502687264 02/20/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2733869

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WEI ZHANG	07/18/2013
ROBERT ATKINSON	03/13/2013
MICHAEL PELLETIER	03/14/2013
WILLIAM SOLTMANN	07/11/2013
CHRISTOPHER MICHAEL JONES	04/02/2013

RECEIVING PARTY DATA

Name:	HALLIBURTON ENERGY SERVICES, INC.
Street Address:	10200 BELLAIRE BOULEVARD
City:	HOUSTON
State/Country:	TEXAS
Postal Code:	77072

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14233430

CORRESPONDENCE DATA

Fax Number: (202)756-8087

Email: mweipdocket@mwe.com

Correspondence will be sent via US Mail when the email attempt is unsuccessful.

Correspondent Name: IONA N. KAISER

Address Line 1: MCDERMOTT WILL & EMERY LLP
Address Line 2: 500 NORTH CAPITOL STREET N.W.

Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20001

ATTORNEY DOCKET NUMBER:	087638-0405	
NAME OF SUBMITTER:	DEBBIE ALLEN	

PATENT 502687264 REEL: 032251 FRAME: 0576

Signature:	/Debbie Allen/
Date:	02/20/2014
Total Attachments: 13 source=0876380405DeclAssign#page1.tif source=0876380405DeclAssign#page2.tif source=0876380405DeclAssign#page3.tif source=0876380405DeclAssign#page4.tif source=0876380405DeclAssign#page5.tif source=0876380405DeclAssign#page6.tif source=0876380405DeclAssign#page7.tif source=0876380405DeclAssign#page8.tif source=0876380405DeclAssign#page9.tif source=0876380405DeclAssign#page10.tif source=0876380405DeclAssign#page11.tif source=0876380405DeclAssign#page12.tif source=0876380405DeclAssign#page12.tif	

RECORDATION FORM COVER SHEET PATENTS ONLY		
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.		
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)	
1 A 4 . 1 . 771	Name: Halliburton Energy Services, Inc.	
Wei Zhang	Internal Address:	
Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of conveyance/Execution Date(s): Execution Date(s) 7/18/13, 3/13/13, 3/14/13, 7/11/13 and 4/2/13, respectively	Street Address: 10200 Bellaire Boulevard	
Assignment Merger	City: Houston	
Security Agreement		
☐ Joint Research Agreement ☐ Government Interest Assignment	State: TX	
Executive Order 9424, Confirmatory License	Country: US Zip: 77072	
Other	Additional name(s) & address(es) attached? Yes INo	
4. Application or patent number(s): A. Patent Application No.(s) 14/233,430	document serves as an Oath/Declaration (37 CFR 1.63). B. Patent No.(s)	
Additional numbers atta	ached? Yes ■ No	
_		
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents	
	6. Total number of applications and patents involved:	
concerning document should be mailed:	6. Total number of applications and patents	
concerning document should be mailed: Name: lona N. Kaiser	6. Total number of applications and patents involved:	
Concerning document should be mailed: Name: Iona N. Kaiser Internal Address: McDermott Will & Emery LLP	6. Total number of applications and patents involved: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0 Authorized to be charged to deposit account Enclosed	
Concerning document should be mailed: Name: Iona N. Kaiser Internal Address: McDermott Will & Emery LLP Street Address: 500 North Capitol Street, N.W.	6. Total number of applications and patents involved: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0 Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)	
concerning document should be mailed: Name: lona N. Kaiser Internal Address: McDermott Will & Emery LLP Street Address: 500 North Capitol Street, N.W. City: Washington State: DC Zip: 20001 Phone Number:	6. Total number of applications and patents involved: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0	
concerning document should be mailed: Name: lona N. Kaiser Internal Address: McDermott Will & Emery LLP Street Address: 500 North Capitol Street, N.W. City: Washington State: DC Zip: 20001 Phone Number: 087638-0405	6. Total number of applications and patents involved: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0	
concerning document should be mailed: Name: lona N. Kaiser Internal Address: McDermott Will & Emery LLP Street Address: 500 North Capitol Street, N.W. City: Washington State: DC Zip: 20001 Phone Number:	6. Total number of applications and patents involved: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0	
concerning document should be mailed: Name: lona N. Kaiser Internal Address: McDermott Will & Emery LLP Street Address: 500 North Capitol Street, N.W. City: Washington State: DC Zip: 20001 Phone Number: 087638-0405 Email Address: mweipdocket@mwe.com 9. Signature: /lona N. Kaiser/	6. Total number of applications and patents involved: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0	
concerning document should be mailed: Name: lona N. Kaiser Internal Address: McDermott Will & Emery LLP Street Address: 500 North Capitol Street, N.W. City: Washington State: DC Zip: 20001 Phone Number: Docket Number: 087638-0405 Email Address: mweipdocket@mwe.com 9. Signature: /lona N. Kaiser/	6. Total number of applications and patents involved: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0	
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Recordation Form Cover Sheet – (Continuation)

Docket No. 087638-0405

Item 1. – Additional Conveying Parties

Robert Atkinson

Michael Pelletier

William Soltmann

Christopher Jones

DECLARATION AND ASSIGNMENT

As the below named inventor, I hereby declare that:

This declaration is directed to:

- The attached application to be filed as a United States application or PCT international application, or
- United States application or PCT international application number PCT/US2013/33815 filed on March 26, 2013; and,

entitled "PACKAGING SYSTEMS AND METHODS FOR OPTICAL LIGHT PIPES." Regarding that application, I declare the following:

- The above-identified application was made, or authorized to be made, by me.
- I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
- I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.
- I have reviewed and understand the subject matter of the above-identified application, including the claims.
- I am aware of and acknowledge my duty to disclose to the United States
 Patent and Trademark Office all information known to me to be material to
 patentability under 37 CFR 1.56; including, for continuation-in-part
 applications, material information that became available between the filing of
 the prior application and the filing of the continuation-in-part application.

Moreover, Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 10200 Bellaire Boulevard, Houston, TX 77072 (hereinafter "Assignee") is desirous of acquiring an interest therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, We, by these presents do sell, assign and transfer and convey unto Assignee, 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 identified above, and any divisional, continuing or reissue application based on the present application preparatory to obtaining Letters Patent

1 of 2

of the United States therefore; said invention, application and any and all Letters Patent issuing there from to be held and enjoyed by Assignee, for its own use and benefit, 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 Assignee, 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	18-thday of		, 2013	
		WEI ZHANG		
STATE OF)			
COUNTY OF)			
Before me personally ap instrument to be a free a		. /1	day of July	he foregoing , 2013.

Seal

(Notary)

MADELINE DALE MILLS

Notary Public, State of Texas
My Commission Expires
April 03, 2014

of the United States therefore; said invention, application and any and all Letters Patent issuing there from to be held and enjoyed by Assignee, for its own use and benefit, 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.

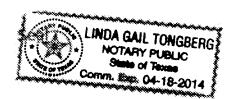
And I do further agree to communicate to Assignee, its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 13th day of March , 2013

ROBERT ATKINSON

STATE OF Texas)
COUNTY OF Harris)

Before me personally appeared said ROBERT ATKINSON and acknowledged the foregoing instrument to be a free act and deed this 13th day of 1013.



Linda Kail Anglery
(Notary)

of the United States therefore; said invention, application and any and all Letters Patent issuing there from to be held and enjoyed by Assignee, for its own use and benefit, 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 Assignee, 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 _____day of

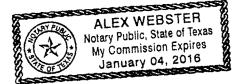
2013

MICHAEL DELVETTED

COUNTY OF Harris

Before me personally appeared said MICHAEL PELLETIER and acknowledged the foregoing instrument to be a free act and deed this $\frac{1}{2}$ day of $\frac{1}{2}$ day o

Seal



(Notary)

of the United States therefore; said invention, application and any and all Letters Patent issuing there from to be held and enjoyed by Assignee, for its own use and benefit, 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.

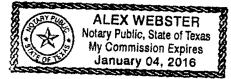
And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S.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

And I do further agree to communicate to Assignee, 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.

STATE OF TEXAS)
COUNTY OF Montgomery

Before me personally appeared said WILLIAM SOLTMANN and acknowledged the foregoing instrument to be a free act and deed this 11th day of July 2013.

Seal



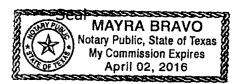
of the United States therefore; said invention, application and any and all Letters Patent issuing there from to be held and enjoyed by Assignee, for its own use and benefit, and for its legal representatives, successors and assigns, to the full end of the term for which said Letters Patent may be granted, 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 Assignee, 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.

STATE OF TODAS)
COUNTY OF Hurris)

Before me personally appeared said CHRISTOPHER MICHAEL JONES and acknowledged the foregoing instrument to be a free act and deed this 200 day





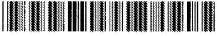
UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

February 19, 2014

PTAS

IONA N. KAISER
MCDERMOTT WILL & EMERY LLP
500 NORTH CAPITOL STREET, N. W.
WASHINGTON, DC 20001



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The enclosed document has been examined and found non-recordable by the Assignment Recordation Branch of the U.S. Patent and Trademark Office. The reason(s) for non-recordation are stated below:

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Documents being resubmitted for recordation must reflect the corrected information to be recorded, the Document ID number referenced above and all pages from this submitted document. The original date of filing of this assignment document will be maintained if resubmitted with the appropriate correction(s) by Monday, April 21, 2014, as outlined under 37 CFR 3.51. The resubmitted document must include a stamp with the official date of receipt under 37 CFR 3. Applicants may use the certified procedures under 37 CFR 1.8 or 1.10 for resubmission of the returned papers if they desire to have the benefit of the date of deposit in the United States Postal Service.

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MARGARET LASALLE
ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

P.O. Box 1450, Alexandria, Virginia 22313-1450 - WWW.USPTO.GOV

Form PTO-1595 (Rev. 06-12)
OMB No. 0651-0027 (exp. 04/30/2015)

U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

RECORDATION FORM COVER SHEET PATENTS ONLY To the Director of the U.S. Perent and Tracement Office. Please record the atteched documents or the new address(ca) below.		
Wei Wang	Internal Address:	
A. Patent Application No.(8)	Street Address: 10200 Bellaire Boulevard City: Houston State: TX Country: US	
Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1	
Name: Iona N. Kalsar	7. Total fee (37 CFR 1.21(h) & 3.41) \$0	
Internal Address McDermott Will & Emery LLP	Authorized to be charged to deposit account	
Street Address: 500 North Capitol Street, N.W.	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)	
City: Washington	8, Payment information	
State OC 20001		
Phone Number	Deposit Account Number 500417	
Dockel Number 087638-0405	Authorized User Name kind N. Kaiser	
Email Address <u>mweipduckel@mwe.com</u>	S SPECIFICATION PORTING S ENGINEER	
9. Signature: /jone N. Kaiser/	2014-02-08	
Signature	Date .	
Iona N. Kaiser Name of Person Signing	Total number of pages including cover 7 sneet, attachments, and documents:	
Documents to be recorded finding cover show	et) should be fexed to (571) 273-0140, or malled to: of the USPTO, P.O. Box 1450, Alexandria, V.A. 22313-1450	



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

February 04, 2014

PTAS

KAISER, IONA N.
MCDERMOTT WILL & EMERY LLP
500 NORTH CAPITOL STREET, N.W.
WASHINGTON, DC 20001

103665632

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The enclosed document has been examined and found non-recordable by the Assignment Recordation Branch of the U.S. Patent and Trademark Office. The reason(s) for non-recordation are stated below:

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Documents being resubmitted for recordation must reflect the corrected information to be recorded, the Document ID number referenced above and all pages from this submitted document. The original date of filing of this assignment document will be maintained if resubmitted with the appropriate correction(s) within 30 days from the date of this notice as outlined under 37 CFR 3.51. The resubmitted document must include a stamp with the official date of receipt under 37 CFR 3. Applicants may use the certified procedures under 37 CFR 1.8 or 1.10 for resubmission of the returned papers if they desire to have the benefit of the date of deposit in the United States Postal Service.

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MAURICE CARTER
ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

P.O. Box 1450, Alexandria, Virginia 22313-1450 - WWW.USPTO.GOV

Form **PTO-1595** (Rev. 06-12) OMB No. 0651-0027 (exp. 04/30/2015)

01/24/2014



U.S. DEPARTMENT OF COMMERCE Jnited States Patent and Trademark Office

1036	365632	
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) Name: Halliburton Energy Services, Inc.	
Wei Wang, Robert Atkinson, Michael Pelletie	Internal Address:	
Additional name(s) of conveying party(ies) attached? Yes No. 3. Nature of conveyance/Execution Date(s): Execution Date(s) 7/18/13, 3/13/13, 3/14/13, 7/11/13 and 4/2/13, respectively	Street Address: 10200 Bellaire Boulevard	
Assignment Merger Security Agreement Change of Name	City: Houston	
Joint Research Agreement	State: TX	
Government Interest Assignment Executive Order 9424, Confirmatory License	Country: US Zip: 77072	
Other	Additional name(s) & address(es) attached? Yes No	
A. Patent Application No.(s)	document serves as an Oath/Declaration (37 CFR 1.63). B. Patent No.(s)	
5. Name and address to whom correspondence concerning document should be mailed:	tached? Yes No 6. Total number of applications and patents involved: 1	
Name: Iona N. Kaiser	7. Total fee (37 CFR 1.21(h) & 3.41) \$0	
Internal Address: McDermott Will & Emery LLP		
Street Address: 500 North Capitol Street, N.W.	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)	
City: Washington	8. Payment Information	
State: DC Zip: 20001		
Phone Number:	Danasit Account Number 500417	
Docket Number: 087638-0405	Deposit Aççount Number 500417 Deposit Aççount Number 1423343 Authorized OsefiName lona NaKaiser	
Email Address: mweipdocket@mwe.com	Authorized oselwanile on war as the control of the	
9. Signature: /lona N. Kaiser/	2014-01-17	
Signature lona N. Kaiser	Total number of pages including cover sheet, attachments, and documents:	
Name of Person Signing 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		

RECORDED: 02/20/2014





PATENTS ONLY		
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Name of conveying party(ies) Wei Wang, Robert Atkinson, Michael Pelletie	2. Name and address of receiving party(ies) Name: Halliburton Energy Services, Inc.	
Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of conveyance/Execution Date(s): Execution Date(s) 7/18/13, 3/13/13, 3/14/13, 7/11/13 and 4/2/13, respectively Assignment Merger Security Agreement Change of Name Joint Research Agreement Government Interest Assignment Executive Order 9424, Confirmatory License Other	Internal Address: Street Address: 10200 Bellaire Boulevard City: Houston State: TX Country: US Zip: 77072 Additional name(s) & address(es) attached? Yes No document serves as an Oath/Declaration (37 CFR 1.63). B. Patent No.(s)	
Additional numbers att 5. Name and address to whom correspondence concerning document should be mailed:	ached? Yes No 6. Total number of applications and patents involved: 1	
Name: lona N. Kaiser	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0	
Internal Address: McDermott Will & Emery LLP	Authorized to be charged to deposit account	
Street Address: 500 North Capitol Street, N.W.	Enclosed None required (government interest not affecting title)	
City: Washington	8. Payment Information	
State: DCZip: 20001		
Phone Number:	Deposit Account Number 500417	
Docket Number: 087638-0405	Authorized User Name Iona N. Kaiser	
Email Address: <u>mweipdocket@mwe.com</u>		
9. Signature: /lona N. Kaiser/ Signature		
Iona N. Kaiser	Total number of pages including cover 7	
Name of Person Signing 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		