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# 36TH Annual Report

ARIZONA DEPARTMENT OF MINERAL RESOURCES

and

ARIZONA MINERAL MUSEUM

Fiscal Year 1974 - 1975

Mineral Building - Fairgrounds Phoenix, Arizona 85007

JOHN H. JETT, DIRECTOR Honorable Raul H. Castro Governor of Arizona Capitol Building Phoenix, Arizona 85007

Dear Governor Castro:

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In accordance with ARS 27-106, we are pleased to submit the annual report of the Department of Mineral Resources and the Arizona Mineral Museum. The report covers the Department's and the Museum's activities for 1974-1975, the quarterly reports of the Director and a complete financial statement, all as required by ARS 27-106.

> BOARD OF GOVERNORS, ARIZONA DEPARTMENT OF MINERAL RESOURCES ARIZONA MINERAL MUSEUM

William T. Elsing, Chairman Walter E. Heinrichs, Jr. A. J. Perry Curtis Ritter Ronald F. Teissere

#### BOARD OF GOVERNORS

William T. Elsing - Chairman - Phoenix (Term expires January 31, 1976)

Walter Heinrichs, Jr., Tucson	A. J. Perry, Tucson
(Term expires January 31, 1977)	(Term expires January 31, 1979)
Ronald F. Teissere, Kingman	Curtis Ritter, Kirkland
(Term expires January 31, 1978)	(Term expires January 31, 1980)

#### STAFF PERSONNEL

Phoenix Office - Mineral Building, Fairgrounds - 271-3791

John H. Jett Pennie Paynich Glen Walker Ken A. Phillips Glenn A. Miller Mrs. Judy McClish Mrs. Gina Schillereff Mrs. Elizabeth A. Smith Director Administrative Assistant Mining Engineer Mineral Resources Engineer Mineral Resources Specialist Bookkeeper Secretary Secretary

Tucson Office - Room 208, State Office Building - 882-5399

Gerald W. Irvin Vernon B. Dale

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Mining Engineer Field Engineer

Mineral Museum - Mineral Building, Fairgrounds - 271-3791

Arthur W. Bloyd

Curator

#### STATUTORY POWERS AND DUTIES

Aid in the promotion and development of the mineral resources of the State.

Conduct studies of the economic problems of prospectors and operators of small mines for the purpose of assisting in their solution.

Assist in discovering sources of supply for persons desiring to buy minerals.

List and describe available mining properties.

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Make mineral resource surveys and conduct other investigations which may interest capital in the development of the State's mineral resources.

Serve as a bureau of mining information in conjunction with Arizona Bureau of Mines.

Publish and disseminate information and data necessary or advisable to attain its objectives.

Cooperate with the State Land Department to encourage mining activity on State lands.

Cooperate with the Corporation Commission in its investigations and administration of laws relating to the sale of mining securities.

Cooperate with the Arizona Bureau of Mines, and deliver to the Bureau problems which the field work of the division shows to be within the scope of the activities of the Bureau.

Cooperate with federal and other agencies designed to develop mines and minerals.

Oppose Congressional acts favoring reciprocal or duty free imports of foreign minerals.

Use its authority in other ways to assist in more extensive exploration and development of the mineral resources of the State.

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#### STATE OF ARIZONA DEPARTMENT OF MINERAL RESOURCES MINERAL BUILDING, FAIRGROUNDS PHOENIX, ARIZONA 85007



## 36TH ANNUAL REPORT

Page 1, Line 2 Should read: \$1,519,855,000 Line 3 Should read: \$1,298,827,000

# ARIZONA MINERAL PRODUCTION\*

The value of Arizona's total mineral production in 1974 was \$1,519,855.000. This was an increase of \$214,867,000 over 1973.

Copper accounted for \$1,298,827, which was \$195,374 (17.7%) increase over 1973. A complete detailed copper report is published by the Department and is available on request.

Total value of mineral production excluding copper was \$221,028,000 up \$19,493,000. By-products of copper mining include, molybdenum, which was the record largest dollar producer, at \$54,982,000 gold valued at \$14,054,000 and silver valued at \$30,086,000. Gold and silver production was down somewhat, but dollar value was higher than 1973.

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Sand and gravel production was valued at \$37,318,000 down approximately 3.4%. Stone production increased slightly to \$9,599,000. Lime production was valued at \$6,100,000 with zinc increasing almost double to \$6,440,000. Metals accounted for 93% of value, non-metals 6% and mineral fuels 1%.

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#### MINING ACTIVITY

The Department publishes a Directory of Active Mines in Arizona. Only those mines that are actively producing on a continuing basis are listed. Prospects and similar type operations are not listed. The publication lists name and location of the mining activity, management and technical personnel, approximate number of employees, and in most operations, production figures.

Eighty mining operations, involving sixteen various commodities, are listed. Only thirty-five of the operations are copper. Seventeen are underground mines, one is a strip mine, and the balance being open pits or quarries. Sand and gravel operations are not included.

#### EXPLORATION ACTIVITY

A Directory of Mineral Exploration Companies active in Arizona is published by the Department. It lists the major exploration companies. There are many small groups, plus many individuals not shown.

Fifty-four companies, with offices in Arizona, are listed. The major copper producers, six Canadian firms, seven large oil companies, a major wire manufacturer, largest gold producer in the United States, one of the largest silver producers, a major zinc producer, two major potash producers, two iron producing companies, and a large sulfur producing company are all listed. This is indication of the tremendous interest in Arizona minerals.

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### PROSPECTING ACTIVITIES

In 1974, there were 14,251 claims located. There were 16,379 Affidavits of Labor filed. (This is a minimum figure.) Any one Affidavit of Labor can serve for many claims. As an example, there were 764 filings in one county, representing 8,315 claims. Each claim requires work in the value of \$100 or more per claim to maintain title. Based on the limited data available, it is estimated that assessment work was done on 271,991 claims -- a very significant land-use figure. This also represents more than \$27 million dollars in assessment work.

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# DIRECTOR'S ACTIVITIES REPORT

## FISCAL YEAR 1974-1975

#### First Quarter

The Director attended meetings of the Arizona Administrators Association, Environmental Planning Commission, Finance Advisory Committee to the Joint Legislative Budget Committee, Mining Subcommittee to Advisory Commission on Arizona Environment, Arizona Prospectors Association and the Department's Board of Governors meeting. The Department sponsored an educational meeting for the Bureau of Land Management's new "engineers in training."

A new engineer was hired to fill the vacancy in the Tucson office. He will report for work the first week of October. The engineer, Vernon Dale, transferred to the Department from the Department of Revenue where he was the mineral appraiser.

The Director held meetings or other contacts with companies or individuals relating to setting up a chemical refinery, deposits of pozzolan and bentonite, reporters from the daily newspapers, property owners of Arizona land near mines (telephone from Texas), advertising agency, real estate office in Wickenburg, consulting engineering firms, representative from lime companies, Central Arizona College, Battelle Northwest Laboratory on Uranium, writer for local magazine, assessment work, placer claim data, a Canadian exploration firm, log washer construction for gold recovery, and the Nevada Mining Association.

Several discussions were held with individuals relating to investing in platinum in Arizona and plants that reportedly recover the same.

A discussion was held with the Coliseum officials relating to the possibility of moving into larger quarters. The idea is now favorably received and discussions will resume after the State Fair.

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Application for a U.S. Bureau of Mines joint project was made. Data was furnished to a legal firm in Texas relating to depletion allowance. The files were mailed. They have been returned.

School programs were set up and contact established with a School Careers project.

Field engineer Walker was consulted on problems relating to assessment work, recovery of gold from tailings, land status, cyaniding process of gold recovery, ore crushing, gold platinum separation, sluicing, placering, how to sample dikes, how to mill lead-silver ores, metal detector and contract mining.

In addition, he visited mines of, or was consulted on iron deposits, perlite, lead-silver, wolframite, tungsten, oxide copper and manganese.

The State Highway Department, Bureau of Land Management and the Bureau of Reclamation used Mr. Walker's services.

Mr. Walker attended a Water Symposium and worked on a project to locate and obtain a stamp mill for the Arizona Historical Society and the Department of Mineral Resources.

Mr. Johnson, office engineer, was consulted on claim locating, ore sales, mill design, ghost town identification, metal process, proof of labor affidavits, separation of gold and platinum, assaying dry concentrators, prospecting, lease of Indian lands, unpatented claim ownership, land status, metal detectors, log washers, leaching, silicon market, tantalum buyer, source of heavy media material, and patenting claims. He was consulted on petrified wood, magnesite, iron, coal, limestone, clay, sand, gravel, perlite, tungsten, mica, diatomaceous earth and fluorite. In addition, he worked on the Bureau of Land Management Cerbat Mountain Planning report and several environmental impact statements.

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In addition to the general public, and mineral oriented people, he was consulted by a district attorney, county recorder and engineers from several governmental agencies.

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The Tucson office was without one engineer this quarter. However, an effort was made to keep the office open since we now consider it a full-time office and not just a field office. In addition to the general public and mining oriented people, Engineer Irvin was consulted by the Tucson newspapers, Attorney General's Office, Bankers, County Assessor's office and the City of Phoenix. He attended the BLM hearings in Safford on land management. Inquiries related to limestone, rockhound material, marble, gold, platinum, cinders, fluorspar and bullion. Inquiries also related to railroad sidings, value of orebodies, mineral rights, placer claims, state leases, new Forest Service regulations, property zoning, land status, status of several old mines, assessment work, how to acquire mineral rights, uranium pricing structure, mill economics, subsurface ownership and joint venture possibilities.

Mr. Ken Phillips works as an engineer, statistician and educator. He has been given the working title of Director of Education and Statistics. The Museum has been placed in his charge. He interviewed applicants for the position of curator and recommended one for hiring. He lectured at Yavapai College for a small fee. He took the fee and bought the new engineers handbooks (2), and donated them to the Department.

Mr. Phillips consulted with a large number of individuals and gave presentations to groups on rockhounding, lapidary work, prospecting, hobby panning, mineral identification and gem and mineral shows. In addition, he was consulted on claim validation, Forest Service regulations, secondary recovery of precious metals, dump sampling, custom mills,

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copper production, ore buyers, iron deposits, drilling, mineral rights under various surface owners, sales potential of basic refractories, turquoise and general prospecting.

Mr. Phillips was also consulted by a shopping center publicity coordinator, Arizona Prospectors Association, Tucson newspapers, and a local magazine. He also contributes a monthly article to a local magazine.

A new curator was hired for the Mineral Museum. The curatorial aide continued cataloging, locating lost donated specimens, mailed out data to schools for field trips and assisted general public as much as possible. After the curator was employed, the Museum resumed opening on Saturday and Sunday 12:30 to 5:00 P.M. Glass was installed to replace wooden backs in upright cases. Paint was removed from windows and some display cases for better security visibility. The Museum was opened twice at night to accommodate special geology classes.

The curator is a former contractor. He obtained materials and patched the roof after several rains. As of now, for the first time since the present Director has been here, there are no roof leaks.

#### Second Quarter

The Director attended the annual American Mining Congress Convention in October. Concurrent with this meeting were meetings with WGMAC and officials of States' Mining Associations. In addition to these meetings, two subcommittee meetings on mineral resources for the Energy, Environment and Growth Symposium, Advisory Commission on on Arizona Environment, two meetings of the Finance Advisory Committee (to Joint Legislative Budget Committee financial analyst), State AIME

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and a two-day budget seminar, were all attended by the Director. Jett was re-elected a State Director for the AIME.

Board Member W. Heinrichs represented the Department at the Governors' E.E.G. symposium. Board Member Teissere visited the office, then went to Hecla Mining Compnay with three members of the Department. The trip was to plan details of a turquoise program for the wives of the Board of Directors of Hecla Mining Company and to obtain a suite of minerals for display.

The Director made presentations to two high school classes, one Community College class and one large rockhound group.

Final details were worked out for a contract with the U.S. Bureau of Mines for a study of fluorspar and asbestos. A grant of over \$22,000 will be provided to the Department. Contact was made with the Reynolds Mining Company and the field engineers are investigating possibilities of high alumina clays for them. The Department of Economic Security requested assistance on crushing of clays for some rehabilitation workers. The problem was solved.

Kingman ASMOA requested help on a potential county mill. Field Engineer Vernon Dale was assigned to the project and will work with them.

A trip was made to the Yuma Test Station, U.S. Army, to work on possibility of release of withdrawn lands. No success as yet.

Ted Johnson, working as our office engineer was extremely busy with over 95 office visitors and 137 telephone calls. In addition to Arizona residents, and others unknown, people from Texas (3) New York, Toronto, Ontario, California (3) Washington and Oklahoma (2) all consulted on some mineral problems with Mr. Johnson. In addition to the general question of claim location, prices, markets; where to prospect

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and ownership requests on investments from the Sphinx Investment Club from Buffalo, New York, a hardware store in Prescott for Indian cloth information (for sluice boxes), how to get money refunded after buying a mining claim (Michigan), threefamilies wanting to know the value of their investment in a speculative exploration firm. Information on insitu leaching, zinc hydrometallurgical plants, water rights and statistics were provided. Twelve (12) different minerals in addition to many gold and silver inquiries were discussed. Information was provided by Mr. Johnson on twenty-six different old mines.

G. Walker was the most active field engineer for the Phoenix office, making seventeen mine and field visits. Mining methods, amalgamation, stamp mills, gold recovery, property evaluation, leaching and optioning property were items discussed in addition to the usual prospectinglocation type questions. Attorneys as well as a bank used Mr. Walker's services. Data on 17 old mines, 16 gold discussions, silver, turquoise, salt, alunite, titanium plus nine other minerals, were discussed with Mr. Walker.

Mr. Walker made successful arrangements to obtain a stamp mill for the Department and the Arizona Historical Society. Mr. Walker attended the American Mining Congress Convention and the State AIME meeting in Tucson. Other unusual inquiries were related to guano, fluorescent minerals for a fireplace, taxes, mineral rights on agricultural land, caves in Arizona, and how to gain access to patented claims on the withdrawn bombing range.

Engineer Ken Phillips is functioning quite capably as Director of Education in addition to statistical work. In the educational field, Mr. Phillips directed the museum curator, interviewed seasonal workers, presented four career programs at schools, a presentation to a Rotary club, arranged mine field trip for a club, gave a program to a large

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club and advised on collecting areas for green lace quartz, geodes and other minerals. He attended meetings of and worked with the Arizona Prospectors Association.

In addition to many general discussions on gold and prospecting in general, he discussed uranium, coal, cinnabar and copper.

Mr. Phillips studied various types of micro-film reader printers and developed specifications for our use. The data was submitted to purchasing. Other unusual inquiries answered were from an attorney for mineral potential on Luke-Williams Bombing Range (client's property), Marana School District consultant for mine valuations (bonding purposes) and replying to many letters OEPAD received from a Nogales school.

One unusual type of mineral industry career program was thirty-five short presentations to a total of approximately 400 students at El Mirage.

Mr. Phillips also did much background research in anticipation of assisting one of the other engineers in a lead-zinc study of occurrences in Arizona.

Tucson based Field Engineer Irvin took vacation time and attended the American Mining Congress Convention at his own expense. In addition, he attended the State AIME meeting plus 11 other meetings of ASMOA, SMEA, Mining Club and the Copper Days Committee. Several newspaper reporters, U.S. Geological Survey and Department of Commerce personnel contacted Mr. Irvin. One State agency, one County agency and a city agency, as well as private firms all contacted Mr. Irvin to obtain copies of the Department's mineral resource maps of the Tucson area. He was consulted on more than 18 old mines or properties and minerals, including diatomaceous earth, limestone, clay for pottery and cinders. Many general questions on prospecting, land status, all about gold and other general subjects were answered.

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Unusual questions included a call from California wanting to buy thousands of ounces of silver, a savings and loan association wanting mining data at Safford (for home loan possibilities), design of a mine head frame, blasting near homes, Arizona strip withdrawal, and City Planning Department for Mineral Resources in Tucson Area. Mr. Irvin studied and gave comments on Tucson Airport Impact Statement.

Tucson office Field Engineer, Vernon Dale, started work this quarter. He spent considerable time looking at and sampling some silica and/or gold deposits with some small miners. An attempt is being made to get a product that could be shipped as flux into a New Mexico smelter. Other projects that were worked on was cost study for a lead-silver report, Pima County Planning and Zoning Commission, zoning around mineralized areas, study of tungsten for possible MAS project application and visit to a gold mill in order to assist in increasing gold recovery. Lime deposits, quartz veins, plus a number of other old claims or mines were discussed. Miscellaneous information requests included data on a refinery in Yuma, gold refinery in Tucson, leasing at Lake Mead area, diatomaceous earth, rockhounding, OME loans for exploration, leaching, chemical recovery of metals, minerals on the Papago Reservation, mining costs plus other general mineral and mining questions.

The Attorney General's office and the Department of Revenue are still keeping contact with Mr. Dale on some mine valuation appeals still pending.

#### Third Quarter

A newly appointed Board member, Mr. A. J. Perry, joined the Department this guarter. He replaced Mr. Bogart.

Legislation to merge the Department of Mineral Resources with other State agencies was introduced. The Director made a presentation on the Department to the full House Natural Resource Committee. House Bill 2066

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was originally introduced to re-structure the Arizona Bureau of Mines. At its first hearings, it turned into a proposal to merge the Department and the Bureau of Mines. It was assigned to a Subcommittee. Several Subcommittee hearings were held. They were attended by the Director and Ken Phillips. It was eventually assigned to an interim committee for later study.

House Bill 2263 was introduced to permit the Department to sell its and other publications. One hearing was held and the Bill was voted down.

The Director attended the following meetings during the Quarter: Advisory Commission on Arizona Environment, Restoration and Reclamation Seminar, Financial Advisory Committee to Joint Legislative Budget Committee's economist, Mining and Geology Subcommittee, Mestern Mining Conference (Denver) Mestern Governors Mining Advisory Committee, Arizona's Administrators Association, and Advisory Curriculum Committee for Arizona College of Technology.

The Director gave two lectures at Arizona State University on mining, four lectures at high schools and eight other presentations, including one to a group of Bureau of Land Management Engineers.

Some unusual requests for assistance from the Director included a writer doing an article for Hughes Air West, Cities Service Co. Atlanta Office Marketing Personnel trying to determine their position in the industry, educational and training films for an auditing firm doing mining accounts, film to Ralph M. Parsons Co. in California for training of their new engineers, a broker in Scottsdale wanting to buy a closed lime plant, Congressman Conlan's office, arranged for AMIGOS to have a display at Peoria High School for career days and representatives from a Swedish-German combine looking for base metal properties.

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A rather complete display of turquoise from Kingman and Pinto Valley was collected at the L. W. Hardy plant in Kingman. It is loaned to the Museum.

Contracts were signed with the U.S. Bureau of Mines for a "Minerals Availability System" study on fluorspar and asbestos. Two graduate students were put to work looking at properties under jurisdiction of Engineer Glen Walker. A geologist was contracted with to do the coding work.

Field Engineer Irvin is being used more and more as an office engineer. The Tucson office traffic is building up and it is not good policy to close it too often. Mr. Irvin had 149 phone calls and had 120 visitors. Contacts with Engineer Irvin include the following out of state visitors or calls: Canada on silver properties. 3 California calls on geology, mining and potential mines, Alaska on mining, regulations, Colorado on mining in general, two from New Mexico on consulting, drilling on old mines and general information, Maine on mining activity, Iowa on geology and one from New York on proposed mining legislation.

Mr. Irvin assisted with Copper Days, gold ores, AIME speeches, Papago Reservation mining, Pima County Engineering Department, portable air mills, perlite popping, severance taxes, feed for 250 TPD float plant and a magazine writer.

Engineer Vernon Dale did considerable sampling and field work on goldsilver ores, Franconia clay ores, survey of Antlers Mill, working with Mohave Chapter of ASMOA (also county Supervisors and Kingman city officials) for nonprofit custom mill and locating equipment for a small mine. In addition, he worked with Pima County Planning and Zoning Commission, Attorney General's office on interrogatories, news release on the Tonto Mill, Merchants Retail Credit Bureau, Tucson Water Department and consulted with visitors from Baja California, Colorado, British Columbia and California.

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Unusualinquiries related to limestone deposits, open shafts at Gleeson, dry air washer design, horse whim, jigging cyanidation and economics of possible conveyor belt repair shop.

Engineer Johnson was used chiefly as an office engineer. Discussion with his numerous contacts included uranium, diatomite, guano, titanium, garnet, magnesium, rose quartz, petrified wood, franklinite, dumortierite, taxes, gold-silica, prospecting and claim staking data, leaching, salt, gold buyers, hematite, cinnabar, perlite popping, placering, marble, coal mined land reclamation, and abandoned mines and custom mills. Some of the visitors were from Michigan, British Columbia, Colorado, New York, Texas, Missouri, West Virginia, Canada, Oklahoma, Alaska, Nevada, Misconsin, California, Indiana, Washington and Pennsylvania. The Capitol Librarian and OEPAD both used his services.

Mr. Johnson studied and commented on the following: Greenbelt Planning Unit from Buckeye - Gila Bend to Mohawk, Long Range Program for conservation and development within Laguna Natural Resource Conservation District, State Land exchange proposal, El Sol to Vail EHU Transmission Line Corridor of T.G.&E., Vulture Planning Unit and Hualapai Planning Unit.

This will be the last full quarter Mr. Johnson will be with the Department. He takes his retirement on May 21.

Field Engineer Walker attended the Western Mining Conference in Denver. He spent one day with the U.S. Bureau of Mines on the Mineral Availability Systems' details of operation. By the end of the quarter, nine properties had been investigated and complete reports written. Mr. Walker met with a MESA Inspector and the State Mine Inspector to get old mines inspected prior to our investigation for the MAS reports. No luck with either. Both said they were too busy to inspect anything except a working mine.

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In addition to the MAS project and Arizona people, Mr. Walker was contacted by people from the following states: Nevada, Pennsylvania, Canada (3), Colorado, Utah, Washington, Oregon, California, New Jersey, New Mexico and Mexico.

Mr. Walker worked with a major electric equipment manufacturer for some pure silica deposits. This required extensive sampling. Claim staking, patenting claims, tungsten ore, uranium, mining costs, mine tailings, old gold mines, custom mills, coal, cyaniding mills, OME loans, feldspar searching and turquoise prospecting were items discussed.

Engineer Phillips was used quite extensively in the Museum. However, the Museum is now functioning and Mr. Phillips has no more than normal contact with the Museum. Education is a large part of Mr. Phillips' activities. He gave 19 presentations to schools and adult groups this quarter. He presented a turquoise program to the "Nomen in Mining" organization. He presented the turquoise program six times in Yuma to more than 500 people. This included sessions at Nestern Arizona College. Assistance was requested from Mr. Phillips on amalgamation, retorting, financial prospectus for Pima County, newspaper reporters on an out of state mining company, Attorney General's office, attended legislative hearings, including Senate appropriations, subcommittees and worked with the Arizona Prospectors Association. Mr. Phillips writes a monthly article for <u>Outdoor Arizona</u>. Some are also printed in the Western Prospector and Miner.

#### FOURTH QUARTER

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The Department received the first monies from the U.S. Bureau of Mines for work on a fluorspar and asbestos study. The study will be coded for computer input and become a part of the Minerals Availability System for the Bureau of Mines.

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Judging a County 4H geology and mineral show, presenting a paper at a Geology Symposium, teaching a recreational prospecting class, studying and replying to statements relating to Queen Creek Matershed, Hualapai Planning Unit, providing data for the Attorney General's Office, working with the Securities Division of the Corporation Commission, presenting testimony at Senate Bill 1326 committee hearings, marketing research for manufacturers and presenting programs to community colleges were some of the activities for the period.

Flintkote, Division of U.S. Lime products, donated a large model of their new lime plant at Jelson, Arizona, to the Museum. It features the largest lime kiln in the world. The model was picked up in Henderson, Nevada. It has been set up in the Museum. It impresses many people that we do have a mining industry of some kind other than copper.

Some of the more unusual requests for assistance were as follows:

Out of State

Possibilities of erecting custom mill - Pennsylvania and Utah Leasing properties - Colorado, Pennsylvania, West Virginia, Utah and California <u>Canadian Companies</u>

Boliden-Preussag (actually German-Sweden) Multi-Minerals, Selco, Hudson Bay Mining Co., Sumitomo Metal Mining Canada, Ltd. In addition, several other Canadian individuals called at the office requesting assistance. This activity is probably the result of the new taxation policies being proposed and/or implemented in Canada.

Some special projects were locating and sending silica samples to General Electric and tungsten for Sylvania Corporation, both back east.

A Tennessee company was interested in the Black Sand of Sovereign Steel. A Salt Lake City company looking for clay deposits with Lithium, Santa Fe Railroad for Potash and Southern Pacific Railroad on potential minerals, were other contacts.

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We were asked to make a property valuation for a South Carolina resident. We assisted them as much as possible but recommended a consultant.

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A number of inquiries on coal and uranium, requests for cave guano deposits and new iron deposits were some of the more interesting contacts.

Sluice boxes, shaking tables and small mills were items requiring assistance from the engineers. One resident of Phoenix wanted assistance with a "backyard" leaching experiment. Two 1,000 gallon vats were erected.

A pumice company near Bagdad, a miner stockpiling ore near New River, and placers on Weaver Creek were other items of consultation.

Fire agate activity was intensified. Some believe this gem material will replace turquoise in popularity.

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# STATISTICAL OPERATING DATA

# Fiscal Year 1975-1975

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Office Visitors - Phoenix and Tucson	2,693
Other office contacts	4,972
Total public request contacts	7,665
Correspondence prepared	2,610
Photo copies made from mine files,	
technical publications, etc. for office visitors, etc. (Estimate)	8,000
Publications prepared and printed (Includes bibliographies, reports, pamphlets, etc.)	23
News Releases (Approximately 1200 news media)	8
Publications distributed	14,312
Engineers statistics - Phoenix and Tucson	
Office visitors (Included above)	1,425
Other office contacts (Included above)	1,798
Mine visits	104
Field contacts	168
Mine reports	27
Meetings attended	74

# STATEMENT OF EXPENDITURES

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APPROPRIATION Fiscal Year 1974-1975	\$	198,100.00
School tourns ("Prositary company") - most found		
EXPENDITURES:		
Personal Services\$ 146,628.73Employee Related Expenditures18,763.74Travel - State8,029.90Travel - Out-of-State1,312.60		
Other Operating Expenditures2,592.81Utilities1,374.03Mtnce. & Supplies1,374.03Telephone2,311.76Subscripts.,Dues & Publications924.71Insurance71.00Postage732.20Registration Fees104.50Rent1,496.00Office Supplies1,798.09Other Supplies76.50		
Capital Outlay - Equipment 2,450.14		
TOTAL EXPENDITURES	\$	189,166.71
Balance - Returned to General Fund	-	8,933.29
TOTAL APPROPRIATION 100 CONSIGNATION	\$	198,100.00

Total Contacts

Publications printer

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#### MINERAL MUSEUM

Parks II Hatel 1

Statistical Information for Fiscal Year 1974-1975

Visitors to Museum

School tours - Ele	ementary through	ugh College	5,898
Club meetings	(48)		1,154
Weekend visitors		till Silve Samer	2,008
Weekday visitors		であった。 「「「「「「」」」 「「」」」」	8,136
	Sub-total	n say - (s	17,196
State Fair (Estima	ate only)	N. The second	70,000

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Programs presented away from Museum include Community Colleges, Boys Scouts, Handicapped, Museum, and Trailer Villages

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с. <sup>3</sup>		33 progra	ms	2,044
Special	Exhibits of Min	erals	el an ciù Finta del	
	4 Exhibits (	Estimate of At	tendanc	e) 22,000
	ol Programs			
	20 programs, 76			1,634
Total Co	ntacts			112,874
Publicat	ions printed			5
Total nu	mber of publica	tions distribu	ited,	
inclu	ding those of o	ther organizat	ions	11,160

## MINERAL MUSEUM

## STATEMENT OF EXPENDITURES

# Fiscal Year 1974-1975

Donation - Fiscal Year 1974-1975	\$ 24,000.00
Balance Carried Forward - Fiscal Year 1973-1974	 3,171.95
	27,171.95
EXPENDITURES:	
Personal Services\$ 19,671.78Employee Related Expenditures2,636.51Travel - State337.40	
Other Operating ExpendituresTelephoneOffice Supplies138.54Maintenance & SuppliesPublicationsOther Supplies49.70Capital Outlay - Equipment2,233.00	
TOTAL EXPENDITURES	26,600.55

Balance Carried Forward

591.40

\$

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