To the Honorable Commissioner of Patents and Trademarks:

1. Name of conveying party(ies):

   Harold J. Vinegar; Melzia Deniz Sumnu-Dindoruk; Scott Lee Wellington; Kevin Albert Mahler; John Michael Karunikas; Eric Pierre de Rouffignac; Margaret Ann Messer; Bruce Edmunds Roberts; and Steven Dexter Crane

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

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

   Name: Shell Oil Company

   Internal Address: _____________________________________________

   Street Address: P. O. Box 2463

   City: Houston State: Texas ZIP: 77252-2463

   Additional name(s) & address(es) attached? ☐ Yes ☐ No

3. Nature of Conveyance:

   ☐ Assignment ☐ Merger
   ☐ Security Agreement ☐ Change of Name
   ☐ Other ________________________________________

   Execution Date: February 7, 2003

4. Application number:

   If this document is being filed together with a new application, the filing date of this application is:

   A. Patent Application No(s): 10/279,225 filed October 24, 2002 and entitled:

      IN SITU THERMAL PROCESSING OF A TAR SANDS FORMATION

   Additional numbers attached? ☐ Yes ☐ No

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

   Eric B. Meyertos
   Meyertos, Hood, Kivlin, Kowert & Goetzke, P.C.
   P.O. Box 398
   Austin, TX 78767-0398

   03/03/2003 DBYRNE 00000036 191800 10279225
   01 FE 8021 40.00 CH

   OMB No. 0651-011 (exp.4/94)

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): $40.00

   ☐ Authorized to be charged to deposit account
   ☐ Fee previously paid

8. Deposit account number: 19-1800/TH164y

   (Attach a duplicate copy of this page if paying by deposit account)

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.

   ____________________________
   David W. Quinby
   Name of Person Signing
   Reg. No. 39,338

   ____________________________
   David W. Quinby
   Signature
   February 18, 2003
   Date

   Total number of sheets (including cover sheet, attachments, and documents): 5

   OMB No. 0651-011 (exp.4/94)

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   PATENT
   REEL: 013796 FRAME: 0055
ASSIGNMENT

WHEREAS, we, Harold J. Vinegar, Meliha Deniz Sumnu-Dindoruk, Scott Lee Wellington, Kevin Albert Maher, John Michael Karanikas, Eric Pierre de Rouffignac, Margaret Ann Messier, Bruce Edmunds Roberts, and Steven Dexter Crane, have made a certain improvement in “IN SITU THERMAL PROCESSING OF A TAR SANDS FORMATION” for which application papers for United States Patent thereon, identified as U.S. Patent Application Serial No. 10/279,225 filed October 24, 2002, have been executed by us, and,

WHEREAS, SHELL OIL COMPANY, a Delaware Corporation, has equitable rights in and to this invention and desires to confirm such rights and to acquire all right, title and interest in and to said invention;

NOW THEREFORE, for valuable consideration received, we hereby sell, assign, and transfer to said SHELL OIL COMPANY, its successors and assigns, all right, title and interest in and to said invention in the United States and in all other countries throughout the world; including without limitation those in and to the above-named application and any continuation, substitute or division application thereof and the patent or patents which may be issued thereon in the United States and any reissue of any such patent, and those in and to any application or patent or utility model in any and all such other countries of the world, and further including the right to file further applications in all countries throughout the world in the name of SHELL OIL COMPANY or whomsoever that company may nominate, and to claim the priority of the above-named United States application under the International Convention of Paris of 1883.

With respect to any country where for the filing of such an application and/or the transfer of priority rights a separate deed of sale, assignment or transfer is required, we will undertake at the request of SHELL OIL COMPANY to execute such separate deed to SHELL OIL COMPANY or to whomsoever that company may nominate.

And we hereby agree that we will upon request execute any instrument which SHELL OIL COMPANY desires to carry this assignment in effect, and perfect the title transferred hereby, or to prosecute any of the above-mentioned United States applications or any foreign application on this invention.

And the Commissioner of Patents of the United States is hereby authorized to issue Letters Patent on said above-named application and on any continuation, substitute or division thereof to SHELL OIL COMPANY.

IN TESTIMONY WHEREOF, we have hereunto subscribed our names.
Witnesses:

Harold J. Vinegar

Jan. 31, 2003

Date

Meliha Deniz Sumnu-Dindoruk

1/31/2003

Date

Scott Lee Wellington

Feb. 3, 2003

Date

Kevin Albert Maher

28- Jan- 03

Date

John Michael Karanikas

January 31st, 2003

Date

Eric Pierre de Rouffignac

Date

Robert J. Brown

Date

Steven Dexter Crane

28 January 2003

Date
Witnesses:

Harold J. Vinegar

Date

Meliha Deniz Sumnu-Dindoruk

Date

Scott Lee Wellington

Date

Kevin Albert Maher

Date

John Michael Karanikas

Date

Eric Pierre de Rouffignac

2/7/07

Date

Steven Dexter Crane

Date
Witnesses:

[Signatures]

Margaret Ann Messier
Feb 6th, 2003
Date

Bruce Edmunds Roberts
Feb 5th, 2003
Date