Arizona Mineral Resource



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



ARIZONA

MINING

INTERNATIONAL PLATINUM CORP.

One of the principle duties of the Department, mandated by State statue, is to investigate mining properties in Arizona. In keeping with that directive, on March 28, 1994 V.L.R. (Lee) Furlong, President of International Platinum Corporation, and three associates were invited to the Department to meet with Nyal Niemuth, Diane Bain, and Director, Mason Coggin. They provided the Department with information on their activities at the BRX claims in La Paz County. The company, International Platinum Corp., has had heavy trading on the Toronto Stock Exchange. The Exchange, and other interested parties, have grown uneasy about the validity of the press releases made by the company and asked the Department to investigate.

Lee Furlong explained the company has a widespread anomaly that has extremely high values of gold, platinum, silver, copper and other metals. The gold and other precious metals are encapsulated thus rendering them immune to standard fire assay methods. The as-

sayers they use, however, reveal high values. They explained the metals are contained in what appears to be alluvium, (unconsolidated dirt), but is actually a more unusual, and as yet undetermined, geologic phenomena. They claim this material contains grains of petzite (a gold telluride), free gold, chalcopyrite, platinum group metals, plus many others. Furlong did not bring samples of the material, but said the grain size is so small that the precious metals cannot be seen anyway.

The Department was invited to visit and sample the claims. On March 3 Nyal Niemuth examined the property and collected samples. They were delivered to Arizona-registered assayer James Roy



Arizona Department of Mines & Mineral Resources, 1502 W. Washington, Phoenix, AZ 85007 H. Mason Coggin, Director

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Weatherby. Analysis by the fire assay method of the five samples did not find gold or any evidence of the platinum group metals.

Of the assay results Coggin says, "One area of agreement between the Department and International Platinum is that precious metals cannot be found in their samples by standard fire assay; we differ on why this is so." A report of the property is available.

DECOMPOSED GRANITE MARKETS

The Department receives numerous requests for deposits of decomposed granite in Pima County indicating the existence of an unmet demand. As no inventory of potential deposits exists, we provide an exploration concept for those interested in prospecting for a suitable deposit.

Landscape rock can be described as any crushed, broken, or quarried blocks of rock and natural boulders used outdoors for ground cover and decorative purposes. Crystalline rock that has weathered to produce a "decomposed granite" is also included.

The major markets for crushed and decomposed granite produced in Arizona are the urban and suburban



On May 7 the Arizona Historical Foundation named Mason Coggin corecepient of the Best Paper on Arizona History Award for his "Roots of the Calumet and Arizona, Bisbee." The above photograph shows miners in a cave in a Bisbee underground mine, circa 1917. Photo by Ida Mae Coggin.

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areas of Tucson, Phoenix, and Las Vegas. Material for the Tucson market is currently produced at San Manuel; that for Phoenix is produced from outcrops and pediments surrounding the Salt River Valley; and that for Las Vegas from the Mineral Park area of Mohave County.

Landscape rock and decomposed granite are grouped with other forms of crushed and broken stone production by the U.S. Bureau of Mines. Thus, tonnage, total value, and typical unit value published includes material ranging from construction fill and levee rip-rap through landscape materials to finely ground filler-extender minerals. Data for 1989 shows 6.65 short tons produced in Arizona, valued at \$28.55 million (\$5.55/ton average).

Market factors include distance to market (transportation is usually the larger portion of delivered cost), color, and particle size. Available particle sizes often include -.5"+.25", -.25"+.125", and -.375" (when excessive -fines are not a factor). Colors include white, gray, tan, gold, red, and brown. Shades in the red-pink range are the most popular. Additional colors, especially shades of greens and blues, are considered special and usually command high prices.

COPPER REPORT

Special Report 20, The Primary Copper Industry in Arizona in 1992, by Nyal J. Niemuth, is now available. The report details concentrate and leach production, byproducts, stripping ratios, ore grades, mill recoveries, reserves, employment and wages, and other statistics pertaining to Arizona's copper industry. National and world statistics are also included. A brief review of each Arizona producer's facilities and activities, including acquisitions and expansion, are covered.

The 6 operating companies in 1992 operated 18 mines that include 12 open pit properties, 3 underground mines, 5 leach only properties, and 3 smelters. Together they produced 2.53 billion pounds of copper. This represented about 65.4 percent of the primary copper production in the United States. Of this amount, 775 million pounds or 30.5 percent was produced by leaching oxide ores and low-grade dumps and 98 percent of the leached copper was extracted by solvent extraction-electrowinning (SX-EW). Nearly 300 million tons of ore with a weighted average grade of 0.53 percent copper was mined. The open pit operations maintained an average stripping ratio-waste to ore of 1:26:1.

PUBLICATIONS

in

OFR93-12 Economic Geology of the Sierra Estrella, Maricopa and Pinal Counties. Arizona, E.B. Melchiorre, 1993, 29 p. \$2,50 D41 Arizona Mining Consultants, N.J. Niemuth, 1993, 23 p. \$4.00 C47 Annual Assessment Work Requirements Under Arizona Statue, J.C. Lacy, 1993 3 p. 25 cents D42 Directory of Active Mines in Arizona -1994.25 p. \$4.00 SR19 From the Ground Up, by Jack Williams, 36 p. \$3.50 SR20 The Primary Copper Industry in Arizona in 1992, by NJ. Niemuth, 56 p. \$8.00 C51 Pertinent Data for New or Prospective Mining Operations, 1993, 5 p. 25 cents

If ordering by mail, please add \$1.50 postage.

In addition to the copper, over 30 million pounds of molybdenum was produced as a co-product or by-product and over 5 million troy ounces of silver and 60 thousand troy ounces of gold were produced as by-products.

Special Report 20 is available at the Department for \$8.00 or may be ordered by mail for \$10.00

ARIZONA MINE EMERGENCY ASSOCIATION FORMED

The Department Director, H. Mason Coggin, has been appointed to the board of directors of the Arizona Mine Emergency Association. This organization was formed in a response to a decree by the U.S. Mines Safety and Health Administration. Under the provision of this decree all underground mines are required to have a mine rescue team and a back-up team on-site while the mine is working. The only exception is for small and remote operations which must have a back-up rescue team within a two-hour response time of the property. The Mine Emergency Association was formed to provide this mine rescue support for underground miners in Arizona who join the organization.

MUSEUM NOTES

MINERALS COURSE FOR ARIZONA **TEACHERS**

Curator, Glenn Miller and Chief Engineer, Ken A. Phillips are participating in a summer course for school teachers. The course, Minerals in Society, is a multidisciplinary study of Arizona's geology, mining, and mineral use and is sponsored by the Arizona Mining Association. It is being presented in cooperation with Arizona State University College of Education, the University of Arizona College of Engineering & Mines and College of Education, and Northern Arizona University Center for Excellence in Education and Continuing Education. Ken Phillips is providing an introduction to mineral usage in daily life through a slide and lecture presentation entitled Uncommon, Common Minerals in Uncommon.

Common Places. Glen Miller's contribution, Mineral Identification in a Classroom Setting, is a hands-on program designed to give teachers a basic background in mineral identification. Heft, color, relative hardness, and appearance are covered.



Richard Flagg visited the Museum in April. Flagg is the son of Arthur L. Flagg, former curator of the Museum and founder of the Arizona Mining and Mineral Foundation Collection that is housed in the Museum. A taped interview with Richard Flagg was done for the Museum's oral history collection.

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Dear mining and Mineral museum, l liked. When We Watakes the film strip. Bleaver il never knew that ploele were called houmd dogs ils they hunted Mocks. sincerely Pellesk.

The week long courses are being held in Tucson, Globe, Tempe, Prescott, and Morenci. The free course is sponsored by the Mining Association and its 4 member companies, ASARCO Incorporated, Cyprus Climax Metals Comapny, Magma Copper Company, and Phelps-Dodge Corporation.

MUSEUM GETTING BRIGHTER

Improved lighting of specimens and displays, an urgent need since the Museum opened in its new quarters, is becoming a reality with the help of donated funds.

Quartz halogen lamps, producing a brighter, whiter light, with the added bonus of lower energy consumption for the same intensity as standard incandescent lamps, have been purchased for the existing general and spot lighting fixtures. It is hoped that once the initial lamp replacemnts have been completed the Department of Administration will replace the new lamps with the same type bulbs. The quartz halogen lamps are more costly to purchase but will save \$3,110 per year in electricity over the additional cost of the bulbs.

Ken Phillips, our Chief Engineer, experienced in electrical engineering and theatrical lighting and effects, has been working with Glenn Miller on the project for many months. Come in and see the difference!