

ARIZONA SMALL MINES ACCOUNT FOR 17.56% OF
TOTAL VALUE OF MINERAL PRODUCTION IN 1958

The Arizona Department of Mineral Resources has broken down the mineral production figures for the year 1958, as reported by the United States Bureau of Mines in a preliminary report, into the production of the large Arizona copper producers and the small Arizona mineral producers.

The large copper producers were found, from preliminary estimates, to have produced a total value of \$262,222,000 in copper, gold, silver, and molybdenum, while an estimated value of \$55,854,000 in all minerals, both metallic and non-metallic, was indicated for small mining companies. This amounted to 17.56% of the grand total of \$318,076,000 in value of mineral production in 1958.

The final total figures for the years 1956 and 1957 were given by the U. S. Bureau of Mines at \$484,959,000 for 1956, and \$372,644,000 for 1957. The increase in these figures over the U. S. Bureau of Mine's preliminary estimates for those years, was largely due to the reporting of uranium production which had not been published before. In Arizona, uranium ore production for 1956 was reported to be 274,505 tons worth \$5,408,000; and for 1957 it was 286,037 tons of ore worth \$6,277,000.

Using the final figures for 1956 and 1957, the small mining companies accounted for a total value of mineral production of \$63,904,000, or 13.18% in 1956, and \$57,635,000, or 15.47% in 1957.

TABLE I

MINERAL PRODUCTION OF LARGE AND SMALLPRODUCERS IN ARIZONA IN 1958

Compiled by Arizona Dept. of Mineral Resources From U.S.B.M. Report, Jan. 2, 1959

1958 Preliminary

| <u>LARGE COPPER PRODUCERS 1/</u> | <u>Production</u> | <u>Value</u> |
|---|-------------------|---------------|
| Copper (Lbs.) | 952,000,000 | \$252,280,000 |
| Gold (Ozs.) | 114,000 | 3,999,000 |
| Silver (Ozs.) | 3,400,000 | 3,077,000 |
| Molybdenum (Lbs.) | 2,222,000 | 2,866,000 |
| Total Value of Large Mine Production in 1958, Preliminary | | \$262,222,000 |

SMALL MINERAL PRODUCERS

| | | |
|---|------------|---------------|
| Beryllium Concentrate, Short tons, gross weight | 15 | \$ 8,000 |
| Clays 2/ Short tons | 115,000 | 173,000 |
| Coal Short tons | 8,000 | (3) |
| Columbium-tantalum concentrate - Pounds | (3) | (3) |
| Copper (recoverable content of ores, etc) (Lbs.) | 26,000,000 | 6,890,000 |
| Gem stones | (4) | 75,000 |
| Gold (recoverable content of ores, etc), Troy ounces | 32,000 | 1,115,000 |
| Iron ore (usable) Long tons, gross weight | 500 | 5,000 |
| Lead (recoverable content of ores, etc) (Lbs.) | 24,000,000 | 2,785,000 |
| Lime Short tons | 122,000 | 1,874,000 |
| Manganese ore & concentrate, (35-% or more Mn.) gross weight, Short tons | 63,000 | 5,214,000 |
| Mercury - 76-pound flasks | 26 | 6,000 |
| Mica - (scrap) Short tons | 2,000 | 20,000 |
| Perlite (crude) " " | (3) | (3) |
| Pumice Short tons | 400,000 | 640,000 |
| Sand and gravel " " | 10,596,000 | 9,499,000 |
| Silver (recoverable cont. of ores, etc) Troy ounces | 1,269,000 | 1,149,000 |
| Stone Short tons | 2,164,000 | 3,071,000 |
| Uranium ore " " | 275,000 | 7,012,000 |
| Vanadium | (3) | (3) |
| Zinc (recoverable content of ores etc.) (Lbs.) | 56,000,000 | 5,871,000 |
| Value of items that cannot be disclosed: Asbestos, bentonite, cement, feldspar, gypsum, nitrogen compounds, pyrites, and values indicated by footnote 3. | | 11,742,000 |
| Total Value of Small Mine Production 5/ | | \$ 55,854,000 |
| GRAND TOTAL VALUE OF MINERAL PRODUCTION (1958 Preliminary) 5/ | | \$318,076,000 |
| PERCENTAGE DUE TO SMALL MINES | | 17.56% |

FOOTNOTES:

- 1/ Phelps Dodge, Kennecott, Inspiration, Miami, Magma, A.S. & R Co's Silver Bell, Pima and Bagdad.
- 2/ Excludes bentonite; value included with "Items that cannot be disclosed."
- 3/ Figure withheld to avoid disclosing individual company confidential data; value included with "Items that cannot be disclosed."
- 4/ Weight not recorded.
- 5/ Total has been adjusted to eliminate duplication in the value of raw materials used in the manufacture of cement and lime.

TABLE I
MINERAL PRODUCTION IN ARIZONA^{1/} 1956 AND 1957 (Preliminary)

Source: U. S. B. M.

| | 1956 | | 1957 ^{2/} | |
|--|---|-------------------|---|---------------|
| | Short tons (unless otherwise stated) | Value | Short tons (unless otherwise stated) | Value |
| <u>METALLIC MINERALS</u> | | | | |
| Copper (recoverable content of ores, etc.) | 505,908 | \$430,021,800 | 512,600 | \$307,560,000 |
| Gold (recoverable content of ores, etc.) troy ounces. . | 146,110 | 5,113,850 | 157,300 | 5,505,500 |
| Lead (recoverable content of ores, etc.) | 11,999 | 3,767,686 | 12,500 | 3,600,000 |
| Manganese Ore and Concentrate (35 percent or more Mn). . . | 42,008 | 3,468,299 | 76,900 | 6,361,000 |
| Molybdenum (content of ore & concentrate) thousand lbs.. . | 2,392 | 2,670,457 | 2,370 | 2,728,500 |
| Silver (recoverable content of ores, etc.) troy ounces . . | 5,179,185 | 4,687,424 | 5,336,000 | 4,829,350 |
| Tungsten concentrate - 60% WO ₃ basis | 186 | 636,686 | 3 | 10,270 |
| Zinc (recoverable content of ores etc.) | 25,580 | 7,008,920 | 33,300 | 7,659,000 |
| Beryllium concentrate Gross weight. | 6 | 2,614 | 5 | 1,750 |
| Mercury - 76 pound flasks | 100 | 26,000 | <u>3/</u> | <u>3/</u> |
| Sub-total of value of Metallic minerals <u>6/</u> | | \$457,403,736 | | \$338,255,370 |
| <u>NON-METALLIC MINERALS</u> | | | | |
| Clays | <u>2/</u> 111,737 | <u>2/</u> 167,600 | <u>3/</u> | <u>3/</u> |
| Coal | 10,060 | 66,019 | 10,000 | <u>3/</u> |
| Gem Stones | <u>4/</u> | 104,000 | <u>4/</u> | 110,000 |
| Gypsum | 95,666 | 366,115 | 80,400 | 320,900 |
| Lime | 126,876 | 1,755,774 | 136,700 | 1,747,900 |
| Perlite (crude) | 15,928 | 108,404 | 1,300 | 7,620 |
| Pumice. | 114,609 | 366,095 | 113,400 | 551,700 |
| Rare-earth minerals (pounds) | 150 | 450 | - | - |
| Sand and gravel | 7,932,500 | 6,166,750 | 8,000,000 | 6,240,000 |
| Stone | 1,623,029 | 2,474,519 | 1,670,000 | 2,540,000 |

Continued -

MINERAL PRODUCTION IN ARIZONA^{1/} 1956 AND 1957 (Preliminary)

Cont'd

| | 1956 | | 1957 2/ | |
|---|---|------------------|---|------------------|
| | Short tons (unless otherwise stated) | Value | Short tons (unless otherwise stated) | Value |
| <u>NON-METALLIC MINERALS</u> Cont'd | | | | |
| Value of items that cannot be disclosed: Asbestos, cement, feldspar, mercury (1957), natural gas (1956), vanadium, and values indicated by footnote 3. | | \$ 11,677,579 | ..... | \$ 12,378,000 |
| TOTAL VALUE <u>ALL</u> MINERALS (except uranium and low-grade manganese ores shipped to G.S.A. depots) | | 5/ \$479,551,000 | ..... | 5/ \$360,626,000 |
| Sub-total of Value of Copper, Lead, Zinc, Gold & Silver | | \$450,599,680 | ..... | \$329,153,850 |

- 1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers). Value of low-grade manganese ore shipped to General Service Administration Purchase Depots (1956), and uranium ore is excluded.
- 2/ Excludes bentonite; value included with items that cannot be disclosed to avoid disclosure of individual company confidential data.
- 3/ Figure withheld to avoid disclosure of individual confidential data; included with "Undistributed".
- 4/ Weight not recorded.
- 5/ Total has been adjusted to eliminate duplication in the value of raw materials used in the manufacture of cement and lime.
- 6/ Value of "Undistributed" includes both metallic and non-metallic minerals.

TABLE II

AVERAGE PRICES OF SELECTED MINERAL COMMODITIES

IN ARIZONA, 1956-57 1/

| Commodity | 1956 | 1957 Preliminary |
|---|----------|---------------------|
| Copper 2/pound . . | \$ 0.425 | \$ 0.300 |
| Gold 3/ troy ounce . . | 35.000 | 35.000 |
| Lead 2/pound . . | .157 | .144 |
| Limeshort ton . . | 13.839 | 12.786 |
| Manganese ore and concentrate (35-percent or more Mn).do . . | 82.563 | 82.718 |
| Molybdenumpound . . | 1.116 | 1.151 |
| Perliteshort ton . . | 6.806 | 5.862 |
| Pumicedo . . | 3.194 | 4.865 |
| Sand and graveldo . . | .777 | .780 |
| Silver 4/ troy ounce . . | .905+ | .905+ |
| Stoneshort ton . . | 1.525 | 1.521 |
| Tungsten short-ton unit . . | 57.138 | 54.920 |
| Zinc 2/pound . . | .137 | .115 |

- 1/ Prices are based on average value f.o.b. mines or mills reported by the producers except as otherwise noted.
- 2/ Yearly average weighted price of all grades of primary metal sold by producers.
- 3/ Price under authority of Gold Reserve Act of Jan. 31, 1934.
- 4/ Treasury buying price for newly mined silver July 1, 1946, to date -- \$0.9050505 (\$0.905 used in 1947 for calculating purposes).

TABLE III

TABLE SHOWING COMPARATIVE MINERAL PRODUCTION 1/
OF LARGE AND SMALL MINING COMPANIES IN ARIZONA IN 1957

Compiled by Arizona Department of Mineral Resources From U.S.B.M.
Preliminary Report, January 3, 1958

1957 Preliminary

| <u>Large Mining Companies: 2/</u> | <u>Production</u> | <u>Value</u> |
|---|-------------------|----------------|
| Copper (Lbs.) | 1,013,200,000 | \$ 303,960,000 |
| Gold (Ozs.) | 134,300 | 4,700,500 |
| Silver (Ozs.) | 4,000,000 | 3,620,000 |
| Molybdenum (Lbs.) | 2,370,000 | 2,728,500 |
| Total Value of Large Mine Production | | \$ 315,009,000 |
| <u>Small Mining Companies:</u> | | |
| Copper (Lbs.) | 12,000,000 | \$ 3,600,000 |
| Gold (Ozs.) | 23,000 | 805,000 |
| Silver (Ozs.) | 1,336,000 | 1,209,080 |
| Lead (Lbs.) | 25,000,000 | 3,600,000 |
| Zinc (Lbs.) | 66,600,000 | 7,659,000 |
| Manganese concentrate (35% or more Mn) Long Tons | 76,900 | 6,361,000 |
| Tungsten concentrate (60% WO ₃ basis) Short Tons | 3 | 10,270 |
| Beryllium concentrate | 5 | 1,750 |
| Lime - (Short Tons) | 136,700 | 1,747,900 |
| Clays (Short Tons) | 3/ | 3/ |
| Perlite (Short Tons) | 1,300 | 7,620 |
| Pumice (Short Tons) | 113,400 | 551,700 |
| Sand and Gravel (Short Tons) | 8,000,000 | 6,240,000 |
| Stone (Short Tons) | 5,336,000 | 4,829,350 |
| Coal (Short Tons) | 10,000 | 3/ |
| Gem Stones | 4/ | 110,000 |
| Gypsum (Short Tons) | 80,400 | 320,900 |
| Undistributed: Asbestos, cement, feldspar, mercury, vanadium, and values indicated by footnote 3/ | - | 12,378,000 |
| TOTAL VALUE OF SMALL MINE PRODUCTION 5/ | | \$ 45,617,000 |
| GRAND TOTAL VALUE OF MINERAL PRODUCTION 5/ | | \$ 360,626,000 |
| Percentage due to Small Mines | | 12.6% |

1/ Uranium ore is excluded.

2/ Large Copper Producers: Phelps Dodge, Kennecott, Inspiration, Miami, Copper Cities, Magma, San Manuel, A.S. & R. Co's Silver Bell Mine, Pima, and Bagdad.

3/ Figure withheld to avoid disclosure of individual company confidential data; included with "Undistributed."

4/ Weight not recorded.

5/ Total has been adjusted to eliminate duplication in the value of raw materials used in manufacture of cement and lime.

TABLE IV

MINE PRODUCTION OF URANIUM ORE IN ARIZONA DURING FISCAL YEAR 1956 1/

| | July-December, 1955 | | | January-June, 1956 | | |
|------------------|----------------------|------------------|--|----------------------|------------------|--|
| County | Number of properties | Ore (short tons) | U ₃ O ₈ contained (pounds) | Number of properties | Ore (short tons) | U ₃ O ₈ contained (pounds) |
| Apache | 59 | 81,645 | 424,489 | 40 | 77,787 | 412,322 |
| Cochise . . . . | ..... | ..... | ..... | 1 | (2) | (2) |
| Coconino | 3 | (2) | (2) | 42 | 33,127 | 145,812 |
| Gila | 14 | 3,809 | 11,461 | 10 | 3,758 | 12,652 |
| Graham | 1 | (2) | (2) | ..... | ..... | ..... |
| Maricopa | 3 | (2) | (2) | 1 | (2) | (2) |
| Mohave | 1 | (2) | (2) | ..... | ..... | ..... |
| Navajo | 3 | (2) | (2) | 8 | 4,620 | 29,664 |
| Pima | 1 | (2) | (2) | 2 | (2) | (2) |
| Santa Cruz . . | 1 | (2) | (2) | ..... | ..... | ..... |
| Yavapai | 2 | (2) | (2) | ..... | ..... | ..... |
| Undistributed. | ..... | 7,111 | 33,798 | ..... | . 122 | 177 |
| Total. . . | 88 | 92,565 | 469,748 | 104 | 119,414 | 600,627 |

1/ Based on data supplied to the Bureau of Mines by the Atomic Energy Commission.

2/ Figure withheld to avoid disclosure of individual company confidential data; included with "Undistributed."