503573353 11/17/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3619980

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
Tomoyuki HIROSE	10/09/2015	

RECEIVING PARTY DATA

Name:	SUMITOMO METAL MINING CO., LTD.
Street Address:	11-3, SHIMBASHI 5-CHOME
Internal Address:	MINATO-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	105-8716

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	14891872		

CORRESPONDENCE DATA

Fax Number: (703)836-2787

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: 703-836-6400
Email: email@oliff.com
Correspondent Name: JAMES A. OLIFF
Address Line 1: OLIFF PLC

Address Line 2: P.O. BOX 320850

Address Line 4: ALEXANDRIA, VIRGINIA 22320-4850

ATTORNEY DOCKET NUMBER:	168362
NAME OF SUBMITTER:	KIMBERLY SCOTT
SIGNATURE: /Kimberly C. Scott/ for James A. Oliff	
DATE SIGNED:	11/17/2015

Total Attachments: 2

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PATENT 503573353 REEL: 037063 FRAME: 0084

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

ASSIGNMENT

	Insert	(1)	Senchiro KATAZA	(2)	Tomoyuki HIROSE		
(1-8)	Legal Name(s)	(3)		(4)			
	of Inventor(s)	(5)		(6)			
		(7)	Bare (1) Biffe (B), MANIELLA, A) (Iga-), MANIELLA (Iga-),	(8)			
		the un		ency of which are l	r good and valuable consideration paid to each of nereby acknowledged, each undersigned agrees to		
(9)	Insert Name of Assignee	(9)	SUMITOMO METAL MINING CO., LTD.				
(10)	Insert Address of Assignee	(10)	10) 11-3, Shimbashi 5-chome, Minato-ku, Tokyo 105-8716 Japan				
		the ent invent contin	ire right, title and interest for the ion, and in all applications for pa	United States of A tent including any nd reissue applicati	sirs, successors, assigns and legal representatives, america as defined in 35 U.S.C. §100, in the and all provisional, non-provisional, divisional, ion(s), and all Letters Patent, extensions, reissues invention known as		
(11)	Insert Identification such as Title, Case Number, or Foreign Application Number	(11)	LINING STRUCTURE				
		(Attor	ncy Docket No.), 1	iled on even date herewith or as		
(12)	Alternative	(12)	U.S. Application Number				
	Identification for		THE RESIDENCE OF THE PARTY OF T				
	filed applications	filed					

- 1) Each undersigned agrees to execute all papers necessary in connection with any application and/or patent for the invention and also to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary.
- 2) Each undersigned agrees to execute all papers necessary in connection with any interference or post-grant proceeding which may be declared concerning any application or patent for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or post-grant proceeding.

 3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with
- claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.
- 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.
- 6) Each undersigned hereby grants the firm of OLIFF PLC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Declaration

As an above named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted.

The application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

> PATENT REEL: 037063 FRAME: 0085

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date		Inventor Signature		(SEAL)
Date	Oct. 9th, 2015	Inventor Signature	廣瀬智孝	(SEAL)
Date		Inventor Signature		(SEAL)
Date	***************************************	Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature _		(SEAL)
Date		Inventor Signature _		(SEAL)
neither	This assignment should preferably be sign, then it should be signed before at least two		; if within the U.S.A. (b) a U.S. Consul if outsid:	le the U.S.A. If
Date		Witness		
Date		Witness		

RECORDED: 11/17/2015