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A GEOLOGICAL RECONNAISSANCE
of the Mineral Deposits
of the SILVER REEF MOUNTAINS
PINAL COUNTY, ARIZONA

For

POWDERED METALS CORPORATION

Phoenix, Arizona

by

HEINRICHS GEOEXPLORATION COMPANY
P. O. Box 5671 Tucson, Arizona

TABLE OF CONTENTS

Index Map----------i

Introduction----------1

Conclusions & Recommendations----------1

Samples, Grade & Reserves of Ore----------1

Geology----------2

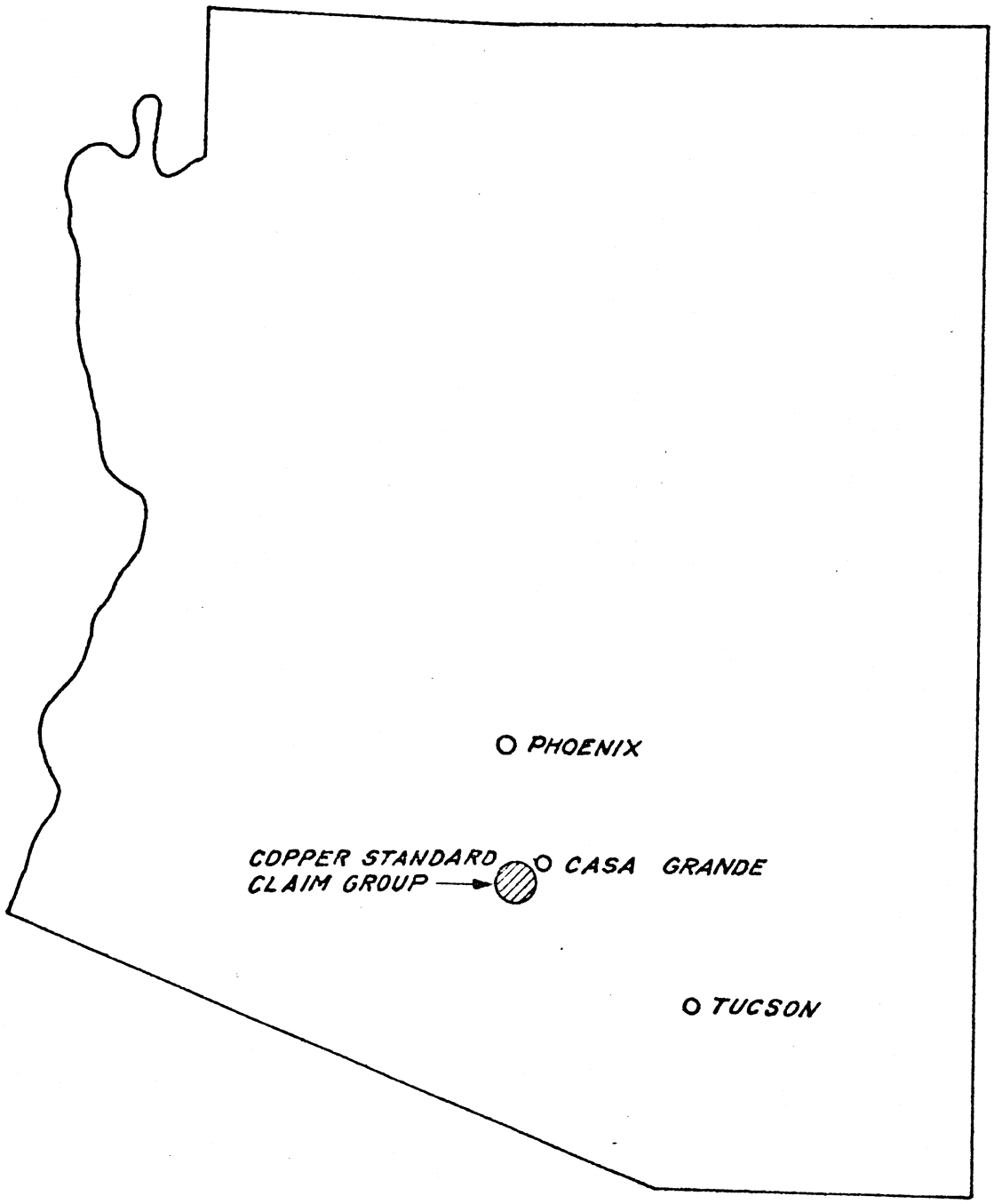
(a) Mineralization----------3

(b) Copper Standard Area----------4

Assay Certificate attached.

Geology Map attached.

AREA INDEX



STATE OF ARIZONA

HEINRICHS
GEOEX
GEOPHYSICAL ENGINEERS
TUCSON ARIZONA

INTRODUCTION

During the period of July 21-23 inclusive, Heinrichs Geoexploration Company conducted a field investigation of some copper prospects in the Silver Reef Mountains, Pinal County, Arizona. The investigation was done by John N. Faick at the request of Powdered Metals Corporation of Phoenix, Arizona.

The main area of interest lies in the west one-half of section 25, T. 8S., R. 5E. about 13 miles by road southwest of Casa Grande. The area lies on the eastern slope of the Silver Reef Mountains from one to two miles southwest of the village of Shopishk and is entirely within the Papago Indian Reservation. The main copper prospects are on a group of seven mining claims known as the Copper Standard group, which were surveyed for patent in 1902.

CONCLUSIONS, RECOMMENDATIONS AND INTERPRETATION

The mineral deposits of the Silver Reef Mountains consist of minor vein-like deposits containing silver, copper and manganese in volcanic host rocks. Silver is the most important metal produced, but in the area of current interest three small prospects were opened for copper. These are on the Old Copper Standard group of claims on the east side of the Silver Reef Mountains. The two most important prospects explored small deposits of secondary copper carbonate ore close to fracture zones in the volcanic rock. The deposits are small and in the aggregate probably do not contain over 2,500 tons of ore, and the grade of ore probably is too low to be commercial. No evidence could be found to indicate that important mineral deposits exist in the Silver Reef Mountains, however it is possible that some silver may again be produced from the Nugget and Silver Reef mines. The known copper deposits are not likely to become commercial sources of ore because of their small size, therefore no further exploration of them is recommended.

SAMPLES, GRADE & RESERVES OF ORE

Only three samples were taken and these were collected for the purpose of detecting metal contents in the ore rather than for establishing an actual grade estimate. There was a possibility that the ore might contain commercial values in precious metals and silver, therefore, the three selected samples were assayed for gold and silver as well as copper.

The assay results are as follows:

Sample number	Percent Copper	Ounces Gold	Ounces Silver	Description
1	2.29	0.01	1.7	High-grade selected ore from dump of main prospect

2	5.55	0.005	1.0	Hand picked, high-grade ore from small stockpile at south prospect
3	2.0	0.01	1.2	Ore from stockpile in shed at main prospect.

The apparent small size and relatively low grade of the mineral deposits on the Copper Standard group of claims probably does not warrant the expense of careful mapping and sampling required for accurate grade and tonnage estimates. The data presently available suggests the main mineralized zone may be about 50 feet long and 8 feet wide. Estimated to a depth of 50 feet it contains an indicated reserve of about 1500 tons of ore probably containing about two percent copper and about one ounce of silver per ton. The south ore body is similar but smaller and I estimate that it might contain 1000 tons of ore of the same grade. Thus the total ore reserves may be on the order of 2500 tons. I do not believe these reserves could be profitably mined under present conditions. However, there is a possibility that a small amount of the ore might be selectively mined for direct shipment to the Hayden smelter and exploration might discover additional small reserves.

GEOLOGY

The Silver Reef Mountains are underlain by two principal types of rocks; an ancient granite of Precambrian age and younger volcanic rocks of probable Tertiary age. The volcanic rocks apparently rest upon an eroded surface of the granite for there seems to be no evidence that the granite is intrusive into the volcanics.

The volcanic rocks, which are the host rock for the mineral deposits, form thick massive layers which have been gently folded so they generally dip in various directions at low angles except near the granite where the contacts dip as steeply as about 40 degrees. The volcanic rocks are very much brecciated but most of the brecciation apparently took place at the time the volcanic rocks formed and to a lesser extent is related to later deformation. The volcanic rocks are divisible into two units; an upper and lower unit.

The lower unit of the volcanics is exposed along the lower eastern slope of the mountain front. It is composed of a

of a gray to blueish gray rock with small phenocrysts of feldspar set in a fine grained matrix. It is thought to be an andesite. The rock is distinctly agglomeritic, especially near the top of the unit, and locally it contains rock fragments that are distinctly different from any other rocks observed in the Silver Reef Mountains. It probably is a flow breccia or agglomerate.

Resting upon the rock unit just described is another volcanic rock which is also agglomeratic but less so than the lower unit, and in a few places it is distinctly sheeted or laminated, a structure which I believe is due to flow banding. This rock is gray-brown, very fine grained, dense, non-porphyritic rock which for field purposes is tentatively classified as latite. The upper part of the Silver Reef Mountains seem to be composed of this latite. Both the andesitic agglomerate and latite have a dark gray to black weathered surface which is a "desert varnish" composed of iron oxide with traces of manganese. This discoloration of the rock is widely and uniformly distributed so that from a distance the two volcanic rock types are almost indistinguishable and the entire mountain mass has a uniform, dark colored appearance. Locally these rocks contain tiny vugs or cavities, which formed as gas bubbles in the rock when it was being formed.

Structure:--

The entire mass of volcanics seems to be broken and brecciated, a fact which is mostly attributed to the volcanic origin of these rocks, rather than later structural deformation, although it seems probable that some brecciation was caused by movement along both low- and high- angle faults. Smooth, slickensided surfaces are relatively abundant suggesting that considerable movement has taken place within the rock mass although faults are not readily apparent.

Probably the most numerous and most conspicuous faults are minor high-angle or nearly vertical fractures which are widely scattered throughout the area. These are minor faults which have relatively short dimensions both horizontally and vertically. Most of these high-angle faults strike about N. 20 W. but the range is from about N. 35 W. to about N. 25 E. The faults dip either east or west but are invariably steep, usually between 75 and 90 degrees. These minor high-angle faults are the most important faults in the area because they seem to have been important controls during mineralization processes.

(a) <u>Mineralization</u>

The Silver Reef Mountains have been subjected to only feeble processes of mineralization which formed minor deposits of copper and silver, and minor deposits of manganese. Silver was the most important metal to form on the west side of the range and copper seems to have been the most important metal on the east side. The only manganese deposits known to the writer are on the east side of the mountains, a little more than a mile north of the copper deposits.

HEINRICHS GEOEXPLORATION COMPANY

(b) The Copper Standard area

The most important mineral deposits in the area under consideration are two small copper deposits on the Copper Standard group of claims. One of these, probably the most important, is in the southeast part of the Esperanza claim nearly on the line between Sections 24 and 25, and the other is about 1000 feet farther southwest on the Cow Boy claim. The first mentioned deposit formed in a zone where two minor north-trending faults cut the andesite porphyry. The faults are about eight feet apart and the zone between the faults and both walls are shattered and sheared thus forming a zone of deformation several feet wide. Tiny veinlets of quartz containing some copper were localized along fractures in this zone to form a small body of low-grade ore. Subsequently, upon weathering the copper was taken into solution and carried outward into nearby shattered host rock and redeposited as malachite, the green copper carbonate. The malachite forms thin films on the moderately shattered host rock so that a small amount of copper forms an impressive outcrop. The copper is most abundant just a few feet below the original land surface and seems to diminish in quantity at depths of 25 or 30 feet. On the surface the copper can be traced only a few tens of feet, consequently only a very small body of low grade ore is indicated.

About 1000 feet south of the main orebody just described is another similar but smaller orebody. This is localized near the intersection of three fractures of which the principal fracture strikes north and dips about 75 degrees east. Another fracture strikes N 70° W. and is vertical, the third fracture strikes N. 50° W. and dips 55° NE. These fractures seem to have controlled localization of a small amount of primary ore, which through processes of weathering, was dispersed through a relatively large volume of rock. The attractive appearance of the secondary copper makes the deposit look much more impressive than warranted by the tonnage and grade of ore actually present.

The two principal deposits of copper in the Silver Reef Mountains are those described above, but there is a little copper in a prospect located on the north side of a canyon several hundred feet north of the main prospect. This north prospect consists of an old adit estimated to be about 30 feet long and a shaft about 50 feet deep. At this adit-shaft workings a mineralized zone about one foot wide is localized along a fracture trending about N. 20 W., and dipping 78° NE. Sparse, insignificant amounts of copper carbonate occur along the narrow altered and mineralized zone.

There was no evidence of sulfide ore at any of the prospects and it is probable that none exists as oxidation must have been relatively deep. In view of the sparse mineralization it is inadvisable to search for sulfide ore that might exist below the known prospects.

OTHER PROSPECTS

In the Silver Reef Mountains are a number of other prospects which should be mentioned as part of this study. The most important of these is the Silver Reef mine on the west slope of the mountains which between 1915 and 1919 was credited with a production of 50,000 pounds of copper and silver valued at about $60,000. During the period 1948-1951 it reportedly produced about 35,000 tons of siliceous ore containing slightly over eight ounces of silver per ton. Most of the ore was produced from east trending veins on the Nugget and Silver Nugget claims.

It is doubtful if any other properties in the Silver Reef Mountains were ever productive. Near the north end of the mountains in section 10 some shallow workings explore a couple of manganese veins having a strike length of about 100 feet and widths as much as three or four feet. The Old Jonah mine explored a contact between granite and volcanics and several prospects were dug in the volcanic rocks without making a discovery. About a mile southwest of the main prospect on the Copper Standard group a short adit and winze explored a slightly mineralized vertical fault zone which strikes about N. 25° W. The zone is from two to four feet wide and contains mostly shattered volcanic rocks with intervening spaces partly filled with limonite.

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

John N. Faick

John N. Faick, Ph.D.
Registered Professional Geologist

APPROVED:

Walter E. Heinrichs, Jr.

Registered Professional Engineer (Mining) CERTIFICATE EXPIRES DEC. 31, 19 WALTER E. HEINRICHS, JR. ARIZONA, U.S.A.

August 2, 1966
P. O. Box 5671
Tucson, Arizona

HEINRICHS GEOEXPLORATION COMPANY

806 WEST GRANT ROAD, TUCSON, ARIZONA, 85703. P.O. BOX 5671. PHONE: (AREA CODE 602) 623-0578

August 9, 1966

Mr. Frederick E. Kallof, President
Powdered Metals Corporation
34 West Monroe Street
Phoenix, Arizona

Dear Mr. Kallof:

Enclosed is the original and one duplicate copy of our report on the Standard Claims Area, Silver Reef Mountains, Pinal County, Arizona.

The stated tonnage reserve estimates are a safe and conservative probability, or almost dependable certainty. As a speculative maximum possibility, 50,000 tons might be a reasonable guess. Reportedly, some prior reliable estimates went as high as 35,000 tons maximum. Such estimates include very liberal extensions of the observed and/or measured dimensions and conditions, well beyond anything that can be seen or reasonably predicted laterally or in depth.

In a previous report about 12 years ago after examination of an hour or so, I stated, "Several veins or beds of oxidized copper are found around the southern margin of a typical, island type, desert mesa of extrusive rhyolite, andesite, associated breccias and basalt. The mineralization occurs mainly in the breccia and varies from a few feet to fifty feet in width, along zones striking roughly NE and dipping south under volcanics partially covered by alluvium on the flat around the mesa.

"Size of the dumps and working indicate shipments of a few thousand tons were made, probably to the old Sasco Smelter near Red Rock. Sub-surface extent of the mineralization is not evident from the amount of work done and secondary enrichment is possible, however, the general situation suggests limited extent. The grade seemed to be spotty from the way mining had been done, notwithstanding reported assay of the dump material, and profit from direct shipment is very doubtful. That means leaching would be required on the near surface ore. Water table is estimated to be about three hundred feet. The nearby agricultural development

MINERAL ENGINEERING CONSULTANTS AND CONTRACTORS. GEOPHYSICAL, GEOLOGICAL AND ECONOMIC APPRAISALS.

assures that adequate water could be developed from wells.

"Further exploration can be done by bulldozer, trenching and even some preliminary mining by open cut, but eventually drilling would be required. Odds are against proving up any very large tonnage; however, a small mine could be developed."

If it is desired to proceed with further evaluation, the next logical step is to confirm grade, reserve estimates, and provide information for initial development and mining method planning by a program of preliminary core drilling, core sampling, and assaying. Such a program would take from two to three months and should cost no less than $10,000.00 and would probably approach or might eventually exceed $25,000.00. At this state, additional expenditure may be justified on the basis of favorable results and assurance that the most efficient production system would be employed. Accordingly, such funds are rarely if ever wasted--especially in the long run.

It is barely possible that these deposits could form a part of an overall operation which integrated the production from a number of separate occurrencies in different areas. In this connection, there are other deposits of oxidized copper ores in the region of the general area known as the Casa Grande Mining Districts of which the Silver Reef Mountains are a part. Perhaps one of the most adverse factors in the success of such an integrated operation would be distance of separation between deposits and resultant cost of transportation to a central facility. If that aspect was made feasible, then substantially larger reserves could be developed.

Please do not hesitate to mention any questions which arise. Meanwhile, we will look forward to receiving data regarding your claims in Yavapai County.

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

Walter E. Heinrichs, Jr.
President

WEH:mh
Encl.

AL 4-8546

REG. ARIZONA

F. C. RAMSING, E.M.
CONSULTING GEOLOGIST and MINING ENGINEER
325 WEST CYPRESS STREET
PHOENIX, ARIZONA

June 12, 1967

A MINING REPORT
THE STANDARD GROUP OF COPPER CLAIMS

The Standard Group of Copper Claims lie about 14 miles southerly from Casa Grande, Arizona in the Silver Reef Mountains. It has the following patented claims: Esperanza, Crown, Cow-Boy, Summit, Chicago, Millsite and St. Louis. All are accessible by a good road.

The main geologic features are the pre-Cambrian Granite that forms the core of these mountains and which has been intruded by andesite, first by flows but subsequently by a central stock about five eights mile in diameter. This was forced up vertically as shown by its flutings. Copper has only been seen near the contact of this plug. With this in mind I directed two diamond drill holes toward this area, viz. Nos. 6 and 7 and later two other holes 8 & 9 to the right and left of No. 6 respectively. The included distance was 265 feet.

All drilling and core splitting was under the supervision of Hoyt drilling, while assaying was done by Shattuck Den Mining Co., Iron King Branch at Humbolt, Arizona, for Harlan Metals Company.

After examining the drill cores, I find no evidence of any large vein, except post mineral fractures of small size which permitted some oxidation in depth. On the other hand the sampling indicates values throughout a wide zone, such as found in disseminated deposits. This is confirmed by stereoscopic examination which noted mainly sulphides, such as chalcopyrite and bornite and some oxidized minerals. This then is a hypogene deposit with nominal enrichment expected, but the analysis of the ore shows it to be valuable to mine. This like other deposits of this type will show variations as in Nos. 7 and 8.

Details of drill holes:

	Feet	%			Assay Cu	Proportion
# 6 24° down	50-88	38	56	X	2.44 =	1.37
	88-95	7	10.3		2.52	.252
Cos 24°=.913	95-105	10	14.7		2.44	.36
Sin .406	105-110	5	7.3		3.58	.27
	110-118	8	11.7		4.42	.52
		68	100.0			2.77

68 X .913 = 64.4 ft. true width. 68 X .406 = 53 ft. true height.
110 X.913 = 100 ft.

# 7 50° down	160-171	10	25.0	.80 =	.20
Cos 50°=.643	171-191	21	52.5	1.12	.59
Sin .766	191-200	9	22.5	.12	.03
		40	100.0		.82

40 X .603 = 25.0 ft. true width. 40 X .766 = 15.3 ft. true height. 200 X .603 = 126.0 ft.

# 8 20° down	22-54	30	29.0	.60 =	.174
Cos 20°= .940					
Sin = .342					
		30		.60	

30 X 940 = 28.2 ft. true width 30 X .342= 10.2 ft. true height.
155 X .940 = 146 ft.

# 9 20° down	19-60	39	42.8	1.20	.615
	76-100	24	26.4	4.26	1.09
	109-137	28	30.8	1.34	.463
		91	100.0		2.468

91 X .940=87 ft. true width. 91 X .342= 32.2 ft. true height.
137 X .940= 128.5 ft.

Prognosis:

The No. 6 hole directed toward the plug penetrated 100 feet horizontally, which is about 10 feet within the plug. The assayed ore laid 54 feet outside the plug and 10 feet within. However the last sample on this hole had a high value of 4.42% copper. It will be noted that stereoscopic analysis shows nearly all of this and subsequent ore to be sulfides of copper and iron.

No. 7 hole showed a narrowing of the recoverable copper in depth. But this is a normal aberation in all disseminated deposits. The best ore here was found outside the plug.

No. 8 hole penetrated a lean area but favored the ground exterior to the plug.

No. 9 lying to the south of No. 6 showed 4.26 % copper near the plug contract and 1.34 % within the plug. This hole should have been drilled deeper.

In general the drill holes do show definite dissemination and rich hypogene copper ore both outside and inside the plug contact. This ore is of the same character as the Esperanza ore which has been worked to the 374 foot level downward and still in good ore. The Cow-Boy drilled area is so near the 374 down level that it will be used in computing the measured ore. The horizontal area on the Cow-Boy claim is 300 feet in length by 51 feet in average width. Thus 300 X 51 X 374 / 11.0 = 520,000 tons measured ore. The Esperanza has five paralel trenches averaging 151 feet in length. over a total width of 350 feet. Thus 151 X 350 X 374 / 11.0 = 1,800,000 tons. Therefore the total tonnage of measured ore is 2,320,000 tons.

The gross copper content of the measured ore is as follows:

1,800,000 tons	X 46.4 #s (2.32 %)	= 83,600,000 #s of copper.
520,000 "	X 33.2 #s (1.66 %)	= 17,250,000 #s
2,320,000 "		100,850,000 #s

The indicated ore is here based upon the perimeter of the plug on these claims, and which is about 4,800 feet in length. As stated, about 450 feet of this length has already been computed to be 2,320,000 tons of ore based on the shallow depth of 374 feet. This is equivalent to 500,000 tons per 100 feet of perimeter. At the above ratio this will call for 1,600 feet of perimeter or about one-third that on the claims. This permits about 8,000,000 tons of similar additional ore. The total measured and indicated ore is in excess of 10 million tons.

REGISTERED MINING ENGINEER
CERTIFICATE EXPIRES
F. C. RAMSING
DEC. 31, 1967
ARIZONA, U.S.A.

F. C. Ramsing

F. C. Ramsing E.M.
June 12, 1967

30 So. Main St.
P. O. Box 1889

Jacobs Assay Office

Registered Assayers

PHONE MA 2-0812

85702 Tucson, Arizona, July 27th, 1966

Sample Submitted by Mr. John N. Faick

Sample Marked	GOLD Ozs. per ton ore	GOLD Value per ton ore *	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD ~~Per Cent~~ Wet Assay	~~Per Cent~~ Wet Assay	~~Per Cent~~ Wet Assay	~~Per Cent~~ Wet Assay
#1	0.01	0.35	1 7/10	2.29	High grade, selected ore from dump at main prospect			
2.	0.005	0.17	1 0/10	5.55	Hand picked high-grade ore from stockpile at south prospect			
3.	0.01	0.35	1 2/10	2.00	Ore from stockpile in shed at main prospect.			

Copper Standard Mine, Silver Reef Mountains
Pinal County Arizona, Collected by J. N. Faick

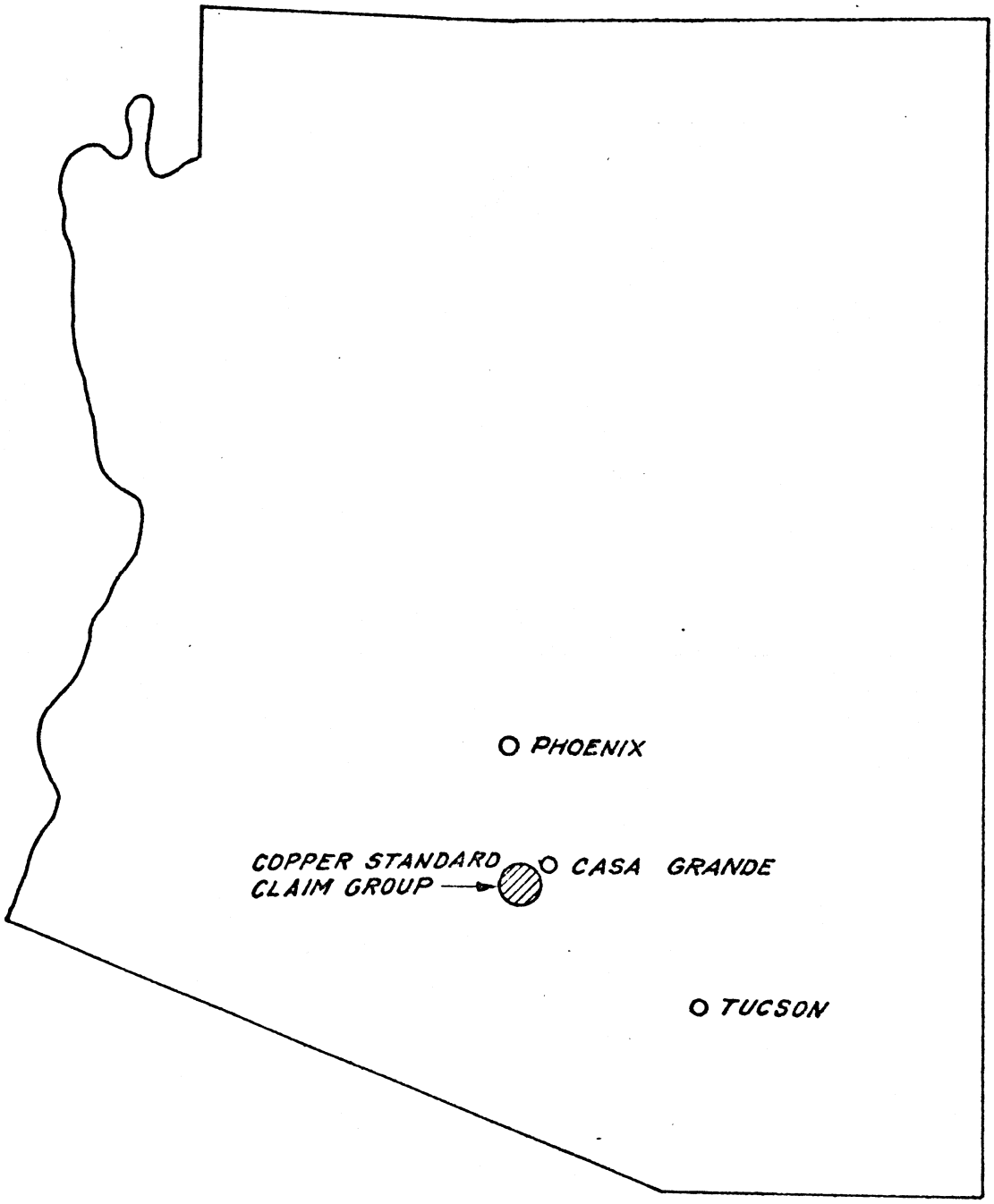
* Gold Figured $35.00 per oz. Troy

Charges $ 11.25 +

Very respectfully,

Ben P. Jacobs

AREA INDEX



STATE OF ARIZONA

HEINRICHS
GEOEX
GEOPHYSICAL ENGINEERS
TUCSON ARIZONA

October 27, 1971

Mr. Lloyd G. Frost
6226 W. Kein Drive
Glendale, Arizona 85301

Dear Mr. Frost:

With reference to our conversation of October 12, 1971 it is my understanding that you will grant Essex an exclusive option on the Standard Mine consisting of the Esperenza, Cow Boy, Chicago, Crown, St. Louis, Summit and Mill Site claims, in the Silver Reef Mining District, Pinal County, Arizona, under the following terms.

If your exploratory activity at the Standard Mine proves to Essex a commercial deposit of development interest to Essex, we would, if analysis of the results by Essex geologists and engineers to the satisfaction of Essex management proves commercial viability of the project, pay to Lloyd G. Frost and/or associates, legal owners of the claim comprising of the Standard Mine, the sum of one million dollars at the rate of $200,000.00 per year commencing at the time Essex declares intention to buy, but no later than May 15, 1972, to purchase the Standard Mine. This option will be for all rights and title to the Standard Mine free of encumbrances, and shall include the claims and all related facilities and information. Unless and until Essex declares its intent to purchase the Standard Mine, Essex shall have no obligation or liability with respect to the Standard Mine until such time, if any, as a more formal agreement is made between Essex and you and your co-owners.

We await your letter granting us the option.

Very truly yours,

ESSEX INTERNATIONAL, INC.

Paul I. Eimon
Manager of Exploration

PIE:td
cc: H. Lanier

October 27, 1971

Mr. Lloyd G. Frost
6226 W. Kein Drive
Glendale, Arizona 85301

Dear Mr. Frost:

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Very truly yours,

ESSEX INTERNATIONAL, INC.

Paul I. Eimon
Manager of Exploration

PIE:td
cc: H. Lanier

VERITY & SMITH
ATTORNEYS AT LAW
SUITE 902 TRANSAMERICA BUILDING
177 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

VICTOR H. VERITY
LEO N. SMITH
JOHN C. LACY

AREA CODE 602
TELEPHONE 622-7445

October 25, 1971

OXM
OCT 27 1971
RECEIVED

Mr. Grover Heinrichs
Assistant Manager of Exploration
Essex International, Inc.
1704 W. Grant Road
Tucson, Arizona 85705

Re: Standard Mine

Dear Grover:

I am returning the rough draft of Paul Eimon's letter to which draft I have made certain inserts and additions. As discussed in our phone conversation of this morning, the agreement as outlined is without consideration and, thus, Essex could find itself in the position of not being able to enforce the option described therein against the owners of the Standard Mine. It is my understanding that this letter is being submitted by Essex on the assumption that if anything of interest develops, Essex will enter into a more formal agreement and that Essex will not go upon the property to engage in any activity upon the property without such a formal agreement.

Very truly yours,

Leo N. Smith

LNS/dmd

Enclosure

ROUGH DRAFT
P. EIMON

OCT. 13, 1971

Mr. Lloyd G. Frost
6226 W. Kein Drive
Glendale, Arizona 85301

Dear Mr. Frost:

With reference to our conversations of October 12, 1971 it is my understanding that you will grant Essex an exclusive option on the Standard Mine ~~granting us the~~ under the following terms.

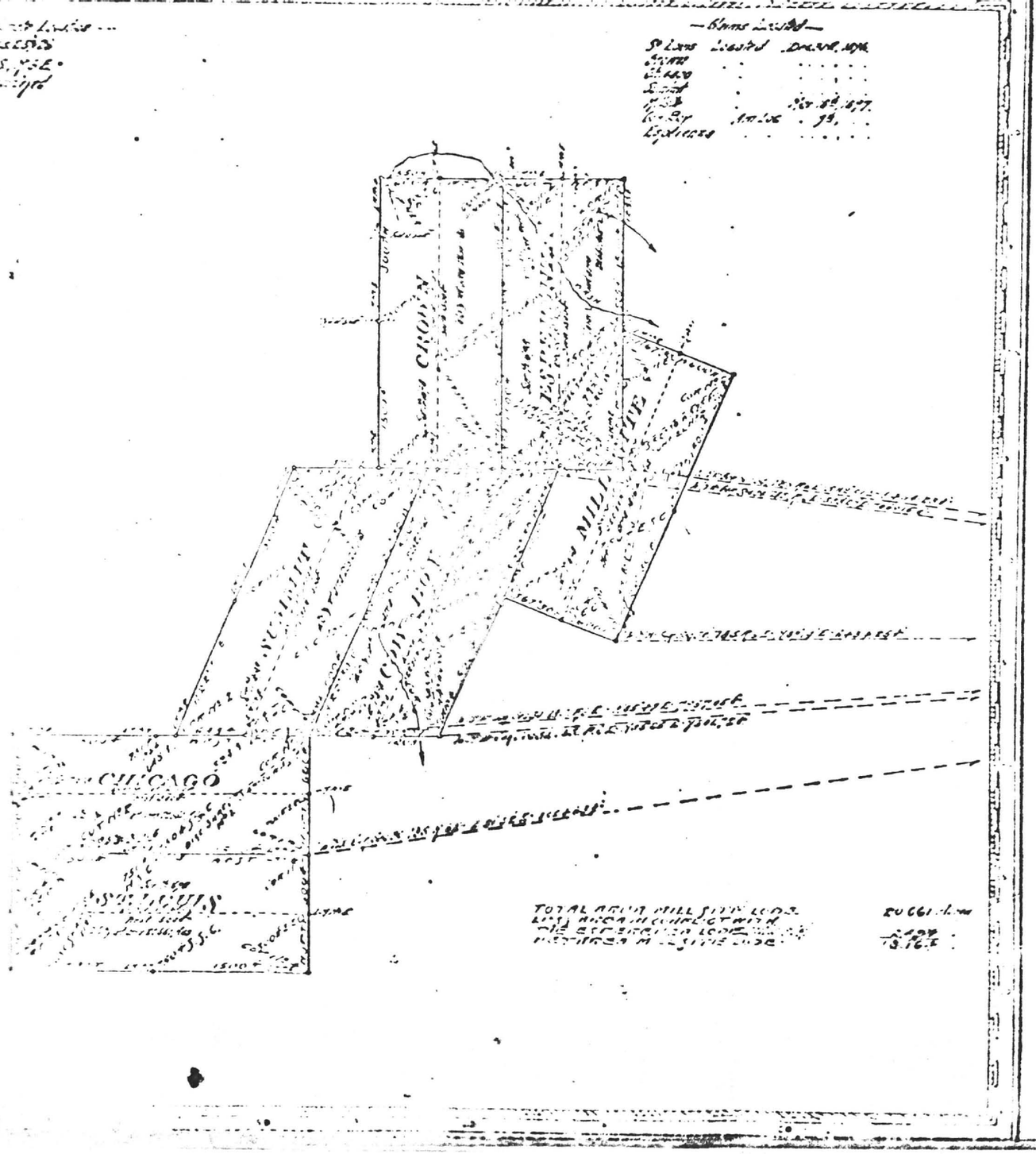
If your exploratory activity at the Standard Mine proves to Essex a commercial deposit of development interest to Essex, we would, if analysis of the results by Essex geologists and ~~and~~ engineers to the satisfaction of Essex management proves commercial viability of the project, pay to Lloyd G. Frost and/or associates, legal owners of the claim comprising of the Standard Mine, the sum of one million dollars at the rate of $200,000.00 per year commencing at the time Essex declares intention to buy, but no later than May 15, 1972, to purchase the Standard Mine. This ~~payment~~ option will be for all rights and title to the Standard Mine free of encumbrances, and shall include the ~~following~~ claims and all related facilities and information. ~~This~~ Unless and until Essex declares its intent to purchase the Standard Mine, Essex shall have no obligation or liability with respect to the Standard Mine until such time, if any, as a more formal agreement is made between Essex and you and your co-owners.

We await your letter granting us the option.

VTY
P.E.

cc: H.L.

* ~~Known~~ Consisting of the patented Esperenza, Cow Boy, Chicago, Crown, St. Louis, Summit and 11.11 [illegible] claims in the Silver Reef Mining District, Pinal County, Arizona.



Claim Located

Mineral Survey No. 1698.

Lot No.
Gila

PLAT

OF THE CLAIM OF

The Standard Copper Company of Arizona
KNOWN AS THE

Esperanza, Cow Boy, Chicago, Crown
St. Louis, Summit and Mill Site.

IN Silver Reef
Pinal COUNTY, Arizona.
Contains gross area of 142.048 Acres
Scale of 500 feet to the inch.
Variation 13°10' E.
Surveyed August 19 to 22, 1902.

Albert T. Colton, U.S. Dep. Mineral Surveyor

The Standard Copper Company of Arizona
Esperanza, Cow Boy, Chicago, Crown
St. Louis, Summit and Mill Site.

[illegible]

Phoenix, Arizona, U.S. Dep. Mineral Surveyor

BAROID DIVISION

National Lead Company

GERRY COFFEY - ENGINEER
CALL 326-6883, TUCSON

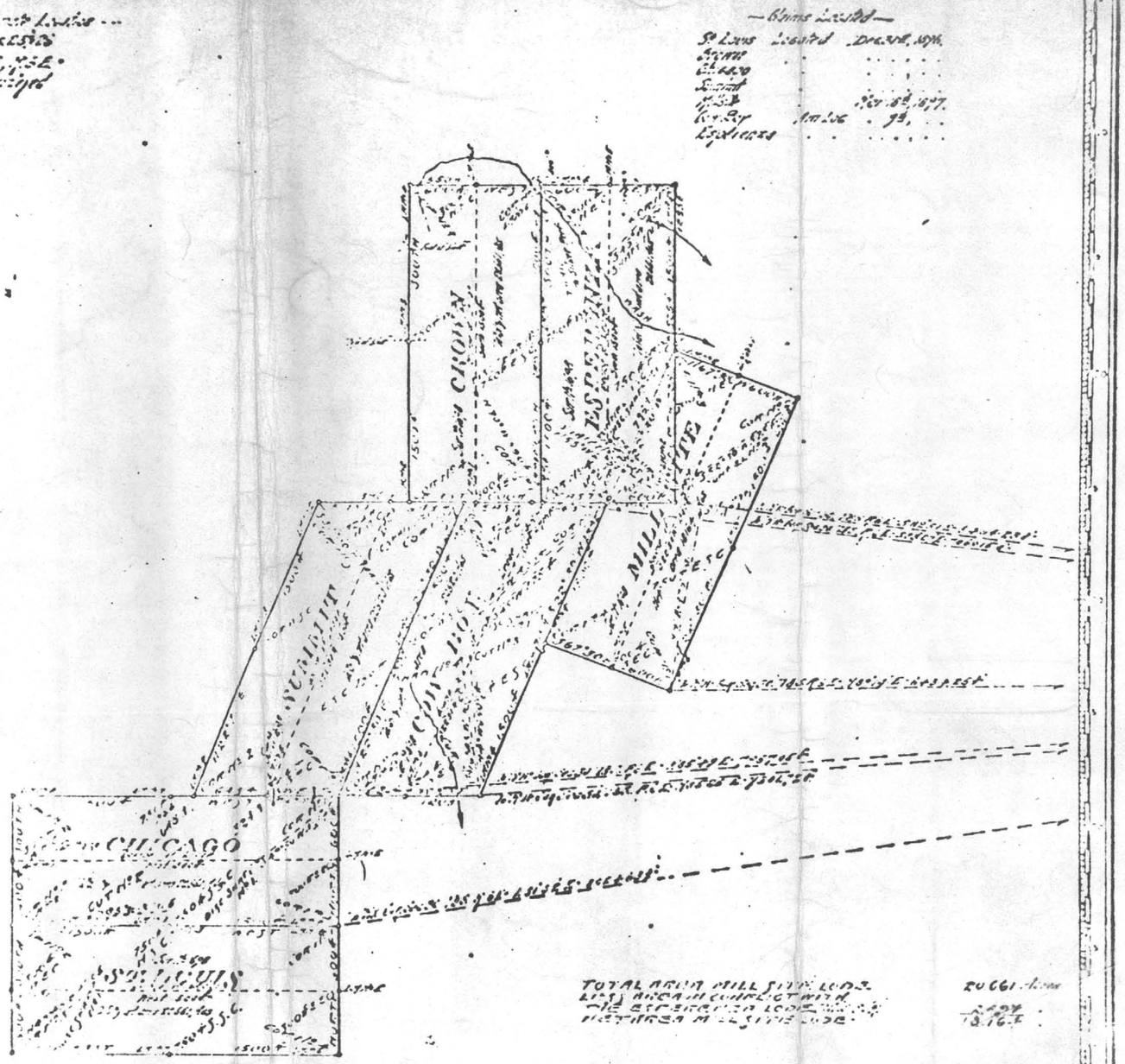
Paul E. 10-22-71

RE: Standard Property
Near Casa Grande

Leo says letter is okay for the immediate future, & if we dont plan to go on the property. However we have no enforceable rights as well as no obligations.

If their activity does turn up something interesting a more formal agreement should be drawn up.

Grover



Claim Located

Mineral Survey No. 1698.

Lot No.

Gila Land District

PLAT

OF THE CLAIM OF

The Standard Copper Company of Arizona

KNOWN AS THE

Esperenza, Cow Boy, Chicago, Crown St. Louis, Summit and Mill Site.

IN Silver Reef [illegible] DISTRICT,

Pinal COUNTY, Arizona.

Containing an Area of 142.043 Acres.

Scale of 500 feet to the inch.

Variation 13°10' E.

SURVEYED August 19 to 22, 1902. BY

Albert T. Colton, U.S. Deputy Mineral Surveyor.

The Original Field Notes of the Survey of the Mining Claim of The Standard Copper Company of Arizona known as the

Esperenza, Cow Boy, Chicago, Crown St. Louis, Summit and Mill Site.

from which this plat has been made under my direction, have been examined and approved, and are on file in this office, and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated in a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permanent monuments as will perpetuate and fix the locus thereof.

I further certify that [illegible] has been expended or improvements [illegible] Mining Claim by claimant [illegible] said improvements [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

MESSAGE DATE / /

TO

Leo Smith

Dear Leo,

Paul would like a cursory check of the enclosed letter for your opinion as to any corporate obligations that we (Essex) may be committed to that we would be better ~~to~~ with out.

SIGNED

REPLY DATE / /

Phone reply okay

SIGNED

Rediform® 4S 473

SEND PARTS 1 AND 3 WITH CARBON INTACT - PART 3 WILL BE RETURNED WITH REPLY.

DETACH AND FILE FOR FOLLOW-UP

LLoyd Frost
6226 W. Keim Drive
Glendale, Arizona 85301

U.S. POSTAL SERVICE AZ 85282
PM
13 OCT
1971

ALWAYS USE
ZIP C

Essex International Inc.
1704 West Grant Road
Tucson, Arizona 85705

SXM
OCT 15 1971
RECEIVED

ATT: Mr. Paul I. Eimon

October 27, 1971

Mr. Lloyd G. Frost
6226 W. Kein Drive
Glendale, Arizona 85301

Dear Mr. Frost:

With reference to our conversations of October 12, 1971 it is my understanding that you will grant Essex an exclusive option on the Standard Mine known as the Esperenza, Cow Boy, Chicago, Crown, St. Louis, Summit and Mill Site claims, in the Silver Reef Mining District, Pinal County, Arizona, under the following terms.

If your exploratory activity at the Standard Mine proves to Essex a commercial deposit of development interest to Essex, we would, if analysis of the results by Essex geologists and engineers to the satisfaction of Essex management proves commercial viability of the project, pay to Lloyd G. Frost and/or associates, legal owners of the claim comprising of the Standard Mine, the sum of one million dollars at the rate of $200,000.00 per year commencing at the time Essex declares intention to buy, but no later than May 15, 1972, to purchase the Standard Mine. This option will be for all rights of the Standard Mine free of encumbrances, and shall include the claims and all related facilities and information.

We await your letter granting us the option.

Very truly yours,

ESSEX INTERNATIONAL, INC.

Paul I. Eimon
Manager of Exploration

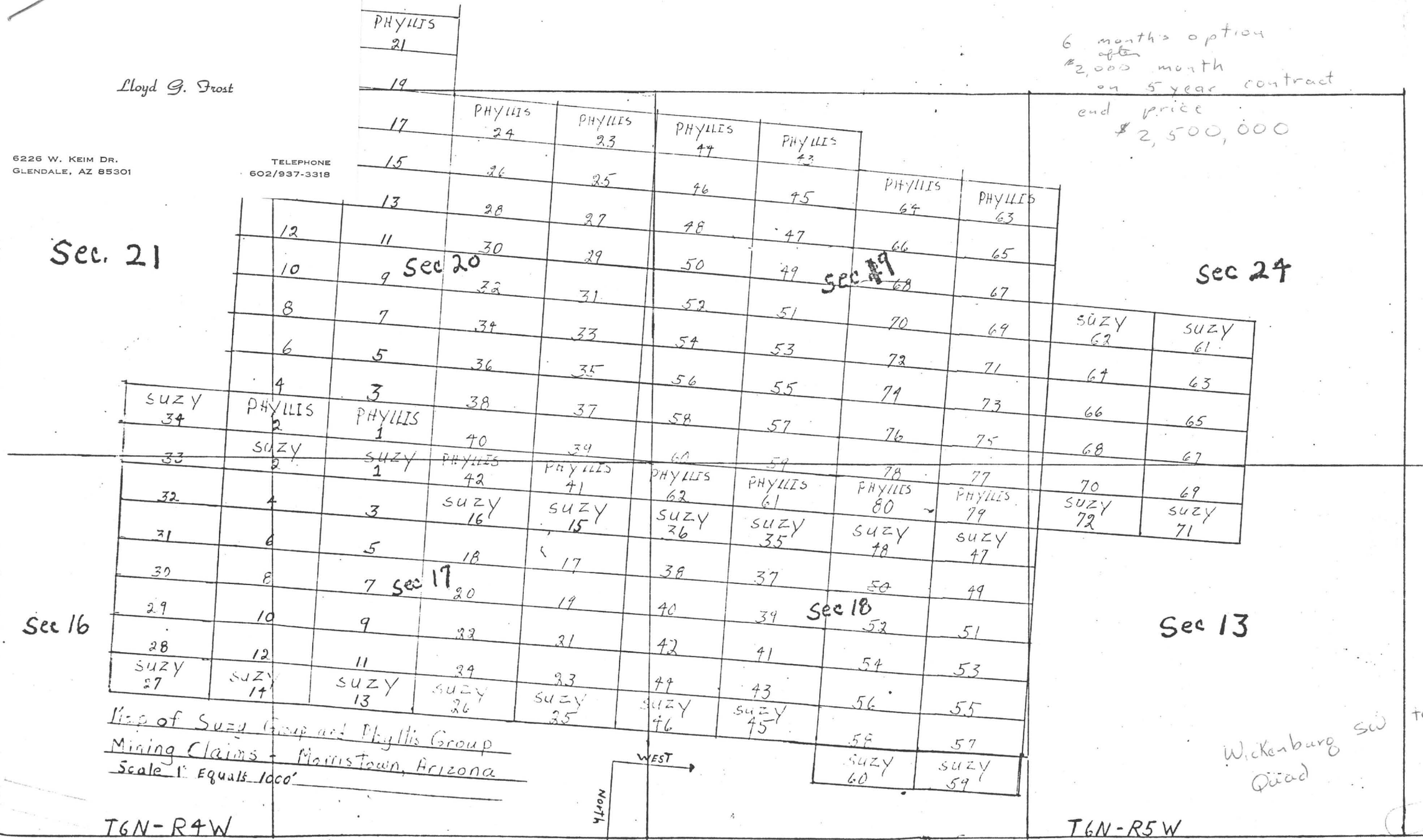
PIE:td
cc: H. Lanier

Lloyd G. Frost

6226 W. Keim Dr.
Glendale, AZ 85301

Telephone
602/937-3318

6 months option
after
$2,000 month
on 5 year contract
end price
$2,500,000



Map of Suzy Group and Phyllis Group
Mining Claims - Morristown, Arizona
Scale 1" Equals 1000'

Wickenburg SW topo
Quad

937-3318

John & Lloyde Frost

6226 West Keim Drive, Glendale, Ariz. 85301

Standard Minc, S of Casa Grande

Powdered Metal.

Estimate 1,800,000 @ 2.32% Cu.

520,000 @ 1.66

along 450 ft long zone, ± 374 ft. deep

(500000T / 100ft of perimeter)

2/3 of zone untested, has potential for 10 mill. tons.

SHERMAN GARDNER, now with Phillip Petrol. in SLC. 801-272-0913 after Saturdays.

Asking

End Price $1,000,000.00

($100,000.00 has to be paid in 3 years.)

Assume terms of contract.

Front money

$2,400.00

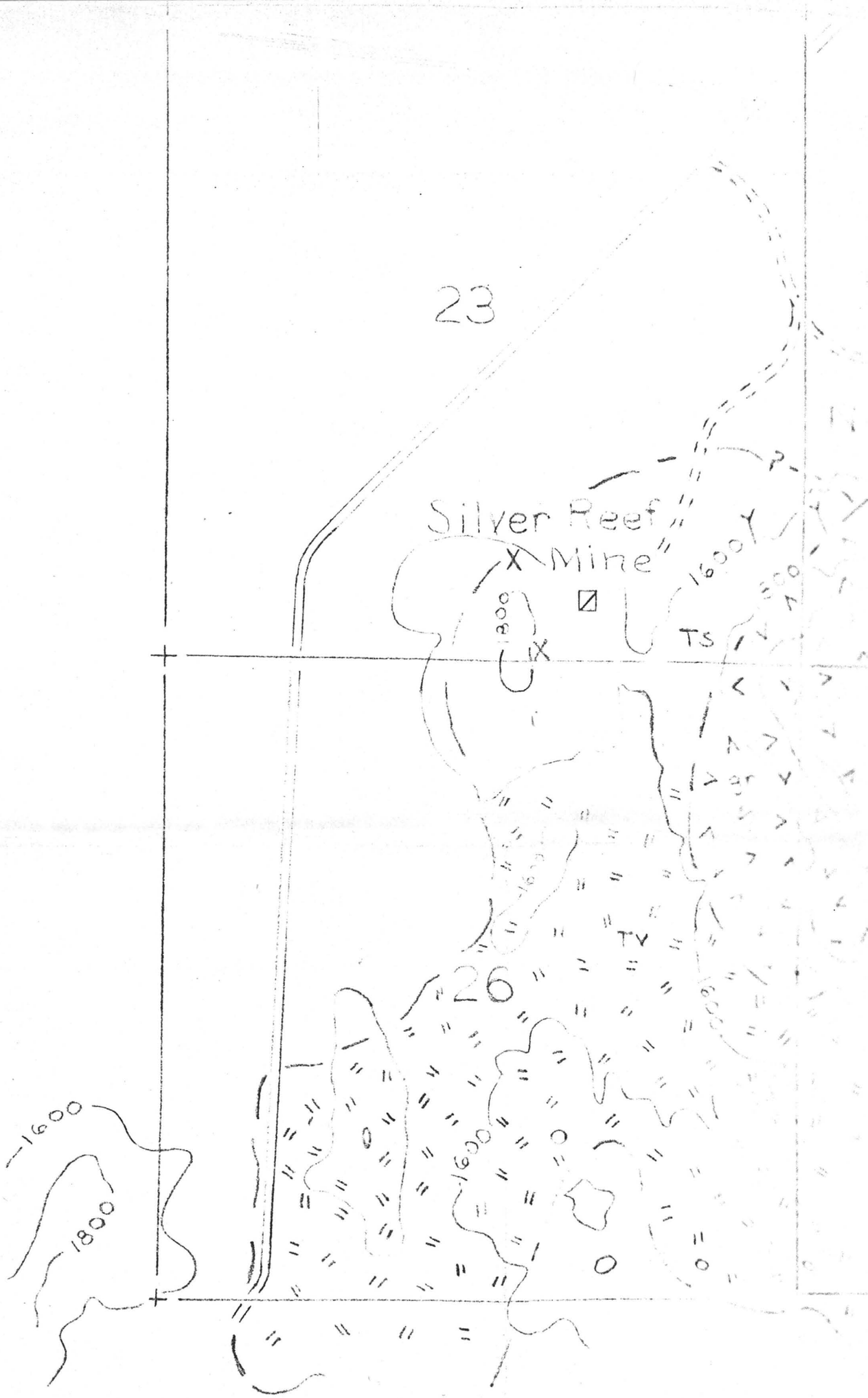
+ additional $10,000.00

for balance.

Negotiate with Papagos for lease on surrounding ground.

$2,400.00 on signing contract

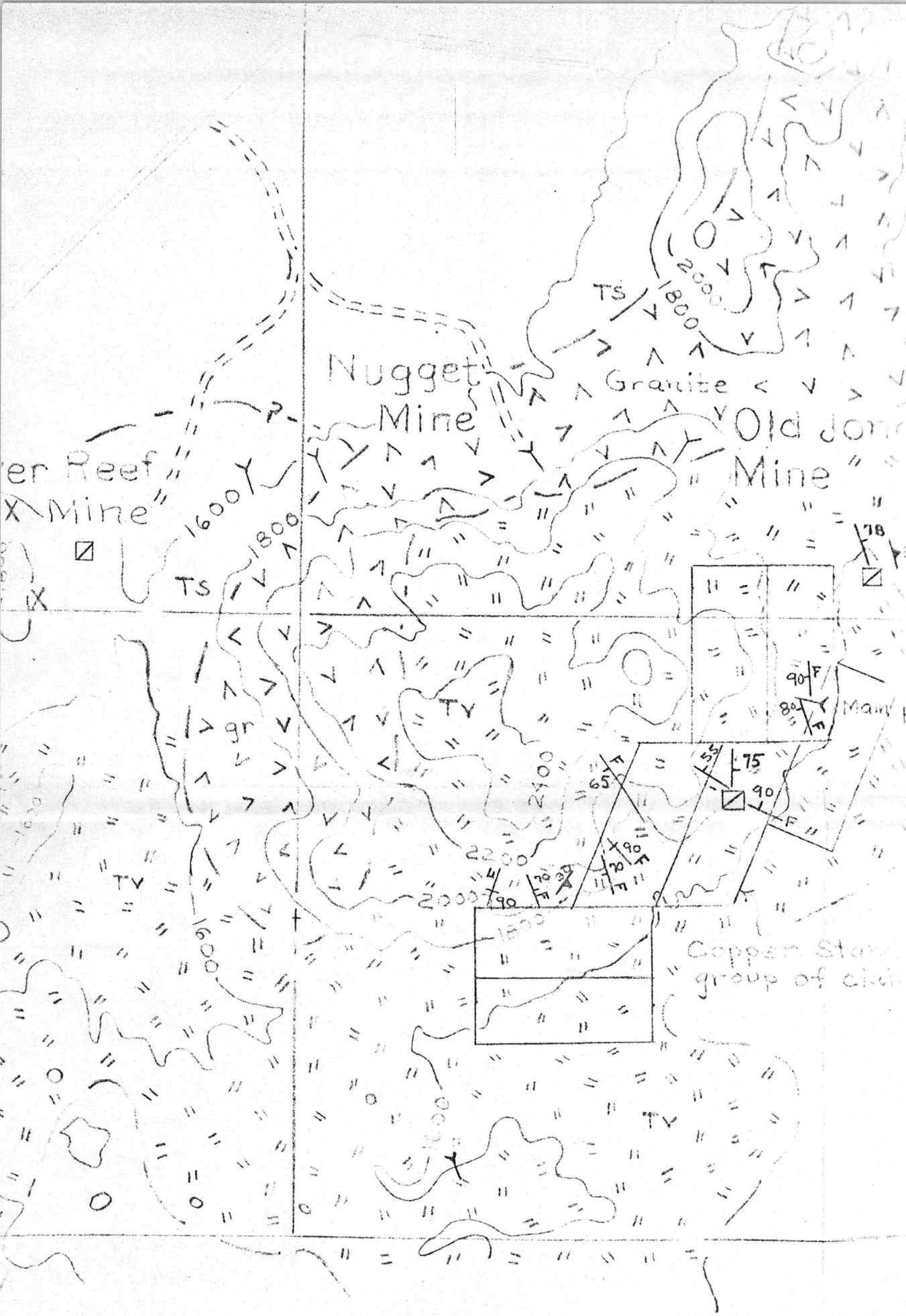
+ 2,000.00 per month.



GENERAL GEOLOGY OF PART

PIAL

DRAWN BY

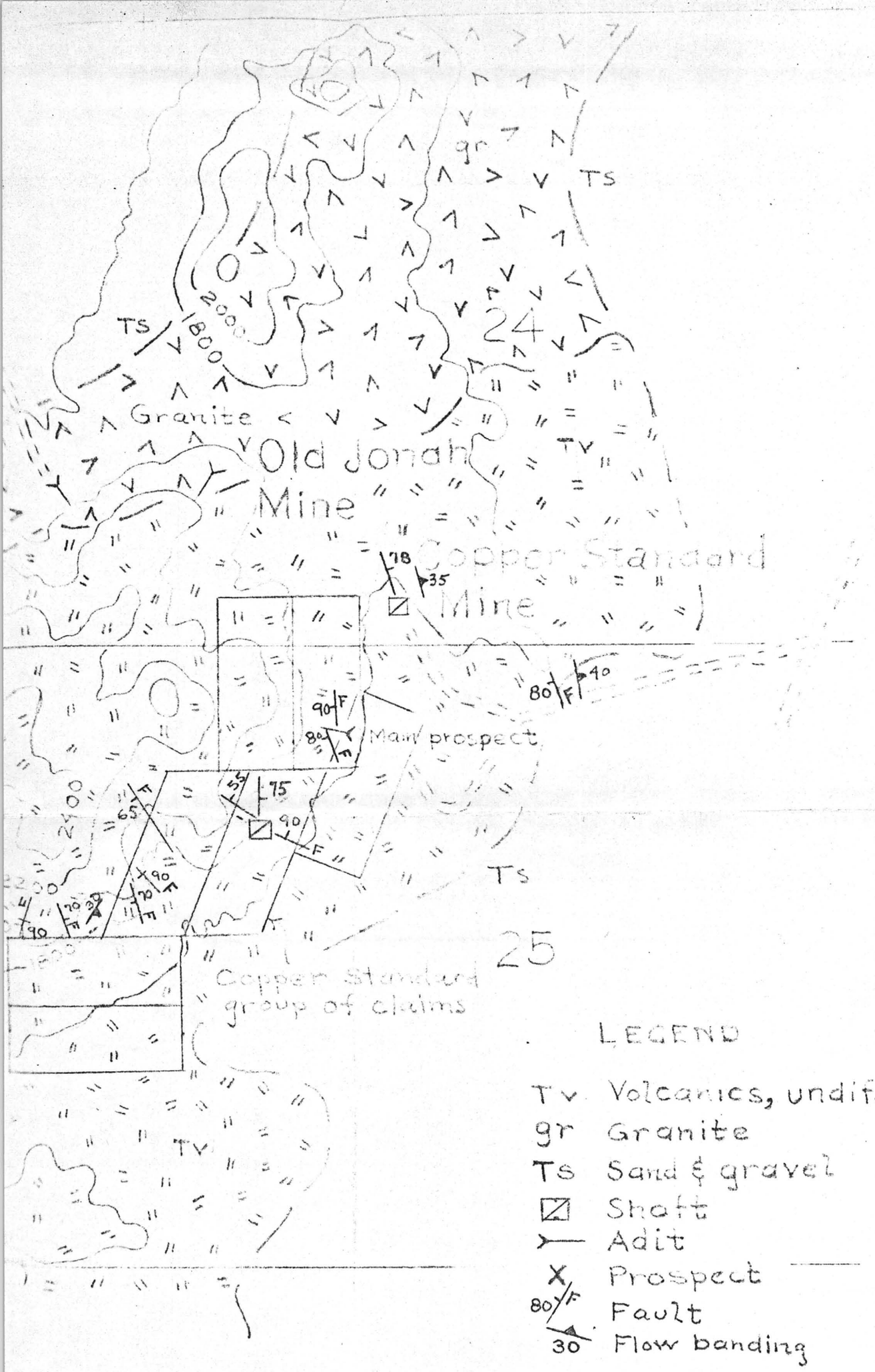


GEOLOGY OF PART OF SILVER REEF MOUNTAINS

PINAL COUNTY, ARIZONA

SCALE 1" = 1000'

JULY 29, 19



VER REEF MOUNTAINS

IZONA

JULY 29, 19

Registered Professional Engineer (Mining)
CERTIFICATE EXPIRES
WALTER E. HEINRICHS, JR.
DEC. 31, 19
ARIZONA, U.S.A.

HEINRICHS GEOEX