


Keith, Stanton B. (1975), Arizona Bureau of Mines Bull. 191, Index of Mining Properties in Santa Cruz County Arizona: 75 (Table 4).

A Zn-Pb-Cu-Ag-Au-Mn-Mo-V-W mining area located in T. 23-24S., R. 15-16E., in the southern Patagonia Mountains. This district lies on the Sonoran (Mexico) border and covers the southernmost part of the United States portion of the Patagonia Mountains and lies south of the Harshaw and Palmetto Districts. It is about 12 miles wide from east to west and 8 miles from north to south. On the west the boundary of the district for 4 miles north of the Mexican border follows the Santa Cruz River. On the east it roughly follows the upper or western edge of the wash or valley plain of the river, which toward the north coincides with the west or upper boundary of Meadow Valley Flat. The northern boundary, starting on the west, follows the divide north of Canada de la Paloma to the crest of the Patagonia Mountains on American Peak, from where it continues eastward across the Harshaw Creek drainage basin to Meadow Valley Flat.

The Patagonia Mountains extend across the district in a north-south belt about 7 miles wide, occupying the middle and almost the whole of the eastern part and forming the divide. The mountains average about 5,500 feet in elevation, but ridges in the southern part exceed 6,000 feet and two peaks rise to about 7,000 feet. On the north the mountains are low and spreading; on the south they are contracted into a single narrow ridge, that decreases 1,500 feet in altitude on both sides within 1½ miles.

Rock formations, beginning with the oldest are Paleozoic sediments, consisting of limestone, quartzite, and shale; Mesozoic intrusive rocks, comprising quartz monzonite, granite porphyry, diorite, and gabbro; Mesozoic sediments, consisting mainly of arenaceous limestones and shales; Tertiary rhyolite; and Quaternary gravels and wash. All the formations except the Mesozoic sediments contain mineral deposits.

The most widely distributed hard-rock formation is the quartz monzonite. It extends across the district in a north-south belt about 6 miles wide on the north and forms almost the whole of the Patagonia Mountains, especially the axis and west slope. It is intrusive into the Paleozoic sediments.

The next most abundant formation is the granite porphyry. It crosses the district in an interrupted north-south belt about 1 mile wide in the eastern foothills of the Patagonia Mountains and also in a north-south quadrangular area of about 2 by 3 miles in the western foothills toward the north. It is intrusive into the Paleozoic sediments, the quartz monzonite, and the diorite, and is economically
important due to its relationship to the ore deposits.

The Paleozoic sediments occur in two areas, one at Mowry and the other at Washington. The area at Mowry is occupied mainly by limestones, but also contains some shale and quartzite. The Washington area is crudely lens-like in outline. It trends north and has a length of 2½ miles and width of about 1 mile. It is occupied mainly by white crystalline limestone which has yielded no fossils but contains the mineral deposits.

The Mesozoic sediments occur on the east slope of the range, in the northeastern part of the district, in interrupted areas extending for about 2 miles north, south, and west from Mowry.

The quartz diorite occurs as small stocklike masses and dikes intruding the quartz monzonite, as to the west of the Golden Rose Mine and at the O’Mara or Old Soldier Mine. The gabbro intrudes the Paleozoic limestone, principally at and near Mowry. The rhyolite occurs in irregular patches in the northeastern part of the district, on the upper east slope of the range, along the contact of the granite with the overlying Mesozoic rocks, into both of which it is intrusive. It seems to be the interrupted southerly extension of a larger body of rhyolite in the Harshaw District on the north.

The deposits are practically all contained in a belt 6 miles wide extending in a northwesterly direction across the district.

Mineralization is highly varied: (1) Pyrometasomatic deposits of base metal sulfides in complexly faulted and folded Paleozoic limestone blocks and roof pendants intruded by late Laramide porphyritic granodiorite; (2) Replacement deposits of argentiferous lead, copper, and zinc minerals in Paleozoic and Cretaceous limestone adjacent to, or along, fault or shear zones; (3) Quartz-fissure veins, quartz veinlets, and zones of strong silicification with disseminated copper and molybdenum mineralization in Late Laramide granodiorite; (4) Minor tungsten mineralization in pyrometasomatic deposits in Paleozoic limestone and with molybdenum and copper in shear zones in Jurassic granite; (5) Irregular pods, seams, and narrow veinlets of manganese oxides, often with iron oxides and minor base and precious metals along fractures or faults or replacements in Paleozoic limestone or Laramide granodiorite intrusive; (6) Small gold placer deposits in stream alluvium.
Workings include many shaft, open cut, and tunnel operations. Prospected and mined since Spanish and Mexican occupations to recent years. There were several large mining operations. Total estimated and recorded production would be some 691,000 tons of base and precious metal ore containing about 26,900 tons of zinc, 21,500 tons of lead, 18,300 tons of copper, 3,300,000 oz. of silver, and 730 oz. of gold. Some 200 tons of Mo ore and 650 pounds of W oxide have also been produced. Possibly about 100 oz. of placer gold were recovered.

**Mineral List**

**Mineral list contains entries from the region specified including sub-localities**

113 entries listed. 88 valid minerals. 1 type locality (valid mineral).

**Localities in this Region**

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The above list contains all mineral locality references listed on mindat.org. This does not claim to be a complete list. If you know of more minerals from this site, please register so you can add to our database. This locality information is for reference purposes only. You should never attempt to visit any sites listed in mindat.org without first ensuring that you have the permission of the land and/or mineral rights holders for access and that you are aware of all safety precautions necessary.

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