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PRINTED: 12-14-2005

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: HURON COPPER

ALTERNATE NAMES:

YAVAPAI COUNTY MILS NUMBER: 1005B

LOCATION: TOWNSHIP 13 N RANGE 1 E SECTION 32 QUARTER SE
LATITUDE: N 34DEG 27MIN 49SEC LONGITUDE: W 112DEG 16MIN 30SEC
TOPO MAP NAME: POLAND JUNCTION - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
COPPER

BIBLIOGRAPHY:
USGS POLAND JUNCTION QUAD
WEBB, W.F. PRECAMBRIAN GEOLGOY AND ORE DEPTS
NEAR POLAND JCT U OF AZ THESIS 1979 P 83
ADMMR MINE FILE

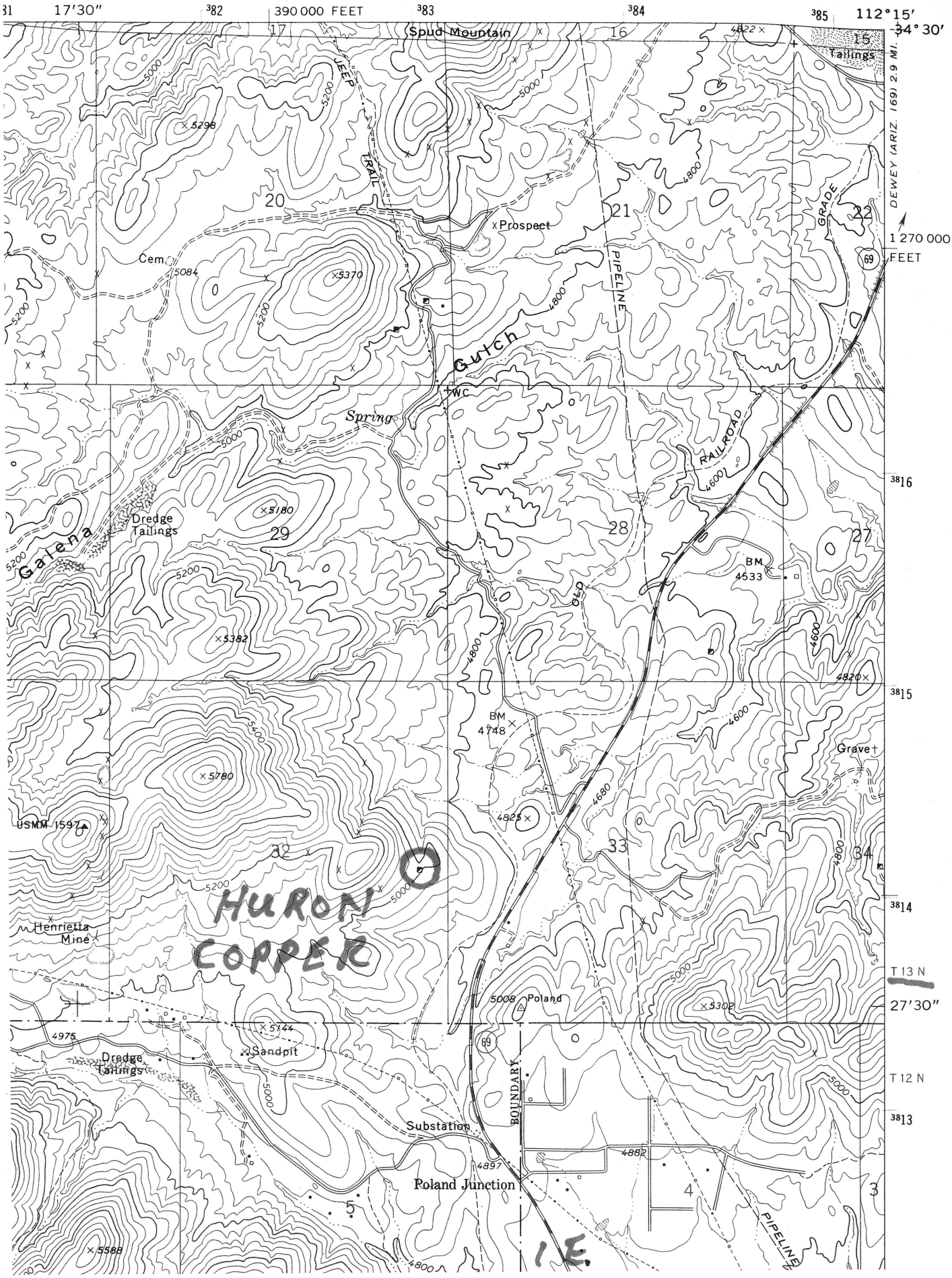
POLAND JUNCTION QUADRANGLE

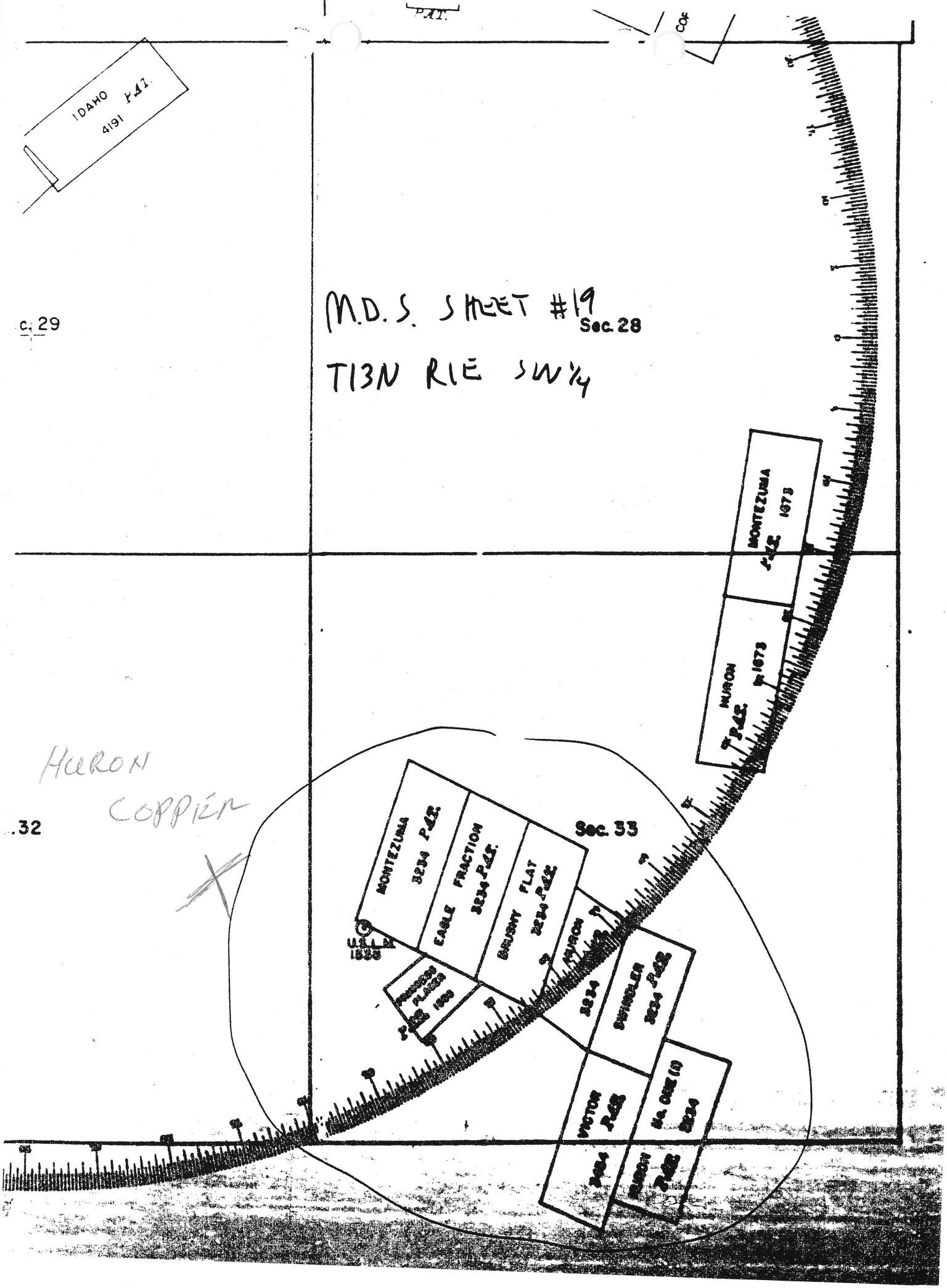
ARIZONA—YAVAPAI CO.

7.5 MINUTE SERIES (TOPOGRAPHIC)

NE/4 MT. UNION 15' QUADRANGLE

3553 II SW (HUMBOLDT)





IDAHO
4191 PAT.
M.D.S. SHEET #19
Sec. 28
T13N R1E SW1/4
c. 29
MONTEZUMA
PAT. 1873
HURON
PAT. 1873
HURON
COPPER
.32
Sec. 33
MONTEZUMA
3234 PAT.
EAGLE FRACTION
3234 PAT.
BRUSHY FLAT
3234 PAT.
HURON
3234
SWINDLER
3234 PAT.
VICTOR
PAT.
HURON
PAT.

ALBERT S. KONSELMAN
MINING ENGINEER
197 MANITOU AVENUE
MANITOU SPRINGS, COLORADO
PHONE HYLAND 49

October 3, 1936

Mr. Charles Egge
9125 S. La Salle Ave.
Los Angeles, Calif.

Dear Mr. Egge:

I have a letter from Mr. Charles A. Nies, of Humboldt, asking that I send you a copy of my report on the property of the Huron Copper Company.

I am inclosing this report and also copies of several letters I wrote you in regard to it. This report is my office copy, and is the only one I have. So if it is lost, there will be no way of replacing it. I suggest, therefore, that you have copies made from it, and send one of them to me, so that there will always be a copy in a permanent file.

When I was in Prescott last, I found out that a friend of mine, Mr. Howard Fields, had taken over the Gold King Mine. He told me that he had done considerable sampling above the water level, and found quite a little ore which would pay under present gold prices.

I am very glad to hear that you are again active in mining, and should there be anything I can do for you, I will be only too glad to do it.

Yours very truly,

Albert S. Konselman

Albert S. Konselman

ASK:VG
Inclosures

March 27, 1934.

Mr. Chas. M. Egge,
Humboldt, Arizona.

Dear Mr. Egge:

I have finished my report on the Huron Copper Company's Property and am awaiting the return of the Blue Prints from Phoenix before I send you the bound copies.

The dark mineral in the seams of the black schist is magnetic iron.

Of the 24 samples I took, only two represented ore of commercial grade--these were the selected samples of the croppings and ore from the bottom of the shaft on the Mountain Chief Claim. This is, of course, too narrow to be commercial and it is only on the possibility that it will open up with depth that it offers any hope. It hasn't opened up much in 300 ft. so there isn't any reason to believe that with a solider and harder formation, it will open up no matter how deep you go. Then, too, as you get below your permanent water level, the grade is bound to decrease.

Furthermore, it's the only definite vein that you have to cross-cut to and it means a very long cross-cut to get to it.

Cross-cutting East may pick up the continuation of the quartz coming up from the Copper Chief, but you have no assurance that that will be any different from the quartz you have in the East cross-cut on the 300. Indeed, I'm about half of the opinion that that is the quartz and accounts for the scattered masses you find on the surface.

You told me that your company raised its money mainly on the strength of the surrounding properties--notably the Iron King.

In that case why not take over the Iron King and work that? You have the equipment and ability and it would

provide an exceptionally good talking point for your people and from what I can gather there is lots of ore left that can be profitably mined today. From the looks of the place, it wont cost as much to fix up as it would to continue work on the Mountain Chief.

I have no interest in the Iron King, but I am very friendly with Kenyon Trengove and spoke to him regarding it. It can be acquired for next to nothing.

As far as the small operator is concerned, copper will be dead for years to come while gold will command a premium. As I look at it, it's an opportunity made to order to get your company back on its feet.

I suggest that you give it your very serious consideration.

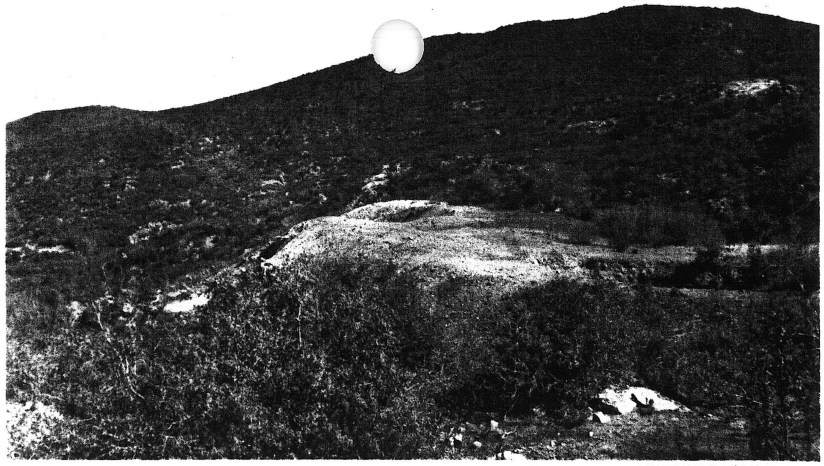
Yours very truly,

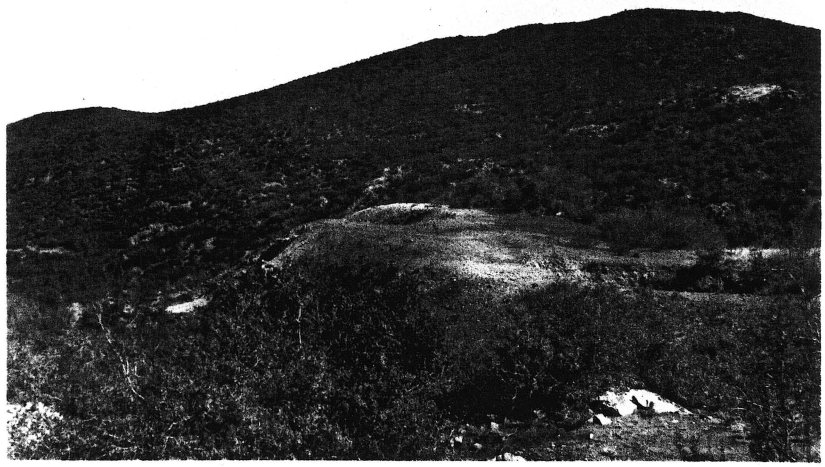
Albert S. Konselman.

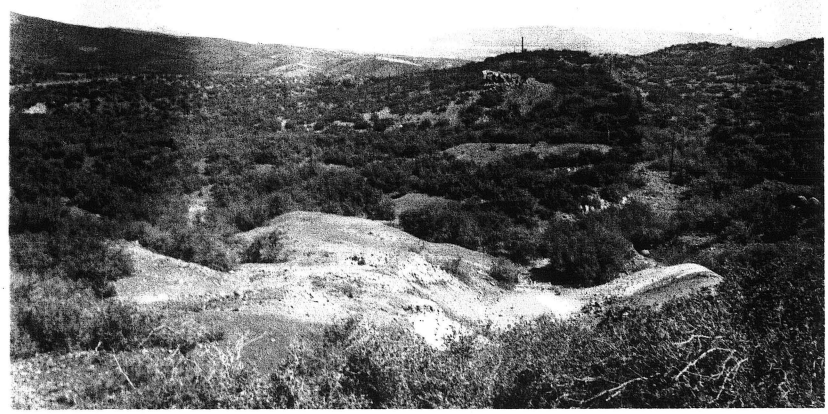
ASK/go

G.H. DUNNING
TOOK THESE AND I.D.
THEM AS HULL PROPERTY
THINK THEY MIGHT

SE DESCRIPTION
OF SHAFT WORK IN
1934 KONSELMAN REPORT
CLAIMS MAP WORK BETTER
FITS 7.5 MAP







REPORT ON MINING CLAIMS

OF

THE HURON COPPER COMPANY

ALBERT S. KONSELMAN,
MINING ENGINEER,
BANK OF ARIZONA BLDG.,
PRESCOTT, ARIZONA.

1931

$20.00

REPORT ON MINING CLAIMS

OF

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LOCATION-PROPERTY-TITLE

The group of mining claims owned by The Huron Copper Company, a Washington Corporation, is situated 4 miles southwest of Humboldt, Yavapai County, Arizona. They occupy portions of Sections 29-28-32-and-33 in Township 13 N., Range 1 E., Gila and Salt River Base Meridian.

The group consists of sixteen lode claims and two placer claims, the latter occupying an area 1500 ft. by 1200 ft. in the southwest corner of Section 33.

All ground is unpatented, six of the lode claims were acquired by deed of conveyance, the balance were located by the Company. All are of record in the Yavapai County Court House, at Prescott, as follows:

Name	Book of Mines	Page	date of Entry
Mountain Chief (Amended)	86	136	2-1-10
Mountain Chief No. 1	87	695	
Mountain Chief No. 2	87	696	2-1-10
" " " 3	97	488	7-1-15
" " " 4	115	597	7-1-27
" " " 5	115	597	7-1-27
Huron	133	116	7-1-29
Huron No. 1	133	117	7-1-29
Copper Chief	133	540	4-24-30
Copper Chief No. 1	133	541	4-24-30
" " " 2	133	542	4-24-30
" " " 3	135	313	10-28-30
" " " 4	135	314	10-28-30

Name	Book of Mines	Page	Date of Entry
Copper Chief No. 5	135	315	10-28-30
Mountain Chief No. 6	133	467	3-22-30
" " " 7	135	312	10-25-30
Placer Gold Huron	134	46	7-1-29
Placer Gold Huron No. 1	134	47	7-1-29

Assessment work for the year 1932-1933 was done on the entire group and affidavit of labor performed is recorded in Book of Promiscuous Records No. 54, page 4.

SURFACE IMPROVEMENTS AND EQUIPMENT

BUILDINGS:-- 1-18'x32' Engine Room
1-18'x23' Hoist Room
1-18'x32 Shop

These are contiguous buildings, consisting of wood frames covered with galvanized, corrugated iron.

1-12'x24' Frame Change Room
1- Frame Garage
1-22'x26' Four Room Frame Cottage

MINING MACHINERY:--

1-Ingersoll Rand, belt driven, single stage 12"x10" compressor Class "ER-1" Serial No. 45372, with 3'x5' riveted iron air receiver. This machine has a piston displacement of 355 cubic feet per minute and will compress air to a maximum of 100 pounds per square inch.

1-Venn-Severn, semi-diesel type Engine, Class K-0, 60 H.P. Serial #2844 with starting equipment consisting of a 10 H.P. Kewanee gasoline engine Type 8, Serial #4531, and a small two cylinder compressor.

1- 15 H.P. Fiarbanks Morse Gasoline driven Mine Hoist with 600 feet of 5/8" cable.

1- Ingersoll-Rand Drill Sharpner, Class 5, Serial #1877.

1-Small gasoline engine #191108 belted to a No. 4 Buffalo Blower.

In addition to this, there is a 3000 gallon water tank, an 800 gallon fuel tank, several sinking and stoping drills, drill steel, buckets and mine cars, forge and blower, drill press, vices, anvil and sufficient small tools for ordinary mining needs.

A well framed 35' "A" Type head frame stands over the main shaft.

In the tunnel on the Mountain Chief Claim a small gasoline hoist is installed.

Inventory is made up mainly of 50,000 board feet of timber.

FACILITIES

General conditions are excellent. The property is situated within a few hundred feet of a State

Highway. Humboldt, about four miles distance, is the nearest settlement from which labor can be recruited. Prescott, the County Seat, is the nearest city in which most mining supplies can be purchased. This can be reached in 45 minutes drive from the mine shaft. The Crown King Branch of the Santa Fe Railroad crosses a corner of the Mountain Chief No. 4 Claim and an electric power line now passes within less than a mile.

Smelters handling custom ores are located at Hayden and Superior, Arizona, where a freight and treatment charge of from $6.00 per ton up (depending upon the value of the shipment) is obtainable.

A smelting plant is located at Humboldt, but it is not likely that this plant will again go into steady operation.

No water in quantity is now available on the ground, but Big Bug Creek, about a mile away, could supply sufficient for ordinary needs.

Climatic conditions are exceptionally good.

Topography is of the rounded foothill type. The relatively gentle slope of the hillsides doesnot permit of much depth by tunneling and makes working through shafts necessary..

No difficulty to road building is encountered and all grades favor hauling from the mine.

GEOLOGY

Except for a small area at the south end of the Mountain Chief No. 5 and the southeast corner of the Mountain Chief No. 2 Claims where Grano-Diorite is found, the rock formation on the Group is schist.

The original character of this rock is obscured by metamorphism or change due to intrusion of the later granites, but there is much evidence of sedimentary origin.

At the south end of the Mountain Chief No. 3 Claim, the croppings of a Rhyolite-Porphyry dike appear and extend prominently through the Mountain Chief No. 6 and northward out of the group. A second dike of the same character crops farther west, but neither of these appear to have any connection with the mineralization that attracted prospectors.

Passing through the Mountain Chief No. 2 Claim is a broad belt of sulphide bearing schist. On the surface, it is colored by the oxides of iron. This clear evidence of former sulphides is definite indication that sulphides would be encountered on sinking through the zone of oxidation.

VEINS

The strike of the schist is northeasterly.

Its dip is generally to the west.

Along its strike, shears have developed and through these shears mineralizing agents containing silica and iron sulphides with copper, silver, and gold have found their way from below. These have deposited along these shearing planes.

The quartz is not abundant. The "vein material" consisting mostly of a series of stringers in the schist. For this reason, being about as soft as the enclosing walls, few bold outcrops are observed and undoubtedly other veins exist, which are obscured by the light overburden.

The general appearance of these veins is a narrow, broken quartz band, on either side of which the schist is seamed with oxides of iron and a little copper.

On this group of claims, the most prominent veins of this type are:--

1) That extending through the Mountain Chief Claim.

2) That extending through the Mountain Chief No. 3 Claim.

3) That extending along the East side of the Huron Claim.

There are undoubtedly others of the same

type, but these three attracted most prospecting and are better opened up for examination.

DEVELOPMENT AND ITS RESULTS

Mountain Chief No. 2 Claim:--The main working shaft is located on this ground. It is a well timbered two compartment opening sunk in the oxidized schist belt to a depth of 400 feet. About fifty feet of water stands in the bottom--evidence of slow seepage. On the 300 foot level a cross-cut was driven 60 ft. to the east and 63 ft. to the west. The east breast of the cross-cut is in a very hard dark crystalline rock having a concoidal fracture. It contains sparsely disseminated specks of iron sulphide and occasional fine cracks in which the sulphides are deposited. West of this is 36 feet of grey schist with some sulphide, then 12 feet of the same type rock with veinlets and bunches of quartz. Next to this, is 63 feet of grey sulphide bearing schist and finally 15 ft. of black schist with vertical bands of iron sulphide up to ½ inch in thickness. The west face is in this character of rock. Fractures containing iron sulphides cut this formation at flat angles.

The formations described above are uniformly hard. The sulphides within the rock appear as bright flakes arranged along the schistosaty. In the wider bands of sulphide a replacement by magnetite is noted. No evidence of copper is present and chip samples were taken along the cross-cut to determine precious metal content with these results:

Sample Number	Location on 300 level	oz gold	oz Silver
4	From W face-0ft to 15 ft	.02	Trace
5	" 15ft to 78 ft	.02	Trace
6	" 78ft to 90 ft	.02	Trace
7	90ft to 126 ft-East face	.015	Trace
Weighed Average		.0186	Trace

126'

On the surface three samples were taken of oxidized schist at widely separate points. Except for No. 19, the formation sampled may not have been precisely the same as cut by the 300 level cross-cut. They represent the same type rock however. The results are:

Sample Number	Location on Surface	oz gold	oz silver
19	4' wide cropping in gully 100' S of powder house	.015	Trace
20	12' wide trench on Hill Ground	.040	Trace
21	50' wide along road S end Mt. Chief Claim	.050	Trace
Weighted Average		.0460	Trace

Here is seen a clear demonstration of the process of enrichment of gold values through oxidation.

The original gold content as obtained by samples taken from the fresh unoxidized rock on the 300 level is .0186 ounces per ton. On the surface, where the heavy sulphides are dissolved out, leaving the same quantity of gold but in a porous and lighter rock mass, the grade rises to .0460 ounces per ton--nearly 2½ times as rich.

MOUNTAIN CHIEF CLAIM:--On this ground a persistent streak of highgrade copper-gold ore exists. A shaft was sunk on this vein to a depth of 300 ft. A cross-cut tunnel connects with the shaft at about 100 ft. below the collar and levels were turned at 25-50 and 100 feet below the tunnel. Much work was done following the vein and where it widened ore was extracted. I am informed that about $10,000 worth of ore had been shipped. This vein is narrow but rich. That left in the mines varied from an inch and a half to about four inches in thickness. Its character was an enriched sulphide with varying amounts of quartz. Selected samples of the cropping and of ore taken from the bottom of the shaft were assayed with the following results:

Sample No.	Location	oz gold	oz silver	% copper
23	Surface	1.52	3.5	19.3
24	300 level	.20	6.8	34.0

Number 23 was quite thoroughly oxidized. Number 24 was solid sulphide. Here again the enrichment in gold through oxidation is seen.

With the silver and copper values, another well known phenomenon is demonstrated.

Unlike gold which resists solution by ordinary surface water, silver and copper are easily soluable. In that manner the copper-silver content of surface ores is leached out, transported by descending waters down the vein, and re-deposited in depth (usually at permanent water level) thus locally enriching the deeper ores.

Mountain Chief No. 3 and Mountain Chief No 6:--

Two veins crop one on either side of the line between the Mountain Chief and Mountain Chief No. 3 claims. They appear to continue into Mountain Chief No. 6 and Mountain Chief No. 1 ground.

On the Easterly of these on the Mountain Chief Claim a 30 ft. shaft was sunk. On the dump of this shaft pieces of schist containing rich cuprite (copper oxide) ore was found. This was the kind of ore shipped from this shaft years ago. It was found in bunches alongside of a honeycombed quartz vein. Sample No. 8 taken from quartz rejected by early-day miners ran .02 oz gold and a trace in silver.

The westerly vein had been prospected by a shallow shaft.

Following north over a saddle and down the

Gulch into Mountain Chief No. 6 ground, several openings had been made on this vein. The lowest is a tunnel which followed it for about 325 ft. and obtained a depth of about 100 ft. below the surface at its breast, near which it connected with a shaft sunk from the surface.

The vein is characteristic, i.e. sheared schist stained with iron and copper oxides, veinlets of iron sulphide with stringers of quartz.

At 100 feet from the portal a 25 ft. raise connects to the surface and here a cross-cut was run about 225 ft. to the East. Near its breast it cut a vein four feet wide. This dips east as does the vein in the 30 ft. shaft described above and is probably a continuation of it.

Sample No. 13 channeled across the north face of this vein ran .02 ounces gold and a trace in silver; no copper is present.

Eighty feet from the main tunnel a drift was run south on a ½" seam of iron sulphide.

Sixty feet from the main tunnel a quartz stringer containing iron sulphides was cut.

At the junction of the cross-cut and main tunnel the vein is 10'-4" wide. Two samples were cut.

Sample No.	Width	oz gold	oz silver	% copper
14	west 55"	.015	Trace	.22
15	east 69"	.030	Trace	.95
Total	124"	.023	Trace	.63

Seventy-Eight feet farther south, a short cross-cut was driven to the west. Here another sample was cut.

Sample No.	Width	oz gold	oz silver	% copper
16	33"	.02	Trace	1.05

On the Mountain Chief No. 3 Claim at the head of the gulch running south is evidence of an old prospect hole. The dump showed schist with a small seam of copper silicate.

HURON CLAIM: Near its East side line work had been done on another vein. This was opened by a cut near the south end of the claim and several shafts and a tunnel.

The tunnel cross-cut the vein at a depth of about 40 ft. below the surface and a drift about 150 ft. long was run to the north. Some stoping was done from this drift. The vein itself was typical of those already described. Samples taken at openings along it were.

Sample No.	Location	oz gold	oz silver
9	30"-Thornton Shaft S. Side 10' below surface	.03	Trace
10	Grab 50 T dump above tunnel	.015	Trace
11	23" from caved boulder in N drift of tunnel	.015	Trace
12	12" limonite schist cut near cabin	.015	Trace

HURON NO. 1 CLAIM:--Over the saddle and around the hill to the north a tunnel was driven on a fault. It followed a broken quartz containing copper. This was sorted out and piled on the dump. A grab sample of this material was taken. At about 200 feet from the portal* is caved and inaccessible. At 180 ft. from the portal, a cross-cut driven east cut 24 inches of quartz which was sampled.

Sample No.	Location	oz gold	oz silver	% copper
17	Grab of ore on dump Huron No. 1 Tunnel	.04	.80	3.1
18	24" of quartz in E-xcut Huron No. 1 Tunnel	.02	Trace	

COPPER CHIEF CLAIMS:--Little work has been done on this ground. Bunches of quartz appear on the surface and the major work was done in an inclined tunnel and pits on the Copper Chief Claim. The quartz is broken and not continuous as a defined vein, but its trend is along the schistosity in the direction of the main shaft.

Samples were taken of float quartz from three locations on these claims. They are:--

Sample No.	Location	oz gold	oz silver
1	Quartz float around to Nelson Hole	.02	Trace
2	Quartz north slope Copper Chief claim	.04	Trace
22	Quartz above inclined tunnel claim	.02	Trace

DISCUSSION OF SAMPLING

Of the twenty-three samples taken but two, Nos. 23 and 24 showed ore of commercial grade. Of these No. 24 is the only one representative of ore in place.

The future production of the Group, therefore depends on developing ore in quantity in the various veins that have been described. The topography of the country precludes opening much ground by tunneling and that leaves greater depth as the only possibility.

CHANGES TO BE EXPECTED WITH GREATER DEPTH

Changes in values have already been discussed.

The oxidized ores are nearly always of higher gold content than the sulphide ores. Silver many times (but not always) is carried down and re-deposited at depth. Secondary enrichment of pyritic copper ores is common at the water level, below which the primary sulphides are encountered which are usually of low grade.

Where secondary enrichment can be expected, wide porous gossans appear on the surface and follow down the vein almost to the water level, as can be seen at the Blue Bell Mine. The vein on the Mountain Chief No. 6 has a fair width, but the rock is hard and dense looking and does not have the appearance that any extensive leaching took place.

The vein on the Mountain Chief is very narrow and the hope for an orebody of commercial importance lies in the possibility of some change in formation that would permit the values to soak into and replace the walls.

The only change in formation that can be expected in depth is a contact with the underlying granite. And no one can tell how deep that horizon is below your shaft.

Those are the facts.

I have not discussed the future of the copper market because it doesn't leave much for the small operator to look forward to.

RECOMMENTATION: My recommendation is for your Company to turn its attention to the gold bearing ground north of your property.

You have the equipment and ability and desire to continue mining in the nearby locality and

I believe that you have an excellent opportunity to put your concern on a paying basis if this suggestion is acted upon.

Albert S Konseiman

ALBERT S. KONSEIMAN,
Registered Professional
Mining Engineer,
Bank of Arizona Building,
Prescott, Arizona,
March 26, 1934.

HURON
HURON NO1
Tun.
GOLD
Sh
QUARRY NO 3
T 13N R1E
Sh
Sh
Cabin
Tunnel
29
32
28
33
MOUNTIAN CHIEF NO. 3
MOUNTIAN CHIEF NO. 6
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Tun
MOUNTAIN CHIEF
Tun.
MOUNTAIN CHIEF NO. 1
COPPER CHIEF NO. 2
COPPER CHIEF NO. 5
MOUNTAIN CHIEF
Shed NO 2
Sh
House
Tun.
MOUNTAIN CHIEF NO
Shed 4
Rail Road
COPPER CHIEF NO. 1
COPPER CHIEF NO. 4
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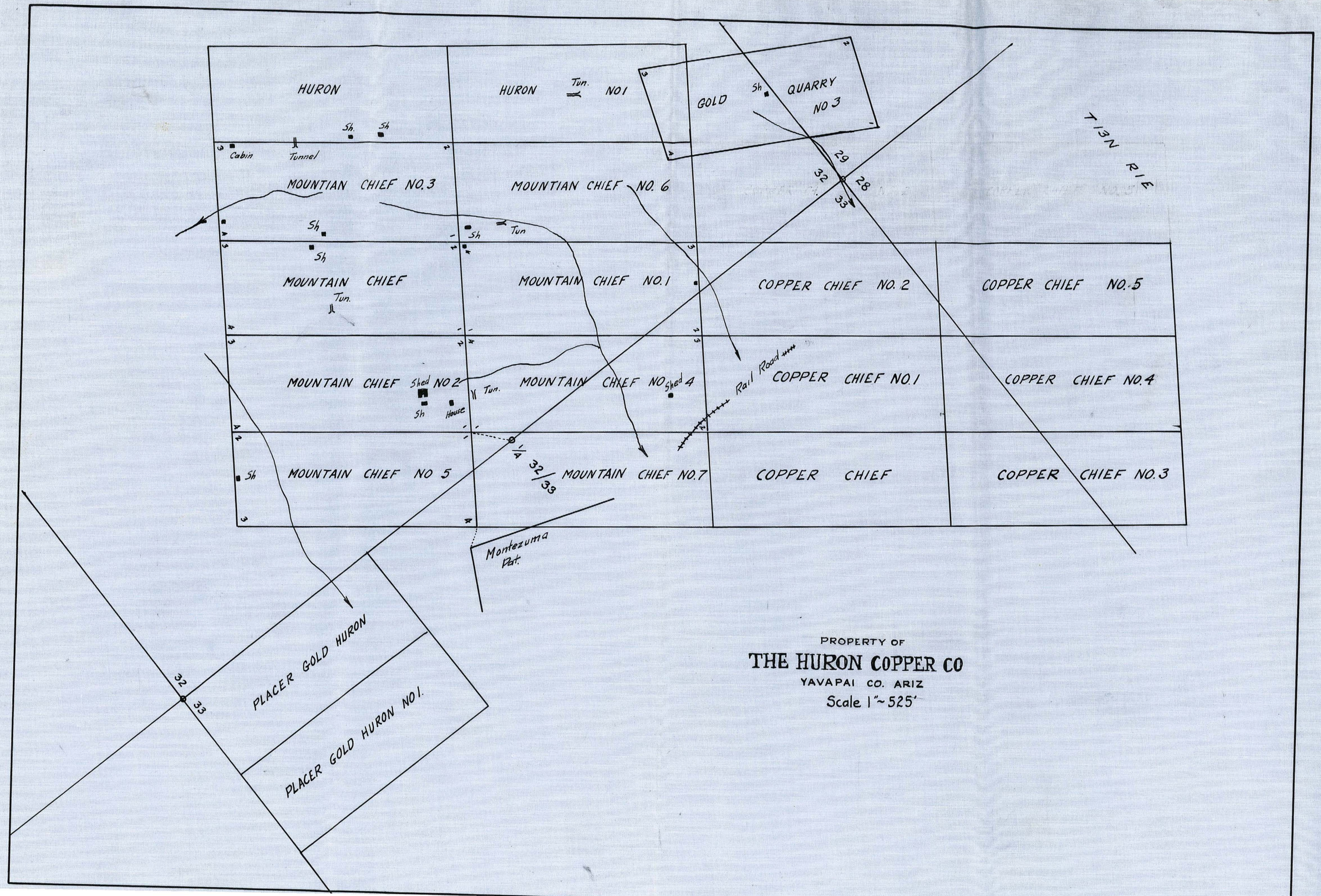
MOUNTAIN CHIEF NO 5
1/4
32/33
MOUNTAIN CHIEF NO. 7
COPPER CHIEF
COPPER CHIEF NO. 3
Montezuma Pat.
PLACER GOLD HURON
PLACER GOLD HURON NO 1.
32
33
PROPERTY OF
THE HURON COPPER CO
YAVAPAI CO. ARIZ
Scale 1"~525'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Scale 1"~525'