# PATENT ASSIGNMENT

**Electronic Version v1.1**  
**Stylesheet Version v1.1**

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<tr>
<th>SUBMISSION TYPE:</th>
<th>NEW ASSIGNMENT</th>
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<tr>
<td>NATURE OF CONVEYANCE:</td>
<td>ASSIGNMENT</td>
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## CONVEYING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
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<tr>
<td>John O Marsden</td>
<td>02/22/2005</td>
</tr>
<tr>
<td>Robert E Brewer</td>
<td>02/25/2005</td>
</tr>
<tr>
<td>Joanna M Robertson</td>
<td>03/01/2005</td>
</tr>
<tr>
<td>David R Baughman</td>
<td>02/25/2005</td>
</tr>
<tr>
<td>Philip Thompson</td>
<td>02/25/2005</td>
</tr>
<tr>
<td>Wayne W Hazen</td>
<td>02/25/2005</td>
</tr>
<tr>
<td>Christel M.A. Bemelmans</td>
<td>02/25/2005</td>
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## RECEIVING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>PHELPS DODGE CORPORATION</td>
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<table>
<thead>
<tr>
<th>Street Address:</th>
<th>One North Central Avenue</th>
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<tbody>
<tr>
<td>City</td>
<td>Phoenix</td>
</tr>
<tr>
<td>State/Country:</td>
<td>ARIZONA</td>
</tr>
<tr>
<td>Postal Code:</td>
<td>85004-4464</td>
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## PROPERTY NUMBERS Total: 1

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<tr>
<td>Application Number</td>
<td>12344842</td>
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## CORRESPONDENCE DATA

<table>
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<tr>
<th>Fax Number:</th>
<th>(602)382-6070</th>
</tr>
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*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*

<table>
<thead>
<tr>
<th>Phone</th>
<th>6023826000</th>
</tr>
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<tbody>
<tr>
<td>Email:</td>
<td><a href="mailto:jeslick@swlaw.com">jeslick@swlaw.com</a></td>
</tr>
<tr>
<td>Correspondent Name:</td>
<td>SNELL &amp; WILMER L.L.P, (Phelps Dodge)</td>
</tr>
<tr>
<td>Address Line 1:</td>
<td>ONE ARIZONA CENTER, 400 E VAN BUREN ST</td>
</tr>
<tr>
<td>Address Line 4:</td>
<td>Phoenix, ARIZONA 85004-2202</td>
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## ATTORNEY DOCKET NUMBER:

97112.4217
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<tr>
<th>NAME OF SUBMITTER:</th>
<th>Charles F. Hauff, Jr.</th>
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ASSIGNMENT

UTILITY PATENT

WHEREAS, the undersigned inventor(s) (hereinafter singly and collectively, "ASSIGNOR") of the address(es) indicated below, have invented a PROCESS FOR RECOVERY OF COPPER FROM COPPER-BEARING MATERIAL USING PRESSURE LEACHING, DIRECT ELECTROWINNING, AND SOLVENT/SOLUTION EXTRACTION for which application for Letters Patent of the United States has been executed herewith;

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;

AGREING, 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,

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

First joint inventor: John O. Marsden

Signature: [Signature] Date: 02/22/05

Residence address: 1248 East Seminole Drive, Phoenix, Arizona 85022

STATE OF Arizona } 
COUNTY OF Maricopa } ss.

On this 22nd day of February, 2005, before me, a notary public in and for said county, appeared John O. Marsden, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

KATHRYN RAMSEY
Notary Public

Oct. 27, 2005

Second joint inventor: Robert E. Brewer

Signature: [Signature] Date: 

Residence address: 1585 Empire Avenue, Park City Utah 84060

STATE OF _______ ) 
COUNTY OF _______ ) ss.

On this ______ day of ____________, 2005, before me, a notary public in and for said county, appeared Robert E. Brewer, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

Notary Public

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

First joint inventor: John O. Marsden

Signature: ___________________________ Date: __________

Residence address: 1248 East Seminole Drive, Phoenix, Arizona 85022

STATE OF __________ )
) ss.
COUNTY OF __________

On this _____ day of _____________, 2005, before me, a notary public in and for said county, appeared John O. Marsden, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

_________________________________________
Notary Public

My commission expires:

____________________________

Second joint inventor: Robert E. Brewer

Signature: Robert E. Brewer Date: 2/25/05

Residence address: 1585 Empire Avenue, Park City Utah 84060

STATE OF Arizona )
) ss.
COUNTY OF Maricopa

On this 25th day of February, 2005, before me, a notary public in and for said county, appeared Robert E. Brewer, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

_________________________________________
Notary Public

My commission expires: Oct. 27, 2005
Third joint inventor: Joanna M. Robertson
Signature: Joanna M. Robertson Date: 3/1/05
Residence address: 1452 South Roadrunner Lane, Thatcher, Arizona 85552

STATE OF Arizona )
COUNTY OF Graham ) ss.

On this 1st day of March, 2005, before me, a notary public in and for said county, appeared Joanna M. Robertson, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and she acknowledges that she signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

Barney (Upshaw) Notary Public
Notary Public State of Arizona
Graham County
Barbara J Upshaw
Expires September 12, 2006

My commission expires:
Sept 12, 2006

Fourth joint inventor: David R. Baughman
Signature: ____________________________ Date: ____________________________
Residence address: 15941 West Third Place, Golden, Colorado 80401

STATE OF ___________ )
COUNTY OF ___________ ) ss.

On this ______ day of ____________, 2005, before me, a notary public in and for said county, appeared David R. Baughman, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

My commission expires:

______________________________ Notary Public
Third joint inventor: Joanna M. Robertson

Signature: ___________________________ Date: __________

Residence address: 1452 South Roadrunner Lane, Thatcher, Arizona 85552

STATE OF _______ )
COUNTY OF _______ ) ss.

On this _____ day of __________________, 2005, before me, a notary public in and for said county, appeared Joanna M. Robertson, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and she acknowledges that she signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

______________________
Notary Public

My commission expires:

______________________

Fourth joint inventor: David R. Baughman

Signature: ___________________________ Date: 2/25/05

Residence address: 15941 West Third Place, Golden, Colorado 80401

STATE OF Colorado )
COUNTY OF Jefferson ) ss.

On this 25th day of February, 2005, before me, a notary public in and for said county, appeared David R. Baughman, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

______________________
Notary Public

My commission expires:

3/10/05

1637476 - 3 -
Fifth joint inventor: Philip Thompson
Signature: ____________________________ Date: 2/25/05
Residence address: 4513 White Cherry Way, West Valley City, Utah 84120

STATE OF Utah )
COUNTY OF Salt Lake ) ss.

On this 24 day of February, 2005, before me, a notary public in and for said county, appeared Philip Thompson, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

Margo W. Harper
Notary Public

My commission expires: June 23, 2007

Sixth joint inventor: Wayne W. Hazen
Signature: ____________________________ Date: ___________
Residence address: 2655 Van Gordon Drive, Lakewood, Colorado 80215

STATE OF ___________ )
COUNTY OF ___________ ) ss.

On this _____ day of ______________, 2005, before me, a notary public in and for said county, appeared Wayne W. Hazen, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

Notary Public

My commission expires: ________________
Fifth joint inventor: Philip Thompson

Signature: __________________________ Date: ___________
Residence address: 4513 White Cherry Way, West Valley City, Utah 84120

STATE OF __________ )
COUNTY OF __________ ) ss.

On this ____ day of ____________, 2005, before me, a notary public in and for said county, appeared Philip Thompson, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

________________________________________
Notary Public

My commission expires:

Sixth joint inventor: Wayne W. Hazen

Signature: Wayne W. Hazen Date: 25 Feb 2005
Residence address: 2655 Van Gordon Drive, Lakewood, Colorado 80215

STATE OF COLORADO )
COUNTY OF JEFFERSON ) ss.

On this __ day of ____________, 2005, before me, a notary public in and for said county, appeared Wayne W. Hazen, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

________________________________________
Notary Public

My commission expires:

3/01/08
Seventh joint inventor: Christel M. A. Bemelmans

Signature: Bemelmans Date: 25 Feb 2005

Residence address: 24268 Matterhorn Drive, Indian Hills, Colorado 80454

STATE OF COLORADO )
COUNTY OF JEFFERSON ) ss.

On this 25 day of FEBRUARY, 2005, before me, a notary public in and for said county, appeared Christel M. A. Bemelmans, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and she acknowledges that she signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

Mary Ann Nelson
Notary Public

My commission expires:
03/01/08

SNELL & WILMER L.L.P.
One Arizona Center
400 East Van Buren
Phoenix, Arizona 85004-0001
(602) 382-6000