

Receipt date: 02/09/2010 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		11291496	11291496 - GAU: 3676
	Filing Date		2005-12-01	
	First Named Inventor	William L. McNeel		
	Art Unit	3676		
	Examiner Name	Angela DiTrani		
	Attorney Docket Number	2005-IP-018647U1		

2	WO2008/142406		A3	2008-11-27	Halliburton Energy Services, Inc.	☐
3	1460647	GB	A	1977-01-06	Intercomp Resource Dev Eng Inc.	☐

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	1	SURJAATMADJA et al., "Consideration for Future Stimulation Options is Vital in Deciding Horizontal Well Drilling and Completion Schemes for Production Optimization," Society of Petroleum Engineers, 2006, SPE 103774	☐
	2	Office Action for U.S. Patent Application No. 11/545,749 dated January 27, 2010	☐
	3	Office Action for U.S. Patent Application No. 11/873,186 dated January 25, 2010	☐
	4	Notice of Allowance and Notice of Allowability for U.S. Patent Application No. 11/753,314 dated December 17, 2009	☐

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Receipt date: 02/22/2010

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Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

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Approved for use through 07/31/2012. OMB 0651-0031

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	Art Unit	3676	
	Examiner Name	DITRANI, ANGELA M.	
	Attorney Docket Number	2005-IP-018647U1 (063718.0930)	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	4845981		1989-07-11	Pearson	
	2	5417283		1995-05-23	Ejiogu et al.	
	3	7243726		2007-07-17	Ohmer	
	4	7367411		2008-05-06	Leuchtenberg	
	5	4715721		1987-12-29	Walker et al.	
	6	6644844		2003-11-11	Neal et al.	
	7	6236894		2001-05-22	Stoisits et al.	
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	1	20020125011		2002-09-12	Snider et al.	

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	Examiner Angela M DiTrani	Art Unit 3676

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CLAIM		DATE							
Final	Original	04/27/2007	10/15/2007	08/18/2008	03/04/2009	05/14/2009	05/08/2010		
	1	N	N	N	N	N	N		
	2	N	N	N	N	N	N		
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	8	N	N	N	N	N	N		
	9	N	N	N	N	N	N		
	10	N	N	N	N	N	N		
	11	✓	✓	✓	✓	✓	✓		
	12	✓	✓	✓	✓	✓	✓		
	13	✓	✓	✓	✓	✓	✓		
	14	✓	✓	✓	✓	✓	✓		
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	18	✓	✓	✓	✓	✓	✓		
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	27	✓	✓	✓	✓	✓	✓		
	28	✓	✓	✓	✓	✓	✓		
	29	✓	✓	✓	✓	✓	✓		
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	32	✓	✓	✓	✓	✓	✓		
	33	✓	✓	✓	✓	✓	-		
	34	N	N	N	N	N	N		
	35	N	N	N	N	N	N		
	36	N	N	N	N	N	N		

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Final	Original	04/27/2007	10/15/2007	08/18/2008	03/04/2009	05/14/2009	05/08/2010			
	37	N	N	N	N	N	N			
	38	N	N	N	N	N	N			
	39	N	N	N	N	N	N			
	40			✓	✓	✓	✓			
	41			✓	✓	✓	✓			
	42			✓	✓	✓	✓			
	43				✓	✓	✓			
	44						✓			

Search Notes 	Application/Control No. 11291496	Applicant(s)/Patent Under Reexamination MCNEEL ET AL.
	Examiner Angela M DiTrani	Art Unit 3676

SEARCHED			
Class	Subclass	Date	Examiner
166	90.1	04/23/10	AD
137	562.29, 572, 597, 861, 897 (text only)	04/23/10	AD

SEARCH NOTES		
Search Notes	Date	Examiner
Search in EAST and Google Patents (see search history)		KWL
Consulted primary examiners G Suchfield and H Dang and SPE J Gay		KWL
East text search (US-PGPUB, USOCR, USPAT, EPO, JPO, DERWENT, IBM_TDB)	03/02/09	AD
East text search (US-PGPUB, USOCR, USPAT, EPO, JPO, DERWENT, IBM_TDB)	05/13/09	AD
East text search (US-PGPUB, USOCR, USPAT, EPO, JPO, DERWENT, IBM_TDB)	04/23/10	AD
East text search (US-PGPUB, USOCR, USPAT, EPO, JPO, DERWENT, IBM_TDB)	05/06/2010	AD

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

/Angela M DiTrani/ Examiner.Art Unit 3676	
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Receipt date: 04/20/2010

11291496 - CALL: 3676

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2012. OMB 0651-0031
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U.S.PATENTS						
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	1	Notice of Allowance for U.S. Patent Application No. 11/691,623 dated February 18, 2010	☐
	2	Notice of Allowance for U.S. Patent Application No. 11/545,749 dated April 5, 2010	☐

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	1	2758653		1956-08-14	Desbrow	
	2	3062286		1962-11-06	Wyllie	
	3	3537529		1970-11-03	Timmerman	
	4	3933205		1976-01-20	Kiel	
	5	4050529		1977-09-27	Tagirov, et al.	
	6	4733567		1988-03-29	Serata	
	7	4974675		1990-12-04	Austin, et al.	
	8	5111881		1992-05-12	Soliman, et al.	

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9	5494103		1996-02-27	Surjaatmadja, et al.	
10	5499678		1996-03-19	Surjaatmadja, et al.	
11	6729394		2004-05-04	Hassan, et al.	
12	7225869		2007-06-05	Willett, et al.	
13	7431090		2008-10-07	Surjaatmadja, et al.	
14	7445045		2008-11-04	East, Jr., et al.	

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	1	20050121196	A1	2005-06-09	East, Loyd E. Jr., et al.	
	2	20050211439	A1	2005-09-29	Willett, Ronald M., et al.	
	3	20060185848	A1	2006-08-24	Surjaatmadja, Jim B., et al.	

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4	20070116546	A1	2007-05-24	Dearing, Mike	
5	20090050311	A1	2009-02-26	Crawford, James B.	

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	Examiner Name	Angela Ditrani
	Attorney Docket Number	2005-IP-018647U1

U.S.PATENTS								
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear		
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Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear		
	1	20090194273	A1	2009-08-06	Surjaatmadja			
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FOREIGN PATENT DOCUMENTS								
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Receipt date: 08/24/2009

11291496 - GAU: 3676

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	11291496
	Filing Date	2005-12-01
	First Named Inventor	Lloyd McNeel
	Art Unit	3676
	Examiner Name	Angela DiTrani
	Attorney Docket Number	2005-IP-018647U1

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If you wish to add additional non-patent literature document citation information please click the Add button			
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Examiner Signature	/Angela DiTrani/	Date Considered	05/08/2010
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¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.			

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Receipt date: 10/09/2009

11291496 - GAU: 3676

Doc code :IDS

Doc description: Information Disclosure Statement (IDS) Filed

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PTO/SB/08a (03-08)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		11291496
	Filing Date		2005-12-01
	First Named Inventor	Lloyd McNeel	
	Art Unit	3676	
	Examiner Name	Angela Ditrani	
	Attorney Docket Number	2005-IP-018647U1	

U.S.PATENTS								
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear		
	1	6991037		2006-01-31	Hockinig			
	2	7391675		2008-06-24	Drew			
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	First Named Inventor	Lloyd McNeel	
	Art Unit	3676	
	Examiner Name	Angela Ditrani	
	Attorney Docket Number	2005-IP-018647U1	

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Office Action for U.S. Patent Application No. 11/873,186, dated October 5, 2009	☐
	2	Office Action for U.S. Patent Application No. 11/873,160, dated October 1, 2009	☐

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Examiner Signature	/Angela Ditrani/	Date Considered	05/08/2010
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¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

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Receipt date: 11/30/2009

11291496 - GAU: 3676

Doc code :IDS

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PTO/SB/08a (03-08)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		11291496
	Filing Date		2005-12-01
	First Named Inventor	McNeel	
	Art Unit	3676	
	Examiner Name	Angela Ditrani	
	Attorney Docket Number	2005-IP-018647U1	

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Receipt date: 11/30/2009

11291496 - GAU: 3676

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	Filing Date		2005-12-01
	First Named Inventor	McNeel	
	Art Unit	3676	
	Examiner Name	Angela DiTrani	
	Attorney Docket Number	2005-IP-018647U1	

1	International Preliminary Report on Patentability from PCT/GB2008/001044, dated October 8, 2009	☐
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EXAMINER SIGNATURE		
Examiner Signature	/Angela DiTrani/	Date Considered 05/08/2010
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Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		11291496
	Filing Date		2005-12-01
	First Named Inventor	McNeel	
	Art Unit	3676	
	Examiner Name	DiTrani, Angela M.	
	Attorney Docket Number	2005-IP-018647U1	

U.S.PATENTS								
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If you wish to add additional U.S. Patent citation information please click the Add button.								
U.S.PATENT APPLICATION PUBLICATIONS								
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		11291496
	Filing Date		2005-12-01
	First Named Inventor	McNeel	
	Art Unit	3676	
	Examiner Name	DiTrani, Angela M.	
	Attorney Docket Number	2005-IP-018647U1	

1	Office Action from U.S. Application Serial No. 11/873,160 dated May 24, 2010	☐
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Examiner Signature		Date Considered
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	11291496
	Filing Date	2005-12-01
	First Named Inventor	McNeel
	Art Unit	3676
	Examiner Name	DiTrani, Angela M.
	Attorney Docket Number	2005-IP-018647U1

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☒ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ None

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	<i>Larissa Piccardo</i>	Date (YYYY-MM-DD)	2010-06-14
Name/Print	Larissa Piccardo	Registration Number	60,448

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Electronic Patent Application Fee Transmittal				
Application Number:		11291496		
Filing Date:		01-Dec-2005		
Title of Invention:		Method and apparatus for centralized well treatment		
First Named Inventor/Applicant Name:		William Lloyd McNeel		
Filer:		Elizabeth L. Durham/Nicci Fowler		
Attorney Docket Number:		2005-IP-018647U1		
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
Total in USD (\$)				180

Electronic Acknowledgement Receipt	
EFS ID:	7807075
Application Number:	11291496
International Application Number:	
Confirmation Number:	7986
Title of Invention:	Method and apparatus for centralized well treatment
First Named Inventor/Applicant Name:	William Lloyd McNeel
Customer Number:	29920
Filer:	Elizabeth L. Durham/Nicci Fowler
Filer Authorized By:	Elizabeth L. Durham
Attorney Docket Number:	2005-IP-018647U1
Receipt Date:	14-JUN-2010
Filing Date:	01-DEC-2005
Time Stamp:	15:25:13
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$180
RAM confirmation Number	1855
Deposit Account	020383
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

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File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		063718-0930-IDS.PDF	137603 4087d8e8fb41d6c281a75fbd0a2cfa6f18e ead	yes	3
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Information Disclosure Statement (IDS) Filed (SB/08)		1	2	
	Transmittal Letter		3	3	
Warnings:					
Information:					
2	NPL Documents	063718-0930-Ref1.PDF	1190276 b1e2d5a2c9cf3ed2893ed5f7a78449c279e c300	no	26
Warnings:					
Information:					
3	Fee Worksheet (PTO-875)	fee-info.pdf	30062 da053281fd9ad7d453dedff67e5cd06206e3 07b0	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			1357941		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

Reply under 37 CFR 1.116 — Expedited Procedure - Technology Center 3600

Application Serial No. 11/291,496
Attorney Docket No. 2005-IP-018647U1
(086108-0102)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE RESPONSE TO OFFICE ACTION		
First Named Inventor: William L. McNeel	Docket Number: 2005-IP-018647U1	
Application Number: 11/291,496	Art Unit: 3676	Conf. Number: 7986
Filing Date: December 1, 2005	Examiner: Angela Ditrani	
Title: Method and Apparatus for Centralized Well Treatment		

MAIL STOP RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUBMISSION WITH REQUEST FOR CONTINUED EXAMINATION

Dear Honorable Commissioner:

In response to the Final Office Action mailed on May 13, 2010, (the "Final Office Action"), Applicants submit the following:

Amendments to the Claims, which begin on page 2 of this paper; and

Remarks/Arguments, which begin on page 10 of this paper.

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Claims:

1. (Withdrawn) A method of stimulating multiple wells from a central location, comprising the steps of:

stimulating a first well from the central location using a first stimulation fluid through a first fluid line; and

simultaneously stimulating a second well from the central location using a second stimulation fluid through a second fluid line.

2. (Withdrawn-Previously Presented) The method of claim 1 wherein the first stimulation fluid comprises at least one compound selected from the group consisting of: a proppant, a fracturing fluid, a gelling agent, a friction reducer, an acid, and a derivative thereof.

3. (Withdrawn-Previously Presented) The method of claim 1 wherein the second stimulation fluid comprises at least one compound selected from the group consisting of: a proppant, a fracturing fluid, a gelling agent, a friction reducer, an acid, and a derivative thereof.

4. (Withdrawn) The method of claim 1 wherein the first stimulation fluid and the second stimulation fluid have the same composition.

5. (Withdrawn) A method of stimulating multiple wells comprising the steps of:

stimulating a first well location through a first stimulation fluid from a central manifold; and

simultaneously stimulating a second well location through a second stimulation fluid from the central manifold.

6. (Withdrawn-Previously Presented) The method of claim 5 wherein the first stimulation fluid comprises at least one compound selected from the group consisting of: a proppant, a fracturing fluid, a gelling agent, a friction reducer, an acid, and a derivative thereof.

7. (Withdrawn-Previously Presented) The method of claim 5 wherein the second stimulation fluid comprises at least one compound selected from the group consisting of: a proppant, a fracturing fluid, a gelling agent, a friction reducer, an acid, and a derivative thereof.

8. (Withdrawn) The method according to claim 5 wherein the first well location and the second well location are at the same pad.

9. (Withdrawn) The method according to claim 5 wherein the first well location and the second well location are at different pads.

10. (Withdrawn) The method of claim 5 wherein the first stimulation fluid and the second stimulation fluid have the same composition.

11. (Currently Amended) A system for centralized well operations comprising:
a well treatment operations factory which manufactures and pumps a well stimulation fluid;

a first connection between a first well ~~location~~ and the well operations factory;

a second connection between a second well ~~location~~ and the well operations factory; and

means for simultaneously flowing:

a first stimulation fluid to the first well ~~location~~ and not to the second well ~~location~~; and

a second stimulation fluid to the second well ~~location~~ and not to the first well ~~location~~;

wherein the first stimulation fluid and the second stimulation fluid have different compositions.

12. (Original) The system of claim 11 wherein the means for simultaneously flowing treatment fluid comprises a manifold.

13. (Original) The system of claim 12 wherein the well operations factory comprises a pumping grid wherein the pumping grid is operable to connect to the manifold.

14. (Original) The system of claim 13 wherein the well operations factory comprises a blending unit wherein the blending unit is operable to connect to the pumping grid.

15. (Previously Presented) The system of claim 14 wherein the well operations factory comprises a proppant storage system wherein the proppant storage system is operable to deliver proppant to the blending unit.

16. (Original) The system of claim 14 wherein the well operations factory comprises a chemical storage system wherein the chemical storage system is operable to connect to the blending unit.

17. (Currently Amended) The system of claim 15 wherein the well operations factory comprises a power unit operable to connect to the manifold, pumping grid, blending unit, the proppant storage system, the first well ~~location~~, and the second well ~~location~~.

18. (Currently Amended) The system of claim 16 wherein the well operations factory comprises a power unit operable to connect to the manifold, pumping grid, blending unit, chemical storage system, the first well ~~location~~, and the second well ~~location~~.

19. (Original) The system of claim 17 wherein the well operations factory is enclosed in a structure selected from the group consisting of: a supported fabric structure, a collapsible structure, a prefabricated structure, a retractable structure, a composite structure, a temporary structure, a prefabricated wall and roof structure, a deployable structure, a modular structure, a preformed structure, a mobile accommodation structure, and combinations thereof.

20. (Currently Amended) The system of claim 12 wherein the first connection is operable to deliver a fluid from the first well ~~location~~ to the manifold.

21. (Currently Amended) The system of claim 12 wherein the second connection is operable to deliver a fluid from the second well ~~location~~ to the manifold.

22. (Original) The system of claim 20 wherein the fluid comprises a stimulation fluid.

23. (Original) The system of claim 21 wherein the fluid comprises a stimulation fluid.

24. (Original) The system of claim 12 wherein the manifold is connected to a second manifold.

25. (Currently Amended) The system of claim 24 wherein the second manifold is operable to simultaneously flow a first stimulation fluid to a the first well ~~location~~ and a second stimulation fluid to a the second well ~~location~~.

26. (Currently Amended) The system of claim 12 comprising a third connection between the manifold and the first well ~~location~~.

27. (Currently Amended) The system of claim 26 wherein the third connection is operable to deliver a fluid from the first well ~~location~~ to the manifold.

28. (Currently Amended) The system of claim 27 comprising a fourth connection between the manifold and the second well ~~location~~.

29. (Currently Amended) The system of claim 28 wherein the fourth connection is operable to deliver a fluid from the second well ~~location~~ to the manifold.

30. (Original) The system of claim 11 wherein the well operations factory and means for simultaneously flowing treatment fluid are located on a boat.

31. (Previously Presented) The system of claim 11 wherein the first fluid comprises at least one compound selected from the group consisting of: a proppant, a fracturing fluid, a gelling agent, a friction reducer, an acid, and a derivative thereof.

32. (Previously Presented) The system of claim 11 wherein the second stimulation fluid comprises at least one compound selected from the group consisting of: a proppant, a fracturing fluid, a gelling agent, a friction reducer, an acid, and a derivative thereof.

33. (Canceled)

34. (Withdrawn) An apparatus for directing stimulation fluid comprising:
a first input for accepting pressurized stimulation fluid;
a first line connected to said first input, said first line comprising:
a first valve connected to a first pressure sensor, said first pressure sensor further connected to a second valve;
said first line connected to a first wellhead;
a second line connected to said first input, said second line comprising
a third valve connected to a second pressure sensor, said second pressure sensor further connected to a fourth valve;
said second line connected to a second wellhead.
35. (Withdrawn) An apparatus for directing stimulation fluid comprising:
a first input for accepting a first pressurized stimulation fluid;
a second input for accepting a second pressurized stimulation fluid;
a first line connected to said first input, said first line comprising a first valve;
a second line connected to said second input, said second line comprising a second valve;
said first line and said second line connected together at a first junction, said first junction further connected to a first wellhead;
a third line connected to said first input, said third line comprising a third valve;
a fourth line connected to said second input, said fourth line comprising a fourth valve; and
said third line and said fourth line connected together at a second junction, said second junction further connected to a second wellhead.
36. (Withdrawn) The apparatus according to claim 35 wherein
said first line further comprises a fifth valve and a first pressure sensor, said first pressure sensor located between said first valve and said fifth valve.

37. (Withdrawn) The apparatus according to claim 36 wherein
said second line further comprises a sixth valve and a second pressure
sensor, said second pressure sensor located between said second valve and said sixth
valve.
38. (Withdrawn) The apparatus according to claim 37 wherein
said third line further comprises a seventh valve and a third pressure
sensor, said third pressure sensor located between said third valve and said seventh
valve.
39. (Withdrawn) The apparatus according to claim 38 wherein
said fourth line further comprises an eighth valve and a fourth pressure
sensor, said fourth pressure sensor located between said fourth valve and said eighth
valve.
40. (Currently Amended) A system for centralized well operations comprising:
a well treatment operations factory which manufactures and pumps a well
stimulation fluid;
a first connection between a first pad and the well operations factory,
wherein the first pad has a first well;
a second connection between a second pad and the well operations
factory, wherein the second pad has a second well; and
means for simultaneously flowing:
a first stimulation fluid to the first pad and not to the second pad;
and
a second stimulation fluid to the second pad and not to the first pad;
wherein the first stimulation fluid and the second stimulation fluid have
different compositions.

41. (Currently Amended) A system for centralized well operations comprising:
- a well treatment operations factory which dynamically manufactures and pumps a well stimulation fluid;
 - a first connection between a first well ~~location~~ and the well operations factory;
 - a second connection between a second well ~~location~~ and the well operations factory; and
 - means for simultaneously flowing:
 - a first stimulation fluid to the first well ~~location~~ and not to the second well ~~location~~; and
 - a second stimulation fluid to the second well ~~location~~ and not to the first well ~~location~~;
 - wherein the first stimulation fluid and the second stimulation fluid have different compositions.
42. (Currently Amended) The system of claim 11, wherein the ~~well locations~~ are wells are on separate pads and wherein the well treatment operations factory dynamically manufactures and pumps a well stimulation fluid.

43. (Currently Amended) A system for centralized well operations comprising:
a well treatment operations factory which manufactures and pumps a well stimulation fluid;
a first connection between ~~a first well location having~~ a first plurality of wells and the well operations factory;
a second connection between ~~a second well location having~~ a second plurality of wells and the well operations factory; and
means for simultaneously flowing:
a first stimulation fluid to the first ~~well location~~ plurality of wells and not to the second ~~well location~~ plurality of wells; and
a second stimulation fluid to the second ~~well location~~ plurality of wells and not to the first ~~well location~~ plurality of wells;
wherein the first stimulation fluid and the second stimulation fluid have different compositions.

44. (Currently Amended) A system for centralized well operations comprising:
a well treatment operations factory capable of manufacturing and simultaneously pumping a plurality of well stimulation fluids;
a first connection between a first well ~~location~~ and the well operations factory;
a second connection between a second well ~~location~~ and the well operations factory; and
means for simultaneously flowing:
a first stimulation fluid to the first well ~~location~~ and not to the second well ~~location~~; and
a second stimulation fluid to the second well ~~location~~ and not to the first well ~~location~~.

REMARKS / ARGUMENTS

I. General Remarks and Disposition of the Claims

Please consider the application in view of the following remarks. Applicants thank the Examiner for careful consideration of this application, including the references that Applicants have submitted in this case.

At the time of the Office Action, claims 1-32 and 34-44 were pending in this application. Of these, claims 1-10 and 34-39 were indicated as withdrawn. Claims 11-32 and 40-44 were rejected in the Office Action. By this paper, claims 11, 17, 18, 20, 21, 25-29, and 40-44 have been amended. These amendments are supported by the specification as filed. All the amendments are made in a good faith effort to advance the prosecution on the merits of this case. It should not be assumed that the amendments made herein were made for reasons related to patentability. Applicants respectfully request that the above amendments be entered and further request reconsideration in light of the amendments and remarks contained herein.

II. Remarks Regarding Double-Patenting Rejections

Claims 1-33 and 40-43 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of co-pending U.S. Application Serial No. 11/873,186. As this rejection is provisional in nature, Applicants will hold in abeyance their response until allowable subject matter is indicated.

III. Remarks Regarding Rejections under 35 U.S.C. § 102

Claims 11-23, 31-32, 41, and 44 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Albers et al. (US 2006/0243437). Applicants respectfully disagree. Applicants submit that the cited reference does not disclose each and every limitation of claims 11-23, 31-32, 41, and 44, as required to anticipate these claims under 35 U.S.C. § 102(a, b, or e). See MPEP § 2131.

In particular, with respect to amended independent claims 11, 41, and 44, Albers fails to disclose a first well and a second well. The Office Action indicates “a first well location” as “wellhead connection via 13” and “a second well location” as “wellhead connection via 13a.” For clarification, Applicants have removed the word “location” from

claims 11, 41, and 44. Because the amended independent claims each require at least two wells, and multiple wells are not shown by “wellhead connection via 13” and “wellhead connection via 13a,” the cited reference does not disclose each and every limitation of these claims. Claims 12-23, and 31-32 depend from claim 11 and are allowable for at least the same reasons.

Therefore, Applicants respectfully assert that independent claims 11, 41, and 44 and claims dependent therefrom are not anticipated by Albers. Accordingly, Applicants respectfully request withdrawal of this rejection with respect to claims 11-23, 31-32, 41, and 44.

IV. Remarks Regarding Rejections under 35 U.S.C. § 103(a)

A. Claims 24-30

Claims 24-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Albers et al. Applicants respectfully disagree.

In order for a reference or combination of references to form the basis for a rejection under § 103(a), the reference or combination of references must establish that every limitation of the claim was known in the prior art. As discussed above in Section III, Albers fails to establish that every limitation of independent claim 11 was known in the prior art. Nor has any motivation or other apparent reason known to a person of skill in the art for such a modification been provided. Claims 24-30 depend, either directly or indirectly, from claim 11 and therefore include all the limitations of that independent claim. Thus, claims 24-30 are patentable over Albers for at least the reasons cited above in regard to claim 11. See 35 U.S.C. § 112 4 (2004). Accordingly, for at least these reasons, Applicants respectfully request withdrawal of this rejection with respect to claims 24-30.

B. Claim 42

Claim 42 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Albers et al. as applied to independent claim 11 above, and further in view of Hassan et al. (US 6,729,394). Applicants respectfully disagree.

In order for a reference or combination of references to form the basis for a rejection under § 103(a), the reference or combination of references must establish that

every limitation of the claim was known in the prior art. As discussed above in Section III, Albers fails to establish that every limitation of independent claim 11 was known in the prior art. Moreover, Hassan fails to render obvious the deficiencies of Albers. Rather, the Examiner merely relied on Hassan for its alleged teaching of "wherein the well locations are well pads." Further, the motivation to combine references cited in the Office Action: "in order to eliminate the need to complete multiple well bores," is contrary to the recitation of a first well and a second well in claim 11. Claim 42 depends directly from claim 11 and therefore includes all the limitations of that independent claim. Thus, claim 42 is patentable over the combination of Albers and Hassan. See 35 U.S.C. § 112 4 (2004). Accordingly, for at least these reasons, Applicants respectfully request withdrawal of this rejection with respect to claim 42.

C. Claim 40

Claim 40 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Albers et al. in view of Hassan et al. Applicants respectfully disagree.

Claim 40, as amended recites a first well and a second well. For reasons analogous to those indicated in Section III, these features are not described by Albers. Moreover, Hassan fails to render obvious the deficiencies of Albers. Rather, the Examiner merely relied on Hassan for its alleged teaching of "wherein the well locations are first and second well pads." Further, the motivation to combine references cited in the Office Action: "in order to eliminate the need to complete multiple well bores," is contrary to the recitation of a first well and a second well in claim 40. Thus, claim 40 is patentable over the combination of Albers and Hassan. See 35 U.S.C. § 112 4 (2004). Accordingly, for at least these reasons, Applicants respectfully request withdrawal of this rejection with respect to claim 40.

D. Claim 43

Claim 43 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Albers et al. Applicants respectfully disagree.

In order for a reference or combination of references to form the basis for a rejection under § 103(a), the reference or combination of references must establish that every limitation of the claim was known in the prior art. For reasons analogous to those

discussed above in Section III, Albers fails to establish that every limitation of independent claim 43 was known in the prior art. In particular, amended claim 43 recites a first plurality of wells and a second plurality of wells. The Office Action explicitly states that Albers fails to "explicitly disclose wherein the first well location has a plurality of wells and the second well location has a second plurality of wells." Rather, the Office Action states that "it would have been obvious to one having ordinary skill to further expand upon the system disclosed by Albers et al. so as to include a first plurality of wells and a second plurality of wells in order to provide a system capable of fracturing a given formation at multiple locations via each of the plurality of wells."

Albers fails to teach or suggest "a first plurality of wells," and also fails to teach or suggest "a second plurality of wells," as recited by independent claim 43. In contrast, Albers discloses a method involving placing materials into wellhead connection via 13 and into wellhead connection via 13a without any discussion of pluralities of wells. Accordingly, Albers fails to establish that every limitation of independent claim 43 was known in the prior art. The assertion that a first plurality of wells and a second plurality of wells would be obvious "in order to provide a system capable of fracturing a given formation at multiple locations via each of the plurality of wells" appears to arise from impermissible hindsight reasoning based on the instant disclosure rather than from facts gleaned from the prior art. See M.P.E.P. § 2142 ("The tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.")

Additionally, if the Examiner is relying upon "common knowledge" or "well known" principles to establish the rejection, Applicants request that a reference be provided in support of this position pursuant to MPEP § 2144.03. Furthermore, to the extent that the Examiner maintains any rejection based on an "Official Notice" or other information within the Examiner's personal knowledge, Applicants respectfully request that the Examiner cite a reference as documentary evidence in support of this position or provide an affidavit in accordance with MPEP § 2144.03 and 37 C.F.R. 1.104(d)(2). Therefore, Applicants respectfully assert that independent claim 43 is not rendered

obvious by Albers. Accordingly, Applicants respectfully request withdrawal of this rejection with respect to claim 43.

V. No Waiver

All of Applicants' arguments and amendments are without prejudice or disclaimer. Additionally, Applicants have merely discussed example distinctions from the cited references. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements, such as, for example, any statements relating to what would be obvious to a person of ordinary skill in the art.

VI. Conclusion

In light of the above amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants submit herewith the fee of \$810 for a Request for Continued Examination. Should the Commissioner deem that any fees are due, including any fees for extensions of time, Applicants respectfully request that the Commissioner accept this as a Petition Therefore, and direct that any additional fees be charged to McDermott Will & Emery's Deposit Account No. 500417, Order Number 086108-0102.

Respectfully submitted,

/Melody B. Wirz/

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Date: August 10, 2010

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number	11/291,496
	Filing Date	12/1/2005
	First Named Inventor	William Lloyd McNeel
	Confirmation Number	7986
	Client Number	86108
Page 1 of 2		Matter Number 102

U.S. PATENT DOCUMENTS				
Initials	Cite No.	Document Number	Issue/Publication Date	First Named Inventor
	1	7711487	5/4/2010	Surjaatmadja
	2	20080083531	4/10/2008	Surjaatmadja
	3	3455391	7/15/1969	Matthews
	4	3556218	1/19/1971	Talley
	5	3578080	5/11/1971	Closmann
	6	3682246	8/8/1972	Closmann
	7	3822747	7/9/1974	Maguire
	8	4635723	1/13/1987	Spivey
	9	5228510	7/20/1993	Jennings#s#Jr
	10	6935424	8/30/2005	Lehman

OTHER DOCUMENTS		
Initials	Cite No.	Author, Title, Date, Pages, etc.
	1	International Search Report for International Application No. PCT/GB2007/000677 06/11/07.
	2	Office Action for Application Serial No. 11/396,918 dated January 25, 2008.
	3	Search Report and Written Opinion for International Application No. PCT/ GB2008/001730 dated May 21, 2008.
	4	Notice of Allowance for U.S. Patent No. 11/691,623 dated July 26, 2010.

Examiner Signature		Date Considered	
Examiner: Please initial if citation considered, whether or not citation is in conformance with MPEP Section 609. Please draw a line through the citation if it is not in conformance and it is not considered. Please include a copy of this form with the next communication to the applicant.			

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number	11/291,496
	Filing Date	12/1/2005
	First Named Inventor	William Lloyd McNeel
	Confirmation Number	7986
	Client Number	86108
Page 2 of 2	Matter Number	102

TIMING
In accordance with 37 CFR 1.97(b), this Information Disclosure Statement is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits; or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.1114.

CERTIFICATION STATEMENT
No certification statement is required. This Information Disclosure Statement is being filed in accordance with 37 CFR 1.97(b).

FEE
No fee is required. This Information Disclosure Statement is being filed in accordance with 37 CFR 1.97(b).

SIGNATURE			
Signature	/ Melody Wirz /	Date	8/10/2010
Name	Melody Wirz	Registration Number	53783

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To: AA THORNTON & CO. Attn: Curtis, Philip Anthony 235 High Holborn London WC1V 7LE GRANDE BRETAGNE	RECEIVED - 8 JUN 2007 <i>PAC</i>
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NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference PAC/26021 WO	Date of mailing (day/month/year) 11/06/2007
International application No. PCT/GB2007/000677	International filing date (day/month/year) 27/02/2007
Applicant HALLIBURTON ENERGY SERVICES, INC.	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 18:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):
 When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
 1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
 - ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after the expiration of 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within 18 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise, the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the PCT Applicant's Guide, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority European Patent Office, P.O. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel: (+31-70) 340-2040, Tx: 31 851 epo nl, Fax: (+31-70) 340-3016	Authorized officer Paulina Danissen
--	---

Form PCT/ISA/220 (October 2005)

(See notes on accompanying sheet)

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the International Searching Authority, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purpose of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see *PCT Applicant's Guide*, Volume IA, Annexes B1 and B2).

The attention of the applicant is drawn to the fact that amendments to the claims under Article 19 are not allowed where the International Searching Authority has declared, under Article 17(2), that no international search report would be established (see *PCT Applicant's Guide*, Volume IA, paragraph 296).

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PAC/26021 WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, Item 5 below.	
International application No. PCT/GB2007/000677	International filing date (day/month/year) 27/02/2007	(Earliest) Priority Date (day/month/year) 27/02/2006
Applicant HALLIBURTON ENERGY SERVICES, INC.		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International search report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☒ Certain claims were found unsearchable (See Box No. II)

3. ☐ Unity of invention is lacking (see Box No. III)

4. With regard to the title,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- ☐ the text is approved as submitted by the applicant
☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 1
☐ as suggested by the applicant
☒ as selected by this Authority, because the applicant failed to suggest a figure
☐ as selected by this Authority, because this figure better characterizes the invention
- b. ☐ none of the figures is to be published with the abstract

Form PCT/ISA/210 (first sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2007/000677

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

An apparatus for manufacturing well treatment fluid is disclosed that includes a proppant storage and metering unit (106); a chemical storage and metering unit (112) connected to a blending unit (105); and an electronic control system connected to the proppant storage and metering unit, the chemical storage and metering unit, and the blending unit; wherein the proppant storage and metering unit, chemical storage and metering unit, and blending unit are contained in a single land-based enclosure. A method for manufacturing well treatment fluid is disclosed that includes delivering to a blending unit a desired rate of proppant by weighing a proppant storage and metering unit storing the proppant; and adjusting the size of a calibrated aperture on the proppant storage and metering unit. A method for manufacturing multiple well treatment fluids at a single location is disclosed. Methods of monitoring the usage of well treatment components during the manufacture of well treatment components are disclosed.

Form PCT/ISA/210 (continuation of first sheet (3)) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB2007/000677

A. CLASSIFICATION OF SUBJECT MATTER
 INV. E21B43/267 E21B21/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 E21B B01F G05D G05B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 014 218 A (CRAIN STEPHEN F [US] ET AL) 7 May 1991 (1991-05-07) column 3, line 14 - line 48; figure 1	1-24, 31-40
X	US 4 265 266 A (KIERBOW GERALD C ET AL) 5 May 1981 (1981-05-05) column 15, lines 18-43; figures 1-4	25-30, 35-40
A	EP 0 508 817 A (HALLIBURTON CO [US]) 14 October 1992 (1992-10-14) the whole document	3, 8, 27, 30
A	EP 0 124 251 A (HALLIBURTON CO [US]) 7 November 1984 (1984-11-07) the whole document	1
----- -/-		

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claims or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *Z* document member of the same patent family

Date of the actual completion of the international search

30 May 2007

Date of mailing of the international search report

11/06/2007

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HW Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 851 opo nl,
 Fax: (+31-70) 340-3015

Authorized officer

Ott, Stéphane

Form PCTISA/2:0 (second sheet) (April 2006)

page 1 of 2

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB2007/000677

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2004/007894 A (COODY RICHARD L [US]; CHALMERS MARC A [US]) 22 January 2004 (2004-01-22) the whole document	1
A	US 4 353 482 A (TOMLINSON HARVARD L ET AL) 12 October 1982 (1982-10-12) the whole document	1

2

Form PCT/ISA/210 (continuation of second sheet) (April 2006)

page 2 of 2

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 41

Rule 39.1 (iii) methods of doing business

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2007/000677

Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 41
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (2)) (January 2004)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/GB2007/000677

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5014218	A	07-05-1991	NONE	
US 4265266	A	05-05-1981	NONE	
EP 0508817	A	14-10-1992	AU 643376 B2 AU 1409292 A CA 2065825 A1 NO 921402 A US 5195824 A	11-11-1993 15-10-1992 13-10-1992 13-10-1992 23-03-1993
EP 0124251	A	07-11-1984	AU 566287 B2 AU 2587684 A CA 1211532 A1 US 4538221 A	15-10-1987 11-10-1984 16-09-1986 27-08-1985
WO 2004007894	A	22-01-2004	AU 2003260800 A1	02-02-2004
US 4353482	A	12-10-1982	NONE	

Form PCT/ISA/210 (patent family sheet) (April 2006)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2007/000677

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Form PCT/ISA/237 (April 2005)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/GB2007/000677

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of

☐ the entire international application

☒ claims Nos. 41

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international search (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (*specify*):

☒ no international search report has been established for the whole application or for said claims Nos. 41

☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:

☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13ter.1(a) or (b).

☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-bis of the Administrative Instructions, and such tables were not available to the International Searching Authority in a form and manner acceptable to it.

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/GB2007/000677

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has, within the applicable time limit:
- ☐ paid additional fees
 - ☐ paid additional fees under protest and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☐ not paid additional fees
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-40

Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>3, 8-12, 15-34</u>
	No: Claims	<u>1, 2, 4-7, 13, 14, 35-40</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-40</u>
Industrial applicability (IA)	Yes: Claims	<u>1-40</u>
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2007/000677

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Form PCT/ISA/237 (April 2005)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2007/000677

POINT IV

Independent claims 1, 25, 28, 31, 35, 37, 39 are not linked so as to form a single general inventive concept, as no corresponding special technical feature can be found among the subject-matter of said claims (see also POINT V below).

POINT V

V-1. *Reference is made to the following documents:*

D1: US-5014218

D2: US-4265266

D3: EP-0508817

V-2. D1 discloses an apparatus for manufacturing well treatment fluid comprising:

a proppant storage and metering unit (212);

a chemical storage and metering unit (206) connected to a blending unit (204);

and

an electronic control system (228) connected to the proppant storage and metering unit, the chemical storage and metering unit, and the blending unit;

wherein the proppant storage and metering unit, chemical storage and metering unit, and blending unit are contained in a land-based enclosure (202, see also col.3, l.45-48).

The subject-matter of independent claim 1 does not meet the requirements of novelty in the sense of Art. 33(2) PCT.

V-3. D2 discloses a method for manufacturing well treatment fluid comprising:

delivering to a blending unit (86) a desired rate of material by

weighing a material storage and metering unit storing the material (col.18, l.59 - col.19, l.2); and

delivering chemicals from a chemical storage and metering unit to the blending unit; and

combining the material and chemicals in the blending unit (fig.4).

The subject-matter of claim 25 differs from the disclosure of D2 in that the material is proppant and that the size of a calibrated aperture on the proppant storage and metering unit is adjusted. This difference does nevertheless not involve an inventive step as the skilled man would have considered the apparatus of D2 for use with proppant and the adjustment of the calibrated aperture is an well-known

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2007/000677

equivalent of the system (screw 228) of D2 for regulating the delivery of material. The subject-matter of independent claim 25 does therefore not meet the requirements of inventive step in the sense of Art. 33(3) PCT.

V-4. The subject-matter of independent claims 28 does not further meet the requirements of inventive step in the sense of Art. 33(3) PCT in the light of D2 for similar reasons as above. The subject-matter of independent claim 31 is not inventive in the light of D1 in the sense of Art. 33(2) PCT. D1 and D2 both disclose the subject-matter of independent claims 35, 37 and 39 (see D1: col.7, l.65 - col.8, l.1 or D2: col.18, l.59 - col.19, l.2) which does not meet the requirements of novelty in the sense of Art. 33(2) PCT.

V-5. D1 also discloses the subject-matter of dependent claims 2, 4, 5, 6, 7, 13 and 14, 36, 38, 40 as the following shows:

- 2 : see fig.1, col.3, l.45-48;
- 4 : col.7, l.65 - col.8, l.1;
- 5 : 208, 210;
- 6 : col.1, l.63 - col.2, l.1;
- 7 : col.4, l.1-2;
- 13 : the proppant is necessarily subjected to gravity;
- 14 : mobile accommodation structure: blender trailer col.3, l.45-48;
- 36 : proppant;
- 38 : proppant;
- 40 : proppant;

The subject-matter of claims 2, 4-7, 13, 14, 36, 38, 40 do not meet the requirements of novelty in the sense of Art. 33(2) PCT.

V-6. Dependent claims 3, 8-12, 15-24, 26, 27, 29, 30, 32-34 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (see PCT Guidelines PCT/GL/ISPE/1 13.05: juxtaposition of features).

POINT VII

When filing amended claims, the applicant is requested to state in the letter of reply why the subject-matter of the independent claims involves an inventive step (Art. 33(2) EPC), preferably using the "problem-solution approach" ((see Guidelines

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2007/000677

PCT/GL/ISPE/1 13.07), over the prior art D1-D3. The applicant is further requested to take the following into account:

- Rule 5.1a)ii) PCT: background art D1-D3 should be indicated in the description.
- Rule 6.3b)i) and ii) PCT: correct two part form of independent claims with regard to D1, D2 or D3.
- Rule 6.2 b) PCT in combination with Guidelines PCT/GL/ISPE/1 5.11: reference numbers.
- Art. 6 PCT in combination with Guidelines PCT/GL/ISPE/1 5.30 : a statement in the description p.14 l.3-6 has to excised.
- Rule 5.1a)iii) PCT: description in conformity with the new claims.
- Article 34 (2) b) PCT: the applicants are requested to identify in their reply those passages of the application as originally filed which form a basis for the amendments. For the sake of efficiency, it is requested that an additional copy containing **handwritten** amendments be forwarded together with any clear copy replacement pages.

RECEIVED PATENT COOPERATION TREATY

10 NOV 2008

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To: _____
 A. A. THORNTON & CO
 Attn: Curtis, Philip Anthony
 235 High Holborn
 London
 WC1V 7LS
 GRANDE BRETAGNE

RECEIVED
 10 NOV 2008
 PCT (NOB)

NOTIFICATION OF TRANSMITTAL OF
 THE INTERNATIONAL SEARCH REPORT AND
 THE WRITTEN OPINION OF THE INTERNATIONAL
 SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference PAC/27054 WO	Date of mailing (day/month/year) 05/11/2008
International application No. PCT/GB2008/001730	FOR FURTHER ACTION See paragraphs 1 and 4 below
Applicant HALLIBURTON ENERGY SERVICES, INC.	International filing date (day/month/year) 21/05/2008

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the International Search Report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
 1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after the expiration of 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise, the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the PCT Applicant's Guide, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentaan 2
 NL-2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Nathalie De Greef

Form PCT/ISA/220 (October 2005)

(See notes on accompanying sheet)

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the international Searching Authority, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see *PCT Applicant's Guide*, Volume I/A, Annexes B1 and B2).

The attention of the applicant is drawn to the fact that amendments to the claims under Article 19 are not allowed where the international Searching Authority has declared, under Article 17(2), that no international search report would be established (see *PCT Applicant's Guide*, Volume I/A, paragraph 296).

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the international Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the international Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the international Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the international Bureau and not with the receiving Office or the international Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/PEA/401).

If a demand for international preliminary examination is made, the written opinion of the International Searching Authority will, except in certain cases where the International Preliminary Examining Authority did not act as International Searching Authority and where it has notified the International Bureau under Rule 66.1b/s(b), be considered to be a written opinion of the International Preliminary Examining Authority. If a demand is made, the applicant may submit to the International Preliminary Examining Authority a reply to the written opinion together, where appropriate, with amendments before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later (Rule 43b/s.(c)).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the *PCT Applicant's Guide*, Volume II.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference. PAC/27054 WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2008/001730	International filing date (day/month/year) 21/05/2008	(Earliest) Priority Date (day/month/year) 24/05/2007
Applicant HALLIBURTON ENERGY SERVICES, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43.6b(a)).

c. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box No. II)

3. ☐ Unity of invention is lacking (see Box No. III)

4. With regard to the title,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- ☐ the text is approved as submitted by the applicant
☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 2B
☐ as suggested by the applicant
☒ as selected by this Authority, because the applicant failed to suggest a figure
☐ as selected by this Authority, because this figure better characterizes the invention
- b. ☐ none of the figures is to be published with the abstract

Form PCT/ISA/210 (first sheet) (April 2007)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB2008/001730

Box No. IV Text of the abstract (Continuation of Item 5 of the first sheet)

The present invention relates to methods, systems, and apparatus for inducing fractures in a subterranean formation and more particularly to methods and apparatus to place a first fracture(215) with a first orientation(x) in a formation(210) followed by a second fracture(220) with a second angular orientation(y) in the formation. The first and second fractures are initiated at about a fracturing location. The initiation of the first fracture is characterized by a first orientation line. The first fracture temporarily alters a stress field in the subterranean formation. The initiation of the second fracture is characterized by a second orientation line. The first orientation line and the second orientation line have an angular disposition to each other. There is a time delay between inducing the first fracture and inducing the second fracture.

Form PCT/ISA/210 (continuation of first sheet (3)) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2008/001730

A. CLASSIFICATION OF SUBJECT MATTER
INV. E21B43/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 1 460 647 A (INTERCOMP RESOURCE DEV ENG INC) 6 January 1977 (1977-01-06)	1
Y	page 2, lines 11-23	2-25
	page 6, lines 17-53	
	page 10, lines 29-46	
Y	US 2006/081412 A1 (WRIGHT CHRIS [US] ET AL) 20 April 2006 (2006-04-20)	2-25
	paragraphs [0048], [0049]	
P, X	WO 2008/041010 A (HALLIBURTON ENERGY SERV INC [US]; CURTIS PHILIP ANTHONY [GB]; SOLIMAN) 10 April 2008 (2008-04-10)	1, 10
	claims 1-12	
A	US 6 935 424 B2 (LEHMAN LYLE V [US] ET AL) 30 August 2005 (2005-08-30)	1-25
	column 6, lines 17-34	
	----- -/-	

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

G document member of the same patent family

Date of the actual completion of the international search

29 October 2008

Date of mailing of the international search report

05/11/2008

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel: (+31-70) 340-2040
Fax: (+31-70) 340-3016

Authorized officer

Garrido Garcia, M

Form PCT/ISA/210 (second sheet) (April 2005)

page 1 of 2

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2008/001730

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 682 246 A (CLOSMANN PHILIP JOSEPH) 8 August 1972 (1972-08-08) column 2, lines 5-22 -----	1-25
A	US 5 228 510 A (JENNINGS JR ALFRED R [US] ET AL) 20 July 1993 (1993-07-20) column 1, lines 41-62 -----	1-25
A	US 3 455 391 A (MATTHEWS CHARLES S ET AL) 15 July 1969 (1969-07-15) column 4, line 73 - column 5, line 17 -----	1-25
A	US 3 822 747 A (MAGUIRE J) 9 July 1974 (1974-07-09) abstract -----	1-25

2

Form PCT/ISA/210 (continuation of second sheet) (April 2005)

page 2 of 2

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2008/001730

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 1460647	A	06-01-1977	NONE	
US 2006081412	A1	20-04-2006	NONE	
WO 2008041010	A	10-04-2008	US 2008083538 A1	10-04-2008
US 6935424	B2	30-08-2005	AU 2003244335 A1	22-04-2004
			BR 0304271 A	28-12-2004
			CA 2441537 A1	30-03-2004
			DE 60303751 T2	10-08-2006
			DK 1403465 T3	10-04-2006
			EP 1403465 A1	31-03-2004
			US 2004206495 A1	21-10-2004
US 3682246	A	08-08-1972	NONE	
US 5228510	A	20-07-1993	NONE	
US 3455391	A	15-07-1969	NONE	
US 3822747	A	09-07-1974	CA 997675 A1	28-09-1976

Form PCT/ISA/210 (patent family annex) (April 2005)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43*bis*.1)

Date of mailing
(day/month/year) see form PCT/SA210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2008/001730

International filing date (day/month/year)
21.05.2008

Priority date (day/month/year)
24.05.2007

International Patent Classification (IPC) or both national classification and IPC
INV. E21B43/26

Applicant
HALLIBURTON ENERGY SERVICES, INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/SA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Date of completion of
this opinion

See form
PCT/ISA/210

Authorized Officer

Garrido.Garcia, M

Telephone No. +31 70 340-4468



Form PCT/ISA/237 (Cover Sheet) (April 2005)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2008/001730

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Form PCT/ISA/237 (April 2007)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2008/001730

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>2-25</u>
	No: Claims	<u>1</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-25</u>
Industrial applicability (IA)	Yes: Claims	<u>1-25</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

and /or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

Form PCTISA/237 (April 2007)

Reference is made to the following documents:

D1 : GB 1 460 647 A

D2 : US 2006/081412 A1

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document) a method for fracturing a subterranean formation, wherein the subterranean formation comprises a wellbore (21) having an axis, the method comprising:
inducing a first fracture (73) in the subterranean formation, wherein:
the first fracture is initiated at about a fracturing location;
the initiation of the first fracture is characterized by a first orientation line; and
the first fracture (73) temporarily alters a stress field in the subterranean formation;
determining a time delay between inducing the first fracture and inducing a second fracture (see page 10, lines 29-47);
wherein the time delay is determined based, at least in part, on one or more stress fields of one or more affected layers during opening or closing of the first fracture; and
after the time delay, inducing the second fracture in the subterranean formation, wherein:
the second fracture (75, 77) is initiated at about the fracturing location;
the initiation of the second fracture is characterized by a second orientation line; and
the first orientation line and the second orientation line have an angular disposition to each other.

Independent claims 10 and 19 correspond to the subject-matter of claim 1, and incorporate additionally a computer. D1 was published in 1977, and it does not contain any computing means, but the teachings of D2, which discloses precisely such a computer, would be adopted in combination with the system of D1, arriving at a system with all the features of claims 10 and 19, without the exercise of any inventive skills.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2008/001730

The subject-matter of claims 10 and 19 does therefore not involve an inventive step in the sense of Article 33(3) PCT.

Dependent claims 2-9, 11-18, 20-25 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

Re Item VI

Certain documents cited

Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
PCT/ GB2007/ 003809	10.04.2008	05.10.2007	06.10.2006

Electronic Patent Application Fee Transmittal				
Application Number:		11291496		
Filing Date:		01-Dec-2005		
Title of Invention:		Method and apparatus for centralized well treatment		
First Named Inventor/Applicant Name:		William Lloyd McNeel		
Filer:		Carey Christine Jordan./Debbie Allen		
Attorney Docket Number:		2005-IP-018647U1		
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Request for continued examination	1801	1	810	810
Total in USD (\$)				810

Electronic Acknowledgement Receipt	
EFS ID:	8188838
Application Number:	11291496
International Application Number:	
Confirmation Number:	7986
Title of Invention:	Method and apparatus for centralized well treatment
First Named Inventor/Applicant Name:	William Lloyd McNeel
Customer Number:	29920
Filer:	Carey Christine Jordan./Debbie Allen
Filer Authorized By:	Carey Christine Jordan.
Attorney Docket Number:	2005-IP-018647U1
Receipt Date:	10-AUG-2010
Filing Date:	01-DEC-2005
Time Stamp:	14:45:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$810
RAM confirmation Number	989
Deposit Account	500417
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees) Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		0861080102RCE.PDF	1551976 b7887e06771870b064d43a688d961c5da01ac157	yes	65
	Multipart Description/PDF files in .zip description				
	Document Description	Start	End		
	Miscellaneous Incoming Letter	1	1		
	Request for Continued Examination (RCE)	2	2		
	Claims	3	10		
	Applicant Arguments/Remarks Made in an Amendment	11	15		
	Information Disclosure Statement (IDS) Filed (SB/08)	16	17		
	NPL Documents	18	34		
	NPL Documents	35	48		
	NPL Documents	49	61		
	NPL Documents	62	65		
Warnings:					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	30445 22985b6065820c61179c24342da5c57fe21cbb3c	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			1582421		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

TRANSMITTAL FORM			
I hereby certify that this correspondence is being transmitted to the United States Patent & Trademark Office via electronic filing (EFS) on the date shown at the bottom of this form: Signature: <u>/ Debbie Allen /</u> Printed Name: Debbie Allen	First Named Inventor: William L. McNeel	Docket Number: 2005-IP-018647U1	
	Application Number: 11/291,496	Art Unit: 3676	Conf. Number: 7986
	Filing Date: December 1, 2005		Examiner: Angela Ditrani
	Title: Method and Apparatus for Centralized Well Treatment		
ENCLOSURES (Check all that apply)			
☐ Fee Transmittal	☐ Drawings	☐ After Allowance Communication to Technology Center	
☐ Fee Attached	☐ Licensing-Related Papers	☐ Appeal Communication	
☒ Amendment / Reply	☐ Petition	☐ Proprietary Information	
☒ After Final	☐ Petition to Convert Provisional Application	☐ Status Letter	
☐ Affidavit / Declaration	☐ Power of Attorney, Revocation, Change of Correspondence Address	☐ Other Enclosure(s) (identified below):	
☐ Extension of Time Request	☐ Terminal Disclaimer		
☐ Express Abandonment	☐ Request for Refund		
☐ Information Disclosure Stmt.	☐ CD, No. of CD's 0		
☐ Certified Priority Documents	☐ Landscape Table on CD		
☐ Reply to Missing Parts	Remarks:		
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
I am the ☐ applicant / inventor		Signature <u>/Melody B. Wirz/</u>	
☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed		Printed Name <u>Melody B. Wirz</u>	
☒ attorney or agent of record or acting under 37 CFR 1.34. Registration Number: <u>53,783</u>		Telephone Number <u>713 653-1722</u>	
		Date <u>August 10, 2010</u>	

HOU 9825-1.086108.0102

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 11/291,496		Filing Date 12/01/2005		☐ To be Mailed	
APPLICATION AS FILED – PART I										
(Column 1)			(Column 2)		SMALL ENTITY ☐ OR			OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)			
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A				
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A				
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A				
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =		OR	X \$ =				
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =			X \$ =				
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL				
APPLICATION AS AMENDED – PART II										
(Column 1)			(Column 2)	(Column 3)	SMALL ENTITY OR			OTHER THAN SMALL ENTITY		
AMENDMENT	08/10/2010	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(j))	* 33	Minus	** 43	=	0		X \$52=	0	
	Independent (37 CFR 1.16(h))	* 7	Minus	***8	=	0		X \$220=	0	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0
AMENDMENT	Total (37 CFR 1.16(j))	*	Minus	**	=	X \$ =		OR	X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =		OR	X \$ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.										

Legal Instrument Examiner:
/TONYA MCBRIDE/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
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NOTICE OF ALLOWANCE AND FEE(S) DUE

29920 7590 10/14/2010
JOHN W. WUSTENBERG
P.O. BOX 1431
DUNCAN, OK 73536

EXAMINER	
DITRANI, ANGELA M	
ART UNIT	PAPER NUMBER
3676	

DATE MAILED: 10/14/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/291,496	12/01/2005	William Lloyd McNeel	2005-IP-018647U1	7986
TITLE OF INVENTION: METHOD AND APPARATUS FOR CENTRALIZED WELL TREATMENT				

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/14/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

29920 7590 10/14/2010

JOHN W. WUSTENBERG
P.O. BOX 1431
DUNCAN, OK 73536

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/291,496	12/01/2005	William Lloyd McNeel	2005-IP-018647U1	7986

TITLE OF INVENTION: METHOD AND APPARATUS FOR CENTRALIZED WELL TREATMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/14/2011

EXAMINER	ART UNIT	CLASS-SUBCLASS
DITRANI, ANGELA M	3676	166-305100

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/291,496	12/01/2005	William Lloyd McNeel	2005-IP-018647U1	7986
29920	7590	10/14/2010	EXAMINER	
JOHN W. WUSTENBERG P.O. BOX 1431 DUNCAN, OK 73536			DITRANI, ANGELA M	
			ART UNIT	PAPER NUMBER
			3676	
DATE MAILED: 10/14/2010				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	11/291,496	MCNEEL ET AL.	
	Examiner	Art Unit	
	ANGELA M. DITRANI	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE and amendment filed 08/10/10.
2. ☒ The allowed claim(s) is/are 11-32 and 40-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date <u>06/14/10, 08/10/10</u> 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	5. ☐ Notice of Informal Patent Application 6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____. 7. ☒ Examiner's Amendment/Comment 8. ☒ Examiner's Statement of Reasons for Allowance 9. ☐ Other ____.
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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/10/10 has been entered.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

This application is in condition for allowance except for the presence of claims 1-10 and 34-39 directed to an invention non-elected without traverse by Applicant as set forth by the Examiner in the Office Action mailed 05/03/2007 and affirmed by Applicant in the response filed 07/26/2007. Accordingly, claims 1-10 and 34-39 have been cancelled.

REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance:

Applicant's amendments to each of independent claims 11, 40, 41, 43, have overcome the rejection of record.

Upon further consideration of the double patent rejection set forth in the previous office action and the presently pending claims of U.S. 11/873,186, the double patenting rejection has been withdrawn.

The following references each teach a system for centralized well operations. None of the references, however, disclose, teach, or suggest the combination of limitations that provide for the system as instantly claimed.

US 4,512,187 discloses a flow rate controller that is used in flooding operations; a positive displacement pump supplies pressurized polymer solution to flow lines through a manifold; the flow lines deliver the pressurized fluid to an input well head. The reference, however, fails to disclose, teach, or suggest wherein the first and second stimulation fluids have different compositions as instantly claimed.

US 4,265,266 discloses a controlled additive metering system on a transportable frame; the system provides a stimulation fluid to an input well. The reference, however, teaches the injection of the fluid into a single well, and, therefore, fails to teach the well treatment operations factory as instantly claimed.

US 4,716,932 discloses a system for blending all of the well stimulation fluids used for hydraulic fracturing while proportioning and mixing the required components of the stimulation fluid as the hydraulic fracturing operation proceeds. The reference, however, fails to teach or suggest the simultaneous flowing of a first and second stimulation fluid having different compositions.

US 4,077,428 discloses a transportable water injection plant for water flooding and secondary recovery operations; the plant provides connections between the plant and a first and

Art Unit: 3676

second well as well as a means for simultaneously flowing water to the wells. The reference, however, fails to disclose, teach, or suggest the simultaneous flowing of stimulation fluids having different compositions to each of the wells.

Therefore, the prior art of record and newly cited references fail to disclose, teach, or suggest the invention as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA M. DITRANI whose telephone number is (571)272-2182. The examiner can normally be reached on M-F, 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shane Bomar can be reached on (571)272-7026. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AD
10/07/10

/Zakiya W. Bates/
Primary Examiner, Art Unit 3676

Notice of References Cited	Application/Control No. 11/291,496		Applicant(s)/Patent Under Reexamination MCNEEL ET AL.	
	Examiner ANGELA M. DITRANI		Art Unit 3676	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-4,077,428	03-1978	Weaver, Dale L.	137/565.3
*	B	US-4,716,932	01-1988	Adams, Jr., Harmon L.	137/565.29
*	C	US-4,265,266	05-1981	Kierbow et al.	137/101.19
*	D	US-4,512,187	04-1985	Sigwardt, Peter L.	73/198
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office
PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20101007



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BIB DATA SHEET

CONFIRMATION NO. 7986

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.		
11/291,496	12/01/2005	166	3676	2005-IP-018647U1		
RULE						
APPLICANTS William Lloyd McNeel, Green River, WY; Steve Harris, Palisade, CO; Dave McLeod, Houston, TX;						
** CONTINUING DATA ***** ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 01/06/2006						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and Acknowledged <u>/ANGELA M DITRANI/</u> Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY WY	SHEETS DRAWINGS 7	TOTAL CLAIMS 39	INDEPENDENT CLAIMS 5
ADDRESS JOHN W. WUSTENBERG P.O. BOX 1431 DUNCAN, OK 73536 UNITED STATES						
TITLE Method and apparatus for centralized well treatment						
FILING FEE RECEIVED 3592	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		☐ All Fees			
			☐ 1.16 Fees (Filing)			
			☐ 1.17 Fees (Processing Ext. of time)			
			☐ 1.18 Fees (Issue)			
			☐ Other _____			
			☐ Credit			

BIB (Rev. 05/07).

<i>Index of Claims</i> 	Application/Control No. 11291496	Applicant(s)/Patent Under Reexamination MCNEEL ET AL.
	Examiner Angela M DiTrani	Art Unit 3676

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM		DATE								
Final	Original	04/27/2007	10/15/2007	08/18/2008	03/04/2009	05/14/2009	05/08/2010	10/07/2010		
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	2	N	N	N	N	N	N	-		
	3	N	N	N	N	N	N	-		
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	5	N	N	N	N	N	N	-		
	6	N	N	N	N	N	N	-		
	7	N	N	N	N	N	N	-		
	8	N	N	N	N	N	N	-		
	9	N	N	N	N	N	N	-		
	10	N	N	N	N	N	N	-		
	11	✓	✓	✓	✓	✓	✓	=		
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	32	✓	✓	✓	✓	✓	✓	=		
	33	✓	✓	✓	✓	✓	-	-		
	34	N	N	N	N	N	N	-		
	35	N	N	N	N	N	N	-		
	36	N	N	N	N	N	N	-		

U.S. Patent and Trademark Office

Part of Paper No. : 20101007

<i>Index of Claims</i> 	Application/Control No. 11291496	Applicant(s)/Patent Under Reexamination MCNEEL ET AL.
	Examiner Angela M DiTrani	Art Unit 3676

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM		DATE								
Final	Original	04/27/2007	10/15/2007	08/18/2008	03/04/2009	05/14/2009	05/08/2010	10/07/2010		
	37	N	N	N	N	N	N	-		
	38	N	N	N	N	N	N	-		
	39	N	N	N	N	N	N	-		
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	41			✓	✓	✓	✓	=		
	42			✓	✓	✓	✓	=		
	43				✓	✓	✓	=		
	44						✓	=		

Receipt date: 06/14/2010

11291496 - GAU: 3676

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

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PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		11291496
	Filing Date		2005-12-01
	First Named Inventor	McNeel	
	Art Unit	3676	
	Examiner Name	DiTrani, Angela M.	
	Attorney Docket Number	2005-IP-018647U1	

U.S.PATENTS								
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1							
If you wish to add additional U.S. Patent citation information please click the Add button.								
U.S.PATENT APPLICATION PUBLICATIONS								
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1							
If you wish to add additional U.S. Published Application citation information please click the Add button.								
FOREIGN PATENT DOCUMENTS								
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							☐
If you wish to add additional Foreign Patent Document citation information please click the Add button								
NON-PATENT LITERATURE DOCUMENTS								
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.						T ⁵

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D./

Receipt date: 06/14/2010

11291496 - GAU: 3676

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		11291496
	Filing Date		2005-12-01
	First Named Inventor	McNeel	
	Art Unit	3676	
	Examiner Name	DiTrani, Angela M.	
	Attorney Docket Number	2005-IP-018647U1	

1	Office Action from U.S. Application Serial No. 11/873,160 dated May 24, 2010	☐
If you wish to add additional non-patent literature document citation information please click the Add button		
EXAMINER SIGNATURE		
Examiner Signature	/Angela DiTrani/	Date Considered 10/07/2010
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		
¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.		

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D./

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number	11/291,496
	Filing Date	12/1/2005
	First Named Inventor	William Lloyd McNeel
	Confirmation Number	7986
	Client Number	86108
Page 1 of 2	Matter Number	102

U.S. PATENT DOCUMENTS				
Initials	Cite No.	Document Number	Issue/Publication Date	First Named Inventor
	1	7711487	5/4/2010	Surjaatmadja
	2	20080083531	4/10/2008	Surjaatmadja
	3	3455391	7/15/1969	Matthews
	4	3556218	1/19/1971	Talley
	5	3578080	5/11/1971	Closmann
	6	3682246	8/8/1972	Closmann
	7	3822747	7/9/1974	Maguire
	8	4635723	1/13/1987	Spivey
	9	5228510	7/20/1993	Jennings#s#Jr
	10	6935424	8/30/2005	Lehman

OTHER DOCUMENTS		
Initials	Cite No.	Author, Title, Date, Pages, etc.
	1	International Search Report for International Application No. PCT/GB2007/000677 06/11/07.
	2	Office Action for Application Serial No. 11/396,918 dated January 25, 2008.
	3	Search Report and Written Opinion for International Application No. PCT/ GB2008/001730 dated May 21, 2008.
	4	Notice of Allowance for U.S. Patent No. 11/691,623 dated July 26, 2010.

Examiner Signature	/Angela DiTrani/	Date Considered	10/07/2010
Examiner: Please initial if citation considered, whether or not citation is in conformance with MPEP Section 609. Please draw a line through the citation if it is not in conformance and it is not considered. Please include a copy of this form with the next communication to the applicant.			

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D./

Issue Classification 	Application/Control No. 11291496	Applicant(s)/Patent Under Reexamination MCNEEL ET AL.
	Examiner ANGELA M DITRANI	Art Unit 3676

ORIGINAL						INTERNATIONAL CLASSIFICATION													
CLASS		SUBCLASS				CLAIMED					NON-CLAIMED								
166		90.1				E	2	1	B	19 / 00 (2006.01.01)									
CROSS REFERENCE(S)						E	2	1	B	43 / 26 (2006.01.01)									
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)																		
166	308,1	305,1																	

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1	6	17		33										
	2	9	18		34										
	3	7	19		35										
	4	10	20		36										
	5	12	21		37										
	6	11	22		38										
	7	13	23		39										
	8	14	24	24	40										
	9	15	25	25	41										
	10	16	26	23	42										
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2	12	18	28	27	44										
3	13	19	29												
4	14	20	30												
5	15	21	31												
8	16	22	32												

/ANGELA M DITRANI/ Examiner.Art Unit 3676 (Assistant Examiner)	10/07/2010 (Date)	Total Claims Allowed: 27	
/Zakiya W Bates/ Primary Examiner.Art Unit 3676 (Primary Examiner)	10/11/2010 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 4

U.S. Patent and Trademark Office

Part of Paper No. 20101007

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S56	10	((("7711487") or ("20080083531") or ("3455391") or ("3556218") or ("3578080") or ("3682246") or ("4635723") or ("5228510") or ("6935424")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 07:54
S57	1	("20060243437").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 07:57
S58	40	((("2884067" "3193014" "3228472" "3298438" "3343598" "3463178" "3599668" "3692106" "3809116" "3863714" "3902558" "4059149" "4064936" "4077428" "4126181" "4267148" "4326585" "4338959" "4354553" "4375833" "4436148").PN. OR ("4635723").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 08:16
S59	11	((("1181205" "2041394" "4512187" "4512188" "4610163" "4635723").PN. OR ("6745838").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 08:18
S60	36	((("2884067" "3171485" "3211225" "3228472" "3242990" "3710867" "4354553" "4436148" "4635723" "4681167" "Re32304").PN. OR ("4830112").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 08:28
S61	23	((("1528036" "1617095" "2669483" "3039396" "3110263" "3398887" "3431940" "3478958" "3567342" "3885892" "4004862").PN. OR ("4077428").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 08:35

S62	39	("0017654" "0071865" "0245310" "1377654" "1777293" "2006181" "2525295" "2690715" "2819679" "3216627" "3223291" "3362618" "3477380" "3778193" "3913787" "4065230" "4103490" "4269569" "Re26820").PN. OR ("4512187").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 09:03
S63	37	S62 not (S61 S60 S59 S58 S57 S56)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 09:12
S65	40	S64 not (S61 S60 S59 S58 S57 S56 S62)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 09:19
S64	40	("2810442" "3366173" "3373806" "3381753" "3396789" "3422895" "3444927").PN. OR ("3556218").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 09:19
S66	21	("3366173").URPN.	USPAT	OR	OFF	2010/10/04 09:23
S67	6	("3444927").URPN.	USPAT	OR	OFF	2010/10/04 09:35
S68	19	("3346045" "3444927" "3525401" "3637012" "3674123" "4023619" "4102146" "4525101" "4574930" "4614459" "4616706" "5040603" "5435338" "5437302").PN. OR ("6148921").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 09:36
S69	17	S68 not (S61 S60 S59 S58 S57 S56 S65 S66 S67)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 09:45
S70	25	("3366173" "3524322" "3662559" "3765463" "3877520" "4039025" "4098333" "4167215" "4182584" "4194568" "4211281" "4215544" "4234047" "Re27745").PN. OR ("4398846").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/04 10:02
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S72	1	("20060243437").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 08:48

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S76	1	("6644844").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 09:22
S77	6	((("4200152") or ("4953618") or ("20030141064") or ("4845981") or ("4390061") or ("6860328")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 09:24
S78	12	((("6795773") or ("6834233") or ("6935424") or ("7100688") or ("7460436") or ("20030205375") or ("20060219402") or ("4199680") or ("20040108853") or ("4687491") or ("20060289166") or ("4265266")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 09:25
S79	50	("2259010" "2624172" "3223166" "3244231" "3322195" "3352652" "3420300" "3456721" "3804163" "3817332" "3914090" "3938933" "3958915" "3982591" "4053015" "4069005" "4133847" "4151259" "4173455" "4204829" "4237973" "4241722" "4335684" "4388892" "4397356").PN. OR ("4687491").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 09:27
S80	19	("4553594" "4700567" "4701270" "4716932").PN. OR ("4845981").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 09:44
S81	65	("2024478" "2873036" "3027099" "3041049" "3181482" "3219046" "3245584" "3822809" "4111272" "4111335" "4111336").PN. OR ("4265266").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 10:58

file:///C:/Documents%20and%20Settings/aditrani/My%20D...1496/EASTSearchHistory.11291496_AccessibleVersion.htm (3 of 6)10/7/2010 4:57:33 PM

S82	14	("2660415" "4003431" "4239396" "4265266" "4850702" "4913554" "4915505" "5103908" "5289877" "5355951" "5571281" "6193402").PN. OR ("6286986").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 11:09
S84	7	S83 and (subterranean well\$1bore\$1 bore\$1hole \$1 down\$1hole\$1 oil \$1well\$1 oil\$1field\$1)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 11:20
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S85	80	("2024480" "2658644" "3038486" "3219046" "3229077" "3410293" "3438385" "3452774" "3474815" "3475392" "3605775" "3606903" "3609316" "3705597" "3721253" "3843099" "4006752" "4007755" "4112515" "4209258" "4246969" "4265266").PN. OR ("4433701").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 11:28

S86	45	("2075126" "2078983" "2873036" "3218175" "3481544" "3606267" "3608869" "4143793" "4159180" "4265266" "4353482" "4357110" "4406548" "4410106" "4427133" "4432064" "4433701" "4474476" "4475821" "4506982" "4523854" "4538221" "4538222" "4654802" "4701095" "4715721" "4747060" "4751648" "4779186" "4835701").PN. OR ("4918659").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 11:33
S87	63	(S85 S86 S82 S81 S80 S79) and (subterranean well\$1bore\$1 bore\$1hole \$1 down\$1hole\$1 oil \$1well\$1 oil\$1field\$1)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/10/05 11:49
S88	1	("4265266").PN.	USPAT; USOCR	OR	OFF	2010/10/05 12:09
S89	2	((("4265266") or ("4433701")).PN.	USPAT; USOCR	OR	OFF	2010/10/05 12:20
S91	3	S90 and flow\$3back\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/10/06 12:45
S90	44	(US-20060290197-\$ or US-20070029090-\$ or US-20040244980-\$ or US-20060289166-\$ or US-20040168811-\$ or US-20050178556-\$ or US-20060243437-\$ or US-20060166837-\$ or US-20060065400-\$ or US-20050187114-\$).did. or (US-6745838-\$ or US- 3722595-\$ or US- 4444276-\$ or US- 4685522-\$ or US- 4726219-\$ or US- 5421408-\$ or US- 6098516-\$ or US- 6644844-\$ or US- 4200540-\$ or US- 4077428-\$ or US- 4570673-\$ or US-	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2010/10/06 12:45

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	3444927-\$).did. or (WO-				
	2007024383-\$).did.				

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	27	((subterranean well \$1bore\$1 bore\$1hole\$1 down\$1hole\$1 oil\$1well \$1 oil\$1field\$1) and (manifold\$1 header\$1) and (stimulat\$4 fractur \$3)).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2010/10/07 16:52
L1	1	((subterranean well \$1bore\$1 bore\$1hole\$1 down\$1hole\$1 oil\$1well \$1 oil\$1field\$1) and (manifold\$1 header\$1) and (stimulat\$4 fractur \$3) and centraliz\$6).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2010/10/07 16:52

10/ 7/ 2010 4:57:24 PM**C:\ Documents and Settings\ aditrani\ My Documents\ EAST\ Workspaces\ 11291496.wsp**

Search Notes 	Application/Control No. 11291496	Applicant(s)/Patent Under Reexamination MCNEEL ET AL.
	Examiner Angela M DiTrani	Art Unit 3676

SEARCHED			
Class	Subclass	Date	Examiner
166	90.1	04/23/10	AD
137	562.29, 572, 597, 861, 897 (text only)	04/23/10	AD

SEARCH NOTES		
Search Notes	Date	Examiner
Search in EAST and Google Patents (see search history)		KWL
Consulted primary examiners G Suchfield and H Dang and SPE J Gay		KWL
East text search (US-PGPUB, USOCR, USPAT, EPO, JPO, DERWENT, IBM_TDB)	03/02/09	AD
East text search (US-PGPUB, USOCR, USPAT, EPO, JPO, DERWENT, IBM_TDB)	05/13/09	AD
East text search (US-PGPUB, USOCR, USPAT, EPO, JPO, DERWENT, IBM_TDB)	04/23/10	AD
East text search (US-PGPUB, USOCR, USPAT, EPO, JPO, DERWENT, IBM_TDB)	05/06/2010	AD
updated East search with forwards/backwards seach of closest cited art	10/04/10	AD
updated East search with forwards/backwards seach of closest cited art	10/05/10	AD

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
	see east search history	10/07/10	AD

/Angela M DiTrani/ Examiner.Art Unit 3676	
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Tiffany Kyle

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/291,496	12/01/2005	William Lloyd McNeil	2005-IP-018647U-1	7986

TITLE OF INVENTION: METHOD AND APPARATUS FOR CENTRALIZED WELL TREATMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/14/2011

EXAMINER	ART UNIT	CLASS-SUBCLASS	10/10/2010 MBELETE2 00000005 000300 11291496
DITRANT, ANGELA M	3676	166-305100	01 FC:1501 1510.00 DA 02 FC:1504 300.00 DA

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1 John W. Wustenberg

2 McDermott, Will, & Emery

3

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(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Halliburton Energy Services Inc., Duncan, OK, USA

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- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

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Authorized Signature John W. Wustenberg

Date 15 OCT 10

Typed or printed name John W. Wustenberg

Registration No. 35,415

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Fax No.: 571/273-2885

From: John W. Wustenberg

Subject: Serial No. 11/291,496 Filed 12/1/2005

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Information Disclosure Citation in an Application	Application No. 11/291,496	Applicant(s) McNeel et al.	
	Docket Number HES 2005-IP-018647U1	Group Art Unit 3676	Filing Date December 1, 2005

U.S. PATENT DOCUMENTS

		DOCUMENT NO.	ISSUE/ PUB. DATE	NAME	CLASS	SUBCLASS	FILING DATE
		4,137,970	02/06/79	Laffin et al.			04/20/77
		4,724,905	02/16/88	Uhri			09/15/86
		4,830,106	05/16/89	Uhri			12/29/87
		5,659,480	08/19/97	Anderson et al.			06/27/95
		7,036,587	02/02/06	Munoz, Jr. et al.			06/27/03
		2007/0153622	07/05/07	Dykstra et al.			12/30/05
		2007/0153624	07/05/07	Dykstra et al.			12/30/05
		2007/0171765	07/26/07	Dykstra et al.			12/30/05
		2007/0153623	07/05/07	Dykstra et al.			12/30/05
		11/545,749		Surjaatmadja			10/10/06
		11/753,314		Surjaatmadja			05/24/07
		7,143,842	12/05/06	Freyer 7143832			06/16/03
		2006/0161358	07/20/06	Dykstra et al.			01/04/05

FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							Yes	No
		EP 0474350	03/11/92	Europe	E21B	43/26		
		NO 20042134	11/28/05	Norway	E21B	33/12		

NON-PATENT DOCUMENTS

		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					
		Warpinski, Nonnan R and Branagan, Paul T., "Altered Stress Fracturing", JPT, 990-97, 473-476.					09/1989
		Surjaatmadja, "Single Point of Initiation, Dual-Fracture Placement for Maximizing Well Production," 2007 Society of Petroleum Engineers, SPE 107718					
		Surjaatmadja, "The Important Second Fracture and its Operational Placement for Maximizing Production," Society of Petroleum Engineers SPE 107059					
		Surjaatmadja, "The Mythical Second Fracture and its Operational Placement for Maximizing Production," Society of Petroleum Engineers SPE 106046					

EXAMINER	/Kerry Leonard/	DATE CONSIDERED	08/18/2008
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.			



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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/291,496	11/30/2010	7841394	2005-IP-018647U1	7986

29920 7590 11/10/2010
JOHN W. WUSTENBERG
P.O. BOX 1431
DUNCAN, OK 73536

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

William Lloyd McNeel, Green River, WY;
Steve Harris, Palisade, CO;
Dave McLeod, Houston, TX;

IR103 (Rev. 10/09)

PTO-1449 Information Disclosure Citation in an Application				Application No. 11/291,496		Applicant(s): MCNEEL ET AL.	
				Docket Number HES 2005-IP-018647U1		Group Art Unit 3676	Filing Date December 1, 2005
U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	ISSUE/ PUB. DATE	NAME	CLASS	SUBCLASS	FILING DATE
	1	US 4,701,095	10-20-87	BERRYMAN ET AL	414	332	12-28-84
	2	US 3,007,521	11-7-61	TRANHAM ET AL	166	11	10-28-57
	3	US 4,159,180	06-26-79	COOPER ET AL	366	26	02-21-78
	4	US 4,265,266	5-5-81	KIERBOW ET AL	137	101.19	01-23-80
	5						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
	1						
NON-PATENT DOCUMENTS							
		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
	1	Office Action issued in Application Serial No. 12/604,871					05-09-11
	2						
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Electronic Acknowledgement Receipt	
EFS ID:	10693603
Application Number:	11291496
International Application Number:	
Confirmation Number:	7986
Title of Invention:	METHOD AND APPARATUS FOR CENTRALIZED WELL TREATMENT
First Named Inventor/Applicant Name:	William Lloyd McNeel
Customer Number:	29920
Filer:	Elizabeth L. Durham/Nicci Fowler
Filer Authorized By:	Elizabeth L. Durham
Attorney Docket Number:	2005-IP-018647U1
Receipt Date:	09-AUG-2011
Filing Date:	01-DEC-2005
Time Stamp:	11:15:18
Application Type:	Utility under 35 USC 111(a)

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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	063718-0930-Transmittal.pdf	36272 2e210cec5eb4cb18253aa4fb90ac291a138229af	no	2
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2	Information Disclosure Statement (IDS) Form (SB08)	063718-0930-IDS.pdf	33929 c00b89e927f5477613e7081dac8fc42d119846cb	no	1
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3	Non Patent Literature	063718-Hall-OA.pdf	1453097 0daa32c950734881633e1f974e990d5cf1cfd406	no	38
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Information:					
Total Files Size (in bytes):			1523298		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

MCNEEL ET AL.

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Group Art Unit: **3676**

Serial No.: **11/291,496**

Filed: **December 1, 2005**

Title: "METHOD AND APPARATUS FOR
CENTRALIZED WELL TREATMENT"

Examiner: **DITRANI, ANGELA M.**

Atty. Docket No: **HES 2005-IP-018647U1**
(063718.0930)

MAIL STOP AMENDMENT
Honorable Commissioner of Patents
P. O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF FILING ELECTRONICALLY VIA EFS
MPEP 503

I HEREBY CERTIFY THAT I HAVE A REASONABLE BASIS FOR BELIEF THAT THIS CORRESPONDENCE IS BEING SUBMITTED TO THE UNITED STATES PATENT AND TRADEMARK OFFICE VIA EFS (ELECTRONICALLY) ON THE DATE INDICATED BELOW, AND IS ADDRESSED TO:

HONORABLE COMMISSIONER FOR PATENTS
P.O. Box 1450
ALEXANDRIA, VA 22313-1450

Cyfr

MASOOD ANJOM

DATE OF SUBMISSION: AUGUST 9, 2011
ELECTRONIC FILING (EFS)

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Dear Honorable Commissioner:

Applicants respectfully request, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the art listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified application.

Furthermore, pursuant to 37 C.F.R. §§1.97(g) and (h), no representation is made that these references are material to the patentability of the present application.

No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of

information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement.

Applicants believe that pursuant to 37 C.F.R. § 1.97(c)(1), there are no fees due in association with the filing of this Supplemental Information Disclosure Statement. Should the Commissioner deem that any fees are due, Applicants respectfully request that the Commissioner accept this as a Petition Therefor and direct that any fees be charged to Baker Botts, L.L.P. Deposit Account No. 02-0383, Order Number 063718.0930.

Respectfully submitted,

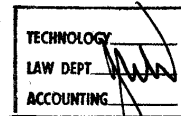
BAKER BOTTS L.L.P. (023640)

Date: August 9, 2011

By: 
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Registration No. 62,167
One Shell Plaza
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Facsimile: 713.229.7954
email: Masood.Anjom@bakerbotts.com

ATTORNEY FOR APPLICANT

PATENT – POWER OF ATTORNEY OR REVOCATION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS	Patent Number		7841394	
	Issue Date		11/30/2010	
	First Named Inventor		William MCNEEL, et al.	
	Title	METHOD AND APPARATUS FOR CENTRALIZED WELL TREATMENT		
Attorney Docket No.		086108-0102		
I hereby revoke all previous powers of attorney given in the above-identified patent.				
☐ A Power of Attorney is submitted herewith. OR ☒ I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith: 99633 OR ☐ I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:				
Practitioner(s) Name		Registration Number	Practitioner(s) Name	Registration Number
Please recognize or change the correspondence address for the above-identified patent to:				
☐ The address associated with the above-mentioned Customer Number. OR ☒ The address associated with Customer Number: 99633 ☐ Firm or Individual Name				
Address				
City		State	Zip	
Country		Telephone	Email	
I am the:				
☐ Inventor, having ownership of the patent. OR ☒ Patent owner. Statement under 37 CFR 3.73(b) (Form PTO/SB/96) submitted herewith or filed on _____				
SIGNATURE of Inventor or Patent Owner				
Signature		Date		10-10-13
Name		Telephone		281-871-7526
Title and Company		Vice President and Chief Patent Counsel, Halliburton Energy Services, Inc.		
NOTE: Signatures of all the inventors or patent owners of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.				
☒ *Total of <u>2</u> forms are submitted.				



STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: William MCNEEL, et al.
 Application No./Patent No: 7841394 Filed/Issue Date: 11/30/2010
 Entitled: METHOD AND APPARATUS FOR CENTRALIZED WELL TREATMENT
Halliburton Energy Services, Inc., a Corporation
 (Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
 2. ☐ an assignee of less than the entire right, title and interest.

The extent (by percentage) of its ownership interest is ___ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 017687, Frame 0401, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: _____ To: _____
 The document was recorded in the United States Patent and Trademark Office at
 Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
 The document was recorded in the United States Patent and Trademark Office at
 Reel _____, Frame _____, or for which a copy thereof is attached.
3. From: _____ To: _____
 The document was recorded in the United States Patent and Trademark Office at
 Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (*i.e.*, a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Iona Kaiser/

June 11, 2013

Signature

Date

Iona Kaiser

713 653 1700

Printed or Typed Name

Telephone Number

Patent Counsel

Title

Electronic Acknowledgement Receipt	
EFS ID:	16080302
Application Number:	11291496
International Application Number:	
Confirmation Number:	7986
Title of Invention:	METHOD AND APPARATUS FOR CENTRALIZED WELL TREATMENT
First Named Inventor/Applicant Name:	William Lloyd McNeel
Customer Number:	29920
Filer:	Iona Niven Kaiser/Wendy Thomas
Filer Authorized By:	Iona Niven Kaiser
Attorney Docket Number:	2005-IP-018647U1
Receipt Date:	19-JUN-2013
Filing Date:	01-DEC-2005
Time Stamp:	11:20:17
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment		no			
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		102PoA.pdf	194819	yes	2
			9a3e61f37eaa0de631cf03a736cece454b573bf7		

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Power of Attorney	1	1
	Assignee showing of ownership per 37 CFR 3.73.	2	2
Warnings:			
Information:			
Total Files Size (in bytes):		194819	
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.			



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/291,496	12/01/2005	William Lloyd McNeel	086108-0102

99633
McDermott Will & Emery LLP
The McDermott Building
500 North Capitol Street, N.W.
Washington, DC 20001

CONFIRMATION NO. 7986
POA ACCEPTANCE LETTER



Date Mailed: 06/24/2013

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 06/19/2013.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/rmtturner myles/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/291,496	12/01/2005	William Lloyd McNeel	2005-IP-018647U1

29920
JOHN W. WUSTENBERG
P.O. BOX 1431
DUNCAN, OK 73536

CONFIRMATION NO. 7986
POWER OF ATTORNEY NOTICE



OC000000062131047

Date Mailed: 06/24/2013

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 06/19/2013.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/rmtturner myles/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Western District of Texas - Waco Division on the following

☐ Trademarks or ☒ Patents. (☐ the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 6:22-cv-00906	DATE FILED 9/1/2022	U.S. DISTRICT COURT Western District of Texas - Waco Division
PLAINTIFF Halliburton Energy Services, Inc., Halliburton US Technologies, Inc., Halliburton Group Technologies, Inc.		DEFENDANT U.S. Well Services, LLC
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 See Attachment A		
2		
3		
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1		
2		
3		
4		
5		

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

Attachment A

Patent	Date of Patent	Holder of Patent
7,836,949	November 23, 2010	Halliburton Energy Services, Inc.
7,574,325	August 11, 2009	Halliburton Energy Services, Inc.
7,841,394	November 30, 2010	Halliburton Energy Services, Inc.
11,035,213	June 15, 2021	Halliburton Energy Services, Inc.
11,085,282	August 10, 2021	Halliburton Energy Services, Inc.
11,373,058	June 28, 2022	Halliburton Energy Services, Inc.
11,377,943	July 5, 2022	Halliburton Energy Services, Inc.