

**MITIGATE SULFATE WITH RESPECT TO DRINKING WATERSUPPLIES IN THE  
VICINITY OF THE PHELPS DODGE CONCENTRATOR TAILING STORAGE AREA,  
COCHISE COUNTY, ARIZONA**

**MITIGATION ORDER ON CONSENT DOCKET No. P-121-07**

**ADEQ Mitigation Order of Consent**



**BEFORE THE DIRECTOR OF THE  
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**In the Matter of:**

Phelps Dodge Corporation, Copper Queen )  
Branch, located at 36 West Highway 92, )  
Bisbee, Arizona )

ADEQ Identification Number: 100531 )

**MITIGATION ORDER ON  
CONSENT**

**Docket No. P-121-07**

To: Phelps Dodge Corporation (PD) in its capacity as owner and/or operator of Copper Queen Branch (PDCQB), located at 36 West Highway 92, Bisbee, Cochise County, Arizona.

**RECITALS**

PD acknowledges that no promise of any kind or nature whatsoever was made to induce it to enter into this Consent Order, and PD has done so voluntarily.

PD acknowledges that by entering into this Consent Order, it does not resolve any liability it may have for civil penalties for violations of any State or Federal environmental law.

By entering into this Consent Order, PD does not admit to any civil or criminal liability, or waive any right, including, but not limited, to the assertion of any defense available to PD under applicable law. Further, PD does not admit, and both the Arizona Department of Environmental Quality ("ADEQ") and PD retain the right to controvert in any subsequent proceeding, except a proceeding to implement or enforce this Consent Order, the validity of any Findings of Fact or Conclusions of Law contained in this Consent Order.

The undersigned representative of PD certifies that he is fully authorized to execute this Consent Order on behalf of PD and to legally bind PD to this Consent Order.

PD admits to the jurisdiction of the Director of ADEQ.

Except as to the right to controvert the validity of any Findings of Fact or Conclusion of Law contained in this Consent Order in a proceeding other than to enforce this Consent Order, PD consents to the terms and entry of this Consent Order and agrees not to contest the validity or terms of this Consent Order in any subsequent proceeding.

**THEREFORE, IT IS HEREBY ORDERED** as follows:

**RECEIVED NOV 19 2007**

## **I. JURISDICTION**

The Director of ADEQ has jurisdiction over the subject matter of this action and is authorized to issue this Consent Order pursuant to the Arizona Revised Statutes ("A.R.S.") § 49-261, and A.R.S. § 49-286.

## **II. FINDINGS**

### **THE DIRECTOR HEREBY MAKES THE FOLLOWING FINDINGS OF FACT AND CONCLUSIONS OF LAW:**

#### **A. Findings of Fact**

1. PD owns and operated the Copper Queen Branch (PDCQB), a historic copper mine located at 36 West Highway 92, Bisbee, Arizona. PD owns and operates the Concentrator Tailings Storage Area (PDCTSA), an area composed of two inactive tailing impoundments from the PDCQB, a former evaporation pond, and a stormwater containment pond. The PDCTSA area is located approximately 3.3 miles southeast of the Town of Bisbee.

2. Available data indicate that at the time of entry of this Consent Order, depths to groundwater vary significantly across the PDCTSA site, particularly in the area of Township 23 South, Range 24 East, sections 26, 27, 33, 34 and Township 24 South, Range 24 East, sections 3 and 4. The groundwater elevations and flow directions across the PDCTSA site are affected by the three major faults, the Abrigo, Black Gap, and Bisbee West faults, which transect the PDCTSA. The faults create an isolated hydrogeologic domain beneath the tailing impoundments that has limited hydraulic connection to the regional aquifer. For this reason, groundwater beneath the tailing impoundments immediately north of the Abrigo fault is in excess of 780 feet below ground surface ("bgs") and flows to the north, whereas groundwater southwest of the tailing impoundments and south of the Abrigo fault ranges between 110 to 330 feet bgs and flows to the southwest in the regional aquifer toward the Town of Naco. Groundwater southeast of the tailing impoundments ranges between 77 to 216 feet bgs and flows to the southwest with a slight flow component to the southeast.

3. Operations at PDCTSA have resulted in the formation of a sulfate plume in the underlying aquifer. The sulfate plume is in the regional aquifer south of the Abrigo fault and extends to the south and southwest of the former evaporation ponds. PD has not ascertained fully the vertical and horizontal extent of the sulfate plume.

4. PD has a series of monitoring wells to monitor the PDCTSA. PD last provided ADEQ with sample results from four wells of these monitoring wells in October of

2005. Most of the analytical results for samples from the monitoring wells are from November 1997 or earlier. The lowest sulfate concentration recorded was 7 milligrams per liter ("mg/L"), which was present in a sample collected from monitoring well TM-12 in 1996. Groundwater data collected in 1997 indicates that the sulfate concentrations ranged from 1,210 mg/L to 1,290 mg/L in groundwater monitoring well TM-2, which is located immediately down gradient of the tailing impoundments and former evaporation ponds. Based on 1997 data, the 500 mg/L sulfate contour extends approximately 2.2 miles beyond the tailing impoundments and the former evaporation pond. The highest sulfate concentration recorded was 2,950 mg/L, which was present in a sample collected from monitoring well TM-2 on August 2, 1989.

5. Down gradient of the PDCTSA tailing impoundments and the former evaporation pond, Naco Water Company operates four water supply wells and the Arizona Water Company operates three water supply wells. Two of the Naco Water Company water wells, referred to as NWC-3 and NWC-4, are located approximately 3.3 and 2.3 miles, respectively, from the former evaporation pond. Groundwater samples collected in October 2005 from the Naco Water Company wells showed sulfate concentrations of 460 mg/L at NWC-3 and 220 mg/L at NWC-4. The Arizona Water Company wells are located approximately 4.6 miles down gradient and southwest of the former evaporation pond. Arizona Water Company's 2005 Annual Water Quality Report for Bisbee indicates that sulfate concentrations in samples from their Bisbee wells ranged from 5 to 34 mg/L in 2002. ADEQ has determined that a drinking water source is being or is about to be rendered unusable without treatment.

6. As a result of the sulfate plume migration, PD has supplied nineteen private drinking water well owners with bottled water and has deepened one private drinking water well.

7. Neither the Environmental Protection Agency (EPA) nor the State of Arizona provides a Maximum Contaminant Level (MCL) for sulfate in drinking water; however, the EPA provides a Secondary MCL of 250 mg/L that is not federally enforceable, and is based on taste considerations. During February 2003, the EPA published an 'Advisory' that "provides an analysis of the current health hazard information and an evaluation of available data on the organoleptic (i.e., taste and odor) problems associated with sulfate-contaminated water, because organoleptic problems will affect consumer acceptance of water sources." The 'Advisory' recommends reducing sulfate concentrations in drinking water to or below 250 mg/L to address taste considerations. It also recommends a maximum sulfate concentration in drinking water of

500 mg/L to prevent/avoid health based acute effects (absence of laxative effects). This value depends on the absence of other osmotically active materials in drinking water which could lower the sulfate level associated with a laxative effect.

B. Conclusions of Law

1. PDCTSA is a "facility" pursuant to A.R.S. § 49-201(17).
2. PD is a "person" pursuant to A.R.S. § 49-201 (26).
3. Sulfate, a non-hazardous substance, is a pollutant pursuant to A.R.S. § 49-201(28).
4. PD would be a responsible party under A.R.S. § 49-283 with respect to discharges containing sulfate from the PDCTSA facility if sulfate were a hazardous substance.
5. Under A.R.S. § 49-286, because a drinking water source has been or is about to be rendered unusable without treatment due to sulfate concentrations, ADEQ may order PD to perform one or more of the following mitigation measures:
  - a. Provide an alternative water supply;
  - b. Mix or blend if economically practicable;
  - c. Economically and technically practicable treatment before ingesting the water;
  - d. Other mutually agreeable mitigation measures as are necessary to achieve the purposes of A.R.S. § 49-286.

**III. COMPLIANCE SCHEDULE**

**THE DIRECTOR HEREBY ORDERS** and PD agrees to comply with the provisions of this Consent Order as follows:

A. Within sixty (60) days of the effective date of this Order, PD shall submit to ADEQ a Work Plan designed to complete characterization of the vertical and horizontal extent of the sulfate plume down gradient of PDCTSA. At a minimum, the Work Plan shall contain the following:

1. A summary of existing information on the characterization of the sulfate plume down gradient of PDCTSA, including references to known and ongoing characterization and assessment information. PD shall submit copies of any referenced final reports to ADEQ.

2. A Quality Assurance Project Plan that defines the sulfate plume characterization and assessment objectives, and describes the methods, organization, analyses, and Quality

Assurance and Quality Control that PD will implement and/or perform to ensure the characterization and assessment objectives are met.

3. A plan, with an implementation schedule that includes site access and permitting requirements and which may include one or more phases, to complete characterization of the vertical and horizontal extent of the sulfate plume down gradient of PDCTSA. This plan shall include installation, sampling and testing of additional monitor wells necessary to (1) identify the horizontal and vertical extent of the sulfate plume down gradient of PDCTSA in excess of 250 mg/L, and (2) evaluate the fate and transport of sulfate down gradient of PDCTSA.

4. A plan to inventory all existing registered private wells used as a drinking water source and public drinking water system wells located within a one (1) mile radius of the sulfate plume's down gradient and cross gradient outer edge.

B. ADEQ shall notify PD in writing if it approves the Work Plan or requires modification of the Work Plan to be consistent with the objectives set forth in Section III.A. Within thirty (30) days of receipt of such written notification from ADEQ or such longer period as may be granted by ADEQ in its discretion, if PD has no objections to the required modifications, PD shall modify and resubmit the Work Plan to ADEQ. If PD objects to the required modifications, PD shall employ the dispute resolution prescribed in Section IV. PD shall implement the Work Plan upon receipt of written approval of the Work Plan from ADEQ.

C. In accordance with the schedule in the approved Work Plan, PD shall submit to ADEQ an Aquifer Characterization Report (ACR) that provides detailed findings pertaining to sulfate concentrations down gradient of the PDCTSA. At a minimum PD shall address in the ACR, the following:

1. Current sulfate plume delineation;
2. Sulfate plume fate and transport; and
3. Identification of all existing registered private drinking water wells and public drinking water system wells identified by the well inventory required by Section III.A.4.

D. If, at any time after the entry of this Order and prior to implementation of the Mitigation Plan required below, PD identifies or is otherwise notified that the average sulfate concentration at the point of use in a drinking water supply downgradient of the PDCTSA exceeds 250 mg/L as a result of the sulfate plume originating from the PDCTSA, PD shall implement Interim Mitigation Actions for the owner(s)/operator(s) of the affected drinking water supply. The Interim Mitigation Actions shall address the loss or reduction of available drinking

water supply by blending, providing alternative water supplies, drinking water well replacement, water treatment or any other method approved by ADEQ. PD shall submit a report to ADEQ within thirty (30) days of implementing an Interim Mitigation Action. The report shall state the name of the owner(s)/operator(s) of the affected drinking water supply, the location and type of drinking water supply (public or private) affected and the Interim Mitigation Action selected.

E. In accordance with the schedule in the approved Work Plan and consistent with A.R.S. § 49-286(B), PD shall submit a Mitigation Plan to ADEQ for review and approval, which identifies and evaluates alternatives (e.g. containment, collection and discharge with or without treatment, institutional controls, alternative water supplies (including, but not limited to, a new drinking water supply well, use of an existing drinking water supply well, modifying the screened interval of an existing drinking water supply well, connection to an existing public drinking water supply system, and bottled water), mixing or blending, technically practicable treatment, and no action) to practically and cost effectively provide a drinking water supply that meets applicable drinking water quality standards and with sulfate concentrations less than 250 mg/L to the owner(s)/operator(s) of existing drinking water supplies determined from the characterization described in Section III.C of this Order and verified by sampling and analysis to have an average sulfate concentration in excess of 250 mg/L (or other legally enforceable numeric concentration for sulfate which is enacted by statute or rule after the effective date of this Consent Order) as a result of the sulfate plume originating from the PDCTSA. The Mitigation Plan shall include a plan for verification sampling and analysis, a method to determine when average sulfate concentrations in a drinking water source exceed 250 mg/L (or other applicable numeric concentration for sulfate which is enacted by statute or rule after the effective date of this Consent Order), and a description of a process to confirm that the sulfate concentrations are a result of the sulfate plume from the PDCTSA based upon the characterization described in Section III.C of this Order, which considers the extent of the sulfate plume, background sulfate concentrations, long-term data trends and any other potential sulfate sources. The Mitigation Plan will include recommendations and a schedule for implementation of recommended actions consistent with A.R.S. § 49-286 (A) and (B). The Mitigation Plan may use an adaptive management approach that allows for the adjustment of mitigation measures from time to time based upon information obtained concerning the performance of implemented mitigation measures and/or the identification of additional drinking water supplies that could be impacted by sulfate concentrations exceeding 250 mg/L.

F. ADEQ shall notify PD in writing if it approves the Mitigation Plan or requires modification of the Mitigation Plan to be consistent with the objectives set forth in Section III.E. Within thirty (30) days of receipt of such written notification from ADEQ or such longer period as may be granted by ADEQ in its discretion, PD shall modify and resubmit the Mitigation Plan to ADEQ. Upon receipt of written approval of the Mitigation Plan by ADEQ, and conditioned on written agreement from, or concurrent issuance of an ADEQ order to, the owner/operator of an affected drinking water supply well, PD shall implement the Mitigation Plan.

G. Within sixty (60) days after PD's receipt of written notice from ADEQ that ADEQ has approved the Mitigation Plan or a substantial modification of the Mitigation Plan in accordance with Section III.F., PD shall submit a cost estimate or a revised cost estimate to perform the mitigation measures required to be performed by PD under the approved Mitigation Plan. At the same time, PD shall submit one or more proposed financial assurance mechanisms or revised financial assurance mechanisms, consistent with the mechanisms allowed under A.A.C. R18-9-A203(C) or any successor regulation in effect at the time. ADEQ may require an update to the cost estimate if there has been a substantial modification to the Mitigation Plan in accordance with Section III.F. approved by ADEQ. The cost estimate shall not include contingent measures, but shall include the cost of obtaining any necessary equipment and constructing any facilities necessary to implement those portions of the approved Mitigation Plan that have not already been implemented and the costs of supplying, operating and maintaining mitigation measures required by the approved Mitigation Plan, discounted to net present value. If ADEQ does not approve PD's proposal, ADEQ shall notify PD of any requirements for modification of the cost estimate or financial assurance mechanism(s) to be consistent with the requirements of this Mitigation Order or A.A.C. R18-9-A203(C) or any successor regulation in effect at the time. PD shall modify and resubmit the cost estimate or proposed financial assurance mechanism within thirty (30) days of receipt of written notice from ADEQ. Within thirty (30) days after PD's receipt of written notice of ADEQ's approval of the cost estimate and financial assurance mechanism(s), PD shall submit executed copies of the financial assurance mechanism(s) to ADEQ. PD may submit written requests to ADEQ from time to time for reductions in the cost estimate and financial assurance amount to reflect modifications of the Mitigation Plan, implementation of mitigation measures and the cost of the remaining mitigation measures to be performed at the time of the request. PD also may propose changes to the financial assurance mechanism(s), including alternative mechanisms. ADEQ shall review and



either approve those requests or notify PD in writing of the modifications necessary for approval in accordance with the requirements of this Mitigation Order and A.A.C. R18-9-A203(C) or any successor regulation in effect at the time.

H. Within forty five (45) days of the effective date of this Consent Order, PD shall establish a community advisory group (CAG) consisting of at least eight (8) persons, chosen from a cross section of the community, for the purpose of identifying and improving the public's access and understanding of information regarding this Consent Order. The CAG shall include a designated representative from each of the nearby Public Water Systems (Naco Water Company and Arizona Water Company).

I. Within thirty (30) days of establishing the CAG, PD shall present this Consent Order to members of CAG and discuss issues, concerns, and opportunities for expeditious completion of all requirements of this Consent Order.

1. PD shall schedule at least four (4) CAG meetings each year to receive briefings, Status Reports, and other pertinent information. PD shall provide the members of the CAG and ADEQ at least seven (7) business days notice of each scheduled CAG meeting. Members of the public may attend CAG meetings, provided however, the CAG is not subject to A.R.S. § 38-431.01.

2. Within thirty (30) days of establishing the CAG, PD in consultation with the CAG, shall coordinate with ADEQ to establish a local repository for the dissemination of information about this Consent Order.

J. Upon written request, ADEQ may grant PD additional time to implement the provisions of this Section III if unforeseen circumstances arise. The written request must include a detailed explanation of the reason that additional time is needed, and the date that PD expects to complete the work.

#### **IV. DISPUTE RESOLUTION**

A. Unless otherwise expressly provided for in this Consent Order, any dispute that arises between PD and ADEQ with respect to the Work Plan and the Mitigation Plan described in Section III (hereinafter "Technical Disputes") shall be resolved using the mechanism provided under this Section.

B. Technical Disputes shall in the first instance be subject to informal negotiations between PD and ADEQ. The period of informal negotiations shall not exceed twenty business (20) days from the time the dispute arises, unless, via written agreement, PD and ADEQ agree to

extend this period. The dispute shall be considered to have begun on the date that ADEQ receives, via certified mail, a "Notice of Dispute" from the PD. The Notice of Dispute shall toll the time for compliance with Section III until the written decision of the Division Director is made in accordance with paragraph C.

C. In the event PD and ADEQ cannot resolve a dispute by informal negotiations, then the position advanced by ADEQ shall be considered binding unless, within thirty (30) days after conclusion of the informal negotiation period, PD provides ADEQ's Water Quality Division Director (Division Director) a written statement of position on the Technical Dispute, including any factual data, analysis or opinion supporting that position and any other supporting documentation relied upon by PD. The Division Director shall issue a final written decision after receipt of PD's statement of position. The written decision by the Division Director shall be final and there shall be no further administrative review, provided that in any action by ADEQ to enforce this Consent Order, PD reserves all of its rights to contest the Division Director's decision.

#### **V. STATUS REPORTS**

A. PD agrees to submit a written Status Report to ADEQ every ninety (90) calendar days from the effective date of this Consent Order, until termination of this Consent Order. At PD's request, ADEQ may approve fixed calendar dates for the submission of the Status Reports for the previous quarter (e.g., January 31, April 30, July 31 and October 31). Each written Status Report shall describe what measures have been taken under Section III of this Consent Order, and shall certify when compliance with the requirements of Section III of this Order has been achieved. The Status Reports shall be sufficiently detailed to allow ADEQ to determine the effectiveness of PD's characterization, remediation and/or all efforts pertaining to execution of the Work Plan. Each Status Report shall be accompanied by evidence of compliance including, as appropriate, submittal of documents, photographs or copies of any other supporting information that PD deems necessary.

B. ~~ADEQ will review the Status Reports and relay any disputes, in writing, to PD.~~ PD shall incorporate all required modifications, changes or other alterations, as requested by ADEQ, within a reasonable time specified by ADEQ.

#### **VI. VIOLATIONS OF ORDER/STIPULATED PENALTIES**

A. Under A.R.S. § 49-286, this Consent Order is enforceable under A.R.S. §§ 49-261 and -264.

B. ADEQ and PD agree that if PD fails to comply with any requirement of this Consent Order, PD shall pay a stipulated penalty pursuant to the schedule below:

<u>Period of Failure to Comply</u>	<u>Penalty Per Day of Violation</u>
1 <sup>st</sup> to 30 <sup>th</sup> day	\$5,000 per day per violation
31 <sup>st</sup> to 60 <sup>th</sup> day	\$6,500 per day per violation
After 60 days	\$8,000 per day per violation

C. Except as otherwise provided herein, stipulated penalties shall begin to accrue on the day that performance is due or that a violation of this Consent Order occurs and shall continue to accrue until correction of the act of noncompliance is completed. Neither issuance by ADEQ nor receipt by PD of a Notice of Violation of the terms and conditions of this Consent Order are conditions precedent to the accrual of stipulated penalties.

D. ADEQ shall notify PD in writing of any claim for stipulated penalties under this section. Stipulated penalty payments shall be made pursuant to a civil settlement (e.g., Consent Judgment) with ADEQ filed in a court of competent jurisdiction. If ADEQ and PD are unable to reach agreement for payment of stipulated penalties under a civil settlement within a reasonable time after PD receives written notice of a claim for stipulated penalties, or if PD fails to make payment of stipulated penalties due under a civil settlement, ADEQ may pursue any legal remedy available to it under this Consent Order or applicable Federal or State Law.

E. The stipulated penalties required by this Consent Order shall be in addition to other remedies or sanctions available to ADEQ by reason of any failure by PD to comply with the requirements of Federal or State laws, provided that ADEQ may not recover both stipulated penalties under this Consent Order and civil penalties under any other law for the same alleged act or omission. The payment of stipulated penalties shall not relieve PD from compliance with the terms and conditions of this Consent Order or Federal or State laws, nor limit the authority of the State to require compliance with the Consent Order or State law.

## **VII. COMPLIANCE WITH OTHER LAWS**

A. This Consent Order does not encompass issues regarding releases, contamination, sources, operations, facilities or processes not expressly covered by the terms of this Consent Order, and is without prejudice to the rights of the State of Arizona or PD arising under any federal or Arizona environmental statutes and rules with regard to such issues.

B. Nothing in this Consent Order shall constitute a permit of any kind, or a modification of any permit of any kind, or an agreement to issue a permit of any kind under

federal, state or local law, or relieve PD in any manner of its obligation to apply for, obtain, and comply with all applicable permits. Nothing in this Consent Order shall in any way alter, modify or revoke federal, state, or local law, or relieve PD in any manner of its obligation to comply with such laws. Compliance with the terms of this Consent Order shall not be a defense to any action to enforce any such permits or laws.

#### **VIII. FORCE MAJEURE**

A. PD shall perform all the requirements of this Consent Order according to the time limits set forth herein, unless performance is prevented or delayed by events which constitute a *force majeure*. *Force majeure*, for the purposes of this Consent Order, is defined as any event arising from causes beyond the control of PD or its authorized representatives which delays or prevents the performance of any obligation under this Consent Order and which could not have been overcome or prevented by PD. The financial inability of PD to comply with the terms of this Consent Order shall not constitute a *force majeure*.

B. In the event of a *force majeure*, the time for performance of the activity affected by the *force majeure* shall be determined by ADEQ and extended for a period no longer than the delay caused by the *force majeure*. The time for performance of any activity dependent on the delayed activity shall be similarly extended. In the event of a *force majeure*, PD shall notify ADEQ in writing within five (5) calendar days after PD or its agents become aware of the occurrence. The written notice provided to ADEQ shall describe in detail the event, the anticipated delay, the measures taken and to be taken by PD to prevent or minimize delay, and a proposed timetable under which those measures will be implemented. PD shall take all reasonable measures to prevent or minimize any delay caused by the *force majeure*. Failure of PD to comply with any requirements of this paragraph for a particular event shall preclude PD from asserting any claim of *force majeure* for that event.

#### **IX. SITE ACCESS**

ADEQ may at any time, upon presentation of credentials to authorized personnel on duty, enter upon the premises at the Facility for the purpose of observing and monitoring compliance with the provisions of this Consent Order. This right of entry shall be in addition to, and not in limitation of or substitution for, ADEQ's rights under applicable law.

#### **X. CORRESPONDENCE**

All documents, materials, plans, notices, or other items submitted as a result of this Consent Order shall be transmitted to the addresses specified below:

To ADEQ:

Arizona Department of Environmental Quality  
Water Quality Enforcement Unit  
Attention: Robert Casey  
1110 West Washington Street  
Phoenix, Arizona 85007-2935  
Telephone: 602-771-4614

To PD:

Site Manager  
Phelps Dodge Copper Queen Branch  
36 West Highway 92  
Bisbee, Arizona 85603

And

Manager, Water Quality Programs  
Environmental Department  
Phelps Dodge Corporation  
One North Central Avenue  
Phoenix, AZ 85004

Submissions to ADEQ as a result of this Consent Order shall be deemed submitted upon receipt.

#### **XI. RESERVATION OF RIGHTS**

A. This Consent Order is based solely upon currently available information. If additional information is discovered which indicates that the actions taken under this Consent Order are or will be inadequate to protect human health, safety, or the environment, or to conform with applicable federal or state laws, ADEQ shall have the right to require further action.

B. ADEQ shall have the right: to pursue civil penalties for violations of any and all provisions of A.R.S. Title 49, or the rules promulgated thereunder, occurring before entry of this Consent Order; to disapprove of work performed by PD that fails to comply with this Consent Order; to take enforcement action for any and all violations of this Consent Order; and to take enforcement action for any and all violations of A.R.S. Title 49, or the rules promulgated thereunder, occurring after the entry of this Consent Order.

#### **XII. SEVERABILITY**

The provisions of this Consent Order are severable. If any provision of this Consent Order is declared by a court of law to be invalid or unenforceable, all other provisions of this Consent Order shall remain in full force and effect.

### **XIII. MODIFICATIONS**

Any modifications of this Consent Order shall be in writing and must be approved by both PD and ADEQ.

### **XIV. EFFECTIVE DATE**

The effective date of this Consent Order shall be the date this Consent Order is signed by ADEQ and PD. If such signatures occur on different dates, the later date shall be the effective date of this Consent Order.

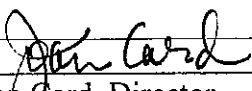
### **XV. PARTIES BOUND**

No change in ownership, corporate status, or partnership status relating to the subject of this Consent Order will in any way alter the responsibilities of PD under this Consent Order. PD will be responsible, and will remain responsible for carrying out all activities required under this Consent Order.

### **XVI. TERMINATION**

The provisions of this Consent Order shall be deemed satisfied and this Consent Order shall be terminated upon receipt of written notification from ADEQ that PD has demonstrated, to the satisfaction of ADEQ, that all of the terms of this Consent Order have been completed. Any denial of a request for termination from PD will be in writing and describe which terms of the Consent Order have not been completed to the satisfaction of ADEQ. ADEQ reserves the right to terminate this Consent Order unilaterally at any time for any reason. Any termination will include a written explanation of the reason(s) for termination. This Consent Order shall terminate if ADEQ initiates a civil action under A.R.S. §§ 49-261 or 262, other than an action to enforce this Consent Order, to require PD to take mitigation measures or other measures to address the impacts of the sulfate plume on drinking water sources.

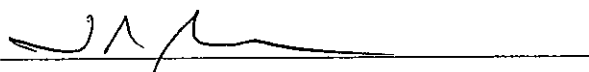
ISSUED this 13<sup>th</sup> day of November, 2007.

  
\_\_\_\_\_  
Joan Card, Director  
Water Quality Division  
Arizona Department of Environmental Quality

**CONSENT TO ORDER**

The undersigned, on behalf of PD, hereby acknowledges that he has read the foregoing Consent Order in its entirety, agrees with the statements made therein, consents to its entry and issuance by the Arizona Department of Environmental Quality, and agrees that PD will abide by the same and waive any right to appeal therefrom.

DATED this 8 day of November, 2007.



Timothy R. Snider, President

Phelps Dodge Corporation

**ORIGINAL** of the foregoing Consent Order was filed this 14 day of November, 2007, with:

Judith Fought, Hearing Administrator  
Office of Administrative Counsel  
Arizona Department of Environmental Quality  
1110 West Washington Street  
Phoenix, Arizona 85007-2935

**COPY** of the foregoing Consent Order was sent certified mail, return receipt requested, this 14 day of November, 2007, to:

Site Manager  
Phelps Dodge Copper Queen Branch  
36 West Highway 92  
Bisbee, Arizona 85603

William Cobb, Director  
Environmental Department  
Phelps Dodge Corporation  
One North Central Avenue  
Phoenix, AZ 85004

**COPIES** of the foregoing Consent Order were sent by regular/interdepartmental mail, this 14 day of November, 2007, to the following:

Mark Horlings, Civil Unit Chief  
Environmental Enforcement Section  
Office of the Attorney General  
1275 West Washington Street  
Phoenix, Arizona 85007

Michele Robertson, Manager, WPS, ADEQ  
Cynthia S. Campbell, Manager, WQCS, ADEQ  
Robert Casey, Manager, WQEU, ADEQ  
Unit Manager, Mining Unit, ADEQ  
Martin McCarthy, SRO, ADEQ

Patrick Chan, EES – WTR-6  
U.S. EPA Region IX  
75 Hawthorne Street  
San Francisco, California 94105