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Form PTO 1595 (Rev.6-93)		RECORDATION FORM COVER SHEET PATENTS ONLY				U.S. DEPARTMENT OFCOMMERCE Patent and Trademark Office			
Tab	Sottings → → → ▼		▼	7	7	_	V		
		ner of Patents	and Trademarks:	Pleas	e record t	he attache	d original documents or copy thereof.		
1.	Name of conveying party(s of receiving party(ies):		
Ramesh Varadaraj Eugene R, Thomas		October 23, 2012 December 3, 2012			Name: ExxonMobil Upstream Research Company				
			•		Internal	Address:	(CORP-URC-SW359)		
Ad	ditional name(s) of conveying	party(ies) ☐ Yes ☒ No Street Address			Street A	ddress:	P. Ö. Box 2189		
3.	Nature of conveyance:				***************************************				
		☐ Merg	er		City: _I	Houston	State: TX Zip: 77252.2189		
	☐ Security Agreement	☐ Chan	ge of Name						
	Other:								
	Execution Date: Octob	er 23 and Dec	ember 3, 2012	Add	litional na	me/s) & ad	ldress(es) attached? Yes No		
4,	Application number(s) or a	egistration nu	umber(s):	700	ittorioi rici	110(3) 4 24	0.035(c3) attached:103110		
	If this document is being f	led together	with a new applic	ation,	the exec	ution date	of the application is:		
A.	Patent Application N	lo.(s)	Date Filed	B.	Patent N	Vo.(s)			
	13/621,692		09/17/2012						
							•		
		Addit	ional numbers att	i ached	i? □ '	Yes 🏻	No		
Name and address of party to whom corresponde concerning document should be mailed:				6.			pplications and patents involved: 1		
·				7.	Total fe	e (37 CFR	\$ 3.42): \$ 40.00		
Ns	ame: John R. Wright					•	ny excess or insufficiency should be		
		il Upstream Re	search Company	-			bited to deposit account		
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	(COKF-OK	U-311304)	the Maria Maria		<u>a</u> nuc		bo only god to depool account		
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Ç.	F. O. BOX 2	. 100	***************************************	\ \frac{1}{2}	Осрози	, account to	05-1328		
Cit	ty: Houston State	: TX Zip	77252.2189		•••		03-1320		
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9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.									
	John R. Wright, Re	g. No. 62,357	($\sum_{i=1}^{n}$	ohn. L	? Alu	ieht 12.11.12		
	Name of Person Signing Signature Date								
	To	tal number of) pages including cov	er she	et, attachi	ments, and	document: 5		
L									

PATENT

REEL: 029482 FRAME: 0291

ASSIGNMENT

Inventor or Inventors: Ramesh Varadaraj and Eugene R. Thomas

In consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned person(s) (hereinafter referred to as UNDERSIGNED) hereby agree(s) as follows:

UNDERSIGNED hereby assign(s) to ExxonMobil Upstream Research Company, a Delaware corporation having offices at 3120 Buffalo Speedway, Houston, Texas, its successors, legal representatives and assigns (hereinafter referred to collectively as ASSIGNEE), free from all encumbrances, the entire right, title and interest, including all rights to sue for past infringement, for the United States and all foreign countries and patent offices or organizations, in and to all inventions, discoveries or improvements, claimed or described in the document entitled "Core Annular Flow of Crude Oils", and further identified as Attorney Docket No. 2006EM075/A, and Serial No. 13/621,692, filed at the U.S. Patent and Trademark office on September 17, 2012, (hereinafter referred to as the APPLICATION), including the right to claim priority to the APPLICATION in the United States or any foreign country under the Paris Convention or equivalent reciprocal provisions for any subsequent application, continuations, continuations-in-part, divisions, reissues, reexaminations, and extensions thereof in the United States or any foreign country (hereinafter referred to collectively as PATEINT FILINGS); and further including all Letters Patent of the United States or any foreign country that may be granted thereon (hereinafter referred to collectively as ISSUED PATENTS); and UNDERSIGNED hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and any official of any foreign country or patent office or organization whose duty it is to issue patents on applications as described above, to issue all ISSUED PATENTS to ASSIGNEE, in accordance with the terms of this Assignment.

UNDERSIGNED agree(s) upon the request of ASSIGNEE to perform any and all affirmative acts to obtain United States and foreign patents, including at least: to execute any and all applications for United States or foreign patents for the APPLICATION and the PATENT FILINGS, and any documents that shall be required of UNDERSIGNED to be executed in connection with the APPLICATION, the PATENT FILINGS, or any ISSUED PATENTS, including, but not limited to priority claims therefor, continuations or substitutes therefor, prosecution thereof, any lawful oaths, declarations, affidavits, or other papers relating thereto, and any specific separate assignments of any of the above required for recording in the United States Patent and Trademark Office or other foreign country or patent office or patent organization, that ASSIGNEE may deem necessary or expedient.

UNDERSIGNED agree(s) that in the event of any application based on the APPLICATION or the PATENT FILINGS, or any reissue or application for the reissue thereof, becoming involved in interference proceedings, UNDERSIGNED will cooperate

PATENT REEL: 029482 FRAME: 0292 with ASSIGNEE to the best of the ability of UNDERSIGNED in the matter of preparing and executing preliminary statements and giving and producing evidence in support thereof.

IN WITNESS WHEREOF, this Assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED'S name.

DATE Oct 23 7212

Ramesh Varada

Witness

0/23/

Date

DATE

Eugene R. Thomas

Witness

Date

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PATENT REEL: 029482 FRAME: 0293

ASSIGNMENT

Inventor or Inventors: Ramesh Varadaraj and Eugene R. Thomas

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IN WITNESS WHEREOF, this Assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED'S name.

DATE ____

Ramesh Varadaraj

Witness

Date

DATE 12/3/2011

Eugene R. Thomas

Witness

Date

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