(Rev. 6-93)	14-1999 	T U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office
To the Honorable Commissioner of Patents and T 101	221522	ginal documents or copy thereof.
1. Name of conveying party(ies): Micheal Crawford Additional name(s) of conveying party(ies) attached? No	2. Name and address of Name: Halliburton	of receiving party(ies): Energy Services, Inc.
3. Nature of conveyance: ■ Assignment	Address: 2601 Beli Additional name(s) & address(tline Road, Carrollton, TX 75006 (es) attached? □ Yes ■ No
Execution Date:09/30/99		
4. Application number(s) or patent number(s):		
A. Patent Application No.(s) 09/406,250	B. Patent No.(s)	
Additional numbers attached? ☐ Yes ■ No		
Name and address of party to whom correspondence concerning document should be mailed: Robert Groover	6. Total number of app involved:	olications and patents
17000 Preston Rd. #230, Dallas TX 75248 (972) 380-6333	7. Total fee (37 CFR 3. ■ Enclosed □ Authorized to be	.41)\$40 charged to deposit account
	8. Deposit account nur _07-2320 (Attach duplicate copy of	mber: 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. Oraine Jongenson Name of Person Signing Date		
Total number of pages including cover sheet, attachments, and document:		

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

12/10/1999 CCETIN 00000061 09406250

05 FC:501

40.00 OP

PATENT REEL: 010429 FRAME: 0551

ASSIGNMENT

As a below-named inventor of the U.S. patent application entitled Roller Bit with Collimated Jets Sweeping Separate Bottom-Hole Tracks, which names an inventorship of Micheal B. Crawford, and which I executed on the date indicated below, I hereby sell, assign and transfer to Halliburton Energy Services, Inc., 2601 Beltline Road, Carrollton, TX 75006, (hereinafter referred to as ASSIGNEE), for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in all foreign countries to be obtained for said invention by said application or any division, continuation, continuation-in-part, renewal, substitute, extension, re—examination or reissue thereof or any legal equivalent thereof in any foreign country for the full term or terms of which the same may be granted, and specifically including the right to file foreign applications and claim priority therefor under the provisions of any convention or treaty;

and I also hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

and I further hereby covenant that I will, upon ASSIGNEE'S request, promptly provide ASSIGNEE with all pertinent facts and documents, relating to said application, to any invention disclosed therein, or to any of said Letters Patent or legal equivalents thereof in the United States or in foreign countries, as may be known and accessible to me, and that I will testify and give evidence as to the same in any litigation or interference which may arise, and that I will promptly execute and deliver to ASSIGNEE or its legal representative, without charge but at Assignee's expense, any and all papers, instruments or affidavits which may be required, necessary or desirable for the purpose of applying for, obtaining, maintaining, issuing or enforcing said application and said Letters Patent and said equivalents thereof in the United States or in any foreign country; and I further authorize ASSIGNEE or its legal representative to make any submissions or true declarations which may be needed in connection with the prosecution of this application or related applications in the U.S. or in other countries, consistent with the requirements of the applicable country;

PATENT REEL: 010429 FRAME: 0552 AND I HEREBY AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on said invention to ASSIGNEE, its successors and assigns.

IN WITNESS WHEREOF, this Assignment has been executed on the date set forth below.

Inventor's Name: Micheal B. Crawford

RECORDED: 12/08/1999

Signature:

Residence Address: 707 Olympia Drive, Duncanville, TX 75137

Today's Date, and Date Application Signed: 9-30 49

PATENT REEL: 010429 FRAME: 0553