02/12/2018 504774556

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4821284

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GAURAV GUPTA	08/05/2015
ZHUOMING LOU	08/04/2015
DHAVAL TRIVEDI	08/12/2015

RECEIVING PARTY DATA

Name:	HALLIBURTON ENERGY SERVICES, INC.		
Street Address:	3000 N. SAM HOUSTON PARKWAY E.		
City:	HOUSTON		
State/Country:	TEXAS		
Postal Code:	77032-3219		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15746383

CORRESPONDENCE DATA

Fax Number: (949)851-9348

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 9498510633

Email: mlusian@mwe.com, HalliburtonUSPTOReporting@mwe.com

MCDERMOTT WILL & EMERY LLP **Correspondent Name:**

Address Line 1: 4 PARK PLAZA Address Line 2: **SUITE 1700**

Address Line 4: IRVINE, CALIFORNIA 92614

ATTORNEY DOCKET NUMBER:	098273-2204
NAME OF SUBMITTER:	MICHAEL G. DREZNES, REG. NO. 59965
SIGNATURE:	/Michael G. Dreznes/
DATE SIGNED:	02/12/2018

Total Attachments: 6

source=098273-2204Assignment#page1.tif source=098273-2204Assignment#page2.tif source=098273-2204Assignment#page3.tif

> **PATENT** REEL: 044905 FRAME: 0231 504774556

source=098273-2204Assignment#page4.tif source=098273-2204Assignment#page5.tif source=098273-2204Assignment#page6.tif

> PATENT REEL: 044905 FRAME: 0232

DECLARATION AND ASSIGNMENT

As th	ne below named inventor, I hereby declare that:
This	declaration is directed to:
\boxtimes	The attached application to be filed as a United States application or
	PCT international application, or
	United States application or PCT international application number
	filed on; and,
entitled "S	OFTWARE SIMULATION METHOD FOR ESTIMATING FLUID POSITIONS
AND PRESS	SURES IN THE WELLBORE FOR A DUAL GRADIENT CEMENTING SYSTEM."
Regarding t	that application. I declare the following:

- The above-identified application was made, or authorized to be made, by me.
- I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
- I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Moreover, Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 3000 N. Sam Houston Parkway E., Houston, TX 77032-3219 (hereinafter "Assignee") is desirous of acquiring an interest therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, We, by these presents do sell, assign and transfer and convey unto Assignee, its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application identified above, and any national phase, divisional, continuing, continuation-in-part, or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefore; said invention, application and any and all Letters Patent issuing there from to be held and enjoyed by Assignee, for its own use and benefit, and for its legal representatives, successors and assigns, to the full end of the term for which said

1 of 2

Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to Assignee, its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this ___

_day of

2015

GAURAV GUPTA

STATE OF

COUNTY OF

Before me personally appeared said GAURAV GUPTA and acknowledged the foregoing instrument to be a free act and deed this day of And wot, 2015.

Seal

HANIA HASSAN
Notary Public
STATE OF TEXAS
My Comm. Exp. 02-01-17

DECLARATION AND ASSIGNMENT

As	the below named inventor, I hereby declare that:
Th	is declaration is directed to:
\boxtimes	The attached application to be filed as a United States application o
	PCT international application, or
	United States application or PCT international application number
	filed on; and,
entitled	"SOFTWARE SIMULATION METHOD FOR ESTIMATING FLUID POSITIONS
AND PRE	SSURES IN THE WELLBORE FOR A DUAL GRADIENT CEMENTING SYSTEM.
Regardin	g that application, I declare the following:

- The above-identified application was made, or authorized to be made, by me.
- I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
- I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Moreover, Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 3000 N. Sam Houston Parkway E., Houston, TX 77032-3219 (hereinafter "Assignee") is desirous of acquiring an interest therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, We, by these presents do sell, assign and transfer and convey unto Assignee, its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application identified above, and any national phase, divisional, continuing, continuation-in-part, or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefore; said invention, application and any and all Letters Patent issuing there from to be held and enjoyed by Assignee, for its own use and benefit, and for its legal representatives, successors and assigns, to the full end of the term for which said

1 of 2

Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to Assignee, its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 4

2015

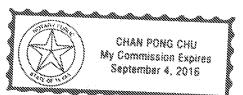
ZHUOMING LOU

STATE OF

COUNTY OF MA

Before me personally appeared said ZHUOMING LOU and acknowledged the foregoing instrument to be a free act and deed this Lay of Auto 2015.

Seal



CAPTERTUS

DECLARATION AND ASSIGNMENT

As the below named inventor, I hereby declare that:

This declaration is directed to:

PCT int	ernatior	ial applicatio	n, o	r				
United	States	application	or	PCT	intern	ational	application	n number
	file	d on		; ar	nd.			

entitled "SOFTWARE SIMULATION METHOD FOR ESTIMATING FLUID POSITIONS AND PRESSURES IN THE WELLBORE FOR A DUAL GRADIENT CEMENTING SYSTEM."
Regarding that application, I declare the following:

- The above-identified application was made, or authorized to be made, by me.
- I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
- I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Moreover, Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 3000 N. Sam Houston Parkway E., Houston, TX 77032-3219 (hereinafter "Assignee") is desirous of acquiring an interest therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, We, by these presents do sell, assign and transfer and convey unto Assignee, its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application identified above, and any national phase, divisional, continuing, continuation—in-part, or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefore; said invention, application and any and all Letters Patent issuing there from to be held and enjoyed by Assignee, for its own use and benefit, and for its legal representatives, successors and assigns, to the full end of the term for which said

Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to Assignee, its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 12th day of Di	Alacinas — , 2015 AAVAL TRIVEDI
STATE OF No. (COUNTY OF Darks)	
	DHAVAL TRIVEDI and acknowledged the I deed this day of, 2015.
	(Notary) BEFORE ME N. B. SHAIKH Appointed for Pune District
	12 AUG 2015

RECORDED: 02/12/2018

PATENT REEL: 044905 FRAME: 0238