mailto:r.sutherland@shell.com">r.sutherland@shell.com</a>	
Sworski, Adam	Ashland Inc. 22 <sup>nd</sup> & Front Streets Ashland, KY 41114 Phone No.: Fax No.: Email: <a href="mailto:AESworski@ashland.com">AESworski@ashland.com</a>	
Thompson, Hap	Phone No.: 908-287-9596 Fax No.: Email: <a href="mailto:Hapjthom@aol.com">Hapjthom@aol.com</a>	
Weber, Ben	Southwest Research Institute 6220 Culebra Road P.O. Drawer 28510 San Antonio, TX 78228-0510 Phone No.: 210-522-5911 Fax No.: 210-684-7523 Email: <a href="mailto:benjamin.weber@swri.org">benjamin.weber@swri.org</a>	
Warholic, Mike	Phone No.: 609-744-6782 Fax No.: Email: <a href="mailto:Michael.Warholic@Infineum.com">Michael.Warholic@Infineum.com</a>	

**NON-MEMBER MAILING LIST  
ASTM IVA SURVEILLANCE PANEL**

November 20, 2013

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
<p align="center">RYAN RIETH</p>	<p align="center">INFINEUM</p> <p>Phone No.: Fax No.: Email:</p>	<p align="center">✓</p>
<p align="center">DAN LANCOT</p>	<p align="center">TEI</p> <p>Phone No.: Fax No.: Email:</p>	<p align="center">✓</p>
<p align="center">RICARDO ?</p>	<p align="center">ORNITE</p> <p>Phone No.: Fax No.: Email:</p>	<p align="center">✓</p>
	<p>Phone No.: Fax No.: Email:</p>	
	<p>Phone No.: Fax No.: Email:</p>	
	<p>Phone No.: Fax No.: Email:</p>	
	<p>Phone No.: Fax No.: Email:</p>	
	<p>Phone No.: Fax No.: Email:</p>	

Sequence IV Surveillance Panel  
November 20, 2013  
8:00AM – 10:00AM  
Southwest Research Institute  
San Antonio, TX

Motions and Action Items

As Recorded at the Meeting by Bill Buscher

1. Action Item – Surveillance panel chair and Toyota to follow up with PDI requesting a future software upgrade that will reintroduce trace overlay capabilities.  
**Completed. Updated PDI software developed for Window 7 and is currently being BETA tested at Intertek and SwRI.**
2. Action Item – SwRI to provide OHT with sourcing information for Sequence IVA camshaft rear freeze plug.  
**Completed. Necessary information was provided by SwRI and received by OHT.**
3. Action Item – OHT to find out from camshaft regrind vendor if they observed any convex lobes in their pre-regrinding surface profilometer inspections of the 32 camshaft sampling.  
**Completed. No convex lobes were found.**
4. Action Item – Labs to follow up with Nissan on status of camshaft replacements for the 62 camshafts rejected due to shipping damage.  
**Completed. Nissan replaced the 62 camshafts in a later shipment.**
5. Action Item – Surveillance panel chair to reply to NNA indicating the 3 test labs purchasing Sequence IVA hardware directs NNA to coordinate directly with OHT for future camshaft shipments from NNA to OHT. Indicate OHT is willing to provide individual camshaft packaging, as well as shipping crates/pallets, for shipping from NNA to OHT.  
**Completed. OHT coordinated and handled all additional camshaft shipments from NNA to OHT. No additional camshafts were damaged in shipment.**
6. Action Item – Surveillance panel chair to request another update from Nissan on status of remaining balance from the industry order, including components other than the balance of camshafts, then report to the purchasing test labs.

**Completed. All hardware from the 2013 industry order has been delivered and received by either OHT or the test labs.**

7. Action Item – Form a Sequence IVA test procedure editorial review task force, with Fred Gerhart as leader, to further clean up some inconsistencies within the test procedure. Anyone interested, to contact Fred to join the task force.

**Open. To be addressed. If you have not done so already and are interested, please contact Fred asking to join this task force.**

## Sequence IV Surveillance Panel

August 19, 2014

1:00PM – 2:00PM

Conference Call

### Motions and Action Items

#### As Recorded at the Meeting by Bill Buscher

8. Motion – Attempt to introduce ASTM reference oil 300 into the Sequence IVA test with 5 donated tests, provided by Lubrizol, SwRI and Intertek, with each test being conducted on a different, currently calibrated, test stand, using a BC camshaft batch that has been acceptably calibrated in that lab. Initial targets to be established using 6 data points; the 5 donated test results and the supplier provided test result. Each test stand used to conduct a donated test will have its current calibration period extended by one test. If a lab only has one calibrated test stand and has offered to conduct two donated tests, they can conduct both donated tests on their one calibrated test stand, and that stand's current calibration period will be extended by two tests.

Bill Buscher / Fred Gerhart / Passed 11 – 0 – 1

9. Action Item – Once the 5 donated tests have been completed and initial target have been calculated, Surveillance panel chair to schedule a follow up conference call to discuss test results, proposed initial targets and introduction of ASTM reference oil 300 into the Sequence IVA test.

10. Action Item – Intertek to verify what PDI software version is currently being used for Sequence IVA camshaft wear measurements.

11. Action Item – Intertek and SwRI to complete the Sequence IVB wear measurement round robin, on the PDI Windows 98 and updated Window 7 software, that is currently in process on the test parts (camshafts and lifters) from test IVB100-0-1.

12. Action Item – Intertek and SwRI to conduct a Sequence IVA wear measurement round robin, on the PDI Windows 98 and updated Window 7 software, using a recent end of test camshaft provided by either Intertek or SwRI.

13. Action Item – If the Sequence IVA and IVB round robin data, comparing the PDI Windows 98 and updated Window 7 software, produces reproducible

August 19, 2014 Sequence IV Surveillance Panel

results, Intertek and/or SwRI to follow up with PDI to determine the logistics for purchasing the PDI Windows 7 software upgrade.