504343309 04/28/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4389997

		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY	DATA			
		Name	Execution Date	
HUI ZHOU			12/17/2014	
WEIBIA ZHA			12/17/2014	
JAY PAUL DEVILLE			12/17/2014	
RECEIVING PARTY I	 DATA			
Name:	HALLIBI	HALLIBURTON ENERGY SERVICES, INC.		
Street Address:	3000 N.	3000 N. SAM HOUSTON PARKWAY E.		
City:	HOUST	HOUSTON		
State/Country:	TEXAS	TEXAS		
Postal Code:	77227-2	77227-2188		
Application Number:	·	5522710		
CORRESPONDENCE				
Fax Number:		713)622-0220		
•		the e-mail address first; if that is		
using a fax number.	if provided:		,	
<i>using a fax number,</i> Phone:	•	r <i>if that is unsuccessful, it will be</i> 713-622-7005	,	
Phone: Email:	7 C	r if that is unsuccessful, it will be 713-622-7005 ctumey@tumeyllp.com	,	
Phone: Email: Correspondent Name	e: C	; <i>if that is unsuccessful, it will be</i> 713-622-7005 ctumey@tumeyllp.com COREY TUMEY	,	
Phone: Email: Correspondent Name Address Line 1:	7 c e: C	r <i>if that is unsuccessful, it will be</i> 713-622-7005 ctumey@tumeyllp.com COREY TUMEY P.O BOX 22188	,	
Phone: Email: Correspondent Name Address Line 1: Address Line 4:	e: C	r <i>if that is unsuccessful, it will be</i> 713-622-7005 ctumey@tumeyllp.com COREY TUMEY P.O BOX 22188 HOUSTON, TEXAS 77227-2188	,	
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Phone: Email: Correspondent Name Address Line 1: Address Line 4: ATTORNEY DOCKET	e: C F NUMBER:	r <i>if that is unsuccessful, it will be</i> 713-622-7005 ctumey@tumeyllp.com COREY TUMEY P.O BOX 22188 HOUSTON, TEXAS 77227-2188 2013-IP-083390U1 US COREY S. TUMEY	,	
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Phone: Email: Correspondent Name Address Line 1: Address Line 4: ATTORNEY DOCKET NAME OF SUBMITTER SIGNATURE: DATE SIGNED: Total Attachments: 5 source=2013-IP-08339	e: C F NUMBER: R: 0U1-US_Ass	r <i>if that is unsuccessful, it will be</i> 713-622-7005 ctumey@tumeyllp.com COREY TUMEY P.O BOX 22188 HOUSTON, TEXAS 77227-2188 2013-IP-083390U1 US COREY S. TUMEY /Corey Tumey/		
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PATENT REEL: 042176 FRAME: 0863

ASSIGNMENT

WHEREAS, Hui Zhou, Weibin Zha and Jay Paul Deville (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention") which are described in a patent application filed on <u>December 22, 2014</u>, which application was assigned PCT patent application serial number <u>PCT/US2014/071801</u>, and which is titled CROSSLINKED POLYMERS INCLUDING SULFONIC ACID GROUPS OR SALTS OR ESTERS THEREOF AS VISCOSIFIERS AND FLUID LOSS ADDITIVES FOR SUBTERRANEAN TREATMENT.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Halliburton Energy Services, Inc. (the "Assignee"), a corporation of the State of Delaware, having a place of business at 3000 N. Sam Houston Parkway E., Houston, TX 77032-3219, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the aboveidentified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 46042 may (directly or through his/her designee) delete, insert, or alter any

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information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignment Docket No: 1880.790WO1 Assignors: Hui Zhou et al. Client Ref. No. 2013-IP-083390 U1 PCT/E-Billing 2013-IPRO-083390 Title: CROSSLINKED POLYMERS INCLUDING SULFONIC ACID GROUPS OR SALTS OR ESTERS THEREOF AS VISCOSIFIERS AND FLUID LOSS ADDITIVES FOR SUBTERRANEAN TREATMENT Page 3 of 5

Assignor:

(Signature):

2

Name: Hui Zhou City/State: The Woodlands, TX

2014

<u>___12/17</u>

Date:

Assignment Docket No: 1880.790WO1 Assignors: Hui Zhou et al. Client Ref. No. 2013-IP-083390 U1 PCT/E-Billing 2013-IPRO-083390 Title: CROSSLINKED POLYMERS INCLUDING SULPONIC ACID GROUPS OR SALTS OR ESTERS THEREOF AS VISCOSIFIERS AND FLUID LOSS ADDITIVES FOR SUBTERRANEAN TREATMENT Page 4 of 5

Assignor:

(Signature):

.

Name: <u>Weibin Tha</u> City/State: <u>The Woodlands, TX</u>

7/2044

Date:

Assignment Docket No: 1880,790WO1 Assignors: Hui Zhou et al. Client Ref. No. 2013-IP-083390 U1 PCT/E-Billing 2013-IPRO-083390 Title: CROSSLINKED POLYMERS INCLUDING SULFONIC ACID GROUPS OR SALTS OR ESTERS THEREOF AS VISCOSIFIERS AND FLUID LOSS ADDITIVES FOR SUBTERRANEAN TREATMENT Page 5 of 5

Assignor:

(Signature):

Name: Jay Paul Deville City/State: Spring, TX

December 17,2014

Date: