

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4464968

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
TELEDRILL, INC.	03/30/2010
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	JAMES KUSKO
<b>Street Address:</b>	3910 ADLER LANE
<b>City:</b>	BETHLEHEM
<b>State/Country:</b>	PENNSYLVANIA
<b>Postal Code:</b>	18017
<b>PROPERTY NUMBERS Total: 22</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	13336981
Application Number:	14810715
Application Number:	61529329
Application Number:	14255763
Application Number:	13368150
Application Number:	13368997
Application Number:	11607788
Application Number:	10956708
Application Number:	12316863
Application Number:	12004121
Application Number:	60927400
Application Number:	11657939
Application Number:	12316864
Application Number:	13582447
Application Number:	15465814
PCT Number:	US2016044237
PCT Number:	US2014034554
PCT Number:	US0800978
PCT Number:	US0434979
PCT Number:	US0812428

Property Type	Number
PCT Number:	US1325323
PCT Number:	US2012024898

**CORRESPONDENCE DATA**

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<b>NAME OF SUBMITTER:</b>	ABIGAIL M. MARTIN
<b>SIGNATURE:</b>	/Abigail M. Martin/
<b>DATE SIGNED:</b>	06/16/2017

**Total Attachments: 5**

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## PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT, is dated to be effective as of March 30, 2010, by TELEDRILL, INC. (the "Pledgor"), in favor of JAMES KUSKO (the "Secured Party").

### W I T N E S S E T H:

WHEREAS, the Pledgor is party to an Intellectual Property Security Agreement dated to be effective as of March 30, 2010 (as amended, restated, supplemented or otherwise modified from time to time, the "Security Agreement") in favor of the Secured Party pursuant to which the Pledgor is required to execute and deliver this Patent Security Agreement;

NOW, THEREFORE, in consideration of and as security for the full and complete payment of all of the Secured Obligations, the Pledgor hereby agrees with the Secured Party as follows:

SECTION 1. Defined Terms. Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement.

SECTION 2. Grant of Security Interest in Patent Collateral. The Pledgor hereby pledges and grants to the Secured Party a lien on and security interest in and to all of its right, title and interest in, to and under all the following Collateral of the Pledgor:

(a) United States and International Patents and Patent Applications of the Pledgor listed on Schedule I attached hereto.

SECTION 3. The Security Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the Secured Party pursuant to the Security Agreement and the Pledgor hereby acknowledges and affirms that the rights and remedies of the Secured Party with respect to the security interest in the Patents made and granted hereby are more fully set forth in the Security Agreement. In the event that any provision of this Patent Security Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control unless the Secured Party shall otherwise determine.

SECTION 4. Counterparts. This Patent Security Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Patent Security Agreement by signing and delivering one or more counterparts.

[Signature page follows.]

IN WITNESS WHEREOF, the parties, intending to be legally bound, have executed and delivered this Patent Security Agreement as of the date first set forth above.

TELEDRILL, INC.

By: Robert Macdonald

Name: Robert Macdonald

Title: CEO

James Kusko

PATENT

REEL: 042738 FRAME: 0649

**Schedule I  
to  
PATENT SECURITY AGREEMENT**

**UNITED STATES AND INTERNATIONAL  
PATENTS AND PATENT APPLICATIONS**

PUBLICATION No.	TITLE	APPLICATION No.	PATENT No.	STATUS
20160186555	Controlled Pressure Pulsar for Coiled Tubing Applications	13/336981, 14/810715, 61/529329		PENDING
20150300153	Controlled Pressure Pulsar for Coiled Tubing Measurement While Drilling Applications	14/255763		NOTICE OF ALLOWANCE MAILED
20130051177	Full Flow Pulsar for Measurement While Drilling (MWD) Device	13/368150, 61/529329	9,013,957	PATENTED
20130048379	Controlled Full Flow Pressure Pulsar for Measurement While Drilling (MWD) Device	13/336981, 13/368997, 61/529329	9,309,762	PATENTED
20130048300	Controlled Pressure Pulsar For Coiled Tubing Applications	13/336981, 61/529329	9,133,664	PATENTED
20070104030	Measurement while drilling bi-directional pulser operating in a near laminar annular flow channel	11/607788, 10/956708		ABANDONED
20060072374	Measurement while drilling bi-directional pulser operating in a near laminar annular flow channel	10/956708	7,180,826	PATENTED

PUBLICATION No.	TITLE	APPLICATION No.	PATENT No.	STATUS
20100147525	High pressure fast response sealing system for flow modulating devices	12/316863	8,720,572	PATENTED
20090107723	Pulse rate of penetration enhancement device and method	12/004121, 60/927400	7,958,952	PATENTED
20080179093	Measurement while drilling pulser with turbine power general unit	11/657,939	8,138,943	PATENTED
20090107723	Pulse rate penetration enhancement device and method	12/316,864	7,958,952	PATENTED
20120327742	Borehole flow modulator and inverted seismic source generating system	13/582,447		Response to Office Action
20130048300	Controlled pressure pulser for coiled tubing applications	13/336,981	9,133,664	PATENTED
20080271923	Flow hydraulic amplification for a pulsing, fracturing, and drilling (PFD) device	12/004121, 60/927400	7,836,948	PATENTED
	Controlled/pressure pulser for collect tubing measurement while drilling (CT-MWD) Applications	15/465,814		Divisional Application Filed
2017019759	Controlled pressure pulser for coiled tubing applications	PCT/US2016/044237		Pending

PUBLICATION No.	TITLE	APPLICATION No.	PATENT No.	STATUS
2015160355	Controlled pressure pulser for coiled tubing measurement while drilling (CT-MWD) Applications	PCT/US2014/034554		RO processing completed – Placed in storage
2008091688	Measurement while drilling pulser with turbine power generation unit	PCT/US08/00978		RO Complete; placed in storage
2006041499	Measurement while drilling bi-directional pulser operating in a near laminar annular flow channel	PCT/US04/34979		RO Processing completed, placed in storage
2009061387	Wellsite measurement and control while producing device	PCT/US08/12428		No National Phase Applications filed
2011109014	Borehole flow modulator and inverted seismic source generating system	PCT/US10/25895		RO Processing Complete/Placed in storage
2013148005	Controlled full flow pressure pulser for measurement while drilling (MWD) device	PCT/US13/25323		RO Processing Complete/Placed in storage
2013032529	Controlled pressure pulser for coiled tubing applications	PCT/US2012/024898		Pending