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 OMB No. 0651-0027 (exp. 6/30/2005)

**RECORDATION FORM COVER SHEET**

102394177

**PATENTS ONLY**

To the Honorable Commissioner of Patent and Trademarks: Please record the attached documents or copy thereof.

**1. Name of conveying party(ies):**  
 Gerard HOTIER

Additional name(s) of conveying party(ies) attached?  Yes  No

**2. Name and address of receiving party(ies):**

Name: INSTITUT FRANCAIS DU PETROLE  
 Internal Address:

Street Address: 1 & 4 avenue de Bois-Preau  
 City: RUEIL MALMAISON CEDEX State:  
 FRANCE Zip:92852

No additional names(s) or address(es) attached  Yes  No

**3. Nature of Conveyance:**

Assignment  Merger  
 Security Agreement  Change of Name  
 Other

Execution Date: January 16, 2003

**4. Application number(s) or patent number(s):**  
 If this document is being filed together with a new application, the execution date of the application is:  
 A. Patent Application No.(s) 10/320,714  
 B. Patent No.(s)

Additional numbers attached?  Yes  No

**5. Name and address of party to whom correspondence concerning document should be mailed:**

Name: MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
 Address: Arlington Court Plaza I Suite 1400  
 2200 Clarendon BLVD.  
 Arlington, VA 22201

**6. Total number of applications and patents involved: 1**

**7. Total fee (37CFR 3.41) \$40.00**

Enclosed  
 Authorized to be charged to deposit account

**8. DEPOSIT ACCOUNT NO. 13-3402**  
 (Attach duplicate copies of this page if paying by deposit account)

**DO NOT USE THIS SPACE**

**9. Statement and Signature.**

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Harry B. Shubin March 12, 2003  
 Names of Person Signing Signature Date

Total number of pages including cover sheet, attachments, and documents 2

Attorney Docket No. Pet-2040

03/18/2003 6TON11 00000097 10320714  
01 FC:8021 40.00/DP

**PATENT**  
**REEL: 013843 FRAME: 0641**

# ASSIGNMENT

ATTY. DOCKET NO.: PET-2040

WHEREAS the below named inventor (if only one inventor is named below) or inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement(s) relating to

DEVICE FOR INJECTING A DIVERTED FLUID INTO A SIMULATED MOVING BED SEPARATION PROCESS

- for which an application for Letters Patent to be filed in the United States Patent and Trademark Office was executed on even date.
- for which U.S. Application Serial No. 10/320,714 for Letters Patent was filed in the U.S. Patent and Trademark Office on December 17, 2002
- for which an International Application was filed on \_\_\_\_\_ as \_\_\_\_\_, designating the United States.

AND WHEREAS

INSTITUT FRANCAIS DU PETROLE  
1 & 4 avenue de Bois-Preau  
92852 RUEIL MALMAISON CEDEX  
FRANCE

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and application(s), including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application(s), including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto concerning said invention, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.

The undersigned hereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. 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 United States Patent and Trademark Office for recordation of this document.

IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR

201 FULL NAME OF SOLE OR FIRST NAMED INVENTOR	INVENTOR'S SIGNATURE	DATE
Gérard HOTIER	<i>Gerard Hotier</i>	16-Jan-03
202 FULL NAME OF SECOND JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
203 FULL NAME OF THIRD JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
204 FULL NAME OF FOURTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
205 FULL NAME OF FIFTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
206 FULL NAME OF SIXTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
207 FULL NAME OF SEVENTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
208 FULL NAME OF EIGHTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
209 FULL NAME OF NINTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
210 FULL NAME OF TENTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE