

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4419708

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
CAN PENG	01/19/2017
ARASH JAFARGANDOMI	01/12/2017
HENNING HOEBER	01/27/2017
JAMES COOPER	01/12/2017
GORDON POOLE	01/13/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CGG SERVICES SAS
<b>Street Address:</b>	27 AVENUE CARNOT
<b>City:</b>	MASSY CEDEX
<b>State/Country:</b>	FRANCE
<b>Postal Code:</b>	91341
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15402830
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(888)232-9785
<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>	5403611863
<b>Email:</b>	amanda@ppblaw.com
<b>Correspondent Name:</b>	PATENT PORTFOLIO BUILDERS
<b>Address Line 1:</b>	P.O. BOX 7999
<b>Address Line 4:</b>	FREDERICKSBURG, VIRGINIA 22404
<b>ATTORNEY DOCKET NUMBER:</b>	0336-626-4/101027
<b>NAME OF SUBMITTER:</b>	AMANDA GOODE
<b>SIGNATURE:</b>	/AMANDA GOODE/
<b>DATE SIGNED:</b>	05/18/2017
<b>Total Attachments: 6</b>	
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source=2017-05-18\_SIGNED\_Assignment\_0336-626-4\_101027#page6.tif

Docket No. 0336-626-4/101027

ASSIGNMENT

In accordance with my obligations under an Employee Innovation and Proprietary Information Agreement or (as applicable) arising out of other agreements (such as, but not limited to, the Services Agreement between CGG Services SAS, a French Corporation, and my employer), and/or for other good and valuable consideration of which I/we acknowledge receipt, I/we,

**Can PENG of Fulshear, TX, UNITED STATES**

**Arash JAFARGANDOMI of Horley, UNITED KINGDOM**

**Henning HOEBER of East Grinstead, GREAT BRITAIN**

**James COOPER of Redhill, Surrey, GREAT BRITAIN**

**Gordon POOLE of East Grinstead, GREAT BRITAIN**

hereby sell and assign to **CGG Services SAS**, having an address at 27, Avenue Carnot, 91341 Massy Cedex, France, hereinafter referred to as "Company", its successors and assigns my/our entire respective rights, titles and interests in and to the invention and improvements invented and originated by me and described in the US Patent Application No. 15/402,830 for United States Patent currently entitled:

**AVA COMPLIANT PRE-STACK FREQUENCY SPECTRUM ENHANCEMENT OF SEISMIC DATA**

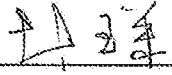
filed on January 10, 2017,

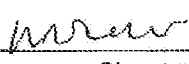
and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, reexaminations and reissues thereof, and all rights of priority resulting from the filing of said United States application, and authorize and request any official whose duty it is to issue patents, to issue any patent on said inventions and improvements resulting therefrom to said Company, its successors, or assigns. Further, I/we agree to execute all divisional, continuation, reexamination and reissue applications, and to make all rightful oaths related to obtaining proper patent protection for said invention and its improvements in all countries.

The undersigned hereby grant(s) the law firm of Patent Portfolio Builders the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

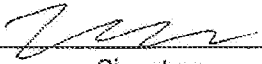
Docket No. 0336-626-4/101027 "Assignment Signature Page"  
TITLE: AVA COMPLIANT PRE-STACK FREQUENCY SPECTRUM ENHANCEMENT OF SEISMIC  
DATA

INVENTOR 1

Signature:  Date: 01/19/2017  
Can PENG

Witnessed by:  Date: 01/19/2017  
Signature

Jie Meng  
Printed Name of Witness

Witnessed by:  Date: 01/19/2017  
Signature

Tao LIN  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Can PENG Date: \_\_\_\_\_

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named Can PENG, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

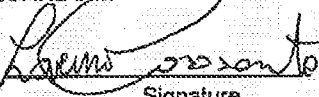
Docket No. 0336-626-4/101027 "Assignment Signature Page"

TITLE: AVA COMPLIANT PRE-STACK FREQUENCY SPECTRUM ENHANCEMENT OF SEISMIC DATA

INVENTOR 2

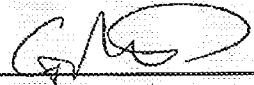
Signature:   
Arash JAFARGANDOMI

Date: 12.01.2017

Witnessed by:   
Signature

Date: 12/01/2017

LORENZO CABASANTA  
Printed Name of Witness

Witnessed by:   
Signature

Date: 12/01/2017

GRAHAM ROBERTS  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Arash JAFARGANDOMI

Date: \_\_\_\_\_

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named Arash JAFARGANDOMI, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

Docket No. 0336-626-4/101027 "Assignment Signature Page"  
 TITLE: AVA COMPLIANT PRE-STACK FREQUENCY SPECTRUM ENHANCEMENT OF SEISMIC  
 DATA

INVENTOR 3

Signature: Henning Hoerber  
 Henning HOEBER

Date: 27/01/2017

Witnessed by: Simon King  
 Signature

Date: 27/01/2017

SIMON KING  
 Printed Name of Witness

Witnessed by: Richard Wombell  
 Signature

Date: 27/1/2017

RICHARD WOMBELL  
 Printed Name of Witness

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\_\_\_\_\_  
 Henning HOEBER

Date: \_\_\_\_\_

STATE OF \_\_\_\_\_

ss.

COUNTY OF \_\_\_\_\_

This \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_ before me personally came the above-named Henning HOEBER, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
 (Notary Public)

Docket No. 0336-626-4/101027 "Assignment Signature Page"

TITLE: AVA COMPLIANT PRE-STACK FREQUENCY SPECTRUM ENHANCEMENT OF SEISMIC DATA

INVENTOR 4

Signature: [Signature]  
James COOPER

Date: 12/01/17

Witnessed by: [Signature]  
Signature

Date: 12/01/17

SIMON KING  
Printed Name of Witness

Witnessed by: [Signature]  
Signature

Date: 12/01/17

SONG HOU  
Printed Name of Witness

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\_\_\_\_\_  
James COOPER

Date: \_\_\_\_\_

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named James COOPER, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

Docket No. 0336-626-4/101027 "Assignment Signature Page"  
TITLE: AVA COMPLIANT PRE-STACK FREQUENCY SPECTRUM ENHANCEMENT OF SEISMIC DATA

INVENTOR 5

Signature: G. Poole Date: 13/1/17  
Gordon POOLE

Witnessed by: S. King Date: 13/1/17  
Signature

S. KING  
Printed Name of Witness

Witnessed by: Lorenzo Casaranta Date: 13/1/17  
Signature

LORENZO CASARANTA  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Gordon POOLE Date: \_\_\_\_\_

STATE OF \_\_\_\_\_  
ss.  
COUNTY OF \_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above-named **Gordon POOLE**, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal  
\_\_\_\_\_  
(Notary Public)