



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)

Originally Issued: November 21, 2007

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 November 14, 2007  
Sequence IVA Surveillance Panel Meeting  
held in San Antonio, TX

*This document is not an ASTM standard; it is under consideration within an ASTM technical committee but has not received all approvals required to become an ASTM standard. It shall not be reproduced or circulated or quoted, in whole or in part, outside of ASTM committee activities except with the approval of the chairman of the committee having jurisdiction and the president of the society. Copyright ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.*

The meeting was called to order at 1:00 pm by Chairman Bill Buscher. A membership list was circulated for members & guests to sign in. It's shown in Attachment 1.

Agenda Review

Bill Buscher is Action & Motion recorder.

The Agenda was accepted as shown on Attachment 2.

Membership Changes

## Sequence IVA Meeting Minutes

November 14, 2007

San Antonio, TX

Al Lopez will replace Dan Worcester for Intertek. George Szappanos will replace Jerry Brys for Lubrizol.

### Meeting Minute Status

The June 7, 2006 meeting minutes were approved by the surveillance panel.

### Review of Action Items from Last Meeting

As Recorded at the Meeting by Pat Lang.

1. Action Item – Panel to review RSI and TMC data to make sure no shifts have occurred. Chairman will ask ACC to provide ACW time plot of individual data points including engine block and head runs. Report data from December 2004 through May 2006.

**Incomplete. Chairman has reviewed his lab's data, which accounts for approximately 50% of the industry's data, and observed no shifts.**

2. Action Item – Chairman to analyze GF-3 and GF-4 test usage. Contact ILSAC regarding the inclusion of the IVA in GF-5 and see if we can get feedback on the number of test that could be potentially needed for GF-5. Inquire regarding what the new limit will be for the test to facilitate estimating parts needed for the category.

**Done. Proposed GF-5 limit is 90 micrometers and anticipated test usage for GF-5 will be equivalent to GF-4.**

3. Action Item – Chairman of the LTMS, Ben Weber to investigate the pros and cons of the new IIIG LTMS system and study how well it could potentially be applied to the IVA. Ben will send a request for feedback to the ACC chairman to obtain additional feedback for this investigation.

**Drop and replace with action item 1 and 2 from today's meeting.**

4. Action Item – Labs to consider whether or not they want to release their current inventory level of parts to chairman to be discussed at each surveillance panel meeting.

**DONE – No one was willing to release information.**

5. Action Item – TMC to conduct analysis, by reference oil and by cam batch, of the Seq IVA LTMS database to evaluate severity trends of each reference oil.

**Done. TMC Memorandum 06-056 issued on August 30, 2006.**

### Fuel Supplier Report

Wayne Peterson, who attended the meeting for Jim Carter, gave a quick summary of fuel consumption, which has been averaging about 11,000 gallons this year for Sequence IVA and VIII usage combined. A question was asked about long term supply. Wayne answered that this is not a batch product and is blended as needed, so availability is generally not an issue. A copy of Wayne's report is included as attachment 3.

Sequence IVA Meeting Minutes  
November 14, 2007  
San Antonio, TX

### Test Monitoring Center Report

A copy of the Test Monitoring Center Report is available at the TMC website. The report was reviewed during the meeting. Rich Grundza stated that severity and precision charts were in control for the period and that overall, ACW trended about 7.5  $\mu\text{m}$  mild and precision was at or better than historical levels. Rich then presented data on a target update for reference oil 1009. A copy is included as attachment 4. The mean and standard deviation are based on 29 tests, and will be fixed. The updated targets were approved unanimously and are effective for reference oil tests completing on or after November 14, 2007.

### RSI Report

Reports were previously emailed to panel members and posted to the RSI website. The Chairman reviewed the reports at the meeting.

ACC Selection of new monitoring agency: Frank Farber commented that the TMC has been awarded the ACC&ATC monitoring contracts and would assume registration duties on January 1, 2008.

### Test Hardware Report

Bill detailed the history of the latest parts solicitations to date. There were a limited number of components were received and the remainder of the order was cancelled by Nissan. A solicitation for 2007 has not been received to date. Bill presented an email history of his attempts to track down the parts supply. Copies of Bill's emails are included as attachment 5. Initially, NNA stated that the parts would be available until 2010 and that NNA would support the test through 2010. NNA's last correspondence indicated that they would continue to support the test and parts are available. Bill agreed to forward a list of labs and contacts who run the tests to NNA. Concerns were raised about the 2005 kit cams. One lab's experience is that they may be 6 standard deviations mild. Bill indicated he had run an informational test on retains of reference oil 1007 and obtained a slightly severe result of 108  $\mu\text{m}$ . Other labs indicated that they had sufficient quantities of earlier batches to meet their needs for cams. Bill anticipates switching to 2005 cams the end of this year or early next year. Dwight Bowden suggested that several members fly out and meet with the NNA parts representative. Andy Ritchie suggested treading lightly as sometimes it is very easy to upset the Japanese and embarrass them. The indications he got while in Japan, talking with Nissan representatives was that the fully supported the test and there was no problem with supply through 2010. Bill was assigned an action item to solicit the labs to determine what was needed and He and Al Lopez and other interested parties would attempt to meet with NNA. Bill also discussed increasing the number of runs on block and heads to as much as 40 runs. Bill explained that they had been doing some non qualified work with one client and had 44 tests on an engine before it began to show signs of degradation. Concerns were again expressed about the one lab's difficulty with the 05 cams. Bill explained that early on, there had been problems with the 99 cams and it turned out to be a problem with the cutting oil. Dwight Bowden suggested that maybe different followers might change some of the wear characteristics. Bill stated that followers are ordered and provided with the kits and there aren't extra to try and use from other kit years, though some labs may have the 99 kit followers available. There was some discussion about when a test is declared out of control or unavailable. Several members agreed that the inability of a lab to run the test does not indicate it is out of control or unavailable. There are a number of tests that are monitored that are only run at one lab. After more discussion, it was suggested that the other labs run in house tests on the 05 cams. Bill agreed to advise the B0.01 chair about the ongoing hardware issues.

## **SCOPE & OBJECTIVES**

### **ASTM Sequence IVA Surveillance Panel**

## Scope and Objectives

### Scope

The Sequence IVA Surveillance Panel is responsible for the surveillance and continued improvement of the Sequence IVA test documented in Test Method D 6891 as updated by the Information Letter system. Data on test precision and laboratory versus field correlation will be solicited and evaluated at least every six months. Improvements in wear measurement technique, test operation, test monitoring and test validation will be accomplished through continual communication with the Test Sponsor and Parts Distributor, ASTM Test Monitoring Center, ASTM Committee D02.B0.01 and the ASTM Passenger Car Engine Oil Classification Panel. Actions to improve the process will be recommended when deemed appropriate based on input from the proceeding. The Panel will review development and correlation of updated test procedures with previous test procedures. This process will provide a suitable test procedure for evaluating an automotive lubricant's effect on controlling cam lobe wear for overhead valvetrain equipped engines with sliding cam followers.

### Objectives

### Target Date

- |  |                     |
|--|---------------------|
| 1. Conduct 2008 metrology workshop   | <i>May 2008</i>     |
| 2. Conduct 2008 round robin  | <i>May 2008</i>     |
| 3. Ensure a secure supply of Nissan KA24E hardware is available to accommodate testing through GF-5, anticipating the need for additional parts solicitations from Nissan. | <i>January 2008</i> |
| 4. Monitor the progress of the comprehensive review of the different LTMS systems utilized by the PCMO test types and their pros and cons.                                 | <i>May 2008</i>     |

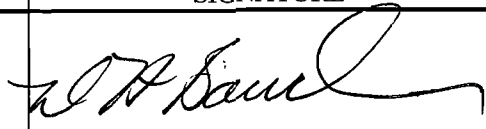
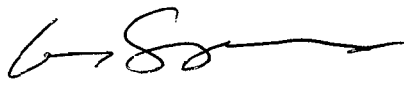

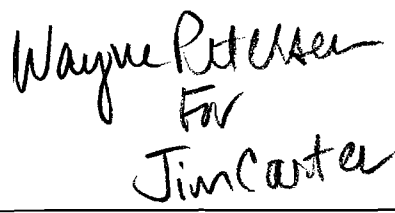
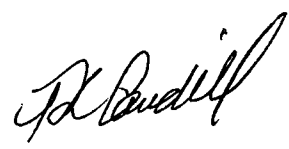

William A. Buscher III, Chairman  
Sequence IVA Surveillance Panel

Updated: Nov. 2008

There being no new business or old business, the meeting was adjourned at 2:35 pm.

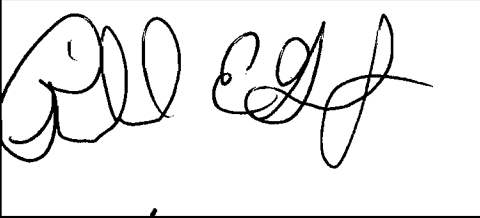
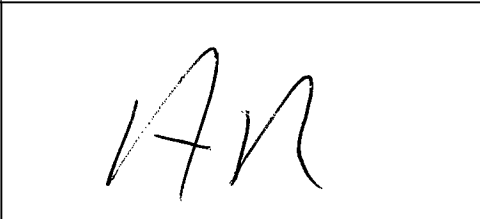
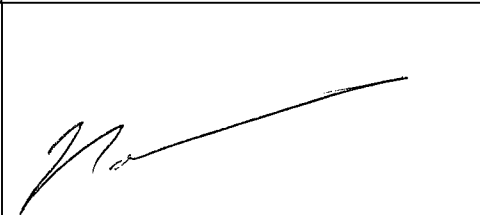
**MEMBERSHIP  
ASTM IVA SURVEILLANCE PANEL**

June 7, 2006

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
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>	
Brys, Jerome <i>George Szappanos</i>	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092-2352 Phone No.: 440-347-2651 / 440-943-1200 Fax No.: 440-943-9013 347-4096 Email: <a href="mailto:jabs@lubrizol.com">jabs@lubrizol.com</a> <i>932</i>	
Buscher III, Bill	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>	
Buscher, Jr., Bill	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>	
Carter, James	Haltermann Products 2296 Hulett Okemos, MI 48864 Phone No.: 517-347-3021 Fax No.: 517-347-1024 Email: <a href="mailto:jecarter@dow.com">jecarter@dow.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- <del>3009</del> 2644 Email: <a href="mailto:tcaudill@ashland.com">tcaudill@ashland.com</a>	
Clark, Sid	GM Powertrain Mail Code 483-730-322 823 Joslyn Rd. Pontiac, MI 48340-2920 Phone No.: 248-857-9959 Fax No.: 248-857-4425 Email: <a href="mailto:sidney.l.clark@gm.com">sidney.l.clark@gm.com</a>	
Glaenger, 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.glaenger@aftonchemical.com">dave.glaenger@aftonchemical.com</a>	

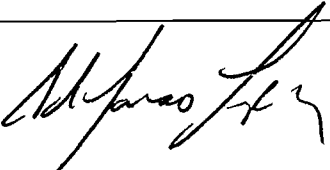
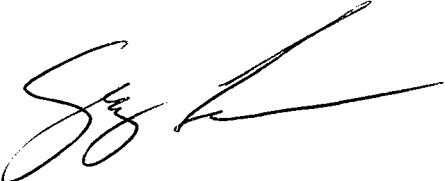

**MEMBERSHIP  
ASTM IVA SURVEILLANCE PANEL**

June 7, 2006

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
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>	
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>	zack Bishop for Clayton Knight
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>	
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>	
Nakamura, Kiyotaka	Nissan Motor Co., Ltd. 6-1, Daikoku-cho, Tsurumi-ku Yokohama, Japan (230) Phone No.: 011-81-45-505-8481 Fax No.: 011-81-45-505-8543 Email: <a href="mailto:naka@mail.nissan.co.jp">naka@mail.nissan.co.jp</a>	
Riley, Mike	Ford Motor Company POEE Building, Room DR 167, MD#44 21500 Oakwood Boulevard Dearborn, MI 48124-4091 Phone No.: 313-390-3059 Fax No.: 313-845-3169 Email: <a href="mailto:mriley2@ford.com">mriley2@ford.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>	
Sutherland, Mark	Chevron Oronite Company LLC 4502 Centerview Dr., #210 San Antonio, TX 78228 Phone No.: 210-867-8357 cell Fax No.: 210-731-5699 Email: <a href="mailto:msut@chevron.com">msut@chevron.com</a>	

**MEMBERSHIP  
ASTM IVA SURVEILLANCE PANEL**

June 7, 2006


NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
Worcester, Dan	PerkinElmer Fluid Sciences 5404 Bandera Road San Antonio, TX 78238-1993 Phone No.: 210-523-4659 or 210-410-9436 cell Fax No.: 210-523-4607 Email: <a href="mailto:dan.worcester@perkinelmer.com">dan.worcester@perkinelmer.com</a>	
AL LOPEZ	INTENTEK AUTOMOTIVE Research 5404 Bandera Road San Antonio, TX 78238 Phone No.: 210-862-7935 Fax No.: Email: <a href="mailto:al.lopez@IntenteK.com">al.lopez@IntenteK.com</a>	
Greg Seman	Lubrizol  Phone No.: 440 347 2153 Fax No.: Email: <a href="mailto:greg.seman@lubrizol.com">greg.seman@lubrizol.com</a>	
Rick Graziانو	LUBRIZOL  Phone No.: 440-347-2058 Fax No.: Email: <a href="mailto:rick.graziانو@lubrizol.com">rick.graziانو@lubrizol.com</a>	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	





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

June 7, 2006

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>	
Baumgartner, Daryl	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092 Phone No.: 440-347-2116 Fax No.: 440-943-9013 Email: <a href="mailto:dbau@lubrizol.com">dbau@lubrizol.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, 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>	
Bryant, Don	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092 Phone No.: 440-943-1200 Fax No.: 440-943-9013 Email:	
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>	
Carter, Brad	PerkinElmer Fluid Sciences 5404 Bandera Road San Antonio, TX 78238-1993 Phone No.: Fax No.: 210-523-4607 Email: <a href="mailto:brad.carter@perkinelmer.com">brad.carter@perkinelmer.com</a>	
Farber, Frank	ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 Phone No.: 412-365-1030 Fax No.: 412-365-1047 Email: <a href="mailto:fmf@astmtmc.cmu.edu">fmf@astmtmc.cmu.edu</a>	


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

June 7, 2006

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
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>	
Fernandez, Frank	Chevron Oronite Company LLC 4502 Centerview Dr., #210 San Antonio, TX 78228 Phone No.: 210-731-4381 / 210-731-5603 Fax No.: 210-731-5699 Email: <a href="mailto:ffer@chevron.com">ffer@chevron.com</a>	
Ferner, Mark	Pennzoil / Quaker State Company 1520 Lake Front Circle The Woodlands, TX 77380 Phone No.: 713-363-8190 Fax No.: 713-363-8002 Email:	
Galbraith, Robert	Imperial Oil Limited 453 Christina St. South P.O. Box 3002 Sarnia, Ontar, Canada N7T8C8 Phone No.: Fax No.: Email: <a href="mailto:rob.galbraith@iol.sprint.com">rob.galbraith@iol.sprint.com</a>	
Hsu, Jeffery	Pennzoil / Quaker State Company 1520 Lake Front Circle (77380) P.O. Box 7569 The Woodlands, TX 77387 Phone No.: 281-363-8177 Fax No.: 281-363-8002 Email: <a href="mailto:JefferyHsu@PZLQS.com">JefferyHsu@PZLQS.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>	
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>	
Mahoney, Bill	Registration Systems, Inc. 4139 Gardendale, Suite 205 San Antonio, TX 78229 Phone No.: 210-343-1911 Fax No.: 210-341-4038 Email: <a href="mailto:b.mahoney@regsysinc.com">b.mahoney@regsysinc.com</a>	

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

June 7, 2006

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
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>	
Olree, Robert	GM Powertrain Mail Code 483-730-322 823 Joslyn Rd. Pontiac, MI 48340-2920 Phone No.: 248-857- Fax No.: 248-857-4425 Email: <a href="mailto:robert.olree@gm.com">robert.olree@gm.com</a>	
Roby, Stephen	Chevron Oronite Company LLC 100 Chevron Way P.O. Box 1627 Richmond, CA 94802-0627 Phone No.: 510-242-1273 Fax No.: 510-242-3173 Email: <a href="mailto:hrby@chevrontexaco.com">hrby@chevrontexaco.com</a>	
Rumford, Robert	Haltermann Products 1201 South Sheldon Road Channelview, TX 77530-0429 Phone No.: 281-457-2768 Fax No.: 281-457-1469 Email: <a href="mailto:rhrumford@dow.com">rhrumford@dow.com</a>	
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>	
Simkins, Russell	Conoco Inc. 1000 South Pine, 6617RW P.O. Box 1267 Ponca City, OK 74602-1267 Phone No.: 580-767-6758 Fax No.: 580-767-4534 Email: <a href="mailto:russell.e.simkins@usa.conoco.com">russell.e.simkins@usa.conoco.com</a>	
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>	

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

June 7, 2006

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
Thompson, Hap	Phone No.: 908-287-9596 Fax No.: Email: <a href="mailto:Hapjthom@aol.com">Hapjthom@aol.com</a>	
Venier, C	Pennzoil Products Company P.O. Box 7569 The Woodlands, TX 77387 Phone No.: 281-363-8060 Fax No.: 281-363-8002 Email:	
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>	
Zalar, John	ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 Phone No.: 412-365-1005 Fax No.: 412-365-1047 Email: <a href="mailto:jlz@astmtmc.cmu.edu">jlz@astmtmc.cmu.edu</a>	
Zaweski, Ed	BP Amoco Oil 150 W. Warrenville Rd. Mail Code C-6 Naperville, IL 60563 Phone No.: 630-420-5026 Fax No.: 630-420-4866 Email: <a href="mailto:ed_f_zaweski@amoco.com">ed_f_zaweski@amoco.com</a>	
Doyle Boese	InFineum 1900 E. Linden Ave Linden, NJ 07036 Phone No.: (908) 474-3176 Fax No.: Email: <a href="mailto:doyle.boese@infineum.com">doyle.boese@infineum.com</a>	
Altman, Ed	Afton Chemical 500 E. Spring St. Richmond VA 23219 Phone No.: 804-788-5279 Fax No.: 804-788-6358 Email: <a href="mailto:Ed.Altman@Aftonchemical.com">Ed.Altman@Aftonchemical.com</a>	
	Phone No.: Fax No.: Email:	

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

June 7, 2006

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	

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

June 7, 2006

NAME	COMPANY-ADDRESS-PHONE-FAX-EMAIL	SIGNATURE
	Phone No.: Fax No.: Email:	
	Phone No.: Fax No.: Email:	

## Sequence IVA Surveillance Panel

San Antonio, TX

SwRI, Building 209, Conference Room 103

November 14, 2007

1:00 p.m. - 3:00 p.m.

### A G E N D A

1. Chairman comments
2. Attendance sign-in sheet distribution
3. Membership changes
4. Motion and Action recorders
5. Approval of minutes for 06/07/2006 All
6. Review action items from last meeting Buscher
7. Fuel supplier report – KA24E Green Fuel Carter
8. TMC report Grundza
9. Reference oil 1009 target update Grundza
10. RSI report Mahoney
11. Test hardware report Buscher
12. Review Scope & Objectives All
13. Old business
14. New business
15. Next meeting
16. Adjourn

HALTERMANN  
FUEL REPORT

November, 2007

PRODUCT: KA24E TEST FUEL

PRODUCT CODE: HF008

Seq. IV & VIII

Batch No.: VJ1121GP01 VC0921LS03

TMO No.: MTS MTS

Tank No.: TK58 676

Analysis Date: 10/29/2007 3/15/2007

TEST	METHOD	UNITS	SPECIFICATIONS			RESULTS	RESULTS
			MIN	TARGET	MAX		
Distillation - IBP	ASTM D86	°F	75		95	91.6	85
5%		°F				114.1	112
10%		°F	120		135	126.3	125
20%		°F				147.9	147
30%		°F				174.2	173
40%		°F				203.9	203
50%		°F	200		230	221.4	222
60%		°F				230.7	231
70%		°F				239.4	241
80%		°F				254.8	260
90%		°F	300		325	313.9	321
95%		°F				340.5	345
Distillation - EP		°F	385		415	398.3	400
Recovery		vol %		Report		98.0	97.6
Residue		vol %		Report		0.9	1.0
Loss		vol %		Report		1.1	1.4
Gravity	ASTM D4052	°API	58.7		61.2	59.7	59.9
Density	ASTM D4052	kg/l	0.734		0.744	0.7398	0.7393
Reid Vapor Pressure	ASTM D323	psi	8.8		9.2	9.1	9.1
Carbon	ASTM E191	wt fraction	0.8580		0.8667	0.8622	0.8651
Carbon	ASTM D3343	wt fraction		Report		0.8646	0.8643
Sulfur	ASTM D4294	wt %	0.01		0.04	0.0233	0.016
Lead	ASTM D3237	g/gal			0.05	<0.01	<0.01
Phosphorous	ASTM D3231	g/gal			0.005		
Oxygen	ASTM D4815	wt %			0.05	<0.05	<0.05
Composition, aromatics	ASTM D1319	vol %			35.0	28.1	28.0
Composition, olefins	ASTM D1319	vol %	5.0		10.0	5.8	7.0
Composition, saturates	ASTM D1319	vol %		Report		66.1	64.2
Oxidation Stability	ASTM D525	minutes	1440			>1440	>1440
Copper Corrosion	ASTM D130				1	1	1
Gum content, washed	ASTM D381	mg/100ml			5	<0.5	<1
Research Octane Number	ASTM D2699		96.0		97.5	97.0	97.1
Motor Octane Number	ASTM D2700			Report		88.2	87.0
R+M/2	D2699/2700			Report		92.6	92.1



Sensitivity	D2699/2700		7.5		8.8	10.1
Net Heat of Combustion	ASTM D240	btu/lb		Report	18342	18458
Color	Visual			Green	Green	Green

# Sequence IVA 1009 Target Update

Sequence IVA Surveillance Panel

November 14, 2007

# 1009 Target Update

- 29 results from 5 labs
- Mean 18.76, standard deviation 7.05
- Current Targets- Mean 19.08, standard deviation 5.6.
- Last Update @ 11 tests, missed update @ 20 tests. Recommend fixing with 29 tests.
- Figure 1 plots lab results versus current and proposed targets.
- Tables 1 & 2 unadjusted and adjusted results.

Table 1 – Unadjusted Data

OILCODE	LTMSLAB	LTMSAPP	IND	VAL	LTMSDATE	LTMSTIME	ACW
44877	C	1	1009	AG	12/16/2002	7:57	13.88
44879	C	1	1009	AC	3/20/2004	18:55	17.55
44888	B	1A	1009	AG	11/9/2002	11:05	24.33
44890	B	2A	1009	AC	7/26/2003	4:50	13.5
44900	E1	1	1009	AG	10/26/2002	16:44	14.33
44901	E1	1	1009	AC	7/14/2003	13:53	15.04
44911	F	1	1009	AG	10/13/2002	2:05	16.14
50247	F	1	1009	AC	4/6/2004	18:15	12.85
44919	A	1	1009	AG	10/15/2002	2:24	15
44920	A	4	1009	AC	6/22/2003	11:37	16.01
44921	A	1	1009	AC	11/22/2003	14:51	18.2
46569	A	3	1009	AC	11/3/2004	01:16	13.72
50628	A	4	1009	AC	11/7/2004	05:40	11.31
50494	B	1A	1009	AC	12/21/2004	22:47	12.05
50629	A	3	1009	AC	5/17/2005	22:45	13.82

Table 1 – Unadjusted Data, cont.

OILCODE	LTMSLAB	LTMSAPP	IND	VAL	LTMSDATE	LTMSTIME	ACW
52638	A	2	1009	AC	5/18/2005	08:25	14.32
52357	B	2A	1009	AC	9/04/2005	22:55	14.11
50248	F	1	1009	AC	11/13/2005	01:55	14.70
58069	A	3	1009	AC	12/7/2005	05:17	16.20
56391	B	1A	1009	AC	2/12/2006	18:02	13.21
44887	B	2A	1009	OC	3/6/2006	00:30	23.83
44884	B	2A	1009	AC	3/12/2006	21:20	17.51
58070	A	1	1009	OC	08/15/2006	22:17	14.3
53975	A	1	1009	AC	08/22/2006	20:05	12.2
60173	B	1A	1009	AC	10/04/2006	16:30	12.08
60841	A	4	1009	AC	03/18/2007	20:33	17.84
65367	B	2A	1009	AC	04/12/2007	11:23	14.72
58037	F	1	1009	AC	06/06/2007	19:00	13.83
60842	A	4	1009	AC	08/12/2007	04:42	18.23

Table 2 – Severity Adjusted Data

OILCODE	LTMSLAB	LTMSAPP	IND	VAL	LTMSDATE	LTMSTIME	ACW
44877	C	1	1009	AG	12/16/2002	7:57	13.88
44879	C	1	1009	AC	3/20/2004	18:55	17.55
44888	B	1A	1009	AG	11/9/2002	11:05	24.33
44890	B	2A	1009	AC	7/26/2003	4:50	13.5
44900	E1	1	1009	AG	10/26/2002	16:44	23.914
44901	E1	1	1009	AC	7/14/2003	13:53	26.583
44911	F	1	1009	AG	10/13/2002	2:05	28.013
50247	F	1	1009	AC	4/6/2004	18:15	12.85
44919	A	1	1009	AG	10/15/2002	2:24	15
44920	A	4	1009	AC	6/22/2003	11:37	16.01
44921	A	4	1009	AC	11/22/2003	14:51	18.2
46569	A	3	1009	AC	11/3/2004	01:16	13.72
50628	A	4	1009	AC	11/7/2004	05:40	11.31
50494	B	1A	1009	AC	12/21/2004	22:47	12.05
50629	A	3	1009	AC	5/17/2005	22:45	13.82

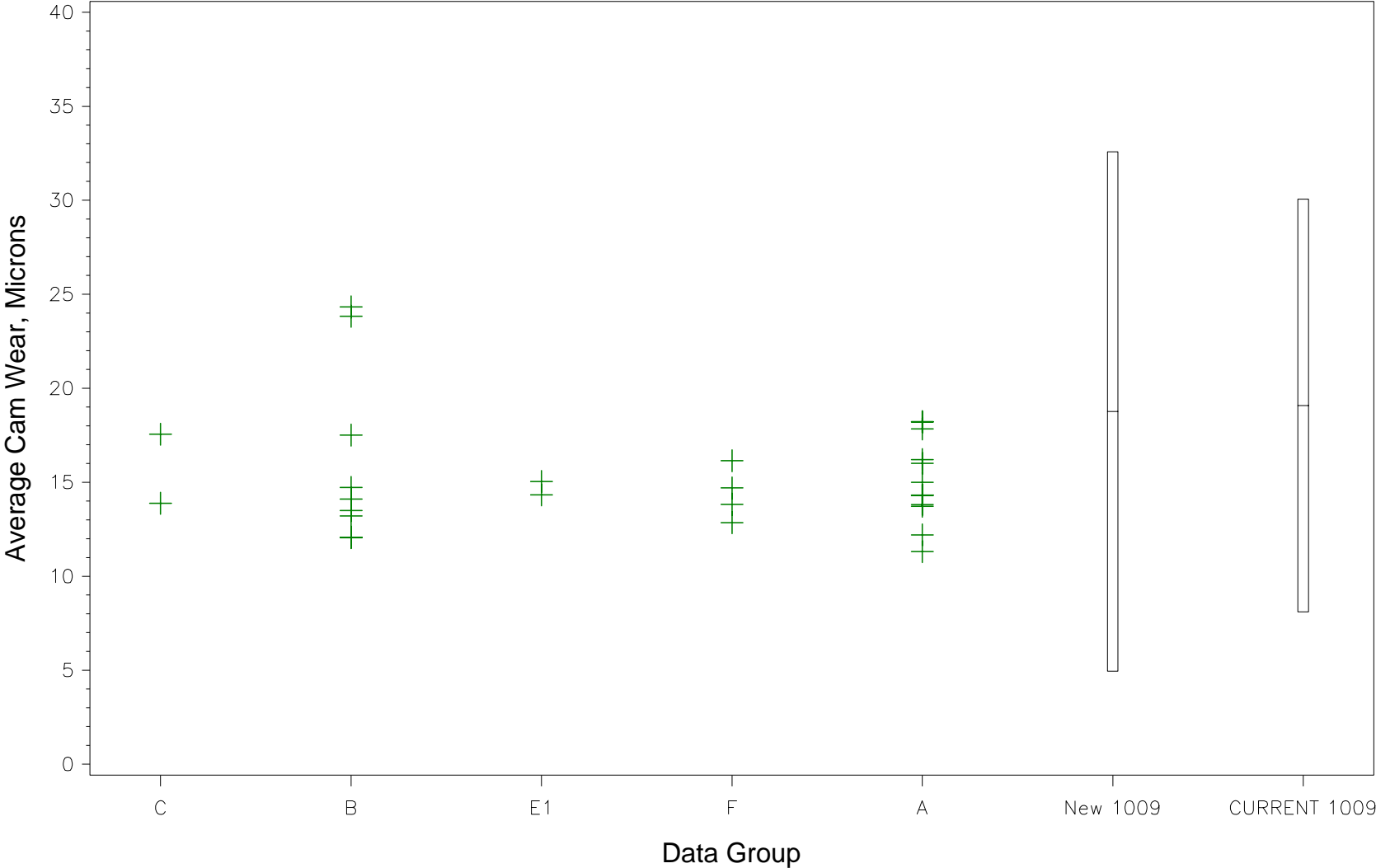
Table 2 – Severity Adjusted Data, cont.

OILCODE	LTMSLAB	LTMSAPP	IND	VAL	LTMSDATE	LTMSTIME	ACW
52638	A	2	1009	AC	5/18/2005	08:25	14.32
52357	B	2A	1009	AC	9/04/2005	22:55	23.779
50248	F	1	1009	AC	11/13/2005	01:55	14.70
58069	A	3	1009	AC	12/7/2005	05:17	26.517
56391	B	1A	1009	AC	2/12/2006	18:02	31.479
44887	B	2A	1009	OC	3/6/2006	00:30	40.555
44884	B	2A	1009	AC	3/12/2006	21:20	17.51
58070	A	1	1009	OC	08/15/2006	22:17	14.3
53975	A	1	1009	AC	08/22/2006	20:05	12.2
60173	B	1A	1009	AC	10/04/2006	16:30	12.08
60841	A	4	1009	AC	03/18/2007	20:33	17.84
65367	B	2A	1009	AC	04/12/2007	11:23	14.72
58037	F	1	1009	AC	06/06/2007	19:00	25.137
60842	A	4	1009	AC	08/12/2007	04:42	18.23

Figure 1

# Sequence VIB (Reference Oil 1009) Test Target Data Set and Shewart Severity Limits

Average Cam Wear, Microns





**William A. Buscher III**

---

**From:** Gehring, Scott [scott.gehring@nissan-usa.com]  
**Sent:** Friday, November 02, 2007 1:25 PM  
**To:** william.buscher@swri.org  
**Subject:** RE: Status of 2006, 2007 and Beyond Hardware Orders for the Sequence IVA Oil Test Program

Yes, but I also want to let them know what kind of lead-time they will be facing before they place their firm orders with NNA.

Scott Gehring  
Manager, AHQ Export Programs  
(615) 223-4302  
(615) 223-3940 fax  
scott.gehring@nissan-usa.com

---

**From:** William A. Buscher III [mailto:william.buscher@swri.org]  
**Sent:** Friday, November 02, 2007 1:18 PM  
**To:** Gehring, Scott  
**Subject:** RE: Status of 2006, 2007 and Beyond Hardware Orders for the Sequence IVA Oil Test Program

Scott,

This is great news. Will the labs be receiving an official parts solicitation letter from NNA soon? I would like to pass on a status update to all of the labs within the industry. Thanks.

Bill

-----Original Message-----

**From:** Gehring, Scott [mailto:scott.gehring@nissan-usa.com]  
**Sent:** Thursday, November 01, 2007 1:48 PM  
**To:** william.buscher@swri.org  
**Subject:** RE: Status of 2006, 2007 and Beyond Hardware Orders for the Sequence IVA Oil Test Program

NML has confirmed that all of these part numbers are still available to order. I have asked them to provide the lead-time from order receipt to shipment to NNA.

Scott Gehring  
Manager, AHQ Export Programs  
(615) 223-4302  
(615) 223-3940 fax  
scott.gehring@nissan-usa.com

---

**From:** William A. Buscher III [mailto:william.buscher@swri.org]  
**Sent:** Friday, October 26, 2007 10:36 AM  
**To:** Gehring, Scott  
**Subject:** RE: Status of 2006, 2007 and Beyond Hardware Orders for the Sequence IVA Oil Test Program

Yes, definitely!!! I am guessing that if Nissan sent a solicitation soon then we would receive parts in early to mid 2008. There are labs getting close to running out of parts, especially the test kits (cams and rocker arms), so an order soon would be desired.

Bill

-----Original Message-----

**From:** Gehring, Scott [mailto:scott.gehring@nissan-usa.com]  
**Sent:** Friday, October 26, 2007 10:23 AM  
**To:** william.buscher@swri.org  
**Subject:** RE: Status of 2006, 2007 and Beyond Hardware Orders for the Sequence IVA Oil Test Program

Is 2007 still required since we are at the end of October?

Scott Gehring  
Manager, AHQ Export Programs  
(615) 223-4302  
(615) 223-3940 fax  
scott.gehring@nissan-usa.com

---

**From:** William A. Buscher III [mailto:william.buscher@swri.org]  
**Sent:** Friday, October 26, 2007 10:12 AM  
**To:** Gehring, Scott; Davis, Rose  
**Cc:** SAGAWA, TAKUMARU; NAKAMURA, KIYOTAKA; Benjamin O. Weber  
**Subject:** RE: Status of 2006, 2007 and Beyond Hardware Orders for the Sequence IVA Oil Test Program

Scott,

Thank you for your quick response. Concerning the 2007 order, the labs have not yet received a solicitation from Nissan but are all very eager to place orders. I know that SwRI is planning a very large order since the 2006 order was cancelled. Let me know when we can expect to receive the 2007 solicitation, when it will be due back to Nissan and, if possible, when the parts would be delivered.

Bill

-----Original Message-----

**From:** Gehring, Scott [mailto:scott.gehring@nissan-usa.com]  
**Sent:** Friday, October 26, 2007 10:00 AM  
**To:** william.buscher@swri.org; Davis, Rose  
**Cc:** SAGAWA, TAKUMARU; NAKAMURA, KIYOTAKA; Benjamin O. Weber  
**Subject:** RE: Status of 2006, 2007 and Beyond Hardware Orders for the Sequence IVA Oil Test Program

- 1) 2006 is closed from our side.
- 2) I thought that 2007 was completed to the extent that parts were available. Please advise which items are still pending by location.
- 3) I have asked our contacts that interact with NML regarding part supply to confirm on-going availability of the part numbers you listed below. The last information I have (which is a few years old) is from NML that this program was to go out until 2010. Maybe those copied in this email can confirm NML's desire to continue testing these engines. However, ultimately parts availability from NMI will be an integral factor to how much longer this program continues.

Thank you for both your support and patience with this program.

Scott Gehring  
Manager, AHQ Export Programs  
(615) 223-4302  
(615) 223-3940 fax  
scott.gehring@nissan-usa.com

---

**From:** William A. Buscher III [mailto:william.buscher@swri.org]

**Sent:** Thursday, October 25, 2007 3:38 PM  
**To:** Davis, Rose; Gehring, Scott  
**Cc:** SAGAWA, TAKUMARU; NAKAMURA, KIYOTAKA; Benjamin O. Weber  
**Subject:** Status of 2006, 2007 and Beyond Hardware Orders for the Sequence IVA Oil Test Program

Rose/Scott,

On November 14, 2007 the ASTM Sequence IVA surveillance panel will be meeting to discuss several topics with the Sequence IVA oil test program. The most important topic will be hardware availability. If I understand the situation correctly, with the exception of a few bare engine assemblies, oil coolers and valve regrind kits that have been delivered to SwRI, the 2006 hardware order has been cancelled and will not be filled. Because of this, there are test labs and test users that are very concerned about the future availability of Nissan KA24E hardware for the Sequence IVA test, especially for the ILSAC GF-5 category. Can you please provide me with the following information as soon as possible, so that I can present it to the surveillance panel next month.

- 1) Confirm that the remaining parts ordered in the 2006 hardware order will not be filled.
- 2) Confirm when the 2007 hardware order solicitation will be issued to the labs. The sooner the better!!!
- 3) Confirm what parts will still be available in the 2007 and beyond orders. This will include availability of the bare engine assembly (p/n A0102-76P01), test kit (p/n 13000-40F85), head assembly (p/n A1040-40F80), oil cooler assembly (p/n 21305-03E00), engine valve regrind kit (p/n A1042-10C2E), distributor assembly (22100-40F00RE) and test stand kits (p/n A0001-76P25, A1001-40F25, B4010-40F26 and 14004-F4003).
- 4) Confirm how many additional hardware order solicitations will be issued (i.e. 2007, 2008, 2009, 2010, etc.).

This information will be greatly appreciated. If you have any questions feel free to contact me via email or phone. I look forward to hearing back from you. Thank you.

William A. Buscher III  
Chairman, Sequence IVA Surveillance Panel  
Tel: (210) 522-6802  
Fax: (210) 684-7523  
Cell: (210) 240-8990  
Email: [william.buscher@swri.org](mailto:william.buscher@swri.org)