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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Scot P Sandoval	06/10/2005
Paul R Cook	06/10/2005
Timothy G Robinson	06/13/2005

RECEIVING PARTY DATA

Name:	PHELPS DODGE CORPORATION	
Street Address:	One North Central Avenue	
City:	PHOENIX	
State/Country:	ARIZONA	
Postal Code:	85004-4464	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	10907638	

CORRESPONDENCE DATA

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Correspondent Name: SNELL & WILMER L.L.P. (Main)

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Address Line 2: Wendy S. Neal

Address Line 4: PHOENIX, ARIZONA 85004-2202

ATTORNEY DOCKET NUMBER:	97112.3800
NAME OF SUBMITTER:	Wendy S. Neal

Total Attachments: 3

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PATENT REEL: 020680 FRAME: 0349

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ASSIGNMENT

UTILITY PATENT

WHEREAS, the undersigned inventors (hereinafter singly and collectively, "ASSIGNOR") of the addresses indicated below, for which application for Non-Provisional Utility Patent of the United States was filed on April 8, 2005, as Application Serial No. 10/907,638 and entitled METHOD AND APPARATUS FOR ELECTROWINNING COPPER USING THE FERROUS/FERRIC ANODE REACTION AND A FLOW-THROUGH ANODE, and for which provisional patent application was filed on April 8, 2004, as Application Serial No. 60/561,224;

AND WHEREAS, PHELPS DODGE CORPORATION (hereinafter "ASSIGNEE"), a corporation organized and existing under and by virtue of the laws of the State of Arizona, having its principal place of business at and a mailing address of One North Central Avenue, Phoenix, Arizona 85004-4464, is desirous of acquiring an interest therein;

AND WHEREAS, a "formal application," as referred to herein, shall mean any provisional, non-provisional, continuation, continuation in part, divisional, reissue, reexamination, foreign, PCT or other patent application or like document;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR by these presents do sell, assign and transfer unto ASSIGNEE, its successors, assigns and legal representatives, the full and exclusive right to the aforesaid applications, to the invention as described in the aforesaid applications, and to all formal applications which may be filed based in whole or in part on one or more of the aforesaid applications, in the United States and all foreign countries, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States adheres, and hereby authorizes and requests the Commissioner of Patents to issue said Letters Patent to ASSIGNEE, for the sole use and benefit of ASSIGNEE, its successors, assigns and legal representatives,

AND HEREBY AGREE to transfer, upon request of ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, a like interest in and to any improvements and formal applications based thereon, growing out of or relating to the invention;

AGREEING, FURTHERMORE, without further remuneration, to provide all reasonable assistance and execute any papers requested by ASSIGNEE, its successors, assigns and legal representatives, to preserve and/or acquire ASSIGNEE's full protection and title in and to the invention hereby transferred and any improvements therein,

AGREEING, FURTHERMORE, upon request of ASSIGNEE, and without further remuneration, to execute any and all papers desired by ASSIGNEE for the filing and granting of formal applications based on the invention or improvements therein, and for the filing and granting of foreign applications and the perfecting of title thereto in ASSIGNEE.

1655647.1

EXECUTED as of the date(s) written below by ASSIGNOR:

First joint inventor: Scot P. Sandoval	
Signature: Swt P. Sandwl	Date: 10 June 09
Residence address: 100 Hohokam, Morenci, Arizona 85540	
STATE OF Acizona) SS. COUNTY OF Greenlee)	
On this <u>loth</u> day of <u>June</u> , 2005, before me, a notary county, appeared Scot P. Sandoval , who is known to me to be the same subscribed to the foregoing instrument, and he acknowledges that he signed the said instrument as a free and voluntary act for the uses and purposes the	person whose name is ed, sealed and delivered
LINDA M. STACY Notary Public - Arizona Greenlee County My Comm. Expires Mar 16, 2009 Notary Public	Stacy
My commission expires:	
March 16, 2009	
Second joint inventor: Paul R. Cook	
Signature: Paul R. Cod	Date: 6-10-05
Residence address: 119 Ironwood Road, Morenci, Arizona 85540	
STATE OF Arizona) SSS. COUNTY OF Greenee)	
On this 10th day of June, 2005, before me, a notary county, appeared Paul R. Cook, who is known to me to be the same subscribed to the foregoing instrument, and he acknowledges that he signed the cook is the part of the pa	person whose name is d, sealed and delivered
LINDA M. STACY Notary Public - Arizona Greenlee County My Comm. Expires Mar 16, 2009 Notary Public	Stace
My commission expires: March 16, 2009	
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U.S. Serial No. 10/907,638 Attorney Docket No. 97112.3800

Signature:	Date:
Residence address.	
STATE OF	
COUNTY OF) ss.	
On this day of, county, appeared Wesley P. Hoffman , who is I subscribed to the foregoing instrument, and he the said instrument as a free and voluntary act f	2005, before me, a notary public in and for said known to me to be the same person whose name is acknowledges that he signed, sealed and delivered for the uses and purposes therein set forth.
My commission expires:	Notary Public
wiy commission expires.	
Founds in int inventors. Timesthy C. Dobinson	
Fourth joint inventor: <u>Timothy G. Robinson</u>	Elia I. F
Signature:	Date: 6/13/05
Residence address: 9400 North 109th Place, S	Scottsdale, Arizona 85259
county, appeared Timothy G. Robinson , who name is subscribed to the foregoing instrument	2005, before me, a notary public in and for said o is known to me to be the same person whose, and he acknowledges that he signed, sealed and luntary act for the uses and purposes therein set
	Hullen Kan -
	Notary Public y
My commission expires:	
Uct 27,0005	KATHRYN RAMSEY Fig. 1 and Public - Artono Mark upo County

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RECORDED: 03/20/2008