

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4892111

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
LINGYUN QIU	03/29/2018
JAIME RAMOS-MARTINEZ	03/29/2018
ALEJANDRO A. VALENCIANO MAVILIO	03/29/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	PGS GEOPHYSICAL AS
<b>Street Address:</b>	P.O. BOX 251 LILLEAKER
<b>City:</b>	OSLO
<b>State/Country:</b>	NORWAY
<b>Postal Code:</b>	0216
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	62633293
<b>Application Number:</b>	15939711
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(612)659-9344
<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>	6126599340
<b>Email:</b>	pgs.docketing@bipl.net
<b>Correspondent Name:</b>	BROOKS, CAMERON & HUEBSCH, PLLC
<b>Address Line 1:</b>	1201 MARQUETTE AVENUE SOUTH
<b>Address Line 2:</b>	SUITE 400
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55403
<b>ATTORNEY DOCKET NUMBER:</b>	PGS-18103-US-ORG1
<b>NAME OF SUBMITTER:</b>	ALEXANDER MARQUARDT
<b>SIGNATURE:</b>	/Alexander Marquardt/
<b>DATE SIGNED:</b>	03/30/2018
<b>Total Attachments: 4</b>	
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## ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned, do hereby:

SELL, ASSIGN AND TRANSFER to **PGS Geophysical AS** (the "Assignee"), having a place of business at **P.O. Box 251 Lilleaker, 0216 Oslo, Norway**, my entire right, title and interest in the application for United States Provisional Application, Serial No. **62/633,293** which has been filed on **21-Feb-2018** and is entitled "**FULL WAVEFORM INVERSION WITH EXPONENTIALLY ENCODED OPTIMAL TRANSPORT NORM**" and United States Non-Provisional Application Serial No. **15/939,711** which has been filed on **29-Mar-2018**, and is entitled "**Inversion with Exponentially Encoded Seismic Data**" and for the United States and all other countries in and to all improvements which are disclosed in such application, and all divisional, continuing, substitute, renewal, reissue, and all other applications for patent which have been or shall be filed in the United States and all other countries or international or regional patent offices on any of such improvements, all original and reissued patents which have been or shall be issued in the United States and all other countries or regional or international patent offices on such improvements, and specifically including the right to file applications in other countries or international or regional patent offices under the provisions of any convention or treaty and claim priority based on such United States application;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and other patents granted on such improvements to the Assignee;

WARRANT AND COVENANT 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 undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other

papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining and enforcing proper patent protection for such improvements;

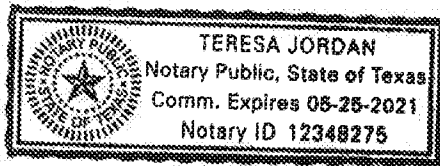
TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

Signature: *Lingyun Qiu* Date: 3/29, 2018  
Name: Lingyun Qiu

STATE OF TEXAS            )  
  ) ss.  
COUNTY OF HARRIS        )

BEFORE ME, the undersigned authority, on this 29th day of March 2018, personally appeared Lingyun Qiu, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed.

*Teresa Jordan*  
Notary



Signature: JRM Date: 3/29, 2018  
Name: Jaime Ramos-Martinez

STATE OF TEXAS            )  
  ) ss.  
COUNTY OF HARRIS        )

BEFORE ME, the undersigned authority, on this 29th day of March 2018, personally appeared Jaime Ramos-Martinez known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed.

Teresa Jordan  
Notary

