505427041 04/15/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5473841

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNEE ASSIGNS 50% INTEREST TO THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

CONVEYING PARTY DATA

Name	Execution Date
HALLIBURTON ENERGY SERVICES, INC.	03/05/2019

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
Name:	THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
Street Address:	109 CHURCH STREET
City:	CHAPEL HILL
State/Country:	NORTH CAROLINA
Postal Code:	27516

PROPERTY NUMBERS Total: 1

Property Type	Number
PCT Number:	US2015050093

CORRESPONDENCE DATA

Fax Number:

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: 2819624503

Email: ctumey@ctumeylawgroup.com

Correspondent Name: C. TUMEY LAW
Address Line 1: P.O BOX 890226

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ATTORNEY DOCKET NUMBER:	1560-027700	
NAME OF SUBMITTER: COREY TUMEY		
SIGNATURE:	/Corey Tumey/	
DATE SIGNED:	04/12/2019	

PATENT 505427041 REEL: 049091 FRAME: 0898

Total Attachments: 3

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PATENT REEL: 049091 FRAME: 0899

ASSIGNMENT

WHEREAS, by an assignment from the inventors (Lee J. Hall on August 19, 2015, Jay Paul Deville on August 24, 2015, Mohammad Vatankhah on September 4, 2015, and Sergey Sheyko on September 1, 2015) recorded in the United States Patent and Trademark Office on Reel 036619, Frame 0304, to Halliburton Energy Services, Inc., (having its principal place of business at 3000 N. Sam Houston Parkway E., Houston, Texas 77032-3219 and hereinafter referred to as "Halliburton") is the sole owner of all right, title and interest in and to a certain invention titled CORE-SHELL PARTICLES FOR TREATMENT OF SUBTERRANEAN FORMATIONS (the "Invention"), for which a PCT International Patent Application has been filed as PCT/US15/50093 (Attorney Docket 2015-IPM-099023 U1 PCT);

WHEREAS, Halliburton and The University of North Carolina at Chapel Hill (having its principal place of business at 109 Church Street, Chapel Hill, North Carolina 27516, and hereafter "the University") have agreed that both Halliburton and the University should have equal right, title and interest in and to the Invention by virtue of each having employees that are among the inventors; and

WHEREAS, the University is desirous of acquiring one-half the right, title and interest in and to the Invention, International Patent Application No. PCT/US15/50093, any and all national phase applications filed based on International Patent Application No. PCT/US15/50093, and any patents that may be granted for the Invention in the United States and in any and all foreign countries:

NOW, THEREFORE, in consideration of good and valuable consideration, the receipt of which is hereby acknowledged, Halliburton hereby assigns and transfers unto the University one-half its right, title and interest in and to the Invention in the United States of America and its territorial possessions and in all foreign countries, and one-half its right, title and interest in and to International Patent Application No. PCT/US15/50093, any and all national phase applications filed based on International Patent Application No. PCT/US15/50093, and one-half its right, title and interest in and to any and all patents which may be granted for the Invention in the United States and its territorial possessions and in any and all foreign countries. For the avoidance of doubt, both Halliburton and the University shall have equal right, title and interest in and to the Invention,

2015-IPM-099023 U1 PCT - Assignment from Hallibutton to University of No _doc

International Patent Application No. PCT/US15/50093, any and all national phase applications filed based on International Patent Application No. PCT/US15/50093, and any and all patents which may be granted for the Invention in the United States and its territorial possessions and in any and all foreign countries without accounting to the other.

Halliburton hereby authorizes and requests the Patent Office Officials in the United States and in any and all other countries to issue any and all of said patents for the Invention, when granted, to Halliburton and the University as co-assignees of the entire right, title and interest in and to the same, for the sole use and enjoyment of Halliburton and the University, their successors and assigns.

EXECUTED this 5th day of March , 2019.

Halliburton Energy Services, Inc.

Name: Tenley Krueger

Title: Senior Counsel

STATE OF TEXAS

SS:

COUNTY OF HARRIS

This instrument was acknowledged before me on <u>March 5th 201</u>9 by <u>Tenley Erveger</u>, as <u>Senior Counsel</u> of Halliburton Energy Services, Inc.

(Seal)

SARAH ABUELAISH
Notery Public Stats of Texas
My Commissions 130859677
My Comm. Exp. Oct. 10, 2020

Sarah Abuelaish

Notary Public

My Commission Expires: OCT 10,2020

Commission # 130859677

EXECUTED this 18th day of March	, 2019,
	The University of North Carolina at Chapel Hill By:
STATE OF NORTH CAROLINA) SS: COUNTY OF ORANGE This instrument was acknowled to a company of the county of the c	edged before me on <u>March 18,2019</u> , by <u>for of Licensing</u> of The University of North
	Notary Public Daris Banita Perry My Commission Expires: June 28, 2020 Commission #

RECORDED: 04/15/2019