CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
1520 West Adams St.
Phoenix, AZ 85007
602-771-1601
http://www.azgs.az.gov
inquiries@azgs.az.gov

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09/24/85

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: PIONEER

ALTERNATE NAMES:

GERMAN-AMERICAN
THIRTY-FIFTH PARALLEL SHAFT
TREADWELL SHAFT
TREADWELL GROUP
SNOWBALL MINE
PIONEER CLAIMS
OATMAN PIONEER

MOHAVE COUNTY MILS NUMBER: 32B

LOCATION: TOWNSHIP 19 N RANGE 20 W SECTION 21 QTR. E2
LATITUDE:N 35DEG 01MIN 14SEC LONGITUDE:W 108DEG 24MIN 25SEC
TOPO MAP NAME: OATMAN - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

GOLD-(M)LODE-PRIMARY
SILVER-COPRODUCT
MAGNESIUM-(M)MAGNESITE-BYPROD.
MANGESIUM-(M)BRUCITE-BYPRODUCT
CALCIUM-(M)CALCITE-BYPRODUCT

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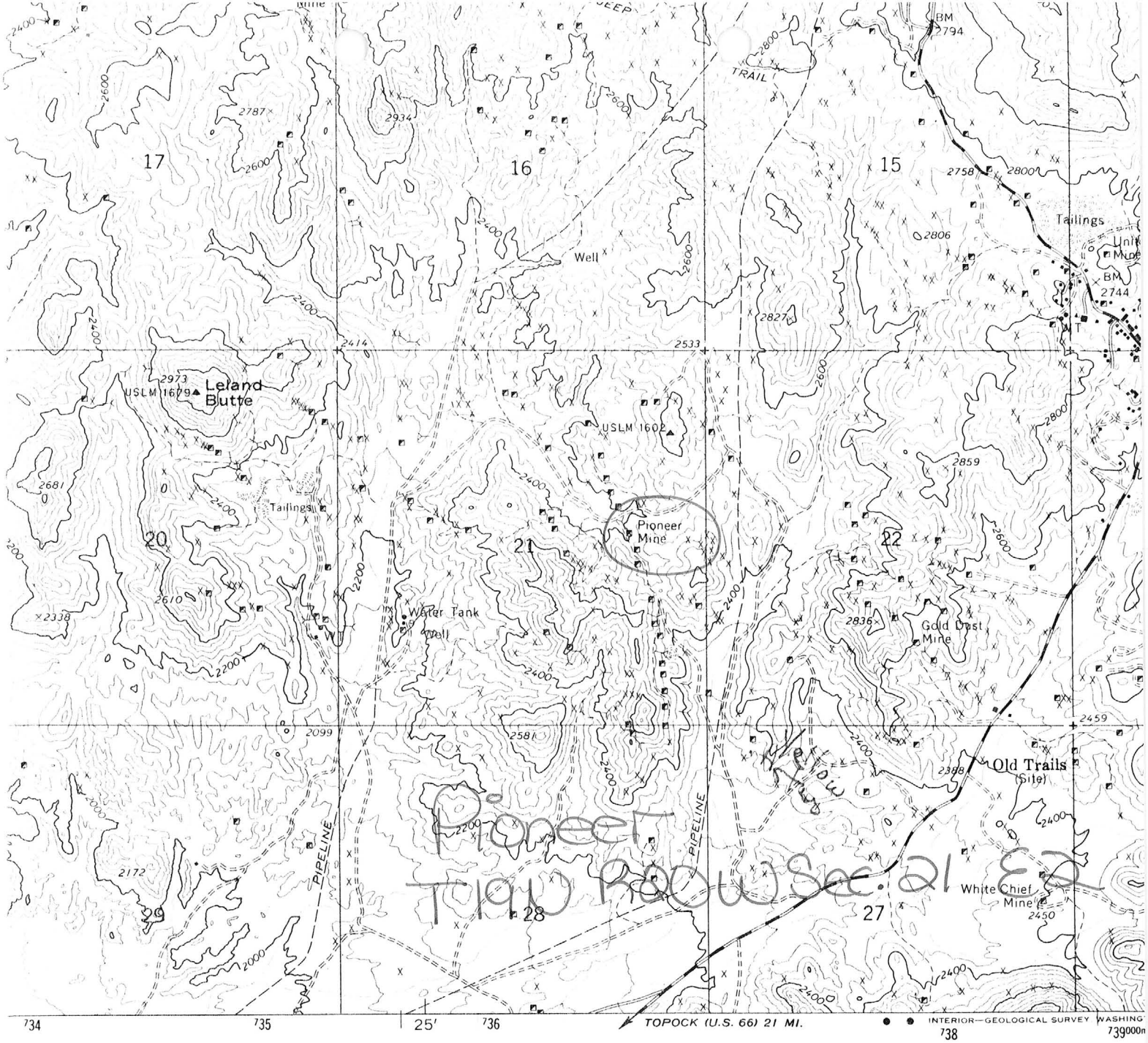

Pioneer
T19N R20W Sec. 21 E2

4000

1 MILE

4000 5000 6000 7000 FEET

1 KILOMETER

VAL 40 FEET
SEA LEVEL

ROAD CLASSIFICATI

Medium-duty — Light-du

Unimproved dirt

ARIZONA

QUADRANGLE LOCATION

OATI
N3500

L MAP ACCURACY STANDARDS
COLORADO 80225, OR WASHINGTON, D. C. 20242
ND SYMBOLS IS AVAILABLE ON REQUEST

Oatman
7.5'

PIONEER MINE MOHAVE COUNTY

RRB WR 3/6/81: Larry Kasch of Seven Cities Minerals reports that they have property near Kingman (possibly the Pioneer). They intend to leach the tailings. He is looking for information on equipment required and where to buy it.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine The Pioneer Mine Block Date December 19, 1957

District San Francisco Dist. Mohave Co. Engineer Lewis A. Smith

Subject: Visit to the Property

Location: 2 Miles southwest of Oatman West part of the Gold Dust and Boundary Cone Veins.

Operators: W. H. Hittson and James McCarthy, both of Oatman, Arizona

Production: A few thousand tons, mostly during 1903-1906 and from later leasees. The average grade was $10.00 in gold, per ton, although some higher-grade, near-surface pockets, were found in the main fracture.

Work: The Pioneer, on the north end of the vein, has some narrow shoots of ore which averages about $10.00 and some low grade wall rock alteration material. The shaft, (according to McCarthy) is 400' deep and some lateral work was done. On the south end of the vein, the Treadwell shaft extends downward for over 400' and there are several hundred feet of drifts. In between are two shallow shafts. The other two veins have been developed, to a limited degree, by tunnels and shallow cuts, within this block.

Geology: The Pioneer vein strikes N 13°W and dips 80°E. It's hanging wall is composed of Oatman andesite and over 2000' of the footwall is Trachyte (Alcyone). The down throw side is to the east. The vein proper varies from 2 - 4 feet, in width, and the hanging wall alteration zone varies from 18 to 125' and, according to McCarthy, this averages, from 18 general samples, about $3.50 per ton, in gold. The vein proper, at the Pioneer shaft, consists of coarse-grained gray calcite and quartz that are stained with iron oxide in zones of crushing. On the Treadwell end of the vein is composed of quartz and unreplaced calcite, and some 4th stage quartz (greenish colored). The commercial values terminated at the 400' level. The shoots along the vein appear to be wider near the intersections with the Gold Dust Vein and the Boundary Cone Vein both consist of two main fault fractures at a considerable distance apart. The space between the double fractures is sheared parallel to the faults. The Boundary Cone fractures and the South Gold Dust fracture intersect with the Pioneer converging as they do so. The Gold Dust north fracture appears, according to Lausen, to be a continuation of the Midnight Vein fracture. The South Gold Dust fracture intersects the Pioneer several hundred feet south of the Pioneer Shaft. The country rock at the surface of both vein systems is coarse Oatman Andesite. The south branch of the Gold Dust trends NW to E-W while the north branch trends northwest. The main values were along the north branch. The Boundary Cone Fractures, at first, trend Northwest at about N60-65°W and curve to nearly east-west as they intersect the Pioneer Vein several hundred feet south of the place where the south Gold Dust Fracture intersects it.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Pioneer Mine Block Date

District Engineer

Subject:

Continued from Page 1

The north fracture nearly meets the south branch of the Gold Dust. On the east the four fractures tend to converge into the Lexington multiple fault system. The Boundary Cone Shaft is on the south branch, in Sections 27 (near the north center). These veins and shears are essentially stringer lodes with occasional lenses and are composed of Stage 3 quartz, and partly silicified calcite, and associated locally with adularia. The inter-fault shears are heavily iron-oxide stained and sometimes contain narrow jasper or quartz veinlets. The wall rock alteration zones, like the one along the Pioneer, run about $3.50 to $3.80 in gold per ton. The Gold Dust in places consists of 7 feet of solid quartz and calcite. Toward the northwest it locally"horse tails" into a stringer lode, these zones spreading to over 20' in width. The two main shoots are around 200' long and extend downward to about 160 feet. Near No 2 shaft a small shoot extends to the 100 foot level. The shoots begin well below the surface and no commercial ore was encountered deeper than 500 feet below the surface.

The ore is largely greenish quartz with some unreplaced calcite remnants. Adularia is mainly microscopic. The Midnight vein, which appears to be a continuation of the north branch of the Gold Dust Vein, strikes N 15°W and dips 30°to 40°W and passes through the Oatman Andesite into the Alcyone trachyte. Vein filling is mainly quartz and calcite and some greenish fluorite. Near the footwall, the quartz is dark-colored and chalcedonic. The ore here ran $18.00 near the surface but weakened to $7.00 below 50' of depth.

The fracture zones are sufficiently silicified to cause them to have a stronger relief than the bordering wall rocks, giving them a dike like appearance.

In some places the main quartz veins are "spider webbed" with a second generation of quartz and calcite. two stages of carbonates, siderite and calcite are present in the wall-rock alteration zones. Local shear areas are sometimes flooded by calcite. In places stage 2 quartz areas may show calcite casts.

Further development work by close sampling and a summation of the available data would greatly facilitate the study of the future possibilities, if any, of this area, particularly as to the status of the larger low-grade areas ($3.00 to $4.00 per ton). Apparently even with the incomplete data, there is a large tonnage of low-grade, which with some "sweetening" could be used in a large operation in the event of lessening mining and milling costs. Any such development program would, at present costs, require a considerable capitol expenditure.

The present operators state that they hope to get some "sweetner" from the White Chief and a "sleeper" area west of the United Eastern. They are also negotiating for the Tom Reed Property.

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