PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Fedor Nikolaevich Litvinets	07/23/2012
Andrey Vladimirovich Bogdan	08/03/2012
Sergey Mikhailovich Makarychev-Mikhailov	07/31/2012
Oleg Medvedev	07/27/2012
Alejandro Pena	08/08/2012
Konstantin Mikhailovich Lyapunov	08/03/2012
Alexander Vuacheslavovich Mikhaylov	07/27/2012
Timothy M. Lesko	08/08/2012
J. Ernest Brown	08/06/2012
Dean M. Willberg	08/06/2012
Ivan Vitalievich Kosarev	08/14/2012
Anatoly Vladimirovich Medvedev	07/23/2012
Jonathan Abbott	07/27/2012
Alexander Alexandrovich Burukhin	07/25/2012

RECEIVING PARTY DATA

Name:	SCHLUMBERGER TECHNOLOGY CORPORATION
Street Address:	300 Schlumberger Drive
City:	Sugar Land
State/Country:	TEXAS
Postal Code:	77478

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13494503

CORRESPONDENCE DATA

7136892219 Fax Number:

REEL: 028813 FRAME: 0599

PATENT

502030424

Phone: 719-689-6265

Email: lgoldsmith@slb.com

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

via US Mail.

Correspondent Name: SCHLUMBERGER TECHNOLOGY CORPORATION

Address Line 1: 10001 Richmond Avenue
Address Line 2: IP Center of Excellence
Address Line 4: Houston, TEXAS 77042

ATTORNEY DOCKET NUMBER: IS11.0424-US-NP

NAME OF SUBMITTER: Leslie Goldsmith

Total Attachments: 18

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Assignment

WHEREAS, the undersigned inventors hereinafter referred to as the "Inventors" each said Inventor's address being listed below:

Fedor Nikolaevich Litvinets, a citizen of Russian Federation, residing at Gorno-Altayskaya 50 bld., 31 ap. Biysk, Altay region, 659305 Russia;

Andrey Vladimirovich Bogdan, a citizen of Russian Federation, residing at Truzhenikov 7, ap. 204, Novosibirsk, 630058, Russia;

Sergey Mikhailovich Makarychev-Mikhailov, a citizen of Russian Federation, residing at 11-3 S. Kovalevskaya St., apt. 38, St. Petersburg, 195252, Russia;

Oleg Medvedev, a citizen of Ukraine, residing at Geroev Stalingrada str. 10a, apt. 66, Kyiv, 04210, Ukraine;

Alejandro Pena, a citizen of Venezuela, residing at 26215 Grace Hills Ln Katy, Texas 77494 USA;

Konstantin Mikhailovich Lyapunov, a citizen of Russian Federation, residing at 3-301, Rossijskaya str., Novosibirsk, 630117, Russia;

Alexander Vuacheslavovich Mikhaylov, a citizen of Russian Federation, residing at 2-G-62, Komsomolskya str., Berdsk city, Novosibirsk, 633011, Russia;

Timothy M. Lesko, a citizen of the United States of America, residing at 2530 Windfall Lane, Sugar Land, Texas 77479 USA;

J. Ernest Brown, a citizen of the United States of America, residing at 5151 East Boardwalk Drive, Unit V-1 Fort Collins, Colorado 80525 USA;

Dean M. Willberg, a citizen of Canada, residing at 2204 E. Emerson, Salt Lake City, Utah 84108, USA;

Ivan Vitalievich Kosarev, a citizen of Russian Federation, residing at Vernadskogo Avenue, 101, Bldg 3, Moscow 119526, Russia;

Anatoly Vladimirovich Medvedev, a citizen of Russian Federation, residing at Litovsky Bulvar, 46, Bldg 1, Apt 209, Moscow, 117588, Russia;

Jonathan Abbott, a citizen of the United Kingdom, residing at 3 Hollyhocks, Reading Road, Didcot OX11 0LX, United Kingdom;

and

Alexander Alexandrovich Burukhin, a citizen of Russian Federation, residing at 11-77, Konenkova str., Moscow, 127560, Russia;

Has/have invented certain new and useful improvements in

HETEROGENOUS PROPANT PLACEMENT IN A FRACTURE WITH REMOVABLE EXTRAMETRICAL MATERIAL FILL

as described and set forth in an application for Letters Patent of the United States of America, filed on June 12, 2012 under Attorney Docket No. IS11.0424-US-NP assigned serial # 13/494503. This assignment is effective as of June 12, 2012.

AND WHEREAS, the "COMPANIES", listed in Schedule A, are desirous of acquiring or confirming their acquisition of the entire right, title and interest in and to said invention, inventions or improvements, and in and to said application, and in and to any and all patents, both of the United States and of all foreign countries, that may be obtained therefore as outlined in Schedule A;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, BE IT KNOWN, that the undersigned Inventors, for good and valuable considerations, the receipt and sufficiency of which hereby acknowledge, have sold, assigned, transferred and conveyed, and by this assignment do sell, assign, transfer and convey, unto said COMPANIES, their successors and assigns, the entire right, title and interest throughout the world, in and to the above-described invention, inventions or improvements described or set forth in said application, in any form or embodiment thereof, and in and to said application, and in and to any applications filed in any foreign country based thereon, including the right to file foreign applications under the provisions of any convention or treaty; and in and to any confirmation, divisional, continuation, continuation-in-part, or substitute application which may be filed on said invention, inventions or improvements in the United States or in any foreign country; and in and to any and all patents, certificates, utility models, reissues, extensions, additions or confirmations thereof which may be granted in the United States or in any foreign country upon said invention, inventions or improvements,

TO HAVE AND TO HOLD the same to the full end of the term or terms for which any and all such United States and foreign patents and grants may be issued on said invention, inventions or improvements.

AND said Inventors do hereby authorize and request the issuing authority to issue any and all of said United States and foreign patents on said application or applications to said COMPANIES, their successors and assigns, as the assignee of the entire right, title and interest in and to the same, for the sole use and benefit of said COMPANIES, their successors and assigns.

AND said Inventors do hereby covenant and warrant that said Inventors have full right to convey the entire right, title and interest herein assigned free and clear of all licenses, encumbrances and liens whatsoever, and that no said Inventors has executed and will execute any instruments in conflict herewith.

AND said Inventors, for the conditions aforesaid, do hereby covenant and agree to and with the said COMPANIES, their successors and assigns, that each Inventor, his or her executors, administrators, or other personal representatives, shall and will do all lawful acts and things, make all rightful oaths, and make, execute and deliver any and all other instruments in writing, and any and all further applications, papers, powers, affidavits, assignments, disclaimers and other documents, which in the opinion of counsel for said COMPANIES, their successors and assigns, may be required or necessary in this or in any foreign country more effectually to secure to and vest in said COMPANIES, their successors and assigns, the entire right, title and interest in and

to said invention, inventions or improvements, application or applications, patents, rights, titles, benefits, privileges, and advantages hereby sold, assigned, confirmed, transferred and conveyed.

IN WITNESS WHEREOF I, Fedor Nikolaevi this	ch Litvinets, have hereunto set my hand and seal . 2012.
	Fedor Nikolaevich Litvinets
personally present and did see him sign and expersonally present and did see him sign	day of
Roman Ysotsky Witness	Svellana bersyngene Witness
Tranova 8tr., 15726	41/5-217, Vyzaklogo str.
Nowskirsk , Russa ,	44/5-217, Vysoklogo str. Novosibirol, 630133
630055	Rusie
Post Office Address	Post Office Address

seal this day of day usf	rovich Bogdan , have hereunto set my hand and , 2012.
	Andrey Vladimirovich Bogdan
BE IT KNOWN that Andrey Vladimirovich described in the foregoing assignment, that on the was personally present and did see him sign and did acknowledge to me that he executed the spurposes therein set forth.	is day of
Witness	Witness
Michael Das	John Thomas Mayo
110 SCHLUMBERGER DR. NO.1	125 Schlumberger Dr. MD-2
Sugar LAND, TX 77584	SugarLand, TX 77478
Post Office Address	Post Office Address

IN WITNESS WHEREOF I, Sergey Mikhailovich M	akarychev-Mikhailov, have hereunto set
my hand and seal this 31 day of	, 2012. (), L
Sergey M	likhailovich Makarychev-Mikhailov
BE IT KNOWN that Sergey Mikhailovich Makarychindividual described in the foregoing assignment, 2012, I was personally present and deed for the uses and purposes therein set forth.	nent, that on this 31 day of ent and did see him sign and execute the
Olga Nevronen Witness	Bruno LECERF Witness
	Mo Schlumberger Dr #3
110 Schlumberger Dr, MD-3 Sugar Land, Texas	Mo Schlumberger Dr #3 Sugar land Tx 77478
Sugar Land, Texas	∪ _S A
4744B	
Post Office Address	Post Office Address

IN WITNESS WHEREOF I, OI 27 day of July	eg Medvedev, have hereunto set my hand and seal this, 2012. Oleg Medvedev
foregoing assignment, that on this present and did see him sign and ex	edev is to me known to be the individual described in the 27 day of, 2012, I was personally ecute the foregoing assignment; and, that he did acknowledges his free act and deed for the uses and purposes therein set
Nejib HAMED Witness	Doug Paga Wi Witness
9450-17 Avenue	9450-17 Ave.
EDMONTON, AB	Edmar Son AB
T6N 1M9	TEN IM9
CANAD A	Canada
Post Office Address	Post Office Address

	REOF I, Alejandro Pens	a, have hereunto set my hand a	nd seal this
		Alejandro Pena	
STATE OF TOXA			
COUNTY OF FOR	27 Bend		
Pena, to me known	to be the person who is and acknowledged to me to	2012, personally appeare described in and who executed that he executed the same of his own	he foregoing
Seal	OF TENS	Notary Public	
	132018 minutes		

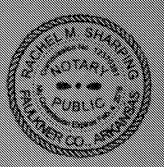
IN WITNESS WHEREOF I, Konstantin Mikhailovic and seal this 03 day of wife with	h Lyapunov, have hereunto set my hand, 2012.
	danynd
	Konstantin Mikhailovich Lyapunov
BE IT KNOWN that Konstantin Mikhailovich Lyapi described in the foregoing assignment, that on this Of was personally present and did see him sign and executed acknowledge to me that he executed the same as purposes therein set forth. Vadim Tsquare Witness	day of <i>August</i> , 2012, I
75 Siveneuga st. 33 Novosibiusk 620058	41/5-217, Vysotekogo str. Nevosibirsk, 630133
Russia	lusia
Post Office Address	Post Office Address

IN WITNESS WHEREOF I, Alexander Vuacheslavov	ich Mikhaylov, have hereunto set my
hand and seal this	, 2012.
d d	Tyxoxon
A	lexander Vuacheslavovich Mikhaylov
BE IT KNOWN that Alexander Vuacheslavovich M	
individual described in the foregoing assignmen	
Jacks , 2012, I was personally present	
foregoing assignment; and, that he did acknowledge to n	ne that he executed the same as his free
act and deed for the uses and purposes therein set forth.	
in the second se	Al alla
ALFREY RAPASION P	Viaci Rodianas
ALEXEY BARANOV S	Yaci Rodionov // Witness
77 101005	** IEI1C33
75 ROYAL ABBEY RISE N.W.	525 3rd Ave SW
<u> </u>	
CALGARY, AB T3G4YS	Colgary, 118 T2P064
milital in the state of the second in the se	
CANADA	lanada
Pact Office Address	Pact Office Address

District Supplier ISS 0424-15-53

BEFORE ME to the person who is described in and who executed the foregoing assignment instrument and administration in the time that the countries are described in an analysis of the own the well to the courses the countries and administration of the own the well to the courses therein expressed.

8.00



IN WITNESS WHEREOF I, J. Ernes	t Brown, have hereunto set my hand and seal this
6th day of August	, 2012.
· ·	JENAS Y
73	J. Ernest Brown
STATE OF	
COUNTY OF Ft. Bend	
	, 2012, personally appeared J. Ernest
-	soft—who is described in and who executed the foregoing ged to me that he executed the same of his own free will for
the purpose therein expressed.	ged to me that he executed the same of his own free will for
Seal	Tally M
	Notary Public
JUDY E. HERRERA Notary Public, State of Texas My Commission Expires June 13, 2016	
1111111	

IN WITNESS WHEREOF I, Dean M. Willberg, have	e hereunto set my hand and seal this
6 day of <u>August</u> , 2012.	- 1
θ	
	Dean M. Willberg
BE IT KNOWN that Dean M. Willberg is to me know foregoing assignment, that on this <u>lo</u> day of <u>liner</u> present and did see him sign and execute the foregoing sto me that he executed the same as his free act and deeforth.	, 2012, I was personally ssignment; and, that he did acknowledge
Wigness Cool	Witness
Julia E Cissel	Maxim A. Cherdor 1935 S. Fremont an
1935 5 Fremont Dr	1935 S. Fremont an
Solt lake City, UT	Salt Lake City, UT
Post Office Address	Post Office Address

IN WITNESS WHEREOF I, Ivan Vitalievich Ko	sarev, have hereunto set my hand and seal this Nan Vitalievich Kosarev
BE IT KNOWN that Ivan Vitalievich Kosarev is the foregoing assignment, that on this epersonally present and did see him sign and executed acknowledge to me that he executed the same as therein set forth.	day of <u>Ceequat</u> , 2012, I was cute the foregoing assignment; and, that he did
JAD Ekasterina Laurova Witnest	Witness
Prospect Varnadskopo,	Prospect Vernadsuggo, 101, building 3
Moscow, Russia	Moseow, Russia 119526
Post Office Address	Post Office Address

IN WITNESS WHEREOF I, Anatoly Vladimir seal this 23 day of July	ovich Medvedev, have hereunto set my hand and, 2012.
¥	Just 1
	Anatoly Vladimirovich Medvedev
described in the foregoing assignment, that on the was personally present and did see him sign an	Medvedev is to me known to be the individual is _23 day of
- Greek in b	
Witness	Witness
Yalos lev Andreg	Sictions birdyngins
404070 Volgograd 129	41/5-2117, Vysobskago 144.
Primorsk, Lexina str. 24	Novosibirat, 630133
Russia	Kussia
Post Office Address	Post Office Address

IN WITNESS WHEREOF I, Jonathan A 27 day of	bbott, have hereunto set my hand and seal this Lilla
TEF IT KNIWN that langthon thhat is t	to me known to be the individual described in the
foregoing assignment, that on this 7 7 day present and did see him sign and execute the	of
Winess	Witness
6429452 Rutz 1262R	DW HARGANTI
20 30x 3107	Po 8ex 9020
AS u Drassi	883 DBA&
ua ē	UAS
Post Office Address	Post Office Address

IN WITNESS WHEREOF I, Alexander Alexand seal this 25 day of 34/4	xandrovich Burukhin, have bereunto set my hand , 2012,
	Alexander Alexandrovich Burukhin
described in the foregoing assignment, that on was personally present and did see him sign	this
a contraction of the contraction	
Witness	Witness
Kalinin Sergey	Sellous beroguepine
Lesoscohneya, 5-352	41/5-217 Vysotskapo str
Russia Novosibirsk, 630060	Novembrol esocio,
	Reissia
Post Office Address	Post Office Address

Schedule A "COMPANIES"

SCHLUMBERGER TECHNOLOGY CORPORATION

Corporation of: United States of America
Located at: 300 Schlumberger Drive, Sugar Land, Texas 77478 U.S.A.
Assignee for applications in: United States of America

SCHLUMBERGER CANADA LIMITED

Corporation of: Canada <u>Located at:</u> 525-3rd Avenue S.W., Calgary, Alberta, Canada T2P 0G4 <u>Assignee for applications in:</u> Canada

SERVICES PETROLIERS SCHLUMBERGER

Corporation of: France Located at: 42 rue Saint Dominique, 75007 Paris, France Assignee for applications in: France

SCHLUMBERGER HOLDINGS LIMITED

Corporation of: British Virgin Islands
Located at: P.O. Box 71, Craigmuir Chambers, Road Town, 1110 Tortola, British Virgin Islands
Assignee for applications in: Japan, The Netherlands, United Kingdom

SCHLUMBERGER TECHNOLOGY B.V.

Corporation of: the Netherlands

Located at: Parkstraat 83-89, 2514 JG The Hague, The Netherlands

Assignee for applications in: Albania, Argentina, Australia, Austria, Azerbaijan, Brunei, Bulgaria, Chile, Colombia, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Equatorial Guinea, Falkland Islands, Faroe Islands, Georgia, Germany, Greece, Greenland, Hungary, Indonesia, Ireland, Israel, Italy, Kazakhstan, Kenya, Korea, Kuwait, Lithuania, Madagascar, Malaysia, Mexico, New Zealand, Norway, Oman, Pakistan, Poland, Qatar, Romania, Russia, Saudi Arabia, Slovakia, Slovenia, South Africa, Suriname, Switzerland, Tanzania, Thailand, Trinidad, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, Uruguay, Uzbekistan, Venezuela.

PRAD RESEARCH AND DEVELOPMENT LIMITED

Corporation of: British Virgin Islands

Located at: P.O. Box 71, Craigmuir Chambers, Road Town, 1110 Tortola, British Virgin Islands Assignee for applications in: Eurasia, Gulf Cooperation Council, and Countries not otherwise listed.

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PATENT REEL: 028813 FRAME: 0618

RECORDED: 08/20/2012