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PRINTED: 06/20/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: RICO

ALTERNATE NAMES:

MOHAVE COUNTY MILS NUMBER: 110B

LOCATION: TOWNSHIP 23 N RANGE 17 W SECTION 29 QUARTER SE
LATITUDE: N 35DEG 20MIN 52SEC LONGITUDE: W 114DEG 07MIN 10SEC
TOPO MAP NAME: STOCKTON HILL - 7.5 MIN

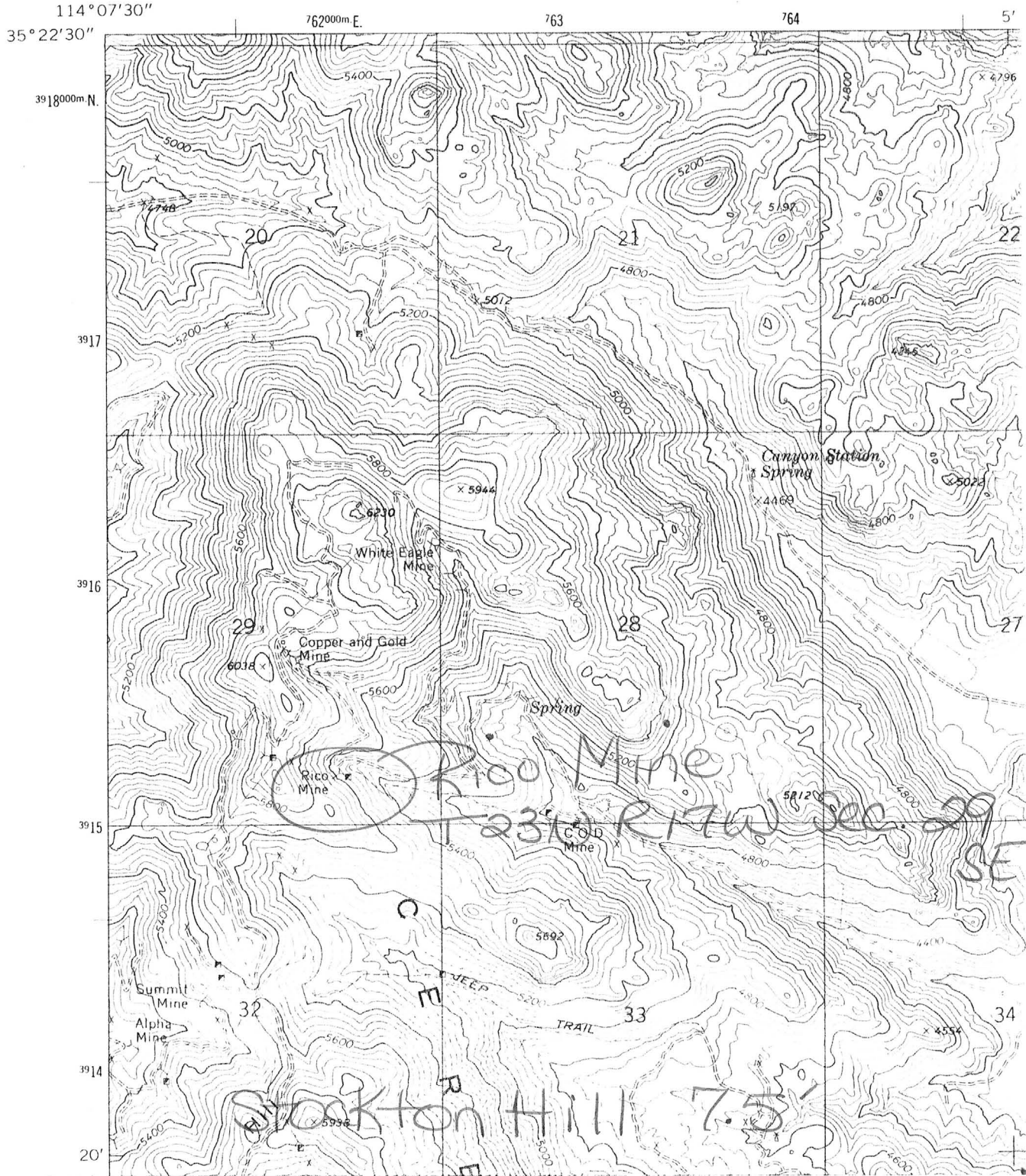
CURRENT STATUS: PAST PRODUCER

COMMODITY:
SILVER
GOLD LODE
COPPER
LEAD
IRON HEMATITE
SILICON

BIBLIOGRAPHY:
ADMMR RICO MINE FILE
DINGS, M. "WALLAPAI MNG DIST, MOH. CO, AZ"
USGS BULL 978-E, P. 147; 1952
ADMMR C.O.D. MINE FILE
HERSEY, R., AZ. STATE MINE INSP. RPT. 1965,
P. 8
AEC PRELIM. RECONN. RPT. 172-485, P. 84
MALACH, R "CERBAT MTN CTRY" P. 45; 1975

3154 I NW
(CHLORIDE)

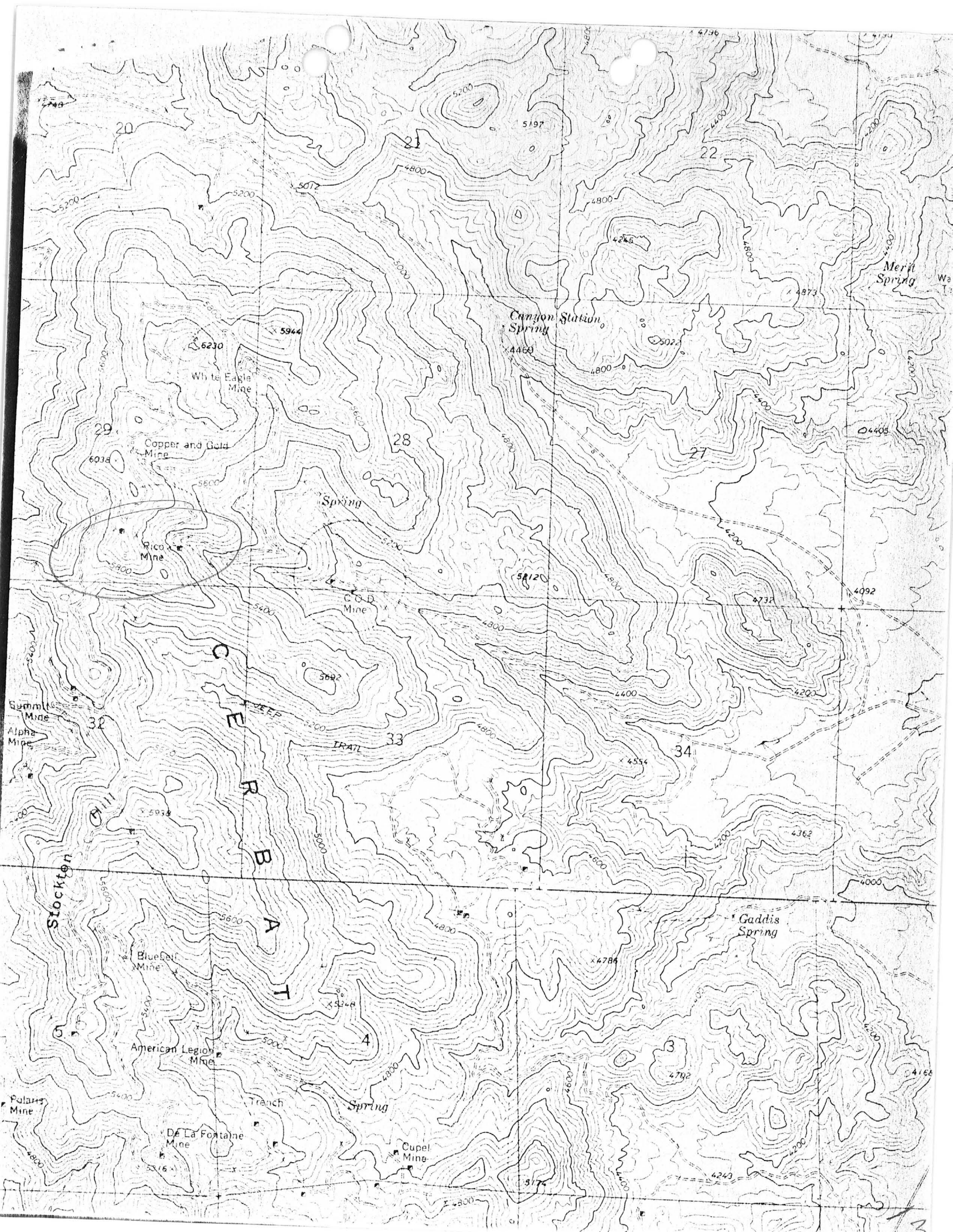
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



Rico Mine
T23N R17W Sec. 29 SE

Stockton Hill 7.5'

2


Canyon Station Spring
Merit Spring
White Eagle Mine
Copper and Gold Mine
Rico Mine
Spring
C O D Mine
Summit Mine
Alpha Mine
JEEP TRAIL
CEREBAT
Stockton Hill
Blue Bell Mine
American Legion Mine
Polaris Mine
Trench
Spring
De La Fontaine Mine
Cupel Mine
Gaddis Spring
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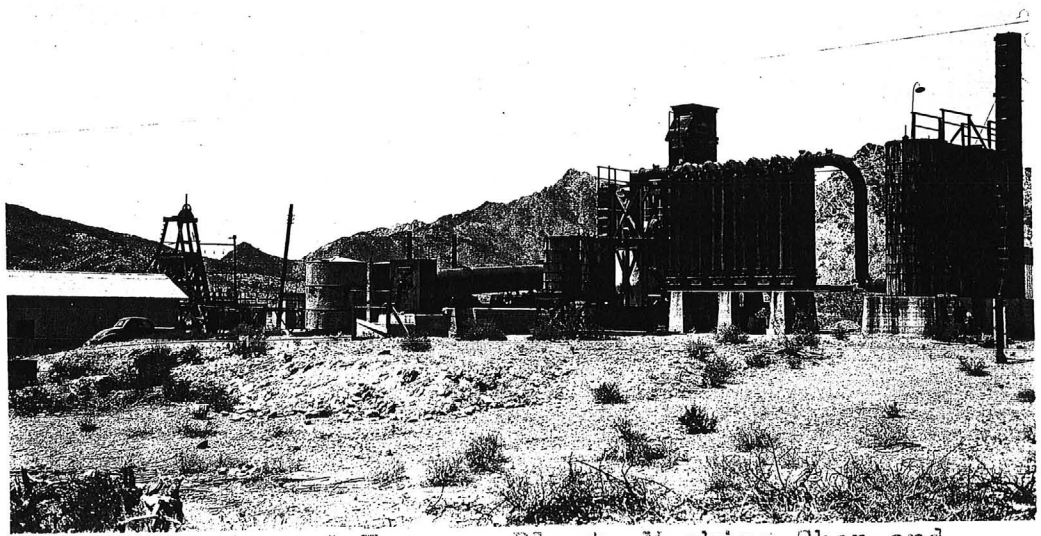
RICO MERCURY MINE.



General view of Furnace Plant, Machine Shop and Rico Headframe in Distance.

RICO MINE MOHAVE COUNTY

Learned W. E. Iseman of Tucson is expecting to start work on Mrs. Clack's Rico mine soon. EGW WR 11-6-64

Office visit - Mrs. Claire Miller, 37 N. Columbus, Tucson, who financed Iseman in work on Rico mine. Iseman has apparently dropped out of the picture. Mrs. Miller wants to dispose of her interest. Her companion also involved. FTJ WR 8-13-65

Inspiration has been examining Nellie Clack's Rico property. FTJ WR 1-7-66

Visited the COD and the Rico mine. Vernon Taylor Sr., of Houston, has these properties under option. Two drill holes were put down on the COD and the drill was being set on the Rico. Weldon Fulghum is consultant for Mr. Taylor, but was in Las Vegas for AIME. FTJ WR 9-8-67

Learned that Vernon Taylor Sr., Kingman Silver Mines Co., had ceased drilling the Clack properties until spring. Several holes were drilled on the De LaFontaine and Rico claims. Mr. Fulghum was out of town. FTJ WR 11-10-67

Interview Mrs. Nellie Clack. Work at the COD continues. They have rehabilitated the shaft to 500' level and cleaned out and timbered where necessary the 1000' NE drift and are doing the same on the 500' level. A steel headframe has been constructed and other improvements. The Taylor group have the Rico mine as well as the COD and contemplate drilling. 2 shifts, 3/men shift at present at the COD. FTJ WR 11-8-68

Development work continued at the COD and Rico mines. FTJ QR 4-18-69

Active Mine List April 1969 - 30 men - Weldon Fulghum, Mgr.

According to Mrs. Clack, they are sinking from the 500 to the 700 at the COD, and the Rico will be cut a depth. FPK Notes on field trip - 5-15-69

Exploration of the COD, Rico and White Eagle mines by the Kingman Silver Mining Co. was conducted during this quarter. FTJ WR 7-15-69

Active Mine List Oct. 1969 - 30 men - S29, 23N, 17W - Whitlock Rich.
Active Mine List May 1970 - 17 men - J.M. Arkell, Mgr.
Active Mine List Oct. 1970 - 17 men - Harry Weiss, Mgr. Kingman Silver Mining Co.

R/H

E. ROSS HOUSHOLDER
Registered Professional Engineer No. 257, Arizona
Licensed Land Surveyor No. 2641, California
and Mohave County Engineer

KINGMAN, ARIZONA
June 4, 1958

Hi Jolly Mines Corp.,
University Station Box 4335,
Tucson, Arizona

Refer: Mining Report on
Rico Mine.
Mohave Co,

Attn: W. E. Iseman, Gnl. Mngr.

Dear Mr. Iseman:

At your request I have made a preliminary examination of your company's Rico Mine Group consisting of 5 lode claims in Sections 28 and 29, Township 23 North, Range 17 West, Gila & Salt River Meridian in the Rico - Moon - C.O.D. section of the Wallapai Mining District, Cerbat Mountains, Mohave County, Arizona. (The Rico group is about 16 miles northerly over an improved, graded county road, thence westwardly two miles over a graded mine haulage road). And, I herewith submit my preliminary report, which consists of a total of this and the following pages (including photographs, and sketch maps and the report proper) totaling 14 pages, all of which are to be used collectively and in their entirety ONLY.

In order to make this preliminary report as clear as possible it was found necessary to include comments on the geological conditions of the district, section and the property itself to better arrive at the conclusions and estimates herein shown. This will also attest to your decision to carry on the development underground, and justify your plans for the future milling plant to treat the ores from your mines.

Liberal use has been made of photographs and information in the mine files, together with data from my library of mine maps and mining reports, government bulletins, and other publications, together with personal interviews with people having information about the property who I considered reliable. Supplimentary reports will be submitted as the contemplated work progresses.

Respectfully Submitted,

E. Ross Householder

E. ROSS HOUSHOLDER, E. M.
Registered Professional Mining Engineer # 257
P. O. Box 1107 (431 E. Spring St.) Kingman, Ariz.

Certificate Seal

ARIZONA DEPT. OF MINES & MINERAL RESOURCES
STATE OFFICE BUILDING
416 W. CONGRESS, ROOM 161
TUCSON, ARIZONA 85701

5

HISTORY

In 1872 hundreds of men came into Mohave County, Arizona, from Pioche, Nevada, and gold regions of California, and the rich ores of the Cerbat Mountains were discovered. It was then that the miners organized the Wallapai Mining District.

The first ores from these veins were so rich that they yielded large profits, although the expense of freight and treatment ran into hundreds of dollars per ton, owing to the fact that ores had to be packed long distances by burros (there being no roads in Mohave County at the time) to the Colorado River, thence by river steamer to Port Isabel, down the Gulf to Point Arena, and up the coast to San Francisco, whence they were then shipped mostly to Swansae, Wales, for treatment.

The first locations known to be made in the Rico-Moon-C.O.D. section was about 1878. It was a few years later that K. C. Fisher opened up and shipped considerable ore from the Rico No. 1 and No. 2 Rico (called also the Tripod Shaft). Most of the ore was mined by leasers.

Little work was done on the Rico or Moon lode claims until the latter part of 1918 when the Rico Exploration Co. sunk the No. 1 Rico shaft from the 100 to the 300 foot level. Drifting was carried on about 300 feet west to the common endline with the Armour lode claim. Miners who worked in the Rico recorded that a good tonnage of ore was shipped from the drifting thus carried forward. Very little stoping was done from the 300 foot level, because the operators wanted to open up an enlarged working face before the stoping to the surface was started. However the price of silver fell from around $1.00 per ounce to less than 60¢ per ounce and work stopped, not only here but in the other silver gold mines of the Wallapai Mining District.

CERBAT RANGE

The Cerbat Range in Mohave County, Arizona, extends as a broken range nearly north and south from north of Kingman generally to the Colorado River, where the northerly Extension of this range is the Virgin Mountains of Nevada.

CERBAT MOUNTAINS

From a mile or two north of Kingman, the County seat of Mohave County, to a few miles north of Chloride a length of about 25 miles is the Wallapai Mining District in that part of the range known as the Cerbat Mountains. The width of these mountains and mining district is about 10 to 12 miles. Detrital - Sacramento Valley is on the west made up of detrital deposits of conglomerate, sand, gravel, wash sands, clay and intercalated sheets of basalt. In places it is known to be over 2500 feet thick. Since interfilling considerable erosion has taken place.

On the East of the Cerbat Mountains is the Hualapai Valley, for the most part an undrained basin. It is a structural trough in direct alignment with the Grand Wash fault to the east of Hualapai Valley. This trough basin occupies a pseudomonocline formed likely by the Grand Wash Fault. Tilted sheets of basalt below the Hualapai Valley floor along the western edge give evidence of the mentioned structural trough. Sedimendaries form the country rock east of the Grand Wash Fault.

RICO VEIN

The Rico vein is well known; it strikes N. 85° W. and dips 80° N., and is more than a mile in length and apparently 6 feet in average width. The gangue is mainly quartz, in which the ores occurs in shoots and lenses which vary from 1 to 7 feet in width and are mostly of considerable extent. The narrow shoots have proven to be unusually rich, and wider ones contain large bodies of milling and concentrating ore. At the 200 foot level the ore shoot is reported to vary from 3 to 7 feet in width and its ores to have averaged over $200 per ton.

The ore contains principally silver sulphide and gold, with some galena, sphalerite, and below the 200 level a little chalcopyrite and bornite in milk-white quartz gangue with sphalerite and almost one Troy ounce gold. An assay sheet in your records shows that one shipment contained 160 oz. Silver and 2 oz. Gold and 20% Lead. The lead content varies between 12% and 20% according to the best records available.

Refer to the enclosed map showing the Verticle Projection through the RICO - MOON - C.O.D. vein. Note that the underground workings of the C.O.D. extend over into the Moon claim of the Rico group. This occurred because at that time the C.O.D. mine had control of the Moon claim (known then as the FULL MOON).

RESEMBLES OTHER PRODUCTION VEINS

This Rico - Moon vein is like other production veins of the Cerbat Range in that it consists of a quartz filled fissure with a general northwesterly strike (N. 80° W.), which is perpendicular to the schistosity of the rocks in this area of the Wallapai Mining District. The steep dip of this vein is about 75° to NE is in common with the other production veins of the district.

The gangue minerals of the RICO - MOON vein consist of quartz, with some calcite, carbonates, siderite. The ore minerals of this vein, where opened, include silver, gold, pyrite, chalcopyrite, galena, sphalerite, argentite, bornite, chalcocite, and ruby silver. From the 200 foot level to the surface, and especially above the 150 foot level of the No. 1 Rico Shaft the oxidized minerals are definitely in evidence. Among the oxidized minerals recognized from ores taken from this No. 1 Rico Shaft there is included horn silver, cerusite, a little azurite and malachite.

The walls of the Rico - Moon vein, both in the No. 1 Rico and No. 2 Rico shafts and underground on the Moon claim (see map), are good and have a soft gouge on the footwall and quartz on the hanging wall. Assays have shown that both contain economic minerals. In places the quartz side of the vein is frozen to the country rock. In other places it has a thin gouge separating it from the country rock. So far the gangue of this vein is largely quartz, in places shattered and recemented by later deposited calcite. As is evidenced both by the ores exposed on the 300 foot level of the No. 1 Rico Shaft and the 400 foot level of the Moon lode claim (see map) the transition from the more oxidized ores (nearer the surface) to the primary ores below, it is expected that the most important primary-ore minerals will include pyrite, chalcopyrite, galena and sphalerite, containing both gold and silver. It is expected that any intersections with other minor faults or fissures encountered in developing this vein between the Rico west endline and the Moon east endline will show also an enriched ore shoot.

The Cerbat Mountains of the Wallapai Mining District are composed of pre-Cambrian granitic rocks, with their edges locally flanked on the west and south by Tertiary volcanic rocks and on the east by the younger basalts. The crest line lies at about 6,000 feet or 3,000 feet above the adjacent valleys. 7,200 feet at Cherumbs Peak a few miles northwest of the Rico Mine.

AGE OF MINERAL DEPOSITS

Mineral deposits most important are in the pre-Cambrian crystalline complex and post-Paleozoic intrusive rocks. The fundamental and oldest rocks of the area are those of the pre-Cambrian crystalline complex which underlays the mountains and valleys, here mentioned, alike.

PETROGRAPHY

For the most part, the pre-Cambrian rocks consist of gneissoid granites, which are of varying degrees of schistosity, like those found on the claims on either side of the C.O.D. - Rico Wash which heads on and above the Rico estate. Here on the Rico Group they are coarse grained and gray to reddish in color and consist of quartz, microcline, orthoclase, microperthite, oligaclase, and small amounts of biotite. The original structure is eugranitic. In places on the Rico group of mines, muscovite has been observed apparently developed from feldspar and biotite, together with evidence of chlorite formed from biotite. The pegmatic dike structure evidenced on the surface outcrop of some of the Rico group veins are merely facies or products of differentiation of the prevailing rock.

RICO STRUCTURE

This schistose structure observed on the Rico claim is characteristic of the pre-Cambrian granitic rocks in this region. The trend of the schistosty follows that generally of the district, which is North-North East with the dip vertical and slightly eastward at the expected steep angles; the dominant jointing strikes Northwest, with the dip nearing the vertical to the North-Northeast. As is found usually in the district this direction is approximately the trend of most of the fissures containing quartz lodes. The Rico lode strikes N. 85° W. almost perpendicular to the schistosity of the country rocks, and dips 80° Northerly.

Besides this general structure noted on the Rico, the rocks have, as is found elsewhere, suffered material alteration indicating a region of intense movement, as for instance the Rico fault plane. Other shear zones are in evidence too. In places the otherwise massive granites, especially where exposed east of the easterly Moon endline (of the Rico Group), have been converted almost beyond recognition into various schists.

INTRUSIVE ROCKS ON RICO GROUP

There is evidence on the Rico group that the mentioned pre-Cambrian schists are in places intruded by igneous masses and dikes (which are believed to be older than the Tertiary volcanic rocks) of unknown age. Very likely they are of late Jurassic or early Cretaceous age. The dark lamprophyric dike rocks evidenced in the Rico Vein such as minettes and vogesites are of importance attesting to the intrusive nature of the vein filling.

T AGE ESTIMATES
ne 3, 1958

You will notice on the following chart the Terminology used. In making an estimate of the "ore blocked out"; "Probable Ore"; "Possible Ore"; and "Expectant Ore"; geological conditions, the persistence of ore in this fissure type deposit, and having a knowledge of similar production deposits in this Wallapai Mining District, and other data are all taken into consideration, for your Rico and Moon mines, shown on accompanying maps and photographs in this report. Standard terms used in compiling this chart (and used in this report) follow definitions of those relating to the metal mining industry obtained from "A Glossary of the Mining and Mineral Industry" by Albert H. Fay, 1920, U. S. Bureau of Mines.

RICO - MOON MINES (See Maps)

TYPE OF ORE	TONS
ORE BLOCKED OUT (p. 476)	
(Rico) 35,450 + (Moon) 38,450 = 73,900 less 4,000 (est. tonnage shipped) = 69,900.	
"Ore exposed on three sides within a reasonable distance of each other:" H. C. Hoover (p. 17) Estimated tonnage	69,900
Addition: ORE DEVELOPING (p. 476)	20,500
"Ore exposed on two sides." (H. C. Hoover, p. 17) First Class, blocks with one side hidden; Second class, blocks with two sides hidden; Third Class blocks with three sides hidden. (Philip Afgall, Min. & Met. Soc. of Am., Bull. 64, p. 260)	
Total PROBABLE ORE (p. 540)	90,400
"Any blocked ore not certain enough to be in 'sight' and all ore that is exposed for sampling, but which the limits and continuity have not been proved by blocking. Also, it includes any undiscovered ore of which there is a strong probability of existence. Ore that is exposed on either two or three sides. Whether two or three sides be taken as a basis will depend upon the deposit. (Min. and Met. Soc. of Amer., Bull. 64, pp 258 and 262)	
Additional POSSIBLE ORE (p. 531)	
"Ore which may exist below the lowest workings or beyond the range of actual vision. (Min. & Met. Soc. of Am., Bull. 64, p. 262)	80,000
Total POSSIBLE ORE	170,400
Note: Based on the knowledge of similar fissure vein deposits in this Wallapai Mining District and particularly in the adjacent area, and considering the existing characteristics in evidence on these Rico and Moon mines, I estimate and expect your future development of these deposits will reasonably uncover an additional tonnage hereby tabulated.	
Additional ORE EXPECTANT (P. 476)	90,000
"The whole or any part of ore below the lowest level or beyond the range of vision (H. C. Hoover, p. 17). The prospective value of a mine beyond or below the last visible ore, based on the fullest possible data from the mine being examined, and from the characteristics of the mining district. (Philip Argall, Min. & Met. Soc. of Am., Bull. 64, P. 260).	
TOTAL OF ALL EXPECTANT ORE	260,400

Note: As your exploration program proceeds, especially in the development of other veins known to exist on your Rico group, I feel that these figures may be revised upward for the TERMINOLOGY used.

UNDERGROUND WORKINGS ON MOON CLAIM

In 1919 John Lynch obtained the full Moon claim, which is now the Moon claim of the Rico Group. The operators of the C.O.D. made a deal with Lynch for the, then, Full Moon.

The 311-foot level (now called the 300-foot level) of the C.O.D. was driven westward into the Full Moon claim several hundred feet. Later the western end of this drift was caved so that the exact length apparently was never recorded on their maps. The first 100 feet, on this level, was open in April, 1921, and was so recorded on the C.O.D. maps.

Between 1919 and August 1, 1921, the 400-foot level of the C.O.D. was driven 490 feet westerly into the Full Moon. R. S. Billings, a local mining engineer, estimated (April 1, 1921) an ore reserve block 124' x 90' x 5' (between the 300 and 400 levels) in the first 115 feet west of the east endline of the Full Moon (see map) of 5580 tons. This did not take into account ores known to exist above the 300 level, nor any probable ore below the 400 level. After Billings estimate of April 1, 1921, to August 1, 1921, this 400 drift was driven 375 feet further to the west. The ore is reported to average between $23.00 and $30.00 per ton in gold and silver with a good percentage of lead. This would indicate a good milling grade of ore could be expected in the Moon claim.

It will be noted that a shaft had been started about 100 feet west of the east end line of the Moon claim which is known to be 100 feet deep. How much deeper it was sunk is not now known as the bottom is caved. 200 feet more would enter the underground workings on the Moon claim.

Besides the ore a good supply of water would be made available from these Moon workings, when needed for milling ores.

About 35 feet east of the Moon East End Line a crushed fault zone was encountered. The assay results of sampling this fault zone was recorded as lower than on either side. Apparently this in no way altered the strike or dip of the Rico-Moon-C.O.D. vein here. The ores from the west end of the C.O.D. and westward into the Moon claim on the 300 level are similar in every respect to the ores found in the Rico. The underground drifting was run in the Footwall part of the vein.

ESTIMATE OF ORE VALUE PER TON

Although I have examined a large number of pieces of ore from your Rico mine for the purpose of studying the minerology and geological characteristics, I did not have samples run. I am familiar with the geology, minerals, ores and veins of this area and district. The vein is well exposed even near the surface at the Rico Shaft No. 1. However your records do show enough to arrive at a tentative value of the ores. An average of 43 samples from the Rico workings was $20.37. We know that sorted ore shipped from the richer highgrade portion of the oxidized vein gave shipping returns of over $200 per ton. The sample assay results recorded on old maps at the time the work was prosecuted on the east end of the Moon claim show an average of $23 to $30 per ton, with the lowest of $16 per ton. Not considering the high grade, which is known to exist in the vein

(which will sweeten the values upward) we have an indicated average of $22 per ton. This is the best estimate that can be made of the ore values at this time. When these values were calculated gold was selling at $20.67 per ounce. The price of gold is now $35.00 per ounce. Silver has a little higher value also, and lead is from 40% to 50% higher. So that when time permits a closer study of these results it will probably show the todays assay value to be about $31 per ton.

WATER TABLE

The water level in the east end of the Rico-Moon group is known to be at about 150 feet below the surface. The water table has a maximum depth of 400 feet in this area. Water was encountered above the 300 foot level of the Rico No. 1 shaft. The water sources known to exist upon your own estate should furnish an ample supply for subsequent mill treatment of your ores.

Respectfully Submitted,

E Ross Householder

E. ROSS HOUSHOLDER, E. M.
Registered Professional Mining Engineer # 257
P. O. Box 1107 (431 E. Spring St.) Kingman, Arizona

NAME: Rico Mine Stockton Hill / COUNTY: Mohave

T 23 N R 17 W SEC. 29 SE¼ DISTRICT:

Mineralization: Au Ag Cu Pb

Geology: Gold qtz vn. in granite porphyry

Type Operation:

Production:

References: AEC microfilm, clipping file

Mohave County Card File

MELVIN H. JONES
Mining Geologist

October 26, 1976.

RECONNAISSANCE GEOLOGICAL EXAMINATION OF THE C.O.D. MINE, CERBAT MOUNTAINS, MOHAVE COUNTY, KINGMAN, ARIZONA.

In compliance with the directions of Mr.Howard S.Cable, Box 946, Kansas City, Mo. 64141, the undersigned, accompanied by Mr. G.R.Haynes, 1025 Lydia Dr.,Kingman, Arizona (ph.753-3821) examined the C.O.D. mine, Cerbat Mountain, about 12 miles Northeast of Kingman, Arizona. Also examined were the adjoining Rico and White Eagle mines. This was on October 7, 1976.

It is understood that Mrs. Wilma A. Brummett, Real Estate Broker, Kingman, Arizona has these mining claims listed for sale. Mr. Haynes informs the writer that he has a lease and option to Buy on the outlined mining properties, and that the owners are the Estate of Mrs. Nellie Clack, one other un-named party who has a 25% interest. However, the purpose of this examination does not include investigation of ownership.

The C.O.D mine is on the east side of the Cerbat mountain from the Duval open pit copper mine (Mineral Park). The Rico and White Eagle mines are near (see map Exhibit A) The C.O.D. mine consists of six (6) unpatented lode mining claims (see map Exhibit B) and it has a shaft with a metal headframe, and 5,255 feet of underground drifts, crosscuts, winze and raises. It is now largely filled with water and an underground examination could not be made.

The Rico mine is about one-half (½) mile West of the COD and consists of seven (7) claims, and has a shaft going down to the 350 foot level (filled with water to the 250 level, the writer was told). There are also two (2) exploratory adits (see map A). Mr. Haynes says the mine produced some gold in the past.

The White Eagle mine is about three-quarters(3/4) mile NW of the COD and consists of fourteen (14) claims. It has a shaft and a depth of 420 feet (the writer was informed). The ore is in a vein of 2 to 4 feet. In the past, it produced ore averaging .3077 Au and 19.0 Ag and shipped 1,971 tons of ore until it was shut down by Government order L-208 in 1942. This closing was also applicable to the Rico, according to Mr.Haynes.

It might be well to mention that the COD mine was first located in 1878 and it has been worked intermittantly up to 1971 . The Rico and White Eagle are much younger.

GEOLOGY.

The mining properties are located in the Mountain Region of the Basin and Range physiographic Province. The Cerbat mountain appears to be a continuation of the quartz Monsonites of Pre-Cambrian age, which are prevalent in this part of Arizona. Also in the area are some Ithaca Peak granites. Frequently, Tertiary basalts are on top of the granitics. The veins carrying metaliferous values are in a gangue of Shists and Gnieses and consist of quartose rock carrying Lead,zinc,silver, and gold and copper (in some instances). Most of the metals are sulfides.

At the COD, the research of others, show that East of the

shaft are relatively good silver, lead, zinc, and copper values; while to the West, the gold values increase with little or no lead and zinc, and very little copper. Thusly, the Rico and White Eagle presumably had higher gold values.

The principal minerals are galena, sphalerite, chalcopyrite, cerussite, proustite, argentite and native gold. Some arsenides are also present as now indicated by a peculiar oxidizing action on parts of the dump.

It is to be again emphasized that this report is a reconnaissance geology study, this meaning that only a short time was spent on the mining properties. The surface formations, dumps, tailing pile, collars and portals could be examined, and this was done. However, the underground workings could not be investigated, nor sampled, as they are filled with water. Further, there are no ladders on the shafts, etc. But, other research was accomplished. Two(2) reports of extensive content written by mining engineers in the past (who did underground studies) were reviewed. The one(1) report was written by D.Frank Hale, Phoenix, Arizona, in 1963, subject. "Geologic Evaluation of the White Eagle, Clack-Kesler, and C.O.D. claims". The other report was made by Keegel Engineering, Inc., Las Vegas, Nevada, subject. "C.O.D. mine" is dated 1974.

Mr.Hale records past shipments, ore grades, paragenesis, and says that additional ore is blocked out, and recommends more exploration. The report, in general, has a favorable viewpoint.

The Keegel report concludes that the operation of the COD mine is feasible (and would be profitable) under then (1974) metal prices and costs. Positive probable ore can be mined out in about one (1) year with a 100 t/d mill. The indicated ore operation would be 2.4 years. They also state that with carefull exploration work, and using ore from outside sources, the time can be well extended

The writer and Mr.Haynes spent some time on the dumps, and a grab sample was taken from the dump near the shaft. This sample can only be used as a rough guide, as the dump was not sampled at depth. About six(6) small shovelsfull were taken at 20 foot intervals and put together as a composite sample. On the COD property there are three(3) dumps and one(1) tailings pile.

According to the estimates of Mr.Haynes (who has been a mining operator, on other properties for more than 20 years), the main dump has 5000 tons of ore. The lower dump contains 3500 tons and the surface is quite oxidized. Down the road a bit is another pile with 400 additional tons. The tailings pile has about 4000 tons and carrys .0125 Au, 3.74 Ag, 0.29 Pb, and 1.25 Zn, according to Mr. Haynes.

Mr.Haynes says that 200 tons of dump ore was shipped to the Tonto Basin mill (Arizona) during 1974. The gross assay value was $82.00 per ton, but this did not leave an adequate profit after paying for the haulage and milling.

Other assays on the primary dump by Mr. Haynes are as follows.

14

Description	Au	Ag	Pb	Zn
Red Rock	.056	6.51	.76	3.0
Dark Rock	.063	6,20	.34	3.9
Foot of hill	.06	5.20	.30	3.9

During October-November 1975, Mr.Haynes hauled a large mill sample from the dumps to the Vanderbuilt mill at Nipton, California. The recovery there was not satisfactory as only 59% of the value of the heads were obtained. Their processing could not do the job properly, according to Mr. Haynes. (see Exhibit C, for returns).

The assay report on the composite dump sample taken by the writer, follows: (see Exhibit D)

SAMPLE	Ag	Pb	Zn
C.O.D.	15.61	.94	1.88

CONCLUSIONS.

At today s prices, and using the sample in the preceeding paragraph, (and assuming 90% recovery) the value of one(1) ton would be about $82.00. (gold values are not included). Perhaps the silver is on the high side, compared to other past sampling.

The potential of gold production is not known by the writer. No samples were taken from the Rico and White Eagle claims, purported gold producers.

Using the Nipton mill assay (and assuming 90% recovery) the value of each ton (dump ore) would be about $86.00. Using the estimate of 6900 tons in the dump, this would be a gross total of $593.400.00 . Not included in these figures is the tailings pile. Normally, tailings present a complex metallurgical problem in recovery of the chemically altered minerals. Even so, the pile could have considerable value.

It is understood that Mohave County Supervisors, with assistance from the State of Arizona Department of Mineral Resources, (and some federal funds) has been making a feasibility study for establishing a custom mill in the Cerbat Mountain area. If this materializes, it will greatly enhance the potential values of the C.O.D, Rico, and White Eagle mining properties.

These dormant mining properties are far better than most under similiar circomstances and have a good potential of becoming producers again. More underground exploration needs to be accomplished; drilling is the usual way of doing this.

The dumps have very definate value.

MELVIN H JONES
Mining Geologist.

1600 Sandhill Rd #7
Las Vegas, Nevada.

15

Laws & i mailed
lp

June 19, 1972

Frank P. Knight director
dept. of Mineral Resources
State of Arizona
Phoenix, Arizona

RECEIVED
JUN 23 1972
DEPT. MINERAL RESOURCES
PHOENIX, ARIZONA

Dear Mr Knight,

While in Kingman last week I saw a copy of a book called "Laws and Regulations governing mineral rights in Arizona" by victor Verity. This was a seventh edition, published in 1970.

Since I am getting ready to do my assessment work on the Rico and adjoining claims (for this year) in the Cerbat Mts north of Kingman, I would like to study this book. Please send a copy to me.

Yours truly

Bea. Claire Miller

MISS BEA CLAIRE MILLER
7570 E. Speedway, Lot 584
Tucson, Arizona 85710

16

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine RICO MINE SE¼, Sec. 29, T23N, R17W Date January 6, 1965

District CERBAT DISTRICT, MOHAVE COUNTY Engineer E. G. Williams

Subject: VISIT TO PROPERTY

At the time of the visit 2 men were driving a tunnel that was to connect with the shaft about 75' to 80' below the collar. The tunnel about 8'x8', well timbered, was in about 80 feet, and had connected with a cross cut that had been driven from the surface following a small vein. The cross cut was about 6' below the new tunnel level.

The workmen explained after connecting they expected to repair the shaft to the 100ft. level and do some sampling.

Equipment at the mine was a small portable compressor, 2 jackhammers, and a 1 ton car.

17

STATE OF ARIZONA
DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA 85007

Tucson, Arizona
August 20, 1964

MEMORANDUM

To: Frank P. Knight, Director
From: Axel L. Johnson, Field Engineer
Subject: Proposed O.M.E. Loan Application on the Rico Mine.

Mr. W. E. Iseman, 142 Sunhaven, 4200 Benson Highway, Tucson, Arizona came to see me in my office yesterday in order to obtain information on the OME exploration program. I gave him information on OME loans and also circulars from the OME Minerals Exploration Dept., Denver.

Mr. Iseman gave me the following information:

(1) Mohave Mines Corporation, 142 Sunhaven, 4200 Benson Highway, Tucson, was recently formed for the purpose of leasing, developing and operating mines. The officers of the company are: B. Claire Miller, Pres., 37 N. Columbus Blvd., Tucson; Harry O. Tennison, Exec. V.P., Southern Arizona Bank & Trust Co., Tucson; W. E. Iseman, Rep. and Mining Consultant, address shown above.

(2) Mohave Mines Corp., recently within the past 90 days, has leased the Rico Mine from the owner, Nellie Clack, P.O. Box 907, Kingman, Arizona, and now hopes to be able to get an OME Exploration loan on this mine.

(3) Writer obtained the following information on the Rico Mine from Iseman.

Location In the Wallapai Mining District, in Cerbat Mts., 16 mi. NW of Kingman.

Principal Minerals Silver, gold and lead

Mine Workings 1 shaft, 300 ft. deep, with underground workings on 3 levels. The water now stands at just below the 100 ft. level workings. The shaft needs repairing after the water is pumped out.

Reports Mr. Iseman is in possession of some maps and reports, prepared by E. Ross Housholder, Consulting Engineer, Kingman, Arizona. He stated that Mr. Housholder will be retained as consultant on the OME Exploration work.

(4) Engineer called Iseman's attention to the fact that OME loans were not granted to explore for lead. However, Mr. Iseman claimed that the principal minerals were silver and gold. Engineer also called his attention to the "pauper's oath", and to the "Lien and Subordination Agreements".

Inactive

DEPARTMENT OF MINERAL RESOURCES
State of Arizona
MINE OWNER'S REPORT

Date 1-24-58

1. Mine: Rico Mine
2. Location: Sec. 29 Twp ~~17N~~ 23N Range 17W Nearest Town Kingman Distance 1.6
   Direction NW Nearest R.R. Kingman Distance 1.6
   Road Conditions Good except for ½ mile
3. Mining District and County: Cerbat, Mohave
4. Former Name of Mine: E
5. Owner: Mrs. Nelle Clack
   Address: Box 907 Kingman
6. Operator:
   Address:
7. Principal Minerals: Au Ag
8. Number of Claims: Lode 6 Patented Unpatented ✓
   Placer Patented Unpatented
9. Type of Surrounding Terrain: Mountainous

10. Geology and Mineralization: Ross Householder has some data. Near surface rock tends to be spotty, w/ good values of Au, Ag. Au predominates at upper levels, half & half at lower levels.

    SiO_2 70 – 78%

11. Dimension and Value of Ore Body: Vein 12' wide ±, 3000' + long, 300' shaft with good values. $30 P T above 160' level, $12 @ $20 per oz. in lower levels. Large dumps of milling ore.

Please give as complete information as possible and attach copies of engineer's reports, shipment returns, maps, etc. if you wish to have them available in this Department's files for inspection by prospective leasors or buyers.

(over)

19

12. Ore "Blocked Out" or "In Sight": .....

Ore Probable: See items 11.

13. Mine Workings—Amount and Condition: .....

No.	Feet	Condition
Shafts 1	300	Caved up water
Raises		
Tunnels		
Crosscuts 2		
Stopes		Come to surface, fossil areas to lower levels

14. Water Supply: at 160' level in shaft

15. Brief History: .....

16. Remarks: .....

17. If Property for Sale, List Approximate Price and Terms: Lease + option to buy 10%, no money down.

18. Signature: Nelle E Clark

REPORT OF EXAMINATION, MADE DECEMBER, 10th, 1916.
By
E. I. Mills, Geo. Walters & John D. Fields
RICO MINING CLAIM

LOCATION

This claim is situated in the Cerbat Mountains, Stockton Hills, unorganized Mining District, eight miles west of the Santa Fe R.R. station of Berry. Three thousand feet west of the COD Mining Claim, Mohave County, Arizona.

TITLE

The title to the property rests with the Rico Consolidated Mining Company and is clear from all incumbrances, as recorded in Book Number _____, Recorders Office, Kingman, Mohave County, Arizona.

TRANSPORTATION

The property is reached by a good wagon road from Berry Station.

EXTENT OF GROUND

One full mining claim, fifteen hundred feet in length, six hundred feet in width.

GEOLOGY

The rocks occuring upon the claim and in the immediate surrounding country, consists of granite complex, intruded with dikes of andesite. These dikes in placeshave become schists through metamorphic contact.

CHARACTER OF THE ORE DEPOSITS

The ore deposits occur as contact veins, between the granite and the andesite. Two veins as described above occur on the claim. The outcrops can be readily traced the full length of the claim, the veins having a general strike of East and West and dipping slightly to the North. The Southermost vein has not had sufficient development work performed upon it to ~~demonstrate~~ determine its width and value. The Northermost vein has been developed by two shafts and two tunnels. Shaft Number 1. has a depth of 130 feet. On account of the condition of this shaft it was not possible to make an examination of the ore, but the dump around the collar of the shaft shows it carries a considerable quantity of Ruby Silver. Picked samples of the same carrying as high as 130 ounces. Shaft Number 2. has a depth of 100 feet and is readily accessible. At the 50 foot level a drift has been run 60 foot to the west and twenty feet to the East. In the west drift a stope has been opened up showing a width of ore 20 feet wide. This stope has been lifted to a hight of 20 feet, with a length of 30 feet. This is a widening out of the vein at this point, for the vein as shown in the shaft has varying width of from three to four feet. Considerable coarse gold occurs in small shoots, pockets, and seams throughout the vein, making it difficult to sample. A picked, ~~sample~~ one hundred pound sample of this character of ore, gave a return of $208.00 in gold and twenty six ounces in silver. Three hundred feet East of shaft Number 2. is tunnel Number 1., 75 feet in length at which point it encounters the vein. A short drift run here shows the vein occurance to be similar to that in shaft Number 2. 800 feet East of tunnel Number 1. is tunnel Number 2. This tunnel is 40 feet in length at which point the vein was encountered and a winz sunk to 113 feet in depth on the dip of the vein. At the 30 foot level in this winz, a drift 35 feet long was driven to the west on the vein, and a drift 41 feet long driven to the East on the vein. At the 70 foot level a drift 20 feet long was driven to the west. These workings show the

vein to be continuous and having a width varying from three to four feet and shows the general character of ore that occurs in shaft Number 2. On account of the difficulty of sampling this character of ore for the purpose of attaining ~~a true~~ the true working value in the usual way, it was decided to take, in each one of the workings a considerable quantity and then to quarter down. The object being to determine the value of the material mined during actual mining operations and to pass through a combined amalgamation and concentrating mill. Sample Number 1. was made up from shaft Number 2 and from the drift on the 50 foot level. Sample Number 2. was made up by taking a cut across the drift on the 50 foot level of shaft Number 2. Sample Number 3. was taken from the dump of shaft Number 2. Sample Number 4. was made up from the dump at shaft Number 1. These four samples made a combined sample of four hundred pounds in weight. This combined sample was ground through four mesh sieve and passed through a ten compartment riffle sampler. The cut was then passed through a disc pulverizer and ground 80 mesh, quartered and assayed giving a value of $10.65 in gold, 8.4 ounces in silver and one tenth of one percent in copper. Numerous tests were made in the labatory to determine the best methods of treatment.

It was found that the best method offered was grinding all through 100 mesh, through amalgamators, thence to flotation. The recoveries made by this method, using samples from ten to twenty pounds weight, averaged 94 percent recovery of the values.

The length and width of the ore bodies as exposed in the workings justifies the operation of the mine and the expenditure of the necessary money to equip with hoist, pneumatic drills, and a reduction plant of approximately 50 tons per day capacity.

The values of gold and silver contained in the vein, and the continuity of the vein, justifies the expenditures necessary to so equip, with a reasonable certainty, that if conservatively ~~handled~~ managed, the property will make a profitable return.

Signed.
John D. Field.
E.I. Mills, E.M.

The above and foregoing is a copy of the original report delivered to me by John D. Field and E. I. Mills, at Kingman, Ariz. on March 5th, 1917.

22

TONNAGE ESTIMATES
June 3, 1958

You will notice on the following chart the Terminology used. In making an estimate of the "ore blocked out"; "Probable Ore"; "Possible Ore"; and "Expectant Ore"; geological conditions, the persistence of ore in this fissure type deposit, and having a knowledge of similar production deposits in this Wallapai Mining District, and other data are all taken into consideration, for your Rico and Moon mines, shown on accompanying maps and photographs in this report. Standard terms used in compiling this chart (and used in this report) follow definitions of those relating to the metal mining industry obtained from "A Glossary of the Mining and Mineral Industry" by Albert H. Fay, 1920, U. S. Bureau of Mines.

RICO - MOON MINES (See Maps)

TYPE OF ORE	TONS
ORE BLOCKED OUT (p. 476)	
(Rico) 35,450 + (Moon) 38,450 = 73,900 less 4,000 (est. tonnage shipped) = 69,900.	
"Ore exposed on three sides within a reasonable distance of each other:" H. C. Hoover (p. 17) Estimated tonnage	69,900
Addition: ORE DEVELOPING (p. 476)	20,500
"Ore exposed on two sides." (H. C. Hoover, p. 17) First Class, blocks with one side hidden; Second class, blocks with two sides hidden; Third Class blocks with three sides hidden. (Philip Afgall, Min. & Met. Soc. of Am., Bull. 64, p. 260)	
Total PROBABLE ORE (p. 540)	90,400
"Any blocked ore not certain enough to be in 'sight' and all ore that is exposed for sampling, but which the limits and continuity have not been proved by blocking. Also, it includes any undiscovered ore of which there is a strong probability of existence. Ore that is exposed on either two or three sides. Whether two or three sides be taken as a basis will depend upon the deposit. (Min. and Met. Soc. of Amer., Bull. 64, pp 258 and 262)	
Additional POSSIBLE ORE (p. 531)	
"Ore which may exist below the lowest workings or beyond the range of actual vision. (Min. & Met. Soc. of Am., Bull. 64, p. 262)	80,000
Total POSSIBLE ORE	170,400
Note: Based on the knowledge of similar fissure vein deposits in this Wallapai Mining District and particularly in the adjacent area, and considering the existing characteristics in evidence on these Rico and Moon mines, I estimate and expect your future development of these deposits will reasonably uncover an additional tonnage hereby tabulated.	
Additional ORE EXPECTANT (P. 476)	90,000
"The whole or any part of ore below the lowest level or beyond the range of vision (H. C. Hoover, p. 17). The prospective value of a mine beyond or below the last visible ore, based on the fullest possible data from the mine being examined, and from the characteristics of the mining district. (Philip Argall, Min. & Met. Soc. of Am., Bull. 64, P. 260).	
TOTAL OF ALL EXPECTANT ORE	260,400

Note: As your exploration program proceeds, especially in the development of other veins known to exist on your Rico group, I feel that these figures may be revised upward for the TERMINOLOGY used.

MELVIN H. JONES
Mining Geologist

October 26, 1976.

RECONNAISSANCE GEOLOGICAL EXAMINATION OF THE C.O.D. MINE, CERBAT MOUNTAINS, MOHAVE COUNTY, KINGMAN, ARIZONA.

In compliance with the directions of Mr.Howard S.Cable, Box 946, Kansas City, Mo. 64141, the undersigned, accompanied by Mr. G.R.Haynes, 1025 Lydia Dr.,Kingman, Arizona (ph.753-3821) examined the C.O.D. mine, Cerbat Mountain, about 12 miles Northeast of Kingman, Arizona. Also examined were the adjoining Rico and White Eagle mines. This was on October 7, 1976.

It is understood that Mrs. Wilma A. Brummett, Real Estate Broker, Kingman, Arizona has these mining claims listed for sale. Mr. Haynes informs the writer that he has a lease and option to Buy on the outlined mining properties, and that the owners are the Estate of Mrs. Nellie Clack, one other un-named party who has a 25% interest. However, the purpose of this examination does not include investigation of ownership.

The C.O.D mine is on the east side of the Cerbat mountain from the Duval open pit copper mine (Mineral Park). The Rico and White Eagle mines are near (see map Exhibit A). The C.O.D. mine consists of six (6) unpatented lode mining claims (see map Exhibit B) and it has a shaft with a metal headframe, and 5,255 feet of underground drifts, crosscuts, winze and raises. It is now largely filled with water and an underground examination could not be made.

The Rico mine is about one-half (½) mile West of the COD and consists of seven (7) claims, and has a shaft going down to the 350 foot level (filled with water to the 250 level, the writer was told). There are also two (2) exploratory adits (see map A). Mr. Haynes says the mine produced some gold in the past.

The White Eagle mine is about three-quarters(3/4) mile NW of the COD and consists of fourteen (14) claims. It has a shaft and a depth of 420 feet (the writer was informed). The ore is in a vein of 2 to 4 feet. In the past, it produced ore averaging .3077 Au and 19.0 Ag and shipped 1,971 tons of ore until it was shut down by Government order L-208 in 1942. This closing was also applicable to the Rico, according to Mr.Haynes.

It might be well to mention that the COD mine was first located in 1878 and it has been worked intermittantly up to 1971 . The Rico and White Eagle are much younger.

GEOLOGY.

The mining properties are located in the Mountain Region of the Basin and Range physiographic Province. The Cerbat mountain appears to be a continuation of the quartz Monsonites of Pre-Cambrian age, which are prevalent in this part of Arizona. Also in the area are some Ithaca Peak granites. Frequently, Tertiary basalts are on top of the granitics. The veins carrying metaliferous values are in a gangue of Shists and Gnieses and consist of quartose rock carrying Lead,zinc,silver, and gold and copper (in some instances). Most of the metals are sulfides.

At the COD, the research of others, show that East of the

shaft are relatively good silver, lead, zinc, and copper values; while to the West, the gold values increase with little or no lead and zinc, and very little copper. Thusly, the Rico and White Eagle presumably had higher gold values.

The principal minerals are galena, sphalerite, chalcopyrite, cerussite, proustite, argentite and native gold. Some arsenides are also present as now indicated by a peculiar oxidizing action on parts of the dump.

It is to be again emphasized that this report is a reconnaissance geology study, this meaning that only a short time was spent on the mining properties. The surface formations, dumps, tailing pile, collars and portals could be examined, and this was done. However, the underground workings could not be investigated, nor sampled, as they are filled with water. Further, there are no ladders on the shafts, etc. But, other research was accomplished. Two(2) reports of extensive content written by mining engineers in the past (who did underground studies) were reviewed. The one(1) report was written by D.Frank Hale, Phoenix, Arizona, in 1963, subject. "Geologic Evaluation of the White Eagle, Clack-Kesler, and C.O.D. claims". The other report was made by Keegel Engineering, Inc., Las Vegas, Nevada, subject. "C.O.D. mine" is dated 1974.

Mr.Hale records past shipments, ore grades, paragenesis, and says that additional ore is blocked out, and recommends more exploration. The report, in general, has a favorable viewpoint.

The Keegel report concludes that the operation of the COD mine is feasible (and would be profitable) under then (1974) metal prices and costs. Positive probable ore can be mined out in about one (1) year with a 100 t/d mill. The indicated ore operation would be 2.4 years. They also state that with carefull exploration work, and using ore from outside sources, the time can be well extended

The writer and Mr.Haynes spent some time on the dumps, and a grab sample was taken from the dump near the shaft. This sample can only be used as a rough guide, as the dump was not sampled at depth. About six(6) small shovelsfull were taken at 20 foot intervals and put together as a composite sample. On the COD property there are three(3) dumps and one(1) tailings pile.

According to the estimates of Mr.Haynes (who has been a mining operator, on other properties for more than 20 years), the main dump has 5000 tons of ore. The lower dump contains 3500 tons and the surface is quite oxidized. Down the road a bit is another pile with 400 additional tons. The tailings pile has about 4000 tons and carrys .0125 Au, 3.74 Ag, 0.29 Pb, and 1.25 Zn, according to Mr. Haynes.

Mr.Haynes says that 200 tons of dump ore was shipped to the Tonto Basin mill (Arizona) during 1974. The gross assay value was $82.00 per ton, but this did not leave an adequate profit after paying for the haulage and milling.

Other assays on the primary dump by Mr. Haynes are as follows.

Laws & [illegible] mailed
lp

June 19, 1972

Frank P. Knight director
dept. of Mineral Resources
State of Arizona
Phoenix, Arizona

RECEIVED
JUN 23 1972
DEPT. MINERAL RESOURCES
PHOENIX, ARIZONA

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Bea. Claire Miller

MISS BEA CLAIRE MILLER
7570 E. Speedway, Lot 584
Tucson, Arizona 85710

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine RICO MINE SE¼, Sec. 29, T23N, R17W Date January 6, 1965

District CERBAT DISTRICT, MOHAVE COUNTY Engineer E. G. Williams

Subject: VISIT TO PROPERTY

At the time of the visit 2 men were driving a tunnel that was to connect with the shaft about 75' to 80' below the collar. The tunnel about 8'x8', well timbered, was in about 80 feet, and had connected with a cross cut that had been driven from the surface following a small vein. The cross cut was about 6' below the new tunnel level.

The workmen explained after connecting they expected to repair the shaft to the 100ft. level and do some sampling.

Equipment at the mine was a small portable compressor, 2 jackhammers, and a 1 ton car.

STATE OF ARIZONA
DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA 85007

Tucson, Arizona
August 20, 1964

MEMORANDUM

To: Frank P. Knight, Director
From: Axel L. Johnson, Field Engineer
Subject: Proposed O.M.E. Loan Application on the Rico Mine.

Mr. W. E. Iseman, 142 Sunhaven, 4200 Benson Highway, Tucson, Arizona came to see me in my office yesterday in order to obtain information on the OME exploration program. I gave him information on OME loans and also circulars from the OME Minerals Exploration Dept., Denver.

Mr. Iseman gave me the following information:

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(2) Mohave Mines Corp., recently within the past 90 days, has leased the Rico Mine from the owner, Nellie Clack, P.O. Box 907, Kingman, Arizona, and now hopes to be able to get an OME Exploration loan on this mine.

(3) Writer obtained the following information on the Rico Mine from Iseman.

Location In the Wallapai Mining District, in Cerbat Mts., 16 mi. NW of Kingman.

Principal Minerals Silver, gold and lead

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(4) Engineer called Iseman's attention to the fact that OME loans were not granted to explore for lead. However, Mr. Iseman claimed that the principal minerals were silver and gold. Engineer also called his attention to the "pauper's oath", and to the "Lien and Subordination Agreements".

Inactive

DEPARTMENT OF MINERAL RESOURCES
State of Arizona
MINE OWNER'S REPORT

Date 1-24-58

1. Mine: Rico Mine
2. Location: Approx SE¼ Sec. 29 Twp ~~21N~~ 23N Range 17W Nearest Town Kingman Distance 16
   Direction NW Nearest R.R. Kingman Distance 16
   Road Conditions Good except for ½ mile
3. Mining District and County: Cerbat, Mohave
4. Former Name of Mine: E
5. Owner: Mrs. Nelle Clack
   Address: Box 907 Kingman
6. Operator:
   Address:
7. Principal Minerals: Au Ag
8. Number of Claims: Lode 6 Patented Unpatented ✓
   Placer Patented Unpatented
9. Type of Surrounding Terrain: Mountainous

10. Geology and Mineralization: Ross Householder has some data. Near surface rock tends to be jockety, w/ good values of Au, Ag. Au predominates at upper levels, half & half at lower levels.

SiO_2 70-78%

11. Dimension and Value of Ore Body: Vein 12' wide ±, 3000' + long, 300' shaft with good values. #30 P T above 160' level, #12 @ #26 per oz. in lower levels. Large dumps of milling ore.

Please give as complete information as possible and attach copies of engineer's reports, shipment returns, maps, etc. if you wish to have them available in this Department's files for inspection by prospective leasors or buyers.

(over)

12. Ore "Blocked Out" or "In Sight":

Ore Probable: See items 11.

13. Mine Workings—Amount and Condition:

	No.	Feet	Condition
Shafts	1	300	Caved up water
Raises			
Tunnels			
Crosscuts	2		
Stopes			Come to surface, poss access to lower levels

14. Water Supply: at 160' level in shaft

15. Brief History:

16. Remarks:

17. If Property for Sale, List Approximate Price and Terms: Lease + option to buy 10%, no money down.

18. Signature: Nellie E Clark

vein to be continuous and having a width varying from three to four feet and shows the general character of ore that occurs in shaft Number 2. On account of the difficulty of sampling this character of ore for the purpose of attaining ~~attrue~~ the true working value in the usual way, it was decided to take, in each one of the workings a considerable quantity and then to quarter down. The object being to determine the value of the material mined during actual mining operations and to pass through a combined amalgamation and concentrating mill. Sample Number 1. was made up from shaft Number 2 and from the drift on the 50 foot level. Sample Number 2. was made up by taking a cut across the drift on the 50 foot level of shaft Number 2. Sample Number 3. was taken from the dump of shaft Number 2. Sample Number 4. was made up from the dump at shaft Number 1. These four samples made a combined sample of four hundred pounds in weight. This combined sample was ground through four mesh sieve and passed througha ten compartment riffle sampler. The cut was then passed through a disc pulverizer and ground 80 mesh, quartered and assayed giving a value of $10.65 in gold, 8.4 ounces in silver and one tenth of one percent in copper. Numerous tests were made in the labatory to determine the best methods of treatment.

It was found that the best method offered was grinding all through 100 mesh, through amalgamators, thence to flotation. The recoveries made by this method, using samples from ten to twenty pounds weight, averaged 94 percent recovery of the values.

The length and width of the ore bodies as exposed in the workings justifies the operation of the mine and the expenditure of the necessary money to equip with hoist, pneumatic drills, and a reduction plant of approximately 50 tons per day capacity.

The values of gold and silver contained in the vein, and the continuity of the vein, justifies the expenditures necessary to so equip, with a reasonable certainty, that if conservatively ~~handled~~ managed, the property will make a profitable return.

Signed.

John D. Field.
E.I. Mills, E.M.

The above and foregoing is a copy of the original report delivered to me by John D. Field and E.I. Mills, at Kingman, Ariz. om March 5th, 1917.

REPORT OF EXAMINATION, MADE DECEMBER, 10th, 1916.
By
E.I.Mills, Geo.Walters & John D.Fields
RICO MINING CLAIM

LOCATION

This claim is situated in the Cerbat Mountains, Stockton Hills, unorganized Mining District, eight miles west of the Santa Fe R.R. station of Berry. Three thousand feet west of the COD Mining Claim, Mohave County, Arizona.

TITLE

The title to the property rests with the Rico Consolidated Mining Company and is clear from all incumbrances, as recorded in Book Number _____, Recorders Office, Kingman, Mohave County, Arizona.

TRANSPORTATION

The property is reached by a good wagon road from Berry Station.

EXTENT OF GROUND

One full mining claim, fifteen hundred feet in length, six hundred feet in width.

GEOLOGY

The rocks occuring upon the claim and in the immediate surrounding country, consists of granite complex, intruded with dikes of andesite. These dikes in placeshave become schists through metamorphic contact.

CHARACTER OF THE ORE DEPOSITS

The ore deposits occur as contact veins, between the granite and the andesite. Two veins as described above occur on the claim. The outcrops can be readily traced the full length of the claim, the veins having a general strike of East and West and dipping slightly to the North. The Southermost vein has not had sufficient development work performed upon it to ~~demonstrate~~ determine its width and value. The Northermost vein has been developed by two shafts and two tunnels. Shaft Number 1. has a depth of 130 feet. On account of the condition of this shaft it was not possible to make an examination of the ore, but the dump around the collar of the shaft shows it carries a considerable quantity of Ruby Silver. Picked samples of the same carrying as high as 130 ounces. Shaft Number 2. has a depth of 100 feet and is readily accessible. At the 50 foot level a drift has been run 60 foot to the west and twenty feet to the East. In the west drift a stope has been opened up showing a width of ore 20 feet wide. This stope has been lifted to a hight of 20 feet, with a length of 30 feet. This is a widening out of the vein at this point, for the vein as shown in the shaft has varying width of from three to four feet. Considerable coarse gold occurs in small shoots, pockets, and seams throughout the vein, making it difficult to sample. A picked, ~~sample~~ one hundred pound sample of this character of ore, gave a return of $208.00 in gold and twenty six ounces in silver. Three hundred feet East of shaft Number 2. is tunnel Number 1., 75 feet in length at which point it encounters the vein. A short drift run here shows the vein occurance to be similar to that in shaft Number 2. 800 feet East of tunnel Number 1. is tunnel Number 2. This tunnel is 40 feet in length at which point the vein was encountered and a winz sunk to 113 feet in depth on the dip of the vein. At the 30 foot level in this winz, a drift 35 feet long was driven to the west on the vein, and a drift 41 feet long driven to the East on the vein. At the 70 foot level a drift 20 feet long was driven to the west. These workings show the