

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
M-I Holdings L.L.C.	10/01/2010

**RECEIVING PARTY DATA**

Name:	M-I L.L.C.
Street Address:	5950 North Course Drive
City:	Houston
State/Country:	TEXAS
Postal Code:	77072

**PROPERTY NUMBERS Total: 33**

Property Type	Number
Patent Number:	5149690
Patent Number:	5908814
Patent Number:	5350740
Patent Number:	5424284
Patent Number:	5639715
Patent Number:	5635458
Patent Number:	5558171
Patent Number:	6291405
Patent Number:	6790811
Patent Number:	5909779
Patent Number:	6029755
Patent Number:	5985800
Patent Number:	5977031
Patent Number:	5402857
Patent Number:	5564509

**CH \$1320.00 5149690**

Patent Number:	5842529
Patent Number:	5839521
Patent Number:	6009959
Patent Number:	5913372
Patent Number:	6179070
Patent Number:	6179071
Patent Number:	6368264
Patent Number:	6283303
Patent Number:	5971084
Patent Number:	5583764
Patent Number:	5838589
Patent Number:	6574652
Patent Number:	5896883
Patent Number:	5789349
Patent Number:	5888944
Patent Number:	5905061
Patent Number:	6218342
Patent Number:	5857955

**CORRESPONDENCE DATA**

Fax Number: (281)561-1452  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*  
Phone: 2815611451  
Email: jkurka@miswaco.com  
Correspondent Name: IP Group, Legal Dept., M-I L.L.C.  
Address Line 1: 5950 North Course Drive  
Address Line 4: Houston, TEXAS 77072

**ATTORNEY DOCKET NUMBER:**

TRANSITION - ASSIGNMENTS

**NAME OF SUBMITTER:**

Kimberly D. Ballew

Total Attachments: 7  
source=Assignment#page1.tif  
source=Assignment#page2.tif  
source=Assignment#page3.tif  
source=Assignment#page4.tif  
source=Assignment#page5.tif  
source=Assignment#page6.tif  
source=Assignment#page7.tif

ASSIGNMENT  
OF PATENTS AND PATENT APPLICATIONS

WHEREAS, M-I HOLDINGS L.L.C., a Delaware limited liability company, and having a place of business at 5950 North Course Drive, Houston, Texas 77072, is the sole owner of the right, title and interest in and to the patents and patent applications listed on the attached Exhibit A, and in the inventions described and claimed in said patents and patent applications; and

WHEREAS, M-I L.L.C., a Delaware limited liability company, and having a place of business at 5950 North Course Drive, Houston, Texas 77072, is desirous of acquiring right, title and interest in and to the said patents, patent applications, inventions, and Letters Patent issuing from said patent applications and in and to any improvements, continuations, divisions, reissues, re-examinations, renewals or extensions that may be made or granted thereon.

BE IT KNOWN that effective for and in consideration of One Dollar (\$1.00) and other good and valuable consideration to it paid, the receipt of which is hereby acknowledged, said M-I HOLDINGS L.L.C., by these presents, does sell, assign, transfer and set over unto said M-I L.L.C., its successors or assigns, its right, title and interest in and to the said patents, inventions, patent applications and all Letters Patent that may issue therefrom, and in and to any improvements, continuations, divisions, reissues, re-examinations, renewals or extensions that may be made or granted thereon, the same to be held and enjoyed by the said M-I L.L.C. for its own use, and for its legal representatives and assigns to the full end of the term or terms for which said letters patent are or may be granted, as fully and completely as the same might have been held by the said M-I HOLDINGS L.L.C. had this assignment not been made.

EXECUTED THIS 15<sup>th</sup> day of October, 2010

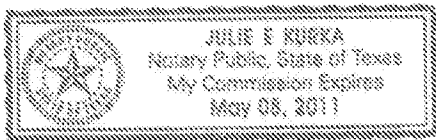
M-I HOLDINGS L.L.C.

By: 

James C. Webster  
Vice President, General Counsel &  
Secretary

STATE OF TEXAS           §  
  § SS.  
COUNTY OF HARRIS     §

SUBSCRIBED AND SWORN BEFORE ME, the undersigned authority, on this 15<sup>th</sup> day of October, 2010, personally appeared James C. Webster, Vice President, General Counsel & Secretary, known to me to be the person whose name is subscribed to the foregoing instrument on behalf of M-I HOLDINGS L.L.C., and acknowledged to me that he is authorized to validly sign such a document on behalf of said company.



[SEAL]

  
Notary or Consular Officer

## United States Patents

Application No.	Filing Date	Title	Patent No.	Grant Date
07/783368	28 Oct 1991	Drilling fluid additive and method for inhibiting hydration	5149690	22 Sep 1992
08/059453	07 May 1993	Drilling fluid additive and method for inhibiting hydration	5350740	27 Sep 1994
08/087458	02 Jul 1993	Drilling fluid additive and method for inhibiting hydration	5424284	13 Jun 1995
08/197727	17 Feb 1994	Oil and gas well cuttings disposal system	5402857	04 Apr 1995
08/217432	24 Mar 1994	Aqueous based drilling fluid additive and composition	5639715	17 Jun 1997
08/232386	25 Apr 1994	Well drilling process and clay stabilizing agent	5558171	24 Sep 1996
08/325009	18 Oct 1994	Intrinsically safe data acquisition system and apparatus	5583764	10 Dec 1996
08/397436	01 Mar 1995	Water-based drilling fluids for reduction of water adsorption and hydration of argillaceous rocks	5635458	03 Jun 1997
08/416181	04 Apr 1995	Oil and gas well cuttings disposal system	5564509	15 Oct 1996
08/498301	03 Jul 1995	Drilling fluid additive and method for inhibiting hydration	5908814	01 Jun 1999
08/594860	31 Jan 1996	Portable liquid mud plant	5896883	27 Apr 1999
08/614681	13 Mar 1996	Water-based drilling fluids with high temperature fluid loss control additive	5789349	04 Aug 1998
08/622417	27 Mar 1996	Centrifuge control system	5857955	12 Jan 1999
08/650458	20 May 1996	Intrinsically safe data acquisition system and apparatus	5838589	17 Nov 1998
08/729872	15 Oct 1996	Oil and gas well cuttings disposal system	5842529	01 Dec 1998
08/813462	10 Mar 1997	Oil and gas well cuttings disposal system	5839521	24 Nov 1998
08/862198	23 May 1997	Invert emulsion fluids suitable for drilling	5905061	18 May 1999
08/862201	23 May 1997	Oil-based drilling fluid	6218342	17 Apr 2001
08/880266	23 Jun 1997	Oil-based drilling fluid	5888944	30 Mar 1999
08/950296	14 Oct 1997	Oil and gas well cuttings disposal system with continuous vacuum operation for sequentially filling disposal tanks	6009959	04 Jan 2000
09/021013	09 Feb 1998	Conductive medium for openhole logging and logging while drilling	6029755	29 Feb 2000
09/039178	13 Mar 1998	Oil and gas well cuttings disposal system with continuous vacuum operation for sequentially filling disposal tanks	5913372	22 Jun 1999
09/043225	11 Mar 1998	Glycol based drilling fluid	6291405	18 Sep 2001
09/043868	20 Mar 1998	Invert emulsion fluids suitable for drilling	5985800	16 Nov 1999
09/071820	01 May 1998	Cuttings tank apparatus	5971084	26 Oct 1999

09/108025	30 Jun 1998	Oil-based drilling fluids suitable for drilling in the presence of acidic gases	5909779	08 Jun 1999
09/130914	07 Aug 1998	Ester based invert emulsion drilling fluids and muds having negative alkalinity	5977031	02 Nov 1999
09/182623	29 Oct 1998	Vacuum tank for use in handling oil and gas well cuttings	6179070	30 Jan 2001
09/193774	17 Nov 1998	Intrinsically safe communication and control system for use in hazardous locations including monitoring device with intrinsically safe fluorescent tube backlit	6574652	03 Jun 2003
09/260949	02 Mar 1999	Method and apparatus for handling and disposal of oil and gas well drill cuttings	6179071	30 Jan 2001
09/280643	29 Mar 1999	Vibrating screen separator, separating method, and clamping device	6283303	04 Sep 2001
09/536198	27 Mar 2000	Centrifuge control system and method with operation monitoring and pump control	6368264	09 Apr 2002
09/770848	26 Jan 2001	Oil based drilling fluid	6790811	14 Sep 2004

Foreign Patents and Patent Applications

Country	Application No.	Filing Date	Title	Patent No.	Grant Date
Australia	1996045856	01 Mar 1996	Improved water-based drilling fluids for reduction of water adsorption and hydration of argillaceous rocks	710155	20 Jan 2000
Australia	1997039689	31 Jul 1997	Improved oil-based drilling fluid	720580	21 Sep 2000
Australia	199739108	01 Aug 1997	Invert emulsion fluids suitable for drilling	730486	21 Jun 2001
Australia	1997039046	31 Jul 1997	Improved oil-based drilling fluid	724271	11 Jan 2001
Australia	1998089162	19 Aug 1998	Oil based drilling fluids suitable for drilling in the presence of acidic gases	737109	22 Nov 2001
Australia	1994066121	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	675709	02 Jun 1997
Australia	1997012414	30 Jan 1997	Portable liquid mud plant	722374	16 Nov 2000
Canada	2088344	28 Jan 1993	Drilling fluid additive and method for inhibiting hydration	2088344	03 Aug 2004

Canada	2144583	14 Mar 1995	Aqueous based drilling fluid additive and composition	2144583	22 Jul 2008
Canada	2170569	28 Feb 1996	Improved water-based drilling fluids for reduction of water adsorption and hydration of argillaceous rocks	2170569	29 Dec 2009
Canada	2193791	23 Dec 1996	Portable liquid mud plant	2193791	23 Nov 2004
Canada	2231734	31 Jul 1997	Improved oil-based drilling fluid	2231734	11 Mar 2008
Canada	2237599	01 Aug 1997	Invert emulsion fluids suitable for drilling	2237599	30 Sep 2008
Canada	2231555	31 Jul 1997	Improved oil-based drilling fluid	2231555	15 Jan 2008
Canada	2300888	19 Aug 1998	Oil based drilling fluids suitable for drilling in the presence of acidic gases	2300888	22 Dec 2009
Canada	2299951	29 Feb 2000	Method and apparatus for handling and disposal of oil and gas well drill cuttings	2299951	21 Sep 2004
Canada	2302968	29 Mar 2000	Centrifuge control system and method with operation monitoring and pump control	2302968	30 Sep 2008
Canada	2287695	28 Oct 1999	Intrinsically safe data acquisition system and apparatus	2287695	12 Jan 2010
Canada	588909	23 Jan 1989	Oil based drilling fluids and additives therefor	1330447	28 Jun 1994
Denmark	99308577.8	29 Oct 1999	Vacuum tank for use in handling oil and gas well cuttings	0997607	20 Jul 2005
Denmark	00302634.1	29 Mar 2000	Centrifuge control system and method with operation monitoring and pump control	1044723	07 Nov 2007
Europe	94110290.7	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	0634468	11 Nov 1998
Europe	97122270.8	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	0838514	12 Nov 2003
Europe	97937088.9	31 Jul 1997	Improved oil-based drilling fluid	0920484	14 Jul 2004
Europe	97936442.9	01 Aug 1997	Invert emulsion fluids suitable for drilling	0929619	22 Nov 2006
Europe	97936358.7	31 Jul 1997	Improved oil-based drilling fluid	0854897	09 Apr 2003

Europe	98941006.3	19 Aug 1998	Oil based drilling fluids suitable for drilling in the presence of acidic gases	1019459	09 May 2007
Europe	99308577.8	29 Oct 1999	Vacuum tank for use in handling oil and gas well cuttings	0997607	20 Jul 2005
Europe	00302634.1	29 Mar 2000	Centrifuge control system and method with operation monitoring and pump control	1044723	07 Nov 2007
Europe	92117712.7	16 Oct 1992	Drilling fluid additive and method for inhibiting hydration	0539810	26 Jul 1995
Europe	96103152.3	1 Mar 1996	Improved water-based drilling fluids for reduction of water adsorption and hydration of argillaceous rocks	0730018	14 May 2003
France	97937088.9	31 Jul 1997	Improved oil-based drilling fluid	0920484	14 Jul 2004
France	97936358.7	31 Jul 1997	Improved oil-based drilling fluid	0854897	09 Apr 2003
France	98941006.3	19 Aug 1998	Oil based drilling fluids suitable for drilling in the presence of acidic gases	1019459	09 May 2007
Germany	92117712.7	16 Oct 1992	Drilling fluid additive and method for inhibiting hydration	DE69203690T2	26 Jul 1995
Germany	94110290.7	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	DE69414481T2	11 Nov 1998
Germany	97122270.8	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	DE69433329T2	11 Nov 1998
Germany	97937088.9	31 Jul 1997	Improved oil-based drilling fluid	DE69729872T2	14 Jul 2004
Germany	97936358.7	31 Jul 1997	Improved oil-based drilling fluid	DE69720676T2	09 Apr 2003
Germany	98941006.3	19 Aug 1998	Oil based drilling fluids suitable for drilling in the presence of acidic gases	DE69837766T2	09 May 2007
Germany	99308577.8	29 Oct 1999	Vacuum tank for use in handling oil and gas well cuttings	DE69926194T2	20 Jul 2005
Germany	00302634.1	29 Mar 2000	Centrifuge control system and method with operation monitoring and pump control	DE60036975T2	07 Nov 2007
Italy	92117712.7	16 Oct 1992	Drilling fluid additive and method for inhibiting hydration	0539810	26 Jul 1995
Italy	94110290.7	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	0634468	11 Nov 1998

Italy	97122270.8	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	0838514	12 Nov 2003
Italy	97937088.9	31 Jul 1997	Improved oil-based drilling fluid	0920484	14 Jul 2004
Italy	97936358.7	31 Jul 1997	Improved oil-based drilling fluid	0854897	09 Apr 2003
Italy	98941006.3	19 Aug 1998	Oil based drilling fluids suitable for drilling in the presence of acidic gases	1019459	09 May 2007
Italy	00302634.1	29 Mar 2000	Centrifuge control system and method with operation monitoring and pump control	1044723	07 Nov 2007
Mexico	PA/a/1995/001479	23 Mar 1995	Improved aqueous based drilling fluid additive and composition	198205	23 Aug 2000
Netherlands	97122270.8	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	0838514	12 Nov 2003
Netherlands	97937088.9	31 Jul 1997	Improved oil-based drilling fluid	0920484	14 Jul 2004
Netherlands	99308577.8	29 Oct 1999	Vacuum tank for use in handling oil and gas well cuttings	0997607	20 Jul 2005
Netherlands	00302634.1	29 Mar 2000	Centrifuge control system and method with operation monitoring and pump control	1044723	07 Nov 2007
Norway	19981159	31 Jul 1997	Improved oil-based drilling fluid	322890	18 Dec 2006
Norway	19981160	01 Aug 1997	Invert emulsion fluids suitable for drilling	328474	01 Mar 2010
Norway	19981161	31 Jul 1997	Improved oil-based drilling fluid	327459	06 Jul 2009
Norway	20000807	19 Aug 1998	Oil based drilling fluids suitable for drilling in the presence of acidic gases	Pending	
Norway	19991798	14 Oct 1997	Oil and gas well cuttings disposal system with continuous vacuum operation for sequentially filling disposal tanks	317512	08 Nov 2004
Norway	19985493	24 Nov 1998	Oil and gas well cuttings disposal system with continuous vacuum operation for sequentially filling disposal tanks	316394	19 Jan 2004
Norway	19995270	28 Oct 1999	Vacuum tank for use in handling oil and gas well cuttings	319329	11 Jul 2005



Norway	19942493	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	312301	22 Apr 2002
Norway	19970414	30 Jan 1997	Portable liquid mud plant	312475	13 May 2002
United Kingdom	92117712.7	16 Oct 1992	Drilling fluid additive and method for inhibiting hydration	0539810	26 Jul 1995
United Kingdom	94110290.7	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	0634468	11 Nov 1998
United Kingdom	97122270.8	01 Jul 1994	Drilling fluid additive and method for inhibiting hydration	0838514	12 Nov 2003
United Kingdom	96103152.3	01 Mar 1996	Improved water-based drilling fluids for reduction of water adsorption and hydration of argillaceous rocks	0730018	14 May 2003
United Kingdom	97937088.9	31 Jul 1997	Improved oil-based drilling fluid	0920484	14 Jul 2004
United Kingdom	97936442.9	01 Aug 1997	Invert emulsion fluids suitable for drilling	0929619	22 Nov 2006
United Kingdom	97936358.7	31 Jul 1997	Improved oil-based drilling fluid	0854897	09 Apr 2003
United Kingdom	98941006.3	19 Aug 1998	Oil based drilling fluids suitable for drilling in the presence of acidic gases	1019459	09 May 2007
United Kingdom	9503137.3	17 Feb 1995	Method for and apparatus for use in the disposal of oil and gas well cuttings	2286615	16 Apr 1997
United Kingdom	9910978.7	14 Oct 1997	Oil and gas well cuttings disposal system with continuous vacuum operation for sequentially filling disposal tanks	2334058	08 Nov 2000
United Kingdom	9825754.6	24 Nov 1998	Cuttings disposal system	2333784	10 Mar 2000
United Kingdom	99308577.8	29 Oct 1999	Vacuum tank for use in handling oil and gas well cuttings	0997607	20 Jul 2005
United Kingdom	00302634.1	29 Mar 2000	Centrifuge control system and method with operation monitoring and pump control	1044723	07 Nov 2007