Docket No.: 2012EM346

Form PTO-1595 (Rev. 03-09) OMB No. 0651-0027 (exp. 03/31/2009)

U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

| RECORDATION FORM COVER SHEET PATENTS ONLY   |   |   |  |  |
|---|---|---|--|--|
| To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. |   |   |  |  |
|   | Michael Lawson (12/18/2012); Steven R.<br>Dreyfus (12/18/2012); Sumathy Raman | Name and address of receiving party(ies)     Name: Brent R. Knight     Internal Address: CORP-URC-SW-359  |  |  |
|   | ng party(les) attached? X Yes No  | ExxonMobil Upstream Research Company  Street Address: P.O. Box 2189   |  |  |
| Assignment Security Agreement Joint Research Agre Government Interes  | eement  | City: Houston State: Texas  |  |  |
| Executive Order 942   | 24, Confirmatory License  | Country: USA Zip: 777252-2189  Additional name(s) & address(es) attached? Yes No  |  |  |
| 4. Application or pater A. Patent Application No PCT/US2012/64550   | o.(s)   | document is being filed together with a new application.  B. Patent No.(s)  B. Patent No.(s)  |  |  |
| 5. Name and address to concerning document  | to whom correspondence<br>should be mailed:                                   | 6. Total number of applications and patents involved: 1   |  |  |
| Name: Brent R. Knight Internal Address: CORP-L ExxonMobil Upstream Researe Street Address: P.O. Box 2                       | ch Company  | 7. Total fee (37 CFR 1.21(h) & 3.41) \$_40.00  X Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) |  |  |
| City: Houston   |   | 8. Payment Information  |  |  |
| State: Texas  Phone Number: 713-431-  | Zip: 77252-2189   |   |  |  |
| Fax Number: 713-431-466<br>Email Address: urc-mail-fo   |   | Deposit Account Number  |  |  |
| 9. Signature:   | Signature Signature  Brent R. Knight  Name of Person Signing                  | Total number of pages including cover sheet, attachments, and documents:  |  |  |

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1460, Alexandria, V.A. 22313-1450

PATENT REEL: 029602 FRAME: 0776

P.002/011

Docket No.: 2012EM346

Amelia Robinson (12/20/2012); Aaron B. Regberg (12/18/2012); and A. Lucie N'Guessan (12/19/2012)

PATENT

REEL: 029602 FRAME: 0777

## **ASSIGNMENT**

Inventor or Inventors:

In consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned person(s) (hereinafter referred to as UNDERSIGNED) hereby agree(s) as follows:

UNDERSIGNED hereby assign(s) to ExxonMobil Upstream Research Company, a Delaware corporation having offices at 3120 Buffalo Speedway, Houston, Texas, its successors, legal representatives and assigns (hereinafter referred to collectively as ASSIGNEE), free from all encumbrances, the entire right, title and interest, including all rights to sue for past infringement, for the United States and all foreign countries and patent offices or organizations, in and to all inventions, discoveries or improvements, claimed or described in the document entitled "Method For Determining The Location, Size, and Fluid Composition Of A Subsurface Hydrocarbon Accumulation" and further identified as Attorney Docket No. 2012EM346, and Serial No. PCT/US12/64550 filed at the U.S. Patent and Trademark office on 11/09/2012, (hereinafter referred to as the APPLICATION), including the right to claim priority to the APPLICATION in the United States or any foreign country under the Paris Convention or equivalent reciprodal provisions for any subsequent application, continuations, continuations-inpart, divisions, reissues, reexaminations, and extensions thereof in the United States or any foreign country (hereinafter referred to collectively as PATENT FILINGS); and further including all Letters Patent of the United States or any foreign country that may be granted thereon (hereinafter referred to collectively as ISSUED PATENTS); and UNDERSIGNED hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and any official of any foreign country or patent office or organization whose duty it is to issue patents on applications as described above, to issue all ISSUED PATENTS to ASSIGNEE, in accordance with the terms of this Assignment.

UNDERSIGNED agree(s) upon the request of ASSIGNEE to perform any and all affirmative acts to obtain United States and foreign patents, including at least: to execute any and all applications for United States or foreign patents for the APPLICATION and the PATENT FILINGS, and any documents that shall be required of UNDERSIGNED to be executed in connection with the APPLICATION, the PATENT FILINGS, or any ISSUED PATENTS, including, but not limited to priority claims therefor, continuations or substitutes therefor, prosecution thereof, any lawful oaths, declarations, affidavits, or other papers relating thereto, and any specific separate assignments of any of the above required for recording in the United States Patent and Trademark Office or other foreign country or patent office or patent organization, that ASSIGNEE may deem necessary or expedient.

UNDERSIGNED agree(s) that in the event of any application based on the APPLICATION or the PATENT FILINGS, or any reissue or application for the reissue thereof, becoming involved in interference proceedings, UNDERSIGNED will cooperate with ASSIGNEE to the best of the ability of UNDERSIGNED in the matter of preparing and executing preliminary statements and giving and producing evidence in support thereof.

713 431 4664

IN WITNESS WHEREOF, this Assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED'S name.

DATE 12/18/2012

DATE 12/18/2012

DATE \_\_\_\_

DATE \_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_

Witness

Steven R. May

Witness

Sebastien L. Dreyfus

Sumathy Raman

DATE /2/20/20/2

DATE 12/20/2012

DATE 12/18/2012

DATE 2/18/12

DATE 12/19/2012

DATE 12/19/12

William G. Powell
Witness

713 431 4664

Amelia Robinson

Witness

Aaron B. Regberg

Witness

A. Lucie N'Guessan

## ASSIGNMENT

Inventor or Inventors:

In consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned person(s) (hereinafter referred to as UNDERSIGNED) hereby agree(s) as follows:

UNDERSIGNED hereby assign(s) to ExxonMobil Upstream Research Company, a Delaware corporation having offices at 3120 Buffalo Speedway, Houston, Texas, its successors, legal representatives and assigns (hereinafter referred to collectively as ASSIGNEE), free from all encumbrances, the entire right, title and interest, including all rights to sue for past infringement, for the United States and all foreign countries and patent offices or organizations, in and to all inventions, discoveries or improvements, claimed or described in the document entitled "Method For Determining The Location, Size, and Fluid Composition Of A Subsurface Hydrocarbon Accumulation" and further identified as Attorney Docket No. 2012EM346, and Serial No. PCT/US12/64550 filed at the U.S. Patent and Trademark office on 11/09/2012, (hereinafter referred to as the APPLICATION), including the right to claim priority to the APPLICATION in the United States or any foreign country under the Paris Convention or equivalent reciprocal provisions for any subsequent application, continuations, continuations-inpart, divisions, reissues, reexaminations, and extensions thereof in the United States or any foreign country (hereinafter referred to collectively as PATENT FILINGS); and further including all Letters Patent of the United States or any foreign country that may be granted thereon (hereinafter referred to collectively as ISSUED PATENTS); and UNDERSIGNED hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and any official of any foreign country or patent office or organization whose duty it is to issue patents on applications as described above, to issue all ISSUED PATENTS to ASSIGNEE, in accordance with the terms of this Assignment.

UNDERSIGNED agree(s) upon the request of ASSIGNEE to perform any and all affirmative acts to obtain United States and foreign patents, including at least: to execute any and all applications for United States or foreign patents for the APPLICATION and the PATENT FILINGS, and any documents that shall be required of UNDERSIGNED to be executed in connection with the APPLICATION, the PATENT FILINGS, or any ISSUED PATENTS, including, but not limited to priority claims therefor, continuations or substitutes therefor, prosecution thereof, any lawful oaths, declarations, affidavits, or other papers relating thereto, and any specific separate assignments of any of the above required for recording in the United States Patent and Trademark Office or other foreign country or patent office or patent organization, that ASSIGNEE may deem necessary or expedient.

UNDERSIGNED agree(s) that in the event of any application based on the APPLICATION or the PATENT FILINGS, or any reissue or application for the reissue thereof, becoming involved in interference proceedings, UNDERSIGNED will cooperate with ASSIGNEE to the best of the ability of UNDERSIGNED in the matter of preparing and executing preliminary statements and giving and producing evidence in support thereof.

Page 1 of 3

IN WITNESS WHEREOF, this Assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED'S name.

DATE

Robert J. Pottorf

DATE\_\_\_\_\_

Witness

DATE \_\_\_\_\_

Michael Lawson

DATE

Witness

DATE 17-18-2012

Steven R. May

DATE 12/18/12

Witness

DATE \_\_\_\_\_

Sebastien L. Dreyfus

DATE \_\_\_\_

Witness

DATE \_\_\_\_\_

Sumathy Raman

DATE \_\_\_\_\_

DATE \_\_\_\_

DATE \_\_\_\_

A. Lucie N'Guessan

## ASSIGNMENT

Inventor or Inventors:

In consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned person(s) (hereinafter referred to as UNDERSIGNED) hereby agree(s) as follows:

UNDERSIGNED hereby assign(s) to ExxonMobil Upstream Research Company, a Delaware corporation having offices at 3120 Buffalo Speedway, Houston, Texas, its successors, legal representatives and assigns (hereinafter referred to collectively as ASSIGNEE), free from all encumbrances, the entire right, title and interest, including all rights to sue for past infringement, for the United States and all foreign countries and patent offices or organizations, in and to all inventions, discoveries or improvements, claimed or described in the document entitled "Method For Determining The Location, Size, and Fluid Composition Of A Subsurface Hydrocarbon Accumulation" and further identified as Attorney Docket No. 2012EM346, and Serial No. PCT/US12/64550 filed at the U.S. Patent and Trademark office on 11/09/2012, (hereinafter referred to as the APPLICATION), including the right to claim priority to the APPLICATION in the United States or any foreign country under the Paris Convention or equivalent reciprocal provisions for any subsequent application, continuations, continuations-inpart, divisions, reissues, reexaminations, and extensions thereof in the United States or any foreign country (hereinafter referred to collectively as PATENT FILINGS); and further including all Letters Patent of the United States or any foreign country that may be granted thereon (hereinafter referred to collectively as ISSUED PATENTS); and UNDERSIGNED hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and any official of any foreign country or patent office or organization whose duty it is to issue patents on applications as described above, to issue all ISSUED PATENTS to ASSIGNEE, in accordance with the terms of this Assignment.

UNDERSIGNED agree(s) upon the request of ASSIGNEE to perform any and all affirmative acts to obtain United States and foreign patents, including at least: to execute any and all applications for United States or foreign patents for the APPLICATION and the PATENT FILINGS, and any documents that shall be required of UNDERSIGNED to be executed in connection with the APPLICATION, the PATENT FILINGS, or any ISSUED PATENTS, including, but not limited to priority claims therefor, continuations or substitutes therefor, prosecution thereof, any lawful oaths, declarations, affidavits, or other papers relating thereto, and any specific separate assignments of any of the above required for recording in the United States Patent and Trademark Office or other foreign country or patent office or patent organization, that ASSIGNEE may deem necessary or expedient.

UNDERSIGNED agree(s) that in the event of any application based on the APPLICATION or the PATENT FILINGS, or any reissue or application for the reissue thereof, becoming involved in interference proceedings, UNDERSIGNED will cooperate with ASSIGNEE to the best of the ability of UNDERSIGNED in the matter of preparing and executing preliminary statements and giving and producing evidence in support thereof.

Page 1 of 3

PATENT REEL: 029602 FRAME: 0784

IN WITNESS WHEREOF, this Assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED'S name.

| DATE          | Robert J. Pottorf     |
|---------------|-----------------------|
| DATE          | Witness               |
| DATE          | Michael Lawson        |
| DATE          | Witness               |
| DATE          | Steven R. May         |
| DATE          | Witness               |
| DATE          | Sebastien L. Dreyfus  |
| DATE          | Witness               |
| DATE 12/18/12 | Sumathy Raman J Raman |
| DATE 12/18/12 | Mauren Hills Witness  |

| PCT/US12/64550 |  |                    |
|----------------|--|--------------------|
| DATE           |  | William G. Powell  |
| DATE           |  | Witness            |
| DATE           |  | Amelia Robinson    |
| DATE           |  | Witness            |
| DATE           |  | Aaron B. Regberg   |
| DATE           |  | Witness            |
| DATE           |  | A. Lucie N'Guessan |
| DATE           |  | Witness            |
|                |  |                    |
|                |  |                    |
|                |  |                    |
|                |  | ·                  |
|                |  |                    |

EXXON MOBIL CORPORATION

Page 3 of 3

PATENT REEL: 029602 FRAME: 0786

713 431 4664

P.011/011

JAN-03-2013 14:29