



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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12/26/85

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: FIRST MAGNITUDE

ALTERNATE NAMES:

MARICOPA COUNTY MILS NUMBER: 251A

LOCATION: TOWNSHIP 6 N RANGE 5 W SECTION 19 QTR. N2
LATITUDE:N 33DEG 51MIN 14SEC LONGITUDE:W 112DEG 49MIN 17SEC
TOPO MAP NAME: VULTURE MTNS - 15 MIN

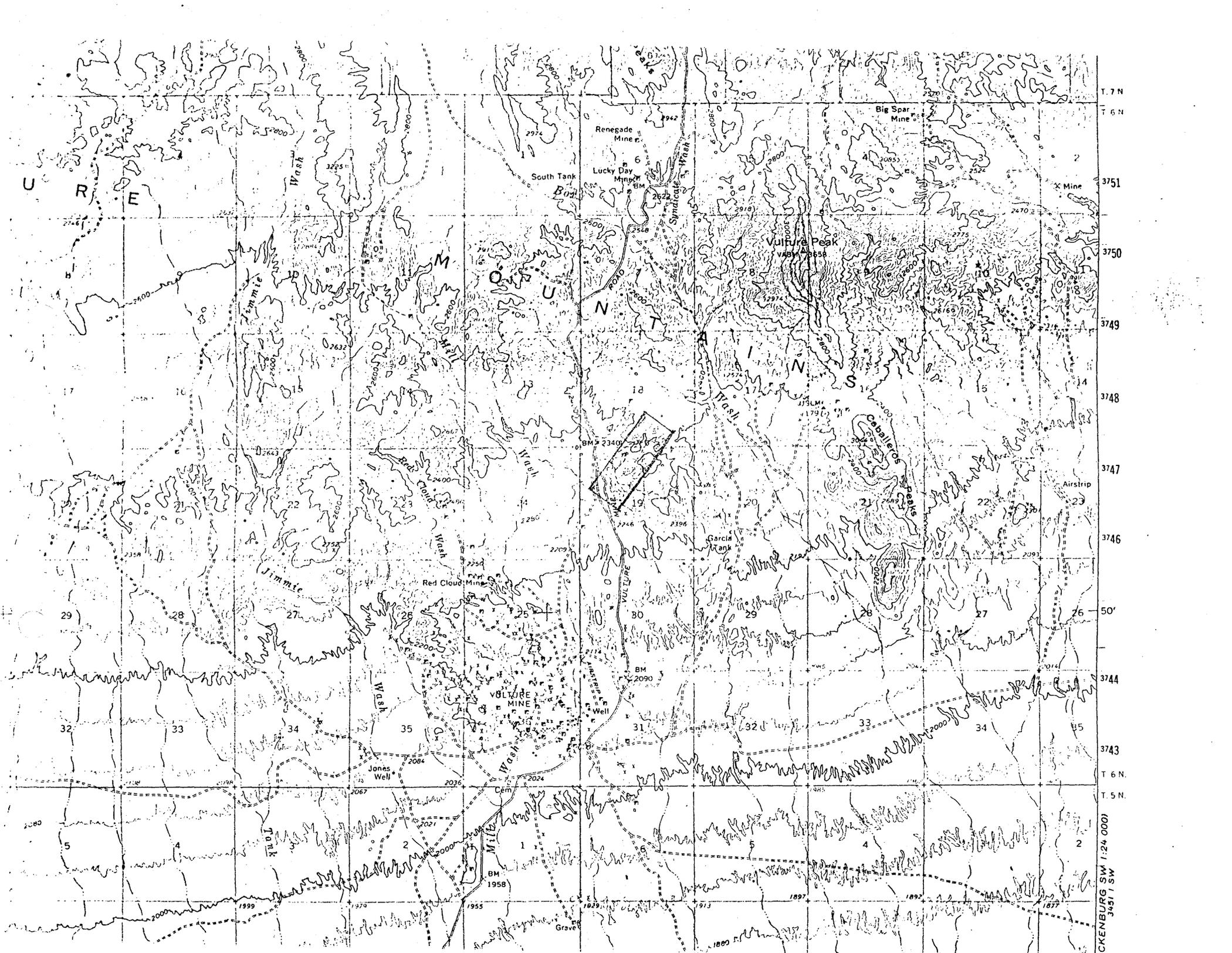
CURRENT STATUS: UNKNOWN

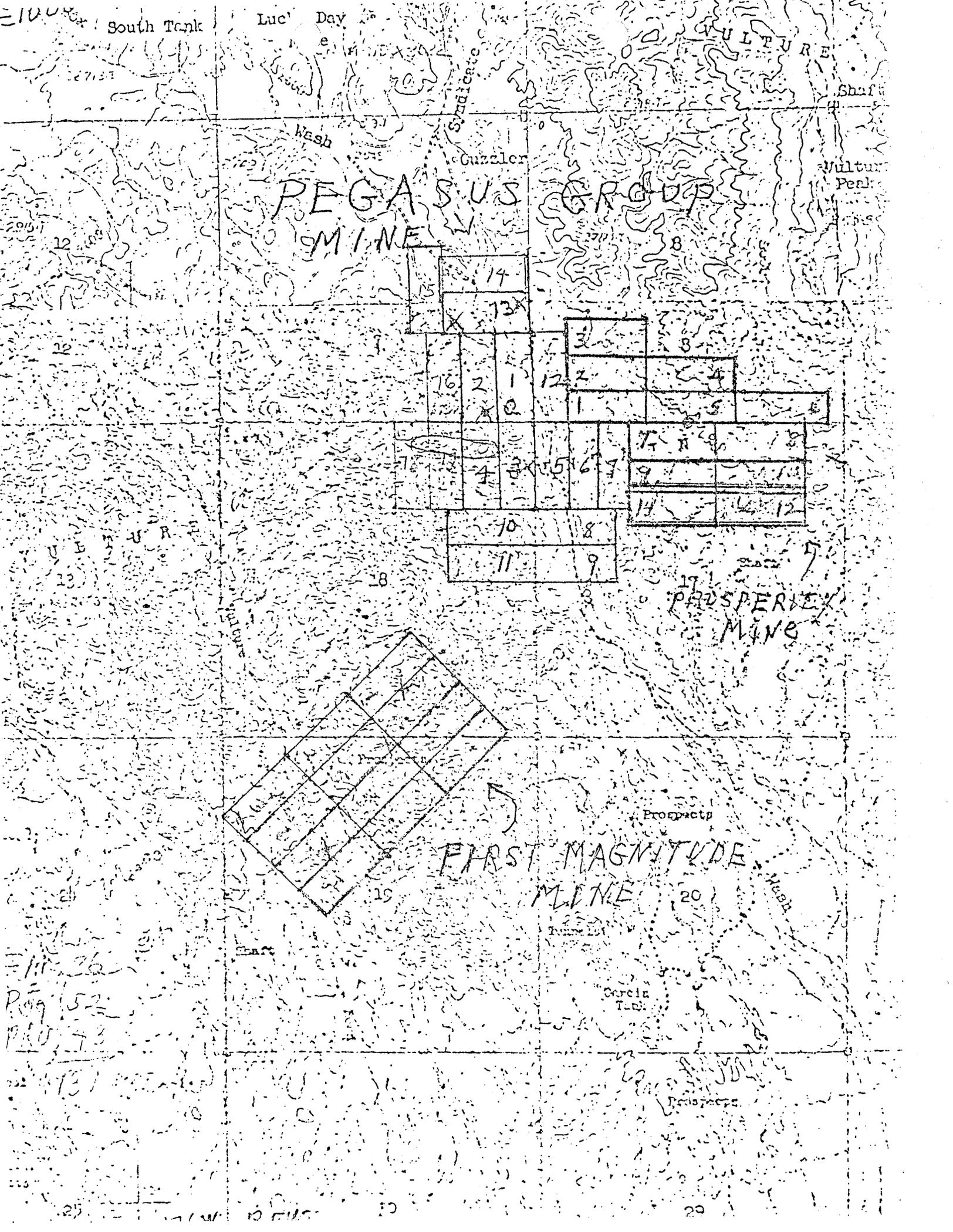
COMMODITY:

GOLD

BIBLIOGRAPHY:

ADMMR FIRST MAGNITUDE FILE





11-36
 Page 52
 PRO T

131
 25

Prospect

20

Legal claim papers are located where circles are marked on the map

MAP OF MINING CLAIM LOCATION

1. The name of the claim is First Magnitude #1 thru #12
2. The _____ corner of the claim is _____ feet in a _____ direction

MAP

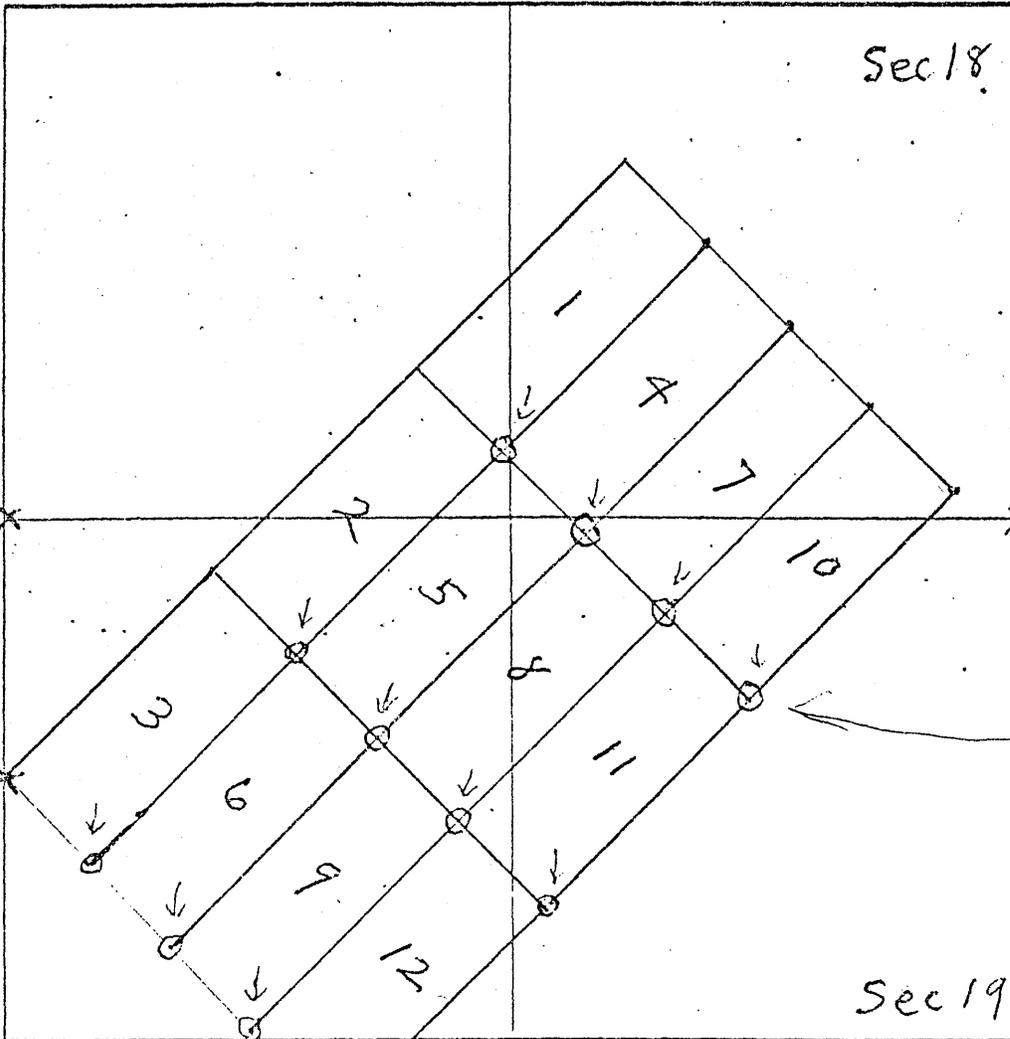
One inch = One thousand feet

R. 5 W

North Arrow



ONE MILE

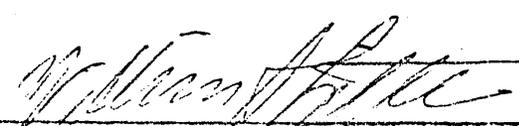


Geo. Survey
 Survey
 Marker
 1/4 Survey
 Reference
 NT

Section 17 & 18 Range 5 West Township 6 North G&SRB&M

Date December 1, 1973

Legal owners:


 Signature

Merv Deputy
 2906 - 11th Street
 Santa Monica, CA 90405

and

William A. Little
 P.O. Box 13
 Morristown, AZ 85342

71
FIRST MAGNITUDE MINE (S $\frac{1}{2}$ Sec. 18 + N $\frac{1}{2}$ Sec. 19

vs.

T6N, R5W)

VULTURE MINE

A Geological View

by

William Alexander Little

(Consulting Geologist)

The Vulture Mine was recently sold to Larry and Wayne Beal (in 1974). They, with their engineers and geologists, have determined that only a fraction of the gold has been mined in that area. As a result of extensive exploration (averaging about \$150,000.00 a year during the past four years) they have staked nearly a thousand additional claims around the mine.

Much of their decision was based on the realization it was not basically milling ore but was pocket ore that has run (by record) up to \$100,000.00 a ton at \$20.00 an ounce gold. This would be about one million dollars a ton at present prices of gold. Within the mine workings there are extensive tunnels made in an effort to find new pockets. Where they found these pockets there are very large rooms - some as deep as 3000 feet in the earth. The quartz vein may be the largest in the world as well as one of the richest. The rooms where these pockets

were found look like football fields. The width of the vein exceeds ~~500~~⁴⁰⁰ feet in places. The vein narrows (pinches) and widens here and there and disappears (dips in the ground) on the surface but underground is mostly solid quartz with high mineral values. On the surface there is very little show (outcropping) and is barren except for the tiny area of poor grade ore that was found on the surface by Mr. Wickenburg (the discoverer in October 1863). After getting down in depth just a little ways it was valued at \$60.00 a ton. It kept increasing in value as he went down. Practically all of the ore near the surface near the mine (especially the first 50 to 100 feet) is worthless and barren. This is deceiving and makes the area for miles around the mine almost impossible to prospect for surface indications. The large vein on the surface dips down in the earth most of the time and outcrops here and there only in a rare few places. This main vein seems to be going North by North East and South by South West - almost N.E. and S.W. by the compass ($14\frac{1}{2}$ degrees from true North in the area).

Pocket ore has always been unique and some mining companies avoid it as being too uncertain. What happens in this type of ore is that it seems to bunch in concentrated areas in the vein. Going away from a pocket are octopus like arms and wire like threads that narrow more and more the further the distance from the pocket. Thus the way they are discovered and mined is to find a thread or wire like gold lead in the quartz and follow it. The ore then keeps getting richer and richer un-

til it gets near the center of the pocket. The pocket can be as large as a house and nearly half gold near the center (few cubic yards) of it. These pockets in the Vulture Mine used to run one to five million each. It would be 10 times this amount now with \$200.00 gold.

What the new owners are doing and realize is that these pockets are nearly everywhere, yet can be several hundred feet apart and at different depth levels - often one on top of the other at different depths in the earth. The old workings only went down to a depth of about 3000 feet but the gold ore most probably goes down for several miles in the earth. It was shut down by a World War II law in 1942 and proceeded to fill up with water gradually - thus there are lakes down there now that must be pumped out before greater depths can be mined. Yet there are so many more pockets estimated that the new owners plan to spread out and take the more shallow ones.

Drilling seems to be the answer. What seems like hitting a needle in a hay stack is not true at all. It is really not all that difficult to hit near or in the center of a pocket this way. If near a pocket the ore will increase or run higher in values. This may indicate 2 to 50 ounces to the ton. These values extend out for 100 to 300 feet from a pocket. These values are going in all directions from the pocket itself. This means up towards the surface - up to a shallow of 50 to 100 feet in places as well as down and both sides horizontally. If for example one ounce ore shows up in drill sample at 100 feet in the

first hole. It could be 5 to 10 ounces at 200 feet. If at 300 feet it goes to 2 or 3 ounces this indicates you have missed it. So you move your drill N.E. or S.W. (compass) about 100 feet and drill again. If it decreases in values you know you are going the wrong direction, thus 100 feet in the other direction from the first hole should be very near the pocket. Regardless, if it is not right on top of the pocket, it still should show a tremendous increase in values simply because these pockets are so large. In other pocket ore areas, such as found East of the mother lode vein in California, the pockets are much smaller. This is because the quartz veins are so much smaller.

As late as 1927 they still did not realize the mystery of pocket ore versus milling ore. Nevertheless, they did start their first drilling program. They naturally hit a large pocket within a few holes. In fact they hit dead center into one of them. They drew out a two inch core of almost pure gold. It was these type of records that caused the new owners to purchase the mine and stake so many claims. Their new geologists understood, finally, the meaning of pocket ore.

In the old workings they also mined the ore leading to the pockets that ran from one to 50 ounces - and even more to the ton. They set up a conventional stamp mill for this purpose. Of course, there were areas - sometimes several hundred feet, at various depth levels and tunnels that showed nothing but

barren ore (between the pockets) that had to be mined out to get to the next pocket. Because pocket ore was little understood in the early days the many early owners presumed the mine was played out only to be sold and then have the new owners dig a little further and strike a new pocket. Then as they moved away from the pocket area they too presumed it must certainly be played out (all the gold gone) and they would sell it. As a result of this lack of understanding the mine changed hands many times and made many millionaires. Many rich families of the West - if you check the names of the former owners - got their start here, such as the Goldwater family, etc.

The new owners now feel the geology indicates the entire area for miles around is a potential bonanza gold field - mostly untapped. Probably several hundred times the gold already mined is still down in the ground. The biggest pockets most probably haven't been found yet and it will most likely take 200 years or more of steady mining to get all of the gold out of the ground in this general area. This is at least 5 or 6 miles in both directions. Possibly the deep wide vein might be travelling underground for several hundred miles. It is obviously the mother load vein of Arizona. It is probably the widest vein in the United States, possibly the world. The mother load vein in California along the 49 highway can be seen from the air and is about 200 miles long and about 40 to 50 feet wide. It comes out of the ground (outcrops) much more than the Arizona vein. Where this Arizona vein does outcrop - like on the

First Magnitude Mine property (just N. by N.E. of the Vulture Mine - about ~~2~~^{1 1/2} miles away) it shows itself only briefly in three or four places then dips in the earth again. At these points of outcropping, however, it shows itself to be about 200 feet wide on the surface of the ground. A vein this wide on the surface can be and usually is two or three times this wide at much greater depths - possibly at 1000 feet down in the earth. In geology it states that nearly all veins are as deep in the earth as they are in length. This rule is not always true. A vein 200 miles long, probably does not go but a few miles deep - maybe only a mile in some places.

The rock structure here is similar (Vulture area) to California pocket areas such as 16 to 1 Mine at Alesany. It is mainly granite, shist, and hornblende. There are other rocks - diorite, even a black iron type ore, also lava that looks very old. So old that it has small quartz seams going through it in some places. Nearly all of these wall rocks or contact rocks seem to show some gold content when found near a rich pocket. This black heavy rock was known to carry as much as \$5,000.00 a ton in gold. In and near this black rock there is obvious hornblende structures, and some gabbro. This black rock ore seems to be on the hanging wall of the quartz vein and granite on the foot wall. The contact and faulted condition of these igneous and metamorphic rocks seem to be creating the ideal conditions for gold bearing quartz. Yet, ironically, all of the quartz on the surface in this rich

area assays worthless or barren, thus they did very little work on the surface. Because of this unusual condition (or maybe it isn't(?)) many geologists believe water action has something to do with causing gold to form in the quartz. There is a theory (electro-chemical) that gold is made in the rock over many thousands of years by pressure and just the right mineral content of the "different" rock formations that butt up against each other. The chemical action causes a self made giant condenser (capacitor) plate to form between the two dissimilar rocks. This is called quartz (silicon as a non-conductor). Once this silicon is formed or while it is forming it becomes or causes an electro-chemical action something like electrons flowing through a diode. The minerals close to the quartz (several hundred feet away) then seem to be sucked near and into the quartz as the quartz is growing between the two bodies or dikes of rock. There must be specific minerals in these adjoining rocks necessary to mix and form the gold by time and pressure. Iron seems to be the mother metal necessary here. Also small amounts of copper, silver, galena, magnesium oxide, and other trace metals and minerals. Not only quartz crystals grow in the quartz but the quartz grows itself this way caused by the electro-chemical action. In almost all cases where rich gold is found these same minerals and conditions exist. The contact rocks or dikes are a combination of igneous and metamorphic rocks. These rock or mineral differences create the natural diode or sucking effect into the quartz (silicon acting like a vacuum).

The water action tends to speed up or intensify the electro-chemical effect of the making of gold. Thus when mining it is advised to mine to at least the first water level. Here in this area is from 40 to 160 feet - often around 80 to 120 feet. The second water level or table (even more water action) seems to be 300 to 360 feet, then still another larger one at 600 to 670 feet in depth. Consequently, it is believed these depths would be the most fruitful to be explored.

The angle of the quartz vein going down into the earth is about 15 to 20 degrees with the footwall on the W. by N.W. side and the hanging wall on the E. by S.E. or Easterly side next to the heavy black diorite-hornblende type rock or ore. To simplify the drilling even more or to be on the safe side (money investment-wise) the best exploration would be to drill near the walls - specifically this footwall area. In my opinion a rise and lowering in values of the diorite-hornblende (for convenience sake I will refer to this as the black rock) next to the quartz vein would show significant value changes a greater distance from the pockets. This would be true even though the values in this black rock may be less per ton of gold in the long run. The vein ore near the wall - say 300 feet from a pocket - may assay .05 ounces per ton at 100 feet depth. The black rock ore next to the quartz in this same area might assay .1 to .25 ounces per ton at 100 feet depth. I am estimating the distance between pockets to be about ²⁰⁰~~600~~ feet by these calculations, therefore, 700 feet would be the furthestest dis-

tance from a pocket. 100 feet from a pocket (considering the pocket is 200 feet deep) still at 100 feet in depth (by drilling) the vein ore should be about .1 to .2 ounces whereas the black rock ore could easily be .5 ounces. At 100 feet from the pocket area and 100 feet in depth the vein ore is probably 2 to 5 ounces and the black rock is now about the same. The closer to the pocket the vein (quartz) ore goes up in value but the black rock increases more slowly now. Of course, both of these ores are very rich in gold at this point. At 200 feet depth in these same drill holes the values would go up substantially and even 100 feet away from the pocket the black rock should show several ounces per ton, whereas the vein ore may still be relatively barren. The black rock does increase substantially in value approaching a pocket in the quartz. Directly beside a pocket the black rock has ran as high as \$5,000.00 a ton in gold. Thus by drilling through the far S. by S.E. edge of the quartz the drill bit should be in the black rock at 50 to 100 feet in depth. 200 to 300 feet holes should be the minimum to be drilled. Good engineering graphs from these~~s~~ assayed drill samples should tell the story where to sink the first shaft to recover the first pocket.

A COMMON OPINION OF GEOLOGISTS

I share a common opinion of many geologists that almost all of the surface gold has been found in the world. By surface gold I mean gold that can be seen either on top of the ground or just a few feet beneath the surface (approximately 25 feet). This surface gold was found by the thousands of prospectors that roamed the hills and deserts in the past. Yet I feel I must agree with a geologist friend of mine when he states, "There must be at least 100 times as much gold still left in the ground than all of the gold ever mined to date". That's a lot of gold yet to be found. For example, it is known by a geology report published by the California Division of Mines (Gold Placers of California, Bulletin No. 92, By Charles Scott Haley, 1923) that in Sierra and Plumas counties alone there still lies 20 billion dollars worth of gold down about 300 feet in the old deep river channels. These channels or old rivers are nearly 500 feet wide and 80 feet thick and assay at over one ounce per yard (The bottom 8 feet near bed rock). Ecology problems discourage the mining of this gold. These deep channels may go as far north as Canada or even Alaska.

Even the Vulture Mine down several miles in the earth should certainly run into the billions. With modern mining techniques such deep mining is becoming quite possible and should be very practical.

There may be a few isolated spots in the world that

still show gold on the surface but in my opinion to prospect for gold on the surface with a pick, shovel, and gold pan is obsolete. In the Vulture Mining District to prospect without drilling would be a waste of time and money. Commercially valuable ore simply would not be found within 25 feet of the surface and most likely not before 50 to 100 feet. This would include even in the low areas where the first water table may be as shallow as 40 to 60 feet. There are hundreds of old prospect holes dug to about 8 to 15 feet in depth for miles around the Vulture Mine. These were obviously made by prospectors during the last hundred years. Many of them may have been directly above a rich gold deposit that is down several hundred feet in the earth. These prospectors hoped they would find it on top of the ground or nearly so. It simply is not this shallow, thus these prospects and claims have long been abandoned.

A point of fact here that should be noted is that everywhere else in the world where one very rich mine, like the Vulture Mine, has been found there are a series of very rich mines in the area and usually along its major vein. It often runs for miles such as in South Africa. Also in California there dozens of rich old mines that were mined along the motherload vein. They found another rich mine in Gold City, Nevada - then a series of rich mines were found along its vein running several miles North and South for a total of .48 billion dollars at \$20.00 gold. Therefore, I feel it is impossible that the Vulture Mine sitting out in

desert "all by itself" 13 miles South of Wickenburg is the only spot where there is any gold. It should have dozens of rich mines all around it in its general area for miles in line with the main vein as it is in all the other rich gold fields of the world. Geologically the rock formations involving gold structure conditions in a gold field just do not happen in one tiny isolated spot - yet the Vulture Mine is the only rich mine in that area (?). I can not find where any drilling programs have ever taken place except right on the Vulture Mine property. None of the other mines seem to have gone to any significant depth. The deepest one I found - now called the Hub Mine is way too far East of the Motherload vein. The maximum depth was 75 feet using a 45 degree inclined shaft. Why they had set up a stamp mill, etc. is questionable to me geologically. They were in the black rock but 1.2 miles away from the motherload. They might have been getting .3 or .4 ounces to the ton that far away. This would be borderline commercially and seems obvious to me that they went broke trying to make it pay.

FIRST MAGNITUDE MINE

In the case of the First Magnitude mine it is located on the mother lode vein of the original Vulture Mine. This vein is the major quartz ledge of the Vulture Mining District in Maricopa County, Arizona. It is approximately 125 feet wide on the Vulture mining property. It then extends northeast through the First Magnitude mine where it widens to a width of 200 feet at its widest point near the crest of the hill. In many similar mining situations the vein near its crest or widest point has been the richest gold producing area.

THE FIRST MAGNITUDE MINE

The First Magnitude Property consists of 12 lode claims of 20 acres each or a total of 240 acres. These claims had been held for over 25 years by a Mr. Lindsey of Wickenburg, Arizona. The last assessment work was recorded by him in 1976 and he died in 1977. The lapse of the assessment work was discovered by Mr. William Little and the claims were restaked and filed on by him during 1978, 1979 and 1980.

The claims are joined on all sides by the Vulture Mine properties. The original Vulture Mine consisted of 15 patented claims. These have been added onto by subsequent locations over the years. The majority of these were located by the present owner since 1975 and the Vulture Mine properties now include more than 600 unpatented claims.

The mother lode quartz vein of the original Vulture Mine continues on a Northeast-southwest trend, by compass reading, and passes through the First Magnitude claims. This vein is the major Quartz ledge of the Vulture Mining District in Maricopa County, Arizona and is approximately 125 feet wide on the Vulture Mine property. The vein increases in width to over 200 feet on the First Magnitude property as a surface outcrop, plainly visible. It occasionally dips beneath the surface but can be readily traced from the original patented Vulture Mine land less than a half mile from the south corner of the First Magnitude claims.

There is a gradual rise of the outcrop of the vein from the Vulture Mine to its apex on the First Magnitude property with an estimated increase in elevation of approximately 400 feet. In many similar mining situations the richest gold producing area is found at or near the apex of the vein. The slope of the ledge is approximately 15 degrees to the northwest. The formation on the hanging wall consists of a type of gray, granite and on the foot wall a metamorphic schist and hornblend, dark brown to black in color.

An estimate of the potential value of the First Magnitude property can be arrived at by a geological study of (1) the surface indications of the claims and, (2) a study of the history and production record of the Vulture mine, the active workings of which are less than a half mile distant, on the same quartz vein, as the First Magnitude claims.

Except for superficial surface assessment work done by the previous owner of the claims no drilling has been done at significant depths to obtain samples for assaying.