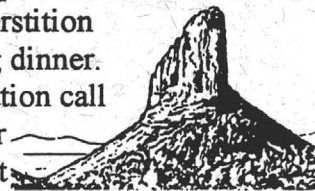


MINING SEMINAR

There is still time to sign up for the *Prospecting for Profit in the 90's* seminar sponsored by the Department and the Superstition Mountain Treasure Hunters Association. It will be held on Saturday, April 20 and includes technical sessions by the Department staff, equipment demonstrations, and breakfast, lunch and steak dinner. Ron Feldman, historian and lecturer, will present his slide show on the Superstition Mountains during dinner. For more information call the Department or Elaine Schrader at 983-3481.



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Mineral Resource

MINING

Silver Bell to Construct SX-EW

Asarco has announced that construction of a new mining and solvent extraction-electrowinning (SX/EW) facility at Silver Bell will soon commence. When the eighteen-month-project is completed the plant will produce approximately 18,000 tons of copper cathode per year at an estimated cost of \$0.50 per pound. Initial construction costs are estimated at \$70 million.

The facility, to be owned jointly by Asarco Incorporated and Mitsui & Co. Limited, will be called Silver Bell Mining L.L.C. Asarco will have a 75 percent interest in the project while Mitsui will have a 25 percent interest that it purchased for \$15 million and a proportionate share of funding for the construction. The new plant will operate under a unique and innovative BADCT from the Arizona Department of Environmental Quality.

Silver Bell produced copper concentrates from 1954 until 1984 when mining and milling operations were suspended. The facility will produce copper from leaching and precipitation until the new plant is in service.

Black Marble Success Story

Occasionally a gold miner and prospector finds a deposit, other than gold, that has potential economic value. Such was the case of Pete Incardona when he started developing the black marble deposit that he found on his patented mining claims. The original mines on the claims produced gold, silver, and a little copper. The fine black and cream marble on the property marked the limits of the deposits. When Incardona and his wife started reworking the property for gold they found this marble to be beautiful and workable as a carving stone with unusual color. Their first success was to sell it as lapidary material since it cuts well and takes a high polish. The dense black marble can be carved with a file. The Incardonas now face the next problem - finding carvers who will sculpt the material into salable shapes. Then the process of distribution and marketing can begin. Presently, the \$1.00 per pound asked by the Incardonas will allow a great deal of room

MINERAL PRODUCTION IN ARIZONA - 1995

COMMODITY	QUANTITY	VALUE
Clay (tons)	110,000	\$463,000
Copper (tons)	1,317,000	3,600,000,000
Gemstones		3,761,000
Gold (tr. ounces)	62,400	23,297,000
Sand & gravel (tons)	40,800,000	179,500,000
Silver (tr. ounces)	6,327,000	33,116,000
Stone-crushed (tons)	5,950,000	27,500,000
Pigments (tons)	85	62,000
Coal ¹	13,000,000	310,000,000
Other ²		309,178,000
TOTAL		\$4,486,877,000

Non-fuel figures from U.S. Geological Survey (preliminary)

¹ Estimate based on first 6 months of year.

² Cement, clays (bentonite), gypsum, lime, molybdenum, perlite, pumice, salt, sand and gravel (industrial) and dimension stone.

for sculpting or distribution and selling of multi-thousand dollar art pieces. The Incardonas have a saw with a 36-inch capacity. If you are interested in rock sculpture, distribution, or selling this material, please call them at (520) 684-0517 or contact the Department.

Silver Eagle Acquires 3 R Property

Silver Eagle Resources Ltd., of Vancouver, BC has acquired three advanced stage mineral properties, a staff of executives, and a laboratory from Liximin of Tucson. The acquisition includes the Three R property consisting of 21 patented mining claims and 52 unpatented claims near Patagonia, 70 miles southeast of Tucson. The Three R has produced approximately 50,000 tons of copper ore averaging about 10 percent copper during the period 1909 to 1920. The six levels of the mine are estimated to contain a remaining 7.4 million pounds of copper that can be leached and electrowon.



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H. Mason Coggin, Director

U.S. Bureau of Mines Data to ADMMR

Over the past few months, as the U.S. Bureau of Mines has gone through the process of closing their offices, they have been sending the Department reference material that pertains to Arizona. We have received originals and unpublished reports as well as copies of the Forest Service Mineral Land Assessment Open File Reports of Coronado and Prescott National Forests.

Ray Grant Sabbatical

Dr. Raymond Grant has recently completed a 4-month sabbatical with the Arizona Department of Mines and Mineral Resources. The sabbatical provided the Department with an opportunity to further develop our Met-allogenic Map series and produce an overlay for the Phoenix 1 x 2 degree map. While here he offered a course in physical mineralogy for the staff and volunteers. We will all miss Grant's geologic knowledge and mineral identification skills, as well as his enthusiasm and amiable personality.

\$100 Million Goes to Mexico Wollastonite

According to an article in the Arizona Republic on Jan. 9, 1996, Fording Coal Holdings, Inc. of Canada plans to start up the worlds largest wollastonite deposit in Sonora, Mexico. The mine, mill and processing plants will be constructed near Hermosillo. Wollastonite, a fibrous mineral, is used to strengthen plastic castings to prevent them from deforming when heated by sunlight. It is used extensively in automobile dash boards, grills and other plastic items subjected to heat, and in many ceramics and coatings applications. Fording Coal's Mexican subsidiary, Minera NYCO S.A. de C.V., will produce about 240,000 tons of the wollastonite yearly once the mine and plant are completed. The mine and plant will employ about 300 locals initially. NYCO purchased the property three years ago and has had the property on a fast track ever since. The company has considered wollastonite projects in Canada, US, China, and Spain.

Arizona has several identified wollastonite occurrences. Notable among these are the ones in Cochise, Gila, Pima, and La Paz Counties. None of these are producing at the present time.



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

Mining Association Elects New President

Charles W. "Chuck" Shipley has been named President of the Arizona Mining Association replacing David C. Ridinger who retired in January. Ridinger has been AMA's president since 1987.

Shipley, who has served as Vice President of Public Affairs for the Arizona Chamber of Commerce since 1987, holds a bachelor of science degree in geography and planning from Northern Arizona University. Shipley is active in a variety of community organizations in the State including the United Way, Arizona Coalition for Tomorrow, and Arizona business Leadership for Education.

Discovery Park to Have Mining Pavilion

Discovery Park in Safford is being developed as a regional attraction for the Safford Area. Among other things, the park will feature a mining pavilion with exhibits on the mining history of Arizona and the Safford Area. Steve Eady from Phelps Dodge will head the Mining Pavilion Planning Committee.

Arizona Facts

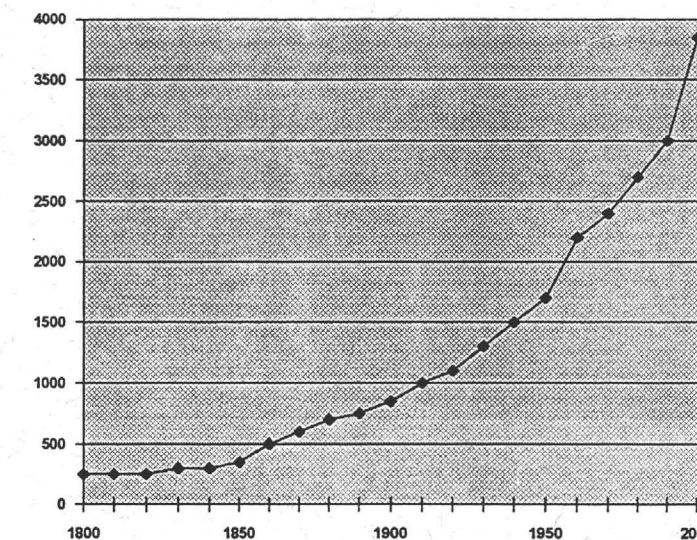
According the Arizona Department of Commerce, the State of Arizona had a total population of 4,071,650 people in 1994. This is a growth of 34.3% in the last decade. The population of Maricopa County was 2,355,900. Phoenix alone had a population of 1,051,515 people. The average personal income for Arizona was \$19,119. Mining employed 0.69% directly, and paid an average of \$798 per week. The next highest paying employer was manufacturing at \$653 per week. The rest of the people in Arizona lived in, drove, bought, sold, insured, taxed, regulated, talked about, or otherwise used the things that were mined.

Arizona Strategic Minerals Publication Available

The Department is now offering *Principal Deposits of Strategic and Critical Minerals in Arizona*, a special publication of the U. S. Bureau of Mines. This publication provides location, geological and operational data for about 200 mineral deposits representing 16 commodities that are important to the economy of the United States. Each of these commodities is discussed in terms of its history, physical and chemical properties, uses, and occurrence in Arizona. The 334-page publication is available from ADMMR for \$15.00.

Historic Gold Production

Mil. oz.



The amount of gold produced in the world throughout the ages (projected to 2000) stands at about 3.8 billion ounces. Eighty-six percent of that total was mined since the turn of the century.

Estimated Disposition

- 1,309,000,000 oz - Jewelry, decorative, and religious items
- 424,000,000 oz - Industrial use, undetermined, or lost
- 905,000,000 oz - Central banks
- 898,000,000 oz - Private stocks
- 59,000,000 oz - C.I.S.

Source: Adapted from CPM Group data in *Northern Miner*

MUSEUM NOTES

International Museum Day

During May the Museum will be participating in the celebration of the 50th anniversary of International Museum Day. The Central Arizona Museum Association is offering a free brochure that features discounts to many museums in central Arizona. Call (602) 644-2468 for a discount brochure and a free CAMA brochure listing museums and their locations.

AMA Teaching Teachers

The Arizona Mining Association is sponsoring the national Minerals Education Conference, 1996, *Mining Minds - Minding Mines* to be held on June 19-22, 1996. The conference will be held at the Red Lion LaPosada Resort in Scottsdale. A registration fee of \$95.00 includes conference materials, continental breakfast and lunch daily and an evening reception and dinner.

Also in June, the Mining Association is sponsoring a *Minerals in Society* program from June 9-15. The free program will include hands-on activities, field trips, and more. Academic credit is available for both of these events. For information on either program, contact Larry McBiles, Minerals Ed 96 Conference Chairman at (602) 266-4416.

Museum and Department Productivity

Museum attendance increased significantly the last calendar year, from 32,339 to 38,241. This figure included included 16,973 students.

For the first two quarters of fiscal year 95/96 the Department has handled over 25,383 incoming telephone calls and made over 8431 outgoing calls. During that same period of time we have shipped out over 1171 publications or copies of file information and had over 876 visitors. In those six months we have accessed 3,588 files and made corrections, added information, or made changes to the MILS indexes.

Thomas Cleator, 1924-1996

The end of an era in Arizona pioneer history is marked with the passing of Tommy Cleator. He was mayor of the town on the Bradshaw Mountain Railroad where his father, James P. Cleator, had been assigned as Postmaster in 1918. Originally called Turkey, it later became known as Cleator. He was well known as a small miner and worked many of the mines in the Cleator area. Although the sign on Cleator's bar usually said 'Closed,' this was an attempt to discourage flatland customers. Everyone who knew Tommy knew that if the door was open the bar was open.