PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6579764

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------------|----------------|
| WILLIAM OWEN ALEXANDER RUHLE | 04/25/2013 |
| RONALD GLEN DUSTERHOFT | 11/17/2020 |
| AJISH POTTY | 11/16/2020 |
| JOSHUA LANE CAMP | 11/16/2020 |

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 17069342 |

CORRESPONDENCE DATA

Fax Number: (713)374-1601

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: 7133741600

Email: MDiaz@polsinelli.com

Correspondent Name: POLSINELLI PC

Address Line 1: 1000 LOUISIANA ST.

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Address Line 4: HOUSTON, TEXAS 77002

| ATTORNEY DOCKET NUMBER: | 30080US-659929 |
|-------------------------|-----------------|
| NAME OF SUBMITTER: | MICHELLE DIAZ |
| SIGNATURE: | /Michelle Diaz/ |
| DATE SIGNED: | 03/02/2021 |

Total Attachments: 9

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PATENT 506532988 REEL: 055463 FRAME: 0488

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PATENT REEL: 055463 FRAME: 0489

WORLDWIDE ASSIGNMENT

WHEREAS, WE, (hereinafter referred to as the "ASSIGNOR(S)"):

William Owen Alexander RUHLE, 275 S. Washington Street, Denver, CO 80209 UNITED STATES OF AMERICA

Ronald Glen DUSTERHOFT, 1902 Crescent Common Drive, Katy, TX 77949 UNITED STATES OF AMERICA

Ajish POTTY, 4902 Bellmead Dr., Missouri City, TX 77459 UNITED STATES OF AMERICA

Joshua Lane CAMP, 1310 Beechwood Dr., Friendswood, TX 77546 UNITED STATES OF AMERICA

has/have invented a **FRACTURE COMPLEXITY OPERATION CONTROL** ("Invention") for which one or more applications for patent, design registration, utility model registration, or other form of protection, rights, or title have been or will be made in certain countries ("Applications"), as further described below:

US Application No. 17/069,342, filed October 13, 2020

AND WHEREAS, **HALLIBURTON ENERGY SERVICES**, **INC.**, (hereinafter referred to as the "ASSIGNEE"), a company organized under the laws of Delaware, having a place of business at 3000 N. SAM HOUSTON PARKWAY E., HOUSTON, TEXAS 77032, is desirous of acquiring the full and exclusive right, title and interest in and to said Invention, said Applications inclusive of all ancillary rights relating thereto, any and all priority rights derived from said Applications, and all patents, design registrations, utility model registrations and other forms of protection, rights and titles relating to said Invention, in any country or countries and in respect of the whole or any part or parts of or improvements to the Invention;

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR(S) does/do hereby confirm that ASSIGNOR(S) has/have transferred, conveyed and assigned, and by way of further assurance does/do hereby transfer, convey and assign, any and all of ASSIGNOR(S)'s respective rights, title and interest in and to: the Invention; the Applications; any further applications for patent, design registration, utility model registration or other forms of protection, rights or titles for the whole or any part or parts of or improvements to the Invention in any country or countries ("Further Applications") together with the right to file divisional applications, substitute applications and continuation applications of any one or more of the Applications and Further Applications ("Divisionals"); the right to obtain patents, design registrations, utility model registrations and all other forms of protection, rights and titles relating to the Invention; the right in and to any patent or reissue patent relating to the Applications, Further Applications and Divisionals ("Grants"); and the right

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to obtain any extensions / supplementary protection certificates ("Extensions"); together with the right to bring proceedings to recover damages and/or to obtain other remedies for acts committed in respect of one or more of the aforesaid Invention, Applications, Grants, Further Applications, Divisionals and Extensions, whether such acts are committed before or after the date of this Worldwide Assignment; with the intent that the Invention, Applications, Grants, Further Applications, Divisionals and Extensions are owned and enjoyed by ASSIGNEE absolutely to the full end of the term or terms for same.

ASSIGNOR(S) does/do hereby agree, upon request, to provide assistance and to execute any and all further documents, at the expense of ASSIGNEE and/or its successors and assigns (as applicable), which may be necessary or desirable to enable ASSIGNEE, and/or its successors and assigns (as applicable), to file, prosecute, bring proceedings and take other actions with respect to any and all of the Invention, Applications, Further Applications, Divisionals, Grants and Extensions, and any and all patents and registrations granted thereon and other forms of protection, rights and titles relating thereto, and ASSIGNOR(S) further agrees/agree to execute, upon request and at the expense of ASSIGNEE and/or its successors and assigns (as applicable), any and all further documents which may be necessary or desirable to vest or perfect the title of ASSIGNEE therein.

ASSIGNOR(S) does/do hereby authorize ASSIGNEE or its patent agents or attorneys to insert, above, the jurisdictions, application numbers, filing dates and any other indicia identifying the Applications when such information is available for the purpose of recording this assignment.

ASSIGNOR(S) does/do hereby authorize and request The Commissioner of Patents or any equivalent authority to issue to ASSIGNEE each and every patent, registration and other form of protection, right, and title granted upon the Applications, Further Applications, Divisionals and Extensions.

THIS WORLDWIDE ASSIGNMENT shall inure to the benefit of ASSIGNEE and its successors and assigns, and shall be binding upon ASSIGNOR(S) and their successors and permitted assigns.

DELIVERY of this Worldwide Assignment by copy, however transmitted, constitutes valid and effective delivery. This Worldwide Assignment may be executed in one or more counterparts, each of which when so executed and delivered shall be an original, and such counterparts shall together constitute one and the same instrument.

#544591

INTELLECTUAL PROPERTY AND CONFIDENTIAL INFORMATION AGREEMENT OF HALLIBURTON ENERGY SERVICES, INC.

This Agreement is made by and between the Company (throughout the document "Company" means and includes Halliburton Energy Services, Inc., a Delaware corporation, and any and all subsidiaries or divisions of this corporation) and the undersigned (hereinafter referred to as "Employee"), and is effective as of the execution of this Agreement.

In consideration of Company's employment or continued employment of Employee (it being understood that such employment may be terminated at the will of the Company), Company's promise to provide (or providing) confidential information and/or specialized training to Employee during the course of his/her employment, the payment of a salary or other remuneration, and other consideration, the Parties agree as follows:

- 1. <u>DISCLOSURE OF INVENTIONS</u>. Employee agrees to promptly disclose in confidence to Company all ideas, discoveries, inventions, improvements, designs, original works of authorship, computer software or other electronic data, writings, developments and other valuable information (collectively referred to as "Inventions"), whether or not patentable, copyrightable or protectable as trade secrets, that relate to the Company's business or research and development and are authored, conceived, developed, or first reduced to practice or created by Employee (either solely or jointly with others) a) during the term of Employee's employment and b) and for a period of one (1) year after termination of employment, whether or not such Inventions are authored, conceived, developed or first reduced to practice in the course of his/her employment with Company.
- 2. <u>FORM OF DISCLOSURE OF INVENTIONS</u>. The disclosure of Inventions will include a sketch of the Invention, when possible of illustration, together with a description of the Invention, and the disclosure will bear the signature of the Employee and the date of the Employee's signature upon the disclosure. The disclosure of the Invention will be witnessed by at least one Company employee who will also sign and date the disclosure as individuals to whom the Invention has been fully disclosed.
- 3. <u>ASSIGNMENT OF INVENTIONS</u>. Employee agrees that all Inventions that are authored, conceived, developed, or first reduced to practice or created by Employee during the term of Employee's employment and for a period of one (1) year after termination of employment, either (a) resulting from using equipment, supplies, facilities, or trade secrets of the Company or resulting from work performed by Employee for the Company or (b) relating to the Company's business or current or anticipated research and development, are the sole and exclusive property of the Company, and such Inventions are hereby irrevocably assigned by Employee to the Company. The Employee acknowledges that the assignment of Employee's entire right, title and interest in and to any and all such Inventions to the Company is deemed effective upon the conception, development, first reduction to practice, or creation of the Invention by Employee. The Employee agrees, without further consideration and upon request by the Company, to assist and cooperate with the Company by executing any and all documents, and by performing any and all lawful acts, necessary to document the assignment to the Company of the Employee's right, title and interest in and to any and all such Inventions.
- 4. <u>WORKS</u>. In the performance of his/her duties as an employee of Halliburton, the undersigned may develop or assist in the development of computer programs or other works of authorship as defined in the Copyright Act of 1976, 17 U.S.C. Section 102 (hereinafter referred to as "WORK"). Any original work of authorship fixed in any tangible medium of expression which the undersigned creates as a Company employee shall be considered a work made for hire pursuant to the copyright laws of the United States. Upon completion of any WORK, Halliburton shall have the sole and exclusive right, title and interest (including trade secret and copyright interests) in such WORK. The undersigned hereby agrees to assign, and for no further consideration does assign, to Halliburton all of his/her worldwide right, title and interest in and to such WORK, including trade secret and copyright interests. The undersigned agrees to assist Halliburton and its nominee, at any time, in the

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protection of Halliburton's worldwide right, title and interest in and to any WORK and all rights of copyright therein, including, but not limited to, the execution of all formal assignment documents requested and prepared by Halliburton or its nominee and the execution of all lawful oaths and applications for registration of copyright in the United States and foreign countries.

- 5. <u>ASSIGNMENT OF APPLICATIONS / REGISTRATIONS ASSISTANCE WITH PROSECUTION AND LITIGATION</u>. The Employee hereby assigns to the Company, its successors and assigns, all of Employee's right, title, and interest in and to all U.S. and international applications for Letters Patent and copyright registrations that are filed by Company or the Employee to protect Inventions (including WORKS) that are assigned under this Agreement, whether such applications and registrations are filed during or subsequent to the term of Employee's employment. Employee agrees, without further consideration, to assist Company during and subsequent to the term of Employee's employment in every legal way in obtaining, at Company's expense, protection for such Inventions. Employee agrees to execute any and all papers, take all lawful oaths, and do all lawful acts required in or concerning such applications, and/or divisions, continuations, extensions, or renewals thereof and any application for the reissuance or reexamination of any patents granted thereon or on such divisions, continuations or renewals of such applications. Employee will, at the expense of the Company, assist in all proper ways, as by giving testimony in the conduct of any interference proceeding or litigation which involves or concerns either (a) the priority or originality of such Inventions or (b) the validity or the scope of patents granted on such Inventions.
- 6. <u>ASSIGNMENT OF APPLICATIONS / REGISTRATIONS FILED BY EMPLOYEE AFTER TERMINATION</u>. Employee further expressly agrees that any application for Letters Patent or copyright registrations that are (a) made by the Employee within one year after the termination of Employee's period of employment with the Company and (b) cover or relate to any matters of Company business or the Company's current or anticipated research and development as of the termination date, will be presumed to cover Inventions authored, conceived, developed, or first reduced to practice or created by Employee during the term of Employee's employment within the Company, and will be subject to this Agreement.
- 7. <u>AWARDS FOR INVENTIONS</u>. The Company may make awards for Inventions from time to time, but nothing herein contained will be construed as obligating the Company to make any award for any Invention.
- 8. <u>CONFIDENTIALITY</u>. Except as required in the conduct of the Company's business or as authorized by the Company in writing, the Employee also agrees that Employee will not, during or at any time after the term of the Employee's employment by the Company, use for the Employee or others, publish, disclose, claim ownership of, communicate, divulge or send to others, access, take or email, any private or secret or confidential information, knowledge, or correspondence of the Company, its vendors, consultants, affiliates, joint ventures, or customers that is obtained as a result of the Employee's employment by Company. The Employee acknowledges and agrees that any unauthorized use or disclosure of such private, secret or confidential information would cause irreparable harm to the Company.
- 9. <u>RETURN OF DOCUMENTS UPON REQUEST OR TERMINATION</u>. The Employee further agrees that all paper and electronic copies of memoranda, notes, records, drawings, emails, correspondence, programs; literature or other documents (hereinafter referred to collectively as Documents) made or compiled by the Employee, or made available to the employee, while employed by the Company concerning any process, apparatus, material or product manufactured, used, developed, investigated, or considered by the Company, or concerning any other Company activity, is the Company's property, and that all such Documents, including all electronic and paper copies thereof, will be promptly delivered to the Company in a manner that preserves such Documents, either to the Human Resources Department or to the Employee's manager, on the termination of the Employee's employment or upon an earlier request of the Company. This Agreement does not require the Company to demand its Documents from the Employee before the Employee is required to return them when

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leaving the Company's employment. Under no circumstances following termination will the Employee possess any property of the Company or its vendors, consultants, affiliates, joint ventures, or customers, including any Documents or copies thereof containing any secret or confidential information of the Company or its vendors, consultants, affiliates, joint ventures, or customers. Prior to leaving, the Employee will cooperate with the Company by executing, at the request of the Company, a statement acknowledging the Employee's continuing obligations with respect to Documents of the Company, its vendors, consultants, affiliates, joint ventures, and customers, including obligations of confidentiality and non-use, and certifying that the Employee has not retained any confidential information or Documents of the Company or its vendors, consultants, affiliates, joint ventures, or customers.

- 10. TEMPORARY REMOVAL AND RETURN OF DOCUMENTS. The Employee further agrees that, if in the performance of the Employee's duties for the Company, it is necessary to temporarily remove Documents from the Company's premises, the Employee will remove only such Documents as necessary to perform such duties and will immediately return such Documents to the Company's premises upon completion of such duties and at any time upon request. Employee further agrees not to commingle such Documents with the Employee's personal records and documents. Employee agrees to maintain any back up copies of Documents at the Company's premises and not to maintain any back up copies away from the Company's premises. All Documents (including computer records, facsimile and e-mail) and materials created, received or transmitted in connection with the Employee's work or using Company facilities are presumptively Company property and subject to inspection by the Company at any time. Any computer media (e.g., disks, tapes, external thumb drives, flash drives, external hard drives, DVDs or CDs) or personally owned computers of Employee (including the contents of the computer's hard drive) on which any Company documents or information has been stored may also be reviewed by the Company to determine if they contain the Company's information or documents.
- 11. ACCESS TO COMPANY INFORMATION AND TRAINING. Upon the signing of this Agreement, the Company will make available to the Employee and the Employee will receive commercial and/or technical information and communications relating to the Company products, services and business activities (including but not limited to private, confidential or secret information). Employee agrees that while employed by Company and for a period of one (1) year following the date of termination of Employee's employment with Company, Employee will not, for Employee's own account or for the account of others, (a) use or disclose any Company trade secret and/or confidential information or (b) work in any position where Employee would inevitably use and/or disclose Company's trade secret or confidential information.
- 12. This Agreement will be governed and interpreted in accordance with the internal laws of the State of Texas, excluding that body of law governing conflicts of law. The Employee understands that in the event of a breach or threatened breach of this Agreement by the Employee the Company may suffer irreparable harm and will therefore be entitled to injunctive relief to enforce this Agreement.
- 13. In the event that any provision of this Agreement is found by a court, arbitrator, or other tribunal to be illegal, invalid, or unenforceable, then such provision will not be voided, but will be enforced to the maximum extent permissible under applicable law, and the remainder of this Agreement will remain in full force and effect.
- 14. This Agreement will inure to the benefit of and be binding upon Company and its successors and assigns, and upon Employee and his/her heirs and legal representatives.
- 15. This Agreement may be modified, superseded or amended only in a writing that is signed by an authorized representative of Company and by Employee.

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| 16. This Agreement constitutes the entire agreement between matter hereof and supersedes all prior oral or written agreement such matters. | veen the parties hereto with respect to the subjects, commitments, or understandings with respect to |
|---|--|
| 17. The Company does not wish to receive from Employee third party to whom Employee owes an obligation of confidence that any information Employee either discloses to Company or any obligation of confidentiality to any former employer or other | e. Accordingly, Employee represents and warrants uses while employed by Company is not subject to |
| 18. Employee agrees that while employed by Company, following the end of such employment, Employee will neither behalf of any person or entity, in any capacity, recruit or hire who is, or was, during the period of Employee's employme Company. | directly nor indirectly, on his/her own behalf or or or assist others in recruiting or hiring any persor |
| 19. The Employee further declares that he/she does no inventions, copyrights, or trade secrets relating to business of t not been assigned to the Company: | t now own or claim any patents, patent rights he Company other than the following, which have |
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| | |
| Executed on this 25th day of April | |
| . 2. | 51111 50 \ |
| Signature of Employee | 544591 Employee # |
| Signature of Employee | Employee # |
| WILLIAM RUHLE | |
| Name Typed or Printed | |
| Halliburton Energy Services, Inc. (completed by the Halliburton representative observing the | e Employee's execution of this Agreement) |
| By: Risa Male Print | Name: Lisa Hale |
| | : April 25 ,2013 |

IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:

Date: <u>X // //7 / 20</u>20

Aonald Glen DUSTERHOFT
1902 Crescent Common Drive

Katy, TX 77949

STATEMENT BY WITNESS

1, RUMA DUSTER HOFF , whose full Post Office address is

1902 Crescent Common Drive, Katy TX 77494
(Address of Witness)

hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same.

Date: 11/17/2020

(Signature of Witness

IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:

Date: Nov 16, 2020

Ajišh POTTY 4902 Bellmead Dr. Missouri City, TX 77459

STATEMENT BY WITNESS

| | Ι, | , whose full Post Office address is |
|-------|---------|---|
| | (Add | dress of Witness) |
| - | , , , , | at and did see the above named person, personally Worldwide Assignment, duly sign and execute same. |
| Date: | | (Signature of Witness) |

| undersigned: | |
|----------------|--|
| Date: 11/16/20 | hoshofi Lane CAMP 1310 Beechwood Dr. Friendswood, TX 77546 |
| | STATEMENT BY WITNESS |
| I , | whose full Post Office address is |
| | (Address of Witness) |
| | ally present and did see the above named person, personally led in the Worldwide Assignment, duly sign and execute same. |
| Date: | (Signature of Witness) |

IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the

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PATENT REEL: 055463 FRAME: 0498