PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DAVID L. PERKINS	03/03/2014
ROBERT PAUL FREESE	03/27/2014
CHRISTOPHER MICHAEL JONES	02/28/2014
RICHARD NEAL GARDNER	03/03/2014

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
PCT Number:	US1420265

CORRESPONDENCE DATA

Fax Number: (202)756-8087

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via

US Mail.

Email: mweipdocket@mwe.com

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:	087638-0408
NAME OF SUBMITTER:	DEBBIE ALLEN
SIGNATURE:	/Debbie Allen/
DATE SIGNED:	04/10/2014

Total Attachments: 5

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PATENT REEL: 032648 FRAME: 0826

DECLARATION AND ASSIGNMENT

As the below named inventor, I hereby declare t	ciare that:
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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/US2014/20265 filed on March 4, 2014; and,

entitled "DESIGN TECHNIQUES FOR OPTICAL PROCESSING ELEMENTS." 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

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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.

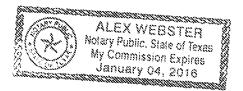
Executed this 3 rd day of My

DÁVID L. PERKINS

STATE OF TEXAS)
COUNTY OF Harris)

Before me personally appeared said DAVID L. PERKINS and acknowledged the foregoing instrument to be a free act and deed this 3rd day of March, 2014.

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.

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Executed this 27 day of MANY

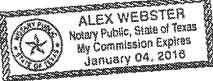
ROBERT PAUL FREESE

STATE OF TEXAS

COUNTY OF Hamis

Before me personally appeared said ROBERT PAUL FREESE and acknowledged the foregoing instrument to be a <u>free act and</u> deed this day of _________, 2014.

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.

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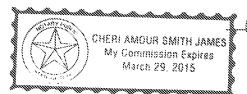
Executed	this	<u>28</u>	day	of.	<u>Feb</u>		, 2014	Marie
					Alla	- 1	win	1/2
				Č	CHRISTOPHER	. MICHA	EL JONES	7

STATE OF TEXAS)
COUNTY OF Hamis)

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

<u> Lobouary</u>, 2014.

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.

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Executed thisday of	march , 2014
	Robard Neal Hardy
	RICHARD NEAL GARDNER
STATE OF North Carolina)	
COUNTY OF AND IS	

Before me personally appeared said RICHARD NEAL GARDNER and acknowledged the foregoing instrument to be a free act and deed this 3^{m} day of 2014.

Seal My Commission appired Feb 7th 2017

(Notary)

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