

ATTENTION CLAIMANTS

Mining claim rental fees are due in the Bureau of Land Management state office by

August 31

Claim holders owning part or all of 10 claims or less may qualify for a waiver from rental fees. Applications for the waiver are also due by the same date.

BOARD OF GOVERNORS

William J. Miller -
Phoenix - Chairman

Richard Oldham -
Quartzsite - Vice Chair-
man

Sidney Hoff-Hay
Phoenix - Secretary

Eric A. Nordhausen -
Tucson -Member

Ken C. Bennett -
Phoenix - Member

STAFF

H. Mason Coggin -
Director

Ken A. Phillips -
Chief Engineer

Nyal J. Niemuth -
Mining Engineer

Ann Turney - Admin-
istrative Assistant

Diane Bain - Editor

**Marianne Char-
nauskas** - Secretary

Glenn Miller - Curator

Susan Celestian -
Curator of Education

Tour Guides
Alice Rosenfeld

Joe McIntosh

Ann Baker

Doug Duffy



Arizona Department of Mines & Mineral Resources
1502 West Washington
Phoenix, Arizona 85007

Address Correction Requested

Mineral Resource

MINING NEWS

Carlotta Gets EIS - Finally

After many frustrating years Cambior U.S.A.'s Carlotta property near Miami has been granted its EIS by the Forest Service. Permits from the Army Corps of Engineers and the Environmental Protection Agency are still needed before construction begins.

Carlotta, the first major new mine in Arizona in 20 years, is expected to produce 900 million pounds of copper and employ 300 workers. The mine will consist of 3 open pits and will process by heap-leach and SX-EW.

Cyprus Miami Expansion EIS

The Draft Environmental Impact Statement for the Cyprus Miami Leach Facility Expansion Project has been released by the Bureau of Land Management and the Tonto National Forest. The proposed actions would increase the life of the Cyprus Miami operations from 16 to 20 years depending on the alternatives selected.

The EIS calls for recovering as much of the identified resource as possible and operating in an economic manner. It will maintain the work force of approximately 950 people and continue to use the existing facilities. This property has been in production for nearly 90 years.

Mission Gets Preliminary APP

The Arizona Department of Environmental Quality has made formal notice that it intends to issue an individual Aquifer Protection Permit to Asarco's Mission No. 4 Tailings facility near Sahuarita, Arizona in Pima County. The facility is necessary for their mining operation and will receive tailings in slurry form from the Mission Complex concentrators. The capacity will be approximately 309 million tons and hold about 30 years of tailings.



Do you need this information in an alternative format? Please call the Department office at 255-3791.

Addwest Adds Reserves

Addwest Minerals International is listed on the Vancouver Stock Exchange through the reverse takeover of Alina International. In recent months it has increased its proven and possible gold resources at the Gold Road mine by 17 percent. This was the result of adding 77,000 tons of 0.27 opt gold ore to its total reserves of 556,000 tons grading 0.234 opt. At the current production rate of 40,000 oz per year this mine is an important contributor to Arizona's gold production. Cash operating costs for the operation are estimated at \$219 per oz of gold.

Silver Bell

Asarco, in its joint venture with Misui & Co., has completed the construction of its new \$70 million SX/EW operation at their Silver Bell Mine, 40 miles northwest of Tucson. The facility has a capacity of 36 million pounds of copper per year at an estimated cost of \$0.50 per pound and an expected life span of 30 years.

Silver Bell's history goes back to the 1700's when Spanish padres worked the area for silver. By the 1860s the site was in production. Asarco acquired Silver Bell in 1915, the company's first Arizona property.

NEW PUBLICATIONS

Circular No. 71, *Arizona Mining Update-1997*, K.A. Phillips, N.J. Niemuth, and D. Bain, Jan., 1997

Circular No. 59, *Mining Scams*, Revised, March, 1997

Circular No. 73, *Amendment to the BLM Surface Management Requirements*, March, 1997

Circular No. 74, *Arizona Gem Shows 1997-98*, Alice Rosenfeld

Circular No. 75, *Earth Science Clubs*, 1997-98, Alice Rosenfeld

Open File Report 97-15, *The Art of Making a Cabochon*, Walter Peck, Doug Duffy, Shirley Cote, April, 1997

Arizona Department of Mines & Mineral Resources, 1502 W. Washington, Phoenix, AZ 85007
602-255-3791, toll-free in Arizona 1-800-446-4259
H. Mason Coggin, Director

TSE Calls For Standards in Assays

After the Bre-X debacle destroyed a large portion of the junior resource company stock market and made raising capital for new mines and exploration almost impossible, the Toronto Stock Exchange and the Ontario Securities Commission have formed a task force to examine the need to set standards for mining and exploration companies. Hopefully this will result in an investment atmosphere that will prevent another Bre-X.

Private Land Shrinking

Only 13 percent of the land in Arizona is privately owned according to the latest compilation by the Arizona Farm Bureau Federation. Previously it was held that 17 percent of Arizona was privately owned. This quantity has been degraded by the purchase of private property by the Heritage Fund for the Game and Fish Commission and the State Parks Board. The federal government also buys land for game refuges and tribal land settlements. Cities and municipalities also acquired private property in the dedication of parks, water retention basins and open space. Tax revenues are directly effected because of the loss in property and sales tax revenues from the land and the products they produce. Arizona's lands are held as follows:

Private	13%
Indian Reservations	27.2
BLM	19.5
Forest Service	15.3
State Lands	12.9
National Parks	4.2
Department of Defense	3.7
Fish & Wildlife	2.4
Other Public Lands	1.3

Arizona Farm Bureau News, May, 1997

USA Gets Its Power From Coal

Electric power is the backbone of industrial activity in the United States, and coal is the backbone of electric power according to Richard Lawson, president of the National Mining Association. Approximately 55 percent of the electrical power produced in the United States comes from burning coal. World wide energy consumption is projected to reach 562 quadrillion Btu in 2015. Most of this will come from coal. Consumption is projected at 2.3 billion short tons over the next 20 years.

Mining Week May 12, 1997

Amigos Annual Meeting

Asarco's Executive Vice President, Frank McAllister, was the keynote speaker at AMIGOS annual meeting at the Phoenix Zoo Pavilion on June 13th. Congressman John Shadegg was on hand to accept the fourth annual Copper Scissors Award for his work in Washington on behalf of taxpayers. Amigos' President Bob Humphrey of J.R. Kennedy Company passed the gavel to Lyn Thomas of Pioneer Equipment. Also recognized at the meeting was State Senate Majority Leader Mark Spitzer, Senate President Linda Bums, and House Speaker Don Aldridge. Another year of growth and expansion is expected for Amigos.

National Science Olympiad

Susan Celestian, Curator of Education, was one of the event supervisors for the 1997 National Science Olympiad that took place at North Carolina State University in Raleigh, NC in May of this year. The annual event is a nation-wide competition for young scientists to showcase their achievements over the year. They compete in 28 events and 6 trial events. Susan supervised the fossil division. The Department is proud to have a staff member participate in this prestigious national event.

Tailings to Construction Material?

Enviro-Crete Products of Phoenix may have a use for copper flotation mill tailings in the manufacture of aerated autoclaved concrete. Tailings are mixed with other ingredients and processed to make strong, light-weight cementitious blocks.

The process involves mixing, filling molds, and allowing chemical reactions to proceed such that raw materials swell to three times their original volume. The expanded mixture is then treated in an autoclave to make a hard foam-like block. The finished block's high porosity gives the material insulating properties. Its light weight reduces strength requirements for any supporting structures. Light weight and large block size improve the efficiency of construction labor. It can be cut with a saw, chopped with an ax, and will hold a nail. Electricians and plumbers can use a router to cut out channels for cables and plumbing. Typical housing applications will be stuccoed on the outside and dry walled on the inside. Svanholm International of Rhode Island has also announced plans to build an aerated autoclaved concrete block manufacturing plant in central Arizona.

Mining History

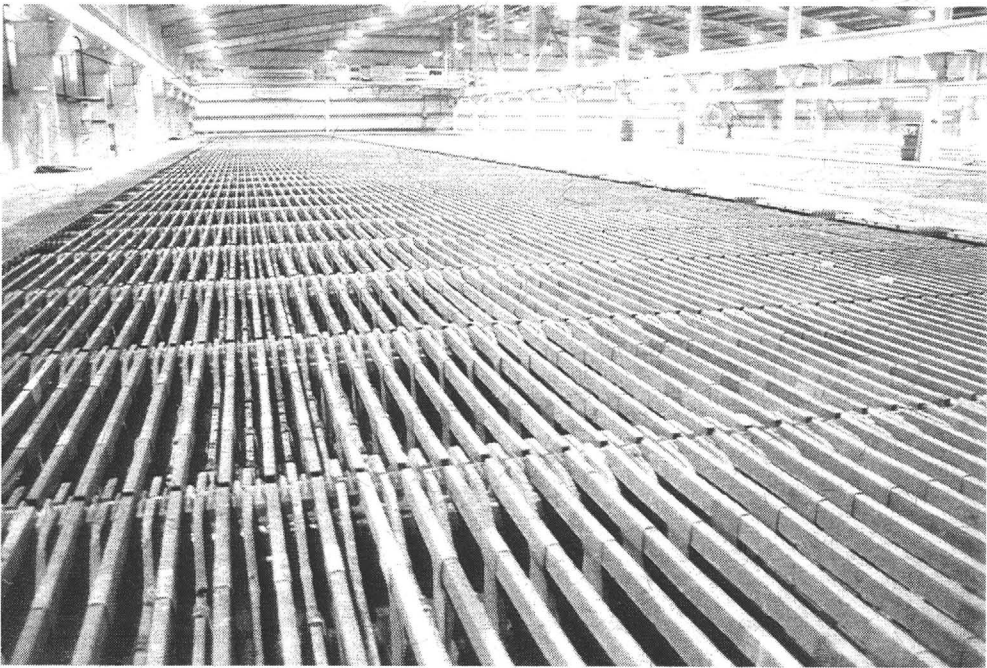
The Mining History Association (MHA) held their annual conference at Houghton in Michigan's Upper Peninsula Copper Country in June. About 100 members visited some of the mine sites, smelters and processing plants dating from the 1840s. The highlight of the conference for many was the one day bus tour covering several old copper mining towns, plants and shipping points on the Keweenaw Peninsula. Next year the Association Plans to hold their Conference in Bisbee.

MHA is dedicated to preserving mining history. The membership represents many nations. About one third of the members are miners, geologists and engineers, one third professional historians and one third museum curators and directors. Membership dues are \$25.00 per year and the association can be joined by sending your name and address with a check for \$25.00 per year to the Mining History Association at POB 150300 in Denver, CO 80215. Membership includes quarterly newsletters, the Annual Journal and information on the annual conference.

Call for Mining Papers

The Mining History Association is calling for papers for their annual conference to be held in Bisbee, Arizona over the week of June 4,5,6 & 7. Submittals should be original work on the history of mining, particularly Arizona and the Southwest. They should cover some facet of the history of finance, technology, mining districts, commodities, mining laws, labor, mining camps and societies, management or safety.

The presentations should be about 20 minutes. Graphics and slides are encouraged. Proposals are due by October 1. An abstract should be available by December 1st and final drafts will be due on or before March 1, 1998. Selected papers will be published in the association's annual journal. Proposal letters should be sent to Erik C. Nordberg, MHA Bisbee 98, Post Office Box 552, Houghton, Michigan 94931.



Phelps Dodge's Morenci Hydrometallurgical Division is utilizing a Process Information Management System (PIMS) to streamline processes and optimize flow rates. Dynamic information can be shown in a variety of graphic formats. The electrowinning tankhouse is shown at left.

Morenci Copper Review