

### CONTACT INFORMATION

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## STATE OF ARIZONA MINE OWNER'S REPORT

1. Mine Fin groups known as the bornet B. Bolden Date, Keystore, Unida and Minte Chiet #2. Location Trans eleven to lifteen miles northeast of Wickenburg, and and on the binetellation wad.
 Address (Owner) 112 Jufferson St. Wickenburg and Bay F1
 Address (Operator) 3. Mining District & County Black Rock and Blue Tarch districts in Jaroficourty 4. Former name 5. Owner M. S. Cleram Which have to be been a marked 7. Operator 9. President, Owning Co.
 0. Gen. Mar 9A. President, Operating Co. 14. Principal Minerals coffee and gold 10. Gen. Mgr. 15. Production Rate 11. Mine Supt. 16. Mill: Type & Cap. 12. Mill Supt. 13. Men Employed 17. Power: Amt. & Type 18. Operations: Present when a dama tourner way wartinged int at the are is a dama There is domestic water from springs in the afferent groups and water in the shafter

19. Operations: Planned

23. Geology & Mineralization

20. Number Claims, Title, etc. famp B has 16 claims; Golden Sate has 9 claims Reystone has ten (10) claims, Unida has eleven (11) claims - and the monte chiristo # 2 has ten (10) claims. almost all of the claims are hotented gatented

21. Description: Topography & Geography Most of the claims are below 3500 election and the topography is from rolling to fairly steep. The claims - are south and east of the Hassiey durfa river

22. Mine Workings: Amt. & Condition Corres B has two shafts 200 and 300 ft deep on a 57 Rinchine. They are about 300 feet apart and connected on the 200 ft level. The Unida hear three adit termels from 230 to 600 ft long. also two shafts one 365 and mageft def. The Reystone has a vertical shaft 500 ft deep with a crossent on the 150 ft level three farallel weins. The solder bate has a large open cut. The mont brists # 2 herovers shaft 450 ft deep. There are also minerous ofen cuts and shafts that are now caved.

23. Geology & Mineralization ' 2a with rock is quarity of ghely altered on surface Dikes of diabase, shydite and dionte porfugry cut the granite. The dikes have a northwesterly direction ou stuke and vary in witth from a few to over a fundred feet. The view, we fissure vent, that any apple carbonates that two to suppliedes at depth. 24. Ore: Positive & Probable, Ore Dumps, Tailings on engineers report states that there is 40, or tows of ore in sight on the Unida with much more protected and ring much possible. The soldier Sete is an open cut and have bets fore in sight and much more The Endin Sete is an approved and have the sight much forbable and very much firstle. The land B has insiderable one in sight much forbable and very much 24A. Dimensions and Value of Ore body "The sugar report on the Unider gives an average of snew cut samples of 3.5 ft ---width and 4.16 bile with 11.55 in gold value. The barrie B shows welves in en from 0.5% to 37% one cose cut of 50 ft shows 8 cu. Twenty two Carloads of sample from the boblen twenty of twee with 2.85 in gold. The crais cut in the texture sheft set on vein 25. Mine, Mill Equipment & Flow-Sheet feet and one seven feet with a company where two ty two 24 Principal Minerals Copper and 26. Road Conditions, Route There is a good county road to the Unida, Geldin bate and the barry B. you drive up a sandy much for 1/2 to 3/4 mile to get to the morate bristo # 2. To get to the Reptone you must walk about 1/4 mile over an There is domestic water from springs on the different groups crud water in the shafts. 19. Operations: Planned 28. Brief History 29. Special Problems, Reports Filed Augotored has the (10) Claims Unude have elever (11) claims and the month pliniste # 2. here the con clining. all with all of the clining and 30. Remarks Tor further information get in touch with 11 S. alleran who will be glad to give you any data that he has, 31. If property for sale: Price, terms and address to negotiate. Mrs. albinan is asking " 200,000 for the Solden Sate group and 250,000 for each of the other groups. He wants "10,000 cack and the rest in royalties. 32. Signature L. R. Harley, Kingmon, any 33. Use additional sheets if necessary.

manneners of an cuto and shafts that and mean caused

WILLARD C. LACY 4034 E. Burns St. Tucson, Arizona

(copy)

July 26, 1955

0.01 oz. au

F. N. Spencer, Jr., Resident Engineer Cerro de Pasco Corporation 40 Wall Street New York 5, New York

> "Nick" Oberon's "Golden Gate" and "Camp B" fil Mines - Wickenburg, Arizona

### I. Summary and Conclusions:

A preliminary examination of the adjoining "Golden Gate" and "Camp B" properties of N. S. Oberon, lying ten miles northeast of Wickenburg, Arizona discloses a promising mineralized area with as yet completely untested enriched and sulphide zones.

A granite intrusive into a series of pre-Cambrian gneisses and schists is broken by a system of strong northsouth structures converging to the north in the vicinity of the "Golden Gate" prospect and to the south in the vicinity of the "Camp B" prospect. There is a tendency for the vein structures to "horsetail" and lose identity as they approach the contact and pass out of the granite into the gneiss.

The contact zone of the intrusive is shattered and mineralized though the gossan indicates that pyrite and hematite predominated in the unoxidized material.

Examination of the leached outcrops indicates that there may be two possibilities for commercial orebodies: (1) high-grade copper ores in the vein structures, and (2) low-grade ores available by open-pit mining methods in the areas of converging and horsetailing vein structures in the "Golden Gate" and "Camp B" areas.

The "Camp B" underground workings (now flooded) are in the contact zone within the gneiss. These workings are the only ones which have penetrated the enriched zone (on the 270' level) but little exploratory work was done and assay records are of little value. A sample of the sulphide rejects on the dump assayed:

0.06% cu 0.4 oz. ag

Lacy Report to Cerro de Pasco Corporation - (2)

Specimens from these workings showed chalcopyrite, bornite and chalcocite with pyrite. Native copper is common in the enriched ore, and occasional molybdenite and scheelite is found. Oxides show cuprite, malachite and azurite and chrysocolla. Gold values are erratic but appear to be somewhat higher in the "Golden Gate" area. Radioactive matierals are present but erratic and low grade.

A general sample of reject oxides from the dump of the "Golden Gate' open-cut assayed:

### 1.15% cu 0.4 oz. ag

0.01 oz. au

It is believed that these prospects offer excellent chances of developing into a major copper producing district, and it is recommended that the Corporation acquire an option to purchase or lease this property.

Additional examination and development should include: (1) Detailed geological map, utilizing colored aerial photographs; (2) Testing of vein structures by cross-cuts from a 1300 meter tunnel joining the King Solomon Gulch ("Golden Gate") with the Humlin Wash ("Camp B"). This would give about 150 meters of back under the divide area, and might total about 2000 meters of underground work. (3) Surface diamond drilling of the "Golden Gate" prospect, to be supplemented by churn drilling should the diamond drill holes indicate ore potentialities, and (4) Rehabilitation and sampling of the "Camp B" workings with diamond drilling to check ore values in the walls. (5) A study of a water supply should be made.

#### II. Scope:

At the request of F. N. Spencer Jr. the writer visited the Nick Oberon prospects near Wickenburg, Arizona. A full two days were spent on the property, July 22, 23 and 24, studying and mapping the surface outcroppings. N. S. Oberon was very cooperative in furnishing what information he had in his files and from his experiences in the development work.

### III. Location:

Oberon's claims are located ten miles northeast of Wickenburg, Arizona, in the Blue Tank Mining District, Yavapai County, T8N, R3W, Sections 16, 17, 20 and 21 at an elevation of about 3,600 feet. Wickenburg lies on the Topeka-Atchison-Santa Fe Railway and on U.S. Highway #60-70-89, 54 miles north of Phoenix. Lacy Report to Cerro de Pasco Corporation - (3)

To reach the prospects, turn northeast on the gravel Constellation Road, just south of the Hassayampa River Bridge on U.S. Highway #60-70-89. When 7.5 miles from the Highway, turn east on a sand road for one mile. At this point there is a fork. The north fork leads up the King Solomon Gulch to the "Golden Gate" prospect; the south fork up the Humlin Wash to the "Camp B" prospect - each about 2 miles from the fork. The mineralized area occupies the ground adjacent to and between these two prospects.

### IV. Property - Ownership - History:

The claims covering the mineralized area, about one square mile, belong to N. S. Oberon. The titles are not as yet clear, and there are fractions which are still open and should be covered before any work is begun. The details of the claims and ownership fall outside the province of this report.

The history of the properties is a complex one of "Nick" Oberon's 40 years of determined effort to put the mines in operation on a "shoestring," and of wild promotion schemes of lessees.

### V. Physical Features:

The Oberon properties lie in the Wickenburg Mountains in an area of late youth stage of dissection with moderate relief - about 500 to 600 feet in the mineralized area.

The country is typical of Central Arizona with all streams having intermittent flow limited to short flashes during a few months of the year.

The property is connected to Wickenburg by about ten miles of County maintained gravel roads with gentle grades. Construction of a haulage road would present no great problem.

The Topeka-Atchison-Santa Fe Railway passes through Wickenburg and connects with the Southern Pacific in Phoenix.

The Magma copper smelter lies about 120 miles southeast of Wickenburg.

Timber is not available in the vicinity of the prospects and would have to be brought in.

There is no equipment at the property except a headframe suitable for exploration work at "Camp B" and a couple of shacks which could be made useable for temporary housing at "Camp B". Lacy Report to Cerro de Pasco Corporation - (4)

#### VI. General Geology:

The Oberon prospects lie in an area of pre-Cambrian gneisses and schists (Pinal Schist) of sedimentary and igneous origin which have been intruded by an irregular granite mass. Its contact with the gneiss is irregular and usually accompanied by a wide zone of injection gneisses. Zenoliths and pendants of the schists and gneisses within the granite are common. Pegmatite, apparently related to the granite, occurs as dikes 50 to 60 feet wide in the contact zone and in pockets within the intrusive. These pegmatites carry tourmaline, and in the district contain lithim minerals and values in uranium. Dike extensions of the granite intrusive have a north-south trend.

The granite intrusive is broken by a system of nearly north-south trending fractures, which appear to "horsetail" and lose strength as they approach the contact of the intrusive, and die out in the gneiss. These fractures have controlled the distribution of mineralization.

The contact zone between the intrusive and gneisses is shattered and mineralized.

### VII. Mineral Deposits:

Only a very limited amount of work has penetrated sulphides in the southernmost part of the district. These workings are flooded and were not accessible for examination. So the appraisal of ore potential of the district must be dependent upon oxidized and leached outcrop study.

At least six--and detailed mapping may reveal twice this number--major north-south, steeply dipping vein structures cut the granite intrusive. These tend to converge and horsetail out to the south in the region of "Camp B" and to the north in the region of the "Golden Gate". Short adits have poked into these veins in their leached portions and revealed erratic pockets of high-grade oxide copper ores. No exploration of the sulphide zone has been attempted. The nature of the oxide exhibited at the surface indicates a good possibility that most of these veins will carry ore grade in the enriched zone, and many of them in the primary ore zone.

The vein structures range from 5 to 50 feet wide and at their north and south extremities expand into wide zones of intense shattering up to 200 feet in width.

Exploration from the "Camp B" shafts has revealed sulphide mineralization in the 270' level in chalcopyrite, bornite and steely phalcocite (probably secondary after bornite) with minor Lacy Report to Cerro de Pasco Corporation - (5)

molybdenite and scheelite. Native copper is present in the upper enriched zone, and the oxide minerals include the usual cuprite, malachite, azurite and chrysocolla. The mineralization where explored was in the intrusive contact area within the gneiss. Assay information is sketchy--shown on the attached sketch of underground workings--and means little other than high-grade pockets are present. A grab sample from the dump area of sulphide rejects assayed:

0.06% cu 0.4 oz. ag 0.01 oz. au

Considerable oxide ore has been mined at the "Golden Gate" pit in a 30' portion of a 200 foot shatter zone. A grab sample of the reject material on the dump assayed:

1.15% cu 0.4 oz. ag 0.01 oz. au

Miscellaneous assay results from grab samples and smelter returns mean little other than giving an idea of gold and silver values accompanying the copper. Gold values appear to be consistently higher at the "Golden Gate" prospect. These are shown on Page 6.

A geiger counter shows the sulphide portion of the "Camp B" dump to be about twice normal background--0.05 mr/hr-and a few pieces give readings up to 0.10 mr/hr. Some of the pegmatite facies give moderate but very spotty kicks.

Mineralization in the eastern contact zone of the intrusive is extensive up to 200 feet in width. However the nature of the limonite indicates that primary mineralization is high in pyrite and hematite with poor copper values.

It appears from the nature of the structures and interpretation of the leached outcrops that there are two possibilities that have a good chance of yielding commercial ore:

(1) The veins are shattered and leaching has been intensive. Much of the limonite is the "relief" type believed to be due to the oxidation of chalcocite. I believe that it is probable that most of the vein structures will have pockets of ore, or continuous ore, in the enriched zone. Some of the veins show "Limonite pitch" which is indicative of high-grade copper values. These are the ones which usually carry copper oxides at or near the surface, since there was insufficient pyrite to furnish the acid to complete the leaching. These vein structures should carry ore values in the primary zone. Lacy Report to Cerro de Pasco Corporation - (6)

(2) In the areas of converging and "horsetailing" of the vein structures there is developed wide zones on intense shattering which show the relief type limonite over 200 feet width and 1200 feet length at the "Golden Gate". A similar situation occurs at "Camp B", but outcrops are lacking. These two localities have a good chance of yielding a large tonnage of low-grade commercial ore which can be extracted by open cut methods.

Mineralization appears to be of mesothermal type in strong fractures. It is anticipated that ore will have good depth possibilities.

#### VIII. Development:

Both underground work and diamond drilling will be required to test the ore possibilities.

Miscellaneous	Assay	Informa	tion

"Golden Gate"	wd/T	%Cu	oz.AG	oz. Au	%Fe	*Ca	&A1203	Si02	85
4/9/34 7/3/29 11/17/17	36.6T 25.5T -	3.78 10.57 7.8	1.0 0.7 0.7	.47 .16 .26	12.3 12.2	1.0 0.7	6.2 3.6 68.5	60.6 52.4	0.4 0.6
9/19/43	-	5.45	0.1	.21					
		2.25	0.5	.22		•			
"Camp B"		0.04 J	رن ۱	• 40					
5/4/43	12" 6"	10.35 13.95	Tr 0.3	.04 .02					
	24" 30"	0.31 1.66	Tr 0.1	Tr .02					
6/17/43	30"	2.44	Tr 0.2	.02 Tr					
u u	-	3.0	0.4	Tr Tr					
а. П П	_	2.7	0.2	.02		<b></b>		**	
"7/4/43	- -	2.0 5.85	0.1 0.4	.01 .40	<b>?</b> *	•			9 10 11 11 11 11
9/19/43	-	6.00 y.L	, 0.8	.80	?				

After a detailed geological map has been made of the area-utilizing colored photographs, since the vein structures show clearly due to their coloring--the following minimum program is recommended: Lacy Report to Cerro de Pasco Corporation - (7)

(1) Tunnel from the King Solomon Gulch--from a point just west of "Golden Gate" about where Oberon has an adit started-southward to "Camp B". This can be driven on structure. Cross-cuts to explore the various vein structures should be driven every 200 meters, or possibly diamond drilling would give dependable results on this lateral exploration. This could be decided when more was known as to the nature of the vein material. About 3,000 meters of work would be required.

(2) Initial drilling of the large shattered zone at "Golden Gate" could be done by diamond drilling--and carried on with churn drilling should the initial holes indicate this to be worthwhile.

(3) The underground workings at "Camp B" should be a rehabilitated, mapped and sampled, and the wallrock ore grade determined by flat northeast and southwest diamond drill holes from the 270' level.

(4) A study should be made of water sources by competent engineers for mining and concentrator requirements. Oberon recalled that it required about one hour per day with a 60 gpm pump to dewater the sump in the mine workings. The water all came from the 160', level. The 270' level was dry.

#### IX. Metallurgy:

There is no evidence in the leached outcrops to indicate that there will be any minerals in the primary or enriched ores that will cause metallurgical difficulties.

### X. Ore Reserves and Possibilities:

No ore reserves can be estimated from the data available. However, with reasonable ore expectancy from these strong well-mineralized vein structures, this district should become a major copper producer with both high-grade and low-grade possibilities.

(signed) W. C. Lacy

DONALD P. McCARTHY GEOLOGIST 523 W. Clark St. Mesa, Arizona

(copy)

### April 18, 1959

Mr. Bruce Amos 115 E. 14th St. Tempe, Arizona

Dear Mr. Amos:

The following account describes the geology of the Camp B and Golden Gate, patented mining properties owned by Mr. Nick Oboron of Wickenburg, Arizona which we visited on April 17, 1959. The properties are located about 12 miles by good gravelled road northeast of Wickenburg. The few hours available for the reconnaissance limited my observations to very general impressions of the types and associations of vein and country rocks. Fortunately, the veins are easily distinguishable as red-brown lineaments which can be followed visually for several thousand feet.

Topography consists of steep ridges separated by intermittent washes, relief exceeds 500 feet and elevation ranges from 3250 to 3750 feet above sea level. Vegetation is sparse, desert variety and excludes any usable timber. Local water supply is undeveloped but ground water would probably be adequate for most requirements.

Approaching the area of the properties from the southwest, the road traverses a large outcrop area of granite. This is succeeded northwestward by metamorphic rocks which include Mr. Oberon's property.

The first-visited Camp B, includes a 400 foot deep shaft situated on a bench above a dry wash. The shaft is now flooded and inacessible. About 800 feet east-northeast from the shaft I came upon a General Land Office section marker: Secs. 16, 17, 20, and 21, 8 N. - 3 W.

Country rock consists of prominent white quartzite outorors with less resistant intervening areas of gneiss. No evidence was seen of mineralization (replacement) within the country rock except very near the veins where some may occur. A dip reading on a quartzite bed about 500 feet east of the shaft showed strike N 35° W, dip 69° NE. This seems to be a representative measure of the attitude of the country rock throughout the area.

The veins are numerous, long, parallel, and steeply dipping. Maximum distance between veins is probably 200 feet, but locally they converge or become more numerous so that wide areas show heavy almost uniform mineralization. The Camp B shaft is located near one such area. A yein outcrop situated about 1000 feet northeast of the shaft was visited. It strikes N 55° W, dips N at 80+°. The vein minerals include oxides of iron - limonite, earthy hematite, and some specular hematite; oxidized copper minerals - chrysacolla, and malachite concealing small kernals.of sulfides of copper bornite and chalcocite. The dump at the Camp B shaft shows some native copper, azurite, chalcopyrite, and pyrite in addition to the minerals above mentioned. Gangue in the veins is mostly quartz with some weathered clay minerals. Vein widths are variable on outcrop from less than one foot up to a few feet.

North-northwest of the Camp B is the Golden Gate area separated from the former by about 3/4ths of a mile and a 500-foot high east-west extending ridge. The parallel veins cross the ridge and develop in a close parallel pattern (horsetail) at the Golden Gate mine working which is a shallow bull-dozer open cut. A vein showed a strike N 20° W, dip 60°+ W. Country rock at the Golden Gate includes an intrusive which is cut by the veins. Mineral constituents of the intrusive are those of granite. Contact between intrusive and metamorphics is obscured by weathering. A narrow basic dike striking northwest occurs northwest of the Bulldozer cut. Veins also continue to the northwest for a distance of several thousand feet at least.

Prospect pits and shafts have explored many of the veins on these two properties to depths ranging from a few-feet to a few hundred feet. Shipments of many carloads of ore over a period of several years are reported by the owner. The owner also furnished samples from the Camp B shaft. Secondary enrichment is apparent in some specimens reported from the 200 foot level. Primary chalcopyrite and pyrite occur in a sample reported from the 270 foot level.

Further exploration of these properties is recommended. The veins are expected to extend to good depth and surface dips indicate that they may converge with depth. Exploration may reveal a porphyry-type disseminated primary replacement deposit in addition to the veins. Exploration should include both cross-cutting the veins at depth and drilling. At the present time, the properties would probably support underground mining of the better developed veins at least to the lower depths of the secondary enriched zone. Open pit operations on a limited scale probably could be sustained in areas where veins are closely spaced forming a wide mineralized area containing oxidized copper minerals.

Yours truly,

(s) Donald P. McCarthy

Donald P. McCarthy Geologist

(SEAL)

REGISTERED GEOLOGIST Donald P. McCarthy ARIZONA U.S.A.

### GEOLOGICAL REPORT

Camp B and Golden Gate Group of claims of the property held by the N. S. Oberan interest, and situated in the Blue Tank area (Black Rock Mining District) of Yavapai County, Arizona.

### PURPOSE OF EXAMINATION.

The examination and study made between Feb. 25 and April 15, 1967 of the property was undertaken primarily for the purpose of investigating and analyzing the extent, future development possibilities and general geological relations of the vein structures within the above ownership specifically and of the mineral occurrences of neighboring holdings in a more general manner.

### LOCATION AND EXTENT OF PROPERTY.

As outline on the accompanying map, the property consists of eleven patented claims and 25 unpatented claims, situated in sections 4, 5, 6, 9, 16, 17, 20 and 21 of Township 8 North and Range 3 West, eleven to thirteen miles east of Wickenburg, Arizona, the nearest shipping point. Of these, section 16 is the only school section. Claims on it should of course be checked carefully for legality.

### GENERAL GEOLOGY.

The area is the southward continuation of the Bradshaw Range, and is a complex of Pre-Cambrian and a few post Cambrian formations, schists, gneiss, quartzite, and a small area of dolomitic limestones all intruded by granite,

the for the second and

GEOLOGICAL REPORT - Oberan Properties.

monzonite, diorite, intrusive rhyolites and andesites. All of this has been invaded by many small dikes of northwestsoutheast trending diabases which have had a marked effect on the localization of the ore bodies, particularly the older copper bearing ones. The entire area is surrounded by the underlying pre-Cambrian complex made up of granitic rocks liberally cut up by pegmatites and splite dikes and sills.

### MINERALIZATION.

As very complete leaching and alteration of the ores has occurred in the upper two hundred or more feet of all the ore bodies, this cannot be overlooked as a source of commercial mineralization. In the past it has always been customary to consider this material as chrysocolla bearing and discard it as unusable except for that which could be sorted up to shipping grade for the smelters. As hand sorting has become completely uneconomical it is important to consider it from the stand-point of large scale commercialization.

It was noted in the field that the blue mineral which makes up the greater part of the copper has a hardness of 3.5 and a specific gravity of 3.38. The green mineral into which it sometimes grades has a hardness of 5.0 and a specific gravity of 3.36, making them Plancheite and diptase, respectively. The former has a copper content of 47.5% and the latter 40.3%. Chrysocolla, none of which was found under GEOLOGICAL REPORT - Oberan Properties. the microscope, has a hardness of 2.0, a specific gravity of 2.2 approx. and a copper content of only 35.7%. Under the microscope the indices of refraction are so widely different that no difficulty was had in confirming that the oxidized copper minerals were planche ite and dieptase. As any of the other copper oxide and carbonate minerals are still heavier as well as higher in copper content, they would come out in any gravity concentrates and raise the grade still higher.

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To date there have been no leaching process perfected which will attack these silicate copper minerals directly. To free the copper from these minerals all the processes must resort to some one of various reduction roasts, which of course make for high costs of operation. The concentrates from gravity processes would go direct to the smelters and because of their silicate content should command good smelting rates, especially since they would be entirely freed from the high alumina bearing rock minerals which smelters object to receiving. It seems quite evident that gravity concentration of these oxidized ores should be given consideration.

### RECOMMENDED DEVELOPMENT

There are four main areas which stand out as having exceptionally good chances of yielding large tonnages of commercial ore. These have been outlined and labelled on the accompanying Tap.

## GEOLOGICAL REPORT - Oberan Properties

<u>Area No. 1.</u> - At the inclined shaft 650 feet South 30° east of the Camp B main shaft the work was done entirely in a stringer of possibly gold bearing ore in the hanging wall and the main vein was left entirely under the footwall of the incline. This vein strikes directly toward the Camp B shaft, and is probably the same Burrige Vein that was worked in the Camp B mine. If this is true there may be a wide orebody under the gravel overburden of the gulley for this entire distance. Development of this vein which has an apparent width of some 12 to 15 feet at the incline is well justified.

At about 100 feet North 65° East a wide vein has been uncovered in the past and piles of some of the best oxidized ore seen on the property are visible under the debris covering this vein. Just north of the shaft this vein makes a crossing with the above mentioned Burrige vein and promises a large tonnage of very good ore. Past studies and experience show that vein crossings show increases in value 74% of the time, remain the same 12% and are poorer in 14% of the crossings, (including 5% in which crossings are barren). This crossing should be thoroughly explored and the unexplored wide Norty 65° East vein given a good checking in the same operation. <u>Area No. 2.</u> - As shown on the <u>Albert No. 9 claim</u> there is a wide contact zone in which intrusive granite makes contact with a Cambrian or later dolomitic limestone. This contact is completely oxidized vein material 50 to 100 feet wide and

### GEOLOGICAL REPORT - Oberan Properties

very sunken as if overlying a thoroughly oxidized orebody of large dimensions. It is well outlined for several hundred feet up the hill. Some copper staining is showing. Its strike is North 30° West and to the north strikes under the wide gulley toward a wide flat lying orebody on the north side. Remains of a small placering operation many years past in the contact material indicate that it was prospected for gold. Dolomitic contacts with granite are generally considered quite favorably, for gold deposits. A day or two with a bull dozer should prove or dis-prove its importance.

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Area No. 3 - This area lies along and partially occupies the Golden Gate-Camp B Fault which is clearly shown for the entire length of the gulley connecting the two areas. The fault, which has had considerable vertical throw, has strike of almost due North-South and continues across the country to the north. Camp B Hill is the downthrown side.

The orebearing area, which has a length of about 1350 feet and a width of 20 to 30 feet, starts about 300 feet east of the piped corner No. 1 of <u>Albert Extension No. 1</u>, this being also the corner No. 4 of <u>Albert Extension No. 2</u>, along the road from Camp B to the Golden Gate area. Just before the fault crosses the Golden Gate vein there is another ore body about 250 feet long and 20 to 30 feet wide of the same type ore. As the strike of this ore is from N 6° E to N 15° E it leaves the fault and has several long runs of the same width and character of ore all the way through the Unida GEOLOGICAL REPORT - Oberan Properties Extension No. 7, on which the length of one orebody is 800 feet and width of 10 to 40 feet. Both the Unida Extension No. 6 and Unida Extension-No. 7 are located crosswise of the vein structure. They should eventually be corrected to parallel them to insure full dip rights. As practically no exploration has been done on this type of ore at any point, its value is completely unknown. The quartz is of the low to medium temperature type and carries a very high percentage of leached cavities. Because of the very large tonnage involved it justifies some carefully planned exploration. Area No. 4 - This is the vein that occupies the center of the Golden Gate No. 2 and has been open pitted for a few feet in depth. This orebody seems to be a replacement of an intrusive dike rock which has been so altered as to be It is suspected that it is a diabase with a indeterminable. high percentage of very calci feldspar. This calcic feldspar has been responsible for the precipitation of the blue mineral mistakenly called chrysocolla, but which is really planche'ite. It is almost always accompanied by the green mineral dioptase. The vein is exposed for some 800 feet in length and 5 to 10 feet in width. There appears to be good commercial concentrating ore throughout the length of the vein.

-6-

There are of course other smaller areas of mineralization which for the present purposes are unimportant but which may later be explored for that ore they can be made to yield. GEOLOGICAL REPORT - Oberan properties.

Among these are areas in which small veinlets of what appear to be gold ore are bunched in what are called stockworks. These have a strike of N 65° E and may be responsible for spotty gold mineralization in the larger basemetal areas.

A clearly shown fact of some importance in exploration of the district is that no orebody of any size outcrops above an elevation 3800 feet above sea level. This seems to have been the level to which the orebodies reached regardless of the part of the district in which they occur.

As no underground workings were accessible at the time of this examination no conclusion can be drawn as to depth of mineralization, increase or decrease in size, oxidation, etc.

Respectfully submitted by the undersigned,

/s/ C. C. Doyle, EM.. C. C. Doyle

### MOUNTAIN COPPER COMPANY

(Copy) (

OF CALIFORNIA

100 Mococo Road Martinez, Calif. 94553 Phone: 228-5530 Area Code: 415

May 4, 1967

Mr. Everett L. King 316 E. Ocotillo Road Phoenix, Arizona

Dear Everett:

Sorry I have taken so long in writing with regard to your Camp B property which E. H. Lindsey and I visited April 13, 1967, but I waited for the results of tests run on samples from the Albert Pit. The total copper content of the samples that Lindsey took from the Albert Pit was in the one percent range. A twenty hour leach with mild sulfuric acid removed 90% of the copper. The high iron content of the samples we took did not show any adverse effects in our laboratory leach test and our chemist feels that it would make pretty good material.

What it will take now is to thoroughly check and see at what minimum tonnage and grade of ore a leaching operation is feasible. We (Lindsey and I) made a rough estimate that the Albert Pit vicinity could provide 800,000 tons, but this is not much more than a guess. It will have to be drilled to provide a more accurate determination.

I thank you and Nick for showing us the Camp B, and I will let you know our ideas on the property as soon as possible.

Sincerely yours,

/s/ Vince

V. P. Bluege Director of Exploration

VPB:ps

2011년 1월 1911년 1월 19 1월 1911년 1월 1911년 1월 1월 1911년 1월					
		and the second sec	a .		
	(copy)		Р	er ton of 2	,000 LBS.
ACCAN CEPTEICATE			Gold va	lues at \$20	.67 oz.
ABBAT CHATH TOATH			Silver		14
J. H. PRATT & CO.			Copper	u u	LD. "
CHEMISTS - METALLURGISTS - A N. E. Corner First and Ma	ain Sts.		Пеац		
Phone 829552	ο <b>Τ</b>				يح الماسيون المالية الم
SAMPLE DEPOSITED BY MR. N. OBERA	LN				
Los Angeles, Cal:	if. Oct. 20t	h, 1923			
OWNERS MARK LABOLATORY OZ. PER TON	VALUE OZ.	PER TON	VAL.	PERCENT	VAL.
NUMBER	28.94	2.04	1.29	89.0% 231.	40 261.63
18735 Sample No. 1# 1.40	13.64	3.30	2.08	96.0% 249.	60 265.32
		Signed Geor	ge H. Pr	att	LARENT
		Chemist	and Ass	sayer	
SEAL CODY					
MARKED COT I		MINNEA	APOLIS, N	IINNESOTA1-2	2-1919
I HEFEBY CERTIFY, THAT THE SAMPL ASSAVED FOR .	ES OF ORES F GAVE THE	EREIN DESCH FOLLOWING H	RIBED, RESULTS.		
COPPER AND GOLD COPPER PER CENT	7	VALUE PER 1 AT 23¢ per 1 282 50	ron lb.		
- 62.0		signed			
		C. E. Dre	ew		
Sector Charles and the		V. C. 2	Assayer.		
ARIZONA SAMPLING AND REDUCTION C	COMPANY				
WICKENBUF	RG, ARIZONA JMBOLLT SMEL	rer			
GROOT WEIGHT 62020		D	eduction	S	<b>Totals</b>
Moisture Deduction 22 lbs. 1200		Insoluble	68.5% 6	¢ lbs.	145.67
Tons 30.4 Net weight 10780					
	<b>月來</b> 上日				
and a strange s	h - to find the base	14.5.2	3		presented i Malance en

0. 3045	(COPY) GEO. D. DIEH SUCCESSOR J REX W. DUNLAP 8	Phoenix, Ari:	zona Nov. 22, 1917.
Ν	IINING ENGINEERS, ASSAYI PHONE 672 18	N. 2nd Ave.	
SSAY: FOR MR.	TO MEC CO		
MINNEAPOI TARES Tharges \$2.00 paid	GOLD GUNCES 0.40 0.16	VALUE 3 \$20.67 Per Oz. 8.26 3.30 (sqd) Geo. D. Die	Copper 3.78 hl
		Phoenix, Ari	zona February 13, 1923
	MINING ENCINEERS ASSA	VERS AND ANALYSTS	
	MINING ENGINEERS, ASSA	230 East Adams St	
E Ancor E	PRONE 2072		
certificate of Assay i	MALLE DEP TON OF 2000	POUND	PERCENTAGE
SILVER VALUE	GOLD VALUE GOLD VALUE	AT	\$20.67 Per Oz.
	4 20		\$86.81
	Si	gned Geo. D. Diehl	
COPY	5	CHANDARD CODES	
CABLE ADDRESS " ACCURA	CY TOUN HERMAN LAF	ORATORY	
220 60	UTH LOS ANGELES STREET.	LOS ANGELES, CALI	·
TELEVONE VANDIKE 6232	U. S. A.	Ore '	TREatment tests
CERTIFICATE OF ASSAY	OLDEN GATE MINE, MADE H	FOR MR. N. S. OBERAL	N
Giving Results per tor	of 2,000 pounds.	1020 - 1020	
		COPPER VALUE	TOTAL
GOLD CZ. VALUE	SILVER UZ. VALUE	\$9.0 \$31.50	\$35.75
S 0 30 Sb.20	Ψ. U • <b>L</b>		
, , , , , , , , , , , , , , , , , , ,	4		

1. 1

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- 1	CODV
· · ·	

ASSAY	TOTAL	VALUE	TREAT	MENT TONS	
				5.50	167.20
		그는 말에서 날 한것을	Assay Ir	on 8.5%	312.87
GOLD 4 oz. 1900	Per oz. 231.	.04			, , , , ,
Silver oz			lr	on 8.5@4	Y 10.32
Copper 7. 6.3% 1	Lbs. 1942 @ 756.0	55			302 35
	Total				202.22
	/alue 987.69	The second ships	+0		
Cha	arges 363.35	Transportation			60 80
	<u>())</u>				363.35
	624.34	TOTAL VALUE			

LEACHING AND FLOTATION ANALYSIS (copy) Feb. 13, 1923. Phoenix, Arizona Geo. D. Diehl Mining Engineer, Assayer, Analyst 230 East Adams St. Certificate of Assay for Snell Doggett Percentage Value Per ton of 2000 lbs. @ \$20.67 per oz. Gold Value Silver Value oz. \$86.81 4.20 Signed Geo. D. Diehl John Herman, Laboratory 339 S. Los Angeles St., Los Angeles, Cal. U.S.A. Ore Treatment Tests Certificate of assay Golden Gate Mine. Made for Mr. N. S. Oberan, giving results per ton of 2000 lbs. August 2, 1929 Total Value Copper Value Silver oz. Value Gold oz. \$37.75 \$31.50 9.0 \$0.05 0.1 \$6.20 0.30 (sqd) John Herman, Chemist Assay Certificate G. H. Pratt & Co. Chemists, Metallurgists, Assayers NE Cor. First & Main Los Angeles, Cal. Oct. 30, 1924. Sample deposited by Mr. N. S. Oberan, Wickenburg, Arizona Value Gold oz. per ton \$35.00 1.72 Sample of concentrates Signed Geo. H. Pratt Co. Magma Copper Company Superior, Ariz. March 13, 1930. Mine Assay Certificate N. S. Oberan,

Constellation

STANDARD CODES. (copy) CABLE ADDRESS "ACCURACY" JOHN HERMAN LABORATORY 339 SOUTH LOS ANGELES STREET, LOS ANGELES, CALIF. U.S.A. TELEPHONE VANDIKE 6232 ORE TREATMENT TESTS. MADE FOR MR. N. C. OBERAN CERTIFICATE OF ASSAY Giving results per ton Date August 2, 1929. of 2,000 pounds. Ś Total Value OWNERS MARK Gold Ore Value Silver Cz. Copper % Value \$37.75 9:0 31.58 0.05 0.30 6.20 I DO NOT GUARANTEE SATISFACTION -- I GUARANTEE ACCURACY CHARGES \$ Pulp: under \$10 per ton can be checked by Ledoux, or other high class assayers. If it varies over 42 cents I pay assays. If over \$1, I pay \$5. 20.67 Oz. OUOTATIONS GOLD.... \$ .50 Oz. SILVER... .17-1/2 Lb. COPPER ... Lb. LEAD.... ALL VALID CERTIFICATES BEAR THIS SEAL SIGNED JOHN HERMAN, CHEMIST SEAL IN CERTIFICATE JOHN HERMAN LABORATORY MADE FOR N. S. OBERAN Date August 1, 1928 MARKED COPY SAME AS ABOVE On Laboratory Stationary. TOTAL VALUE COPPER % and states FOR COPPER AND GOLD ONLY REMARK: VALUE GOLD OZ. OWNEPS MARK 10.78 \$29.96 \$34.09 \$4.13 0.20 A No. 1 92.40 92.40 338 A. No. 1 Remark: For copper only. Signed on typewriter John Herman. Do not have seal.

### MAGMA COPPER COMPANY Superior, Arizona

Settlement No. 289 DATE 9-13-34

367

287.39

Smelter Lot 6.2 Shipper Lot M-124 BOUGHT OF Golden Gate Trust & Mining Co., N. S. Oberan, ADDRESS Wickenburg, Arizona.

				and the second s		
CAP	WE	T WEIGHT		Moisture	DRY	N. Y. QUOTATIONS
Tnitial Number	Gross	Tare	Net	0,0	WEIGHT	DATE 9-5-34
AT ]74287	112260	47480	64780 32.39	6.8	603 <b>75</b> 30.1875	Copper (per lb.) .0877 Less .025 Gold (per oz.) 32.20 (92% of 35.00)

	DEBITS	CREDITS
ASSAY and ANALISIS		2.4598
Copper 2.36 Pct. 47.2 Lbs. per ton, Less 8# 39.2 103.		
Silver 0.30 Oz. at .06275 per 10.		13.2020
Gold 0.41 0z. 0.41 oz. per ton at 32.20 per 02.		
Iron 11.6 Pct.		
Lime 0.3 "		
Alumina 6.0 "		
Silica 66.0 "	3.50	
Sulphur None Treatment Charge	3 50	15,6618
TOTALS		12,1618
Net Value Per Ton	State and the second second	
		367 13
Total Value of 30.1875 Dry Tons at \$12.1618		207.12
Less Freight 32.39 Tons at \$2.40 From Wickenburg, //./	4	
Arizona. Ave. value per ton 11.27		
-1 $-100$ $-5$ $-10$		
Less Additional Treatment Charge of 10% of metals		1.1.1

TOTALS

2.00

Amount Due Shipper -- Voucher No. 96.70

paid for in excess of \$15.00. Excess is .6618 -

.06618 x 30.1875

### MAGMA COPPER COMPANY Superior Arizona

Smelter Lot 278 Shipper Lot M-29 BOUGHT OF Bryton Commercial Co.,

ADDRESS Wickenburg, Ariz.

CAP	WET WEI	GHT Moistur	e DRY WEIGHT	N. Y. QUOTATIONS DATE 4=4=34
Initial Number	Gross Tare	Net	(IIII)	Copper (per 1b.) .07775
AT 39241	121100 4516	0 75940 3.5 37.9 <b>7</b>	73282 36.641	Less .025 Silver (per oz.) .45875
	(This shipm	ent was graded f	for gold.)	Gold (per oz.) 32.20 (92% of 35.00)
ASSAY and ANALYSI	S	PAYMENTS PER I	CON 5 8# 67.6 lbs.	DEBITS CREDITS 3.5659

Copper 3.78 Pct.	75.61 lbs. per ton, less 8# 67.6 lbs.	.4576
Cold 0.47 Oz.	1.05 oz. par ton, less 5% .9975 oz.	15.1340
110n 12.3 Pct.	at .45875 per oz. .47 oz. per ton at 32.20 per oz.	
Alumina Silica	Treatment Charge	3.50
Sulphur	TOTALS Net Value Per Ton	15.6576

Total Value of 36.641 Dry Tons at \$15.6575 Loss Freight 37.97 Tons at \$2.40 from Wickenburg, Ariz. Ave. Value per ton 14.87 Loss Additional Treatment Charge of 10% of metals Laid for in excess of \$15.00. Excess is 4.1575-.41573 x 36.641

TOTALS

Preliminary Settlement No. 115

573.71

573.71

91.13

15.23

106.36

DATE 4-9-34

Amount Due Shipper--Voucher No. 9150

### MAGMA COPPER COMPANY Superior, Arizona

Smelter Lot 621 Shipper Lot M-123 BOUGHT OF Brayton Commercial Company Settlement No. 287 DATE 9-8-34

ADDRESS Wickenburg,	Arizona.				
- CAR	WET WEIGHT	MOISTUR	E DRY		
Initial Number Gro	ss Tare Ne	et 8	WEIGHT	N.Y. QUOTAT	IONS
АТ 84327 1160	30 43600 724	80 2.0	71030 DA	TE 9-5-34	
같은 것은 것은 것은 것은 것은 것이 있는 것이 있는 것이 있는 것이 있다. 같은 것은 것은 것은 것은 것은 것은 것이 있는 것이 있는 것이 없는 것	36.	.24	35.515 Co	pper (per 1b.	.08775
			· .	Less	.025
			Sı	lver (per oz.	22.20
행정 방법 이 같은 것이 같은 것이 없는 것이다.			GC	(02) of 25 00	32.20
				(928 01 35.00	
AUSAY AND ANALYSIS	PAYMENTS	5 PER TON	D	EBITS	CREDITS
Copper 1.97 Pct.	39.4 lbs. per	ton, less	8# 31.4 lbs.		1.0704
Gilver 0.10 Oz.		at.06	275 per 1b.		1.9/04
Gold 0.33 Oz.			0.0		10 6260
Iron 11.6 Pct.	0.33 oz. per	ton at 32	.20 per oz.		10.0200
J.1me 1.0 "		amont root	araded for a	(610)	
Alumina 6.6 "	(This shi	Lpment was	graded for g	ίοτα)	
Silica 63.8					
Sulphur none		Treatment	Charge	3.50	$(x_{1},y_{1}) \in \mathbb{R}^{n}$
			Totals	3.50	12.5964
					9.0964
	Der Mana at \$	0.0062			323.06
Total Value of 35.515	Dry Tons at 3	from Wicke	nburg. Arizo	ona 72.48	
less Freight 50.24	Ave, value pe	r ton 8.91	····- )/		
	nve. varao po		Totals	72.48	323.06
			TOCATO		
	Amount Due Sh	ipper - Vou	cher No. 96	58	250.58

MAGMA	COPPER	COMPANY	
Supe	erior. A	Arizona	

Smelter Lot 570			Set	tlement No.	254 1934
BOUGHTOF Braylon	Commercial Com	panv	DATI	. Oury 19	1 1224
ADDRESS Wickenbu	rg, Arizona				
CAR	WET WEIG	H <b>T</b> Mois	ture DRY		
Initial Number	Gross Tar	e Net 8	WEIGHT	N.Y. QUC	TATIONS
	100700 4700	0 (24(0) 2	1 60524	DATE JU	(1y 15, 1954)
AT 173805	109720 4726	U 02400 J. 31 23	- 30 262	cobber (F	.08775
		JI.2J	30.202	Less	.025
				Silver (p	er oz.)
					32.20
				(92% of	35.00)
ASSAY AND ANALYSIS	PA	YMENTS PER TON		DEBITS	CREDITS
Copper 1.98 Pct.	39.6 lbs. pe	r ton, less 8#			
Silver 0.10 Oz.	31.6 lb	s. at .06275 pe	er 1b.		1.9829
Gold 0.38 Oz.	0.38 oz. pe	r ton, at 32.20	) per oz.		12.2360
Iron 12.0 Pct.					
Lime 1.5 "			이 아이는 것 같아요.		
Alumina 6,3					
Sulphur 0.3 "				a di seconda di second Seconda di seconda di se	and a concerner
Durphur 3.3	Trea	tment Charge		3.50	
		TOTALS		3.50	14.2189
	Net	Value Per Ton			. 10.7189
	2 Dry Tong at	\$10 7189			324.38
Tors Freight 31 23	tons at $$2.40$	from Wickenburg	, Ariz.	74.95	
		Val, per T 1	39		
		TOTALS		74.95	324.38
				an an an ar an	the second second second
Amo	ount Due Shippe	rVoucher No.	N9481		249.43

1.051 A 🖡 🕅

A Carlot and

MAGMA COPPER COMPANY	
Superior, Arizona	

Smelter Lot 519 Shipper Lot M-223 DOUGHT OF Brayton Commercial Co. ADDRESS Wickenburg, Arizona Settlement No. 370 DATE 5-23-35

<u></u>	R	WET	WEIGHT		Moistur	e DRY			
Thilin	Number	Gross	Tare	Net	8	WEIGHT	N. Y.	QUOTATIC	)NS
A'l'	171889	106120	46160	61960	6.7	59667	Date	5 - 15 - 35	
			: A Star	38.98		29.5335	Les	s (per 11 S	.025
							Silve	er (per oz	s.)
							Gold	(per oz.)	32.20
							(92		
ASSAY AN	D ANALYSI	S	PAY	MENTS E	PER TON	· · · · · · · · · · · · · · · · · · ·		DEBITS	CREDITS
('opper	2.90 Pc	t. 58.	0 lbs.	per tor	1, less \$	# 50.00 lb	S.		3 1575
Gilver	0.26 Oz		at .0	16275 Pe	a + 32.20	Per oz.			12.8600
Tron	10.4 PC	t. 0.9	0 02. P		ul 32.20				
Lime	1.4 "								
Alumina	5.8								
Silica	65.2	•						and the second	er
authun	none		Tre	eatment	Charge			3.50	
				TOTA	ALS			3.50	$\frac{16.0175}{12.5175}$
			Net	z Value	Per Ton	in e e e e e e e e co			12.31/3
24L					-17C				373 44
Total Va	lue of 29	0.8355 Di	ry Tons	at $$12$	.51/5 Wickenbu	ra Arizon	а	74.35	J/J•11
Less ric	signt 30	Ave.	value r	ber ton	on two 1	ots \$13.55			
1000 044	Nitional "	Treatment	- Charge	e of 109	% of meta	ls paid			
for in	n excess (	of \$5.00	Exces	s is \$	1.0175 -	.10175 x 2	0.9335	3.06	
								77.41	3/3.44
	1	Amount D	ue Ship	perVo	ucher No.				296.03

### MAGMA COPPER COMPANY Superior, Arizona

C//1	2	WET WEIGH	IT	Moisture	DRY		MTONE
Initial	Number	Gross Tare	Net	9 0	WEIGHT	N. Y. QUUTA Date 6-18-	-35
АТ	83200	125060 43520	70540 39.77	2.5	77352 38.776	Copper (per 1b Less	.) .08775 .025
						Silver (per oz Gold (per oz.) (92% of 35.0	.) 32.20
ASSAV ANI	ANALYSTS	PAYMEN	TS PER TO	DN .		DEBITS	CREDITS
Copper Silver Sold Iron Lime Alumina Silica	0.96 Pc 0.30 0.37 10.1 0.8 6.0 62.2	t. 19.2 lbs. at .( Q.37 oz. j	per ton )6175 per per ton,	, less 8# 1b. at 32.20	11.2 lbs		.7028
• •	none		Treatmen TOTA Net Value	t Charge LS e Per Ton		<u>3.50</u> <u>3.50</u>	<u>12.6163</u> 9.1168
Total Va	lue of 38.	776 Dry Tons at 7 Tons at \$2.00	\$9.1168 from Wi	ckenbu <b>rg,</b>	Ariz.	79.54	353.51
Less Fro	1dur 22.1	Ave. valu	e per to	n \$8.8 <b>9</b>			

MAGMA	COPPEI	R COMPANY
Supe	erior,	Arizona

Smelter Lot 327 Shipper Lot 805 BOUGHT OF Lee Solomon CAMP "B" MINE Class ADDRESS Wickenburg, Ariz.	Settlement No. 327 DATE June 17, 1938 Sification Lessee.
CAR WET WEIGHT Moisture DRY Initial Number Gross Taré Net % WEIGHT	N.Y. QUOTATIONS
AT         83387         108520         44220         64300         1.7         63207           32.15         31.6035	DATE June 14, 1938 Copper (per 1b.) .08775 Less .025 Silver (per oz.) 92% of 35.00 32.20
ASSAY AND ANALYSIS PAYMENTS PER TON	DEBITS CREDITS
Copper       5.32 Pct.       106.40 lbs. per ton, less 10.64         Silver       .40 Oz.       at .06275 per lb.         Gold       .04 Oz.       .04 oz. per ton, at 32.20 per c         Iron       16.40 Pct.       .04 oz. per ton, at 32.20 per c         Lime       .50 "       .04 oz. per ton, at 32.20 per c         Silica       50.20 "       .01 oz. per ton, at 32.20 per c         Sulphur       .30 "       Treatment Charge TOTALS         Net Value Per Ton       .01 oz. per ton	$52. \frac{6.0089}{1.2880}$ $\frac{3.50}{3.50}$ $7.2969}{3.7969}$
Total Value of 31.6035 Dry Tons at \$3.7969 Less Freight - 32.15 Tons at \$2.20 from Wickenburg, Ariz Ave. val. per ton 3.73 Less trucking of \$2.00 per ton to R. A. Bryan Hillside, Available Due trucking TOTALS	Ariz. 64.30 42.27 22.03

		a Salara
AMERICAN SMELTING AND REFINING COMPANY	<b>TT</b>	
El Paso Smelting Works		
ORE SETTLEMENT	EL Paso, Texas 11-30-49 Smelter Lot 2560	
Bought of Wickenburg Ore Market	Shipper's Lot	
Shipping Point. " "	Classification Ore	
	Purchased	
VEIGHT IN AVOIRDUPOIS POUNDS	N.Y. METAL QUOTATIONS	0
No. Weight No. Weight Moisture Dry	Settlement Date 11-18-49	S'
171736 AT 79760 6.3 74735	Silver 90 4 Cts por or	9
	P'ga Silver 73.25	
Assay per	Lead For 100 lb.	
ton Net lent in Percent Net Part	Paid Whent a	
Elements 2000 Lbs. Deducted Assay Lbs. Paid For For	Rate Per Ton Total	
GOLD	<u></u>	
-Lead	•	
Copper 7.155 % .4 6.755 135.1 95 128.345	lbs.	
	.15075 19.35	
TOTAL PAYMENTS FOR	METALS 19.35	
Base Charge: F O B El Paso for Motal Daymonts act	DEBITS CREDITS	
exceeding \$15.00 per ton	3 00	
10% of \$4.35 excess over \$15.00 per ton	.44	2
Bullion Freight Tax 128.345 .00032	.04	N
TOTAL DEDUCTIONS	3.48 3.48	
Total Value on 37.3675 Dry Tons @ 15.87 Per Ton	593.02	
Less Freight on 39.88 Hayden Wet Tons @ 3.08 per ton 122.83		
+ 3.68 Tax	x 126.51	
Balance Due Shipper	457-51	214. 19. 00
Valuation for freight per wet ton \$10.38 (Agreed)	593.02 593.02	
	and the second	

125

general sector and the

1997 (A. 1997)

#### Phoenix, Arizona Chas. A. Diehl Feb. 20, 1943 ARIZONA ASSAY OFFICE 815 North First Street P. O. Box 1148 Phone 3-4001 This certifies that samples submitted for assay by Mr. Nick Oberon contain as follows per ton of 2000 lbs. Value (Oz.) Total Gold Value (Oz.) Silver Value of Hundths MARKS Ounces Tenths Oz. 2 Gold and COPPER Silver 31.70 Assayer ARIZONA ASSAY OFFICE Charges \$1.00 C. A. D. Phoenix, Arizona Chas. A. Diehl ARIZONA ASSAY OFFICE May 4, 1943 815 North First Street Phone 3-4001 This contlfies that samples submitted for assay by Mr. James H. Gazier contain as follows per ton of 2000 lbs. Value Gold Value Silver Marks Ounces Hundths Copper Oz. Oz. Tenths Ounces OBERON Width No. 10.35 .04 \$1.40 12" Trace 1 .70 13.85 .02 C." .3 .51 Trace 24 " Trace 1.63 .70 .02 30" .1 2.44 .02 .70 38" Trace 29.01 6/0

Charges \$ 10.00

Assayer ARIZONA ASSAY OFFICE C. A. D.

# WICKENBURG ORE MARKET ASSAY CERTIFICATE

Certificate No. 50-200

Wickenburg, Arizona, July 4, 1950

Certiii		Roy Allen Wicke	nburg, Ari	zona					
Samp.	Ownen's Mark	GO Ozs. Ton	LD Val. Ton	Özs.	SILV Ton	ER Val. Ton	Percent Cop'r	t of Lead	Total Value Per Ton
	Sample	0.40	\$12.88	0.4		none	5.85		\$32.50
	Charges	\$ 2.00					•		
	Silver and (N.	copper fig (. copper m	ured as sn arket \$0.2	nelter 22 per	sett pour	les d)		· · · · · · ·	
Gold at Copper	at Smelter Sett	lement			/s/ F	. A. Will	oughby	Assaye	r
Certifi	idate No. 50-282	Rob Phone John All Wi	ert A. Wi 270-J en ckenburg,	llough Arizo	by, I ona	Prop. Wickenb	ourg, Ari	zona, S	ept. 19, 1950
Samp. No.	Owner's Mark	GC Ozs. Ton	)LD Val. Ton	Cza	SIL Ton	VER Val. Tor	Percen Cop'r	t of Lead	Total Value Per Ton
	Sample	0.06	\$25.00	C .	. 8	\$0.26	6.0		\$48.46
	All do <b>llar valu</b> e	s figured a	as smelter	sett	l <b>e</b> s b	efore Fre	ight and	treatme	ent charged
	N.Y. Copper Mark Silver at \$0.885	et \$0.24 per ounce	er pound			/-/ D A	M; 11 ou	shhy A	saver
Gold a	t \$32.3185 per o	cha	arges \$2.	00		/S/ K. A	. WIIIOU	Jun I - M	
### WICKENBURG ORE MARKET ASSAY CERTIFICATE John C. Herr, Assayer

Wickenburg, Arizona, March 17, 1950

Assayer

/s/ John C. Herr

N. Oberon Wickenburg

-Samp.	Owner's Mark	GO	LD Wal Won	SI	LVER Val.	Ton	Perce Cp'r.	nt of Lead	Total Va Per To	alue on
No . 2 3 4 5 6 7	Sample Stroied Sample Sample Sample Sample Sample Sample Sample	10.04 0.04 0.12	val. 101	0.2 0.1 0.7			6.7 4.4 5.9 4.7 2.0 3.2	nil	G.W. 27.30 22.58 27.10 22.70 18.35 17.38	
Ch	arges \$9.	00		\$85	.40					

Gold at \$.....Per Oz.

Copper at Smelter Settlement

CAMP 'B' AND ALBERT PIT PROSPECTS Blue Tank Mining District, Yavapai County, Arizona Sections 8, 9, 16, 17, 20 and 21

T8N-R3W

EVALUATION REPORT

for

INSPIRATION MINERALS INC. 626, 744 West Hastings Street Vancouver, B.C.

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Prepared by:

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#### SUMMARY

During the period 28 March to 8 April 1981, a preliminary evaluation of the <u>Camp 'B'</u> and <u>Albert Pit</u> prospects was made for Inspiration Minerals Inc. of Vancouver, B.C.

The property consists of patented and unsurveyed mineral claims plus Arizona State Prospecting permits located within the Blue Tank Mining District, Yavapai County, Arizona.

The patented claims were located around the early 1900's, and small shipments of selected high-grade copper-gold ores were made to custom smelters over the subsequent 30 year period.

Adequate production and engineering records are lacking, but smelter returns of ores ostensibly shipped from <u>Camp 'B'</u> returned a weighted average of 3.28% Cu, 0.26 oz/ton Ag, and 0.26 oz/ton Au from shipments totalling 370 tons.

The current evaluation consisted of detailed geological mapping of the main showings at 1" = 50 feet, chip and channel sampling of oxidized mineralized exposures, trial soil geochemical survey, and IP survey over the <u>Camp 'B'</u> zone. Some of the better mineralized exposures at <u>Camp 'B'</u> were:

ACB	-	1 and	2:	42 feet at 0.61% Cu
ACB		3 and	4:	36 feet at 0.36% Cu
ACB	-	17 to	178:	180 feet at 0.22% Cu

The 17-series samples also showed the highest Au values at 0.04 and 0.08 ppm.

All the foregoing were cut from leached and oxidized croppings with spotty surface mineralization of secondary copper minerals. Gold-silver values were very low and not correlative with past production records, thus the existence of auriferous zones in the flooded mine workings and remainder of the shear zone can only be ascertained by drilling.

The IP survey located a very good PFE conductor on L4NW/BL coincident with the intersection of the <u>Solomon</u> and <u>Camp 'B'</u> structures. This conductor-structural intersection area is targeted for drill testing.

The <u>Camp 'B'</u> propsect is an altered and sheared shatter structure at the contact of fine and coarse grained facies of Precambrian quartz monzonite. Metasediments, basic dikes, and gabbroic intrusives are also associated.

The <u>Albert Pit</u> is similar to <u>Camp 'B'</u>, although more restricted in lateral dimension, suggestive of a pipe-like shatter zone. The best assays from two point samples of the cleaned pit floor, 50 feet apart were 7.2% Cu and 8.5% Cu respectively. Gold values were somewhat higher here, with a single sample maximum of 0.024 oz/ton. Minor showings of autinite were noted on

the periphery of this zone, while anomalous U<sub>3</sub>O<sub>8</sub> results in the 6-7 ppm range were identified in the central pit area. Both prospects offer interesting geological parallels with criteria diagnostic of hydrothermal vein-type uranium deposits, and this possibility should be monitored during drilling.

Additionally, a significant portion of a prominent quartz vein/shear zone structure shows potential for some +400,000 tons of secondary copper mineralization that may average 3% Cu or higher. Surface assays over a 10-15 foot wide x 200 foot long portion of this zone ran 13.6% Cu, 0.23 oz/ton Ag, and 0.03 oz/ton Au.

An initial \$230,000 USF drilling program is recommended to more accurately determine the value of the Inspiration prospects.

#### INTRODUCTION AND BACKGROUND

At the request of Mr. Jack S. Redmond, President of Inspiration Minerals Inc., the writer was retained to conduct a preliminary, but fairly detailed evaluation of the Camp 'B' and Albert Pit prospects located in Arizona. This examination was undertaken during the period 28 March to 8 April 1981.

Detailed grids were constructed in the immediate vicinity of the principal showings and these were geologically mapped at  $1^{\mu} = 50$  feet. Some 200 lbs. of samples were shipped to Barringer Resources Inc. at Reno to be assayed for Cu, Mo, Au, Ag, and U<sub>3</sub>08. This shipment included 64 soil samples.

#### LOCATION AND ACCESS (Figure 1)

The property is located some 11 miles east of Wickenburg, Arizona, and is accessible by 2-wheel drive vehicles over well maintained gravel roads. Wickenburg lies on the Santa Fe Railway and on U.S. Highway No. 60-70-89, 54 miles north of Phoenix. Specific details are:

Blue Tank Mining District; Yavapai County, Sections 8, 9, 16, 17, 20 and 21; T8N-R3W.

Map Quadrangle: Morgan Butte 1:24,000.



Maximum elevation on the property is 3,912 feet ASL with a local base elevation of 3,400 feet ASL. Slopes are moderate to locally steep with the terrain being dissected by numerous erosion gullies. A variable cover of cactus and thorn brush is present throughout the property. Water is found at depths of 50 to 60 feet in existing mine openings. As the bedrock is highly fractured, it is inferred that a good supply of subsurface water is present, particularly within regional shatter zones.

#### PROPERTY (Figure 2)

According to the claim map furnished the writer, the property consists of the undernoted patented claims, located claims, and Arizona State Prospecting Permits:

Patented Claims Batholdi (2418) Chadwick (2418) Meter Hill (2418) Nogi (2418) Scorpion (2418) Amalgamated Copper (2418) Lawson (2418) Montai Hill (2418) W.H. Burage (2418) <u>Ownership</u> <u>Jeanette Oberan et al</u> 30% Everett L. King 75-15% Robert G. Begam 7.515% Frank Lewis 40% Jeanette Oberan 5.57

#### Patented Claims

The Accident (2418) San Fransisco (2973)

Gilbert House (2973)

### Ownership

Sophie Katich 6015 Chariton Avenue Los Angeles, California 90056

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#### Located Claims

Albert No. 5 (MC 105520) Albert Wedge No. 1 (105513) Golden Gate Wedge (105535) Golden Gate Annex (105538) Golden Gate (105531) Golden Gate No. 2 (105532) Albert No. 3 (105518) Golden Gate Annex No. 2 (105539) Wedge No. 3 (105515) Golden Gate No. 4 (105534) Golden Gate No. 3 (105533) Albert No. 4 (105519) Golden Gate Extension No. 2 (105537) Golden Gate Extension No. 1 (105536) Extension No. 1 (105510) Extension No. 2 (105511) Extension No. 3 (105512)

Wedge No. 2 (105514)
Wedge No. 1 (105513)
Albert No. 9 (105521)
Albert No. 10 (105522)
Albert No. 11 (105523)
Albert No. 12 (105524)
Albert No. 13 (105525)
Albert No. 14 (105526)
Albert No. 15 (105527)
Albert No. 16 (105528)
Albert No. 17 (105529)



Figure 1.- Map of Wickenburg area and surronding territory. Mines: 1, Vulture; 2, Octave; 3, Johnson; 4, Yarnell; 5, Congress; 6, Reese; 7, Hillside; 8, Bagdad; 9, Comstock Dexter; 10, Oro Bueno; 11, Arizona Homestake; 12, Pump.

### ARIZONA STATE PROSPECTING PERMITS

Abstract of Journal Entries (no map available at present):

"3-6-80, Prospecting Permit #78516, Lots 6 - 13, 249.41 Ac., Everett L. King, approved 4-10-80, begins 4-25-80, expires 4-24-85."

"6-23-80, Prospecting Permit #79571, Lots 2 - 5, SW NW, 178.57 Ac., Stephen L. Oberan, approved 7-24-80, begins 8/18/80, expires 8-7-85."

It should be noted that the located claims are double-registered at the Bureau of Land Management in Phoenix and are assigned differing MC numbers. The numbers shown are those for Mr. Stephen L. Oberan. The same claim names are also registered to Mr. Everett King under different MC numbers.

Additional located claims registered to both Mr. Oberan and Mr. King have been recorded for Section 16. These are not shown on Figure 2 as mineral rights in this section belong to the State of Arizona and have been duly assigned to both Messrs. King and Oberan via Prospecting Permits.

The description of property recounted above is based upon data furnished to the writer by Inspiration Minerals Inc. and by verification of public records at the county seat, Yavapai County in Prescott, and the Bureau of Land Management at Phoenix. This description is not meant nor implied to be a guarantee of title.

## SYNOPSIS OF HISTORY AND DEVELOPMENT

The patented claims were located around 1900, and small shipments of selected high-grade copper-gold ores were made to custom smelters over the following 30 year period.

Total development work amounts to some 1,200 feet consisting of two inclined shafts dipping 57° westward, a connecting level at 160 feet, and a second connecting level at 270 feet. As the workings are in disrepair and flooded, sub-surface conditions cannot be evaluated at this time.

The sulphide zone reportedly occurs about 120 feet below surface and allegedly includes chalcocite, bornite, native copper and dominantly pyrite. Cross-cuts are reported to indicate a mineralized width of 12 feet to 47 feet.

The water flow was given as 35 gpm in February, 1943; however, a later report (1949) quoted 10 to 15 gpm.

It is reported that 28 carloads were shipped during World War II with an unweighted average grade of 5.42% Cu, 0.483 oz/ton Au, and 0.49 oz/ton Ag. No smelter returns were seen to verify this data.

Date	Net Dry Tons	<u>% Cu</u>	oz/ton Ag	oz/ton Au
April 9, 1934	36.6	3.78	1.05	0.47
Sept 13, 1934	30.2	2.36	0.30	0.41
Sept 8, 1934	35.5	1.97	0.10	0.33
July 19, 1934	30.3	1.98	0.10	0.38
June 25, 1935	29.8	2.90	0.20	0.40
Oct 29, 1951	30.0	5.07	0.11	**
June 21, 1955	38.8	0.96	0.50	0.57
June 17, 1938	31.6	5.32	0.40	0.04
Nov 30, 1949	37.4	7.15		-
Sept 10, 1943	33.3	1.52	0.07	0.17
Sept 14, 1951	35.8	3.07	-	0.05
TOTAL	369.3			0.00
				2
WEIGHTED AVERAGE		3.28	0.26	0.26

Previous exploration by drilling was performed by Cerro Corp. in the late 1950's. Several cemented drill collars were located during field mapping and these are shown on Figures 3 and 4. The earliest drilled hole appears to be located at 3N-LOO, which has the date 11-1-43 inscribed in the collar. The latest period of drilling is indicated by the date (1976) inscribed on core boxes located near the powder magazine, L2SE-3NE. The property vendors are unable to furnish logs of any previous drilling.

#### GENERAL GEOLOGY

There are no published geological maps that relate specifically to the area in question. First-hand examination shows that lithologically the area is fairly simple. Quartz-biotite-feldspar gneisses and lesser biotite schist (Precambrian Pinal Schist?) have been invaded by a large quartz monzonite intrusive consisting of a fine and coarse grained phase. Remnants of schist and gneiss now occur as pendants and inclusions of limited lateral extent primarily within the fine grained quartz monzonite. Little alteration of these remnants is evident except in shatter zones. Occurring with the monzonitic intrusive are random dikes and zones of pegmatoid material. These appear to be more numerous in the fine grained monzonite. Within the pegmatoids, individual feldspar grain sizes increase to 1<sup>#</sup> or more. An occasional tourmaline crystal to 1<sup>#</sup> is the only other mineral of note, beside quartz, feldspar, and mica. In a few instances the pegmatoids show pyrite impregnation.

One small outcrop of pink tuff cut by quartz monzonite was observed at the NW end of the Camp 'B' base line.

Aside from alteration effects accompanying regional shatter zones, the intrusive rocks are fresh and unaltered. The second youngest rock unit

appears to be minor intrusives of diorite-gabbro composition, which were only observed near Camp 'B'. These may be related genetically to fine grained gabbroic/lamprophyre dikes, which appear to be the youngest rock unit.

#### STRUCTURE

Within the overall area, bedrock is highly fractured, with the greatest intensity of fracturing occurring within regional shear zones that are pyritized and altered (sericite, K-spar, kaolin, silica). Pyrite and silica are the dominant alterations present. These shatter zones have lengths of a mile or more and widths to several hundreds of feet. They are characterized by prominent hematitic gossans or rusty soil zones, and occur intermittently over many miles of strike length. Some of the more prominent zones on the Oberan property are shown on Figure 3.

## ALTERATION AND MINERALIZATION

As indicated above, the main features of mineral interest are certain of the shatter zones which are silicified, pyritized, and variably mineralized with secondary Cu minerals on surface. Secondary copper minerals are erratically distributed, with the better concentrations localized at the Camp 'B' zone, Albert Pit, and the quartz vein near elevation 3,858 feet immediately SE of the Solomon Mine. Secondary Cu minerals favour

silicified and carbonated basic dikes and the more calcic intrusives (diorite, gabbro).

The shatter zones have very sharp boundaries, and altered, pyritized rock grades into barren, unmineralized rock within a few feet.

#### DETAILED PROSPECT DESCRIPTIONS

<u>Camp 'B'</u>: (Figure 4) Mineralization at Camp 'B' is related to a shear/ shatter zone occurring at the contact of coarse grained and fine grained quartz monzonite. This zone is 1,800 feet long as mapped and is open for extensions to the NW and SE. The maximum width of this zone ranges between 100 and 200 feet. To the SE, the zone is covered and its probable extension underlies Hamlin Wash. Mineralized zones mined previously, appear to constitute a more restricted width within the shear, although these are allegedly still substantial (50 to 70 feet).

The exact nature of the structure is uncertain, but it may represent a time-extensive feature as it includes the entire suite of regional rock types, biotite gneiss, biotite schist, pegmatoid, plus basic intrusives in the form of gabbros and diorites.

Alteration within the shear zone consists of silica, sericite, K-spar, chlorite, carbonate and pyritization.

The zone is marked in part by leached hematitic gossans bearing variable amounts of secondary copper minerals. Based upon examination of dump material, sulphide mineralization likely consists of dissemination, stringers, and heavy impregnations of pyrite. A small amount of chalcopyrite and bornite was observed in association with some fragments of pyrite.

Whether or not the entire zone is mineralized or whether significant mineralization is limited to shoots or lenses can only be determined by drilling.

<u>Albert Pit</u>: (Figure 5) In many respects, the Albert Pit is similar to the Camp 'B' occurrence. The principal area of copper mineralization appears to be a blow-out along a pyritized shatter zone many thousands of feet long. The east wall of the surface cut is marked by a pyritized, silicified shear zone in quartz monzonite. This fades outward to less fractured quartz monzonite and finally to fresh unaltered rock. West of this primary shear the geology is more complex consisting of a melange of altered gneiss and quartz monzonite. A multiplicity of narrow basic dikes occurs in this area, and the one near the pit centre is highly silicified and carbonated which likely accounts for the good showing of secondary copper minerals associated with it. As mapped, the Albert zone has overall dimensions of 200 x 200 feet. To the north the zone thins markedly and is bounded by fresh unaltered country rock. The main shear structure dips steeply (80°) NW. There is a possibility that this feature is a pipe-like

disturbed zone which may have considerable depth extent. Secondary uranium mineralization (autinite) was observed at surface in both fine grained quartz monzonite and biotite gneiss. The occurrences are spotty, but may indicate that these units are uraniferous source rocks.

# RESULTS OF SOIL GEOCHEMICAL SURVEY

A trial program of soil sampling was conducted on the NE side of the base line, above Hamlin Wash. The utility of soil sampling in the arid, leached environment is variable; however, the generally thin soil covering in the area surveyed suggests that the results in this particular instance should be valid as a general guide to mineralization or the original presence of mineralization, now leached.

No new targets were identified by this survey. The silicified zone extending from L6NW-BL to L10NW-3NE and beyond, shows little in the way of elevated copper-gold-molybdenum-uranium content.

Anomalous copper results were detected along the base line at lines OO and 2NW; however, this is within the disturbed area and likely reflects contamination.

Except for the 17 ppm U result at BL/00, all other sites are less than 1 ppm U, which is typical for this metal in the leached zone. The anomalous result quoted above is also from the disturbed area and may represent contamination of the surface zone by mined material.

The presence of the Camp 'B' shear zone within the Precambrian (?) intrusives, with its chlorite, silica, carbonate, and hematite alteration may be significant in terms of potential uranium mineralization, which may exist below the oxidized zone.

### GEOPHYSICAL SURVEY

An induced polarization survey was performed over the Camp 'B' grid by Phoenix Geophysics of Denver, Colorado. This survey employed frequency domain equipment operating at 0.3 and 2.5 Hz with 200 foot dipoles.

In general, anomalous zones detected do not show a close relationship to the principal structure as defined by geological mapping. Anomalies NE of the base line may be due to gabbroic zones or highly fractured pyritized areas. An exception is the strong anomaly on L4NW which may mark the intersection of the Solomon zone with the Camp 'B' structure. This could be a very favourable place for deformation and sulphides. There are no signs of previous drilling in this area.

The other anomaly of interest, although weak, is the weak PFE response on L2SE(0-4SW). This coincides closely with the main shear zone, thus there may be mineralization at depth.

# MINERALIZATION AND ASSAY RESULTS

Due to the highly leached and oxidized surface conditions, the primary mode of mineralization is unknown. However, it is inferred that sulphides occur at depth likely in both disseminated and semi-massive form over variable areas within the altered sheared rocks and the voids and interstices thereof.

The secondary quartz vein structures which traverse the property that are hematite stained, likely carry variable concentrations of pyrite and spotty zones of copper sulphides at depth.

Sampling conducted on the property consisted of:

62 soil samples from NE side of Camp 'B' grid
19 rock samples (Camp 'B') of both dump and mineralized exposures
22 channel and point samples from the Albert Pit
7 rock samples from dumps and showings in the NW/SE at Section 17

Camp 'B' Area: (Figure 4)

ACB-1 and 2:	Averaged 42 feet at 0.61% Cu; nil Au
ACB-3 and 4:	Averaged 36 feet at 0.36% Cu; nil Au
<u>ACB-5</u> :	0.67% Cu; grab of Cu-stained gossan material from small
	pit in chloritized mafic gneiss and pegmatite; nil
	Values for Au

ACB-6:	1.32% Cu; grab of chloritized gabbro dike, cut on L2NW;
	nil values for Au
<u>ACB-7</u> :	0.32% Cu; grab of gossan exposure; nil values for Au
ACB-8:	61 ppm Cu; grab of silicified hematitic gossan
	L6NW-1NE; nil values for Au
ACB-9:	710 ppm Cu; same zone as ACB-8, but located at
8	L8NW-2NE; nil values for Au
ACB-10 to 13:	Average 725 ppm Cu over 80 foot width of shear zone;
	nil values for Au
ACB-14:	456 ppm Cu, 0.06 ppm Au; grab of fresh pyrite on dump
<u>ACB-15</u> :	0.15% Cu, <0.02 ppm Au; sample around margin of main
	dump, mostly oxidized material; does not include
	sulphide sampled in 14
<u>ACB-16</u> :	Nil values all metals; apparent waste rock from U/G 20
	feet north of shaft, consisting of chloritized,
	sericitized quartz monzonite with minor carbonate and
	epidote
<u>ACB-17</u> :	Chips over 65 feet 1,720 ppm Cu
ACB-17A:	Chips over 50 feet 4,930 ppm Cu
ACB-17B:	Chips over 65 feet 671 ppm Cu
	Average 0.22% Cu over 180 feet

Samples 17 and 17B showed the highest Au values at 0.04 and 0.08 ppm respectively.

<u>Albert Pit</u>: (Figure 5) Sampling in the Albert Pit area consisted primarily of channel samples across the primary shear (GG 18-24) and point samples of bedrock on the shallow pit floor. No samples were taken from spoil or loose material not in place. None of the channel samples returned any values of significance. although uranium values (up to 7.3 ppm) were well above those found at Camp 'B'. Two samples in the pit 50 feet apart returned values of 7.2% and 8.5% Cu. Gold values were very low, with the single highest result being 0.024 oz/ton. There were four uranium values between 5.6 and 6.1 ppm U<sub>3</sub>0<sub>8</sub>, which while low, may be significant in terms of sub-surface mineralization, given the high mobility of this element and its susceptibility to leaching.

<u>Solomon Quartz Vein/Shear Zone</u>: This prominent iron-stained quartz zone extends from the NW end of the Camp 'B' shear (vicinity L4NW-BL) and extends to hill 3858 (centre of SE 1/4 section 17). On the basis of adits due north of hill 3858, there appears to be an additional 1,500 feet of strike length to this feature, for an aggregate length of +3,500 feet. Where observed, the zone has a near vertical dip.

Rock samples collected from this feature near Camp 'B' showed copper levels of 61-710 ppm. The undernoted samples collected from the structure at hill 3858 assayed as follows:

Sample #	oz/t Ag	oz/t Au	Cu ppm
A17-1	0.23	0.03	(13.6%)
A17-2	ND	0.006	1700
A17-3	ND	0.008	2300

Sample A17-1 is a chip-grab along a 10-15 foot wide by +200 foot long silicified, cross-fractured zone at the top of hill 3858. Judging by the abundance of secondary Cu minerals this portion of the zone has the best mineralization. Samples A17-2 and 3 are from separate dumps of short adits which tap into the zone north of hill 3858. The levels of copper mineralization identified here (0.17% and 0.23%) are also much higher than levels seen at the south end, near Camp 'B'. Subsequent to the writer's work, one of the above adits was re-opened and nine character samples were cut across the ribs and backs by Mr. Mike Cooper. (Refer to enclosed assay report of Arizona Testing Laboratories). These nine samples averaged 3.8% Cu, 0.03 oz/ton Au, 0.04 oz/ton Ag, across reported widths of 5-6 feet. While this sampling was not performed by the writer, the values appear consistent with the potential of the zone.

On the basis of its intersection with topographic contours, the Solomon Copper zone has an apparent depth extent of some 300 feet below surface. Based upon a 15 foot width, 1,000 feet of strike length, there is close to a +400,000 ton tonnage potential indicated. The grade and continuity of potential mineralization and the zoning of primary copper sulphide vis a vis possible precious metals content can only be ascertained by drilling.

#### King Solomon Prospect:

	oz/t Ag	oz/t Au	Cu ppm
A17-4	0.27	0.048	63
A17-5	0.29	0.006	118
A17-6	0.27	0.052	47

Sample 17-4 is from the 4 foot thick King Solomon quartz vein; number 17-5 is the combined foot and hanging wall material, while 17-6 is a grab of hand cobbed quartz laying in front of the shaft.

The quartz vein strikes 294° with a 45° dip easterly. The results of this sampling indicate little potential.

#### CONCLUSIONS

The Camp 'B' and Albert Pit prospects are shatter zones contained within quartz monzonitic intrusives of apparent Precambrian age. The monzonites consist of two phases, a coarse grained type, and a finer grained variety containing more included metasediments (biotite, schist, quartz biotite gneiss), pegmatite dikes, and basic dikes and intrusions.

These structures have been altered (silica, pyrite, hematite, K-spar, chlorite, epidote, carbonate) and variably mineralized by copper sulphide minerals, which are now totally oxidized to secondary copper carbonates and silicates.

The continuity of mineralization within these structures is likely erratic but may be locally of higher grade (+2% Cu). The Camp 'B' structure has been traced by IP survey for some 1,600 feet. Much of this interval is covered by the alluvium of Hamlin Wash. Gold values on surface are very low and not consistent with the records of past production which indicate a weighted average of 3.28% Cu, 0.26 oz/ton Ag, and 0.26 oz/ton Au. There is evidence of previous drilling, however, no records are available.

The IP survey shows weak responses which seem inconsistent with the presence of sulphides at 300 feet below surface based upon dump material. This feature is inconsistent with oxidation conditions in Arizona, where depths to fresh sulphides of 500 feet or more are common. The best gold values as such, from surface sampling, come from the large cut at L8SE which averaged 0.22% Cu over 180 feet in leached and altered shear zone. This would be an obvious area for future drilling.

The Albert Pit zone is similar in many respects to Camp 'B', but seems to be a localized blow-out along a strong regional fracture zone. The presence of secondary uranium mineralization nearby, and the fairly high surface uranium values (to 7.3 ppm) suggest potential for possible sub-surface mineralization. The Albert zone may be a pipe-like body plunging steeply NW. The fracturing, alteration and sulphide content of such a structure would form an excellent reducing medium for downward migrating uranium fluids.

The best copper bearing quartz zone (Solomon zone) has returned high grade copper values (13.6% Cu over an area 10-15 feet wide x 200 feet long). From hill 3858 north this zone may have a potential for some 400,000 tons

or more of relatively good grade secondary copper mineralization. This potential of course, needs to be tested by drilling.

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Precious metals results for this area are disappointing. Whether there could be any pick-up in values with depth, say in a possible enriched zone is conjectural and requires a drilling evaluation.

There are a number of additional quartz veins on the property, and the better ones have been sampled with little significance in terms of precious metals. They carry non-significant spotty concentrations of secondary copper minerals of no consequence.

#### RECOMMENDATIONS AND BUDGET

Drilling is required to provide a definitive appraisal of Inspirations' Camp 'B' and Albert Pit prospects. The objective of the proposed drill test is to test for grade and continuity of mineralization in general, verification of reported gold-bearing material, and a test for potential high grade hydrothermal type uranium mineralization. The location, directions, and depths of proposed holes (6 in all) are shown on Figures 4 and 5.

Additionally, the high grade copper bearing quartz vein/shear zone at hill 3858 should be tested for grade, continuity, and primary sulphide/precious metals content by drilling. A series of short cat trenches, geological mapping, and several fars of short angle balas should be to a several fars of short angle balas should be tested to be a several fars of short angle balas should be tested for grade.

# BUDGET FOR INITIAL EXPLORATION (\$USF)

\$175,000	5,000 feet NQ core drilling at \$35/ft all inclusive contract charge
15,000	Cat trenching, drill site preparation, and clean-up
5,000	Assaying charges, Cu, U308, Au, and Ag
5,000	Field equipment and supplies
5,000	Accommodation and travel expenses for site geologist (2 months)
15,000	Engineering and supervision
\$220,000	Sub Total
10,000	Contingency and/or extra hole allowance
\$230,000	Grand Total Initial Program

Prepared by:

Herb Wahe

Herb Wahl, P.Eng., B.C.

# REFERENCES

- Unpublished data and old engineering reports furnished by Inspiration Minerals Inc.
- Report on the Induced Polarization and Resistivity Survey on the Camp 'B' Prospect, Yavapai County, Arizona, by Bruce S. Bell, Phoenix Geophysics Inc., May 1981.

#### CERTIFICATION

This is to certify that:

- I, Herbert J. Wahl, am a resident of British Columbia and live at R.R. #4 Gower Point Road, Gibsons, B.C. VON 1VO.
- 2. I am a graduate of Dartmouth College, Hanover, New Hampshire, with the degree of Bachelor of Arts with Honors in Geology (1957).
- 3. I am a member of the Association of Professional Engineers of British Columbia and have practiced my profession continuously from 1961 to the present.
- 4. I have not, directly or indirectly, received or expect to receive any interest, direct or indirect in the property of Inspiration Minerals Inc., nor of any affiliate, or beneficially own, directly or indirectly any securities of the company or of any affiliate.
- 5. This report is based upon field work performed entirely by myself and upon unpublished data furnished by Inspiration Minerals Inc.
- Consent is given to submit this report as herein presented, to the Vancouver Stock Exchange in support of a Statement of Material Facts.

21 December 1981

Herb Wahl, P.Eng., B.C.





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## CAMP "B" FEASIBILITY

ASSUMPTIONS:

Reserves - 186,000<sup>+</sup> tons Grade - 5.0% Cu recoverable (no Au considered) Dimensions - 40' x 100' x 500', open horiz. & vertical Ratios - 10.0% sulphides in ore conc. 10:1 Mill - 200 tpd, 52,000 tpy. Operating - 260 days per year Concentrates - 5200 tpy, Cu 50% - 1000 pounds Costs, \$U.S. - capital, \$1.6 MM U.S. development, \$0.4 MM U.S. operating, \$32.00 per ton Revenue -\$1.00 U.S. per pound Cu -GSR \$1000.00 per ton conc. -Smelter & Transportation charge \$100.00 U.S. -NSR \$900.00 per ton conc.

OPERATION: -5200 tons Cu conc. per year

-260 days per year

-operating cost \$32.00 per ton ore

MINERALS	MINERALS: (Economic)		-	Formula	<u>%C</u>	%Cu		
		Bornite		Cu <sub>5</sub> FeS <sub>4</sub>	63.	3 7		
		Chalcocite		Cu <sub>2</sub> S	79.8	8 59.2		
		Chalcopyri	te	CuFeS2	34.	5 J		
		Malachite		Cu <sub>2</sub> CO <sub>3</sub> (OH)2	57.4	4		
		Azurite		Cu <sub>3</sub> (CO <sub>3</sub> ) <sub>2</sub> (OH	), 55.	55.3		
	Chrysocolla		a	CuSiO <sub>3</sub> 2H <sub>2</sub> O		2 (CuO)		
1	REC. %	Cu SULF.	% CONC. RAT	IO CU CONT	. 90% EFF.	TPY CONC.		
CASE I	3.0	6.0	16.5:1	1000 lb	s. 900 lbs.	3150		
CASE II	4.0	8.0	12.4:1	1000 lb	s. 900 lbs.	4160		
CASE III	5.0	10.0	10:1	1000 lb	s. 900 lbs.	5200		
CASE IV	6.0	12.0	8.5:1	1000 lb	s. 900 lbs.	6120		
CASE V	10.0	20.0	5:1	1000 lb	s. 900 lbs.	10400		

## Arizona Testing Laboratories

817 West Madison · Phoenix, Arizona 85007

Telephone 254-6181

For Inspiration Minerals, Inc. 1704-1755 Haro Street Vancouver, B.C.

November 12, 1981

## ASSAY CERTIFICATE

Date

	IDENTIFICATION	OZ. PE	RTON	PERCENTAGES			
LAB NO.	IDENTIFICATION	GOLD	SILVER	COPPER			
4052	23481	0.06	0.10	10.			
	23482	0.03	Trace	1.5			
	23483	0.03	0.05	3.8			Ł.
	23484	0.04	Nil	6.8			
	23485	0.04	0.05	4.1			
	23486	0.03	0.05	2.1			
	23487	Trace	0.05	0.42			
	23488	0.01	0.10	4.9			
	23489	Trace	Trace	0.18			
	Sand	Trace					

SAMPLES CUT BY MR. MIKE COOPER

Respectfully submitted, Erec ARIZONA TESTING LABORATORI Planti Claude E. McLean, Jr.

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