

PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT5151195

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
Name		Execution Date
CATERPILLAR GLOBAL MINING AMERICA LLC		09/14/2018
RECEIVING PARTY DATA		
Name:	CATERPILLAR GLOBAL MINING LLC	
Street Address:	97 E. CONGRESS STREET	
City:	TUCSON	
State/Country:	ARIZONA	
Postal Code:	85701	
PROPERTY NUMBERS Total: 20		
Property Type	Number	
Application Number:	09304153	
Application Number:	12814939	
Application Number:	12840515	
Application Number:	13915741	
Application Number:	13932273	
Application Number:	13955323	
Application Number:	14012791	
Application Number:	14256368	
Application Number:	14296510	
Application Number:	14507424	
Application Number:	14562374	
Application Number:	14562368	
Application Number:	14562322	
Application Number:	14674660	
Application Number:	14928852	
Application Number:	14987485	
Application Number:	14989449	
Application Number:	15048588	
Application Number:	15048628	
Application Number:	15090849	

PATENT

CORRESPONDENCE DATA**Fax Number:** (309)675-1236

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (309) 675-8091**Email:** Mayernich_Linda_L@cat.com**Correspondent Name:** CATERPILLAR INC.**Address Line 1:** 100 NE ADAMS STREET**Address Line 2:** AH9510**Address Line 4:** PEORIA, ILLINOIS 61629-9510

NAME OF SUBMITTER:	LINDA L. MAYERNICH
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SIGNATURE:	/Linda L. Mayernich/
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DATE SIGNED:	09/20/2018
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Total Attachments: 4

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ASSIGNMENT

WHEREAS, **Caterpillar Global Mining America LLC**, a Delaware corporation having a place of business at 2045 West Pike Street, Houston, Pennsylvania 15324, hereinafter referred to as ASSIGNOR, is by assignment or otherwise, the sole owner of the entire right, title and interest in and to the inventions, patents and patent applications listed on **Exhibit I** attached hereto, including all divisions, continuations, or reissues thereof, as well as all rights in and to any corresponding application or patent in any country or jurisdiction throughout the world claiming priority thereto ("Patent Assets") and;

WHEREAS, **Caterpillar Global Mining LLC**, a Delaware corporation having a place of business at 97 E. Congress Street, Tucson, Arizona 85701, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to said Patent Assets;

NOW, THEREFORE, be it known that for good and valuable consideration, the receipt of which from ASSIGNEE to ASSIGNOR is hereby acknowledged:

1. ASSIGNOR hereby sells, assigns, transfers and conveys unto ASSIGNEE the entire right, title and interest in and to said Patent Assets, including all accrued causes of action for damages for infringement thereof, and covenants that ASSIGNOR has the full right to do so, and that ASSIGNOR has not executed any agreement in conflict with this assignment, and that ASSIGNOR will execute and deliver to ASSIGNEE any further conveyance instruments as may be necessary to evidence more fully the transfer of the Patent Assets to ASSIGNEE, or the original ownership of the Patent Assets to ASSIGNOR. ASSIGNOR further agrees to perform any acts deemed reasonably necessary to carry out the intent of this Assignment. ASSIGNEE will reimburse ASSIGNOR for any and all costs reasonably incurred by ASSIGNOR in performance of these acts.

2. This assignment shall inure to the benefit of ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, ASSIGNOR'S heirs and legal representatives.

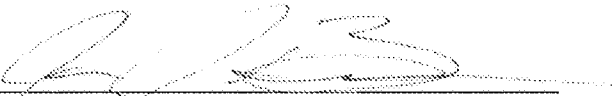
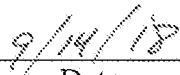
This Assignment is made and entered into as of the 21st day of August, 2018 (Effective Date).

In furtherance of this Assignment, ASSIGNOR hereby acknowledges that, from the Effective Date forward, ASSIGNEE has succeeded to all of ASSIGNOR's right, title, and standing to receive all rights and benefits pertaining to the Patent Assets, institute and prosecute all suits and proceedings, and take all actions that ASSIGNEE, in its sole discretion, may deem necessary or proper to collect, assert, or enforce any claim, right, or title of any kind under any and all of the Patent Assets, whether arising before or after the Effective Date, defend and compromise any and all such actions, suits, or proceedings relating to such

transferred and assigned rights, title, interest, and benefits, and do all other such acts and things in relation thereto as ASSIGNEE, in its sole discretion, deems advisable.

IN TESTIMONY WHEREOF, ASSIGNOR and ASSIGNEE have executed this instrument.

CATERPILLAR GLOBAL MINING AMERICA LLC (ASSIGNOR)

By:  _____  _____
Jaron J. Bromm
Secretary Date

CATERPILLAR GLOBAL MINING LLC (ASSIGNEE)

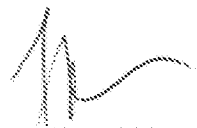
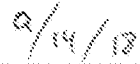
By:  _____  _____
Laurence Spencer Wilken
Secretary Date

Exhibit I

File No.	Country	Application Number	Application Date	Patent Number
11-1890-33842	South Africa	1998/07183	08/11/1998	1998/07183
11-1888-33750	USA	09/304153	05/03/1999	6371255
11-1892-33806	USA	12/814939	06/14/2010	8650866
11-1887-33807	USA	12/840515	07/21/2010	8292015
11-1892-39356	Australia	2011268044	06/08/2011	2011268044
11-1892-39357	Canada	2801906	06/08/2011	2801906
11-1892-39358	China	201180029369.X	06/08/2011	201180029369.X
11-1892-39359	India	10399/DELNP/2012	06/08/2011	
11-1892-39360	South Africa	2012/09680	06/08/2011	2012/09680
11-1887-39349	India	511/DELNP/2013	07/13/2011	
11-1887-39352	South Africa	2013/00570	07/13/2011	2013/00570
11-1887-39346	Australia	2011279961	07/13/2011	2011279961
13-0327-45838	USA	13/915741	06/12/2013	9234425
13-0334-45845	USA	13/932273	07/01/2013	8967730
13-0710-46762	USA	13/955323	07/31/2013	9388692
13-0688-46735	USA	14/012791	08/28/2013	9296436
13-0967-47233	USA	14/256368	04/18/2014	9206687
14-0120-49026	USA	14/296510	06/05/2014	9568119
13-0327-49053	South Africa	2014/04171	06/06/2014	2014/04171
13-0288-49054	South Africa	2014/04172	06/06/2014	2014/04172
13-0327-49898	China	201410259081.7	06/11/2014	201410259081.7
13-0334-50742	China	201420352100.6	06/30/2014	201420352100.6
13-0710-49052	South Africa	2014/05647	07/30/2014	2014/05647
13-0710-49903	China	201410371454.X	07/30/2014	201410371454.X
13-0688-51013	China	201420483311.3	08/26/2014	201420483311.3
14-0951-50873	USA	14/507424	10/06/2014	9476298
14-1376-51812	USA	14/562374	12/05/2014	9592864
14-1377-51813	USA	14/562368	12/05/2014	9505452
14-1373-51809	USA	14/562322	12/05/2014	9643668
14-2123-53171	USA	14/674660	03/31/2015	9810024
13-0967-52507	South Africa	2015/02584	04/16/2015	2015/02584
13-0967-52508	China	201520231526.0	04/17/2015	201520231526.0
15-1005-55294	USA	14/928852	10/30/2015	9764642
14-1376-56953	South Africa	2015/08633	11/23/2015	2015/08633
14-1376-57012	China	201510883526.3	12/04/2015	
15-1491-56386	USA	14/987485	01/04/2016	
15-1654-56664	USA	14/989449	01/06/2016	9945187
14-1924-58131	China	201620113003.0	02/04/2016	201620113003.0
15-1492-56387	USA	15/048588	02/19/2016	9975589

File No.	Country	Application Number	Application Date	Patent Number
15-1494-56389	USA	15/048628	02/19/2016	
15-2037-57285	USA	15/090849	04/05/2016	
15-1232-61006	South Africa	2016/05962	08/25/2016	
15-1232-61007	China	201621057417.2	09/18/2016	201621057417.2
15-1492-63146	Canada	2958038	02/14/2017	
15-1494-63148	Canada	2958036	02/14/2017	