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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: CONTACT AND GOLD SPRING

ALTERNATE NAMES:

NEW PLACERITA
HASSAYAMP GOLD MINING COMPANY

YAVAPAI COUNTY MILS NUMBER: 414A

LOCATION: TOWNSHIP 11 N RANGE 4 W SECTION 26 QUARTER N2
LATITUDE: N 34DEG 16MIN 18SEC LONGITUDE: W 112DEG 38MIN 38SEC
TOPO MAP NAME: PEEPLES VALLEY - 7.5 MIN

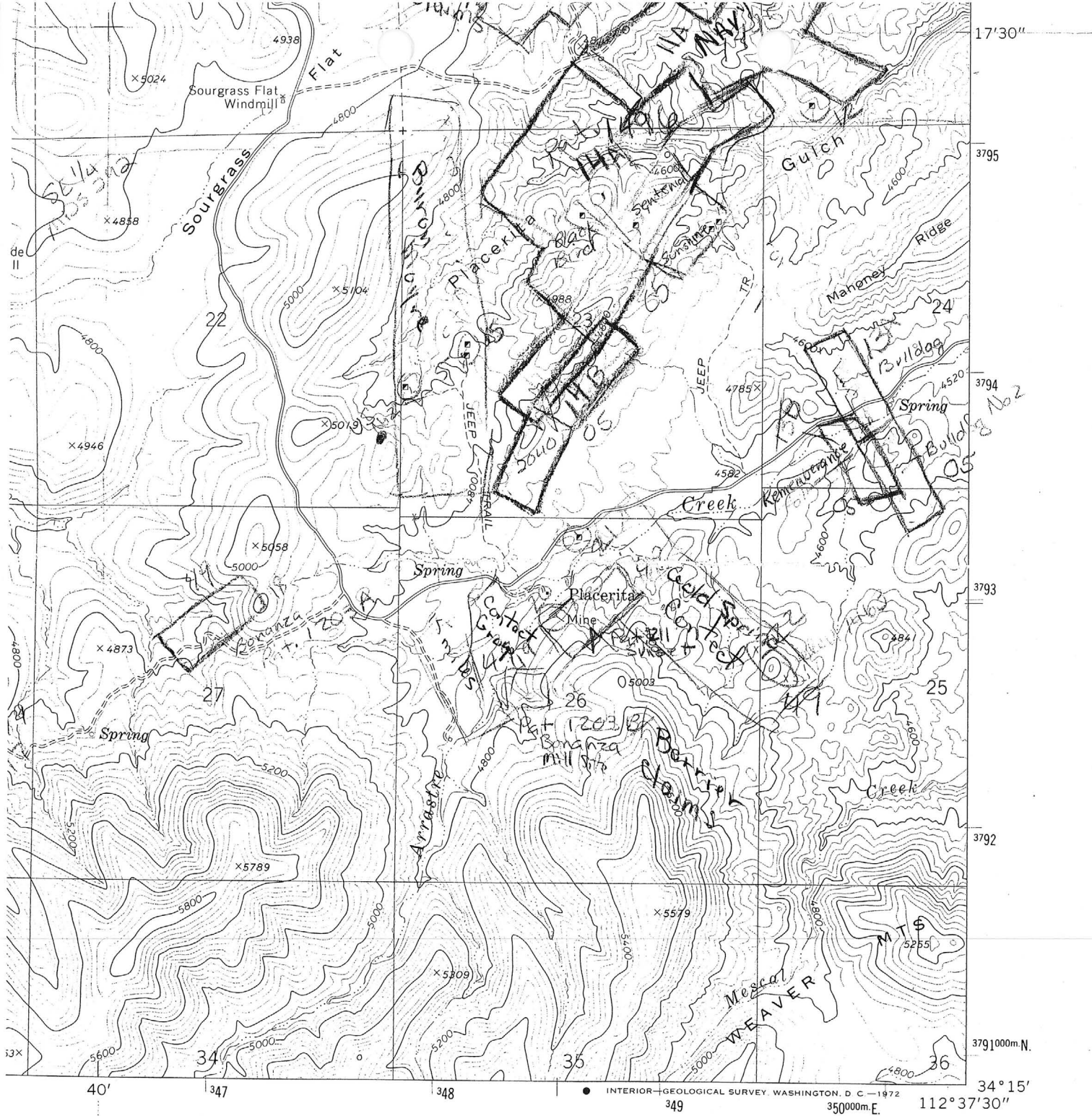
CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

GOLD
SILVER

BIBLIOGRAPHY:

USGS PEEPLES VALLEY QUAD
ADMMR HASSAYAMPA GOLD MINING CO. FILE



1 MILE



QUADRANGLE LOCATION

ROAD CLASSIFICATION

- Primary highway, hard surface
- Secondary highway, hard surface
- Light-duty road, hard or improved surface
- Unimproved road
- Interstate Route
- U. S. Route
- State Route

(WAGONER)
3452 I NE

PEEPLER VALLEY, ARIZ.

N3415—W11237.5/7.5

1969

AMS 3452 I SW—SERIES V898

C. 20242

COMMODITY INFORMATION

*COMMODITIES PRESENT C10 <A.U. W.A.G. >
 *ORE MINERALS C90 <UNKNOWN, PROBABL. GOLD AND SILVER >
 COMMODITY SUBTYPES C41 < >
 GEN. ANALYTICAL DATA C43 < >
 COM. INFO. COMMENTS C50 < >

* SIGNIFICANCE

	PRODUCER		NON-PRODUCER	
MAJOR PRODUCTS	MAJOR <A.U. >		MAIN COMMODITIES PRESENT C11 < >	
MINOR PRODUCTS	MINOR <A.G. >		MINOR COMMODITIES PRESENT C12 < >	
POTENTIAL PRODUCTS	POTEN < >			
OCCURRENCES	OCCUR < >		OCCURRENCES OCCUR < >	

*PRODUCTION

	PRODUCER		NON-PRODUCER	
PRODUCTION <input checked="" type="radio"/> (circle)	PRODUCTION SIZE <input checked="" type="radio"/> MED <input type="radio"/> LGE (circle one)		PRODUCTION <input type="radio"/> UND <input checked="" type="radio"/> NO (circle one)	

*STATUS

EXPLORATION OR DEVELOPMENT

	PRODUCER	NON-PRODUCER
STATUS AND ACTIVITY A30 <4 >		STATUS AND ACTIVITY A30 < >

DISCOVERER L20 < >
 YEAR OF DISCOVERY L10 < > NATURE OF DISCOVERY L30 YEAR OF FIRST PRODUCTION L40 <1914 > YEAR OF LAST PRODUCTION L45 <1939 >
 PRESENT/LAST OWNER A12 <HASSAYAMPA GOLD MINING CO. (1938) >
 PRESENT/LAST OPERATOR A13 <WINSLOW GOLD MINING CO. (1939) >
 EXPL./DEV. COMMENTS L110 <IN 1914, THE MALAPAI MINING CO. WAS REWORKING AN OLD SHAFT ON THE PROPERTY CONSISTING OF 16 CLAIMS; HASSAYAMPA GOLD MINING CO. LATER OWNED 21 CLAIM INCLUDING THEM >

DESCRIPTION OF DEPOSIT

DEPOSIT TYPE(S) C40 <VEIN >
 DEPOSIT FORM/SHAPE M10 < >
 DEPTH TO TOP M120 < > UNITS M121 < > MAXIMUM LENGTH M40 < > UNITS M41 < >
 DEPTH TO BOTTOM M130 <430 > UNITS M131 <FT > MAXIMUM WIDTH M50 <430 > UNITS M51 <FT >
 DEPOSIT SIZE M115 <MED > M115 <MEDIUM > M115 <LARGE > (circle one) MAXIMUM THICKNESS M60 < > UNITS M61 < >
 STRIKE M170 <NORTHWEST > DIP M80 <STEEP >
 DIRECTION OF PLUNGE M100 < > PLUNGE M90 < >
 DEP. DESC. COMMENTS M110 <3 FOOT WIDE VEIN WITH 25 TO 35 FT LONG ORE SHOOTS >

DESCRIPTION OF WORKINGS

Workings are: SURFACE M120 UNDERGROUND M130 BOTH M140 (circle one) OVERALL LENGTH M190 <420 > UNITS M191 <FT >
 DEPTH BELOW SURFACE M160 <430 > UNITS M161 <FT > OVERALL WIDTH M200 <10 > UNITS M201 <FT >
 LENGTH OF WORKINGS M170 <1120 > UNITS M171 <FT > OVERALL AREA M210 <4200 > UNITS M211 <SQ FT >
 DESC. OF WORK. COM. M220 <WORKINGS INCLUDE AN INCLINED SHAFT OF 430 FT. MAIN WORKINGS ON THE 200 FT LEVEL >

GEOLOGY

*AGE OF MOST ROCK(S) K1 <P.R.O.T. > UNDATED, PROBABLY 1750 MILLION YEARS OR OLDER
 *HOST ROCK TYPE(S) K1A <QUARTZ MONZONITE TO GRANODIORITE, MINOR SCHIST >
 *AGE OF IGNEOUS ROCK(S) K2 <P.R.O.T. > AS LINE K1
 *IGNEOUS ROCK TYPE(S) K2A <QUARTZ MONZONITE TO GRANODIORITE >
 *AGE OF MINERALIZATION K3 <P.R.O.T. > UNDATED, PROBABLY PRE-1400 MILLION YEARS
 *PERT. MINERALS (NOT ORE) K4 <QUARTZ, APHITE >
 *ORE CONTROL/LOCUS K5 <FAULTING, SHEARING >
 *MAJ. REG. TRENDS/STRUCT. N15 < >
 *TECTONIC SETTING N15 < >
 *SIGNIFICANT LOCAL STRUCTURE N170 <VEINS TREND NORTHERLY >
 *SIGNIFICANT ALTERATION N175 <MINOR >
 *PROCESS OF CONC./ENRICH. N80 <OXIDATION AND ENRICHMENT AT NEAR-SURFACE >
 *FORMATION AGE N30 < >
 *FORMATION NAME N30A < >
 *SECOND FM AGE N35 < >
 *SECOND FM NAME N35A < >
 *IGNEOUS UNIT AGE N50 <P.R.O.T. > UNDATED, PROBABLY 1750 MILLION YEARS OR OLDER
 *IGNEOUS UNIT NAME N50A <UNNAMED QUARTZ MONZONITE TO GRANODIORITE >
 *SECOND IG. UNIT AGE N55 < >
 *SECOND IG. UNIT NAME N55A < >
 GEOLOGY COMMENTS N85 <DEPOSIT IS QUARTZ VEIN WHICH CUTS PROTEROZOIC PLUTONIC ROCKS >

GENERAL COMMENTS

GENERAL COMMENTS GEN < >

* GENERAL REFERENCES

Hassayampa Gold Min Co File

- REFERENCE 1 F1 < ABGMT CLIPPINGS FILES
- REFERENCE 2 F2 < ABGMT - USBM FILE DATA
- REFERENCE 3 F3 < AZ DEPT MIN RESOURCES FILE DATA
- REFERENCE 4 F4 < _____

L110 < MAIN LOOKINGS ARE ON THE MALAPAI AND LAST CHANCE PATENTED CLAIMS

U.S. CRIB-SITE FORM

RECORD IDENTIFICATION

RECORD NUMBER B10 < _____ > RECORD TYPE B20 < X, 1 M > DEPOSIT NUMBER B40 < _____ >
 REPORT DATE G1 < 8, 1, 12 > INFORMATION SOURCE B30 < 1, 2 > FILE LINK IDENT. B50 < USBM-004 025 1354 >
 REPORTER(SUPERVISOR) G2 < ROTH, FRANCES A (last, first, middle initial) > (DEWITT, ED (last, first, middle initial) >
 REPORTER AFFILIATION G5 < ABGMT > SITE NAME A10 < MALAPAI MINE >
 SYNONYMS A11 < MALAPAI GROUP >

LOCATION

MINING DISTRICT/AREA A30 < ZONIA DISTRICT >
 COUNTY A60 < YAVAPAI > STATE A60 < AZ > COUNTRY A40 < U.S. >
 PHYSIOGRAPHIC PROV A63 < 1, 2 >
 DRAINAGE AREA A62 < 1, 5, 0, 3, 0, 2, 0, 3, 4 > LAND STATUS A64 < 0, 0, 4, 4, 1 >
 QUADRANGLE NAME A90 < PEEPLES VALLEY (1, 9, 6, 9, 1) > QUADRANGLE SCALE A100 < 3, 4, 0, 0, 0 >
 SECOND QUAD NAME A92 < (, , , ,) > SECOND QUAD SCALE A91 < _____ >
 ELEVATION A107 < 4, 6, 0, 0, 4, F.T. >

LTM
 NORTHING A120 < 3, 7, 9, 7, 5, 9, 0 > ACCURACY *ACCURACY
 EASTING A130 < 3, 4, 8, 2, 0, 0 > ACCURATE (circle)
 ZONE NUMBER A110 < 1, 2 > ESTIMATED EST < _____ >
 GEODETIC
 LATITUDE A70 < _____ N >
 LONGITUDE A80 < _____ W >

CADASTRAL
 TOWNSHIP(S) A77 < 0, 1, 1, N, 1/4 > RANGE(S) A78 < 0, 0, 4, W, 1/4 >
 SECTION(S) A79 < 11 >
 SECTION FRACTION(S) A76 < SW QENW >
 MERIDIAN(S) A81 < GILA AND SALT RIVER >

POSITION FROM NEAREST PROMINENT LOCALITY A82 < ABOUT 2.9 MILES EAST NORTH EAST OF THE TOP OF PARKER MESA >
 LOCATION COMMENTS A83 < UTM LOCATION MEASURED TO SHAFT ON MALAPAI CLAIM, 4.2 MILES SOUTH-SOUTHWEST OF KIRKLAND JUNCTION >

* ESSENTIAL INFORMATION
 + ESSENTIAL SOMETIMES OR HIGHLY RECOMMENDED

A PRELIMINARY REPORT

HASSAYAMPA GOLD MINING COMPANY.

I submit herewith the results of my preliminary investigation of the properties of the Hassayampa Gold Mining Company.

Arrived at the property late in the afternoon, March 26th; spent March 27th and March 28th going over the property. A comfortable camp, consisting of a headquarters building, a five room bunk-house, a boarding house and several small frame buildings are located at the Malapai Group.

The properties are in the Walnut Grove mining district, Yavapai county, State of Arizona. By road approximately 99 miles to Malapai camp from Phoenix. Seven miles from the White Spar highway, the principal State road between Phoenix and Prescott. Road situation not difficult.

Holdings consist of Malapai Group, 26 claims; Contact Group, 11 claims; Gold Spring Group, 5 claims; all are unpatented. Contact and Gold Spring Groups are contiguous claims, distant from Malapai Group about 5 miles, by the present roads which are only fair.

No water in Malapai camp. Abundant water at Contact Group and a fine spring on Gold Spring Group.

Equipment on all property is of little value. On stamp Nisson mill at Malapai Group.

Development at Malapai Group consists of an incline shaft 430 feet deep, with levels (drifts, north and south) at 120, 208, 285, 355 and 430-ft below the collar. Shaft is out of commission now. Can be reconditioned at a moderate cost. Reports of a miner who worked in this shaft indicate that vein is predominantly narrow but values in gold are high though unevenly distributed. Fair agreement among the reports as to width of ore: three feet believed to be the maximum stoping width. Reports as to values disagree to this extent (a) very high grade ore in small bunches, widely scattered; (b) one or two well defined shoots, exceptionally high values in gold; shoots not over 25 to 35-ft in length and probably about the same vertical extent.

As an area to be prospected immediately the Malapai Group is not recommended, for the reason that the other groups give promise of a much greater return in ore developed per foot of prospecting. However, in the event of the successful outcome on the rest of the property the Malapai Group, then, might yield a small amount of profitable ore.

The Contact Group is on Arastre Creek and includes, in part at least, the old town of Placerita, a busy gold mining community about 1870 to 1880. The principal workings are 4.5 miles by road from the Malapai camp. Water is abundant all the year in Arastre Creek.

Mineralization on the Contact Group is apparently in a contact fissure between diorite (south) and granite (north). The vein filling varies in width from 1.5 to 5.0 feet and consists of a schistose quartz-porphry and vein quartz. Additional stoping width is a probability because the sheared quartz-porphry shows values, sometimes for widths of twenty feet.

The principal development consists of a two compartment shaft 70 feet deep, on the Crosscut Contact Group. North of this shaft is an old one 35 feet deep, at present in bad condition. Another shaft, now completely filled, over 50 feet deep, yielded some ore which was treated in a small 2 stamp mill on the ground. The bullion minted showed \$18.00 recovered by amalgamation. From the bottom of the 35 foot shaft a crosscut has been made off the 35 foot drift to the west or southwest. This crosscut, 28 feet long, exposes the whole formation from diorite on the south to granite on the north.

This crosscut was sampled in six cuts, five of which were five feet in length, the sixth being only three feet. The gold content of these samples was 1.14 oz; 1.00 oz; .02 oz; .01 oz; and .03 oz. This gives an average of \$16.06 for the first fifteen feet of crosscut or \$17.69 for the whole crosscut, shaft and drift. A sample at the north side of the bottom of the shaft across 29 inches of quartz assayed 1.37 oz gold.

Surface indications justify the conclusion that there is a shoot in excess of 100-ft in length. Underground indications show a southerly rake and indicate that the shoot will probably go very deep. It seems likely that at least ten feet, possibly fifteen feet will be a fair stoping width in this shoot. On a basis of 100-ft stope length, there would be from 12,000 to 20,000 tons in this Cool vein above the 200-ft level.

On the Gold Bug Claim of the same group is a shallow open cut showing vein quartz 14 to 24 inches wide. A sample of this material assayed 1.12 in gold. This vein is indicated for about 3000-ft along the surface and is a very promising development area.

Approximately 75-ft south of the above open cut is a tunnel 180-ft long. Tunnel mouth closed. The vein quartz is said to be narrow in this tunnel and not to exceed \$6.00 in gold values.

On the crest of hill is an intersection of two veins. Width about 3-ft. Filling shattered schist, with 2 to 6 inches of vein quartz. It is opened by a 10-ft hole. Dump from the hole assayed 3.72 oz gold.

Near the east end of the Gold Bug claim, about 450-ft east of the location is a cross vein cutting the Gold Bug vein, having the appearance of a shattered monzonite, about 3-ft wide. This seems to carry high silver values. A sample from a 10-ft hole assayed 17.7 oz silver.

There is very little accessible work on the Pay Streak claim which adjoins the Gold Bug on the north but there is a very attractive outcrop which shows 2-ft of vein quartz, 2-ft of green schistose material and 3-ft of sheared monzonite. The schist and monzonite are interlaced with veinlets of quartz. The 2-ft of vein quartz assays 0.17 oz gold.

Most of the work on the Gold Spring group is old and is now inaccessible. Recently an adit crosscut has been started to tap at depth of 30 to 50-ft a belt of yellowish schist which stands almost vertical and has a strike of S 22 E. In the schist are narrow seams of deep red oxide of iron and irregular streaks of quartz, most of which are more or less shattered. Very little drifting has been done so far on this belt. This is a peculiar occurrence of gold. Deep yellow, thin flakes of gold usually quite small are in the foliations of the schist. The pulverulent red oxide material in seams mentioned above will assay from 6 to 14 ounces gold. Selected pieces of the schist will assay better than 6 ounces in gold.

~~The holdings of the Hassayampa Gold Mining Company justify the necessary expenditure for a complete and thorough examination. The most extensive development, that on the Malapai Group, seems to be of little value or importance right now. On the Gold Spring there is an unexplained occurrence of gold which is not fully understood but it is worth investigating for the ore is easily mined and easily treated, probably. There are surface indications that this gold bearing belt might prove to be ten to twenty feet in width.~~

By far the most attractive showing on all the holdings are those on the Contact Group, particularly the Cool vein, the Gold Bug, and, to a lesser degree, the Pay Streak. It is believed that an expenditure of from \$30,000 to \$50,00 on this group would develop a large tonnage of mill ore. The Cool ore shoot seems to offer the greatest number of advantages and has many signs of length and permanence. The Gold Bug, developed independently, will no doubt show a reasonable tonnage.

If the further development of the Contact and the Gold Spring Groups is undertaken a new camp should be constructed at or near the old site of Placerita, a location close to the Cool workings and not too far from the Gold

Spring work now in progress. It will be advisable to consider the rebuilding of the old Bragg road out to Peoples Valley to improve the road conditions. The indications at the Contact and Gold Spring Groups justify both of these improvements.

Phoenix, Arizona,
April 4th, 1928.

Respectfully submitted,



SUPPLEMENTARY STATEMENT.

The foregoing preliminary report was made at the request of a well-known Pacific Coast engineering firm for one of its clients. It resulted in a detailed examination of the property by the senior member of the firm. The conclusions reached in this report respecting the potential value of the property bear out the conclusions of the writer in the preliminary report. The widest difference between the results of the two examinations was that the more extensive sampling done at the time of the final examination indicated a generally higher gold content.

In fairness to the Hassayampa Gold Mining Company it should be noted that negotiations for the purchase of the property following this examination failed only because of a lack of agreement as to terms and the conditions of a sale.

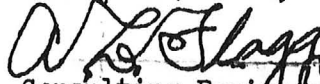
Since the above report was prepared an active development campaign has been in progress at the Gold Spring Group. Drifting from the cross-cut mentioned in the preliminary report proved an ore shoot in the schist for a distance of more than 100-ft in a southerly direction. A winze sunk 50-ft proved the gold bearing belt of even greater width to that depth and of an equal horizontal extent.

Thereupon a shaft was raised through to the surface, drifting continued on the two levels, the shaft deepened to 200-ft and drifting done on that level. The total amount of development done on the Gold Spring Group since the preliminary report was made amounts to 1351.5 feet, distributed as follows: shaft, 198.5-ft; drifts 1042 ft; raises 111 feet.

No work of any consequence has been done on other parts of the property. The Company's holdings have not been changed though claims in the Contact and Gold Spring Groups have been surveyed and any discrepancies or errors in marking or description have been corrected.

Phoenix, Arizona,
November 21st, 1932.

Respectfully submitted,



Consulting Engineer,
Hassayampa Gold Mining Company.

REPORT ON SAMPLING
HASSAYAMPA GOLD MINING COMPANY

April 21, 22, 1933.

Arthur L. Flagg, Cons. Eng.

- (1) On 50-ft level, in drift, 3-ft SW of B-5, from back of drift, across 3' 6", relatively soft schist with small number of narrow iron oxide streaks, usually very narrow. 0.26 oz Gold \$5.20
- (2) On 50-ft level, in drift, 10-ft SW of B-2, from back of drift, across 4' 6". On foot-wall side 2' light colored, sericitic schist, soft; next 2' 6" darker, harder and not so closely laminated. 0.29 oz Gold \$7.80
- (3) On 50-ft level, in short crosscut on N side of drift, about 22-ft NE of B-3, across 7' 6" light, sericitic schist, banded with iron oxide streaks, especially close to drift. 0.56 oz Gold \$11.20
- (4) On 50-ft level, in drift, across the back, continuing Sample No. 3 for 3-ft; dark, closely foliated schist, with some streaks of iron oxide; relatively hard. 0.25 oz Gold \$5.00
- (5) On 50-ft level, in drift, from back over NE side of winze to 100-ft level, across 9' 6". Relatively hard, uniform and closely foliated, dark schist, with little oxide. 0.10 oz Gold \$2.00
- (6) On 50-ft level, in drift, from back, across 3' 6", directly over SW side of winze to 100-ft level. Hard, dark schist, rod on the foot-wall side. 0.06 oz Gold \$1.20
- (7) On 50-ft level, in drift beyond winze to 100-ft level, about midway to face, from back of drift. Across about 1' 3" light colored schist, very slightly colored, hard, closely foliated. 0.36 oz Gold \$7.20
- (8) On 50-ft level, in drift beyond winze to 100-ft level, at same location as Sample No. 7, beginning at left end of Sample No. 7 and taking next 2-ft in back to left wall; harder material. 0.29 oz Gold \$5.80
- (9) On 50-ft level, in drift beyond winze to 100-ft level, from face; about 2-ft above floor. Across 3-ft hard, light colored schistose material. 0.50 oz Gold \$10.00
- (10) In winze from 50-ft level to 100-ft level. At a short drift, on SW side of winze, about 10-ft below 50-ft level. Across 18" of black, hackly material in face, on footwall side. 0.36 oz Gold \$7.20
- (11) In winze from 50-ft level to 100-ft level, same location as ~~Sample No. 10, across 18" of black, hackly material, light colored schist, with some streaks of iron oxide.~~ 0.19 oz Gold \$3.80
- (12) In winze from 50 foot level to 100 foot level, same location as Samples Nos. 10 and 11, across next 18" to hanging wall. Banded light and dark schist, dark predominating. 1.72 oz. Gold \$34.40
- (13) On 100 foot level, at foot of winze from 50 foot level, across the breast of the drift, about 4 feet above the floor. Across 5 feet, hard, dense schist. 0.20 oz. Gold \$4.00
- (14) On 100 foot level, from back of drift, at foot of winze from the 500 foot level, on SW side. Across 4 feet, narrow banded, light colored, sericitic schist, evenly foliated, alternating with red and black bands 1/2 to 1 inch wide. Relatively hard. 0.69 oz. Gold \$13.80

- (15) On 100-ft level, in drift, from back of drift, 18.5 feet NE of C-3. Across 4 ft 6 inches, dark schist with some bands of darker red iron oxide, narrow. 0.23 oz Gold \$4.60
- (16) On 100-ft level, in drift, on NE side of crosscut from shaft, in back. Across 6 feet, of which 3 feet on the right side (N) is dark schist, banded with "black iron" ore; the remaining three feet dark schist with a little oxidation. 0.29 oz Gold \$5.80
- (17) On 100-ft level, in drift, approximately 1 foot SW of C-3, in back of drift. Across 4' 6". First foot on footwall side light sericitic schist with heavy red oxide bands; remaining 2' 6" light schist, with more narrow and less numerous oxide bands. 0.30 oz Gold \$5.80
- (18) On 100-ft level, in back of drift, on NE side of raise beyond 3-C, across 7-ft light schist with numerous bands of iron oxide and some mashed lenses of quartz, very small. 0.27 oz Gold \$5.40
- (19) On 100-ft level, in back of drift, midway between raise and face of drift. Across 6' 0". On footwall side 2-ft dark schist, with a few "black iron" streaks; next 2½-ft dark, much contorted schist, no oxide streaks; last 18" on hanging-wall side, lighter schist, some iron oxide streaks. In lighter schist some small quartz lenses. 0.56 oz Gold \$11.20
- (20) On 100-ft level. In face of SW drift, about 5' above floor. Four feet wide. Three feet on footwall, light schist; considerable red oxide of iron. One foot on hanging-wall, darker; rare oxide bands and schist much more contorted. 0.27 oz Gold \$5.40
- (21) In raise about 15-ft above floor of 100-ft level. On NE side (manway) across 4' 6" of soft, light schist with considerable iron oxide. Still heavily oxidized into footwall. 0.54 oz Gold \$10.80
- (22) In winze from 50-ft level to 100-ft level. Approximately 35-ft above 100-ft level, on SW side of winze. On footwall, one foot black, much contorted schist, no oxide. 0.27 oz Gold \$5.40
- (23) In winze from 50-ft level to 100-ft level. Same location as sample No. 22, next 2' 6" on hanging-wall side. Light schist, in part somewhat banded, small amount of oxide. 0.29 oz Gold \$5.80
- (24) At B-4 plus 55-ft, on 50-ft level. Quartz vein crossing drift. Across 1-ft sericitic schist, footwall side of the vein, about eighteen inches above floor of drift. 0.49 oz Gold \$9.80
- (25) In 50-ft level, at location of sample No. 24, across 3' 6" of crushed quartz next to sample No. 24. 0.25 oz Gold \$5.00
- (26) Tailings pile, Cool Shaft. 0.19 oz Gold \$3.80
- (27) Longitudinal out, Cool ore pile. 0.50 oz Gold \$10.00
- (28) Transverse cut, Cool ore pile. 0.89 oz Gold \$17.80

INTERPRETATION OF RESULTS

In computing the average value of the several sections sampled the value in dollars is multiplied by the width of the sample. The sum of these products divided by the sum of the widths sampled gives the average value of the section. The sum of the widths sampled divided by the total number of samples in the section gives the average width.

This method may be expressed by the following formula:

A-Width sampled; B-Ounces gold per ton; C-Value per ton
 V-Average Value. W-Average width.

$$\text{Substituting, } \frac{(A1 \times C1) + (A2 \times C2) + (A3 \times C3) \text{ etc}}{A1 + A2 + A3} V$$

$$\frac{A1 + A2 + A3 + A4 \text{ etc}}{\text{Number of samples}} W$$

50 - Ft LEVEL.

No.	Width	Assay	A x C
1	3' 6"	5.20	18.20
2	4' 6"	7.80	35.10
3	7' 6"	11.20	84.00
4	3' 0"	5.00	15.00
5	9' 6"	2.00	19.00
6	3' 6"	1.20	4.20
7	1' 3"	7.20	9.00
8	2' 6"	5.80	11.60
9	3' 0"	10.00	30.00
	<u>38' 3"</u>		<u>226.10</u>

226.10 ÷ 38' 3" \$5.911 Av. Value.

38' 3" ÷ samples 4' 3" Average Width.

100-Ft LEVEL.

No.	Width	Assay	A x C
13	5' 0"	4.00	20.00
14	4' 0"	13.80	55.20
15	4' 6"	4.60	20.70
16	6' 0"	5.80	34.80
17	4' 6"	6.00	27.00
18	7' 0"	5.40	37.80
19	6' 0"	11.20	67.20
20	4' 0"	5.40	21.60
	<u>41' 0"</u>		<u>284.30</u>

284.30 ÷ 41' \$6.946 Average Value.

41' ÷ 8 samples 5' 1" Average Width.

WINZE.

No.	Width	Assay	A x C
10	1' 6"	7.20	10.80
11	1' 6"	3.80	5.70
12	1' 6"	34.40	51.60
22	1' 0"	5.40	5.40
23	2' 6"	5.80	14.50
	<u>8' 0"</u>		<u>88.00</u>

88.00 ÷ 8' \$11.00 Average Value.

8' ÷ 2 samples 4' 0" Average Width.

RAISE

No.	Width	Assay	A x C
18	7' 0"	5.40	37.80
19	6' 0"	11.20	67.20
21	4' 6"	10.80	48.60
	<u>17' 6"</u>		<u>153.60</u>

153.60 divided by 17' 6" \$8.777 Average Value

17' 6" divided by 3 samples 5' 10" Average Width.

AVERAGE OF SECTIONS.

Section	Av.Width	Av.Value	A x C
50-ft level	4' 3"	5.911	25.21
100-ft level	5' 1"	6.946	45.289
Winze	4' 0"	11.000	44.000
Raise	5' 10"	8.777	34.730

Average Value \$8.127 per ton

Average Width 4' 6"

A sample submitted to the American Cyanamid Company for testing purposes consisted of material taken from the drift on the 100-ft level of the Gold Spring shaft, the raise from the 100-ft to the 50-ft level and in the 50-ft level drift, at intervals of about 15-ft. When broken down this was taken to the surface in separate sacks. Large pieces showing any visible free gold were taken out. The several hundred pounds were broken down by hand, then quartered to a final sample of slightly more than fifty pounds. This was later crushed and ground in the American Cyanamid Company laboratory, and sampled.

The assay showed \$12.96 in gold which is a little more than the average obtained by this present sampling. Due to the fact that the rich iron oxide streaks show a tendency to occur in groups irregularly distributed but most often along the walls, and due to the fact that the width of the drift is usually less than the width of the mineralized ground, it is quite possible that the average value of the ore broken will be higher than the \$8.127 average mentioned above, probably ten dollars per ton at least.

Though the average width of ground sampled is 4' 6" the indications are that the stope widths will probably be more than eight feet. It is not always possible to determine the limits of the ore by the eye alone, and sampling was confined to drift widths.

Though it is not clearly indicated by the above sampling it is believed that the best gold values lie in the lighter colored, sericitic schist, more or less banded, parallel to strike and dip, by narrow seams of a pulverulent deep red iron oxide. The experience by panning from day to day bears this out. A previous sampling in 1929 showed that the powdery red oxide of iron carries from 12.56 ounces to 13.20 ounces of gold, while the more or less regularly laminated, light colored, sericitic schist, with the frequent seams of iron oxide will assay from 0.25 oz to 6.58 ounces.

Type samples, recently taken, support the above conclusion, in a measure, but the exceptions which occur, such as Sample No. 14 tend to make less certain any generalization regarding the exact character of the ore.

The sample taken from the face of the SW drift on the 50-ft level, Sample No. 9, indicates the probable extension of pay values beyond this point. Though the corresponding face on the level below does not assay as well (Sample No. 20) still, it compares favorably with the other samples on the same level, and it is worth while to continue drifting here.

Samples Nos. 24 and 25 indicate considerable value in the quartz cross-vein, on the 50 foot level, about 55 feet south of survey station B-4. The physical condition where this vein was cut makes it difficult to form much of an opinion about the vein but the sampling clearly indicates that it is advisable to prospect this vein.

The ore pile at the Cool shaft, estimated to contain something like from 75 to 125 tons, was sampled by a long trench along the longest diameter of the pile, and in five cuts, spaced five feet apart, and extending all the way across the dump, at right angles to the long trench. The last sample contained more of the coarser material which makes up the dry wall supporting the pile. The higher value of the transverse sampling is believed to be due to the inclusions of this coarser material.

The calculated average of the Cool ore pile, \$16.50 per ton, is in close agreement with the figures obtained in 1928 as an average of the vein at a depth of 35-ft, when the old shaft, close to the ore pile, was open to that depth, and the works could be entered for sampling. At the same time the vein was sampled in sections, six samples in all, from which an average gold value of \$16.06 was obtained.

The writer was assisted in sampling by Mr. Brunswicker. The samples were assayed by H. C. Smoot, of Prescott, Arizona.

TONNAGE OF ORE AVAILABLE.

GOLD SPRING GROUP.

There are 630 tons of ore on the dump. Above the 100-ft level, from a shoot opened up for 100-ft by 10-ft average stopping width, the recovery should be not less than 6000 tons. This is proven ore.

Between the 100 and 200-ft levels there is indicated at least as much more ore, though not completely blocked out by raises.

Therefore a reasonable estimate of the ore blocked out and in sight for milling at this writing in the Gold Spring workings is 15,630 tons of an average value of \$8.127 per ton, a gross value of \$126,915.60.

CONTACT GROUP.

At the completion of the proposed development work at the Cool shaft, i.e., sinking to 200-ft with drifts not less than 50-ft each way at the 100 and 200-ft levels, and connecting raises, -not less than 15,000 tons of ore, now indicated will be blocked out. The gross value of this ore is \$147,500.00.

Open cuts on the exposed shoots of ore on the Gold Bug claim, which is a part of the Contact Group, even if mined by underhand stopping under contract to a depth of 25-ft should yield another 5000 tons of a gross value of not less than \$10.00 per ton.

The minimum ore which should be ready for stopping by the time a mill is ready to operate may be estimated safely at 35,630 tons, having a gross value of not less than \$324,415.60.

OPERATING COSTS.

Based on experience in mining ore from similar sized ore bodies under similar conditions, the following costs are indicated:

Labor	1.082
Supervision	0.086
Explosives	0.304
Timber	0.034
Air and steel	0.250
Power	0.070
Taxes, Insurance etc	0.126
Total mining per ton	3.600
Cyaniding	1.500
Contingent	.760
Total mining and treating	\$5.86

INDICATED PROFITS.

Using the minimum gross values for the proven and indicated ore as given above and using a total mining and treatment cost of \$5.86 per ton the net profit to be realized is:

Gold Spring Group	15630	(8.127 - 5.86)	35,323.80
Cool shaft	15000	(16.50 - 5.86)	159,600.00
Miscl. Contact	5000	(10.00 - 5.86)	20,700.00
Total net			\$215,623.80

This sum is equivalent to slightly more than 50% of the total capital stock outstanding and in addition the amount estimated to be necessary to put the property into production.

CONCLUSION.

The outlook for the property is very encouraging. A definite tonnage of known value has been opened up and the prospect of the extension of these and other ore bodies to considerable extent along the strike and to a greater depth are favorable. The company is conservatively and efficiently managed. With due consideration of all the factors entering into the problem, the potential profits to be realized from the venture are sufficient to justify any risks that may be involved.

Respectfully submitted,

A. C. Flagg
Consulting Engineer,
Hassayampa Gold Mining Co.

Phoenix, Arizona.
May 1st, 1933.

COPY OF ASSAYS OF ORE FROM MINE OF
HASSAYAMPA GOLD MINING COMPANY, INC.
KIRKLAND, ARIZONA.

ASSAYS BY A. L. MCFARLAND, ASSAYER,
Zonia Copper Company
Kirkland, Arizona.

Number	At	Width	Gold Value Per Ton
3	0'-0"	4'-0"	35.35
4	0'-5	5'-0"	33.69
5	10	5'-0"	27.90
6	15	5'-0"	14.47
7	20	4'-0"	23.84
8	25	5'-0"	26.66
9	30	5'-0"	26.27
10	35	6'-0"	45.27
11	45	5'-0"	49.40
12	South end of shaft, 10'-0" down 5'-6" wide		28.52
13	Center of shaft, 10'-0" down 5'-6" wide		30.18
14	North end of shaft, 10'-0" down, 5'-6" wide		54.36
Average of 12 assays			32.16

Memorandum Report
On
The Hassayampa Mining Property.

lode
Property Forty two ~~lead~~ mining claims, total area about 800 acres.

Title Valid Mineral locations, none patented, work well kept and can be Patented at any time.

Location: Fifteen miles south easterly from Kirkland, Arizona, the nearest railroad and shipping point. a good road from the White Spar state Highway reaches this property 11 miles from the road junction.

Economic Conditions: Good property, of easy access. it is but 35 miles from Prescott, the County Seat of Yavapai. Prescott is a good trading and supply point, and, being largely a mining town, affords a good labor supply, the Property has a good supply of water both for Camp, and milling. Climatic conditions permits uninterrupted Year-around operation.

Geology On This Property: Varies on different parts of the property, the formation on the Malapai Group consists of granite ~~porphyry~~ with some Schist intrusive, Formation on the Gold Bug and Pay Steak claims consists of granite with some porphy along the veins. Formation on the Cross Cut Contact claim is Schist with some Quartz porphyry. The formation at the Gold Spring is Schist.

Mineralization: Gold predominates, altho much of the ore carries some silver values the ore occurs both in quartz and in the schist in one place the schist is the ore.

Veins: The vein system in this district are true fissures in the Schist varying in width from two to ten feet and are traceable, in many instances, 3000 feet. The vein fillings consist of quartz, brown hematite of iron, red oxide of iron, talc and decomposed porphyry schist, showing also some lime.

Work On Malapai Group: The principal in this group is developed by a shaft on the vein to a depth of 430 feet with laterals running off from each levels both ways north and south, On 120 foot level and the 208 level and the 385 level and on the 355 level also at the bottom of the shaft or at 430 foot level there a drift running north and one running south.

Work On The Gold Bug Claim: One tunnel on vein, No. 2 on the south side of hill 182 feet long, One tunnel on north side of hill 65 feet long and a Cross out 15 feet in tunnel on the north side. One shaft 20 feet deep on vein no. 1 and one shaft 15 feet deep on vein no. 2 and a number of small workings such as shallow shafts and open cuts.

Work On The Cross Cut Contact: One shaft 35 feet deep on the vein at the bottom of the shaft there is a drift driven south 35 feet on the vein at a point 25 feet south there is a cross out driven, West 15 feet. and at the same point there is a cross out driven east 15 feet to the hanging wall.

Memorandum Report

On

The Contact Group of Claims Property of The Hassayampa Gold Mining Co

Property Eleven lode Mining claims total area about 302 acres ,

Title Unpatented work and other obligations in fine shape

Location Fifteen miles South.Easterly from Kirkland, Arizona, the nearest railroad and shipping point. A good road From the White Spar Highway reaches this property 11 miles from the road junction.

Economic Conditions: Good property, of easy access. It is but 35 miles from Prescott, the County Seat of Yavapai County, Prescott is a good trading and supply point, and, being largely a Mining town affords a good labor supply. There is a good supply of water on the property both for Camp and mill purposes. Climatic conditions permits uninterrupted year around workings conditions.

Geology: Schist is the predomination formation. It is an ancient metamorphic rock of ~~Pek~~ Cambrian age and is lithologically of the same character as the Yavapai Schist of Jerome. *geologically* - The schist has been intruded by diorite. The intrusion apparently followed the schistosity and subsequent stress has rendered the diorite schistose in character. Later intrusive rocks included both Granite. Diorite and quartz-porphry and it is to these later rocks that the mineralization is credited.

Mineralization: Gold predominates, altho much of the ore carries some silver values the ore occurs in ledges of quartz and are well defined. the schist is more or less mineralized the entire width.

Development: The ledge on the Contact cross cut claim has a shaft 35 feet deep on the ore and shows the ledge to be from 18 inches to 5 feet wide, at the bottom of the shaft there is a drift driven south 39 feet on the ledge at the south end of the drift there is a cross cut 13 feet long to the hanging wall. and on the west side at the same point there is a 12 foot cross cut to the foot wall. the width of the filling of this ledge is 28 feet and the entire width carries some values in gold, in addition there is a 70 foot shaft on this claim 60 feet east of the one that was sunk on the ledge, this shaft is sunk for development and it is to go to a dept of 200 feet before it will cut the ledge. the ore on this ledge is of the free milling kind the values are mainly gold with a little silver. There is at present 135 tones of ore on the dump that average \$32 a tone.

On the Gold Bug, And PAY Streak, there is considerable work one tunnel 180 feet long on the west side of the hill and one 60 feet long on the east side of the same hill and a number of smaller workings such as small shafts and open cuts all the work has been done on the ledges and all shows good values in gold, the ledges vary in width from 6 inches to 23 inches. there is considerable tonnage at a number of places on these ledges of good grade mill ore

2 copies

One shaft 70 feet deep this shaft is 65 feet east of the vein and was sunk for a work shaft.

Work on The Gold Spring Group: A cross cut x was driven 65 feet to a point where the vein was out. and from this point a drift was driven on the vein for a distant of 55 feet where a shaft was sunk to a depth of 20 feet on the vein. At this place the drift on the vein was driven south for a distant of 45 feet all in ore. at the place where the shaft was sunk there is a cross cut* going east for a distant of 150 that is to cut a vein futher up the hill. ~~in addition~~ ~~to~~ this group there a number of smaller workings on other veins such as small tunnels, shallow shafts and open cuts of all kinds.

Ore On Property: The most of the work done on the property is done on the veins ~~and~~ all showing ore of good grade varying from low grade mill ore to very high grade. On the Gold bug claim there a large tonage in site of good mill ore, at the Cool shaft there is also a large tonage of good ore in site and the largest tonage is at the gold Spring. It is imposible for me just to say what tonage there is blocked out at this time.

Work Being done: We are driving scuth on the Gold Spring vein as it is holding very good and that means showing up more tonage, also driving on the cross cut* east to cut the other vein as this vein is very High grade ore on the surface and when cut with the present cross cut* we will have a dept of 171 below the presnt workings.

Proposed Development: This is at the Gold Spring where the proposed work is to be done all in ore that is to do it on the vein, First to Raising the shaft to the surface 750 feet then sinking the shaft 150 feet below the Tunnell level which ~~that~~ would make the shaft 200 feet deep, At the bottom of the shaft (drive North and South 200 feet each way on the vein, In these drifts on the bottom of the shaft it is proposed to drive two raises 100 feet each, to make the ore ready for stoping.

Summary: Considering the geological conditions, the exposed mineralization over our entire property, ~~and~~ with favorable economic factors, and practical ~~all the~~ equipment ~~that is~~ needed for development is ~~at the property~~, the property is one of the best ever offered to the public.

The gold spring group of Claims is a mile south of the Cool shaft on the schist belt and the vein on the gold spring ledge are in the schist the ledge is from 4 to 10 feet in width and showing values of \$22 per tone.

Work at this place consist of a cross cut 70 feet to where the ledge was cut and 60 feet of drifting on the ledge at 40 feet south from where the ledge was cut there is a 20 foot shaft sunk on the ledge at this place there is a cross cut driven south 111 feet for the purpose to cut an other ledge that is on the property.

Respectfully submitted,

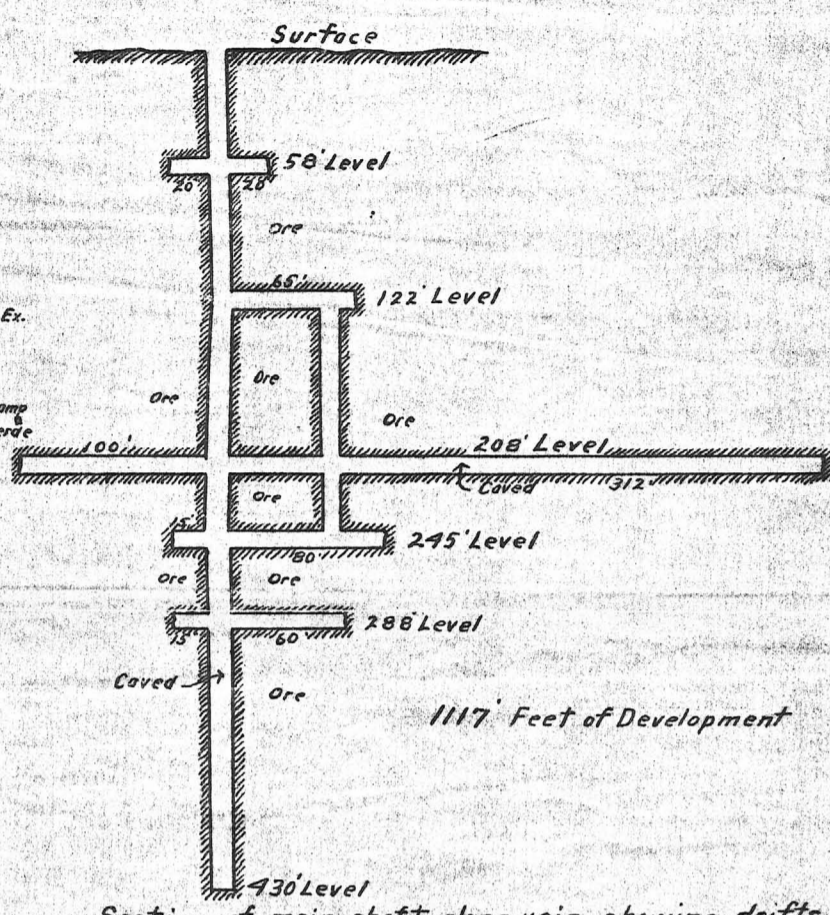
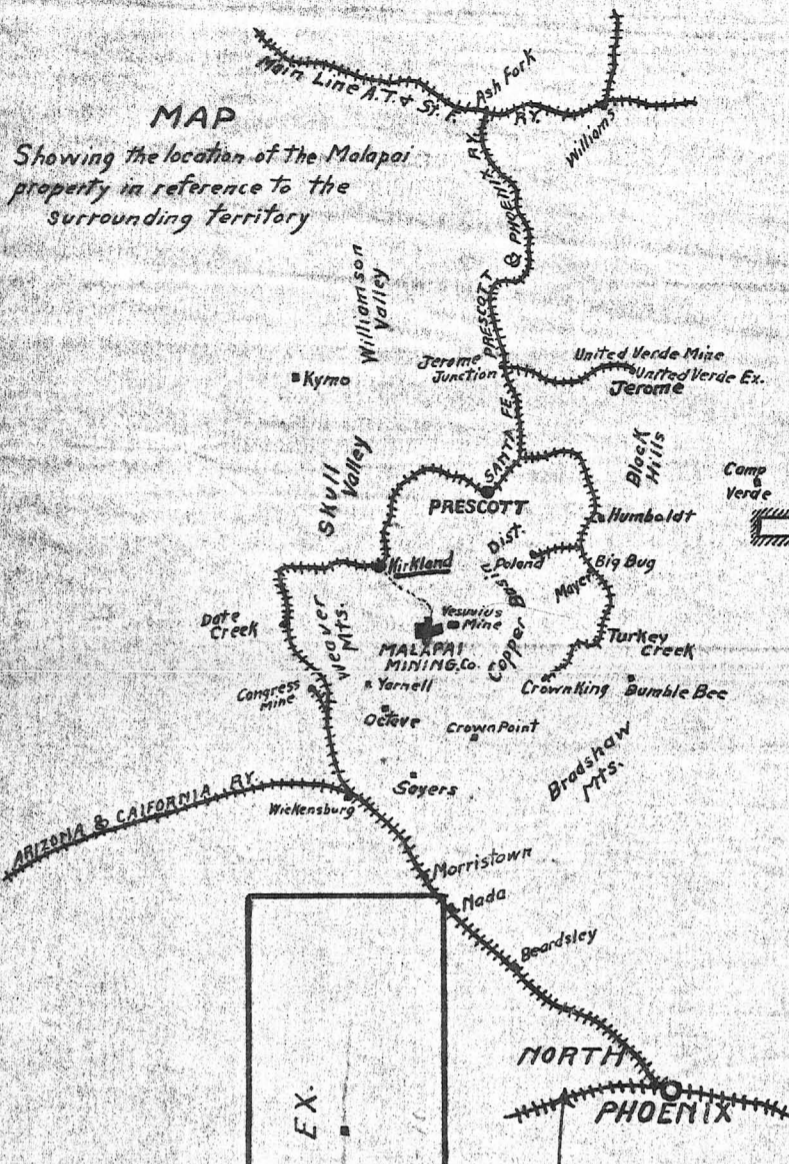
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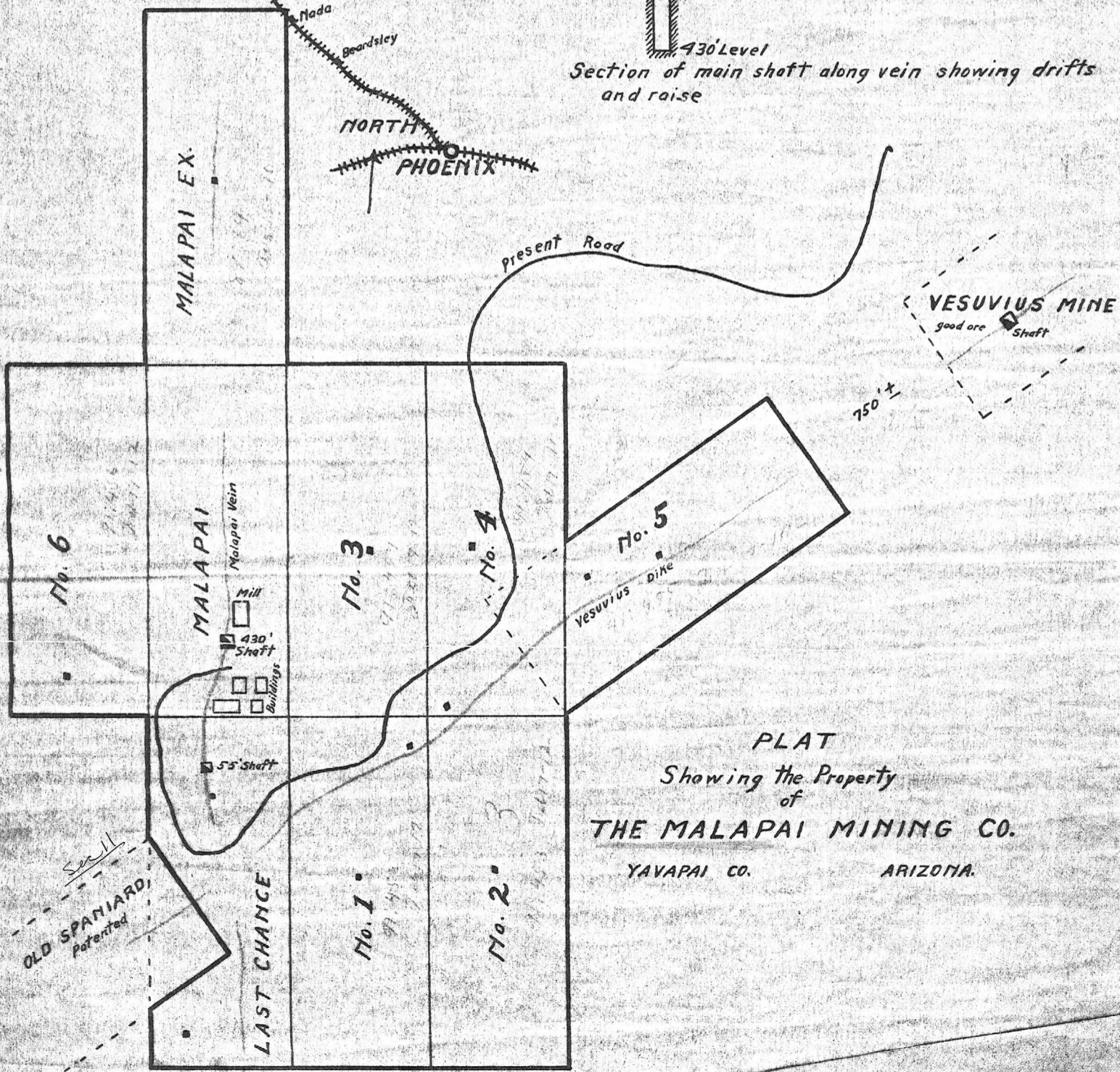
Respectfully submitted,

MAP

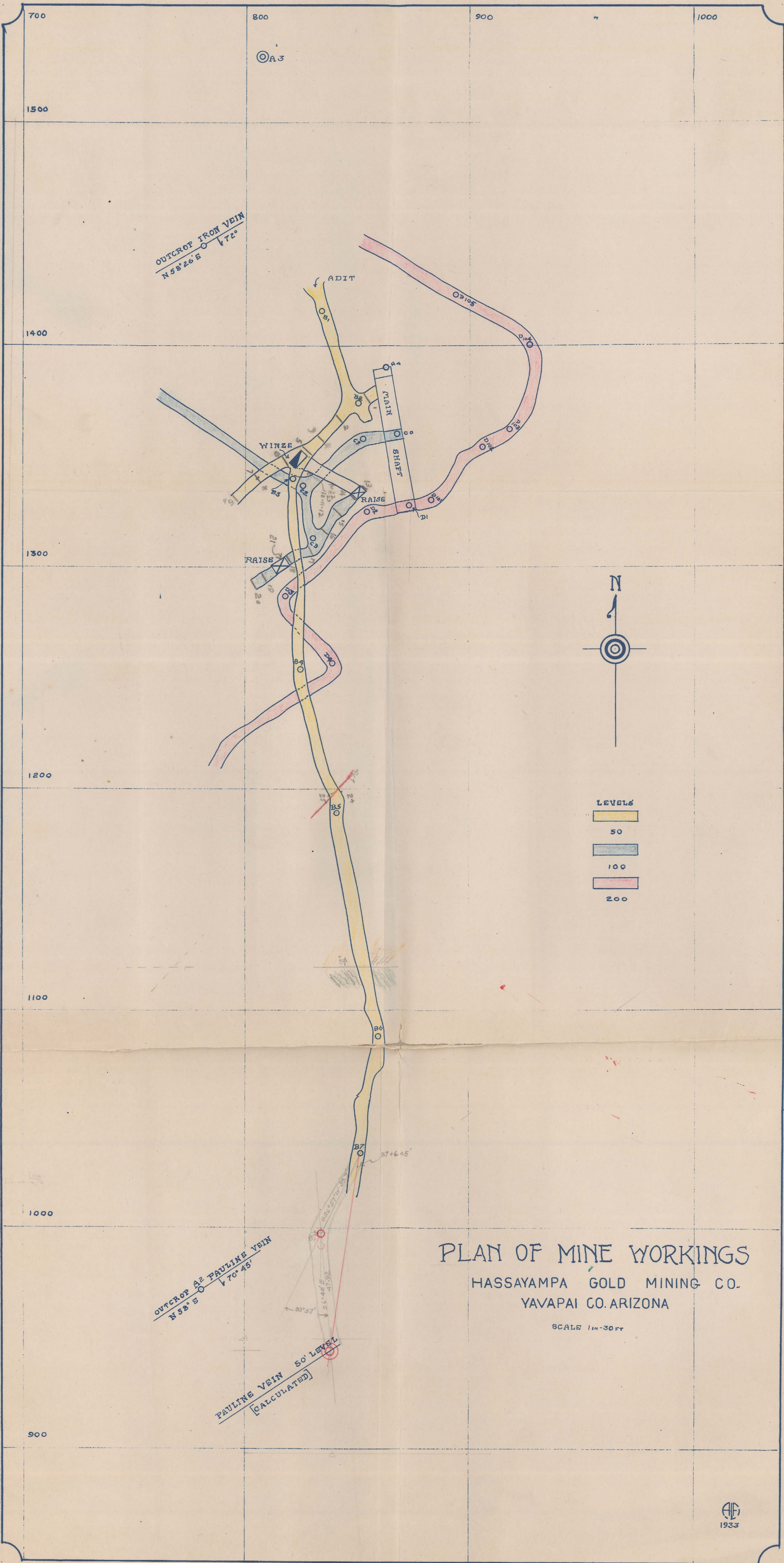
Showing the location of the Malapai property in reference to the surrounding territory



Section of main shaft along vein showing drifts and raise



PLAT
Showing the Property of
THE MALAPAI MINING CO.
YAVAPAI CO. ARIZONA.



OUTCROP IRON VEIN
 N 58° 26' E 172'

OUTCROP PAULINE VEIN
 N 52° E 70' 45'

PAULINE VEIN 50' LEVEL
 [CALCULATED]

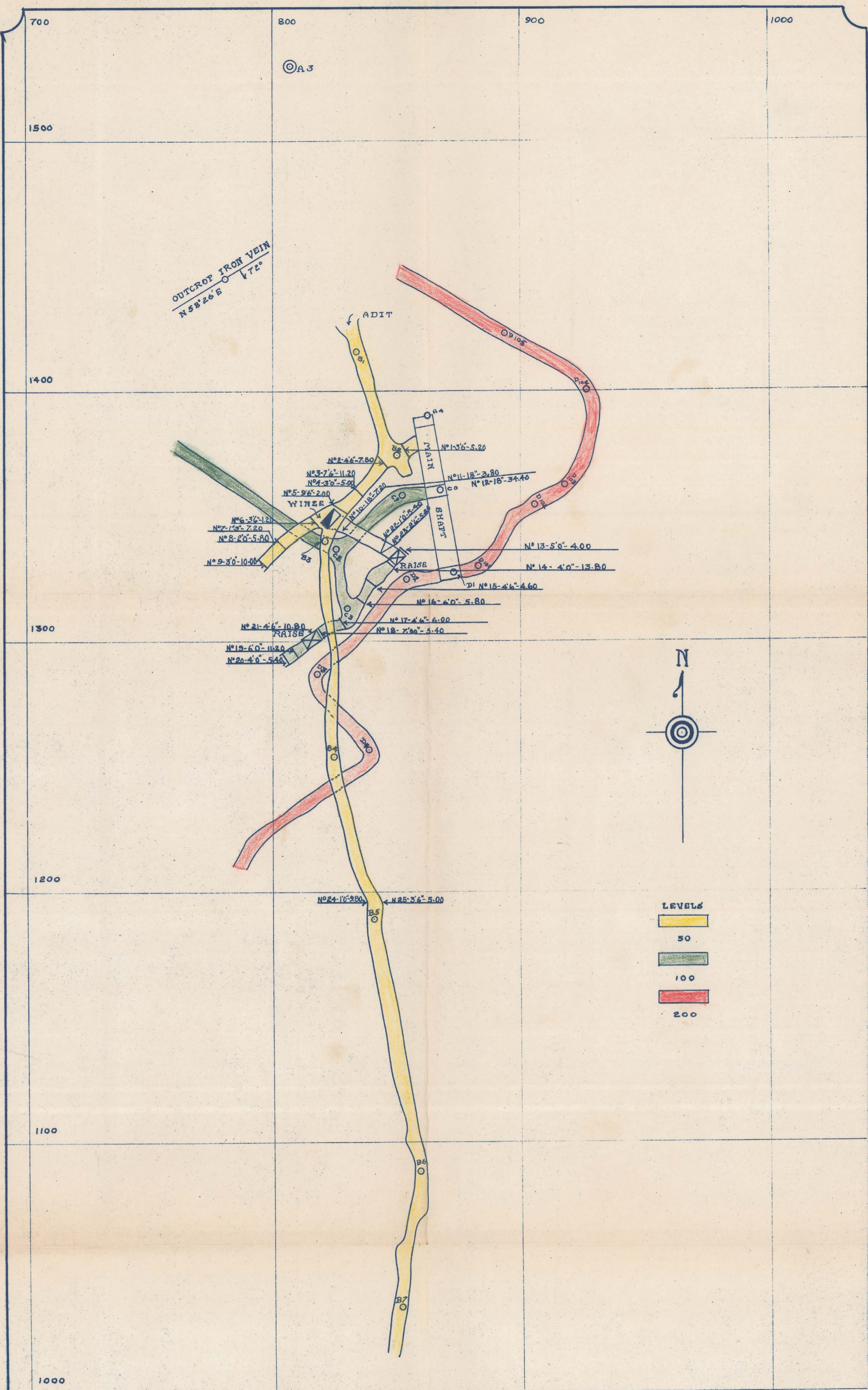
PLAN OF MINE WORKINGS
 HASSAYAMPA GOLD MINING CO.
 YAVAPAI CO. ARIZONA

SCALE 1 in = 30 FT



LEVELS

50
100
200



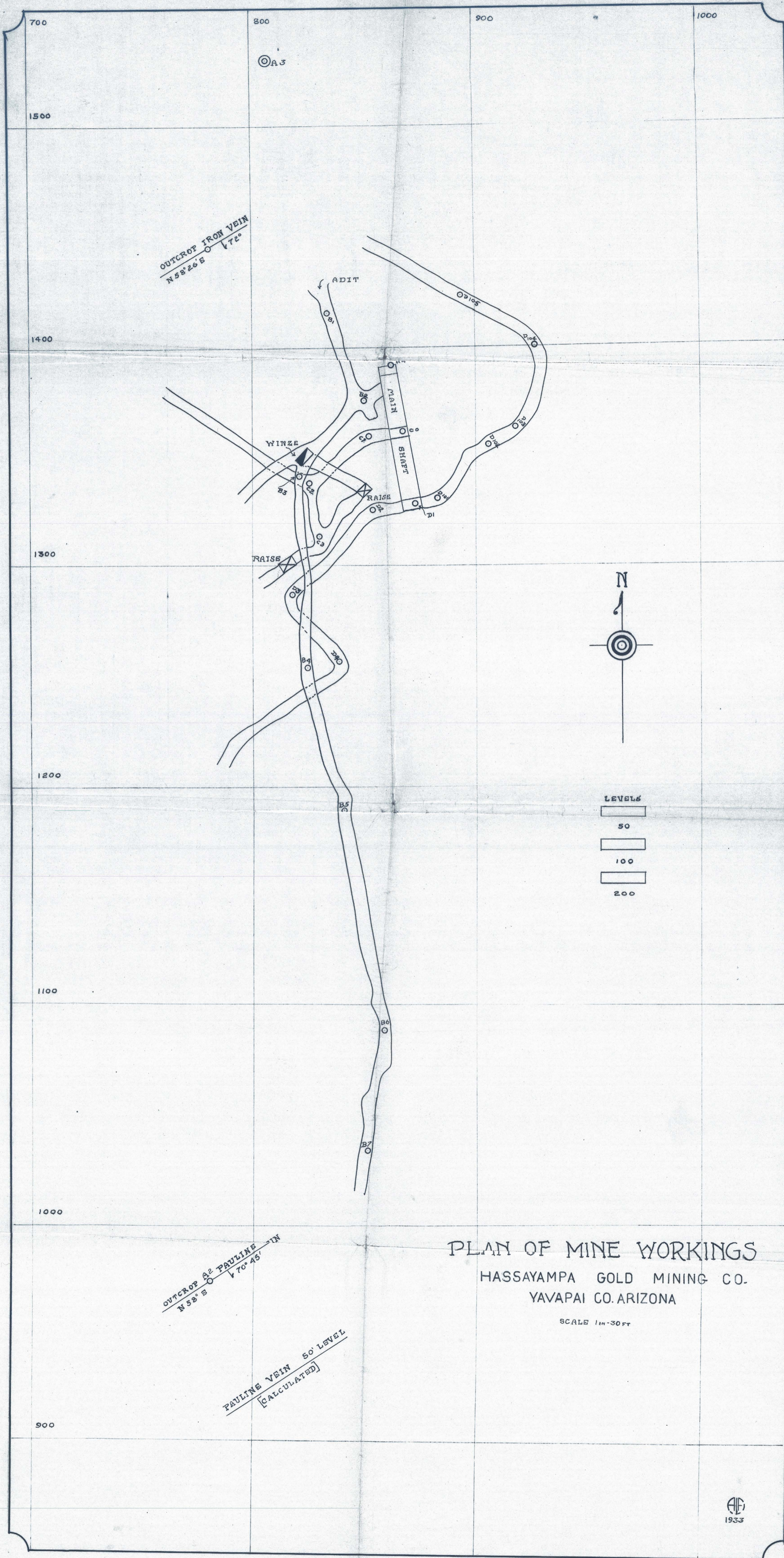
OUTCROP IRON VEIN
N 58° 26' E
772'

OUTCROP A2 PAULINE VEIN
N 52° E
707' 45"

PAULINE VEIN 50' LEVEL
[CALCULATED]

PLAN OF MINE WORKINGS
HASSAYAMPA GOLD MINING CO.
YAVAPAI CO. ARIZONA

SCALE 1 in = 30 ft



PLAN OF MINE WORKINGS
 HASSAYAMPA GOLD MINING CO.
 YAVAPAI CO. ARIZONA

SCALE 1 in = 30 FT

OUTCROP #2 PAULINE
 N58°E 70°45'

PAULINE VEIN 50' LEVEL
 [CALCULATED]