RI U.S. DEPARTMENT OF COMMERCE Facsimile of Form PTO-1595 U.S. Patent and Trademark Office 102576045 To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. Name and address of receiving party(ies): 1. Name of conveying party(ies): 2. Name: ABB Vetco Gray Inc. Kwong-Onn C. Chan, Behrooz Movaffagh, Xiaoping He, and Loren Pierre Boisvert Internal Address: Third Floor Street Address: 3010 Briarpark Drive 3. Nature of Conveyance: Merger City: Houston State: Texas Security Agreement ☐ Change of Name Other_ Additional name(s) & address(es) attached? Execution Date: September 29 and 30, 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: September 29 and 30, 2003 Patent Application No.(s) 10677871 Patent No.(s) Name and address of party to whom correspondence 6. Total number of applications and patents involved: 1 concerning document should be mailed: \$40.00 7. Total fee (37 CFR 3.41): Name: James E. Bradley ☐ Enclosed Internal Address: BRACEWELL & PATTERSON, L.L.P. Authorized to be charged to deposit account Street Address: P. O. Box 61389 8. Deposit Account No. ABB Vetco Gray Inc. 22-0279 (V2002070A) City: Houston State: Texas Zip: **77208-1389** 10/15/2003 ECDOPER 00000048 220279 10677871 (Attach duplicate copy if paying by deposit account) 01 FC:8021 40.00 BA DO NOT USE THIS SPACE 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. James E. Bradley, Reg. No. 27,536 October 2, 2003 Name of Person Signing

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

Commissioner for Patents, Mail Stop: Assignments
P.O. Box 1450, Alexandria, VA 22313-1450

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

PATENT APPLICATION ASSIGNMENT

WHEREAS, we, **Kwong-Onn C. Chan**, a citizen of Canada, residing at 11908-28 Ave NW, Edmonton, Alberta, Canada T6J 6B9; **Behrooz Movaffagh**, a citizen of Canada, residing at 7622-10 Ave NW, Edmonton, Alberta, Canada T6K 2T6; **Xiaoping He**, a citizen of Canada, residing at 10411-20 Ave NW, Edmonton, Alberta, Canada T6J 5A1; and **Loren Pierre Boisvert**, a citizen of Canada, residing at 25 Charlton Crescent, Sherwood Park, Alberta, Canada T8H 1R1, have invented new and useful improvements in a

DRILL STRING SHUTOFF VALVE

for	which ap	pplicati	on is being made for I	Letters P	atent, said	application	being	execu	ited by	us on
the	dates	of	September 29		2003, _	September	29		,	2003,
Sep	tember	29	, 2003, and	Septe	mber 30		2003,	and	further	being
identified by Attorney's Docket V2002070A.										

WHEREAS, ABB Vetco Gray Inc., a Delaware corporation, having a principal place of business at 3010 Briarpark, Third Floor, Houston, Texas 77042, is desirous of acquiring our entire right, title and interest in said application and the Letters Patent which may issue thereon.

NOW THEREFORE, be it known by all whom it may concern that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we hereby assign to said corporation, both in and for the territory of the United States of America and the entire world, all our title and interest in and to said invention, patent application and any patent which may issue thereon, including all divisions, continuations, reissues, continuations-in-part and substitutions thereof, plus all priority rights for patent applications foreign to the United States of America.

We FURTHER hereby assign and transfer to said corporation whatever cause of action we may have for past or present infringement of said invention, together with the right to bring suit for any such infringement and to seek and receive damages and other relief arising from any such infringement.

We HEREBY covenant and agree that we will at any time, upon the request and at the expense of said corporation, execute and deliver any and all papers and do all lawful acts that may be necessary or desirable to perfect the title and said invention, applications and patents, and we authorize the Commissioner of Patents and Trademarks to issue Letters Patent to said corporation.

PATENT REEL: 014583 FRAME: 0147

Kwong-Onn C. Chan et al. Page 2	
IN TESTIMONY WHEREOF 2003.	F, I execute this Assignment on the 29 day of Kwong-Onn C. Chan
IN TESTIMONY WHEREOF	F, I execute this Assignment on the 29 day of Behrooz Movaffagh
IN TESTIMONY WHEREOF	F, I execute this Assignment on the 29 day of Xiaoping He
IN TESTIMONY WHEREOF, 2003.	F, I execute this Assignment on the day of

Loren Pierre Boisvert

PATENT REEL: 014583 FRAME: 0148

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