

PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Richard T. HAY</td><td>06/11/2009</td></tr><tr><td>Mac UPSHALL</td><td>06/19/2009</td></tr></tbody></table>		Name	Execution Date	Richard T. HAY	06/11/2009	Mac UPSHALL	06/19/2009						
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Richard T. HAY	06/11/2009												
Mac UPSHALL	06/19/2009												
RECEIVING PARTY DATA													
<table border="1"><tr><td>Name:</td><td>Halliburton Energy Services, Inc.</td></tr><tr><td>Street Address:</td><td>10200 Bellaire Boulevard</td></tr><tr><td>Internal Address:</td><td>Intellectual Property Department</td></tr><tr><td>City:</td><td>Houston</td></tr><tr><td>State/Country:</td><td>TEXAS</td></tr><tr><td>Postal Code:</td><td>77072</td></tr></table>		Name:	Halliburton Energy Services, Inc.	Street Address:	10200 Bellaire Boulevard	Internal Address:	Intellectual Property Department	City:	Houston	State/Country:	TEXAS	Postal Code:	77072
Name:	Halliburton Energy Services, Inc.												
Street Address:	10200 Bellaire Boulevard												
Internal Address:	Intellectual Property Department												
City:	Houston												
State/Country:	TEXAS												
Postal Code:	77072												
PROPERTY NUMBERS Total: 1													
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>PCT Number:</td><td>US0949470</td></tr></tbody></table>		Property Type	Number	PCT Number:	US0949470								
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PCT Number:	US0949470												
CORRESPONDENCE DATA													
Fax Number: (281)213-2037 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone: 281-825-5235													
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ATTORNEY DOCKET NUMBER:	1391-775.00												
NAME OF SUBMITTER:	DANIEL J. KRUEGER												
Total Attachments: 3 source=HAL77500-ASG#page1.tif source=HAL77500-ASG#page2.tif													

OP \$40.00 US0949470

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PATENT  
REEL: 022906 FRAME: 0403



## ASSIGNMENT

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, BE IT KNOWN, that the undersigned inventor(s), for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, **Richard T. Hay and Mac Upshall**, having made an invention in "**Borehole Array for Ranging and Crosswell Telemetry**" while in the employ of **Halliburton Energy Services, Inc.**, a corporation organized and existing under the laws of the State of Delaware, doing business at 10200 Bellaire Boulevard, Houston, TX 77072, (sometimes hereinafter called "ASSIGNEE"), do hereby ASSIGN, SELL and CONVEY to said ASSIGNEE, its successors and assigns, the entire right, title and interest throughout the world in and to:

1. Said invention in **Borehole Array for Ranging and Crosswell Telemetry**;

2. The International PCT Patent Application on said invention, filed concurrently herewith or as PCT Patent Application No. PCT/US09/49470, filed July 2, 2009, (Attorney's File No. 1391-775.00; attorney is authorized to fill in the application number and filing date after the USPTO assigns them), entitled **Borehole Array for Ranging and Crosswell Telemetry**;

3. All applications for patent or like protection on said invention that have now been or may in the future be made by us or our legal representatives, whether in the United States of America or any other place anywhere in the world;

4. All patents and like protection that have now been or may in the future be granted on said invention to us or our legal representatives, whether in the United States of America or in any other country or place anywhere in the world;

5. All substitutions for and divisions, continuations, continuations-in-part, renewals, reissues, extensions, and the like of said applications and patents and like grants, including without limitations, those obtained or permissible under past, present and future law and statutes;

6. All rights of action on account of past, present and future unauthorized use of said invention for infringement of said patents and like protection;

7. The right to ASSIGNEE to file in its name applications for patents and like protection for said invention in any country or countries foreign to the United States; and

8. All international rights of priority associated with said invention, applications, patents and like protection; and

I (or We) covenant that I (or We), my (our) heirs, legal representatives, assigns, administrators, and executors will at the expense of ASSIGNEE, its successors and assigns, execute all papers and perform such other acts as may be reasonably necessary to give ASSIGNEE, its successors and assigns, the full benefit of this Assignment.

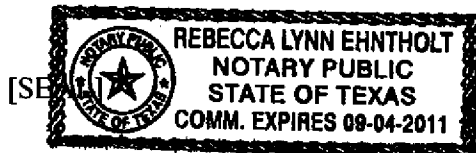
EXECUTED at HARRIS County, Texas, on the 11 day of JUNE, 2009.

  
RICHARD T. HAY

STATE OF TEXAS §  
COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personally appeared RICHARD T. HAY known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER my hand and seal of office, this the 11 day of JUNE, 2009.



  
Notary Public

My Commission Expires: 09/04/2011

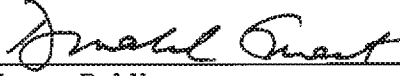
EXECUTED at CALGARY County, ALBERTA, on the 19<sup>th</sup> day of JUNE, 2009.

  
MACUPSHALL

CITY ALB  
STATE OF CANADA §  
COUNTY OF ALBERTA §  
PROVINCE ALB

BEFORE ME, the undersigned authority, on this day personally appeared MACUPSHALL known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER my hand and seal of office, this the 19<sup>th</sup> day of JUNE, 2009.

  
Notary Public

[SEAL]

Donald G. Guest  
Barrister & Solicitor

My Commission Expires:

is Permanent

Expires: