04-03-2006 Form PTO-1595 (Rev. 07/05)
OMB No. 0651-0027 (exp. 6/30/2008) U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office 103210389 To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. Name of conveying party(ies) 2. Name and address of receiving party(ies) See Attached Name: Halliburton Energy Services, Inc. Internal Address: Additional name(s) of conveying party(ies) attached? ✓ Yes 3. Nature of conveyance/Execution Date(s): Street Address: 10200 Bellaire Boulevard Execution Date(s) See Attached ✓ Assignment Merger City: Houston **Security Agreement** Change of Name Joint Research Agreement State: TX **Government Interest Assignment** Country: US Zip:77072 Executive Order 9424, Confirmatory License Other Additional name(s) & address(es) attached? ☐ Yes No 4. Application or patent number(s): This document is being filed together with a new application. A. Patent Application No.(s) B. Patent No.(s) 11/213,653 Additional numbers attached? Yes ✓ No 5. Name and address to whom correspondence 6. Total number of applications and patents concerning document should be mailed: involved: 1 Name: John W. Wustenberg 7. Total fee (37 CFR 1.21(h) & 3.41) \$\_40.00 Internal Address: Halliburton Energy Services, Inc. Authorized to be charged by credit card Authorized to be charged to deposit account **Enclosed** Street Address: 2600 South 2nd None required (government interest not affecting title) 8. Payment Information City: Duncan a. Credit Card Last 4 Numbers State: OK Zip:<u>73533</u> **Expiration Date** Phone Number: 580-251-3782 b. Deposit Account Number 08-0300 Fax Number: 580-251-3917 Authorized User Name Halliburton Email Address: John.Wustenberg@Halliburton.com 9. Signature: Signature

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 1450, Alexandria, V.A. 22313-1450

John W. Wustenberg

Name of Person Signing

Total number of pages including cosheet, attachments, and documents

## Continuation of Item 1 and Item 3.

## Name of conveying Parties and Nature of conveyance/Execution Dates:

Wei Han	10/14/2005
Robert Birchak	10/11/2005
Tom Ritter	10/12/2005
Dan Kusmer	10/13/2005
Diederik van Batenburg	11/09/2005
Kwang Yoo	01/25/2006
William Trainor	03/18/2006

## ASSIGNMENT

Whereas, I/We, Wei Han, Robert Birchak, William Trainor, Tom Ritter, and Kwang Yoo all of Harris County TX, Dan Kusmer of Ft. Bend County TX and Diederik van Batenburg of Delft The Netherlands have invented APPARATUS FOR GENERATING ACOUSTIC WAVES for which I have made application for Letters Patent of the United States; and Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 10200 Bellaire Boulevard, Houston, Texas 77072 is desirous of acquiring an interest therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We, by these presents do sell, assign and transfer and convey unto HALLIBURTON ENERGY SERVICES, INC., its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application serial number 11/213,653 filed on August 26, 2005, and any divisional, continuing or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefor; said invention, application and any and all Letters Patent issuing therefor to be held and enjoyed by HALLIBURTON ENERGY SERVICES, INC., for its own use and behoof, and for its legal representatives, successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to HALLIBURTON ENERGY SERVICES, INC., its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 14thday of, 2005,	at Bank of America  Weithan
STATE OF (X) ss ) ss	
his free act and deed this day  TASHA LEE  NOTARY PUBLIC STATE OF TEXAS My Comm. Exp. 09-10-06	an and acknowledged the foregoing instrument to be of OGO, 2005.  (Notary)

Executed this 11th day of	Robert Birchak	
STATE OF COUNTY OF	) ) ss )	
Before me personally appeared said Robert Birchak and acknowledged the foregoing instrument to be his free act and deed this day of, 2005.		
Seal  SHANTELL LOFTON Rotary Public, State of Texas Commission Expires 05-02-2000  (Notary)		

**PATENT** 

REEL: 017728 FRAME: 0422

Executed this 12th day of 0ct., 2005, at	
	Jon Litter Tom Ritter
Before me personally appeared said Tom Ritte	er and acknowledged the foregoing instrument to
DIANE DAVIS  DIANE DAVIS  Notary Public, State of Texas  My commission expires  12-15-2008	Davie Das
	(Notary)

4-64017900

Executed this _	13	_day of <u>Oc</u> T, 2005, at	Houston	, TX
			Dan Ku	Lusmer Smer

Before me personally appeared said **Dan Kusmer** and acknowledged the foregoing instrument to be his free act and deed this \_\_\_\_\_ day of \_\_\_\_\_\_ day of \_\_\_\_\_\_.

ly Commission Expires: 10 03 08 ommission Number: 61997-7

Executed this g day of nov, 2005, at leccerclorp

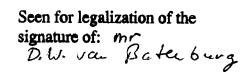
Diederik van Batenburg

(Notary)

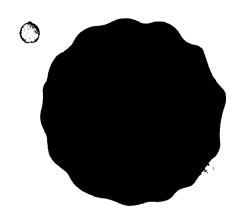
Before me personally appeared said **Diederik Van Batenburg** and acknowledged the foregoing instrument to be his free act and deed this \_\_\_\_\_\_ day of \_\_\_\_\_, 2005.

Seal

My Commission Expires: Commission Number:



by me, notary, on this day of 9/11/2005 Mr JHT Brouvers 5465 Eitule of Mr FC Bahher



Executed this 1891 day of Morel, 2005, at _	Houston, To
-	William Trainor
	William Tramor
Before me personally appeared said William instrument to be his free act and deed this	n Trainor and acknowledged the foregoing day of, 2005.
Seal _	(Notary)
My Commission Evninos	

## **ASSIGNMENT**

Whereas, I/We, Wei Han, Robert Birchak, William Trainor, Tom Ritter, and Kwang Yoo all of Harris County TX, Dan Kusmer of Ft. Bend County TX and Diederik van Batenburg of Delft The Netherlands have invented APPARATUS FOR GENERATING ACOUSTIC WAVES for which I have made application for Letters Patent of the United States; and Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 10200 Bellaire Boulevard, Houston, Texas 77072 is desirous of acquiring an interest therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We, by these presents do sell, assign and transfer and convey unto HALLIBURTON ENERGY SERVICES, INC., its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application serial number 11/213,653 filed on August 26, 2005, and any divisional, continuing or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefor; said invention, application and any and all Letters Patent issuing therefor to be held and enjoyed by HALLIBURTON ENERGY SERVICES, INC., for its own use and behoof, and for its legal representatives, successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to HALLIBURTON ENERGY SERVICES, INC., its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 14th October 2005, at	Bank of America  WeiHan
STATE OF TX ) ss COUNTY OF Have S	
his free act and deed this 14 day o	and acknowledged the foregoing instrument to be of 000,2005.
My Commission Expires: 9/10/10 Commission Number:	(Notary)

Executed this 11th day of october, 200	Robert Birchel	
	Robert Birchak	
STATE OF		
COUNTY OF ) ss		
Before me personally appeared said <b>Robert Birchak</b> and acknowledged the foregoing instrument to be his free act and deed this day of, 2005.		
SHANTELL LOFTON  Notary Public, State of Tex  Commission Expires 05-02-2	Shantell Liften (Notary)	

Executed this 12th day of Oct., 2005, at_	
	Jon Litter Tom Ritter
Before me personally appeared said <b>Tom Ritter</b>	
DIANE DAVIS  DIANE DAVIS  Notary Public, State of Texas  My commission expires  12-15-2008	(Notary)
My Commission Expires: \2 -\5-03 Commission Number:	

4-640677900

Executed this 13 day of Oct, 2005, a	Dan Kusmer
Before me personally appeared said Dan Kush be his free act and deed this day o	mer and acknowledged the foregoing instrument to of Oct., 2005.
Seal  My Commission Expires: 10   03   08  Commission Number: 6   997-7	Vudith & Jelle (Notary)

Executed this	_day of <u> পত্ত</u> , 2005 , at _	Leiderdorp
,		Dust and
	<del>-</del>	Diederik van Batenburg

Before me personally appeared said Diede	erik Van Batenburg and acknowledged the foregoing
instrument to be his free act and deed this _	day of, 2005.
Seal	
	(Notary)

Seen for legalization of the signature of: mr
D. W. van Bater burg

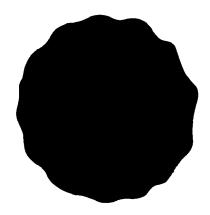
by me, notary, on this day of

9/11/2065

Mr JHT Brouvers

5.465 Eitule of

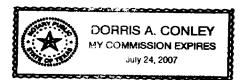
Mr FC Bahher



Executed this	<b>6</b> , at
	Kung Myl (100) Kwape Yoo
STATE OF TEXAS ) ss (country of Harris )	

Before me personally appeared said Kwang Yoo and acknowledged the foregoing instrument to be his free act and deed this \_\_\_\_\_ day of \_\_\_\_\_ day of \_\_\_\_\_ , 2006

Seal



My Commission Expires: 7/24/2007 Commission Number: 0/158836-5

> PATENT REEL: 017728 FRAME: 0433

**RECORDED: 03/27/2006**