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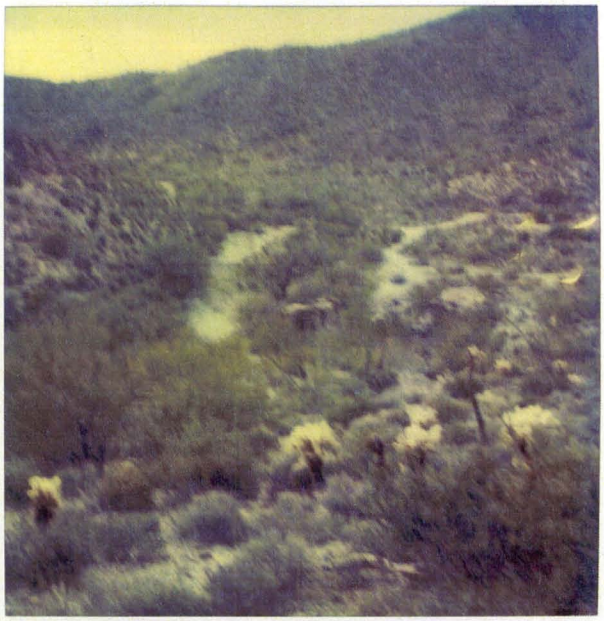

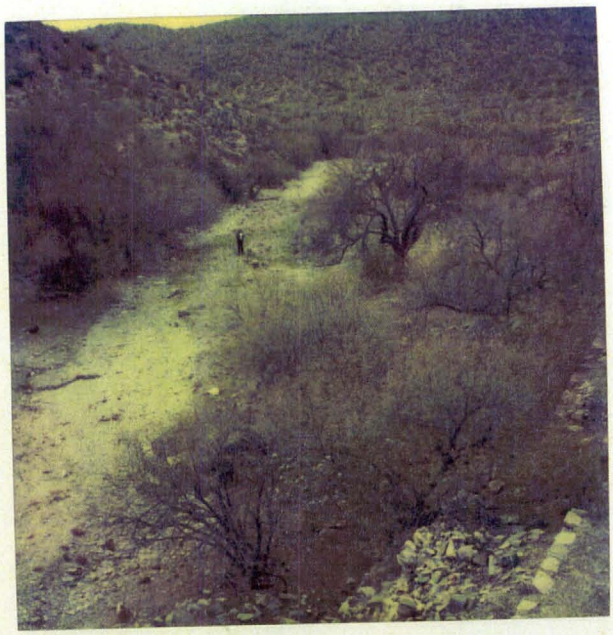

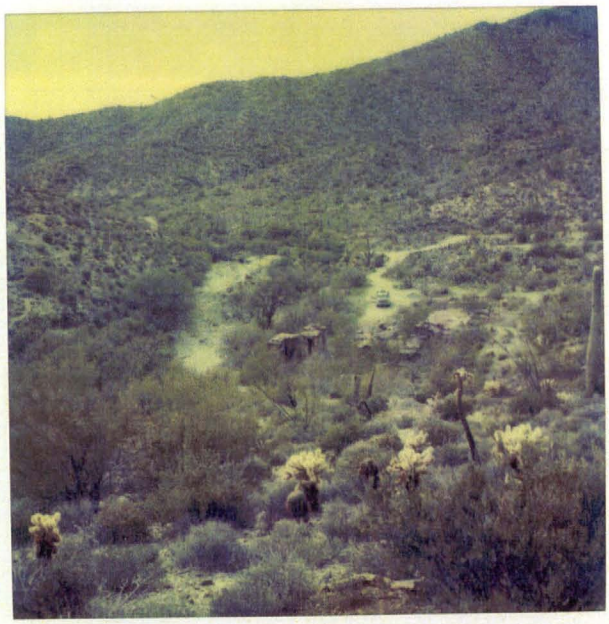

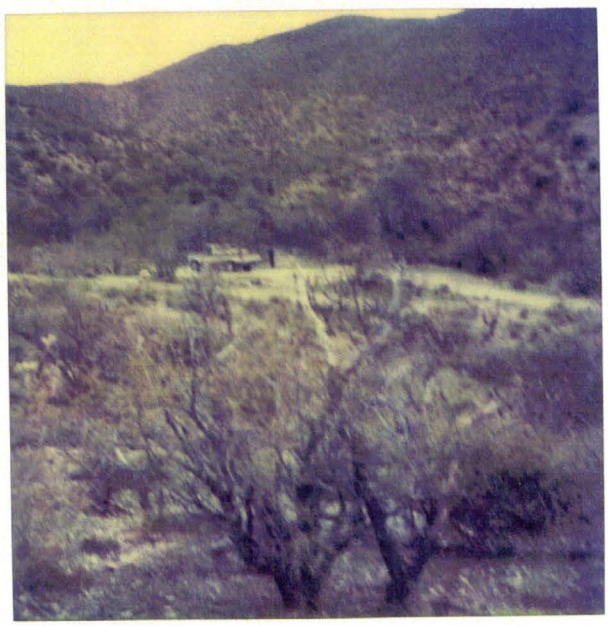

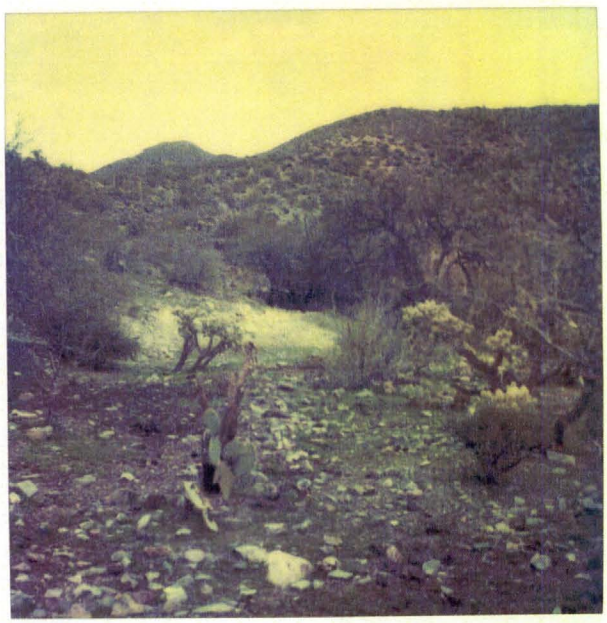

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CHARLES R. WARD CORPORATION
Mining Development & Mineral Recovery

706 EAST ALTA VISTA

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PHOENIX, ARIZONA 85040

3/17/76

PARCEL # 76 GOLDBUG

LOCATION: Black Mountains, Mohave County, 30 Miles North West from Chloride, Arizona.

NUMBER OF CLAIMS: Six patented, approximately 94 acres.

DEVELOPMENT: 15 shafts and open cuts. Three shafts have been sunk to the 100 foot, 512 foot and 140 foot levels (#1, #2, and #3 respectively).

WATER, ROADS AND POWER: At present time there is no water in the mine and no commercial power readily available. Roads can easily be improved into excellent condition.

TYPE OF MINE: Underground.

TERMS: $175,000 sale price, 29% down after exploration of four months, balance in four years.

ASSAY AVERAGES: Gold: high of 11.98 ounces, low of 0.02 ounces.
Average Gold: (from total sampling) 1.65 ounces.

Silver: high of 4.3 ounces, low 1.09 ounces.
Average Silver: (from total sampling) 1.09 ounces.

COMMENTS: There is only one shaft accessible, number two, to which these comments are directed. Well defined vein matter is showing on the 140 foot,240 foot and 290 foot levels. The 20 foot level is closed off and can not be inspected at this time. The 70 foot level shows now no substantial vein matter, but there are indications that a considerable amount of ore has been taken out from this level in the past. On the 140 foot level, the vein is evident but not persistent. Ore apparently has also been taken out of this level. The vein has a strike practically North, and a dip of about 75 to 80 degrees. On the 240 foot level apparently some ore has been taken out. Unfortunately no records of ore shipments are available for examination. Vein matter on this level is evident but not of real interest. The vein has a strike of about North and a steep dip of 75 to 80 degrees.

On the 290 foot level the showing is good. The vein has about the same strike and dip as above. No vein matter appears in the North drift. The 400 foot level has no vein matter in evidence. The floor of the drift is rather wet, but no standing water. Below this level the shaft is caved.

There are no surface improvements of any kind, all have been removed. The ladders are in fairly good condition, and in addition to the ladder-way, there is a hoist-way about three feet six inches in the clear.

PRESENT CONDITION: The mine as it stands today is clearly a development proposition and as such is attractive. It is difficult to understand why certain work has not been done underground and why other work has been done. It would have seemed wise and natural to have crosscut the 290 foot vein on the 400 foot and the 500 foot levels in order to determine the size and value of that particular vein at the lower levels. Little timbering is used underground, and the drifts and shafts are in good condition with the exception of that portion below the 400 foot level.

DEVELOPMENT PLAN: As it stands, this mine possesses good development features. Just what work should be done would be the subject of further study, but it is clear that exploration of the 290 foot vein from the lower levels should be about the first step to be taken.

SUMMARY: In view of all the circumstances, it is felt this property is well worthy of development, and it is quite probable that, as the mine is intelligently developed, very high-grade ore bodies may be found, which, under the present conditions, will show a good profit.

COPY

C. B. Amsden,
Mining Engineer,
Examinations & Reports

Pioche, Nevada.
May 23, 1921.

Mr. M. J. Marmein,
1028 First National Bank Bldg.,
Chicago, Illinois.

Dear Mr. Marmein:

I wrote you in my last letter that I thought I should get up a regular report on the Gold Bug, but when I made the attempt I found that I could not, from memory, supply the necessary exact facts and figures that I once had in my head, and besides I did not dare to dwell on early history or give estimates of early production and shipments, for fear of seeming to contradict the original "story" which you had from Mr. Crosby, and which you no doubt passed along to your friends and associates. I shall therefore discuss the matter informally with you in the hope that you may derive some help from this letter.

All the claims comprising the Gold Bug group have one or more well defined veins upon which more or less work has been done. Many of these veins look good, and ought to assay, but so far as I have been able to test them, but 4 make encouraging showing of values, although very probably there are places where commercial values exist, that have not been discovered. The veins are softer than the enclosing rocks, consequently there is no outcrop, and the course of the veins on the surface can only be determined by digging.

There is a tunnel, probably in the Little Daisy claim, in the hill back of the old office building, toward the west, which in places, shows some pretty good ore, but is so "spotted" and uncertain that I gave it up in dispair. I believe this tunnel is nearly 200 feet ~~with~~ long, with a 20 foot winze sunk in the floor about half way from the portal. I have sampled these workings several times very thoroughly, sometimes getting quite flattering assay results, but when I come to verify them, by resampling, I generally met with disappointment, and was finally forced to the reluctant conclusion that no regular ore-shoot existed, but the mineralization was to erratic to justify further development until the property was on a paying basis, since there are more encouraging places to develop.

The Boana Vista vein is strong and shows ore in at least 2 places a considerable distance apart, indicating a possible long ore-shoot. I have never attempted any development for the same reason that applies to the Little Daisy vein, that is there have always been more encouaging places to spend the money, and there is the additional reason that I have always expected to drive toward the East, and from some level in the main shaft, which would prospect the veins at depth without the expense of sinking another shaft for prospecting purposes. I believe, however, that this vein deserves development, and if the long crosscut is to be long deferred it will be wise to do some work to prove it up.

The original discovery was made in Shaft No.1, which is now about 125 feet deep. The rich ore began at the surface and extended downward between 40 and 50 feet while along the vein the shoot was probably 100 feet in length. The vein filling was all ore, and I have no doubt that the whole body of quartz was rich enough to stand the expense of shipment to Denver, which was at that time, included a 50 mile wagon haul to Kingman, a terrific freight charge on the railroad besides a high treatment charge. As to the value per ton of the ore shipped to the smelters, probably none of it ran less than $250.00 per ton, and I recall one carload, that I saw sampled, which was purchased at $800.00 Or 40 ounces gold, per ton. I picked around a good deal in the car and every piece showed gold.

This ore was rather narrow at the surface, possibly 18 inches wide gradually widening to a maximum thickness of 44 inches. Toward the North it thinned out to a feather edge, holding it value to the last: but going South, its character changed from a highly colored iron stained, friable quartz, filled with free gold, to a hard white quartz, showing little visable gold,

and narrowing down to about 12 inches in width. I saw this remarkable ore-body at its best, when I visited the property, with Mr. Crosby, in August, 1892. When I personally took charge of operations in December, or it may have been in September, 1892, it was supposed that all of the ore of any value had been mined out, but I discovered that the hard, apparentlt barren, quartz left, was really good milling ore, and I sent one lot to the mill on the Colorado River, operated by Monaghan and Murphy, that yielded $105.00 per ton, by simple amalgamation. After the shipping ore had been cleaned up there was left on the dump, a pile of big white coarse quartz, that was sent down to the Colorado River and crushed in a Bryan Mill operated by I. E. Blake, and a yield of $40.00 a ton obtained.

Shaft No. 3 is situated about 220 feet Southwest from shaft No. 1 and is supposedly the same vein. The ore in this shaft was very much like that at No. 1, except that it was not so wide and not so rich, being worth about $100.00 per ton just as it was mined. While the ore was not so extensive and the general average not too high in grade, some of it was richer than any I ever saw from No. 1 shaft. The large specimen which, no doubt, you saw at Colorado Springs, was from here. My assays of this specimen indicated a value of $500.00 gold per ton, but I have always believed that it was worth more, and that my sample was not representative. This ore pinched out at just about the same depth as that in No. 1. While there is scarcely room for doubt that the two shafts are in the same vein, the fact has never been proven, since the two drifts which I started toward each other, never were connected.

I have always felt that more work should be done in this vein, since the greater part of the money received from ore sales must be credited to this vein. I dorve out from the 240 foot level in No. 2 shaft about 150 feet in a cross cut toward the West in an effort to find this vein at depth, but was obliged to stop work before decisive results were obtained. I was never sure that I had gone far enough to catch the vein, which dips away. I knew the general impression among the miners who worked in the cross cut was that the vein was still ahead of us.

Shaft No. 3, below the ore never showed any encouragement, but in shaft No. 1, the vein was exposed near the bottom where it was but 2 or 3 inches wide, and not of much value, but the fact that it "came" back" was encouraging. I have regretted that I did not continue the work here during Mr. Crosby's administration, while we had money "to burn", so to speak.

The strike of No. 2 vein points to No. 1 shaft, but the actual intersection of the two veins has never been disclosed either on the surface or underground. I believe that vein No. 2 passes a few feet East of shaft No. 1, which would go through the intersection somewhere North of that shaft. I have always realized the possibilities centering around this intersection, but something has always prevented my reaching it with my underground workings. The vein will intersect at a very acute angle, which has been found especially favorable to deposition of ore.

The original discoverers of the Gold Bug first found"float" in the wash below the site of the boarding house, and traced it up the hill to the vein. There were still rich specimens of float to be found after I came on the scene, as one of my children found a very fine piece of it. I have an idea that if water for sluicing were available, surprising results might be obtained from the gravel right in the old camp.

There was a tradition that rich float has been found in the next little wash or gulch, lying North of shaft No. 1, and if this is true it would be strong evidence of the existance of another rich bunch of ore North of shaft No. 1. There is no denying that conditions are favorable for an ore shoot there, and I hope to see a level driven in that direction far enough to thoroughly explore the North end of the claim.

With Vein No. 2 is opened by shaft No. 2, sunk to a depth of 500 feet vertically and located about 225 feet Southwesterly from No. 1 shaft. Vein No. 2 is much softer than vein No. 1 and there is no outcrop or surface exposure, except in some shallow cuts lying to the Southwest of the shaft.

The ore which comes to the surface around the collar of No. 2 shaft, like those of No. 1 and No. 3, cut out from 70 feet from the surface, which allowing for the difference in elevation at the collars is on the same level at which the ore disappeared in the last mentioned shafts. This break in the ore at about the same level in all the shafts may be merely a coincidence, or it may be of considerable significance, and may offer substantial encouragement for the pospecting of No. 1 vein at depth. In all three instances the ore disappeared near the surface and was not found below, it would be reasonable to suppose the occurances were due to surface infiltrations and only superficial deposits could be expected, but the finding of the important body of ore on the 290 foot level in No. 2 vein, demonstrates beyond controversy, that in the No. 2 vein there is only a temporary interruption of the mineralization, due to faulting and movement after the veins were formed and the ore deposited, and there is every reason for believing the same thing occurred in vein No. 1. If better values are found below a barren zone in one vein, why not expect like conditions to exist in the other one.

With reference to leaching in the zone of oxidation with redeposition and secondary enrichment in the sulphide zone at water level or just below it, it can be said that all the elements and conditions barring only one, promulgated by W. H. Emmons, who is considered the highest authority on the mineralization and enrichment of ore deposits, are present in vein No. 2. The one unfavorable condition is the presence of calcite in the vein which is supposed to retard the migration of gold. Notwithsatnding the presence of calcite, there is abundant evidence that leaching has taken place, in the vein as far down as the 240 level, where can be seen a mass of spongy, cellular quartz, showing numerous casts from which the sulphide has been removed and and frequently, in these casts thin films of metallic gold are to be seen. It is significant that immediately below, in the 290 foot level there was found the richest specimens of free gold ever taken from the property.

The ore in No. 2 vein carries a far greater proportion of silver than does vein No. 1. In the upper levels this silver is frquently in the form of horn silver and sometimes it is very rich. Vanadium is associated with the best ore and the presence of galena is always an indication of rich gold ore.

The 800 tons of ore milled in the Company's mill at the River came from the stope above the 70 foot level in No. 2 shaft. While the 70 foot level was in a large body of excellent ore, a winze sunk in the floor passed into broken barren ground within a few feet.

The 140 foot level in No. 2 shaft corresponds to the 120 foot level in the No. 1 shaft and the two shafts are connected on this level. The No. 2 vein is a blank on the 140 foot level, although the greatest amount of work was done here, the vein appears to be wiped out by faults which has crushed the vein out of existence between the 70 foot level and the 140 foot level, where it begins to assume a normal position, and the ore commences to show values again.

On the 290 foot level, usually called the 300, the vein makes the best showing, there is exposed a body of ore which commences about 50 feet Southeast of the shaft, and extends about 90 feet. The vein here is about 6 feet wide, with a pay steak streak on the west wall averaging 34 inches in width, which has been repeatedly sampled at five foot intervals both top and bottom of drift, showing average value of about $30.00 per ton, at the present price of silver, which sonstitutes half of the total value of the ore. This ore body broke off toward the southwest when a disturbed region was encountered.

The vein northeast from the shaft is well defined, there is about a foot of quartz which does not show sufficient value to be classed as ore. This drift should be, by all means extended, for two reasons, on general principles any ore vein which is known to contain an ore shoot, shoulf be thoroughly propected as long as it can be followed, and secondly it will be heading toward the intersection of the veins.

Below the level just described, the shaft followed the vein vertically to the 400 foot level, there being some good ore and occasionally all the way down. I was not disappointed that no better showing was made by the shaft, because the ore in the level at 290 feet, was not found nearer than about 50 feet southwest of the shaft, and is supposed to incline downward away from it. On the 400 level all the work was done on the southwest from the shaft. The zone of fissuring here is much wider than at any point above, and I made the mistake of drifting on what I supposed was the vein, before I discovered that I was running parallel to the ore and a few feet east of it. The drift disclosed a good looking body of quartz from which some good assays were obtained, and an occasional specimen of free gold found, but the showing so far made is not anywhere as good as that on the 290 foot level. There is much work to be done on this level before we can tell much about it. A drift should be driven to the northeast, after the vein is cross-cut, and more work should be done southwest of the shaft. While we have as yet, failed to find the ore as large and rich as that 100 feet above, we are not yet through with it, and the fact that we find the vein so large and well defined is distinctly encouraging.

The shaft followed the vein for about 50 feet below the 400 foot level, but suddenly changed its dip and went into the west wall. I was continually on the job until the shaft was 450 feet deep, when I was called away by your kind suggestion that I take a couple of weeks vacation. I placed Mose Lyon in charge with instructions to watch the shaft, but when I returned I found he had not been down in it while I was absent. The sinking had gone on satisfactorily, but the vein was lost and the shaft timbered up so I could not inspect it without considerable expense. I naturally expected to pick it up on the 500 foot level but the rock is hard for hand work and I was never able to find it in the drifts and cross cuts which I made. Considering the steady improvement in the size of the vein from the surface to the 400 foot level I have no fear of its quitting between the 450 and 500 foot level in fact I have never known of a vein bottoming.

Now as to "what can be accomplished with $50,000.00", after expending $5,000.00 in settling up old debts and allowing $15,000.00 for surface plant and equipment, we shall have $30,000.00 for development. I have already indicated to you the kind of plant I should advise, which provides for a compressor plant of three jackhammer drill capacity, and a hoist of ample power to sink the shaft to 1000 feet in depth.

I believe this "statement" will convince you that the sinking of the shaft is not the first thing to be done when operations are resumed. The further sinking of the shaft is going to be rather expensive and will hamper the other work to a certain extent. Before the shaft is deepened, the vein should be located on the 500 foot level, for if it is toward the southwest, as it appears likely to do, for immediate results I would strongly advise a winze down in the ore from the 500 level, for prospecting purposes.

If the proposed prospecting work brings any good results toward the north the property may be put on a paying basis before it will be necessary to deepen the shaft. It may be you can raise money to sink deeper, easier than for any other purpose, but put that off as long as possible, because of the great expense of sinking, and because other development I have named is more likely to bring early results.

The possibility of locating other surface deposits of rich ore, has always appealed to me as it did to Mr. E. E. Olcott, the engineer sent out for the Vanderbilt interests to report on the property in 1894. If another such a bunch of ore could be opened in vein No. 1, it would boom Gold Bug stock to the skies; the Katherine would not be in it.

In estimating the early production of rich ore, there is one feature that deserves consideration, and that is the large amount of very rich specimens that were encountered all over the country. I have an idea that $1000.00 would not cover the value of the ore taken by and sent to Mr. Crosby. Specimens were plentiful in every saloon in Kingman and all the towns along the railroad [illegible]operty -- everybody had a spe[illegible]men or two, wherever you went. All t[illegible] old desert proppectors made [illegible]pilgrimage to the

of the scene of the sensational strike, and carried away all they wanted of the ore. It was the most talked of strike I have ever known made in the desert. In estimating the output of ore you are justified in giving large consideration to the ore carried away as specimens, which are always the best and very richest ore.

I cannot make even an intelligent attempt to say, in money or tonnage of ore, what may be accomplished by the expenditure of $50,000.00 but I can say that it will be legitimately and wisely used in prospecting one of the richest gold veins that remains undeveloped anywhere in the River Range, which, extending from White Hills southward beyond Oatman is known to be the rich est in gold of any part of Arizona.

It is truethat a large sum has already been expended in developing the Gold Bug, but inspections of the workings discloses the fact that a large part of it was for work entirely off the vein, and in preliminary work always necessary in the beginning of large operations. The new investors will have the benefit of the expenditure and experience of their predecessors.

With reference to the geology of the Gold Bug, the prevailing rock composing Gold Bug Mountain is schist, with occasional dykes of eruptive rock, chiefly Andesite, locally called "porphry". There is a heavy intrusion of Andesite exposed in a tunnel situated about half way up the summit of the mountain, above the main shaft, and probably on the Boana Vista claim. Not enough work has been done to determine the boundaries of this intrusion, or its relation to the vein and ore bodies, but as Andesite is considered an essential accompaniment or ore in the mines along the River Range; I have no doubt it will be encountered in the workings eventually.

The rock immediately enclosing the veins is exceptionally hard and close grained, resembling eruptive, but as good an authority as T. A. Rickard has pronounced it an altered schist, which I have no doubt, is the proper classification.

With reference to the first work I should like to do when operations are resumed, of course the vein must be located on the bottom level, which will take one drill. I should do some cross cutting on the 400 level, which will take a second drill, and I believe I should employ the third drill in extending the drift to the North on the 300 level. This programme can be changed any time developments alter conditions, as they no doubt will. There is one thing to remember in planning development work, and that is, very frequently work in one locality renders development planned for another place, unnecessary. It does not always pay to rush development in too many places at the same time.

When circumstances permit there should be a long cross cut driven from some level, (probably the 500 will be best) into the hill, toward the East to explore the Andesite and Boana Vista, as before suggested.

With reference to the deepening of the shaft, the only immediate advantage would be in the water supply we should undoubtedly secure. If the permanent water is going to be anything like the small flow we have at the 500 level, it will not be good for anytning but to cool our engines and and compressor. We shall have to keep a truck anyway, and the cooking water we shall need will not add much to our expenses.

I regret that I have not data at hand to enable me to make this statement more complete in details, but I believe you have the essential facts. You may recall that I made a report, quite complete to you, in the fall of 1908, of which I kept a copy, but unfortunately I have lost it or have stored it away somewhere. Sometimes I would like to have a copy made from your original, as it contained information covering the entire workings, that it will be almost impossible for me to obtain.

Very sincerely your,

(Signed) O. B. Amsden.

References:
USGS Bull. 397, p. 217
USGS P.P. 374-E p. 43
ABM Bull. 137 p. 78

REPORT ON THE GOLD BUG MINE OF MOHAVE COUNTY ARIZONA

by
JOHN T. MILROY, E. M.
26 Church Street, N. Y.
January 1923.

Situation of Property

The Gold Bug mining property is situated in the River Range of mountains (known in the U.S.G.S. reports as the Black Mountains) about 30 miles North-west from Chloride, Mohave County, Arizona. The nearest railroad point is the town of Chloride, but as a train only runs to this point from Kingman once a week the mine is reached by automobile from Kingman which is on the main line of the Santa Fe railroad. The distance from Kingman to Chloride is about 30 miles making a distance of about 50 miles in all from Kingman to the mine.

The road from Kingman to Chloride is in good condition and is in fairly good shape between Chloride and the mine.

Claims. Description of Acreage

The property consists of the following claims, six in number, presumably owned by Mr. M. J. Marstein, viz:-Mariposa, Gold Bug No. 2, Little Daisy, Rattlesnake, L.S.V.R., and the Buena Vista. These claims are said to be patented and to comprise in all about 84 acres.

Ownership

This group of claims was acquired by Messrs. Buell S. Rogers and Harry A. Garwood, both of Chicago, on May 29th, 1920, from one Hildreth Frost, the receiver of the Gold Bug Mining Co. In the appendix will be found a certified copy of the deed making this conveyance. These gentlemen appear on the records as paying the annual taxes on the claims. A brief study of the records at the Court House in Kingman-the County Seat-failed to show any attachments, liens, mortgages, or, "actions" of any kind, against the property. Mr. Marstein states that Messrs. Rogers and Garwood are his associates, and that he holds full power of attorney from them to deal as he thinks proper with reference to the mine.

In the event that it is decided to do this development, I would advise that a lawyer at Kingman be engaged to examine the titles and ownership situation thoroughly before actual work is begun. This can be done very quickly by some such man as Mr. J. L. Wallace, of Kingman, who bears an excellent reputation there.

Geology

A very complete study of the geology of Mohave County appears in Bulletin 397 of the U.S. Geological Survey, 1909, particular mention being made of the Gold Bug Mine on Pages 217 and 218. A reproduction of this article has been made and will be found in the appendix.

Another quotation from this same report, beginning page 48, paragraph 2, is also interesting, remembering that the Gold Bug Mine is in the Black Mountains of Mohave County, as follows:

"The veins of the Black Mountains are filled fissure veins, with a general Northerly, or Northwesterly strike, and steep dip. The fissure filling is quartz, adularia, and calcite, and in many cases there is evidence that the first two minerals have replaced the calcite, probably through the medium of hot solutions. The values are almost exclusively in gold which, as a rule, is finely divided and can best be recovered by the cyanide process. The quartz filling contains many inclusions of the country rock. The veins cut through the great mass of Tertiary volcanic rocks which characterize the range but undoubtedly continue in depth into the underlying pre-Cambrian granite rocks. The oxidation extends to a depth of 600 or 700 feet, and as a rule, no sulphides are found. The water level is at least 700 feet below the surface. These deposits have suffered comparatively little erosion since their deposition. They bear evidence of having been formed rather close to the surface by hot waters which ascended through the lavas at the close of igneous activities."

Broadly speaking the values are contained in quartz fissure veins in granitic rock.

THE GOLD BUG MINE

Development and Improvements

It is said that work on this property has been done to the extent of some 18 shafts and open cuts, and that there are three shafts (Nos. 1,2, and 3) which have been sunk to depths of 100 feet, 512 feet, and 140 feet, respectively. There is, however, only one shaft now accessible, No. 2, to which my studies were, of necessity, very largely confined. I found well defined vein matter on levels 140', 240', and 280'.

The 40 foot level is closed off and could not be inspected.

The 70 foot level shows now no substantial vein matter, but there are indications that a considerable amount of ore has been taken out from this level in past times.

On the 140 foot level the vein is evident but not persistent. Ore apparently has also been taken out of this level. Samples which I took on this level are as follows--the vein having a strike practically North, and a dip of about 75 to 80 degrees.

140 foot level

Number 11. 120 feet south from shaft in hanging wall. About 10" wide.

Silver Ozs. per ton of 2000 lbs.	Value at 64¢ per oz.	Gold Ozs. per ton of 2000 lbs.	Value $20.67 per oz.	Total Value
1.40	$0.90	0.08	$1.65	$2.48

Number 12. 105 feet south of shaft, in roof. Sample about 24" wide.

.90	$0.58	0.03	$1.03	$1.61

Number 13. North drift 30 feet in from shaft. Sample about 4' wide.

.49	$0.26	0.02	$0.41	$0.67

On the 240 foot level apparently some ore has been taken out. Unfortunately no records of ore shipments are available for examination. Vein matter on this level is evident but not of real interest. A sample which I took on this level is as follows--the vein having a strike of about North and steep dip of 75 to 80 degrees.

240 foot level

Number 10. 15 feet south from shaft, in roof over chute. About 26" wide.

.80	$0.32	0.06	$1.24	$1.56

On the 280 level the showing is good. The vein has about the same strike and dip as above. My sampling of this level is as follows, being all in the south drift. No vein matter appears in the north drift. 280 foot level

280 foot level

Number 1.	35 feet in	from shaft--in	roof.	About 48 inches wide.
2.	70 feet	"	"	26
3.	75	"	"	56
4.	80	"	"	44
5.	90	"	"	34
6.	95	"	"	18
7.	100	"	"	60
8.	127	"	"	24

Sample	Silver Ozs. per ton of 2000 lbs.	Value at 64¢ per oz.	Gold Ozs. per ton of 2000 lbs.	Value at $20.75 per oz.	Total ore Value
No. 1.	0.80	$0.38	0.18	$3.72	$4.10
2.	0.49	0.28	0.02	0.41	.67
3.	1.88	1.18	3.80	78.85	78.80
4.	1.19	.70	0.68	14.06	14.76
5.	4.30	2.75	11.06	247.63	250.38
6.	1.40	0.90	2.65	50.21	50.81
7.	0.40	0.26	0.07	1.45	1.71
8.	0.49	0.26	0.08	1.65	1.91

400 foot level

There is no vein matter in evidence here. The floor of the drift is rather wet, but no standing water. I could not get below this level as the shaft is caved.

There are no surface improvements of any kind, no hoist, no buildings. The ladders are in fairly good condition, and, in addition to the ladderway, there is a hoist-way about three feet six inches in the clear.

A general sample of the ore pile at dump of No. 2 shaft is as follows: Sample No. 14.

Silver 0.60 oz., Gold 0.30 oz., Total value $6.57

Present Condition

The mine as it stands to-day is clearly a development proposition and as such is attractive. It is difficult to understand why certain work has not been done under ground and why other work has been done. It would seem wise and natural to have crosscut the 290 foot vein on the 400 foot and the 500 foot levels in order to determine the size and value of that particular vein at the lower level.

Little timbering is used underground, and the drifts are in good condition also the shaft with the exception of that portion below the 400 foot level.

Water, Roads, Power, Fuel

At the present time there is no water in the mine and none available for any purpose short of the Colorado River about ten miles away. In the event of a mill being built on the property water would have to be pumped that distance, or, the mill put near the river and theore shipped that distance in some way.

There is no road, now, to the river. The road to Chloride--30 miles and no pole line constructed--so power would have to be developed by distillate, gasline, or other fuel.

Development Plan

As it stands, this mine possesses good development features, and a plan for carrying on development of any sort would require an equipment of gasoline hoist, miscellaneous mining tools, head frame, and camp buildings. From an estimate which I have made, I feel this could be all accomplished inside ten thousand dollars. This would put the mine in condition to carry on the development on an efficient, and economical basis. The actual work of mining can be arranged on a contract basis for about fourteen dollars per running foot, this to include all expense. It would be necessary to employ someone to superintend the work and this could be arranged, I believe locally, on a very moderate, though efficient, basis. It would cost, also, about a thousand dollars to repair the shaft below the 400 foot level so work could be done from the 500 foot level.

Just what work should be done would be the subject of further study by the man engaged to superintend thedevelopment, but it is clear that exploration of the 290 foot vein from the lower levels should be about the first step to be taken.

Summary

In view of all circumstances, I feel that this property is well worthy of development, and if an arrangement can be made with the owner which would seem fair in view of the condition of the mine I would advise that a fund be provided and the development undertaken. It would seem quite probable that development would bring to view substantial bodies of ore of attractive values.

Mr. Amsden--deceased--the former superintendent, made a very extensive and thorough sampling of this 290 foot level in 1909 and his average of 21 samples gives $20.13 per ton of ore, with length of ore shoot about 80 feet, and average width of pay streak 34 inches.

Mr. Richard Malik, a mining engineer living at Chloride, Arizona, states that he sampled this same vein in 1922 and his estimate of the value of ore body is about $17.00 per ton.

Such ore as this with the present lack of facilities for transportation would hardly pay to ship, nor would it probably be very profitable to mine and mill the ore with the lack of water, high priced fuel, and other conditions, but it is only a question of time when the railroad should come closer to the mine, and when comparatively cheap power will be available, and these changes will make 16 to 18 dollars ore yield a good profit.

And, it is quite probable that, as the mine is intelligently developed, very high grade ore bodies may be found, which, under the present conditions, will show a good profit.

My feeling is that is $30,000 to $40,000 is raised and put into the hands of a man well experienced in mining the results will well justify the investment.

Respectfully submitted
(Signed) John L. Morrow

25 Church Street.
New York
January 24, 1924.

GOLD BUG MINE

MOHAVE COUNTY

USGS Bull. 397 p. 217
USGS P.P. 374-E p. 43

ABM Bull. 137 p. 78

GOLD BUG MINE MOHAVE COUNTY

WR GW 10-18-77 - Syl Dimmer, Phoenix, called to discuss testing and heap leaching of Au in mine dumps saying he has the Gold Bug Mine near Signal. He has screened about 1,500 tons of the dump and can pan considerable fine Au from the 1/8" material. He was cautioned to sample the heads and tails of a one kilogram test sample of + 1/4" material after two days of agitation in a cyanide solution. 10-24-77 bh

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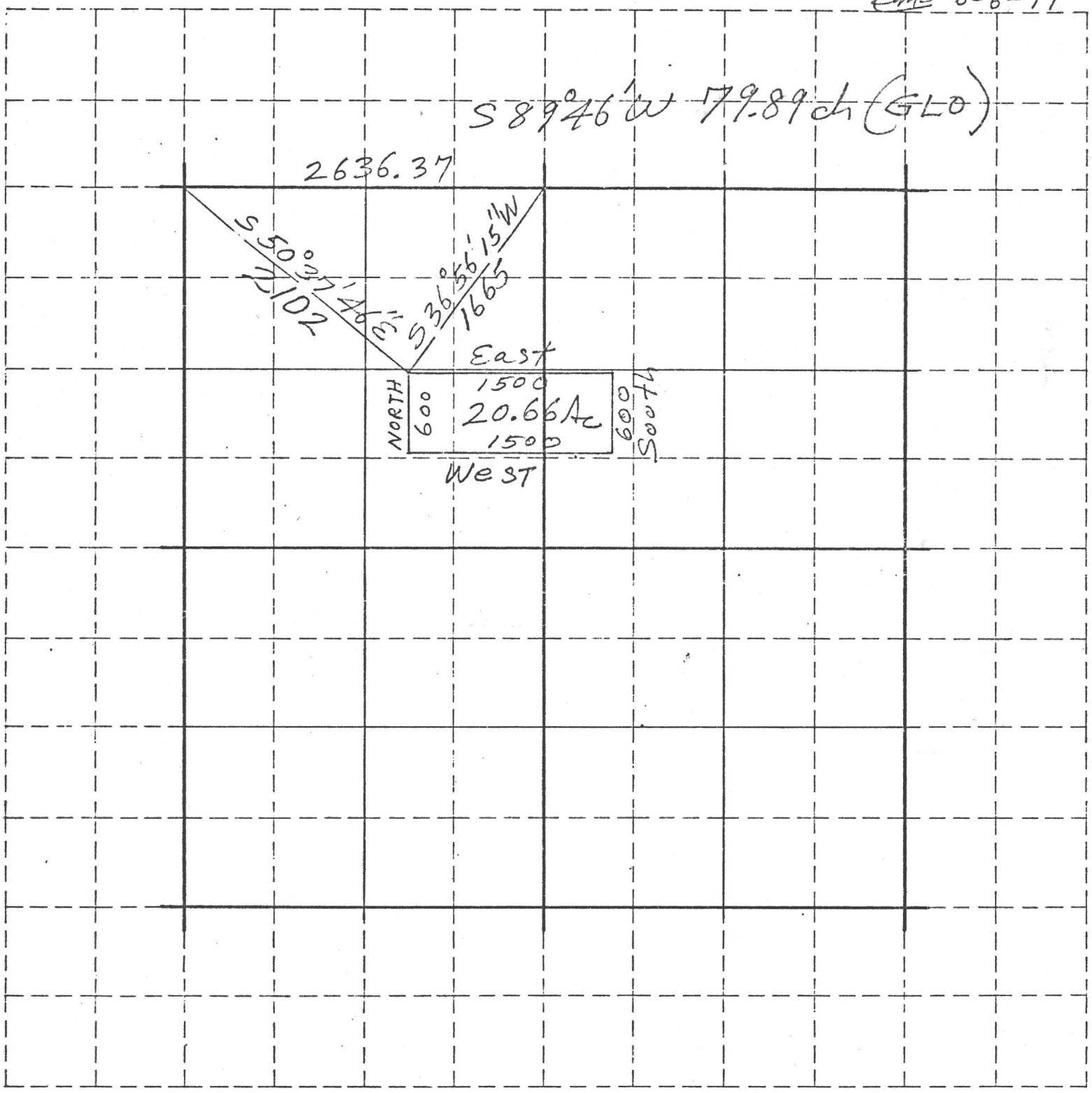
FROM MINERAL RESOURCE'S FILE

M-60404

SEC. 32 | TWP. 13N
RGE. 13W
N

ARIZONA STATE LAND DEPT.
EM 6-6-77



1 MI = 5280'

2640' 1/2 MI	1320' 1/4 MI	660' 1/8 MI	660' 1/8 MI

0 08 CHAINS 10 07 20 09 30 05 40 04 50 03 60 02 70 01 CHAINS 80 0

0 0008 FEET 1000 0007 2000 0009 3000 0005 4000 4000 5000 3000 6000 2000 7000 0001 FEET 8000 0

1-ROD = 16½ FEET
1-CHAIN = 66 FEET
1-ACRE = 43560 SQ. FT.

1 MILE =
5280 FEET
80 CHAINS
320 RODS
1760 YARDS
1609.3 METERS

1-44, 3-1-72

STATE

1978 FEB 27 PM 2:30

DEPARTMENT

HUNTER MINING LABORATORY, INC.
1593 GREG STREET • SPARKS, NEVADA 89431 • TELEPHONE: (702) 358-6227

REPORT OF ANALYSIS

FILE COPY

Submitted by:

Date: March 21, 1978

SOUTHWESTERN DEVELOPMENT COMPANY
Mr. Walt Kramer
3300 Skyline Blvd., Apt.320
Reno, Nevada 89509

Laboratory Number: 2959

Analytical Method: Fire

Your Order Number:

Report on: 9 samples.

Sample Mark:	Gold oz/ton	Silver oz/ton
DB-1	none	none
2	0.010	none
3	none	0.14
4	none	none
DB-5	0.030	none
GB-1	0.040	0.34
2	0.050	none
3	0.030	none
GB-4	0.240	0.48

claim Gold B ug

HUNTER MINING LABORATORY, INC.

H. H. Scales

cc: Allen Penick

RECEIVED

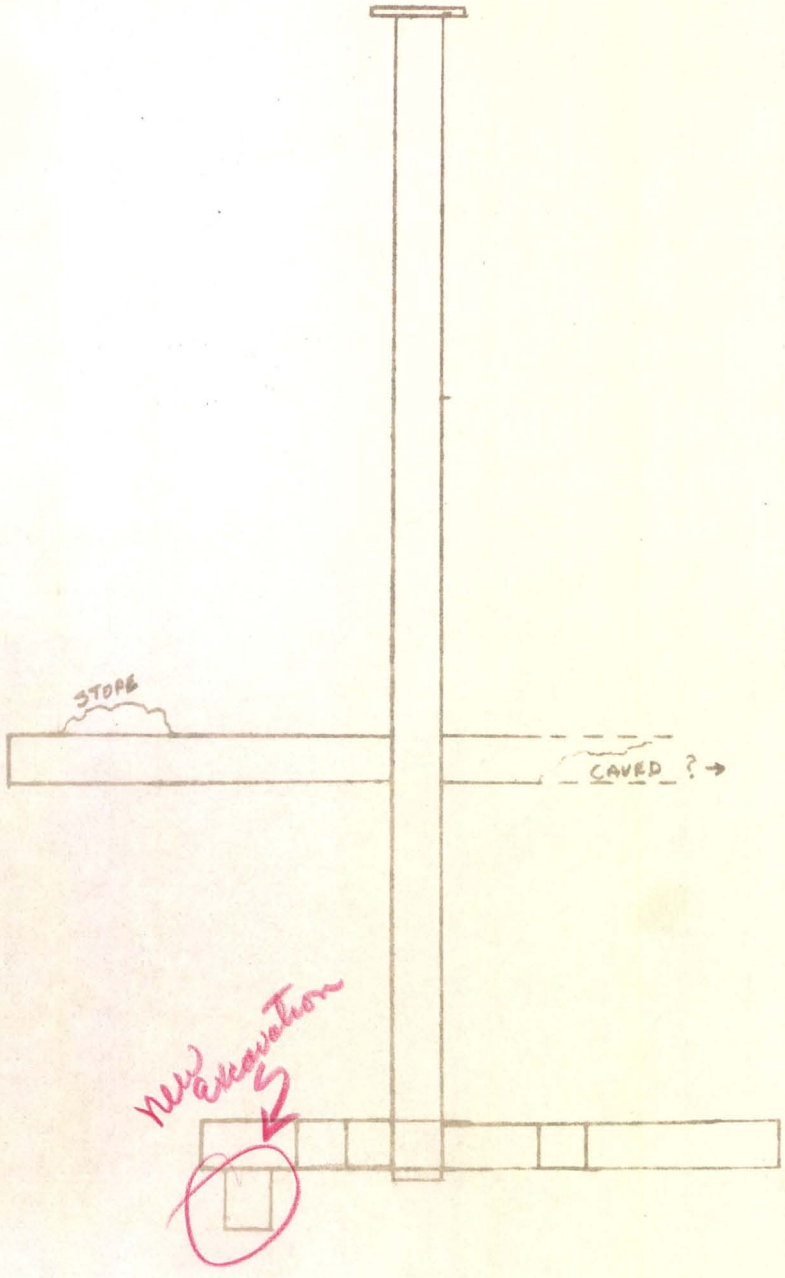
ppm = parts per million. oz/ton = troy ounces per ton of 2000 pounds avoirdupois. percent = parts per hundred. fineness = parts per thousand.
Read + as "greater than", and—as "less than". 1 oz/ton = 34.286 ppm. 1 ppm = 0.0001% = 0.029167 oz/ton. 1.0% = 20 pounds/ton.


RECEIVED
MAY 22 1978
STATE LAND DEPT.


3253 II SW
(GROOM SPRING 1:24 000)
3253 II SE
(GREENWOOD PEAK
R. 14 W.
R. 13 W.
R. 12 W.
12 MI. TO ARIZ. 93
Graveyard
Wash
Groom Spring Wash
GRAVEL ROAD
SANDY
RIVER
Signal
(Site)
The Spring
Hackberry Spring
Canyon
Signal Mtn
Arrastra
Canyon
JEEP TRAIL
BIG
Signal
Wash
Rupley Well
Goldbug Mine
11-45915
Madril
Madril Peak
Eagle Point Well
Eagle Point
BLACK MESA
ARTILLERY MOUNT
ALAMO
Artillery Peak
Maggie
BIG
ARTILLERY PEAK QUADRANGLE

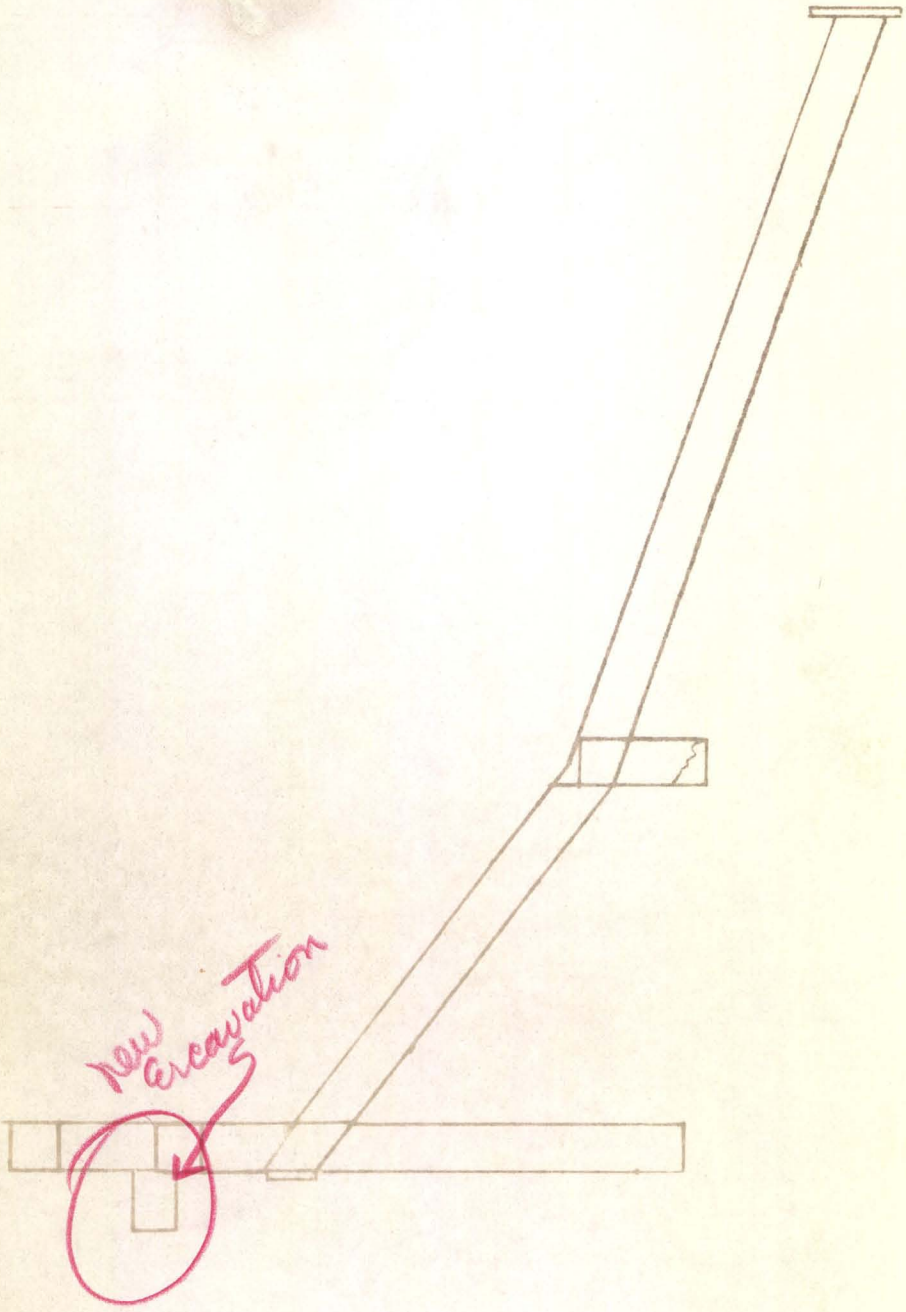
GOLD BUG

LOOKING NORTH



GOLD BUG

LOOKING WEST



DKW
8/2/07

W.S. OLSON

Collins-Karcher

405 W Washington St

Waukegan, Ill 60085 (312)662-6600

PP 77227 120 ac

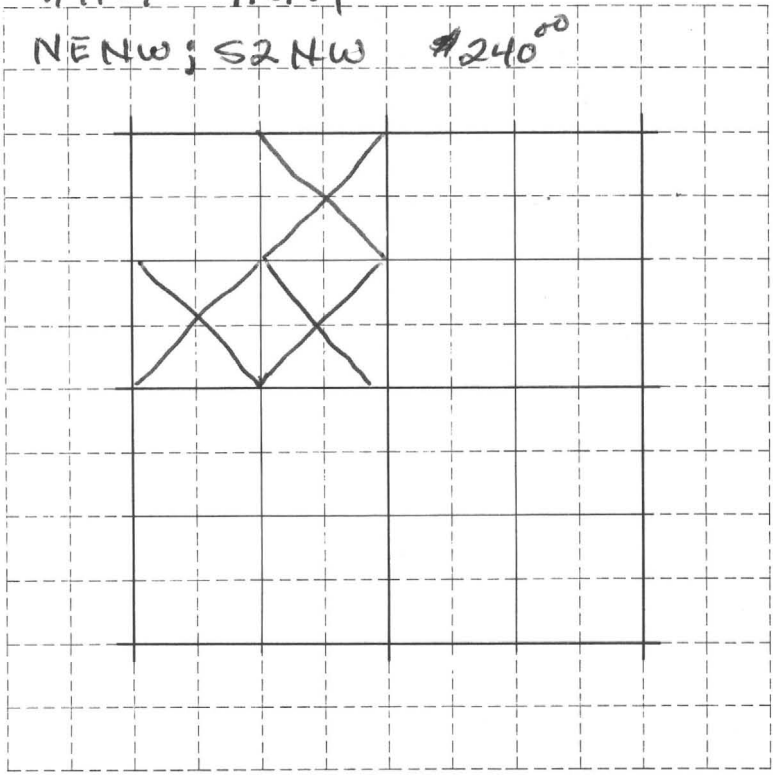
9/4/79 - 9/3/84

SEC 32 | TWP 13 N
RGE 13 W

N

ARIZONA STATE LAND DEPT.

NENW; S2NW $240.00



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0 CHAINS 10 20 30 40 50 60 70 80 CHAINS

1 MILE =
5280 FEET
80 CHAINS
320 RODS
1760 YARDS
1609.3 METERS

I-44, 3-72

0 FEET 1000 2000 3000 4000 5000 6000 7000 8000 FEET

(2) 5-24-78

LOG SHEET

ENT P.	DATE SENT TO	DOCUMENT MINERAL	DATE SENT TO	DOCUMENT M. M.	DATE SENT TO	REPORT DATE
41		648		✓745		
		690		✓746		
17		2843		23464 -		
26		2842		38090-08		
60 (unused)				38091-08 -		
				37111		
305				✓735		
955				✓761		
~~060~~	AKD 7-10			✓762		
51				26626-34		
				✓31855-08		
				✓39520-08		
				✓39521-08		
				26461-63		

M45915

IRON KING ASSAY OFFICE

ASSAY CERTIFICATE

BOX 14 — PHONE 632-7410

HUMBOLDT, ARIZONA 86329

ASSAY MADE FOR

HENRY GONZALES
510 Gold St., Apt 3
Kingman, Ariz. 86402

June 6, 1977

Ref no.	DESCRIPTION	oz/ton Au	oz/ton Ag		% Fe	% Pb	% Zn	% Cu
76-6-2	Ore sample	3.046	0.71					

CHARGES $6.00

ASSAYER _____

45915

AFFIDAVIT

KNOW ALL MEN BY THESE PRESENTS:

At the request of Henry Gonzales of Kingman, Arizona, the Domain Corporation of Phoenix, Arizona and Mr. Charles R. Ward of Phoenix, Arizona, do hereby attest to the Assay Certificate issued by the Iron King Assay Office, reference number 76-6-2, dated 6/6/77;

That it in fact is the result of an ore sample personally taken by Mr. Henry Gonzales from the 300 foot level of the Gold Bug Mining Claim (Raunchie) located in Mohave County, Arizona, now under Lease Application Number 45915 with the Arizona State Land Department, Phoenix, Arizona.

Domain Corp / S. Dimmer
Domain Corporation
by: Sylvester Dimmer

8-20-77
Date

Charles R. Ward
Charles R. Ward

8/20/77
Date

State of Arizona)
County of Mohave)
Subscribed and sworn to before me this 20th day of August, 1977.

(My commission expires My Commission Expires April 10, 1979)

Winifred Beatty
Notary Public

TO: A. K. Doss, Director

FROM: C. H. Simpson, Geologist

DATE: November 23, 1977

SUBJECT: Report on Examination - Mineral Lease Application #11-45915

APPLICANT: Henry Gonzales NAME ON CLAIM: Raunchie

LOCATION: Mohave County, Sec. 32, T13N, R13W

The above named claim is located in the NW 1/4 section of Sec. 32, T13N, R13W, approximately 3 miles southwest of the old town site of Signal, Arizona.

On November 17th the writer, in the presence of one of the principal financiers of Mr. Gonzales and Mr. Syl Dimmer, visited the area for the purpose of examining the claim in light of the above pending application.

To reach the claim area one proceeds north on Hwy. 93 from Wickenburg to the old Signal Road approximately 15 miles south of Wickiup, AZ., then westward over a gravel road for approximately 20 miles to the old town site of Signal, and thence southwestward over a jeep road for a distance of 3 miles to the foothills of the Madril Peak area. (See cut of Arizona Hwy. map attached.)

The exact location of the mine is marked on a cut from the Artillary Peak quadrangle attached hereto. The geology of the area generally consists of granitic formation cut by quartz dikes or veins. However, the immediate area examined is located on a vein or gossan cutting through the country rock. The vein has a width of approximately 6 to 8 feet on the surface and is clearly visible for several thousand feet. (See photos.)

The area examined and claimed under the title of Raunchie Claim covers the area of old workings known as the Gold Bug Mine (see attached quadrangle map.)

Remnants of the old workings are still visible. (See photos of old head drame over the shaft and photos of tailings dumps of approximately 3,000 tons.

The writer examined the dumps and the vein along which most of the workings and cuts have been made. The mineral appears to be mixed with a hematitic material associated with the gossan and the gouge along the vein. In my opinion, the vein or mineral showing is one on which a prudent man would expend time, money, and energy to further develop. However, I wish to make it clear that the writer was unable to enter the old shaft to examine the claimed discovery at the 300 foot level due to the fact that some 30 feet of the ladder is missing at the 60-100 foot level.

Notice should be taken that in the application file, the samples submitted were from the Gold Eagle claim. NoWhere in the records, historical or Bureau of Mines file, can I find any reference to this particular claim as the Gold Eagle.

Upon further evaluation, the examiner finds the following deficiencies in Mineral Lease application #11-45915:

1. The samples submitted as evidence of minerals 7-26-77 and 7-30-77, Invoice #4058 and #324482 respectively, are marked Gold Eagle claim.

2. No evidence of a temporary head frame having been erected as claimed in affidavit by Douglas Martin dated 9-23-77 could be found on the site by the examiner (see photo marked "Head frame over discovery.)

3. There was no way the shaft could be entered to show the claimed discovery (refer to photo above.) Old timber still in place.

4. The old timbers are still in place showing no evidence of removal for entry as claimed in affidavit of 9-28-77.

5. The affidavit of 8-20-77 submitted on 8-25-77 is not signed by a disinterested party as Syl Dimmer and Charles Ward are the financiers for the applicant, (see attached memo.)

6. The assay certificate dated 6-6-77 submitted with the affidavit of 8-20-77 as proof of mineral shows no mark as to the source of its origin.

7. The deposition signed by Douglas K. Martin of the Charles Ward Corporation appears to be inconsistent with the findings of the field examination.

8. When the examiner requested permission to enter the shaft to verify mineral discovery, Mr. Martin told him that the shaft was caved at the 100 foot level and is inaccessible.

At this time, in my opinion, the claimant is unable to show evidence of discovery of mineral in place at the 300 foot level as claimed in his application #11-45915 or substantiate the assay samples submitted as evidence.

Respectfully submitted,

By: Charles H. Simpson

Charles H. Simpson, Geologist
Minerals Division
Minerals and Energy Division

CHS:lj
Encl.

Re Gold Bug Mine
Sec 32, 11 3N, R 13 W
Mohave County

May 16, 1978

Gentlemen:

I hereby certify, being a consulting geologist residing at 3290 Clemens St. Reno Nevada that I descended to the 300' level in the Gold Bug Mine, Arizona using a rope for portions of the descent and that samples taken on this level indicate gold mineralization. The Gold Bug Mine is presently leased by Harlow [redacted] Sanstead

H. Allen Lenick Jr.
Consulting Geologist

Subscribed and sworn to before me this 16th day of May, 1978

Phyllis J. Mattingly

PHYLLIS J. MATTINGLY
Notary Public - State of Nevada
Washoe County
My Commission expires Jan. 10, 1982

GOLD EAGLE - 2/22/80

7/17/79 PP 77227 NENW; S½NW 120 ac W.S. OLSEN 9/1/79 - 9/3/84
1/2/79 G 1517 ALL 640 ac K.J. Billingsley 2/1/79 - 2/6/89
8/18/78 PP 69605 E½W½; W½E½ 320 ac H.E. SANSTEAD 3/7/79 - 3/6/84
3/8/79 Cancelled for Non Completion
2/27/78 M 60404 W½SWNE; SENW 20.66 ac H.E. SANSTEAD ~~3/7/79 - 3/6/84~~
WITHDRAWN 1/16/79
2/1/78 M 59523 W½SE; E²E²SW 20.66 ac H.E. SANSTEAD
WITHDRAWN 1/16/79
~~11/17/77~~ 11/17/77 G 49969 ALL 640 ac ANSCHUTZ 11/17/77 - 11/16/82
6/6/77 M 45915 W2SWNE; SENW 20.66 H. GONZALES
2/28/78 Mineral Lease Cancelled
4/8/77 PP 44343 all 640 ac W. Holder & D. JACOBS
5/26/77 Cancelled - Non Completion
2/17/77 PP 42990 All 640 ac W. Holder & D. JACOBS
4/7/77 Cancelled - Non Completion
12/30/76 PP 41910 All 640 ac J & H. Equipment (Cancelled)
11/12/76 PP 41029 All 640 ac ↓ ↓ ↓
9/24/76 PP 40406 All (except Gonzalez) 598.68 ac J & H Equip (Cancelled)
3/24/76 M 36755 (Gonzalez & Faults) 20.66 H. Gonzales (
10/13/76 Commission Order - No proof of Mineral
12/11/75 M 34918 E½NW 20 ac H. Gonzales
9/29/76 Commision Order - No proof of Mineral
1/30/62 M — Orville H. Pember - all Cancelled - Non Payment

11/17/77 G 49969-S All 640ac Anschutz 11/16/82 ½ to Harnco

7/19/79 PP 77227 NE NW: S½ NW

W.S. Olsen 9/4/79 to 9/3/84

1/2/79 G 15175 all 640 K.J. Billingsley 2/7/79 - 2/6/89

Double Barrel Mine