

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT7816300

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the RECEIVING PARTY'S NAME FROM LOS ACQUISITION CO I LLC TO LIBERTY OILFIELD SERVICES LLC previously recorded on Reel 062515 Frame 0943. Assignor(s) hereby confirms the RELEASE OF PATENT SECURITY AGREEMENT.
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
U.S. BANK NATIONAL ASSOCIATION, AS AGENT	01/23/2023
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	LIBERTY OILFIELD SERVICES LLC
<b>Street Address:</b>	950 17TH ST., SUITE 2400
<b>City:</b>	DENVER
<b>State/Country:</b>	COLORADO
<b>Postal Code:</b>	80202
<b>PROPERTY NUMBERS Total: 8</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	7749946
Patent Number:	8193127
Patent Number:	8347965
Patent Number:	7559373
Patent Number:	8061427
Patent Number:	9228424
Application Number:	14720277
Application Number:	15250271
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(214)200-0853
<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>	
<b>Phone:</b>	2146515000
<b>Email:</b>	ipdocketing@haynesboone.com
<b>Correspondent Name:</b>	HAYNES AND BOONE, LLP
<b>Address Line 1:</b>	2323 VICTORY AVENUE, SUITE 700
<b>Address Line 2:</b>	IP SECTION
<b>Address Line 4:</b>	DALLAS, TEXAS 75219
<b>ATTORNEY DOCKET NUMBER:</b>	57204.19

<b>NAME OF SUBMITTER:</b>	CANDY SANDERS
<b>SIGNATURE:</b>	/Candy Sanders/
<b>DATE SIGNED:</b>	02/27/2023
<b>Total Attachments: 7</b> source=57204.19 Corrective Assignment - US Bank Liberty Oilfield 2017 Patent Release 2023#page1.tif source=57204.19 Corrective Assignment - US Bank Liberty Oilfield 2017 Patent Release 2023#page2.tif source=57204.19 Corrective Assignment - US Bank Liberty Oilfield 2017 Patent Release 2023#page3.tif source=57204.19 Corrective Assignment - US Bank Liberty Oilfield 2017 Patent Release 2023#page4.tif source=57204.19 Corrective Assignment - US Bank Liberty Oilfield 2017 Patent Release 2023#page5.tif source=57204.19 Corrective Assignment - US Bank Liberty Oilfield 2017 Patent Release 2023#page6.tif source=57204.19 Corrective Assignment - US Bank Liberty Oilfield 2017 Patent Release 2023#page7.tif	

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT7763041

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	RELEASE OF PATENT SECURITY AGREEMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
U.S. BANK NATIONAL ASSOCIATION, AS AGENT	01/23/2023
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	LOS ACQUISITION CO I LLC
<b>Street Address:</b>	950 17TH ST., SUITE 2400
<b>City:</b>	DENVER
<b>State/Country:</b>	COLORADO
<b>Postal Code:</b>	80202
<b>PROPERTY NUMBERS Total: 8</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	7749946
Patent Number:	8193127
Patent Number:	8347965
Patent Number:	7559373
Patent Number:	8061427
Patent Number:	9228424
Application Number:	14720277
Application Number:	15250271
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(214)200-0853
<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>	
<b>Phone:</b>	2146515000
<b>Email:</b>	ipdocketing@haynesboone.com
<b>Correspondent Name:</b>	HAYNES AND BOONE, LLP
<b>Address Line 1:</b>	2323 VICTORY AVENUE, SUITE 700
<b>Address Line 2:</b>	IP SECTION
<b>Address Line 4:</b>	DALLAS, TEXAS 75219
<b>ATTORNEY DOCKET NUMBER:</b>	57204.19
<b>NAME OF SUBMITTER:</b>	CANDY SANDERS
<b>SIGNATURE:</b>	/Candy Sanders/

## RELEASE OF PATENT SECURITY AGREEMENT

This **RELEASE OF PATENT SECURITY AGREEMENT**, dated as of January 23, 2023, is made by U.S. Bank National Association, as administrative agent (in such capacity, together with its successors and permitted assigns, the “Administrative Agent”) for each member of the Lender Group (as defined in the Credit Agreement referred to below) (in such capacity, the “Grantee”), in favor of Liberty Oilfield Services LLC, a Texas limited liability company, as successor to LOS Acquisition Co I LLC, a Delaware limited liability company (the “Grantor”).

**WHEREAS**, (i) the Grantor, the Grantee and others are parties to that certain Credit Agreement dated as of September 19, 2017 (as amended, restated, supplemented, or otherwise modified from time to time, the “Credit Agreement”), (ii) the Grantor, the Grantee and others are parties to that certain Guaranty and Security Agreement, dated as of September 19, 2017 (including all annexes, exhibits or schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the “Guaranty and Security Agreement”); and (iii) the Grantor and the Grantee are parties to that certain Patent Security Agreement, dated as of October 17, 2017 (the “Patent Security Agreement”);

**WHEREAS**, pursuant to the Credit Agreement, the Guaranty and Security Agreement and the Patent Security Agreement, the Grantor granted to the Grantee a security interest in all of the Grantor’s right, title and interest in, to and under the Patent Collateral (as defined below), including, without limitation, the Patent Intellectual Property Licenses, registered Patents and Patent applications referred to on Schedule A annexed hereto;

**WHEREAS**, the Patent Security Agreement was recorded at the United States Patent and Trademark Office (the “USPTO”) on October 18, 2017 at Reel 044345 and Frame 0169;

**WHEREAS**, the Grantee has agreed to terminate and release its security interest in, to and under the Patent Collateral and reassign any and all rights in the same to the Grantor; and

**WHEREAS**, capitalized terms used herein and not otherwise defined herein shall have the meanings assigned to them (including by reference to other agreements) in the Credit Agreement, Guaranty and Security Agreement or Patent Security Agreement, as applicable.

**NOW, THEREFORE**, in consideration of the premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantee hereby agrees as follows:

1. *Release of Security Interest.* The Grantee hereby, without recourse, representation, warranty, indemnity or other assurance of any kind, express, implied or statutory, (i) terminates the Patent Security Agreement, and (ii) terminates, releases, relinquishes and discharges fully all mortgages, liens, and security interests granted to the Grantee for the benefit of each member of the Lender Group in the following (collectively, the “Patent Collateral”):

(a) all of its Patents and Patent Intellectual Property Licenses, including, without limitation, those referred to on Schedule A hereto;

(b) all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing; and

(c) all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof;

and reassigns and transfers to the Grantor, without recourse, representation, warranty, indemnity or other assurance of any kind, express, implied or statutory, any and all right, title and interest the Grantee may have in, to or under the Patent Collateral (including, without limitation, the registered Patents and Patent applications referred to on Schedule A annexed hereto).

2. *Recordation.* The Grantee hereby authorizes the Grantor, or the Grantor's authorized representative(s), as the case may be, at the Grantor's sole expense, to record this document with the USPTO and any other applicable governmental office or agency. The Grantee further authorizes and requests that the Commissioner for Patents in the USPTO, and any other necessary United States government officer, record this document, it being understood that such recordation shall be at the Grantor's sole expense.


3. *Governing Law.* This document shall be governed by, and construed and interpreted in accordance with, the laws of the State of New York.

**[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]**

**IN WITNESS WHEREOF**, the Grantee has caused this Release of Patent Security Agreement to be duly executed as of the date first set forth above.

Grantee:

**U.S. BANK NATIONAL ASSOCIATION,**  
as Administrative Agent

By:   
Name: Prital K. Patel  
Title: Vice President

**SCHEDULE A****Patents**

<b>Grantor</b>	<b>Country</b>	<b>Patent</b>	<b>Application/ Patent No.</b>	<b>Filing Date</b>
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	United States of America	Crosslinking Composition for Fracturing Fluids	7,749,946	08/20/2007
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	United States of America	Low Residue Fluid Fracturing System and Method of Use	8,193,127	02/04/2009
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	United States of America	Apparatus and Method for Creating Pressure Pulses in a Wellbore (Shockfrac)	8,347,965	12/23/2009
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	United States of America	Process for Fracturing a Subterranean Formation (Cyclefrac)	7,559,373	05/30/2006
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	United States of America	Well Product Recovery Process (Cyclespal)	8,061,427	05/30/2006
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	United States of America	Method of Treating the Near-Wellbore Zone of the Reservoir	9,228,424	05/31/2011
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	United States of America	Hydrocarbon Stimulation by Energetic Chemistry	14/720,277	05/22/2015

Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	United States of America	Reservoir Stimulation by Energetic Chemistry	15/250,271	08/29/2016
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Crosslinking Composition for Fracturing Fluids	2,598,147	08/20/2007
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Crosslinking Composition for Fracturing Fluids	2,802,841	08/20/2007
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Low Residue Fluid Fracturing System and Method of Use	2,652,489	02/04/2009
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Apparatus and Method for Creating Pressure Pulses in a Wellbore (Shockfrac)	2,689,038	12/23/2009
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Well Product Recovery Process (Cyclefrac)	2,517,497	08/29/2005
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Well Product Recovery Process (Cyclespal)	2,517,494	08/29/2005
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Thermo-Gas-Generating Systems and Methods for Oil and Gas Well Stimulation	2,834,374	11/26/2013



Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Method of Treating the Near-Wellbore Zone of the Reservoir	2,744,556	06/27/2011
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Hydrocarbon Stimulation by Energetic Chemistry	2,892,343	05/22/2015
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Surfactant System as a Self-Diverted Acid for Well Stimulation	2,836,221	12/13/2013
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Apparatus and Method for Continuously Mixing Fluids Using Dry Additives	2,839,611	01/17/2014
Liberty Oilfield Services LLC (successor to LOS Acquisition Co I LLC)	Canada	Reservoir Stimulation by Energetic Chemistry	2,940,378	08/29/2016