Oil Seal Compatibility Test (OSCT) Surveillance Panel Meeting Minutes

November 2, 2016

Don Bell

Participants:

Please see attached attendance list in Appendix.

An OSCT Surveillance Panel meeting was called to order by D. Bell at 1:00 pm on 11/2/2016 via Webex at Automation Alley in Troy, MI.

The OSCT voting member list was reviewed with the Panel. D. Mosher left Eaton for BASF so has been removed as a voting member. Eaton has not identified a replacement voting member at this time, so the voting members dropped from 12 to 11. A motion made by D. Bell and 2nd by W. Venhoff was unanimously approved with 9 votes to replace T. Muransky, who left Meritor, with J. Rucker from Meritor as a voting member. The attached attendance list was initialed by all attendees, and those who attended via phone are highlighted on the attendance sheet.

A motion made by W. Venhoff and 2nd by B. Grinfield was unanimously approved with 9 votes to approve the OSCT Surveillance Panel meeting minutes from 8/10/2016 posted on the TMC website.

There are multiple baths available at Lubrizol, SWRI, and one at Intertek (not NI) with no known issues for conducting ASTM D5662 testing.

The polyacrylate (PA) slab inventory at Test Engineering Institute (TEI) was reviewed as follows:

- PA355: TEI has no inventory
- PA356: Approved 8/18/2016 and TEI has 177 slabs
- PA357: TEI rejected due to 30 of 300 slabs failed thickness specification
- PA358: Sent to test labs for qualification testing on 9/19 and TEI has 196 slabs
 - Labs B & G submitted acceptable data to TMC thus far
- PA359: TEI ordered 9/12, so should arrive in 2-3 months

The fluoroelastomer (FL) slab inventory at TEI was reviewed as follows:

- FL399: Approved 10/11/2016 and TEI has 108 slabs
- FL400: Approved 7/21/2016 but TEI has no inventory
- FL401: Sent to labs for qualification testing on 5/8/2016 and TEI has 159 slabs
 - Lab C needs to re-run testing on 160-1, data from other labs OK
- FL402: Sent to labs for qualification testing on 9/9/2016 and TEI has 187 slabs
 - TMC needs data from labs B & C

• FL403: Sent to labs for qualification testing on 9/12/2016 and TEI has 185 slabs

• TMC needs data from labs B & C

• FL404: Sent to labs for qualification testing on 9/14/2016 and TEI has 200 slabs

• FL405: TEI is in the process of ordering

The nitrile (NI) slab inventory at TEI was reviewed as follows:

• NI346: TEI has depleted their inventory

• NI347: TEI has 45 approved slabs

• NI348: TEI has 278 approved slabs

Test labs were reminded not to order additional donated elastomer slabs form TEI unless repeat testing is deemed necessary, and then not to order more than is required for the qualification procedure. Once a new lot of elastomer is approved, TEI sent out an email to test labs to notify them of the count of available newly approved elastomers and work with them in an attempt to equally divide the inventory amongst all three labs, dependent upon the demand. The labs were requested to give higher priority to conducting the qualification testing for PA and FL seals upon receipt of the slabs from TEI to avoid inventory issues. TEI was requested to alert chairman, D. Bell, when new slabs were sent to labs for qualification. All three labs were asked to alert D. Bell when they submit qualification results to TMC, so that D. Bell can send S. Parke of TMC a reminder to compile/graph all of the data and send it out via email to the Panel for approval or remind labs that we are awaiting their results.

The TMC has noted a number of differences amongst the labs regarding the ASTM D5662 procedure.

ASTM D5662 section 8.2.4 requires that all specimens be cut pre-test, but one lab waits to cut initial specimen until test completes and another lab cuts dumbbells before test and stored specimens until EOT. A motion made by M. Lopez and 2nd by B. Grinfield was unanimously approved with a vote of 9 to revise section 8.2.4 to require that all specimens be cut during the test or at EOT.

Six other lab differences were noted by TMC, but due to time, it was decided for the chairman to send the list of differences to the Panel and request comments on each. Once all comments are received, the chairman will schedule a Surveillance Panel meeting to discuss each of the differences to decide upon action items.

TMC noted that TMC 160-1 PA and FL reference oil inventory is running low since they have only 18 gallons (94 samples). One drum of TMC 160-1 is being re-blended with an alternate base oil since the current one is no longer available. TMC will assign a new reference oil number and alert all three labs when they ship it to them for each lab to conduct 1 run each per elastomer with the new reference oil and report results to TMC.

As per a motion at the 5/11/2016 Panel meeting, all three labs are in the process of conducting D5662 testing on PA and FL with TMC 155-1 category reference as is required every September to ensure D5662 stays well in-control. TMC's S. Parke will graph the data and distribute via email for approval.

TMC information letters 15-1 and 16-1 sent out on 9/23/2015 and 8/24/2016, respectively, were reviewed which changed the elastomer slab thickness in D5662 section 8.2.3 from 1.9-2.1 mm to 1.78 to 2.02 mm, along with revision to 8.7.2.1 to reflect that stacking three specimens will be slightly less than 6 mm.

A motion made by R. Warden and 2^{nd} by B. Grinfield to adjourn the meeting at 1:59 pm on 11/2/2016 was unanimously approved with 9 votes.

Respectfully Submitted,

Don Bell

Don Bell

Appendix

Date: Nov. 2, 2016

OIL SEAL COMPATIBILITY SURVEILLANCE PANEL

Nancy Aguirre Intertek Automotive Research FAX: San Antonio, TX 78238	Initials	V = Voting NV = Non-voting	Name	Company & Address	Phone / FAX / e-Mail	X / e-Mail
San Artionio, TX 78238 V Rob Banas ExxonMobil Lubricants and Specialties Phone: 114 Arcadia Park Drive Canton, GA 30114 Phone: Canton, GA 30114 Phone: FAX: San Artionio, TX 78238 V Don Bell Afton Chemical Corp. San Antonio, TX 78238 Afton Chemical Corp. Phone: Chairperson 500 Spring Street FAX: Richmond, VA 23219 NV Brad BuBonic The Lubrical Corporation Phone: 29400 Lakeland Blvd. Phone: Canton Comfort Chambers Rd. Ste. 900 Phone: Canton Chambers Cham	(2	ļ	Intertek Automotive Research	Phone:	210-647-9428
San Antonio, TX 78238 V Rob Banas ExxonMobil Lubricants and Specialties Phone: 114 Arcadia Park Drive FAX: Canton, GA 30114 Interlek Automotive Research FAX: San Antonio, TX 78238 V Don Bell Afton Chemical Corp. Son Antonio, TX 78238 FAX: Son Spring Street Wickliffe, OH 44092 Wickliffe, OH 44092 Internand Driveline Systems FAX: 26555 Evergreen Rd, Ste. 300 FAX: 26555 Evergreen Rd, Ste. 300 FAX: 26555 Evergreen Rd, Ste. 300 FAX: Couthrield, MI 48076 Phone: 6555 Penn Avenue Couthrield, MI 48076 Phone: FAX: Pittsburgh, PA 15206 FAX: FAX: Phone: FAX: FAX: FAX: FAX: FAX: FAX: FAX: FAX	8			5404 Bandera Road	FAX:	
V Rob Banas ExxonMobil Lubricants and Specialties Phone: 114 Arcadia Park Drive FAX: Canton, GA 30114 E-Mail: NV Tony Barrera Intertek Automotive Research FAX: San Antonio, TX 78238 E-Mail: V Don Bell Afton Chemical Corp. FAX: Sin Antonio, TX 78238 E-Mail: NV Brad BuBonic 590 Spring Street FAX: Richmond, VA 23219 E-Mail: NV Harold Chambers Travelers Tower 1 FAX: Vickliffe, OH 44092 E-Mail: NV Harold Chambers Linamar Driveline Systems FAX: Southfield, MI 48076 E-Mail: NV Jeff Clark G555 Penn Avenue FAX: Southfield, MI 48307-5000 E-Mail: Warren, MI 48307-5000 E-Mail: NV Allen Comfort US Army TACOM FAX: Pittsburgh, PA 15206 E-Mail: NW American Avenue FAX: Phone: FAX: FAX: FAX: Phone: FAX: Phone: FAX: Phone: FAX: Phone: FAX: Phone: FAX: FAX: Phone: FAX: Phone: FAX: FAX: FAX: FAX: FAX: FAX: FAX: FAX	Ze			San Antonio, TX 78238	e-Mail:	Nancy.AGUIRRE@Intertek.com
NV Tony Barrera Intertek Automotive Research 6-Mail: NV Tony Barrera Intertek Automotive Research 5404 Bandera Road 500 Spring Street 500 Spring Street FAX: Richmond, VA 23219 6-Mail: NV Brad BuBonic The Lubrizol Corporation FAX: 29400 Lakeland Blvd. FAX: 29400 Lakeland Blvd. FAX: 26555 Evergreen Rd. Ste. 900 6-Mail: Southfrield, MI 48076 6-Mail: Southfrield, MI 48076 6-Mail: Phone: Pittsburgh, PA 15206 6-Mail: Phone: Pittsburgh Divel 6501 E. 11 Mile Road 6-Mail: Phone: Pho	6	>	Rob Banas	ExxonMobil Lubricants and Specialties	Phone:	678-493-3930
NV Tony Barrera Intertek Automotive Research Phone: 5404 Bandera Road San Antonio, TX 78238 e-Mail: V Don Bell Afton Chemical Corp. Chairperson Richmond, VA 23219 Fhone: Richmond, VA 23219 Fhone: Richmond, VA 23219 Fhone: PAX: Wickliffe, OH 44092 e-Mail: NV Harold Chambers Linamar Diveline Systems FAX: 29400 Lakeland Blvd. FAX: Wickliffe, OH 44092 e-Mail: Case Fax: Phone: Fax: C6555 Fenn Avenue Fax: Phone: Phone: Fax: Phone: Ph	Z			114 Arcadia Park Drive	FAX:	
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V Don Bell Chairperson Afton Chemical Corp. FAX: E-Mail: Phone: Phone: <td></td> <td>2</td> <td>Tony Barrera</td> <td>Intertek Automotive Research</td> <td>Phone:</td> <td></td>		2	Tony Barrera	Intertek Automotive Research	Phone:	
V Don Bell Afton Chemical Corp. V Don Bell Afton Chemical Corp. Chairperson 500 Spring Street Richmond, VA 23219 RAX: 29400 Lakeland Blvd. PAX: Vickliffe, OH 44092 FAX: Vickliffe, OH 44092 FAX: Vickliffe, OH 44092 FAX: Vickliffe, OH 44092 FAX: Prickburgh M 48076 FAX: Pittsburgh, M 48076 FAX: Pittsburgh, PA 15206 FAX: Pittsburgh, PA 15206 FAX: Pittsburgh, PA 15206 FAX: Pittsburgh, PA 15206 FAX: Pittsburgh, ROAD FAX: Phone:				5404 Bandera Road	FAX:	
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Chairperson 500 Spring Street Richmond, VA 23219 Phone: 29400 Lakeland Blvd. Phone: 29400 Lakeland Blvd. Phone: Travelers Tower 1 26555 Evergreen Rd. Ste. 900 Phone: C6555 Evergreen Rd. Ste. 900 Phone: C6555 Penn Avenue C6555 Penn Avenue Phone: C6555 Penn Avenue Phone: C6555 Penn Avenue C6556 Penn Avenue C6555 Penn Avenue C6556 Pe	-	>	Don Bell	Afton Chemical Corp.	Phone:	804-788-6332
NV Brad BuBonic The Lubrizol Corporation Phone: 29400 Lakeland Blvd. FAX: Wickliffe, OH 44092 F-AX: Wickliffe, OH 44092 F-AX: Travelers Tower 1 F-AX: 26555 Evergreen Rd. Ste. 900 F-AX: 26555 Evergreen Rd. Ste. 900 F-AX: 26555 Penn Avenue F-AX: Pittsburgh, PA 15206 F-AX: Pittsburgh, PA 15206 F-AX: Pittsburgh, PA 15206 F-AX: E-AX: B-AX: B-BX: B-AX: B			Chairperson	500 Spring Street	FAX:	804-788-6243
NV Brad BuBonic The Lubrizol Corporation FAX: Wickliffe, OH 44092 Wickliffe, OH 44092 Linamar Driveline Systems FAX: Z6555 Evergreen Rd. Ste. 900 Southfield, MI 48076 NV Jeff Clark G555 Penn Avenue FAX: Phone: 6555 Penn Avenue FAX: Pittsburgh, PA 15206 Warren, MI 48307-5000 V John Dharte FAX: 1 Dauch Drive FAX: 1 Dauch Drive FAX: 1 Dauch Drive FAX: 2 G501 E. 11 Mile Road Warren, MI 48307-5000 Phone: 1 Dauch Drive FAX: 2 G501 E. 10 Mile Road Warren, MI 48307-5000 Phone: 1 Dauch Drive FAX: 2 G501 E. 10 Mile Road Warren, MI 48207-5000 Phone: 1 Dauch Drive FAX: 2 G501 E. 10 Mile Road Phone: 1 Dauch Drive FAX: 2 G501 E. 10 Mile Road Phone: 2 G501 E. 10 Mile Road Phone: 3 G501 E. 10 Mile Road Phone: 4 Dauch Drive FAX: 5 G501 E. 10 Mile Road Phone: 5 G501 E. 10 Mile Road Phone: 6 G501 E. 10 Mile Road Phone: 8 G501 E. 10 Mile Road Phone: 9 G	<i>'</i>			Richmond, VA 23219	e-Mail:	don.bell@aftonchemical.com
NV Harold Chambers Linamar Driveline Systems FAX: NV Harold Chambers Linamar Driveline Systems FAX: 26555 Evergreen Rd. Ste. 900 e-Mail: Southfield, MI 48076 e-Mail: Southfield, MI 48076 e-Mail: NV Jeff Clark 6555 Penn Avenue 6555 Penn Avenue FAX: Pittsburgh, PA 15206 e-Mail: V Allen Comfort US Army TACOM RDTA-DP/MS110 FAX: 6501 E. 11 Mile Road e-Mail: V John Dharte American Axle 1 Dauch Drive petroit, MI 48211	_	Ž	Brad BuBonic	The Lubrizol Corporation	Phone:	440-347-5325
NV Harold Chambers Linamar Driveline Systems Phone: NV Harold Chambers Linamar Driveline Systems Phone: Travelers Tower 1 FAX: 26555 Evergreen Rd. Ste. 900 e-Mail: Southfield, MI 48076 FAX: Phone: FAX: NV Jeff Clark 6555 Penn Avenue FAX: Pittsburgh, PA 15206 e-Mail: e-Mail: V Allen Comfort US Army TACOM FAX: KDTA-DP/MS110 FAX: 6501 E. 11 Mile Road e-Mail: V John Dharte American Axle FAX: 1 Dauch Drive 1 Dauch Drive FAX: 1 Dauch Drive FAX:				29400 Lakeland Blvd.	FAX:	440-347-
NV Harold Chambers Linamar Driveline Systems Phone: Travelers Tower 1 26555 Evergreen Rd. Ste. 900 26555 Evergreen Rd. Ste. 900 8-Mail: Southfield, MI 48076 FAX: 6555 Penn Avenue Pittsburgh, PA 15206 Phone: Pittsburgh, PA 15206 Phone: RDTA-DP/MS110 6501 E. 11 Mile Road Warren, MI 48307-5000 Phone: 1 Dauch Drive 1 Dauch Drive FAX: CAMBILLY PHONE: 1 Dauch Drive				Wickliffe, OH 44092	e-Mail:	Brad.bubonic@lubrizol.com
NV Jeff Clark Travelers Tower 1 FAX: 26555 Evergreen Rd. Ste. 900 e-Mail: Southfield, MI 48076 Phone: NV Jeff Clark Test Monitoring Center FAX: 6555 Penn Avenue FAX: Pittsburgh, PA 15206 e-Mail: V Allen Comfort US Army TACOM FAX: RDTA-DP/MS110 FAX: e-Mail: Warren, MI 48307-5000 e-Mail: Phone: V John Dharte American Axle FAX: Detroit, MI 48211 American Axle FAX: Detroit, MI 48211 American Axle FAX:	-	Ž	Harold Chambers	Linamar Driveline Systems	Phone:	248-358-6038
NV Jeff Clark Test Monitoring Center e-Mail: NV Jeff Clark Test Monitoring Center Phone: 6555 Penn Avenue FAX: Pittsburgh, PA 15206 e-Mail: V Allen Comfort US Army TACOM Phone: V Allen Comfort US Army TACOM FAX: 6501 E. 11 Mile Road Warren, MI 48307-5000 e-Mail: V John Dharte American Axle FAX: 1 Dauch Drive To auch Drive FAX: Detroit, MI 48211 Powail:				Travelers Tower 1	FAX:	248-355-3558
NV Jeff Clark Test Monitoring Center 6555 Penn Avenue Pritsburgh, PA 15206 E-Mail: V Allen Comfort US Army TACOM Phone: FAX: 6501 E. 11 Mile Road Warren, MI 48307-5000 Phone: 1 Dauch Drive FAX: Detroit, MI 48211				26555 Evergreen Rd. Ste. 900 Southfield, MI 48076	e-Mail:	hchambers@Linamar.com
V Allen Comfort US Army TACOM FAX: V Allen Comfort US Army TACOM Phone: RDTA-DP/MS110 FAX: 6501 E. 11 Mile Road Phone: V John Dharte American Axle Phone: V John Dharte American Axle FAX: Detroit, MI 48211 American Axle FAX:		Ž	Jeff Clark	Test Monitoring Center	Phone:	412-365-1032
V Allen Comfort US Army TACOM RDTA-DP/MS110 6501 E. 11 Mile Road Warren, MI 48307-5000 V John Dharte American Axle 1 Dauch Drive Detroit, MI 48211				6555 Penn Avenue	FAX:	412-365-1047
V Allen Comfort US Army TACOM Phone: RDTA-DP/MS110 FAX: 6501 E. 11 Mile Road e-Mail: Warren, MI 48307-5000 Phone: V John Dharte American Axle 1 Dauch Drive FAX: Detroit, MI 48211 American Axle				Pittsburgh, PA 15206	e-Mail:	jac@astmtmc.cmu.edu
RDTA-DP/MS110 FAX: 6501 E. 11 Mile Road e-Mail: Warren, MI 48307-5000 Phone: 1 Dauch Drive 1 Dauch Drive PAX: Detroit, MI 48211 e-Mail: Pax: Phone: Phone		>	Allen Comfort	US Army TACOM	Phone:	586-282-4225
V John Dharte American Axle FAX: Detroit, MI 48211 Amail:				RDTA-DP/MS110	FAX:	586-282-4244
V John Dharte American Axle 1 Dauch Drive FAX: Detroit, MI 48211				6501 E. 11 Mile Road Warren. MI 48307-5000	e-Mail:	Allen.s.comfort@us.army.mil
1 Dauch Drive Detroit, MI 48211	(>	John Dharte	American Axle	Phone:	313-758-4687
Detroit, MI 48211	2			1 Dauch Drive	FAX:	313-758-4237
				Detroit, MI 48211	e-Mail:	dhartej@aam.com

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Initials	V = Voting NV = Non-voting	Name	Company & Address	Phone / FAX / e-Mail	X / e-Mail
	Ž	Vince Donndelinger	The Lubrizol Corporation	Phone:	440-347-6589
C			29400 Lakeland Blvd.	FAX:	440-347-
DWG *			Wickliffe, OH 44092	e-Mail:	Vince.donndelinger@lubrizol.com
	Ž	Eric Donovan	Afton Chemical Corp.	Phone:	804-788-5097
			500 Spring Street	FAX:	
7) 7			Richmond, VA 23219	e-Mail:	Eric.donovan@aftonchemical.com
	Ž	Bridget Dwornick	US Army RDECOM/TARDEC	Phone:	586-282-4221
\$			RDTA-DP/210 MS 110	FAX:	586-282-4244
2			6501 E 11 Mile Road Warren. MI 48397-5000	e-Mail:	Bridget.I.dwornick.civ@mail.mil
	Ž	Brian Foecking	The Lubrizol Corporation	Phone:	440-347-2130
			29400 Lakeland Blvd.	FAX:	440-347-
			Wickliffe, OH 44092	e-Mail:	bjf@lubrizol.com
	>	Arjun Goyal	BASF	Phone:	914-785-2083
ma,			500 White Plains Road Tarrytown, NJ 10951	e-Mail:	Arjun.goyal@basf.com
	>	Rebecca Grinfield	Southwest Research Institute	Phone:	210-522-3652
\S\ \S\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\			P.O. Drawer 28510	FAX:	210-522-5907
Just 1			San Antonio, TX 78228-0510	e-Mail:	bgrinfield@swri.org
1	2	Percy Kanga	ExxonMobil Research and Engineering	Phone:	856-224-2094
Ž			600 Billingsport Rd.	FAX:	856-224-3613
·			Paulsboro, NJ USUGO	e-Mail:	Percy.r.kanga@exxonmobil.com
	Ž	Bill Kearney	Afton Chemical Corp	Phone:	248-350-0640
JAS.			Southfield, MI	FAX:	
•				e-Mail:	Bill.kearney@aftonchemical.com
2	2	Marc Keisler	Afton Chemical Corp.	Phone:	804-788-5617
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Date: Nov. 2, 2016

Robert.Opperman@meritor.com Ronny.mumaw@lubrizol.com Chris.lonsway@lubrizol.com donnammosher@eaton.com Jule.Rucker@meritor.com mike.lopez@intertek.com jlmilner@Tianhe.us.com sdp@astmtmc.cmu.edu dlanctot@tei-net.com cknight@tei-net.com 269-746-6039 268-342-3039 210-690-1958 210-877-0228 804-252-6928 440-347-4517 440-347-8017 412-365-1033 412-365-1047 Phone / FAX / e-Mail 248-435-248-435-248-435-248-435-Phone: e-Mail: Phone: e-Mail: e-Mail: Phone: e-Mail: e-Mail: Phone: e-Mail: Phone: Phone: e-Mail: Phone: e-Mail: Phone: Phone: e-Mail: e-Mail: FAX: FAX: FAX: FAX: FAX: FAX: FAX: ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 intertek Automotive Research Eaton Corporation 13108 E. Michigan Avenue Test Engineering Institute Test Engineering Institute San Antonio, TX 78249 San Antonio, TX 78249 San Antonio, TX 78238 Galesburg, MI 49053 12718 Cimarron Path Meritor 2135 West Maple Rd. 12718 Cimarron Path 29400 Lakeland Blvd. Wickliffe, OH 44092 2135 West Maple Rd. Troy, MI 48084 29400 Lakeland Blvd Company & Address Wickliffe, OH 44092 5404 Bandera Road Tianhe Chemical Troy, MI 48084 Lubrizol Lubrizol Meritor Robert Opperman Ronny Mumaw Donna Mosher Clayton Knight Chris Lonsway Dan Lanctot Scott Parke Jule Rucker Mike Lopez Jeff Milner Name V = Voting NV = Non-voting \geq \geq \geq \geq 2 \geq Drong. Initials アを

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Initials	V = Voting NV = Non-voting	Name	Company & Address	Phone / FAX / e-Mail	X / e-Mail
	2	Dale Smith	Intertek Automotive Research 5404 Bandera Road	Phone: FAX:	412-855-6854
X			San Antonio, IX /8238	e-Mail:	Dale.smith@intertek.com
NA.	2	Angela Trader	Intertek Automotive Research	Phone:	210-706-1533
			San Antonio, TX 78238	FAX: e-Mail:	Angela.trader@intertek.com
d	2	Matt Umerley	Lubrizol	Phone:	440-347-4589
⊃ ≷			Z3400 Lakeland BIVG. Wickliffe, OH 44092	FAX:	Matthew umerlev@lubrizol.com
	2	Chintan Ved	Ford	Phone:	313-805-9495
				FAX:	
			Livonia, MI 48150	e-Mail:	cved@ford.com
	>	Wes Venhoff	Lubrizol	Phone:	
203			29400 Lakeland Blvd.	FAX:	
			Wickliffe, OH 44092	e-Mail:	Wes.venhoff@lubrizol.com
	2	Rebecca Warden	Southwest Research Institute	Phone:	210-522-6266
- PC-			P.O. Drawer 28510	FAX:	
>			San Antonio, 1X 78228-0510	e-Mail:	Rebecca.Warden@SWRI.org
	2	Khaled Zreik	General Motors	Phone:	248-977-9214
				FAX:	
				e-Mail:	Khaled.zreik@gm.com
		FILL SHATIES	1 C from 4		2222 282 985
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