



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
<http://www.azgs.az.gov>
[inquiries@azgs.az.gov](mailto:inquiriesegi@azgs.az.gov)

The following file is part of the Walter E. Heinrichs, Jr. Mining Collection

ACCESS STATEMENT

These digitized collections are accessible for purposesalications of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

CONSTRAINTS STATEMENT

The Arizona Geological- Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

QUALITY STATEMENT

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

5 February 1969

Mr. James V. Wilkinson
Pauba Ranch
Temecula, California

Re: Geologic Examination of Total
Wreck Mine and Surrounding Area.
Pima County, Arizona
Sec. 3 T 18 S, R 17 E

Dear Mr. Wilkinson:

The Total Wreck Mine and immediate surrounding country was examined, in company with Mr. Dewey Wilkins on 31 January 1969.

In general, the workings above the mill adit are inaccessible and the main incline shaft is collapsed. Possibly another way might be found to gain access to these workings. The mill adit itself and the lower workings seem to be safe and accessible. The so called "lead stope", at or below the lowest workings was not completely examined as the stoped area is somewhat less than safe and is an infamous example of mine robbing without benefit of proper engineering considerations.

The geology and mineralogy of the mine are as described by Schrader (1915) and Wilson 1958, except that the actual ore is quite difficult to identify due to the degree of oxidation that has taken place. Quite probably, some of the greenish oxidized copper minerals that are obvious throughout the mine may actually be some greenish silver minerals.

In order to determine the feasibility of reopening the mine, a program of mapping and sampling, especially the lower existing workings, must be carried out. Schrader's map is incomplete in that mining has been done since his publication and Wilson used his map unmodified.

Mineralization is apparently controlled by the bedding planes and fractures that cross these planes. Probably, the upper workings, which were the richest, were enriched by supergene processes and as the mine increased in depth the degree of enrichment decreased. Another economic factor was the hoisting of ore to the upper levels. Possibly if the mill had been placed to the south at a lower level and a haulage tunnel drifted out to the bottom of the hill, they may have been in business a little longer.

Three possible alternatives of working this mine are present at this time:

1. Robbing the mine for what little ore may still be present and accessible. This might be too dangerous without some rehabilitation of the workings, primarily some barrier at the incline shaft to keep it all from sliding down.
2. Drilling to a depth below the present extent of the workings to determine if reserves might be found of sufficient value to warrant deepening the mine. Some mapping both underground and on the surface would be required.
3. Drilling from underground back into the hill to see if there might be one or more parallel (or sub-parallel) bedding planes and/or fracture planes that are mineralized. This also would require some mapping and possibly some mine rehabilitation, but stations could be cut in the mill adit for drilling with comparative safety.

The surrounding country contains a couple more mines of a similar type and it is difficult to believe that these few known occurrences are unique in this environment. Today, we have available more sophisticated methods of searching for non-obvious mineralization than at any time in the past and they apparently have not been applied in the area. A geochemical survey is probably the quickest and cheapest method yet devised to explore for this type of deposit and should have excellent application in this area.

This area has not been carefully examined for many years and since then methods and techniques have improved. At this time the Anaconda Company is beginning to work into this area as an expansion of their exploration program from the west (Helvetia, Rosemont and Greaterville Areas) and some one has recently been taking reconnaissance samples from the mill adit of the Total Wreck. This vicinity appears to be ripe for some new exploration at this time.

If we can be of any further help to you at any time please do not hesitate to call upon us.

Sincerely yours,
HEINRICHS GEOEXPLORATION COMPANY

Donald B. Cooley, Geologist

APPROVED::
HEINRICHS GEOEXPLORATION COMPANY

Walter E. Heinrichs, President

James V. Wilkinson

Page 3

5 February 1969

DBC/plg

cc: Dewey Wilkins

References:

Schader, F.C., 1915, Mineral Deposits of the Santa Rita and Patagonia Mountains, Arizona, U. S. Geol. Survey Bull. 582

Wilson, E. D., 1951, Arizona Zinc & Lead Deposits, Part II., Arizona Bureau of Mines, Bulletin 158, Pub. University of Arizona, Tucson, Arizona