

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ARAMCO SERVICES COMPANY	02/23/2021
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SAUDI ARAMCO UPSTREAM TECHNOLOGY COMPANY
<b>Street Address:</b>	1 EASTERN AVENUE
<b>City:</b>	DHAHRAN
<b>State/Country:</b>	SAUDI ARABIA
<b>Postal Code:</b>	31311
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	17107428
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	38136-1203001
<b>NAME OF SUBMITTER:</b>	KIMBERLEY LARSON-HERMAN
<b>SIGNATURE:</b>	/Kimberley Larson-Herman/
<b>DATE SIGNED:</b>	03/24/2021
<b>Total Attachments: 7</b>	
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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. **COUNTERPARTS**

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

7. **SEVERABILITY**

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. **AUTHORITY TO ENTER INTO ASSIGNMENT**

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]

ASC hereby executes this Assignment.

Assignor: Aramco Services Company

Signature: B. J. Horron

Date: February 23, 2021

Name: Bobby J. Horron

Title: General Counsel & Corp Secretary

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

SAUTC hereby acknowledges and accepts the foregoing assignment.

Assignee: Saudi Aramco Upstream Technology Company

Signature:  \_\_\_\_\_

Date: February 23, 2021

Name: Kwadjo S. Adusei-Poku

Title: Chief IP Counsel

**APPENDIX A**

Country	Application No.	Filing Date	Title	Attorney Docket No.	Client Reference No.
United States	16/922,699	7/7/2020	SETTING A WELLBORE CASING IN A SALT FORMATION	38136-1071001	SA71265; ASC0484-US01-NP
United States	16/928,926	7/14/2020	PILLAR FRACTURING	38136-0953001	SA71097
United States	16/930,027	7/15/2020	WATER-BASED RESIN WITH ELASTICITY FOR APPLICATIONS IN CEMENTING AND SUBTERRANEAN STRUCTURES	38136-1069001	SA71264/ASC0485-US-01-NP
United States	16/931,143	7/16/2020	MULTIPURPOSE MICROFLUIDICS DEVICES FOR RAPID ON-SITE OPTICAL CHEMICAL ANALYSIS	38136-0715001	SA7753; ASC0352-US01-NP
United States	16/938,679	7/24/2020	OXIDIZING GASSES FOR CARBON DIOXIDE-BASED FRACTURING FLUIDS	38136-0764001	SA7805; ASC0378-US01-P
United States	16/938,801	7/24/2020	TRACER ANALYSIS	38136-0754001	SA7791; ASC0219-US05-P3-CIP
United States	16/998,243	8/20/2020	DETERMINING MATRIX PERMEABILITY OF SUBSURFACE FORMATIONS	38136-1222001	SA71442; ASC0536-US01-NP
United States	17/001,467	8/24/2020	FLUORESCENT DYE LOADED POLYMERIC TAGGANTS FOR DEPTH DETERMINATION IN DRILLING WELLS	38136-1200001	SA71419
United States	17/001,479	8/24/2020	HIGH TEMPERATURE CROSS-LINKED FRACTURING FLUIDS WITH REDUCED FRICTION	38136-1220001	SA71432; ASC0477-US01-NP
United States	17/007,952	8/31/2020	FRICTION REDUCER COMPOSITIONS	38136-1204001	SA71421; ASC0497-US01-NP
United States	17/107,428	11/30/2020	DETERMINING EFFECT OF OXIDATIVE HYDRAULIC FRACTURING	38136-1203001	SA71422/ASC0494-US01-NP
United States	17/139,770	12/31/2020	VISCOELASTIC-SURFACTANT TREATMENT FLUIDS HAVING OXIDIZER	38136-1309001	SA71545/ASC0562-US01-P
United States	17/140,214	1/4/2021	ANALYZING FRACTURED ROCK SAMPLES	38136-1202001	SA71420/ASC0506-US01-NP
United States	17/140,230	1/4/2021	DETERMINATION OF RESERVOIR HETEROGENEITY	38136-1206001	SA71424/ASC0522-US01-P
United States	17/140,378	1/4/2021	SILOXANE HYBRID MEMBRANES FOR ENHANCED NATURAL GAS LIQUID RECOVERY	38136-1231001	SA71448/ASC0456 IP-19-700
United States	17/140,378	1/4/2021	SILOXANE HYBRID MEMBRANES FOR ENHANCED NATURAL GAS LIQUID RECOVERY	38136-1231001	SA71448/ASC0456 IP-19-700
United States	17/140,393	1/4/2021	HYBRID MEMBRANE FOR GAS SEPARATION	38136-1302001	SA71538/ASC0513
United States	17/140,395	1/4/2021	HIGH FREE VOLUME MEMBRANE FOR GAS SEPARATION	38136-1303001	SA71539/ASC0527
United States	17/140,773	1/4/2021	FABRICATION OF MICROMODELS FOR CARBONATE RESERVOIRS	38136-1287001	SA71522/ASC0552-US01-NP
United States	63/055,005	7/22/2020	DIVERTING AGENTS FOR WELL STIMULATION	38136-1193P01	SA71409; ASC0520-US01-P
United States	63/056,238	7/24/2020	ENHANCED OIL RECOVERY WITH JANUS NANOPARTICLES	38136-1035P01	SA71209; 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 No.
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 MULTIPLE POROSITY REGIONS FOR RESERVOIR MODELING	38136-1313P01	SA71550- ASC0563-US01-P

**PATENT**