

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4813678

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
RGL RESERVOIR MANAGEMENT INC.	12/21/2017
RECEIVING PARTY DATA	
Name:	GLAS AMERICAS LLC
Street Address:	230 PARK AVE. SUITE 1000
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10169
PROPERTY NUMBERS Total: 8	
Property Type	Number
Patent Number:	7146835
Patent Number:	7073366
Patent Number:	6898957
Patent Number:	7435373
Patent Number:	9272316
Application Number:	15118242
Application Number:	62487319
Application Number:	62552290
CORRESPONDENCE DATA	
Fax Number:	(212)872-1002
<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:	212-872-1071
Email:	tthreadcraft@akingump.com, kkoehler@akingump.com
Correspondent Name:	TIFFANYE THREADCRAFT
Address Line 1:	ONE BRYANT PARK
Address Line 4:	NEW YORK, NEW YORK 10036
ATTORNEY DOCKET NUMBER:	699318.0001
NAME OF SUBMITTER:	KWAN KOEHLER
SIGNATURE:	/Kwan Koehler/

DATE SIGNED:

02/07/2018

Total Attachments: 11

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This **INTELLECTUAL PROPERTY SECURITY AGREEMENT** is entered into as of December 21, 2017 (this "**Agreement**"), by RGL Reservoir Management Inc., a Canadian corporation (the "**Grantor**") in favour of GLAS AMERICAS LLC, not in its individual capacity, but solely as collateral agent (in such capacity, the "**Collateral Agent**") for the Lenders (as defined below).

Reference is made to that certain Canadian Pledge and Security Agreement dated as of December 21, 2017 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time and in effect on the date hereof, the "**Security Agreement**"), among the Grantors (as such term is defined therein) party thereto and the Collateral Agent. The Lenders (as defined below) have extended credit to the Grantor pursuant to a Credit Agreement dated as of December 21, 2017 (as amended, restated, amended and restated, supplemented or otherwise modified, extended, replaced or refinanced from time to time, the "**Credit Agreement**"), by and among the Grantor, RGL Reservoir Holdings Inc., a British Columbia corporation, RGL Reservoir Management Group Inc., a British Columbia corporation, Pacific Perforating, Inc., a Delaware corporation, 10504360 Canada Inc., a Canadian corporation, the lenders from time to time party thereto (the "**Lenders**"), GLAS USA LLC, as administrative agent for the Lenders and the Collateral Agent. Consistent with the requirements set forth in Sections 4.01 and 5.12 of the Credit Agreement and Section 4.03(c) of the Security Agreement, the parties hereto agree as follows:

1. TERMS

Capitalized terms used in this Agreement and not otherwise defined herein have the meanings specified in the Security Agreement.

2. GRANT OF SECURITY INTEREST

As security for the prompt and complete payment or performance, as the case may be, in full of the Obligations, the Grantor, pursuant to the Security Agreement, did and hereby does pledge, collaterally assign, mortgage, transfer and grant to the Collateral Agent, its successors and permitted assigns, on behalf of and for the rateable benefit of the Secured Parties, a continuing security interest in all of its right, title or interest in, to or under all of the following assets, whether now owned or at any time hereafter acquired by or arising in favour of the Grantor and regardless of where located (collectively, the "**IP Collateral**"):

- (a) all Trademarks, including the Trademark registrations and registration applications listed on Schedule I hereto;
- (b) all Patents, including the Patent registrations and pending applications listed on Schedule II hereto;
- (c) all Copyrights, including the Copyright registrations and pending applications for registration listed on Schedule III hereto;
- (d) all Designs, including the Design registrations and pending applications for registration listed on Schedule IV hereto; and
- (e) all proceeds of the foregoing;

in each case to the extent the foregoing items constitute Collateral.

3. SECURITY AGREEMENT

The security interests granted to the Collateral Agent herein are granted in furtherance, and not in limitation of, the security interests granted to the Collateral Agent pursuant to the Security Agreement. The Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the IP Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Agreement and the Security Agreement, the terms of the Security Agreement shall govern.

4. THE COLLATERAL AGENT

The Collateral Agent is accepting the benefits of this Agreement not in its individual capacity but solely in its capacity as Collateral Agent under the Credit Agreement and in entering into this Agreement and acting hereunder, the Collateral Agent shall be entitled to all the rights, protections and immunities granted to the Collateral Agent under the Credit Agreement. The permissive authorizations, entitlements, powers and rights granted to the Collateral Agent herein shall not be construed as duties. Any exercise of discretion on behalf of the Collateral Agent shall be exercised in accordance with the terms of the Credit Agreement. Notwithstanding anything herein to the contrary, the Collateral Agent shall have no responsibility for the preparation, filing or recording of any instrument, document or financing statement or for the perfection or maintenance of any security interest created hereunder.

5. GOVERNING LAW

This Agreement shall be governed by, and construed in accordance with, the laws of the Province of Alberta and the federal laws of Canada applicable therein.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

RGL RESERVOIR MANAGEMENT INC., as
Grantor

By: 
Name: Hansine Kostelecky
Title: Chief Financial Officer


SCHEDULE I – TRADEMARKS

TRADEMARKS

HOLDER	JURISDICTION	TRADEMARK NO.	TRADEMARK
RGL Reservoir Management Inc.	Canada	TMA951996	RGL RESERVOIR MANAGEMENT
RGL Reservoir Management Inc.	Canada	TMA924729	ISPL
RGL Reservoir Management Inc.	Canada	TMA910800	MDTU
RGL Reservoir Management Inc.	Canada	TMA926545	HOT PIG
RGL Reservoir Management Inc.	Canada	TMA948644	TRS
RGL Reservoir Management Inc.	Canada	TMA948652	TRS 04
RGL Reservoir Management Inc.	Canada	TMA948653	TRS 05
RGL Reservoir Management Inc.	Canada	TMA951999	RGL RESERVOIR MANAGEMENT (logo) 
RGL Reservoir Management Inc.	Canada	TMA931104	FCJ
RGL Reservoir Management Inc.	Canada	TMA985,169	proSLOT
RGL Reservoir Management Inc.	US	5248396	TRS
RGL Reservoir Management Inc.	US	5211541	TRS 04
RGL Reservoir Management Inc.	US	5043582	HOT PIG

RGL Reservoir Management Inc.	US	5211542	TRS 05
RGL Reservoir Management Inc.	US	4953791	MDTU
RGL Reservoir Management Inc.	US	4986290	ISPL

TRADEMARK APPLICATIONS

APPLICANT	JURISDICTION	APPLICATION NO.	TRADEMARK
RGL Reservoir Management Inc.	Canada	1,681,313	NGPL
RGL Reservoir Management Inc.	Canada	1,781,536	proPUNCH
RGL Reservoir Management Inc.	Canada	1,781,537	proWRAP
RGL Reservoir Management Inc.	Canada	1,705,134	proSLOT Design
RGL Reservoir Management Inc.	US	87041930	proWRAP
RGL Reservoir Management Inc.	US	87041937	proPUNCH
RGL Reservoir Management Inc.	US	86477680	
RGL Reservoir Management Inc.	US	86477675	RGL RESERVOIR MANAGEMENT
RGL Reservoir Management Inc.	US	86477627	NGPL
RGL Reservoir Management Inc.	US	86477682	proSLOT

APPLICANT	JURISDICTION	APPLICATION NO	TRADEMARK
RGL Reservoir Management Inc.	US	86477662	FCJ

SCHEDULE II - PATENTS

PATENTS

REGISTERED OWNER	JURISDICTION	SERIAL NUMBER	DESCRIPTION
RGL Reservoir Management Inc.	Canada	CA2292278	A METHOD OF ACHIEVING A PREFERENTIAL FLOW DISTRIBUTION IN A HORIZONTAL WELL BORE (Preferential Flow Model)
RGL Reservoir Management Inc.	Canada	CA2324730	METHOD AND APPARATUS FOR REDUCING SLOT WIDTH IN SLOTTED TUBULAR LINERS (TRS)
RGL Reservoir Management Inc.	Canada	CA2522723	APPARATUS AND METHOD FOR THERMAL DE-BURRING OF SLOTTED WELL LINERS (Hot Pig)
RGL Reservoir Management Inc.	Canada	CA2861844	Axial Alignment Apparatus and Method for Maintaining Concentricity Between a Slotted Tubular and a Seamer Head (Son of TRS)
RGL Reservoir Management Inc.	Canada	CA2481696	Method and Apparatus to Reduce the Width of a Slot or Opening in a Pipe, Tube or Other Object (Longitudinal Seamer)
RGL Reservoir Management Inc.	Canada	CA2464631	Method and Apparatus to Reduce Slot Width in Tubular Members (Rotary II)

REGISTERED OWNER	JURISDICTION	SERIAL NUMBER	DESCRIPTION
RGL Reservoir Management Inc.	Canada	2939317	Pipe coupling with load deflecting region
RGL Reservoir Management Inc.	US	7,146,835	Method and Apparatus to Reduce Slot Width in Tubular Members
RGL Reservoir Management Inc.	US	7,073,366	Method and Apparatus to Reduce the Width of a Slot or Opening in a Pipe, Tube or Other Object
RGL Reservoir Management Inc.	US	6,898,957	METHOD OF REDUCING SLOT WIDTH IN SLOTTED TUBULAR LINERS
RGL Reservoir Management Inc.	US	7,435,373	APPARATUS AND METHOD FOR THERMAL DE-BURRING OF SLOTTED WELL LINERS
RGL Reservoir Management Inc.	US	9,272,316	AXIAL ALIGNMENT APPARATUS AND METHOD FOR MAINTAINING CONCENTRICITY BETWEEN A SLOTTED TUBULAR AND A SEAMER HEAD

PATENT APPLICATIONS

REGISTERED OWNER	JURISDICTION	APPLN NUMBER	DESCRIPTION
RGL Reservoir Management Inc.	US	15/118,242	Pipe Coupling with Load Deflecting Region

RGL Reservoir Management Inc.	US	62/487,319	Method and Apparatus for Attaching Rib Wires of a Wire Wrap Screen
RGL Reservoir Management Inc.	US	62/552,290	Flow Control Nozzle and Apparatus Comprising a Flow Control Nozzle

SCHEDULE III – COPYRIGHTS

None.

SCHEDULE IV – DESIGNS

None.