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U.S.	DEPAR	RTMEN	T OF	COMMER	CE
United	States	Patent	and	Trademark	Office

OMB No. 0651-0027 (exp. 8/31/2008)	08-22	-2008	United States Patent and Trademark Office
			·
To the Director of the U.S. Patent and	10352	21092	cuments or the new address(es) below.
1. Name of conveying party(ies)		2. Name and	address of receiving party(ies)
Leonard Case (8/5/08); Michael Segura (7/30/08);		Name: Robert	A. Kent
(7/30/08); Jason Bryant (7/30/08); Herbert Horinek (8/5/08); Jonn Thompson (7/14/08); Von Parkey (7/24/08); Shaun Burns (6/27/08)		Internal Addre	ess:
		Halliburton Ener	rgy Services, Inc.
Additional name(s) of conveying party(ies) attached  3. Nature of conveyance/Execution Da			ss: _10200 Bellaire Blvd.
Execution Date(s) See above	ite(s).	Sileet Addres	55. 10200 Belialle Blvd.
✓ Assignment Merg	ıer		
		City: Houston	
	nge of Name		
☐ Joint Research Agreement		State: TX	
Government Interest Assignment	License	Country: USA	Zip:77072
Executive Order 9424, Confirmatory	License		
Other  4. Application or patent number(s):		•	e(s) & address(es) attached? Yes V No eing filed together with a new application.
	itional numbers at		✓ No
<ol><li>Name and address to whom corres concerning document should be mail</li></ol>		6. Total num involved: 1	ber of applications and patents
Name:Robert A. Kent		7. Total fee (	37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address: Halliburton Energy Services	, Inc	I — '	ed to be charged by credit card
		✓ Authorized to be charged to deposit account	
Street Address: 2600 S. 2nd Street		Enclose	d
Sileer Address. 2000 G. Zha e a co.		None re	quired (government interest not affecting title)
		8. Payment	Information
City: Duncan		a. Credit Card Last 4 Numbers	
State: OK Zip: 7353	6-0440		Expiration Date
Phone Number: <u>580-251-3125</u>		b. Depos	it Account Number 08-0300
Fax Number: 580-251-3917 Email Address: Tammy.Knight@Halliburteq.com		Authorized User Name Halliburton	
		<u> </u>	
9. Signature:	1 G 1	e.C.	98/21/2098 DEVENE SEGRETARE S1215. Date 91.50:4021 46.60 DA
Robert A. Ke	Signature		81 FC:8821 Total number of pages including cover sheet, attachments, and documents:
Nobel 7. No	Signing		Silbor, and silver

Robert A. Kent
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

> **PATENT** REEL: 021431 FRAME: 0626

## **ASSIGNMENT**

Whereas, I/We, Leonard Case, Michael Segura, Harold Walters, Jason Bryant and Herbert Horinek, all of Stephens County, Duncan, Oklahoma, Jonn Thompson of Smith County, Flint, Texas, Von Parkey of Oklahoma County, Oklahoma City, Oklahoma, Shaun Burns of Mesa County, Grand Junction, Colorado and Tommy Slabaugh (Personal Representative for Billy Slabaugh) of Wichita County, Wichita Falls, Texas, have invented "Methods of Pumping Fluids having Different Concentrations of Particulate at Different Average Bulk Fluid Velocities to Reduce Pump Wear and Maintenance in the Forming and Delivering of a Treatment Fluid into a Wellbore" 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 12/151,504 filed on 5/7/2008, 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 5 <sup>th</sup> day of hugust, 2008, at Duncan, Stephens County,
Oklahoma, U.S.A.  Signature
STATE OF OKLAHOMA ) ) ss COUNTY OF STEPHENS )
Before me personally appeared said <b>Leonard Case</b> and acknowledged the foregoing instrument to be his free act and deed this
TAMMY KNIGHT  NOTARY PUBLIC, STATE OF OKLAHOMA STEPHENS COUNTY MY COMMISSION EXPIRES FEB. 13, 2010 COMMISSION # 02002595  (Notary)
Executed this 30 day of July , 2008, at Duncan, Stephens County, Oklahoma, U.S.A.
Michael Sense Signature
STATE OF OKLAHOMA ) ) ss COUNTY OF STEPHENS )
Before me personally appeared said <b>Michael Segura</b> and acknowledged the foregoing instrument to be his free act and deed this
TAMMY KNIGHT  NOTARY PUBLIC. STATE OF OKLAHOMA STEPHENS COUNTY MY COMMISSION EXPIRES FEB. 13, 2010 COMMISSION # 02002595  Seal  (Notary)

Executed this 30th day of 501	, 2008, at Duncan, Stephens County,
Oklahoma, U.S.A.	
	Signature
STATE OF OKLAHOMA ) ) ss COUNTY OF STEPHENS )	
Before me personally appeared said <b>Harold Wa</b> to be his free act and deed this day of	lters and acknowledged the foregoing instrument , 2008.
TAMMY KNIGHT  NOTARY PUBLIC. STATE OF OKLAHOMA STEPHENS COUNTY MY COMMISSION EXPIRES FEB. 13, 2010 COMMISSION # 02002595	(Notary)
Executed this 30 hay of July	, 2008, at Duncan, Stephens County,
Oklahoma, U.S.A.	
	Signature E. Bryant
STATE OF OKLAHOMA ) ) ss COUNTY OF STEPHENS )	
Before me personally appeared said <b>Jason Brya</b> be his free act and deed this day of	nt and acknowledged the foregoing instrument to 2008.
TAMMY KNIGHT  NOTARY PUBLIC, STATE OF OKLAHOMA STEPHENS COUNTY MY COMMISSION EXPIRES FEB. 13, 2010 COMMISSION # 02002595	Jummy (Notary)

•
Oklahoma, U.S.A.
The follow
Signature
STATE OF OKLAHOMA ) ) ss
COUNTY OF STEPHENS )
Before me personally appeared said Herbert Horinek and acknowledged the foregoing instrument to be his free act and deed this
instrument to be his free act and deed this day of, 2006.
TAMMY KNIGHT NOTARY PUBLIC STATE OF OKLAHOMA
Seal TAMMY KNIGHT  NOTARY PUBLIC, STATE OF OKLAHOMA STEPHENS COUNTY MY COMMISSION EXPIRES FEB. 13, 2010 COMMISSION # 02002595  (Notary)
<b></b> .
Executed this
County, Texas, U.S.A.
2- 4- 1-
Signature
STATE OF TEXAS )
COUNTY OF COUNTY OF SIZE OF TEXAS (STATE OF TE
<u> </u>
Before me personally appeared said Jonn Thompson and acknowledged the foregoing
instrument to be his free act and deed this day of, 2008.
Seal JOHN THOMAS BLAYLOCK & In James Blaylock
Seal STATE OF TEXAS (Notary)

Executed this 24th day of July	, 2008, at Oklaham City, Oklahama
County, Oklahoma, U.S.A.	
<u>-</u>	Von Lankey Signature
STATE OF OKLAHOMA )  COUNTY OF Okla Kara )	
Before me personally appeared said Von Parkey be his free act and deed this day of	
Seal # 00001892 EXP. 0201/12 SE	Ausar VI. Dy (Notary)
Executed this <u>27</u> day of <u>June</u> County, Colorado, U.S.A.	, 2008, at Grand Junction Mesa
	Sham Signature
STATE OF COLORADO ) ) ss COUNTY OF ( ) ( ) ( )	
Before me personally appeared said <b>Shaun Burn</b> be his free act and deed this <u>27th</u> day of	s and acknowledged the foregoing instrument to, 2008.
Seal JUDY L HAINING Notary Public State of Colorado	Michy Halesty

Practitioner's Docket No. 2008	-IP-007808U1 PATENT
	For: U.S. and/or Foreign Rights For: U.S. Application or U.S. Provisional Application For: U.S. Patent For: PCT Application Sy: Administrator(trix) Executor(trix) U.S. Representative(s)
BY ADMINISTRAT	ENT OF INVENTION FOR (TRIX) REPRESENTATIVE(S)
	ASSIGNEE to ASSIGNOR of the sum of One Dollar y acknowledged, and for other good and valuable
By administrator(trix), executor(trix) or legal representative of inventor or person who owns the invention	Tommy Slabaugh (type or print name(s) of administrator(trbd), executor(trbd) or legal representative(s))
Billy Slaba	ugh
Inventor or person on wi	nose behalf above person(s) are signing
2020 Santa	Fe Street, Apt. 53
Address(	es) of person(s) signing
Wichita Fal	ls, Texas 76309
United State	es
(if assignment is on behalf of pers	(les) of person(s) signing on to whom invention was previously assigned ded in PTO, add the following)
Recorded on	Reel
	Frame
hereby selle, assigns and transfers to	
LOGICALES:	Halliburton Energy Services, Inc.
	(type or print name of Assignes(s))
	2600 S. 2nd Street
	Address P.O. Box 1431
	Duncan, OK 73536-0440
	United States
	Nationality

and the successors, assigns and legal representatives of the ASSIGNEE

(Assignment of Invention—Administrator(trbd), Executor(trbd) or Legal Representative(s) [16-3.1]—page 1 of 3)

## (complete one of the following)

		the entire right, title and interest
		an undivided percent (96) interest
for the	• Un	ited States and its territorial possessions
		(check the following box, if foreign rights are also to be assigned)
	Ø	and in all foreign countries, including all rights to claim priority,
in and	d to	any and all improvements which are disclosed in the invention entitled:
Meth	ods	of Pumping Fluid having Different Concentrations of Particulate at
Name	erei	nt Average Bulk Fluid Velocities to Reduce Pump Wear and
Leon	ard	Case, Michael Segura, Harold Walters, Jason Bryant, Herbert Horinek
Shau	n Bu	irns, Jonn Thompson, Von Parkey, and Billy Slabaugh
		(check and complete (a), (b), (c), (d), (e), (f), or (g))
and v	vhich	l le found in (37 C.F.R. § 3.21)
(a)		U.S. patent application executed on even date herewith
<b>(b)</b>		U.S. patent application executed on
(c)		U.S. provisional application naming the above inventor(s) for the above-entitled invention
		Express mail label no.:
		Mailed:
		To comply with 37 C.F.R. § 3.21 for recordal of this assignment, I, an ASSIGNOR signing below, hereby authorize and request my attorney to insert below the filing date and application number when they become known.
(d)	$\Box$	U.S. application no. 12/151.504 filed on 5/7/2008
(•)		International application no. PCT/ / filed on
m		U.S. patent no issued
		A change of address to which correspondence is to be sent regarding patent maintenance fees is being sent separately.
		(also check (g), if foreign application(s) is(are) also being assigned)
<b>(Q)</b>		and any legal equivalent thereof in a foreign country, including the right to claim priority
or any	y cor	to, all Letters Patent to be obtained for said invention by the above application attinuation, division, renewal, or substitute thereof, and as to letters patent any re-examination thereof.
		OR hereby covenants that no assignment, sale, agreement or encumbrance has ill be made or entered into which would conflict with this assignment.

(Assignment of Invention—Administrator(trix), Executor(trix) or Legal Representative(a) [16-3.1]—page 2 of 3)

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

submitted in	nerewith.	pehalf of the deceased/incapacitated inventor is
IN WITNE	SS WHEREOF, I'We have h	ersunto set hand and seal thisdey
of Jun	of signing	
WARNING:	The date of signing must be the as checked above.	ame as the date of execution of the application, if item (a) was
Date:		Tommy Slabaugh
<b>Date:</b> b-18	-v S	(Manature of administratoritric), associatoritric), or logal feprecentative(a))
Date:		

NOTE: No witnessing, notarization or legalization is necessary. If the assignment is notarized or legalizati, then It will only be prime facie evidence of execution. 36 U.S.C. § 261. Use next page if notarisationic desired.

Notarization or Legalization Page Added.

(Assignment of Invention—Administrator(trix), Executor(trix) or Legal Representative(s) [16-8.1]—page 3 of 3)

## NOTARIZATION OR LEGALIZATION ACCOMPANYING ASSIGNMENT

NOTE: Executing this page is not required for assignment, and is only prime facile evidence of execution. 35 USC 261. United States Details of Country and place of signing of assignment Wichita Falls, Texas the above named individual(s), to me known to be the person(s) who D is are described in, and who executed the foregoing assignment instrument and acknowledged to me that X he executed the same of ☐ she ☐ their ☐ they own free will for the purpose therein expressed. United States of America

(Noterization or Legalization Accompanying Assignment [16-4])

PATENT

RECORDED: 08/18/2008 REEL: 021431 FRAME: 0635