

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4010700

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
HSU-HSIANG WU	07/22/2015
YIJING FAN	07/22/2015
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:	14769533
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Email:	request@slwip.com
Correspondent Name:	SCHWEGMAN LUNDBERG & WOESSNER, P.A.
Address Line 1:	P.O. BOX 2938
Address Line 4:	MINNEAPOLIS, MINNESOTA 55402
ATTORNEY DOCKET NUMBER:	1880.873US1
NAME OF SUBMITTER:	ROBIN L. MONSEES
SIGNATURE:	/ Robin L. Monsees /
DATE SIGNED:	08/17/2016
Total Attachments: 5	
source=1880873US1_ASSN#page1.tif	
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RECORDATION FORM COVER SHEET
PATENTS ONLY

Atty Ref/Docket No.: 1880.873US1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Hsu-Hsiang Wu, Yijing Fan

Additional name(s) of conveying party(ies) attached?

Yes No

2. Name and address of receiving party(ies):

Name: Halliburton Energy Services, Inc.

Street Address: 3000 N. Sam Houston Parkway E.

City: Houston State: TX Zip: 77032-3219

Country: United States of America

Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance:

Assignment

Merger

Security Agreement Change of Name

Other

Execution Date: July 22, 2015, July 22, 2015

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

Serial No. 14/769,533, filed August 21, 2015

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: David R. Cochran

Address:

Swegman Lundberg & Woessner, P.A.

P.O. Box 2938

Minneapolis, MN 55402--0938

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 0.00

Enclosed

Authorized to be charged to deposit account 19-0743

8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743

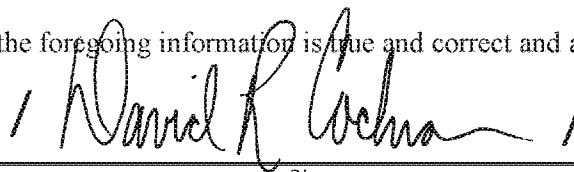
DO NOT USE THIS SPACE

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.

David R. Cochran/Reg. No. 46,632

Name of Person Signing



Signature

16 August 2016

Date

Total number of pages including cover sheet: 5

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks

Mail Stop Assignment Recordation Services

P.O. Box 1450

Alexandria, VA 22313-1450

PATENT
REEL: 039465 FRAME: 0177

ASSIGNMENT

WHEREAS, Hsu-Hsiang Wu and Yijing Fan (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 August 4, 2015, which application was assigned PCT patent application serial number PCT/US2015/043577, and which is titled WELL RANGING APPARATUS, SYSTEMS, AND METHODS; which are described in a patent application filed on November 12, 2014, which application was assigned US application serial number 62/078,732, and which is titled WELL RANGING APPARATUS, SYSTEMS, AND METHODS; which are described in a patent application filed on August 14, 2014, which application was assigned US application serial number 62/037,440, and which is titled WELL RANGING APPARATUS, SYSTEMS, AND METHODS; which are described in a patent application filed on August 11, 2014, which application was assigned US application serial number 62/035,877, and which is titled WELL RANGING APPARATUS, SYSTEMS, AND METHODS.

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 above-identified 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 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

Assignors: Hsu-Hsiang Wu et al.

Title: WELL RANGING APPARATUS, SYSTEMS, AND METHODS

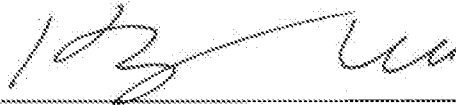
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Docket No: 1880 873WO1

Client Ref. No. 2014-IP-094584 U4 PCT/E-Billing 2014-IPRO-096786

Assignor:

(Signature):



Name: Hsu-Hsiang Wu

City/State: Sugar Land, TX

Date:

7/22/2015

Assignment

Docket No. 1880.873WO1

Assignors: Hsu-Fisiang Wu et al.

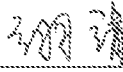
Client Ref. No. 2014-IP-094584 U4 PCT/E-Billing 2014-IPRO-096786

Title: WELL RANGING APPARATUS, SYSTEMS, AND METHODS

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Assignor:

(Signature):



Name: Yiling Fan

City/State: Singapore, Singapore

Date:

22 Jul 2015