

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4262764

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	APEX DIRECTIONAL DRILLING, LLC	05/21/2015
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	SILVIES DRILLING CO., LLC	
<b>Street Address:</b>	40000 E COWBOY LN.	
<b>City:</b>	SENECA	
<b>State/Country:</b>	OREGON	
<b>Postal Code:</b>	97873	
<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	15354662
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(503)595-5301	
<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>	5035955301	
<b>Email:</b>	tamara.daw@klarquist.com	
<b>Correspondent Name:</b>	KLARQUIST SPARKMAN, LLP	
<b>Address Line 1:</b>	121 S.W. SALMON STREET, 16TH FLOOR	
<b>Address Line 2:</b>	ONE WORLD TRADE CENTER	
<b>Address Line 4:</b>	PORTLAND, OREGON 97204	
<b>ATTORNEY DOCKET NUMBER:</b>	8970-90085-06	
<b>NAME OF SUBMITTER:</b>	SANDON M. DUNCAN	
<b>SIGNATURE:</b>	/Sandon M. Duncan/	
<b>DATE SIGNED:</b>	02/07/2017	
<b>Total Attachments: 4</b>		
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## BILL OF SALE AND ASSIGNMENT

This Bill of Sale and Assignment (this "Assignment"), dated and effective as of May 21, 2015 ("Effective Date"), is made by Apex Directional Drilling, LLC, an Oregon limited liability company ("Assignor"), for the benefit of Silvie's Drilling Co., LLC, an Oregon limited liability company ("Company").

### 1. Definitions.

1.1. "Boregyde Components" means the license and other items described in Exhibit A attached hereto.

1.2. "Intellectual Property Rights" means all of the following owned by Assignor: (a) all intellectual property rights, including patent rights, copyrights, moral rights, trademark rights, trade name rights, service mark rights, trade dress rights, trade secret rights, proprietary rights, privacy rights, and publicity rights, whether or not those rights have been filed or registered under any statute or are protected or protectable under applicable law; (b) all inventions, ideas, developments, designs, patterns, specifications, prototypes, concepts, processes, methods, algorithms, formulas, techniques, know-how or other discoveries, whether or not patentable and whether or not made, conceived or reduced to practice alone or jointly with others; (c) all software programs, all versions and iterations of software programs, all modifications, configurations, improvements and derivative works of software programs, and all object code, source code, and documentation related to software programs; and (d) all works of authorship fixed in a tangible medium of expression, including software, designs, patterns, plans, text, graphics, photographs, drawings, and all other works described in Section 101 of the United States Copyright Act of 1976, as amended, and all modifications and derivative works of any of the preceding, whether or not registered. Without limiting the foregoing, the "Intellectual Property Rights" specifically include the Steering Technology.

1.3. "Patent Application" means the patent application listed on Exhibit B currently pending before the United States Patent and Trademark Office.

1.4. "Steering Technology" means any and all intellectual property rights, including patent rights and rights in patent applications, for the systems and methods related to horizontal directional drilling technology that uses a surface launched drilling rig, a subterranean directional boring apparatus and the wireless transmission of a locating signal from that underground directional boring apparatus to the surface that allows an operator to remotely locate and steer the directional boring apparatus along a desired path (patent pending), all improvements to that technology conceived or reduced to practice by Assignor or its agents, and all improvements, modifications, enhancements and derivative works of any of the intellectual property rights described above. Without limiting the foregoing, "Steering Technology" specifically includes the Patent Application.

2. **Assignment.** For good and valuable consideration, receipt of which is hereby acknowledged, Assignor irrevocably assigns, quitclaims and transfers exclusively to Company all of Assignor's present and future right, title and interest in and to all of Assignor's assets (the

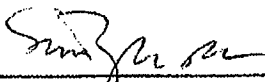
"Assets"). The Assets include, without limitation, the Intellectual Property Rights and also the assets set forth on the Exhibits attached hereto.

**3. Future Cooperation.** Upon Company's request, Assignor will execute and deliver to Company all documents necessary to perfect Company's right, title and interest in and to the Assets. Assignor hereby irrevocably designates and appoints Company and its duly authorized agents as Assignor's attorney-in-fact, to act for and in its behalf to execute and file those documents if Company is unable, after reasonable effort, to secure Assignor's assistance for any reason.

This Assignment is effective as of the Effective Date.

**ASSIGNOR:**

Apex Directional Drilling, LLC

By:   
Scott D. Campbell, DVM, Chairman & CEO

037777/00001/6337424v5

**EXHIBIT A****BOREGYDE COMPONENTS**

<b>PO / SO #</b>	<b>INVOICE NUMBER</b>	<b>DATE</b>	<b>MEMO</b>
/140380	20150187	05/26/2015	Estimate 20140539: 1.75" Sonde modular
2015-199/150450	20150145	02/25/2015	Task 432 (300); batteries
AD-00059/140417	20140470	12/19/2014	Estimate 20140549: Batteries; springs
/140380	20140458	12/12/2014	Estimate 20140439: 1.75" Sonde modular
2014-2400/140320	20140345	09/05/2014	Task 428 (300); springs
/140325	20140346	09/05/2014	Task 429 (300); battery and bulkhead
2014-1773/140253	20140332	09/02/2014	Task 423; Sonde 286
/140298	20140333	09/02/2014	Task 425; Sonde 286
2014-1777/140268	20140289	07/07/2014	Task 425 (300) 2: 8.0" running gear; deflector parts
2014-1773/140254	20140282	07/02/2014	Task 424; 898040 battery case
2014-1359/140214	20140241	05/28/2014	Task 422; Sonde 286
2014-1095/140144	20140201	04/17/2014	Task 418; bulkhead and case
2014-1085/140183	20140199	04/16/2014	Estimate 20140451: lithium battery and bulkhead
2014-1085/140183	20140200	04/16/2014	Estimate 20140451: lithium battery and bulkhead
2014-0832/140168	20140189	04/02/2014	Task: 1440: 420 (300) batteries
2014-0655/140156	20140172	03/14/2014	Task 409 (300); batteries x2
2014-0582/140142	20140156	02/21/2014	Task 417 (300); batteries
/140136	20140150	02/18/2014	Task 416; Sonde 286
2014-0003/140101	20140121	01/07/2014	Task 415 (300); deflector
/130763	20140110	01/06/2014	Previously 20130943-1
/130781	20140111	01/06/2014	Task 403; RD-G
2013-5241/130932	20130952	11/18/2013	Task 40x (300); 1 battery
2013-5241/130933	20130953	11/18/2013	Task 413 (300); 3 batteries
2013-5363/130935	20130954	11/18/2013	Estimate 20130425: new 4-3/4 deflector pipe
2013-4598/130897	20130922	10/18/2013	Task 411 (300); springs and boot
2013-2672/130819	20130875	08/22/2013	Task 405 (300); 6-1/2 deflector gear
2013-2744/130832	20130876	08/22/2013	Task 405 (300); antenna, batteries, etc.
2013-2635/130805	20130850	07/23/2013	Task 404 (300); 2 batteries

**EM TOOLS LIMITED TECHNOLOGY LICENSE (Rev. September 30, 2013)**

**EXHIBIT B**

**PATENT APPLICATION**

<b>Title</b>	<b>U.S. Application No.</b>
SYSTEMS AND METHODS FOR DIRECTIONAL DRILLING	13/800,611