506628939 04/26/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6675748

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------|----------------|
| ARAMCO SERVICES COMPANY | 02/23/2021 |

RECEIVING PARTY DATA

| Name: | SAUDI ARAMCO UPSTREAM TECHNOLOGY COMPANY | |
|-----------------|--|--|
| Street Address: | ss: 1 EASTERN AVENUE | |
| City: | DHAHRAN | |
| State/Country: | SAUDI ARABIA | |
| Postal Code: | 31311 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number | |
|---------------------|----------|--|
| Application Number: | 17139770 | |

CORRESPONDENCE DATA

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

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Correspondent Name: KIMBERLEY LARSON-HERMAN

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Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

| ATTORNEY DOCKET NUMBER: | 38136-1309001 |
|-------------------------|---------------------------|
| NAME OF SUBMITTER: | KIMBERLEY LARSON-HERMAN |
| SIGNATURE: | /Kimberley Larson-Herman/ |
| DATE SIGNED: | 04/26/2021 |

Total Attachments: 7

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PATENT 506628939 REEL: 056039 FRAME: 0178

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ASSIGNMENT

This PATENT ASSIGNMENT ("ASSIGNMENT"), dated as of February 23, 2021 ("Effective Date"), is made and entered into by and between ARAMCO SERVICES COMPANY ("ASC" or "ASSIGNOR"), a Corporation organized and existing under the laws of Texas and having a place of business at 1200 Smith Street Two Allen Building Houston TX 77002 USA, and SAUDI ARAMCO UPSTREAM TECHNOLOGY COMPANY ("SAUTC" or "ASSIGNEE"), a Corporation organized and existing under the laws of Saudi Arabia and having a place of business at 1 Eastern Avenue Dhahran Saudi Arabia 31311.

WHEREAS, ASC is the sole owner of certain patent applications mentioned in Appendix A ("the Patent Applications"); and

WHEREAS, ASC is willing and able to sell, convey, assign, and transfer, to SAUTC on the Effective Date of this ASSIGNMENT, all right, title, and interest, worldwide, in the Patent Applications; and

WHEREAS, SAUTC is desirous of acquiring the Patent Applications, including all right, title, and interest in the Patent Applications in exchange for mutually agreed upon consideration.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the sufficiency of which is hereby acknowledged, the parties agree as follows:

1. CONVEYANCE OF THE PATENT APPLICATIONS

- a. ASC does hereby sell, assign and transfer to SAUTC, its successors, assigns and other legal representatives, and SAUTC does hereby accept, the entire right, title and interest, worldwide, in and to the Patent Applications, including, without limitation, the rights: (i) to file and prosecute, in its own name wherever so permitted by law or in the name of SAUTC wherever necessary, patent applications, including corresponding and continuing applications, reissues, re-examinations, certificates of invention, and the like, based on any of the Patent Applications; (ii) to claim priority to any of the Patent Applications pursuant to the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and (iii) to protect and enforce any of the foregoing, including, without limitation, all rights to income, royalties, damages and payments now due or hereafter due or payable in respect thereto, and all rights of recovery and of legal action for past or future infringements and of interference proceedings and reexaminations involving any of the foregoing. ASC acknowledges receipt of fair and adequate consideration for this Assignment.
- b. ASC shall, when requested by SAUTC and at no cost to ASC, (i) execute or cause to be executed all rightful oaths, assignments, and powers of attorney to SAUTC or to agents and legal representatives of SAUTC, and all other papers necessary and proper to carry out the intent and purpose of this Assignment, (ii) execute all papers necessary in connection with the Patent Applications, and any continuing, divisional, reissue, reexamination or other

corresponding application thereof or post-grant proceeding relating thereto and to execute any separate assignment in connection with any such application as SAUTC may deem necessary or expedient; and (iii) perform all affirmative acts that may be necessary to obtain a grant of a valid patent to SAUTC on any of the inventions claimed or disclosed in the Patent Applications.

c. ASC agrees that SAUTC may, at its discretion, record this Assignment with the United States Patent Office or a Patent Office in any other jurisdiction.

2. REPRESENTATIONS AND WARRANTIES

a. ASC represents that it is the owner of the Patent Applications, and of all foreign and domestic patents, patent applications, including continuation-in-part applications, reissues, re-examinations, certificates of invention, and the like that derive priority from, or claim the benefit of the filing date of, the Patent Applications and of all new and useful inventions and improvements that are disclosed in the Patent Applications.

3. PARAGRAPH HEADINGS

The paragraph headings are inserted only for purpose of reference. Such captions shall not affect the scope, meaning or intent of the provisions of this Assignment nor shall such headings otherwise be given any legal effect.

4. ASSIGNMENT BINDING

This Assignment shall bind the heirs, releases, personal representatives, successors and assigns of the Parties to this Assignment and inure to the benefit of their agents, directors, officers, employees, attorneys, successors and assigns, except as specifically excluded herein.

5. ENTIRE AGREEMENT

This Assignment contains the entire agreement between the Parties hereto and constitutes the complete, final and exclusive embodiment of their agreement with respect to the subject matters covered in this Assignment. All prior or contemporaneous agreements, understandings, representations, duties, obligations, and statements, oral or written, are merged into, terminated and/or superseded by this Assignment.

6. <u>COUNTERPARTS</u>

This Assignment may be executed in two or more counterparts. Facsimile signatures and electronic signatures shall be acceptable as original signatures.

Attorney Docket No. 38136-0001001
Assignment from Aramco Services Company to Saudi Aramco Upstream Technology Company
O1-2021

7. <u>SEVERABILITY</u>

In the event that for any reason, one or more of the provisions of this Assignment or their application to any person or company, is held to be invalid, illegal, or unenforceable in any respect or to any extent, such provisions will, nevertheless remain valid, legal, and enforceable in all other respects and to such extent as may be permissible. In addition, any such invalidity, illegality, or unenforceability will not affect any other provision herein, but this Assignment will be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

8. <u>AUTHORITY TO ENTER INTO ASSIGNMENT</u>

The persons signing this Assignment each warrant and represent that they are duly authorized, with full authority to bind the Parties, and that no signature of any other person or entity is necessary to bind the Parties.

[ASSIGNMENT CONTINUES ON SIGNATURE PAGE]

Attorney Docket No. 38136-0001001
Assignment from Aramco Services Company to Saudi Aramco Upstream Technology Company
O1-2021

Date: **Felinary 23, 2021**

ASC hereby executes this Assignment.

Assignor: Aramco Services Company

Signature: 54620

lame: Bobby J. HORREN

Title: Grand Coand & Org Sucretary

Attorney Docket No. 38136-0001001
Assignment from Aramco Services Company to Saudi Aramco Upstream Technology Company
Qi-2021

SAUTC hereby acknowledges and accepts the foregoing assignment.

| Assign | ee: Saudi-Aramco Upstream Technology Company | | |
|----------|--|-------|-------------------|
| Signatu | | Date: | February 23, 2021 |
| Name: | Kwadjo S. Adusei-Poku | | |
| Title: _ | Chief IP Counsel | | |
| | | | |

APPENDIX A

| Country | Application | Filing | Title | Attorney | Client Reference |
|------------------|-------------------------|--|---|-------------------|---|
| | No. | Date | | Docket No. | No. |
| United | 16/922,699 | 7/7/2020 | SETTING A WELLBORE CASING IN A | 38136- | SA71265; |
| States | 1.653.00.00 | <u> </u> | SALT FORMATION | 1071001 | ASC0484-US01-NP |
| United | 16/928,926 | 7/14/2020 | PILLAR FRACTURING | 38136- | SA71097 |
| States | 16 930 608 | m/4 = 10 0 = 0 | *************************************** | 0953001 | |
| United | 16/930,027 | 7/15/2020 | WATER-BASED RESIN WITH | 38136- | SA71264/ASC0485- |
| States | | | ELASTICITY FOR APPLICATIONS IN CEMENTING AND SUBTERRANEAN | 1069001 | US-01-NP |
| | | the same of the sa | STRUCTURES | | |
| United | 16/931,143 | 7/16/2020 | MULTIPURPOSE MICROFLUIDICS | 38136- | SA7753; ASC0352- |
| States | | | DEVICES FOR RAPID ON-SITE | 0715001 | US01-NP |
| XX : | 17/030 700 | 7/0 4/0 600 | OPTICAL CHEMICAL ANALYSIS | | |
| United States | 16/938,679 | 7/24/2020 | OXIDIZING GASSES FOR CARBON | 38136- | SA7805; ASC0378- |
| States | | | DIOXIDE-BASED FRACTURING FLUIDS | 0764001 | US01-P |
| United | 16/938,801 | 7/24/2020 | TRACER ANALYSIS | 38136- | SA7791; ASC0219- |
| States | | | | 0754001 | US05-P3-CIP |
| United | 16/998,243 | 8/20/2020 | DETERMINING MATRIX | 38136- | SA71442: |
| States | | | PERMEABILITY OF SUBSURFACE | 1222001 | ASC0536-US01-NP |
| United | 17/001,467 | 9/24/2020 | FORMATIONS | <u></u> | |
| States | 1/2001,467 | 8/24/2020 | FLUORESCENT DYE LOADED POLYMERIC TAGGANTS FOR DEPTH | 38136- | SA71419 |
| States | ' | | DETERMINATION IN DRILLING | 1200001 | |
| | ***** | | WELLS | | |
| United | 17/001,479 | 8/24/2020 | HIGH TEMPERATURE CROSS-LINKED | 38136- | SA71432; |
| States | | | FRACTURING FLUIDS WITH | 1220001 | ASC0477-US01-NP |
| United | 17/007,952 | 8/31/2020 | REDUCED FRICTION FRICTION REDUCER COMPOSITIONS | 20126 | 0.181.121 |
| States | 17.001,332 | 0/31/2020 | 1 GOTON REDUCER COMPOSITIONS | 38136- 1204001 | SA71421; |
| United | 17/107,428 | 11/30/2020 | DETERMINING EFFECT OF | 38136- | ASC0497-US01-NP SA71422/ASC0494- |
| States | , , , , , , , , , , , , | | OXIDATIVE HYDRAULIC | 1203001 | US01-NP |
| | | | FRACTURING | | |
| United | 17/139,770 | 12/31/2020 | VISCOELASTIC-SURFACTANT | 38136- | SA71545/ASC0562- |
| States | | | TREATMENT FLUIDS HAVING OXIDIZER | 1309001 | US01-P |
| United | 17/140,214 | 1/4/2021 | ANALYZING FRACTURED ROCK | 38136- | SA71420/ASC0506- |
| States | | | SAMPLES | 1202001 | US01-NP |
| United | 17/140,230 | 1/4/2021 | DETERMINATION OF RESERVOIR | 38136- | SA71424/ASC0522- |
| States | | | HETEROGENEITY | 1206001 | US01-P |
| United | 17/140,378 | 1/4/2021 | SILOXANE HYBRID MEMBRANES | 38136- | SA71448/ASC0456 |
| States | | | FOR ENHANCED NATURAL GAS | 1231001 | IP-19-700 |
| United | 17/140,378 | 1/4/2021 | LIQUID RECOVERY SILOXANE HYBRID MEMBRANES | 20126 | 7 1 9 9 1 1 1 2 1 1 2 2 2 2 2 2 2 2 2 2 2 |
| States | 277240,576 | 1/4/2021 | FOR ENHANCED NATURAL GAS | 38136- | SA71448/ASC0456 |
| Citto | | | LIQUID RECOVERY | 1231001 | IP-19-700 |
| United | 17/140,393 | 1/4/2021 | HYBRID MEMBRANE FOR GAS | 38136- | SA71538/ASC0513 |
| States | | | SEPARATION | 1302001 | |
| United | 17/140,395 | 1/4/2021 | HIGH FREE VOLUME MEMBRANE | 38136- | SA71539/ASC0527 |
| States | V 79 / V 4 C 2000 00 | 1.1/2001 | FOR GAS SEPARATION | 1303001 | |
| United | 17/140,773 | 1/4/2021 | FABRICATION OF MICROMODELS | 38136- | SA71522/ASC0552- |
| States United | 63/055,005 | 7/22/2020 | FOR CARBONATE RESERVOIRS | 1287001 | US01-NP |
| States | 03/033,003 | 1122/2020 | DIVERTING AGENTS FOR WELL STIMULATION | 38136- | SA71409; |
| United | 63/056,238 | 7/24/2020 | ENHANCED OIL RECOVERY WITH | 1193P01 | ASC0520-US01-P |
| States | 00,000,200 | 112712020 | JANUS NANOPARTICLES | 38136- | SA71209; |
| 210100 | | | | 1035P01 | ASC0444-US01-P |

Attorney Docket No. 38136-0001001
Assignment from Aramco Services Company to Saudi Aramco Upstream Technology Company
Q1-2021

| Country | Application No. | Filing Date | Title | Attorney Docket No. | Client Reference |
|------------------|-----------------|----------------|--|------------------------|----------------------------|
| United States | 63/062,333 | 8/6/2020 | VISCOELASTIC-SURFACTANT TREATMENT FLUIDS HAVING OXIDIZER | 38136- 1309P01 | SA71545; ASC0562-US01-P |
| United States | 63/065,170 | 8/13/2020 | METHOD OF DEPLOYING CARBON DIOXIDE FOAM FLOODING IN AN OIL RESERVOIR | 38136- 1192P01 | SA71408; ASC0525-US01-P |
| United States | 63/066,600 | 8/17/2020 | NANOCLAY ASSISTED HIGH TEMPERATURE CROSSLINKED FRACTURING FLUIDS | 38136- 1218P01 | SA71434; ASC0537-US01-P |
| United States | 63/074,287 | 9/3/2020 | INJECTING MULTIPLE TRACER TAG FLUIDS INTO A WELLBORE | 38136- 1205P01 | SA71423; ASC0493-US01-P |
| United States | 63/076,055 | 9/9/2020 | STIMULUS-RESPONSIVE DYNAMIC LIQUID CRYSTAL ELASTOMERS | 38136- 0987P01 | SA71142; ASC0445-US01-P |
| United States | 63/089,944 | 10/9/2020 | HYDRAULIC FRACTURING IN HYDROCARBON RESERVOIRS | 38136- 1385P01 | ASC0291-US03-P |
| United States | 63/133,457 | 1/4/2021 | PREDICTING RESERVOIR COMPOSITION FROM MUDGAS LOGS | 38136- 1217P01 | SA71433/ASC0538- US01-P |
| United States | 63/133,480 | 1/4/2021 | SYNTHETIC SOURCE ROCK WITH TEA | 38136- 1270P01 | SA71504/ASC0548- US01-P |
| United States | 63/133,595 | 1/4/2021 | MICROFLUIDIC CHIP WITH MULTIPILE POROSITY REGIONS FOR RESERVOIR MODELING | 38136- 1313P01 | SA71550- ASC0563-US01-P |

PATENT REEL: 056039 FRAME: 0186

RECORDED: 04/26/2021