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12/31/87

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: COPPER MOUNTAIN CLAIMS

ALTERNATE NAMES:
FRENCHIE CLAIMS

GILA COUNTY MILS NUMBER: 460

LOCATION: TOWNSHIP 10 N RANGE 8 E SECTION 9 QUARTER S2
LATITUDE: N 34DEG 13MIN 15SEC LONGITUDE: W 111DEG 32MIN 23SEC
TOPO MAP NAME: CYPRESS BUTTE - 7.5 MIN

CURRENT STATUS: EXP DEPOSIT

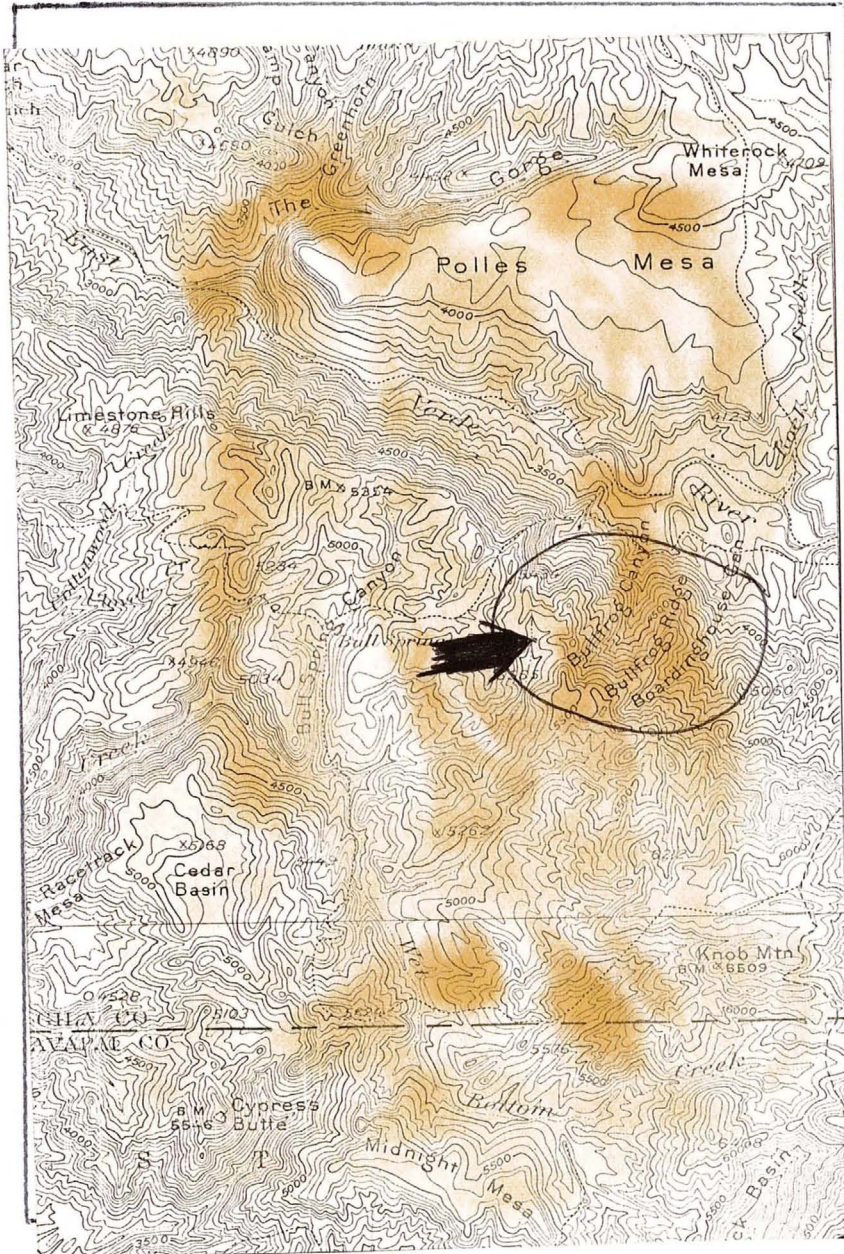
COMMODITY:
COPPER OXIDE
GEMSTONE AZURITE NOD

BIBLIOGRAPHY:
USGS CYPRESS BUTTE QUAD
BLM AZ MINING CLAIMS LEAD FILE 72004
ADMMR COPPER MOUNTAIN CLAIMS FILE

See: ~~Page Picher "G" Confidential files~~ now in this file

BLM Mining District Sheets 120, 121, 121A

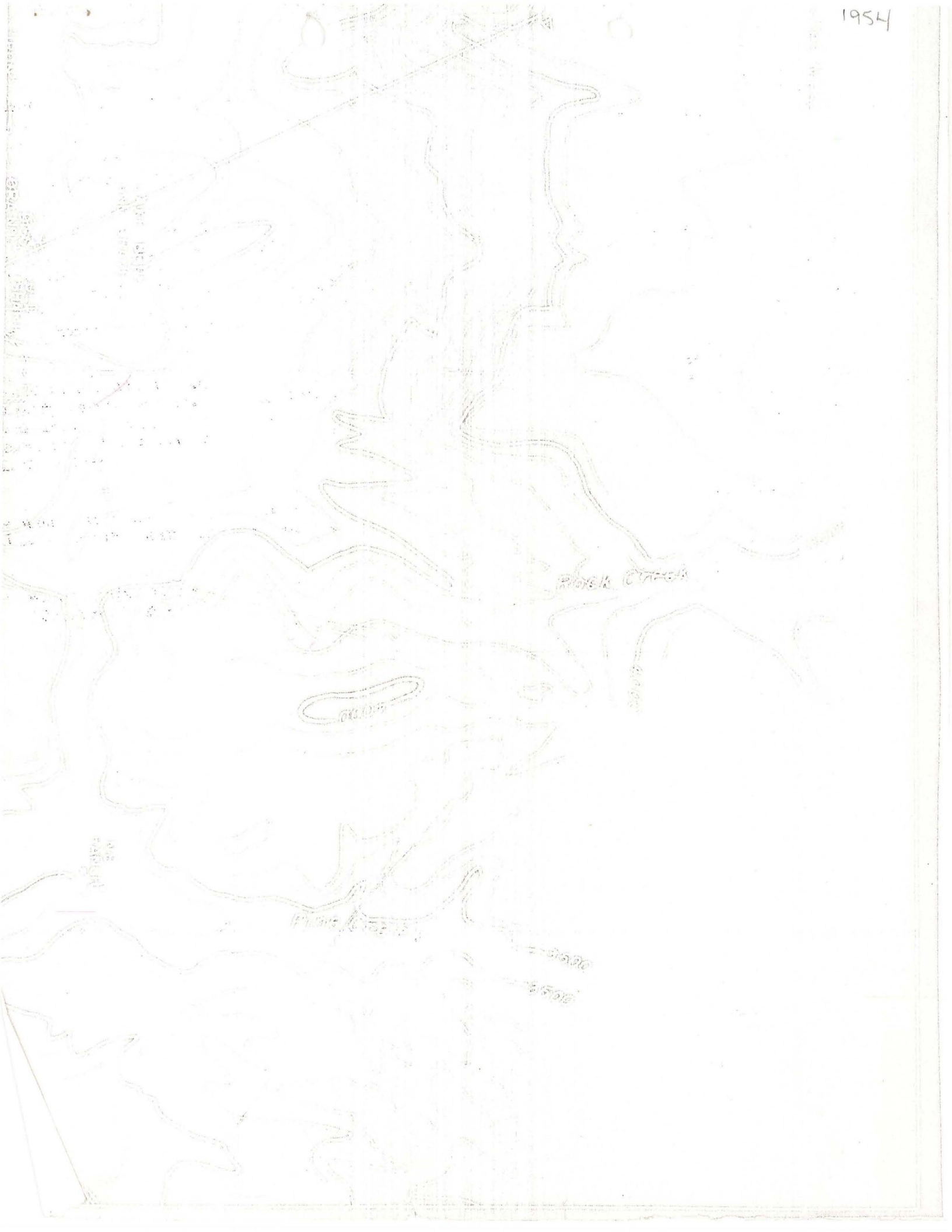
MILS Sheet sequence number 0040070264



LOCATION OF POLK COPPER PROSPECT

Scale 1 : 125,000

1954





1000' contour line

800'

W

LITTLE ROCKS
1000' contour line

1000'

DISC

1000'

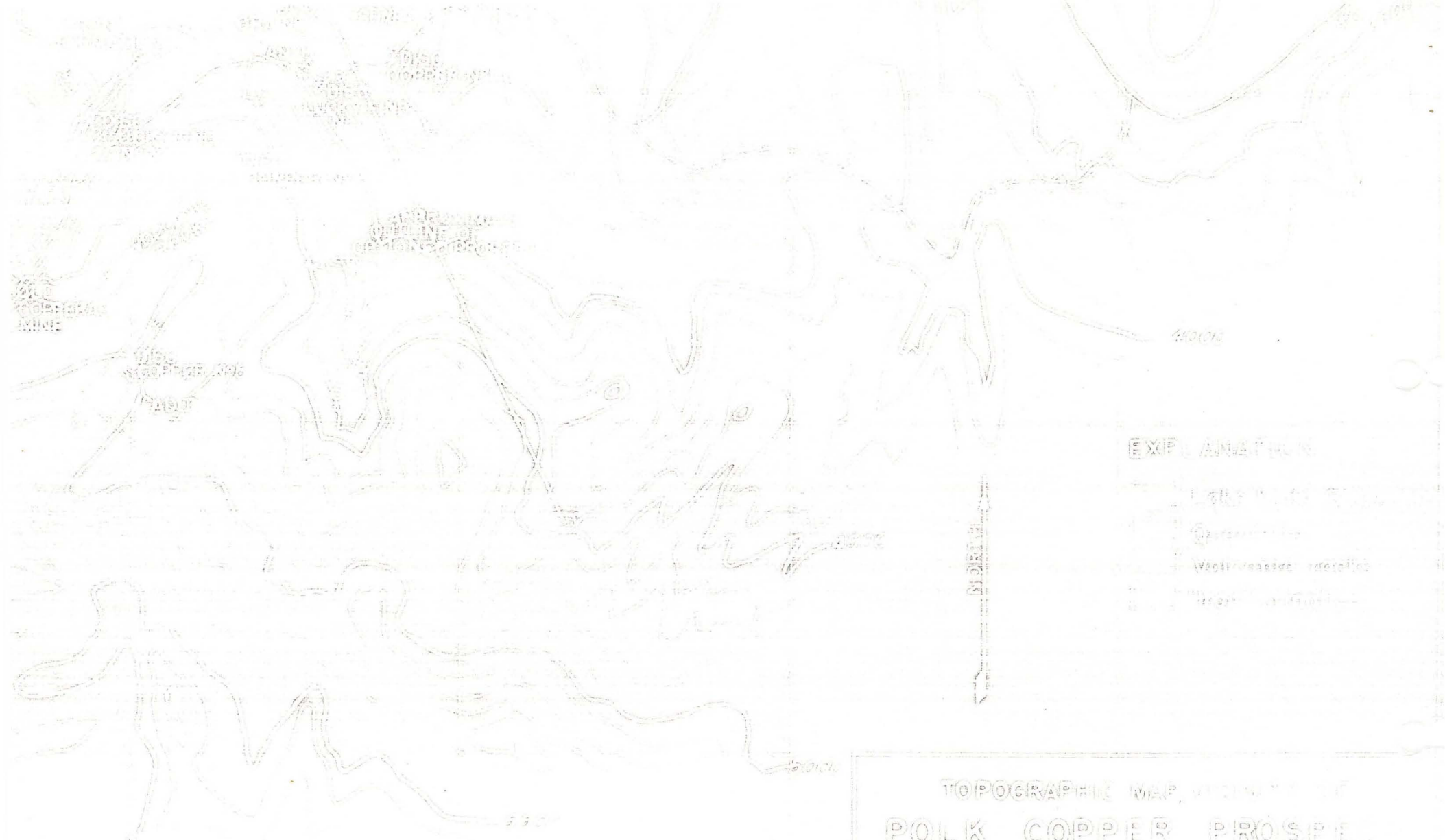
LUCKY TRIP

DISC

APPROXIMATE
DOUBLE LINE OF
CONTINENTAL BOUNDARY

1000'

1000'



EXPLANATION

- Contour lines
- Roads
- Buildings
- Prospect

TOPOGRAPHIC MAP, VICINITY OF
POLK COPPER PROSPECT

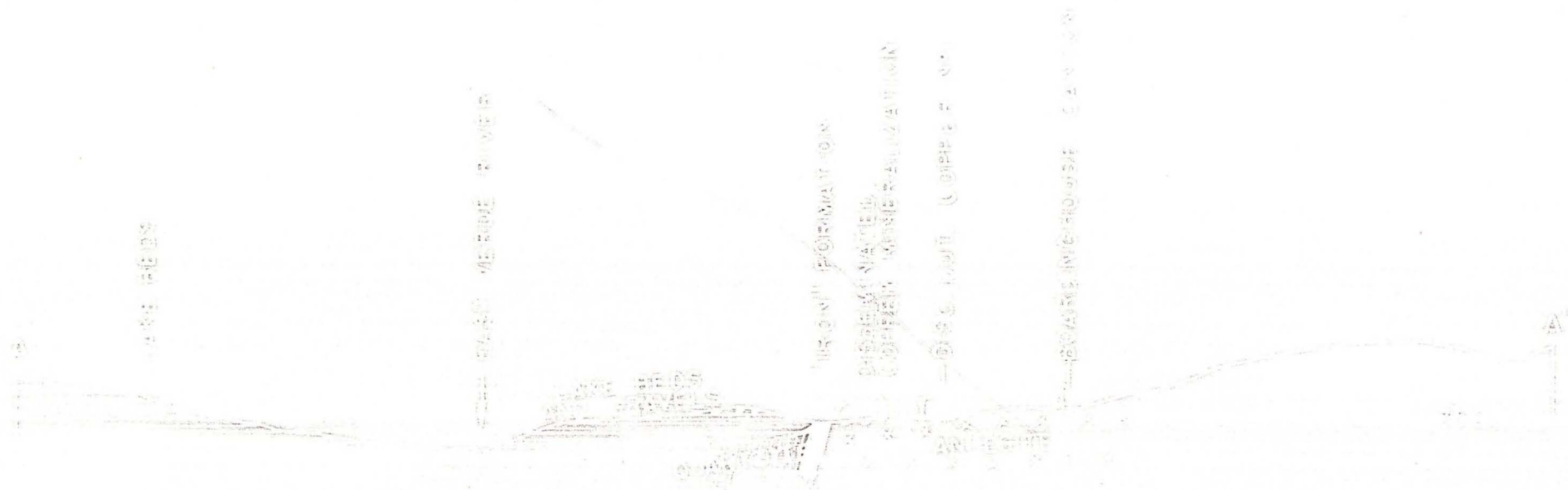
Show sketch of geology

SCALE: 1" = 2000'

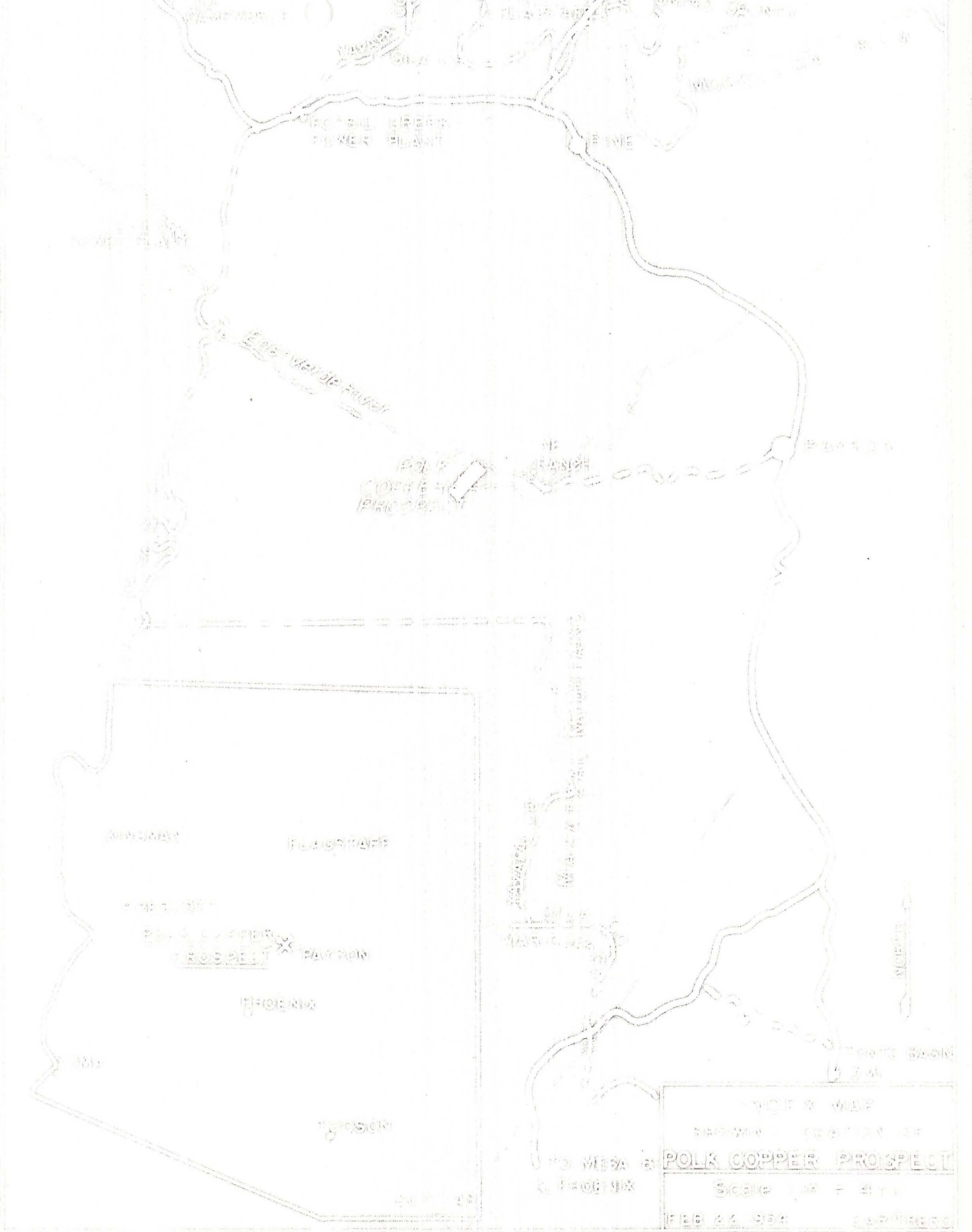
CONTR. BY: [Name]

DATE: [Date]

BY: [Name]



UNITED STATES GEOLOGICAL SURVEY
 GEOLOGICAL MAP OF THE UNITED STATES
POLK COPPER PROJECT
 GEORGE W. CARRIERS
 1912



GEOLOGICAL MAP
 SHOWING LOCATION OF
POLK COPPER PROSPECT
 IN NEVADA
 Scale 1" = 1 mi.
 FIG. 44, 1954.

Interview at the Rangers Station - the Rangers told me the only important work being done is on the W. E. Polk's Copper Mountain Group of claims amounting to 2400-2500 acres in and adjacent to Secs. 10 & 15, T10N, R8E, and lying along the boundary of the Mazatzal Wilderness area. This property is leased to Mr. Nick Carouso who whipped about 60 tons of ore last year. CLH Payson trip 2-27-68

Mrs. Carouso said they have been having trouble with the Forestry Service trying to force them off of their Copper Mountain claims because of the Wilderness Area established on one of the claims. To prove the mining potential of the claims to the Forest Service they shipped 35 tons to the Inspiration smelter (good copper and silver ore). She said they seemed to be impressed. Additional ore of the same value is stockpiled at the mine. Mr. Carouso is also hopeful of soon getting the Mercuria mine back into production. CLH Payson trip 2-27-68

Talked with Nick Carouso, P.O. Box 579, Payson 85541. He is still being pressured by the Forestry Service to abandon the Copper Mountain property in the Wilderness area in the Mazatzal Mountains. He and a consulting partner of his have been working on a flotation process to concentrate the cinnabar ore at the Mercuria mine in the Mazatzal Mountains near Sunflower. CLH WR 4-13-68

Rumored that chances are doubtful as to the operation of Copper Mountain Group owned by Mr. V. E. Polk with operating agreement with Nick Carouso. KNG WR 6-25-68

Copper Mountain claims have reverted to Mrs. Polk - cause - lack of payment by Nick Carouso. FTJ (Orally) 3-26-70

NJN WR 10/9/87: Jim Vacek (card) reported that high quality azurite nodules (gem grade) have been found on the Frenchie Claims, Gila County, MILS #490. The Frenchie in addition to many others, are included in the claims held by Tytan Resources, P O Box 471, Spokane, WA 99210 (Copper Mountain - file). The nodules resemble the Globe material both in quality and color. Unfortunately, the property is in a wilderness area. However, Mr. Vacek believes he will be allowed to mine there as long as he doesn't use mechanized equipment.

Mr. Polk reported that a consulting group: Chapman, Wood & Griswald, 530 Jefferson St., N.E., P.O. Box 8302, Albuquerque, N.M. is sampling his and Walter McDonald's claims. Several bulldozer cuts were made across a series of NE trending structures. A large number of samples are being assayed. Further work appears to be contingent upon the results of these samples. Should they prove good enough, a drilling program is to be initiated. The composite group of claims now totals 89. Ed Town, of Globe, is the intermediary. Town shipped some sorted ore to International but this did not prove economic because of the difficult haul, and unsatisfactory silica content. Mr. Polk said that it was reported to him that a Mississippi group had so far spent \$160,000 on roads, bulldozer cuts and sampling. LAS Memo 6-6-62

Grady Harrison stated that no work was in progress at the Copper Mountain mine. An attempt was made to contact Ed Polk, the owner, but he was not at home. LAS 9-15-62

dec'd 8-1963

Ed Town/stated that he had 2 men working on the sampling of Ed Polk's Copper Mountain Group. The previous optioners had moved off. LAS 9-24-62

According to J. M. Cunningham-Dunlop (letter March 31, 1964) Noranda Mines, Ltd. "is basing a small party on Polk's property" (Copper Mountain) "to sample the mineral resources and make geological observations." Cunningham-Dunlop wrote on New Calumet Mines Limited letter head and said he optioned Polk's property and submitted it to Noranda. FPK Memo 4-2-64

Noel Fisher, who represents an investment syndicate, said his firm is willing to spend up to \$20,000 to \$30,000 to make exploratory examinations of prospects that might have some promise. They currently are examining the Copper Mountain Group (Ed Polk of Payson is the principal.) This group should be drilled to see if the areas between several breccia zones (trending generally NE) will carry sufficient values, so that this material plus the better breccia zone mineralization would make sufficient ore to warrant an open pit operation. LAS WR 12-11-64

Conference with Ed Polk - Payson

Polk reported that Nick Carouso, recently retired as a metallurgical engineer for Kennecott (now residing in Kearny) is examining the Copper Mountain Group and plans further work. He wants to get Boyles Brothers into the area for a few angle holes in the veins, if he can arrange finances. He also wants to test Table Top property (also owned by Ed Polk). Polk said that Carouso liked this prospect. Table Top is up Wright Creek, not too far from the Cullom mine. LAS Memo 10-28-65

Ed Polk wants to buy a small mill, 1 ton per day, or 1½ ton, to treat some high-grade gold-silver ore he discovered in the Copper Mountain Claims, at the east base of North Peak, Mazatal Mountains, in Ruffo Canyon. This ore is in a vein 3-4 inches wide and he said assays \$18.00 to the ton gold and silver. LAS Conf. Payson 10-28-65

Visited Nick Carouso at his home and laboratory. Phoenix Ventures (Coleman Morton of Morton Salt) has option on Carouso's Big Penny claims. They are also trying to acquire option on Copper Mountain Group of 100 claims. Max Kofford is manager for Phoenix Ventures. They drilled several shallow holes on the Penny Claims, with discouraging results. Carouso shipped 33½ tons of unsorted ore from Copper Mtn. Returns were 1.4% Cu and 14.5 oz. Ag. FTJ WR 3-3-67

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Copper Mountain Claims Date February 7, 1962
District Green Valley District, Gila Co. Engineer Lewis A. Smith
Subject: Interview with Mrs. W.E. Polk.

Claims: 50 unpatented

Location: Approximately Sections 2, 8-11, 14-17, 20-22, 28, T. 10 N., R. 8 E. (unsurveyed). The claims border the E. Verde River to the southwest and between Buffalo Creek and Boarding House Creek. Bullfrog Creek splits them.

Access: Graded county road from Payson in a westward direction for 10 miles, thence 4 miles by mine road to the property.

Owner: W.E. Polk, Payson, Arizona

Optionee: Ed Town et al, Globe, Arizona. - Drawer 2980

Work: Ed Town is employing 4 men on development work and to mine small shipments of oxidized copper ore. The work was temporarily held up by poor roads, but now is active again. Each claim has location shafts or bulldozer cuts.

Geology: The claims lie in a greenstone (early Pre-Cambrian or Matzatzaal Formation). This is intruded by andesite porphyry (?) and diorite masses and dikes. The fracture pattern (probably shears) trends NE-SW. The surface mineralization is affiliated with the andesite porphyry (?) and the shears. The oxidized copper minerals include chrysocolla, malachite and possibly copper oxides. Some residuals of bornite or chalcopyrite have been reported.

SHATTUCK DENN MINING CORPORATION
and
SUBSIDIARIES

Humboldt

Office

Date..... September 22, 1966

TO: C. R. Sundeen

SUBJECT: POLK COPPER PROSPECT
% Mr. Nick Caruso
Payson, Arizona

FROM: J. Olaf Sund

TYPE: Copper

TERMS REQUESTED: Undisclosed cash payment with purchase option.

LOCATION:

A large group of claims located on top of the Mazatzal Mountain Range, some 15 miles by road west of Payson in Gila County. The projected survey location is about the mid-point of Range 8 East and Township 10 North.

The claims are actually within the limits of a newly designated wilderness area.

GEOLOGY:

For the most part the claim area is underlain by precambrian volcanic rocks. These are repeated flows of a dark colored, fine-grained basaltic type that is characterized by numerous $\frac{1}{4}$ to $\frac{1}{2}$ inch olivine segregation. At the same time carbonate amygdules that have irregular shapes occur in places. The carbonate may be weathered-out on the immediate surface producing a vesicular appearance. The basalt is either gradational into coarser parts that represent the centers of individual flows or the area is cut by several gabbro-diorite type intrusive dikes or sills that have an unknown orientation.

At the westernmost part of the claims and near the highest point in the area, a fine to medium grained greyish massive granite has intruded and uplifted the enclosing olivine basalt flows. Jasper-type iron formation interbeds of a typical precambrian type occur with the flow rocks, perhaps marking interludes of sedimentation in the sequence of vulcanism. A limited amount of shales or slates are also interbedded with the volcanic units. These are part of the same sedimentation periods as the iron formation and could be upper precambrian.

All rock units display a general northeasterly trend and a variable northwest dip.

MINERALIZATION:

The mineralization occurs as three general types. There are modest amounts of pyrite and chalcopyrite disseminated in the olivine basalts at scattered locations. Weathering to secondary copper is only moderate. Examples of this have been exposed in trenches on the Discovery Claim No. 3. Although it is not clear, a weak brecciation may be associated with this mineralization.

There is also a little secondary copper associated with two sets of intersecting shears or joints. These trend at north 10 degrees west and dip 80 degrees east and at north 80 degrees east and dip 75 degrees south. Quartz-carbonate veins that vary from 6 to 12 inches occur in the joint sets and carry a little sulphides only. Malachite and covellite occur along the cracks etc. in the quartz, especially at the intersection of the joint sets. The Lucky No. 1 and the Vivian Claims encompass this latter type.

In addition to the above an apparent thrust zone some 5 feet wide in the argillaceous sedimentary unit and characterized by considerable iron oxide staining etc. is reported to average 17 ounces of silver and 1.4 percent copper. It is most unusual as no gangue quartz etc. occurs in this thrust zone. Mr. Caruso claims to have shipped 35 tons of rock from this particular zone.

Grab samples collected for check purposes ran as follows:

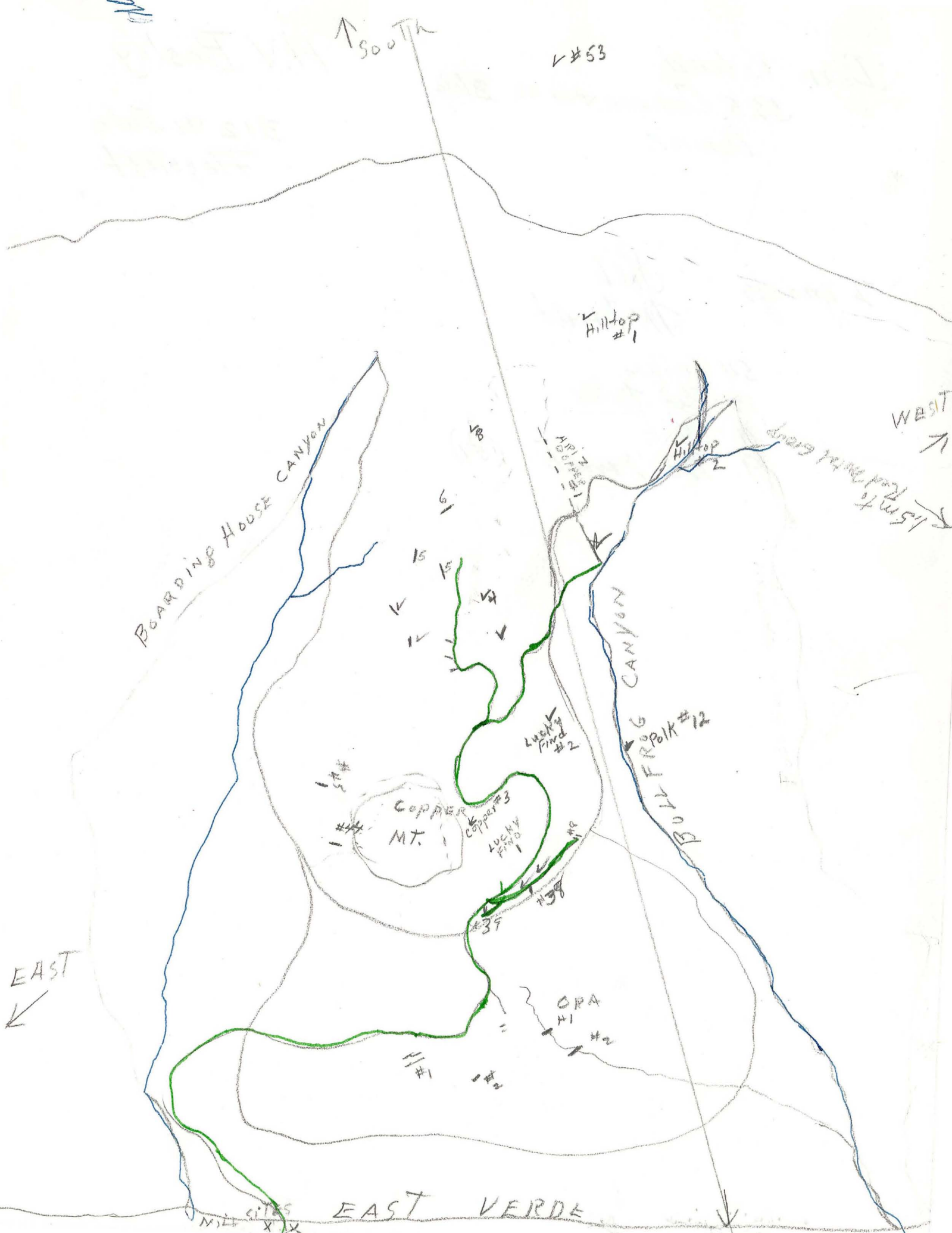
<u>Sample No.</u>	<u>Location & Description</u>	<u>Au</u>	<u>Ag</u>	<u>Cu</u>
12782	Min. basic lava-Discovery #3	0.01	Tr	0.68
12783	High grade fault ore-Argillaceous sed.	0.02	1.6	2.16
12784	Narrow quartz vein-Vivian	0.02	Tr	5.62

These samples have no bearing on the potential of the claims.

CONCLUSIONS:

The writer was left with the impression that there was a distinct lack of significant mineralization and structures etc.

Nothing should be done with this property.



Dean Keland
525 Commercial Bldg
Denver.

H.V. Bosley.

312 W Dale
Flagstaff

2 groups Pick
McDonald

54 Cops
12 Red trucks
11 Pick
9 Mac Donald (51)

POLK COPPER PROSPECT
NEAR PAYSON, GILA COUNTY, ARIZONA

Ward Carithers

1954-5

GEOLOGY:

The geology of the region near the Polk Copper prospect has been described by Carl Lawson and E. D. Wilson in: Gold and copper deposits near Payson, Arizona, Ariz. Bur. Mines Bull. 120, 1924; and by E. D. Wilson in: Precambrian Mazatzal revolution in central Arizona, Geol. Sec. Am., Bull., Vol 50, p. 1113-1164, 1939.

The oldest rocks in the region are a widespread group of highly metamorphosed Precambrian volcanic and sedimentary rocks called the Yavapai Group in central Arizona. These have been invaded by large masses of Precambrian granite and diorite and are overlain unconformably by a younger group of highly indurated, weakly metamorphosed Precambrian volcanic and sedimentary rocks called the Apache group. All these early rocks are overlain unconformably by a thick layer of Paleozoic rocks which are well-exposed along the Mogollon Rim, a few miles north of the Polk property. In the East Verde valley, a relatively thin layer of lake beds and volcanic flows of Tertiary age and a veneer of Quaternary gravels cover some of the older rocks at places.

In reference to the copper showings in the district, Carl Lawson and E. D. Wilson, in Gold and copper deposits near Payson, Arizona, Bull 120, p. 42 state:

Along the East Verde River.... are two prospects located by Harrington and Cain. These claims were located for copper, and the district is locally known as the Copperas District.

Greenstone and highly indurated quartzites and shale have been mineralized along fractures by pyrite, chalcopyrite, and bornite. These sulfides have been slightly enriched by chalcocite and covellite. Only location and assessment work have been done.

On page 32, Lawson and Wilson state:

A little copper occurs on the claims located by Mr. C. Harrington near the East Verde River. Here a vertical fault with a N43E strike cuts the greenstone. The copper mineralization is found in the fault breccia and in the wall-rock and consists of a little pyrite and chalcopyrite in a gangue of quartz. The wall rock has been altered to garnet, epidote, calcite, and quartz. A little specularite was also found, and chalcocite was seen in a thin section; but the enrichment of copper has been slight.

Adjoining Harrington's claim on the southwest is a prospect located by Mr. W. A. Cain. Chalcopyrite and bornite with a little chalcocite occur both in the greenstone and in quartzite, but not along any well-defined fissure. The mineralization has been slight and the wall-rock is altered to epidote, chlorite and quartz.

The locations of these two properties are not known. It is possible that the publication refers, in part, to the old Copperas mine just southwest of the Polk property.

The oldest rock in the immediate vicinity of the Polk prospect is a thick zone of greenstone which was originally composed of andesitic flows, tuffs and volcanic breccia. The rock is mildly metamorphosed to a chloritic rock, but at places pillow structure of the lavas and a little bedding in the tuffaceous members can be seen. These volcanic rocks are overlain to the west by a grey quartzite containing thin shaley

members. Both the greenstone and the grey quartzite are believed to belong to the Apache group of younger Precambrian age. A few erosional remnants of Paleozoic strata, which overlay the older rocks, cap some of the higher peaks and ridges to the south of the property.

Lake beds of Tertiary conglomerate, silt and limestone with a few intercalated basalt flows occur near the floor of the East Verde River valley. The Tertiary sediments, together with Quaternary gravels obscure much of the Precambrian rocks in the northern part of the Polk property.

The Polk property covers part of a contact zone between the greenstone to the southeast and the quartzite to the northwest. (See geology sketch on the accompanying 2,000-scale map.) This contact zone, here termed an "iron formation", consists chiefly of hematitic quartz and grey quartz together with some jasper and carbonate rock. The quartz and the carbonate rock appear to be vein material, but some of the hematitic rock and the jasper might have originally been a lateritic rock derived from the weathering of the underlying andesitic rocks, which are fairly high in iron. Possibly the zone is a result of a vein being introduced along a lateritic contact.

The "iron formation" crops out boldly along Bullfrog Canyon, near the southeastern part of the Polk property and in the vicinity of the old Copperas mine, where it is 100 to 200 feet thick. The quartzite to the northwest of the zone

8

strikes NE and dips 72° NW, and apparently the "iron formation" has the same structure. From the Copperas mine, the zone trends northeastward for about a mile. Here, the quartzite and probably the "iron formation" as well, dips about 45° NW, and the trend of the zone is apparently interrupted by a fault. From here, the zone trends more eastward to a point in a gulch near the north center of the Polk claims. (See sec. A-A' in pocket). Beyond this gulch the "iron formation" and enclosing rocks are overlain by the Tertiary lake beds and the gravels. The zone crops out again along bluffs just east of Rock Creek and north of the East Verde River and is probably continuous beneath the cover. Across the river, the zone appears to strike more northward, and there is a strong suggestion that a fold exists some place beneath the overlying lake beds.

Mineralization exposed at the Polk prospect occurs chiefly in the greenstone and consists of scattered bunches of disseminated chalcopyrite and pyrite together with calcite, siderite, quartz and more or less garnet and epidote. Alteration of the sulfides is shallow, and the primary sulfides are within a foot or so of the surface. Malachite, azurite, and cuprite occur here and there on the surface and are common in the many open cuts of the property.

At some places the mineralization appears to occur in greenstone that has been crushed and altered; at other places it appears to be deposited in interstices in volcanic breccia or around pillow structures. Little indication of structure

is visible, but there appears to be some control around the discovery pit of Copper No.1 claim where the mineralization is confined to a zone 100 or so feet wide and several hundred feet long. There is also a suggestion that the sulfides are more abundant close to the "iron formation" than distinct from it. This hints that there is a genetic or structural relationship between mineralization and the "iron formation".

DEVELOPMENT AND ASSAYS:

No extensive development exists on the Polk property. Discovery cuts have been made for claims, and at one time several adits and a shaft were dug by earlier prospectors. Most of these are now caved.

The discovery cut of the Copper No. 1 claim is a shallow shaft about 10 feet deep. This shows blebs and small pockets of mineralization by chalcopyrite and a little pyrite scattered in greenstone. It is difficult to sample this sort of material, but a grab sample of rock on the dump, which may represent lower grade portions of the mineralized zone, assayed 0.39% copper, and a trace of gold and silver. Other old sloughed pits occur nearby showing some copper-stained greenstone.

Two open cuts have been made along the trail leading to the old Copperas mine, about 1500 feet southwest of the discovery pit of Copper No.1. These are on the Lucky Find No. 1. A width of about 15 feet of a vuggy greenstone matrix is exposed, showing malachite, cuprite and a little

chalcopyrite together with calcite, quartz, garnet and epidote. This material would assay about 1 percent copper. About 300 feet northeast of the cuts and 150 feet lower in elevation, an adit has been driven in an apparent effort to prospect the surface showings. The portal is caved, but the working was about 300 feet deep as indicated by the size of the dump. The dump is chiefly massive greenstone, but a few fragments of vuggy quartz-calcite-siderite matrix containing a little garnet, epidote and chalcopyrite also occur.

An open cut with about 5 feet of underground work occurs in a steep gully about 1,000 feet south of the Lucky Find No. 1 cut. Here, fractured and sheared greenstone contains impregnations of cuprite, malachite and azurite together with quartz and a little jasper. A sample from a sorted pile of about 2 tons assayed 1.51% Cu, and a trace of gold and silver.

Several cuts have been made along a narrow ridge of about 5,000 feet in altitude in the southeastern part of the Polk property. One of these, the discovery pit of Copper No. 5 claim, shows greenstone mildly sheared N53E, dipping 72° NW. It contains an irregular quartz zone containing blebs of chalcopyrite and cuprite and some malachite. A 56-inch sample here assayed 1.57% copper and a trace of gold and silver. The quartz and accompanying mineralization appears to be a lenticular zone, pinching out to the northeast and southwest.

Another similar lenticular quartz-sulfide zone occurs about 250 feet south of the discovery cut, and an adit has been

driven about 300 feet S17E and 100 feet lower in elevation from the discovery cut. The adit, caved at the portal, is said by Mr. Polk to be 280 feet deep. The dump is chiefly massive greenstone with a very small amount of quartz vein material and a little epidote and copper staining.

The old Copperas mine occurs near the head of Bullfrog Canyon, just southwest of the Polk property. Here, apparently, has been the greatest effort in the district to develop a mine, and the work was probably done at least 40 years ago. Two old boilers, a steam compressor and an old tripod-mounted, 1901 model Ingersoll-Rand piston rock drill are near a caved portal, and 200 or 300 cords of wood for feeding the boilers are nearby. The claim, now called the Arizona Copper No. 1, was relocated April 7, 1950, by W. M. and B. E. McDonald, who claim 500 feet northwest and 1,000 feet southeast.

The size of the dump indicates that the underground workings might have amounted to 200 or 300 feet. The dump contains, chiefly, siliceous material together with a little vein quartz, chalcopyrite and copper carbonate. A sample from a sorted ore pile of about 8 tons assayed 3.72% copper, a trace of gold, and 0.58 oz. of silver per ton.

Above the caved portal is a considerably fractured siliceous rock together with some copper-stained gossan containing a little sooty chalcocite. The mineralization appears to occur in an area about 50 feet in diameter, which fades out into a siliceous matrix containing "iron formation" zones. The

"iron formation" occurs to the southeast, quartzite is to the northwest; The deposit is apparently in or near the contact zone.

Another adit occurs about 1,000 feet southwest and 200 feet higher in elevation from the old Copperas mine. Here, a drift trends 75 feet N75E, following a 3- to 12-inch quartz-sulfide vein in a highly siliceous matrix of the "iron formation". Quartzite occurs about 100 feet to the northwest; greenstone 100 to 200 feet to the southeast.

ORE POSSIBILITIES:

The copper mineralization so far exposed in the greenstone at the Polk prospect appears to be bunched and low in grade. This gives the impression that the main mass of the greenstone was not receptive to the mineralization, and it is not believed that additional work in this sector would be productive. The "iron formation", on the other hand, presents a different impression. Owing to the fact that the "iron formation" is a hard rock and more resistant to erosion than the greenstone, the contact between the two rocks is commonly obscured by talus and soil and cannot be observed except in few places. Where seen, the greenstone appears to be more altered and better mineralized than further southeast in the mass. Also, the Copperas mine, near or in the "iron formation", is the strongest showing seen in the district; these features suggest that the best place to prospect is along this contact zone.

The best places along the "iron formation" to look for ore would be where a structural warp or a fault exists-- where some sort of a structural condition might have produced a condition conducive to ore deposition.

A slight bend in the structure occurs at the Copperas mine, and some ore-grade mineralization is evident. Another bend in the structure occurs about a mile northeast of the Copperas, and a fault appears to interrupt the zone between these places. Other possible geologic targets for drilling would probably be turned up if a detailed geologic mapping job were performed along the "iron formation".

RECOMMENDATIONS:

A program directed to explore the Polk prospect and adjacent properties is one that might normally be carried on by a large company. They would have geologic talent necessary for this sort of work, and, most important, they would have adequate funds for gambling on such a venture. In the event, however, that a smaller company were to attempt the exploration job, they could follow reasonably closely a program that might be carried on by a large company. This might be divided into four stages: (1) property consolidation; (2) road building; (3) geologic mapping and engineering in order to find possible targets for drilling, and any surface cuts that would be desirable; (4) diamond drilling.

The first thing that is necessary for an exploration program of the Polk property is to straighten out the

property situation. The records of the claims in the district should be investigated at the County Recorder's office to see if titles of the claims are satisfactory. If any question about them exists, or if Mr. Polk's former partners might have a claim to the property, an attorney should be consulted. This also regards the conflicting claims located by McDonalds, particularly the Ora No. 1 and the Lucky Find No.2, which are close to or on the "iron formation". However, it would be desirable to acquire the property at the old Copperas mine, now also held by the McDonalds. Possibly a deal could be worked out with these men whereby the Copperas property could be acquired together with the conflicting claims, and thus an embarrassing or even a costly situation could be avoided. Claims should also be acquired along the trend of the "iron formation" northeast of the Polk property, as far as appears practical.

If the property situation is satisfactorily resolved, the road from the NB ranch should be put into shape for truck travel, and it is suggested that it be opened up to the old Copperas mine. This would require 12 to 15 days of bulldozer work, depending on the size of equipment used.

At this time, also, an engineer-geologist should be hired. He could, if necessary, direct the road construction, but should as soon as possible start mapping the geology along the "iron formation". He may, at times, need an assistant. No great detail would be required for this initial work, but

it should be adequate for familiarizing the man with the geology, provide data for diamond drilling, and also indicate the locations of claims and possible uncovered fractions. Mapping on a scale of 1 inch to 1,000 feet should be sufficient, and I suggest an aerial photograph, enlarged to this scale, be acquired for this purpose. This can be purchased through the U. S. Geological Survey.

If the engineer-geologist is prepared to do so, it would also be a good idea to make a modest geochemical survey at the property. This would entail taking small rock and soil samples along the "iron formation" and adjacent rocks and analysing them for trace quantities of copper. Shadows of underlying strong or weak copper mineralization might thus be indicated and point toward places where diamond drill holes should be directed.

At least a month, possibly two months, should be provided for the geological work. This could be followed by a drilling program which would best be supervised by the engineer-geologist, and the exact location and attitudes of the holes would be determined by him. I believe, however, that in the event the Copperas mine is acquired, two holes could be drilled here. Both could be drilled from the northwestern side of the "iron formation" one in the vicinity of the portal; the other about 300 feet to the southwest; both would be about 500 feet deep.

Another place that can be considered for drilling is in a gully near the north center of the Polk property, a few hundred feet north of the discovery cut of the Ora No.1 claim. A hole

directed through the "iron formation" would penetrate the zone where exposures of known mineralization occur in the greenstone. The hole might be as much as 700 feet deep.

A third place where drilling could be considered is in the lower part of Bullfrog Canyon, where the "iron formation" crosses this gulch. Copper mineralization occurs in greenstone at the nearby Lucky Find No.2 discovery cut, and in other places to the northeast. Also, the "iron formation" is interrupted by apparent faulting near here, which might also have provided some structural influence for ore deposition.

The cost of an initial program to prospect the Polk property with say, four diamond drill holes would amount to about \$25,000, which is summarized as follows:

Property consolidation (attorney fees, if any, expenses, claims, etc.)	\$1,000
Road rebuilding	2,000
Geologist-engineer salary, 7 months	3,500
Labor, (assistant to engineer, etc.)	2,000
Diamond drilling 2,500 feet @ \$6.00 per foot	15,000
Supplies, transportation, Misc.	<u>1,500</u>
Total	\$ 25,000

CONCLUSIONS:

No showing of profitable ore has, as yet, been encountered at the Polk Copper prospect. However, a fairly consistent showing with some geological promise is indicated and is worth considering for further prospecting.

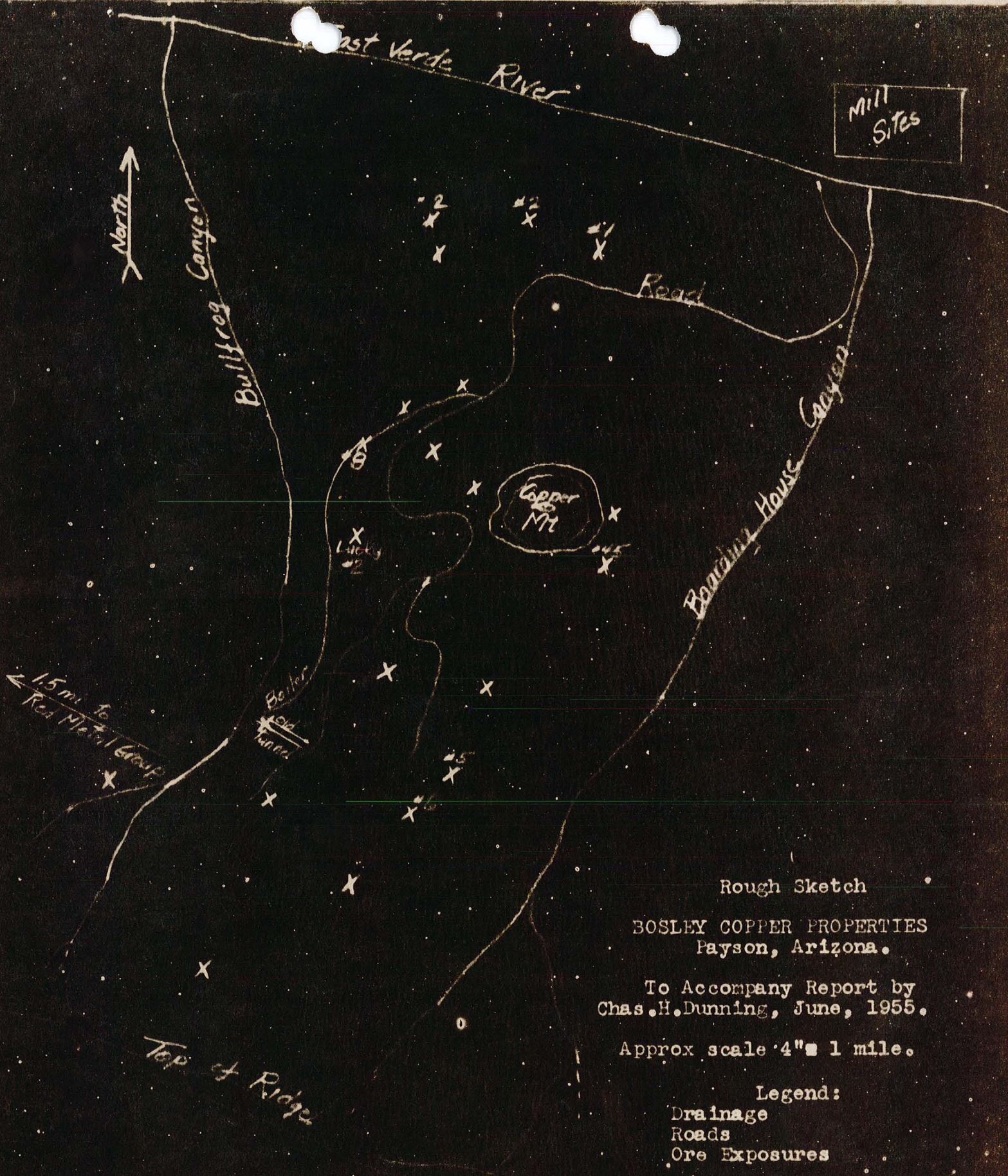
8

It should be borne in mind, however, that it is not possible to be sure that ore in commercial amounts exists here, or even if it does that it would necessarily be found by a drilling program. The Polk property is simply a good place to prospect, and an effort to find ore here should be regarded as "wildcatting" on a zone with good geological possibilities, but no known ore potential.

Ward Carithers
Crown King, Arizona
March 7, 1954


Now (65) Reno, Nevada.

T.C.



Mill Sites

North

Bullfrog Canyon

East Verde River

Road

Copper Mt

Bonanza House Canyon

Boiler
Old mine

1.5 mi. to
Red Metal Group

Top of Ridge

Rough Sketch

BOSLEY COPPER PROPERTIES
Payson, Arizona.

To Accompany Report by
Chas. H. Dunning, June, 1955.

Approx scale 4" = 1 mile.

Legend:

- Drainage
- Roads
- Ore Exposures

C O P Y

CHARLES H. DUNNING
Mining Engineer
Phoenix, Arizona

January 23rd, 1956.

Mr. Dean Roland,
1325 E. Monte Vista Rd.,
Phoenix, Arizona.

Dear Mr. Roland:

On January 19th I visited for the third time (last time in September) your mining development West of Payson, Ariz., on Copper Mountain.

Data and opinions submitted in previous reports will not be repeated here, except insofar as they may have changed. This is a progress report and will be confined to such.

Recent Progress

Diamond Core Drilling. Following my recommendations of September 1955 you made a concerted effort to diamond drill the various ore formations to determine any changes in mineral content or character that may take change with depth, and to block out tonnage into a "positive" category.

Diamond drilling from the surface however was found to be well nigh impossible because of the shattered nature of the surface and the frequent presence of large cavities or voids. Even large amounts of water pumped through the drill stem would disappear, along with the sludges, and little or no core would be recovered. Competent drillers were employed and all known methods used to prevent this difficulty - all at no avail.

However it is my opinion that once you get some mine workings well below the surface, diamond core drilling in any direction or angle will be feasible for exploration, or for the actual blocking out of ore. Below the surface the interstices are cemented with calcite or economic minerals and the formation will hold water.

Roads. You have completed an additional 10 or more miles of mountain roads since my last visit, both to reach surface exposures, and more recently, because such side hill cuts have proved to be the most feasible method of exploration.

Contour Cuts. It was noticed in building these roads that whenever the cut encountered hard rock it was copper bearing. This gave thought to the plan of making such contour cuts on the mountain side deliberately, and this plan has been eminently successful. It will be described more fully under a following heading.

Survey. It was noted that you have a crew of surveyors at work and in a few weeks will have a complete map of all your group with all ore exposures and other features spotted thereon. This will be of great help in clarifying the picture and guiding further work.

New Concepts.

Within your group of claims is a mountain known as Copper Mountain, the top of which is approximately 1000 feet higher than its base. It is split into a double head at its top.

Radiating from this head are ridges with canyons or gulches between. The ridges are hard outcropping ribs, and the gulches mostly loose fill. The whole situation is somewhat in the shape of an octopus with a head some 500 ft. in diameter, and arms a half mile long.

This mountain was caused by an upheaval from beneath, and is not, to any extent, the remnant from erosion. The same forces that caused the uplift caused the shattering and faulting, and provided a host condition for the mineral solutions that accompanied the uplifting magma.

In places near the surface excavations have disclosed irregular small bodies of what appears to be a secondary lime or calcite. Within these lime bodies boulders or irregular chunks of good copper ore are found. It is my opinion that these spots or small areas were originally similar to the type of crevice or void that you have encountered in drilling. They were subject first to mineral deposition containing copper and calcite, and later filled with, or altered to, precipitated lime, which originated along with other mineral bearing solutions from below. You have encountered a primary ore condition in places at the base of the mountain, and the thumb-nail sized splashes within the brecciated rock are usually part copper and part calcite, indicating that the two are genetically related, although they may have been deposited at different periods.

All this may seem a bit theoretical but it is data that fits in with and substantiates the theories and recommendations outlined below.

It was noted some time ago that there were copper exposures on the more bald head of the mountain, but the picture was not clear as to whether they were continuous veins with definite walls, or how they were allied to each other. They were heterogeneous outcrops and they occurred in the harder places.

In building mountain-side roads up to these showings it was noted that every hard rib when cut into showed copper, and the further the cut was made into the mountain-side, the more copper. So a deliberate plan was then started to make parallel cuts, like contours, on one of the main ridges - a ridge which has a general north-south strike. There are nine of these cuts covering a lateral distance of a half mile, and a vertical distance of about 900 feet. Each cut, when in the harder material shows copper ore of commercial grade. The other radiating ridges when cut (although not yet cut systematically) show the same thing.

It was noted however that generally speaking, no matter what the course of the radiating ridge, the course of the main fracture planes was always north-south. Therefore in some cases the fracturing paralleled the ridge, and in others cut across it.

It could be possible that you have an archbody in the shape of an octopus, but it seems much more likely that it is all one ore zone, and that you have so far found it only in the hard ridges, because you have not excavated far enough into the mountain-side in the gulches. Practically nowhere has an excavation been carried far enough into the mountain in any of the gulches to expose solid material. Furthermore the formation in the gulches, besides having more overburden is primarily softer and looser than on the ridges. That is why the gulches are there. And, so being, such areas would be more susceptible to leaching, and you would have to penetrate still further to encounter ore. But such leaching could cause secondary enrichment somewhere below.

Recommendations

I would recommend a continuation of your present policy of making systematic terrace cuts on all of the ridges, and also making deep cuts into some of the canyons.

Following this, and the mapping of the various conditions, you can select one or more tunnel sites. You have many such excellent sites. Then after driving well into the mountain with a tunnel I am sure you can do lateral exploration and actual blocking of ore with a diamond drill.

The work that you have done lately has changed the picture from one of some rather small and irregular, but rather high grade, copper showings, into the probability of a very large comparatively low grade mass, that has many of the ear-marks of making a large open pit mine. And an open pit mine 1000 feet above the surrounding terrain, would be most ideal.

All expenditure you have made to date have been justified and very economically made. In no instance could I see that any money had been wasted. (And that is a bit unusual).

A continuation of the same policy and efforts should soon lead to even more concrete results.

Yours truly,

(Sgd.) Chas. H. Dunning.

(Seal)

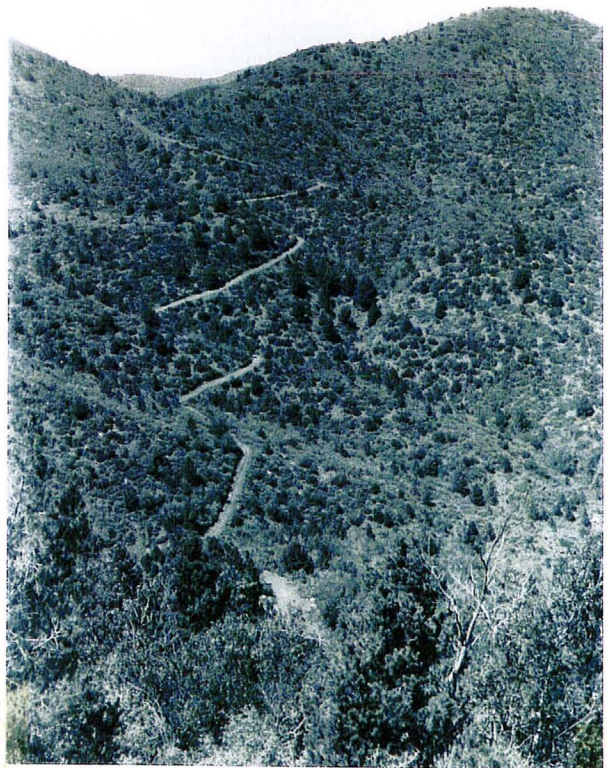
September 13, 1955.

Mr. Howard Bosley,
Flagstaff, Ariz.

Dear Mr. Bosley:-

For your request I have made an additional examination of that certain group of mining claims situated about 15 miles West of Payson, Ariz. The purpose was to inspect the work done since my examination and report of June 27, 1955.

In June several of the outcrops were accessible only on foot, and had been dug into merely for a few inches or feet. Since that time bulldozer roads have been built to many of the showings, and the showings themselves further opened by deep cuts.



Many miles of mountain roads have been built. This one leads to the Red Metals Group.

The following changes should be especially mentioned: On the ORA a road/cut has been run for a distance of over 100 yards, partly around a hill. This shows parallel mineralized bands, striking north-east at an angle across the cut, and also some wide zones of a softer rock that have been highly leached.

On top of a knoll, above the road a mineralized breccia has been exposed in a bulldozer trench. This whole mass could be commercial grade at depth below the leaching.

An excellent site for a diamond drill hole would be about 100 feet south-east of this trench, the hole to be pointed north-west at a down angle of 45° . This would test the breccia exposed in the knoll trench at a little depth and also cut across all the bands shown in the road/cut at depth below surface leaching.

Other showings, somewhat similar, and of importance have been opened up on COPPER #2, and COPPER #3.

On the VIVIAN a road/cut has disclosed three parallel bands about 8' wide each and of commercial grade - probably 4% to 8%. Here testing at depth is very advisable and easy. A rather short diamond drill hole, down the canyon and to the east would cut them all at good depth. This situation could quickly make a mine in itself.

On COPPER #6 the extent of development in June consisted of a 8' hole showing an 18" vein of comparative high grade. This now shows 3' wide at 10' deep and its continuity has been proven by cutting it on the other side of a hill where it shows 5' wide. A parallel vein was also disclosed in these cuts.

On the HILTOP #1 there is a situation that could line with the above mentioned Copper #6. Here there is an old shaft 30' deep which has been cleaned out. We were not prepared to examine it but Mr. Bosley reports that at the bottom there is a short crosscut and that there is 8' of ore there which assayed 6.5% copper with values in gold and silver. A recent trench cuts this vein some 100' to the north and shows a similar condition. It is noticeable that this vein stands vertical whereas most of them dip about 70° , and this ore is all carbonates, mostly azurite, no sulphides being yet encountered even at 30'. The locks of the dump checked the assays.

On the RED METALS developments have been disappointing. It seems that a curved fault wall there had formed a short lense of ore but other places that have been tapped along the strike have been negative. I would advise following this ore with limited expenditure, digging it out and shipping it. It is good shipping ore.

The situation at your NUMBER 1 is still an enigma. You have a good sized cut into this showing but there have been some faults and later intrusions that have disturbed the situation so it is still impossible to determine the size, course, or dip of this possible orebody. And the hardness of the rock and spotty nature of the mineral occurrence make hand sampling difficult and unreliable. Surrounding the mineral outcrop there is a larger area of an apparently leached rock of the same type. The best way to explore this and also obtain accurate average samples would be to run in several angle diamond drill holes from various directions.



Looking at Vivian & #5 from #6.

Generally speaking the results of the work done since June have been excellent. You have proved that these showings are not mere spots but are on consistent veins, or possible outcrops of large orebodies. You have proved length and continuity, but what you now need to prove is depth. That is, what happens to the size of the veins, and the average values, at further or reasonable depth.

What is best done by diamond core drilling and nature has provided excellent drill sites.

Such a program of exploratory drilling is fully justified and should precede and serve as a guide for development by underground work.

When you are ready for underground work nature will again assist you by furnishing several sites for crosscut tunnels, which in comparatively short distances will cut several veins at sufficient depth to furnish large tonnages above such tunnels. Tunnels are much cheaper than shafts and would be very economical development and mining.

CHARLES H. DUNNING

MINING ENGINEER

Drilling to actually block out ore in this type of vein formation is not advised.

Underground development would still be necessary as the ore must needs be stoped upward from below, and none ever mined ore through a drill hole. But drilling to prove depth, and as a guide for tunnel work is justified and advised.

I am informed that you will soon have a survey and map. This report would be much clearer, and correlations better if the situations could be spotted on a survey map. The rough country and winding roads preclude making any such sketch by eye or memory.

I would advise proceeding immediately with a drilling program according to the general outline above, with the further program in mind of following same with crosscut tunnels.

Probably 10,000 feet of exploratory drilling would be sufficient to prove continuity in depth and guide the crosscuts.



Vein exposed in cut at #6.

Respectfully Submitted,

C O P Y

CHARLES H. TURNING
Mining Engineer
Phoenix, Arizona

September 18, 1955.

Mr. Howard Bosley,
Flagstaff, Ariz.

Dear Mr. Bosley:

Per your request I have made an additional examination of that certain group of mining claims situated about 15 miles West of Payson, Ariz. The purpose was to inspect the work done since my examination and report of June 27, 1955.

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P h o t o g r a p h

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Probably 10,000 feet of exploratory drilling would be sufficient to prove continuity in depth and guide the crosscuts.

Respectfully submitted,

(Sgd.) Chas. H. Dunning.

Photograph

Vein exposed in cut at #6.

(Seal)

Tucson, Arizona

November 19, 1956

Mr. J. P. Lyden

William E. Arndt

Copper Mountain Mining Company near Payson, Arizona:

Dear Mr. Lyden:

Mr. O. A. Rockwell in a letter dated October 30, 1956 requested me to look at some property of the Copper Mountain Mining Company near Payson, Arizona. I spent November 17 on that property.

Mr. J. D. Miller, who seems to have no interest in the property, very kindly spent the day driving me around the property in his pick-up truck. He would take no compensation for this although he had not planned to accompany me until he saw that I was driving an automobile and therefore would not be able to cover the ground.

Mr. B. B. Polk who owns the property acted as our guide although he is reported to be near 80 years old.

As no maps or reports on the property were available, it would have been impossible for me to have seen as much of the property without the help of these two gentlemen.

The property is located about 15 miles west and slightly south of Payson. It consists of 140 claims in mountainous country. At the present time, the roads to the property are in very poor condition and a pick-up truck or jeep is needed to get to the property. Only a small portion of the property can be seen without a four-wheel drive vehicle and Mr. Polk states that some of the property is accessible only by horseback. The condition of the roads is due to a storm which has made many of the roads impassible since the roadwork was completed in June 1956.

Recent development on the property was done in a years time ending around June 1956. This work was done primarily with a bulldozer although a caved drift was reopened and an attempt to core drill was made.

The bulldozing was aimed primarily at roadbuilding and approximately 50 miles of roads were cleared according to Mr. Polk. He also estimated that 50 to 75 small pits were made. These pits and roads were supposed to have been made over an area 10-12 miles long and 2-4 miles wide. This indicated acreage does not coincide with the acreage indicated by the number of claims, however.

The drift which was reopened is reported to go about 500 feet into the mountain and the further portions are said to be in ore. However, it has caved again and could not be examined.

Mr. Polk stated that only a very small amount of core drilling had been done and he had no records of the drilling. A driller told him that one hole had

Mr. J. P. Lyden.

Page #2.

Subject: Copper Mountain Mining Company.

reached a depth of 200 feet and was in ore all the way.

Around 1900 the property was supposed to have been worked by some mining company from Jerome, Arizona. Ore is reported to have been shipped from the property for a few years by oxcart.

This company apparently sunk a number of shafts around the property but these are all now caved.

Some development work since that time opened up an old mine and bags of silver ore were reported to have been found in the works. This workings is now accessible only by horseback so it was not examined.

The lower portion of the property which was accessible to us is fairly well covered with overburden and little could be seen other than in the roadcuts and pits made with the bulldozer. However, the country rock, at least in this portion of the property, is a dark colored hornblende diorite. According to Carl Lausen and E. D. Wilson, "Gold and Copper Deposits Near Payson, Arizona," University of Arizona Bulletin, Bulletin #120, 1924, a large hornblende diorite intrusion is exposed in this area and the intrusion trends northwest-southeast.

In numerous places throughout the visited portion of the property, malachite, chrysacolla, and occasionally azurite can be found on the fracture planes of the diorite. However, in only a few places could sulphide ore be found. This was in the form of chalcopyrite and pyrite and was sparsely disseminated in the diorite. Small quartz stringers and some calcite seemed to be associated with all the sulphides found.

Past production in the Payson area has apparently been associated with quartz veins.

At one place, a large dike of jasper has been cut by a road. The width could not be established although it was at least 40-50 feet wide. Mr. Polk stated that it continued to the peak of the mountain which I judged to be more than 1/2 mile away. He also stated that at one place the outcrop of this jasper was about 400 feet wide. Sulphides were found in a brecciated zone of the jasper. Mr. Polk indicated that there were a number of jasper dikes on the property; that sulphides were associated with all the jasper outcroppings; and that they all trend northeast-southwest.

Four 20 pound grab samples were taken at different places on the property. These samples have just been delivered to the mill so assay values are not available.

Two of the samples G-977 and G-980 are grabs of the diorite which shows copper staining, quartz, garnet, and sulphides.

Sample G-978 is from a fault breccia zone and was apparently the highest grade rock seen on the property. Part of the zone was covered with debris so its width could not be determined. It could not have been more than 15 feet wide.

Mr. J. P. Lydon.

Page #3.

Subject: Copper Mountain Mining Company.

Sample G-979 is from the previously mentioned jasper dike.

As I did not see all the property (it would apparently take a number of days and either a four-wheel drive vehicle and/or horses) I do not know if it is all similar. However, the portion which I did see appears to be very low grade. Whether or not the sulphide body is continuous enough and large enough to make a large scale operation possible, I can not say. The roadcuts and pits where the sulphides are seen are scattered over a large area and apparently have no definite pattern. Within this area can be found outcrops and roadcuts which show no sulphides. It would appear that an intensive mapping and sampling program would be necessary to evaluate the possibilities of this portion of the property.

The recent development work done with the bulldozer was evidently not intended to immediately open the property for evaluation as no work to determine the extent of the richer portions of the area was done.

Assay values for the samples taken will be forwarded as soon as they are received.

Yours very truly,

William E. Arndt

cc: Mr. O. A. Rockwell

OFFICE
817 W. MADISON ST.
PHONE ALPINE 3-6272

CHARLES H. DUNNING
MINING ENGINEER
PHOENIX, ARIZONA

RESIDENCE
1635 W. EARLL DR.
PHONE AMHERST 5-1132

June 27, 1955.

To: Mr. Dean Roland and Associates,
525 Commonwealth Bldg.,
Denver, Colo.

Gentlemen:-

Persuant to request from Mr. Howard Bosley I have examined a group of mining claims situated west of Payson, Arizona.

Claims and Location.

The property consists of two main groups called the Polk and McDonald, which in turn are divided into several sub groups. Altogether approximately 100 mining claims of 20 acres each are involved. Leases covering the whole group are held by Mr. Bosley.

The group is located 15 miles by road (probably 10 miles by air) directly west from Payson, on the west side of the East Fork of the Verde River.

Purpose of Examination.

The purpose of the examination was to determine whether there was sufficient showing, or sufficient indication, to warrant heavy expenditures for development, with the expectation of developing large copper deposits of profitable grade.

Geology.

The terrain consists of a basement of diorite of plutonic origin that has been uplifted into or through a series of metamorphic or sedimentary layers. Immediately overlying the diorite, in areas surrounding the diorite outcrop, lies a layer of Mazatzel Quartzite of Archean Era, and above that such stratas as the Redwall Limestone (Mississippian age) either conformably or non conformably.

The economic feature in this case is a series of mineralized fault breccias in the diorite. The age of the mineralizing action is undetermined, but in no case did I observe these mineralized breccias extending up into the quartzite, and yet the quartzite itself is highly faulted. It has been carried upward in blocks by the diorite uplift so that at the top of Copper Mt for instance, it is over 1000 feet higher than its normal plane.

The mineralization itself was probably caused by intrusions from underlying magmas invading the diorite, perhaps causing the fault breccias, and depositing in them their mineral solutions. Such intrusions would normally be (in Arizona) of the acidic (quartz porphyry or monzonite) type. Only at one place was such an intrusion observed in the outcrop. This is at #8 (see sketch) where a silicious type intrusion (quartz porphyry or monzonite containing orthoclase) is in contact with the diorite breccia. Both are mineralized. Development will probably show the other areas of strong primary mineralization have similar relationships.

There are a great many of the mineralized fault breccias - probably over 50. The terrain is extensive and many of them hard to get to, but I examined over a dozen. They are all similar although the rock characteristics, alteration and mineralization may vary from place to place. Generally the "ore" consists of a diorite breccia cemented with copper bearing silica and carbonate. Copper minerals are primary within a couple of feet of the surface. Outcrops have been completely leached for about a foot. Widths vary from 3 or 4 feet up to 30 or more. Courses and dips have no apparent system and each seems to be a little different from its neighbor.

The country is brushy and covered with a few inches of soil so outcrops are hard to trace. Most of the exposures were discovered by accident or nature's removal of the thin overburden. Concerted exploration by such means as a bulldozer (see recommendations) will no doubt expose many more similar veins.

The entire situation is virgin. While some attempts had been made by "old timers" to mine some of the veins for silver, the location was too remote, and the price of copper too low, for copper to interest them economically, and of course they had no idea that the very multitude of the copper fault veins could form the basis of a large profitable copper operation. And while the copper and silver are no doubt genetically related they are not necessarily in proportion. Some of the best silver ore is sparse in copper and vice versa.

Generally speaking all the exposures show primary ore below the grass roots. And such primary ore is of commercial grade for either a small or large operation. You cannot expect any secondary enriched zone, but neither is there any reason to expect any diminution in values or in size for considerable depth.

Present development does not permit the inspection of these veins for any considerable distances. As they all have different strikes and dips, as stated, they must often come together, and it will be most interesting to see what may happen when two or more of them do so. Whether or not a "center" of mineralization will be disclosed, where several of these mineralized zones stem from, and whether such an area would form a large open-pit mine is problematical, but entirely possible. Only development will tell.

Tonnages and Values.

Attached is assayers certificate for four samples, with descriptions noted on certificate. It should be noted however that at situation #1 (sample #1) the brecciated zone is at least 30 ft wide - possibly wider - but is not all exposed. The rock is hard and it would be impossible or impractical to obtain an accurate hand sample. This sample #1 was not an average but a specimen taken to check my judgement of the whole. From that it is my judgement that the whole width will average between 1.5% and 2.0%. To properly sample this situation a bulldozer cut should be run across the formation, removing the shallow leached outcrop and overburden. The cut could then be sampled in 5ft sections, taking large samples and working them down. Or, better yet, a flat diamond drill hole could be run across it.

Development has not proceeded to the point where there is measurable tonnage, nor can average values be ascertained. We merely know that there^{are} a great many exposures showing good widths of profitable grade ore.

The other samples are probably a bit higher than the true averages at those places. They ran higher than expected and probably contained some chalcocite or red oxide which might be present in a very thin secondary zone a couple of feet below the surface.

Mining Facilities.

The location is rather remote and direct shipping would be expensive - probably \$7.00 per ton to Globe or railhead.

Metallurgical characteristics of the ore are excellent. It would be amenable to simple bulk flotation with high extraction.

You have a superabundance of water at your millsites adjacent to the mine.

Recommendations.

All exposures should have a bulldozer trench put across them so they can be properly viewed and sampled. Additional trenches should be put across along the strike to determine length and continuity.

When these are done or well under way the claims should be surveyed and each exposure with its strike and dip and assay correlated on a map. This then would guide an exploratory diamond drilling program to find out what happens at depth. Following this, and depending on how the ore bodies shape up, a coordinated drilling program to actually block out ore, and/or underground development, would be in order.

Somewhere during this procedure - when you have measurable tonnage to justify, and can start a mining plan without jeopardizing future operations - a small production or pilot mill could be built. This could handle development ore and possibly some stoped ore, and save the very high freight. But planning a mill before you are entirely ready for it is like the proverbial "cart before the horse".

Financial Requirements.

Ultimate financial requirements cannot be estimated at this time. Plans should be made in stages. From 100,000 to 300,000 should be provided for the bulldozing, roads, surveys, exploratory drilling or development, and possible pilot plant. Following that the work of getting ready to mine on a large scale with possible large reduction plant could run anywhere from 500,000 to 5,000,000, depending on the size operation justified.

Conclusion.

You have many excellent showings of profitable grade ore in a terrain that is geologically sound.

Combined they could make a large sized operation, or they could themselves combine to form large orebodies.

Definite financial plans to follow the recommendations as above outlined are fully justified.

Respectfully Submitted,

Charles H. Dunning



ATL ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
PHONE AL 3-6272 • 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX

Chemists... Engineers

For Mr. H. V. Bosley
Bosley Mining Company
312 West Dale
Flagstaff, Arizona
Sample of Ore
Submitted by: Same

Date June 25, 1955

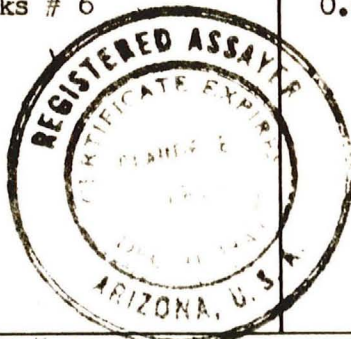
Received:

ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce.

Silver figured at \$ 0.90 per ounce.

Lab. No.	Identification	Gold		Silver		Percentages	
		Oz. per Ton	Value	Oz. per Ton	Value	Copper (Cu)	
121302	# 1	Trace		0.20	\$ 0.18	0.60	
121303	Polks # 3	0.01	\$ 0.35	0.40	0.36	8.40	
121304	Polks # 5	0.01	0.35	0.40	0.36	8.00	
121305	Polks # 6	0.01	0.35	1.60	1.44	13.80	



Sample #1 - Described in report.
#2. Sample (large) by Bosley, site remote and not visited.
#3 Dump of #5. See sketch. Vein about 4 ft wide.
#4. 3 ft across vein, 2ft below surface at "6" on sketch. May be in thin secondary zone.

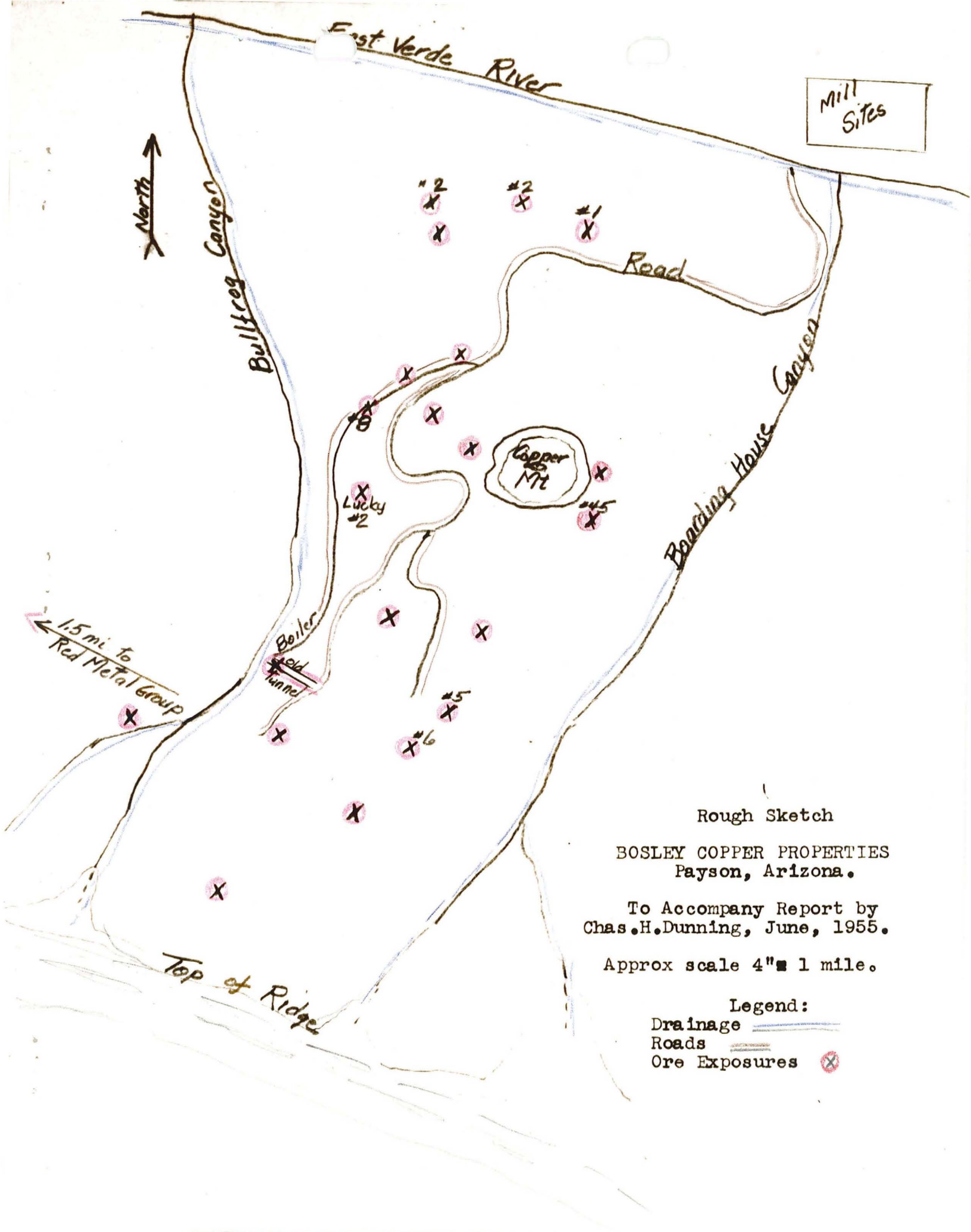
Rec: Mr. C. H. Dunning

Respectfully submitted,
ARIZONA TESTING LABORATORIES

Claude E. McLean
Claude E. McLean

Charges: \$ 13.00
Mail

CHEMICAL RESEARCH ASSAY



Mill Sites

North ↑

Bullfrog Canyon

East Verde River

Road

Boarding House Canyon

Copper Mt

Lucky #2

Boiler
Old Tunnel

1.5 mi to Red Metal Group

Top of Ridge

Rough Sketch

BOSLEY COPPER PROPERTIES
Payson, Arizona.

To Accompany Report by
Chas. H. Dunning, June, 1955.

Approx scale 4" = 1 mile.

Legend:

- Drainage
- Roads
- Ore Exposures

June 27, 1955.

Mr. Howard V. Bosley,

to

Chas. H. Dunning, Dr.:

Examination and Report, Copper Group

Near Payson, Ariz. \$237.

(Memo: 1 day field, 1 day office (150); 1 short
day travel (50.) 200 miles @ 8¢ (16.); room and
meals (20.) miscel (7.)

Original and copy to Roland.

Copy to Bosley, Flagstaff.

Copy to Bosley, Payson.

Office copy.

Payment Received
