

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5015338

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	ARAMCO SERVICES COMPANY	04/01/2017
RECEIVING PARTY DATA		
Name:	SAUDI ARABIAN OIL COMPANY	
Street Address:	1 EASTERN AVENUE	
City:	DHAHRAN	
State/Country:	SAUDI ARABIA	
Postal Code:	31311	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	16000651
CORRESPONDENCE DATA		
Fax Number:	(877)769-7945	
<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>		
Phone:	214-292-4039	
Email:	apsi@fr.com	
Correspondent Name:	FISH & RICHARDSON P.C.	
Address Line 1:	P.O. BOX 1022	
Address Line 4:	MINNEAPOLIS, MINNESOTA 55440-1022	
ATTORNEY DOCKET NUMBER:	38136-0341001	
NAME OF SUBMITTER:	PEGGY C. HARRIS	
SIGNATURE:	/Peggy C. Harris/	
DATE SIGNED:	06/20/2018	
Total Attachments: 6		
source=38136-0341001_Assignment_ASC_SAO#page1.tif		
source=38136-0341001_Assignment_ASC_SAO#page2.tif		
source=38136-0341001_Assignment_ASC_SAO#page3.tif		
source=38136-0341001_Assignment_ASC_SAO#page4.tif		
source=38136-0341001_Assignment_ASC_SAO#page5.tif		
source=38136-0341001_Assignment_ASC_SAO#page6.tif		

**INTELLECTUAL PROPERTY ASSIGNMENT
FROM ARAMCO SERVICES COMPANY
TO SAUDI ARABIAN OIL COMPANY**

This Intellectual Property Assignment ("**Assignment**"), dated as of April 1, 2017, is made by Aramco Services Company, a Delaware corporation, having offices at 9009 West Loop South, Houston, Texas 77096-1719 ("**Assignor**"), in favor of Saudi Arabian Oil Company, a company with limited liability, duly organized and existing under the laws of the Kingdom of Saudi Arabia and established by Royal Decree M/8 dated 4/4/1409 H. ("**Assignee**") together recognized as "**Parties**".

RECTALS

WHEREAS, the parties previously executed an Intellectual Property Assignment, dated as of April 13, 2015, in which the Parties agreed that Assignor shall continue to assign intellectual property to Assignee on a quarterly basis; and

WHEREAS, Assignor is the present owner of the rights, title and interest in the invention disclosures, patents and patent applications set forth in the attached Schedule A (the "**Intellectual Property**") as of April 1, 2017;

NOW, for good and valuable consideration, the receipt and sufficiency of which is acknowledged, the Parties agree as follows:

1. Assignment of Intellectual Property. Assignor assigns to Assignee all of its rights, title and interest in and to the Intellectual Property, including, but not limited to:

(a) the right to make, use and sell the inventions associated with the Intellectual Property;

(b) the right to take all legal actions on account of past, present and future infringement of the Intellectual Property;

(c) the right to conduct and control all protection activities associated with the Intellectual Property as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment had not been made, including for example: the filing and prosecution of any and all patent applications, including divisions, continuations, and continuations-in-part of existing applications assigned by this Assignment; reexaminations, reissues or other administrative proceedings; and the payment of issuance and maintenance fees; and

(d) any and all rights and obligations held by the Assignor arising under the Assignment in relation to the Intellectual Property.

2. Further Assurances. Assignor hereby covenants and agrees that it will at any time, upon the request and at the expense of Assignee but without further compensation, cooperate with Assignee in the protection of the Intellectual Property, including: all lawful acts that may be necessary to perfect the title to the Intellectual Property, such as the execution and delivery of

formal documents; cooperate with Assignee in the enforcement or licensing of the Intellectual Property, including in any interference, reexamination, or other litigation; communicate to Assignee, its successors and assigns, any facts known respecting the Intellectual Property and its history, and generally do everything possible which the Assignee shall consider desirable for vesting title to improvements in the Intellectual Property.

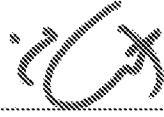
3. Warranties. Assignor hereby warrants that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the Assignor, and that the full right to convey the same as herein expressed is possessed by the Assignor, to the extent set forth in Schedule A.

IN WITNESS WHEREOF, the Parties have executed this Assignment as of April 1, 2017.

ARAMCO SERVICES COMPANY

By:  (A)
Basil A. Abul-Hamoud
President

SAUDI ARABIAN OIL COMPANY

By: 
Ahmad Khowaiter
Chief Technology Officer

**INTELLECTUAL PROPERTY ASSIGNMENT
FROM ARAMCO SERVICES COMPANY
TO SAUDI ARABIAN OIL COMPANY**

This Intellectual Property Assignment ("**Assignment**"), dated as of April 1, 2017, is made by Aramco Services Company, a Delaware corporation, having offices at 9009 West Loop South, Houston, Texas 77096-1719 ("**Assignor**"), in favor of Saudi Arabian Oil Company, a company with limited liability, duly organized and existing under the laws of the Kingdom of Saudi Arabia and established by Royal Decree M/8 dated 4/4/1409 H. ("**Assignee**") together recognized as "**Parties**".

RECITALS

WHEREAS, the parties previously executed an Intellectual Property Assignment, dated as of April 13, 2015, in which the Parties agreed that Assignor shall continue to assign intellectual property to Assignee on a quarterly basis; and

WHEREAS, Assignor is the present owner of the rights, title and interest in the invention disclosures, patents and patent applications set forth in the attached Schedule A (the "**Intellectual Property**") as of April 1, 2017;

NOW, for good and valuable consideration, the receipt and sufficiency of which is acknowledged, the Parties agree as follows:

1. Assignment of Intellectual Property. Assignor assigns to Assignee all of its rights, title and interest in and to the Intellectual Property, including, but not limited to:

(a) the right to make, use and sell the inventions associated with the Intellectual Property;

(b) the right to take all legal actions on account of past, present and future infringement of the Intellectual Property;

(c) the right to conduct and control all protection activities associated with the Intellectual Property as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment had not been made, including for example: the filing and prosecution of any and all patent applications, including divisions, continuations, and continuations-in-part of existing applications assigned by this Assignment; reexaminations, reissues or other administrative proceedings; and the payment of issuance and maintenance fees; and

(d) any and all rights and obligations held by the Assignor arising under the Assignment in relation to the Intellectual Property.

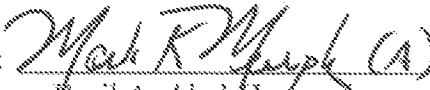
2. Further Assurances. Assignor hereby covenants and agrees that it will at any time, upon the request and at the expense of Assignee but without further compensation, cooperate with Assignee in the protection of the Intellectual Property, including: all lawful acts that may be necessary to perfect the title to the Intellectual Property, such as the execution and delivery of

formal documents; cooperate with Assignee in the enforcement or licensing of the Intellectual Property, including in any interference, reexamination, or other litigation; communicate to Assignee, its successors and assigns, any facts known respecting the Intellectual Property and its history, and generally do everything possible which the Assignee shall consider desirable for vesting title to improvements in the Intellectual Property.

3. Warranties. Assignor hereby warrants that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the Assignor, and that the full right to convey the same as herein expressed is possessed by the Assignor, to the extent set forth in Schedule A.

IN WITNESS WHEREOF, the Parties have executed this Assignment as of April 1, 2017.

ARAMCO SERVICES COMPANY

By: 
Basil A. Abul-Hamayeh
President

SAUDI ARABIAN OIL COMPANY

By: 
Ahmad Khowaiter
Chief Technology Officer

Schedule A - Quarterly Assignment - April 1, 2017

Title	ASC Docket Number	SAO Docket Number	Application Date	Application Number	Inventors
Synthetic Modification of Poly(ether-b-amide) Block Copolymer for Sour Gas Separation	ASC0112				John Yang Daniel Harrigan
Device for Identification of Corrosion and Scale Risk in Producing Oil and Gas Wells	ASC0118				Anuj Gupta Sunder Ramechandran Sebastian Csutak
Hydraulic Fracturing of Kerogen-Rich Unconventional Formations	ASC0120	SA7304	8-Mar-17	62/468594	Leiming Li Yanhui Han Jilin Zhang Ghaithan Al-Muntasheri Younane Aboueleiman Katie Hull
Crosslinked Polymer Blended Membranes for Sour Gas Separation	ASC0122	SA6129			John Yang
Acid catalyzed siloxane crosslinking of cellulose acetate	ASC0135	SA2056			Justin Vaughn Ben Sundell
In-situ Generation of Acid using an Oxidizer Approach	ASC0155	SA2058			Amy Cairns Katie Hull Mohammed Sayed
Magnetically Enhanced Surface-Enhanced Raman Spectroscopic Detection of Oilfield Chemicals and Tracer Materials	ASC0169				Ghaithan Al-Muntasheri Sehoon Chang Wei Wang Shannon Eichmann
Fabrication of hierarchical zeolite beta with enlarged mesopores via post-synthetic base leaching	ASC0175				Ke Zhang
Enhancement of High-Temperature Fracturing Fluids in Hard Water	ASC0178				Leiming Li Feng Liang
A Method for Bulk Density and Porosity Measurement of Drill Cuttings using a Combination of NMR and Gravimetric Methods	ASC0190				Jilin Zhang Stacey Althaus Jinhong Chen Dan Georgi Leiming Li
Method for Correcting Low Permeability Laboratory Measurements for Leaks	ASC0191				Dan Georgi Huangye Chen Hui-Hai Liu

Seawater-Based, High Temperature VES Fluids with Low Scaling Tendency	ASC0201	SA6132			Leiming Li Feng Liang Tao Chen (SAO)
Composition of encapsulated chemical additives and methods for preparation of the same.	ASC0202				Elizabeth Contreras BR Reddy
Fabrication of customized shale composite with original ingredients materials using high energy acoustic mixing technology	ASC0203	SA7293			Mohammad Haque Younane Abousleiman Katie Hull David Jacobi Yanhui Han
Real-time cheap method of logging fracture toughness utilizing drill cuttings	ASC0204				Mohammad Haque Younane Abousleiman Katie Hull
Mitigation of Sand Production in Sandstone Reservoir using Thermally Swellable Rubber Beads	ASC0206	SA5713			Yanhui Han Feng Liang Mohammad Haque
Means and apparatus for obtaining continuous downhole measurements	ASC0210				Onur Bafan Dan Georgi Anuj Gupta
Logging Tool With Electric Dipole Source And Magnetic Receiver For Forward And Lateral Imaging	ASC0222				Teruhiko Hagiwara
Mitigation of Condensate Banking Problems Using A New Surface Modified Nano-Particles	ASC0229	SA2057			Mohammed Sayed Feng Liang Sweng Ow Jason Cox