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OF COUNSEL  
RICE M. TILLEY

April 16, 1981

Mr. Walter E. Heinrichs, Jr.  
Henrichs Geoexploration Company  
P. O. Box 5964  
Tucson, Arizona 85703

Re: Starlight Mineral Claims

Dear Mr. Heinrichs:

Please accept my apologies for the delay in forwarding the enclosed information to you. I assure you that my delay in forwarding this information to you is not indicative of my client's lack of interest in your inquiries.

I certainly hope that the enclosed items will provide you with the information which you need to pursue this claim more actively. As you can readily tell from examining the documents, most of this information is twenty-five years old. I do feel, however, that the data recorded in these documents is reliable information and may be confirmed by your own examinations. Based upon the enclosed documents and upon Dr. Wahl's evaluation I do feel that the mineral claims could prove valuable to the right company.

Thank you once again for your inquiries. Please do not hesitate to call me collect if you have any additional questions.

Yours very truly,

Jonathan G. Kerr

JGK:tlp

## FORWARD

The various papers included in this brochure contain most of the available information that is pertinent to the Starlight mining properties. The report on the properties made by the Bureau of Mines indicates the past production of ore from these properties. Practically all of the ore removed from the claims was shipped prior to the year 1907. As a consequence, none of the advantages of modern mining and milling technology have been employed on this property. There is evidence that would indicate that no milling of ore was done on location for the last fifty years or more. Milling and/or concentrating of ores at the mine would make the mining operations much less costly and lower grade ore could therefore be mined. Indications of copper and lead ores on the surface indicate that the property has not been fully developed.

The reports submitted by Dr. F. A. Wade and A. C. Nebeker are highly regarded. These men are very well qualified in their respective fields of geology and engineering, and both have acquired a high degree of professional integrity. Our staff concurs with the general inferences made in the Nebeker reports. The more detailed Nebeker report was prepared about 1930, and except for labor costs and costs of mining materials, it is still considered essentially correct. This statement is made with confidence since the properties have had no significant development after the report was written.

The F. A. Wade Preliminary reports point up the potential of the properties. These reports were not intended to be anything more than the titles declare.

A very brief report of the stratigraphy and the types of minerals found on the property was prepared by Mr. Joe Reed. The information contained herein was abstracted from published literature concerning the Starlight Mines.

The property in its present state remains a prospect. However, due to the Bureau of Mines production report showing the past production and the engineer's and geologist's reports, we feel that very little work and expense is needed to turn this property into a producing mine.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF  
MINES  
224 New Customhouse  
Denver, Colorado

COPY

June 6, 1955

Mr. Dick N. Campbell  
Scientific Prospecting Co., Inc.  
3202 Delano St., Midland, Texas

Dear Mr. Campbell:

Your letter of April 23 addressed to the Bureau of Mines, Washington, D. C., concerning properties in Arizona has been directed to this office by Mr. Charles W. Merrill for reply.

We apologize for the delay in answering, but it has taken more time than expected to obtain the information.

In 1933, Long and Morrow (Arch Morrow), of Thatcher, Ariz., or A.R. Edwards, of Miami, Ariz., operated the Tri-Bullion Group and shipped 32 tons of ore, containing 0.63 ounce gold, 60 ounces silver, 855 pounds copper, and 17,348 pounds lead. According to our records, this is the only production that has ever been made from the Tri-Bullion Group.

In 1905-6, the Starlight Group was operated by the Tri-Bullion Smelting and Development Co., In 1905, the property was developed by a tunnel 1,200 feet long; 1,657 feet of drifts; 700 feet of raises. In 1905-6 the production was as follows: 1905 - 500 tons; 97 ounces gold, 5,000 ounces silver, 30,000 pounds copper, 800,000 pounds lead. 1906 - 272 tons; 54 ounces gold, 2,770 ounces silver, 44,320 pounds copper, 221,600 pounds lead. No production 1907-8.

During the past years, some leasers have been working at the property. In 1947, G. Kellog Green of Globe, Arizona, operated the property and sold 5 tons of ore containing 1 ounce gold, 20 ounces silver, 186 pounds copper, 4,022 pounds lead. Hewitt Wolfe and Lucas also operated the property in 1947, and sold 16 tons of ore containing 5 ounces gold, 69 ounces silver, 685 pounds copper, and 12,035 pounds lead. In 1950, Hewitt Wolf operated the property from January to May and did 30 feet of drifting, 20 feet tunneling and sold 1 ton of ore containing 2 ounces silver, 58 pounds copper, and 647 pounds lead. Hewitt Wolfe also operated the property in 1952 and sold 1 ton of ore containing  $\frac{1}{2}$  ounce gold, 7 ounces silver, 72 pounds copper, and 803 pounds lead.

According to information from our file on this property it was leased early in 1955 to E. M. Guthrie, Roy Croxson, and Clellan L. Daily, c/o Hewitt Wolfe, 549 East Cedar Street, Apt. 5, Globe, Arizona. At one time our mine list indicated that Edward and Blanche Harrison were owners of the property. We also have the name of Stanly Butte Mining Co. as the owner, c/o C. A. Johnson, 104 Winters Building, Phoenix, Arizona.

Sincerely yours,

Alfred L. Pansome, Chief  
Division of Mineral Industries  
Region III

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TRI-BULLION SMELTING AND DEVELOPMENT  
COMPANY

A. C. Nebeker, E. M. Copied  
from Vol. VI, Page 984,  
Stevens Copper Hand Book

The Arizona Claims include the Tri-Bullion group of 8 gold & silver properties apparently idle, and the STARLIGHT GROUP of 14 copper and lead claims, located in Godless Gulch, in the Stanley Butte District, 8 miles south of San Carlos.

The Starlight Mine was discovered in 1886, but lands were set aside later as part of the San Carlos Indian Reservation, and were not segregated until 1901. Work by present company was started in 1903.

The country rocks are quartzite, porphory and limestone, showing occasional granite and diorite, carrying 3 known lenses of 20' estimated average width, showing oxide and carbonate ores, giving average assay of 8% copper, 10 ozs. silver, and \$4.00 gold per ton, in addition to values in lead, zinc, antimony and bismuth. The high grade ores run 8% copper, 40% lead, with 10 ozs. silver and \$3.50 gold per ton. Considerable ore carrying circa. 3% copper and 10% lead with small silver-gold values has been blocked out.

The ore body of 3' to 20' wide has given assays up to 32% copper with considerable gold and silver values.

The ore is low in silica and rich in lead and iron, rendering it self-fluxing notwithstanding the existence of deleterious elements.

The principal claims are the STARLIGHT and WILL RYAN groups.

The STARLIGHT has shafts of 140' and 200', and a small tunnel, planned to cut the main vein at a distance of 1000', giving a back of 500', which already has cut 2 small veins showing auriferous and argentiferous copper ore. The Ryan cross-cut tunnel is about 1200' long and the property shows large reserves of low grade ore.

Survey has been made for the 3000' tram line, with a 22% grade from the Starlight mine to the wagon road in Kelly Gulch.

The property shows remains of an old adobe smelter, 100 years or more of age as evidence that the mine was worked formerly by Mexicans or Spaniards. The Kelly zinc mine was a considerable producer during 1905 and Starlight shipped ore netting \$6,876. The property is considered promising.

The Bulletin of Arizona Metal Mining Production gives the Starlight Mine credit of shipping in 1906 \$22,000.00 of copper ore.

## COMMENTS

### QUALITY OF ORE:

Copper, lead, silver, gold, barium, antimony, bismuth, zinc, etc. have been mined or located on the property in commercial quantity according to the Bureau of Mines report, reports by A.C. Nebeker, (Arizona Mining Engineer), and Dr. F.A. Wade's report. Dr. Wade is the head of the Geology Dept. at Texas Tech., has a PhD in hard-rock geology and is well known for his Antarctic exploration with Admiral Byrd.

These reports tell of 3% copper, 8% copper and even some 32% copper. According to the Bureau of Mines Bulletin 556, the total production of copper in the United States averaged less than 1.0% ore. The Mining Record gives the average copper ore mined in Arizona in the year of 1954 as .99%. The present copper price is about 43¢ a pound.

In the same ore the reports tell of 10%, 40%, and 80% lead ore. Mines in the U.S. are being operated for less than 10% lead. The price of lead is 15¢.

Also in the same ore the returns for the gold content and/or silver content are high enough to mine for those alone.

Zinc, barium, antimony, and bismuth is present but most of the mining was done when these metals were not important enough to bother with. However there is mention in the reports of the Kelly zinc mine.

A Fort Worth company reported that they got high radioactive anomalies by flying over the area but a radioactive survey was not made by the authors.

### QUANTITY OF ORE:

Notice that in 1905 the production by crude methods was 500 tons which would bring about \$140,000. today. Bureau of Mines Report:

<u>500 tons (1,000,000 lbs.) of ore</u>			
800,000	pounds of lead	80%	15¢ a pound
30,000	" " " copper	3%	43¢ " " "
5,000	ounces of silver		90¢ an ounce
97	" " " gold		\$35.00 " " "

The zinc and other metals were not recovered

In 1906 the copper content rose to 8% after which Mr. Phelps, the operator, died and operations ceased for around 25 years.

It must be remembered that during 1905 and 1906, the majority of the time and work was spent driving back the main tunnel. When they started to get into the best ore (as shown by the reports) the operator, Mr. Phelps, died and operations ceased. Two small cave-ins prevented re-entry of this tunnel shortly after. The first cave-in is about 12' thick at 500' back and the second is about the same thickness about 1200' back in the tunnel. They never got a chance to drift off into the ore bodies in this tunnel to any extent. This tunnel is just about 20' in relief above the level of Kelly Wash. Other than the cave-ins mentioned, the tunnel is clean and the majority did not need to be timbered except the ore bodies themselves.

Notice in the lower central part of the plat photostat, a very small series of tunnels. These are the tunnels that some of the best ore was taken from. Yet this is a hundred or more feet in elevation above the level of the main 1900' tunnel mentioned above.

### COMMENTS

It is also mentioned in the reports that ore bodies can be traced the full length of the property. Since the crest of the hill is along the southeast side of the claims and parallel to them, it means that the ores outcrop for a hundred feet in elevation above the small tunnels and several hundred feet above the long Kelly Cross-cut tunnel. It is not known how deep the ore deposits go below the level of the Kelly Cross-cut tunnel.

Therefore the ore bodies are known to be several hundred feet in depth and probably extend a great deal deeper and they outcrop over the entire area. Obviously, only a very little of the ore on the property has been mined to date.

### WHY HASN'T IT BEEN MINED OUT BEFORE THIS?

In 1905-6 the operator died about the time the rich ore was reached and operations ceased. This tunnel caved in 2 places and prevented further mining or examination.

Moreover the survivors of the above did nothing with the property for almost 25 years.

The fact that the property is on Indian Reservation automatically puts the jinx on the area as the major companies and individuals will not go into Indian Lands as a rule as the royalties and regulations are so rough. However, very few knew that this was patented property and was not under the jurisdiction of the Indians although it was in their reservation. In fact, the Indians were not aware of this themselves until early this year.

This is known as a bad-luck mine as the operator in 1905 died while mining it, three have been hit by lightning (later operators) around 1933, the sheriff threatened to shoot another of the operators, and Mr. Croxton (recent operator) lost his eleven year old boy who was killed by a rolling rock while on the property.

For a good many years this area has been owned by a group composed of three small boys, two old maids, a window washer, and a 64 year old man. None of these knew what to do with the property nor how to handle it.

### COMMENTS

These are patented claims with no royalty due to the Federal Gov't, State Gov't, nor Indians.

The climate permits operations all year round.

Water is no problem. Lowest diggings are well above the water table and the seepage is not enough to even dampen the floors of any of the tunnels. Yet the 2½ inch pipe leading from the sealed-off spring back in the main tunnel is still flowing into a big steel tank at the clearing below the main entrance. If this did not provide sufficient water for operations, the balance can be acquired from nearby springs.

From all indications by all who have seen the property, there is good possibilities that the whole area may be strip mined.

All ore can be lowered to Kelly Wash by gravity from any spot on the property.

The author was able to drive a new 1955 Pontiac to within 100 yards of the top or crest of the property. A Jeep or Pick-up can get on the property at the present time from the crest side or up Kelly Wash.

Ore haul is short as the smelters at Miami are only about 35 miles away. Ore trucks can get within ¼ mile of the property at present time and a bulldozer can easily extend this road to the property after a few days work. Railroad siding is close to the property.

Right in the middle of one of the largest mining areas of the world so supplies and experienced labor can be found nearby.

There are a great many ex-miners in need of work so labor should not be expensive. The property is on an Indian Reservation and common labor furnished by Indians is quite cheap.

The main tunnel cuts across most of the property and is a good, clean tunnel with some 1,200 foot of track and mine cars so the exploratory tunnel is already there. This of course saves great expense.

There is no dense vegetation to hamper strip mining if the area is mined in this manner.

Since these are patented claims, there is no regulations, assessment work, etc. to worry about in order to hold them.

Area has been surveyed in and is well marked with corner posts, etc.

Electric lines run within 6 miles of area.

## STARLIGHT MINE

### STRATIGRAPHY:

Gila conglomerate - Quaternary - cemented sand & tuff, gravel  
Tornado ls. - Cretaceous - gray chert, well-bedded ls.  
Massive quartzite - Cambrian - partly cross-bedded, with pebbly  
layers in places underlain by shale.  
Pinal Schist - Pre-Cambrian - sericitic, quartzitic & chlorite schist,  
intruded by granite & trap dikes.  
(all metamorphosed)

The Starlight Mine consists of 12 overlapping patented claims covering about 180 acres on Kelly Gulch about 8 miles from San Carlos.

The deposits appear to be entirely in the Tornado limestone. The Paleozoics are fractured, tilted, & locally overturned. The mineralized rock is in small irregular bodies that replace the fractured limestone.

### ORE MINERALS:

Chrysocolla, malachite, azurite, anglesite, cerussite, hydrated iron oxide (largely limonite), quartz, calcite, and a little residual galena.

(The Mine was closed in 1925, at which time the above minerals were found on the dumps. All of the above minerals are supergene, with the exception of galena. They probably represent the weathered surface of a primary lead-copper deposit).

The above was written by Joe Reed, a Texas Tech. geology major, from printed material found in the library at Texas Tech.

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WIL WRIGHT  
ARIZONA REG. NO. 5875

P. O. BOX 7517  
TUCSON, ARIZONA 85713

710 E. EVANS BLVD.  
PHONE 602-294-5811

Mr. C. G. Cheriton  
255 Sierra Vista Dr.  
Tucson, Arizona

JOB# 011359  
RECEIVED 5-26-72  
REPORTED 5-31-72

- Starlight Property -

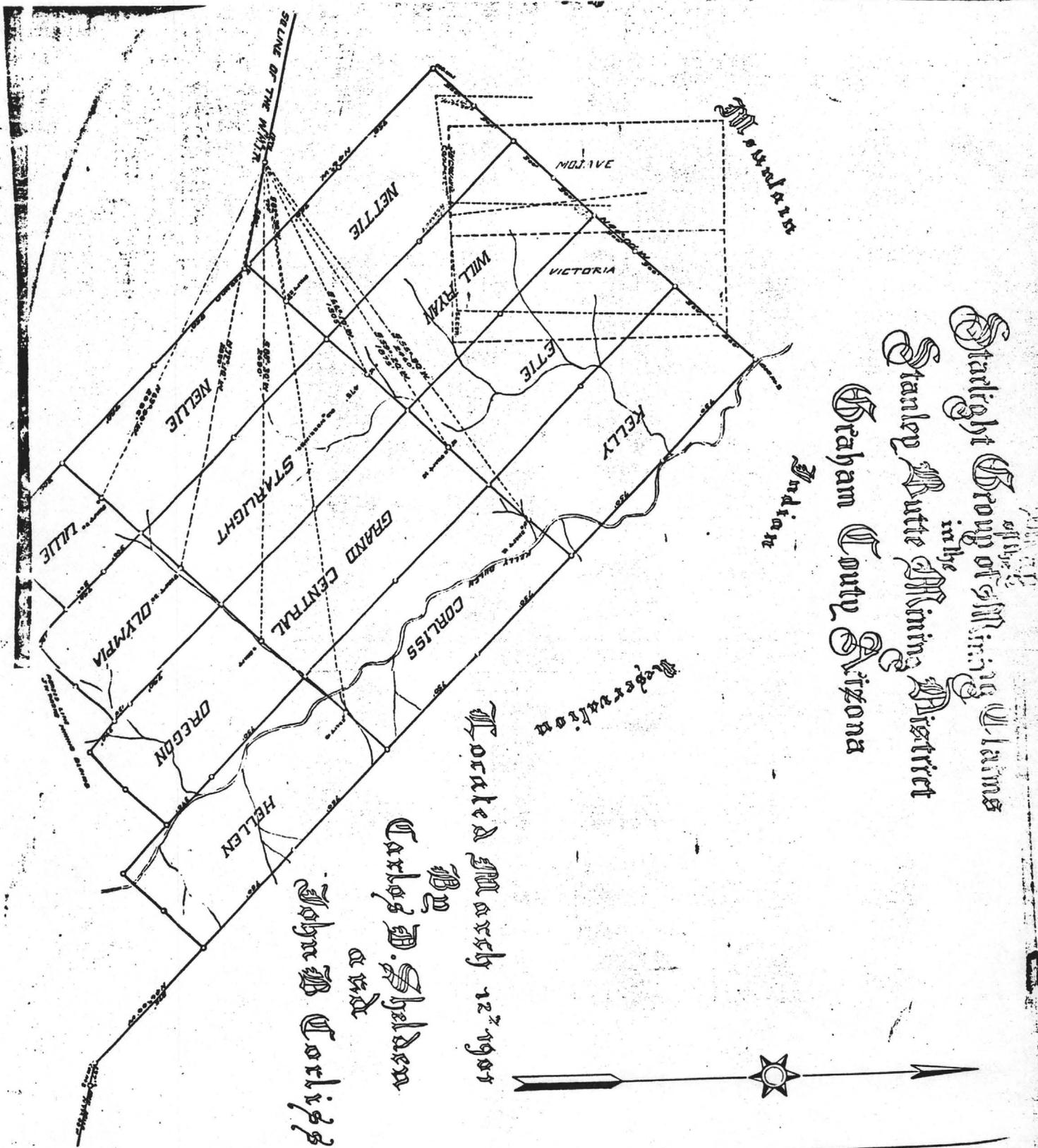
SAMPLE NUMBER	GOLD OZ.*	SILVER OZ.*	LEAD %	COPPER %	ZINC %	MOLYBDENUM %
A	.002	.02		.03	- Grab Sample - surface black oxide - Across 2.0 feet in fault zone. Rusty sheared Quartzite 500 feet in adit. <i>llb.</i>	
B	.002	.01		.02		

CHARGE \$ 14.00

\* Gold and Silver reported in troy oz. per 2,000 lb. ton.

INVOICE

This is a reduction and reproduction of a much larger document which is extremely old & fragile. The original is in my possession



Starlight Group of Mining Claims  
 in the Stanley Butte Mining District  
 Graham County Arizona

Dated March 12 1901

Charles D. Sheldon  
 and  
 John B. Corliss

THE UNITED STATES OF AMERICA,  
TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

WHEREAS, In pursuance of the provisions of the Revised Statutes of the United States, Chapter Six, Title Thirty-two, and legislation supplemental thereto, there have been deposited in the General Land Office of the United States the Plat and Field Notes of survey and the Certificate, No. 399, of the Register of the Land Office at Phoenix in the Territory of Arizona, accompanied by other evidence whereby it appears that The Tri Bullion Smelting and Development Company did, on the twenty-eighth day of December, A. D. 1907, duly enter and pay for that certain mining claim or premises, known as the Kelley, Erie, Will Ryan, Nettie, Corliss, Grand Central, Star Light, Nellie, Helen, Oregon, and Olympia lode mining claims, designated by the surveyor General as Survey No. 2372, embracing a portion of the unsurveyed public domain, in the Stanley Butte Mining District, in the County of Graham and Territory of Arizona, in the District of Lands subject to sale at Phoenix, and bounded, described, and platted as follows, with magnetic variation as hereinafter stated:

Beginning for the description of the Kelley lode claim, at corner No. 1, a pine post five feet long, four inches square, marked 4-1-1-2-2372, in mound of stone, from which the 19th Mile stone on the Amended South Boundary of the White Mountain Indian Reservation bears south fifty-seven degrees, fourteen minutes west two thousand one hundred sixty-eight and six-tenths feet distant, and discovery cut bears north thirty-eight degrees, thirty-seven minutes east two hundred sixty-six and two-tenths feet distant;

Thence, first course, magnetic variation thirteen degrees, five minutes east north forty-six degrees west one thousand three hundred eleven and twenty-one-hundredths feet intersect line 3-4 of the Victoria lode claim, unsurveyed, at south two hundred seventy-one and seventy-eight-hundredths feet from corner No. 3; one thousand five hundred feet to corner No. 2, a pine post five feet long, four inches square, marked 3-2-2372, in mound of stone;

Thence, second course, magnetic variation thirteen degrees, forty minutes east, north forty-four degrees east one hundred ninety-five and five-tenths feet to corner No. 3 of said Victoria lode claim; five hundred eighty feet to witness corner to corner No. 3, a pine post five feet long, four inches square, marked W. C. 3-2372, in mound of stone; six hundred feet to corner No. 3, in Kelley Gulch, and not established;

Thence, third course, magnetic variation fourteen degrees, five minutes east, south forty-six degrees east one thousand five hundred feet to corner No. 4, a pine post five feet long, four inches square, marked 4-2-2372, in mound of stone;

Thence, fourth course, magnetic variation thirteen degrees, thirty minutes east, south forty-four degrees west six hundred feet to corner No. 1, the place of beginning; the survey of the <sup>lode</sup> claim, as above described, ~~extending~~, extending one thousand five hundred feet in length along said Kelley vein or lode:

Beginning, for the description of the Erie lode claim, at corner No. 1, a pine post five feet long, four inches square, marked 4-1-1-2-2372, in mound of stone, from which said 19th Mile Stone bears south sixty-two degrees, eleven minutes west one thousand five hundred ninety and five-tenths feet distant, and discovery cut bears north thirty-nine degrees, four minutes east three hundred thirty-five feet distant;

Thence, first course, magnetic variation thirteen degrees, twenty minutes east, north forty-six degrees west seven hundred thirty-one and forty-two-hundredths feet intersect line 3-4, the east side line, of said Victoria lode claim; one thousand five hundred feet to corner No. 2, a pine post five feet long, four inches square, marked 3-2-2372, in mound

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of stone;

Thence, second course, magnetic variation thirteen degrees, fifty-five minutes east, north forty-four degree east six hundred feet to corner No. 3, identical with corner No. 2 of said Kelley lode claim;

Thence, third course, magnetic variation <sup>thirteen</sup> degrees, forty minutes east, south forty-six degrees east one hundred eighty-eight and seventy-nine-hundredths feet intersect <sup>said</sup> line 3-4 of the Victoria lode claim; one thousand five hundred feet to corner No. 4, identical with corner No. 1 of said Kelley lode claim;

Thence, fourth course, magnetic variation thirteen degrees, five minutes east, south forty-four degrees west six hundred feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending one thousand five hundred feet in length along said Erie vein or lode:

Beginning, for the description of the Will Ryan lode claim, at corner No. 1, a pine post five feet long, four inches square, marked 4-1-1-2-2372, in mound of stone, from which said 19th Mile Stone bears south seventy-two degrees, thirty-five minutes west one thousand thirty-seven and five-tenths feet distant;

Thence, first <sup>COURSE</sup> magnetic variation thirteen degrees, thirty five minutes east, north forty-six degrees west nine hundred thirty-eight and eighty-four-hundredths feet intersect line 4-1 of said Victoria Lode claim, at south eighty-eight degrees, fifty-six minutes west five hundred sixty-five and ninety-eight-hundredths feet from corner No. 4; nine hundred eighty-one and one-hundredth feet intersect line 1-2 of said Victoria lode claim; one ~~xx~~ thousand five hundred feet to corner No. 2 a pine post five feet long, four inches square, marked 3- 2 - 2372, in mound of stone;

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Thence, second course, magnetic variation thirteen degrees, thirty minutes east, north forty-four degrees east five hundred thirty-seven and forty-three-hundredths feet intersect line 1-2 of said Victoria lode claim; six hundred feet to corner No. 3, identical with corner No. 2 of said Erie lode claim;

Thence, third course, magnetic variation thirteen degrees, fifty-five minutes east, south forty-six degrees east seven hundred sixty-eight and fifty-eight-hundredths feet intersect line 3 - 4 of said Victoria lode claim, at north two hundred seventy-seven and eight-hundredths feet from corner No. 4; one thousand five hundred feet to corner No. 4, identical with corner No. 1 of said Erie lode claim;

Thence, fourth course, magnetic variation thirteen degrees, twenty minutes east, south forty-four degrees west three hundred feet to a point from which discovery cut bears north forty-six degree west seventy feet distant; six hundred feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending one thousand five hundred feet in length along said Will Ryan vein or lode:

Beginning, for the description of the Nettie lode claim, at corner No. 1, a pine post five feet long, four inches square, marked 1 - 1 - 2372, in mound of stone, from which said 19th Mile Stone bears north seventy-eight degrees, four minutes west five hundred eighty-five and eight-tenths feet distant;

596905-30

Thence, first course, magnetic variation thirteen degrees, thirty minutes east, north forty-six degrees west one thousand five hundred feet to corner No. 2, a pine post five feet long, four inches square, marked 2 - 2372, in mound of stone;

Thence, second course, magnetic variation thirteen degrees, thirty minutes east, north forty-four degrees east six hundred feet to corner No. 3, identical with corner No. 2 of

said Will Ryan lode claim;

Thence, third course, magnetic variation thirteen degrees, thirty minutes east, south forty-six degrees east five hundred eighteen and ninety-nine-hundredths feet intersect line 1- 2 of said Victoria lode claim, at north twenty-nine and ninety-two-hundredths feet from corner No. 1; five hundred sixty-one and sixteen-hundredths feet intersect line 4-1 of said Victoria lode claim, at north eighty-eight degrees, fifty-six minutes east thirty and four-tenths feet from corner No. 1; one thousand five hundred feet to corner No. 4, identical with corner No. 1 of said Will Ryan lode claim;

Thence, fourth course, magnetic variation thirteen degrees, thirty-five minutes east, south forty-four degrees west three hundred feet to a point from which discovery shaft bears north forty-six degrees west twenty-seven feet distant; six hundred feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending one thousand five hundred feet in length along said Nettie vein or lode:

Beginning, for the description of the Corliss lode claim, at corner No. 1, identical with corner, No. 1 of said Kelley lode claim;

Thence, first course, magnetic variation thirteen degrees, five minutes east north forty-four degrees east six hundred feet to corner No. 2, identical with corner No. 4 of said Kelley lode claim, from which discovery tunnel bears south thirty-two degrees, four minutes west three hundred forty-eight and six -tenths feet distant;

Thence, second course, magnetic variation thirteen degrees, thirty minutes east, south forty-six degrees east one thousand three hundred eighty-nine feet to corner No. 3, a pine post five feet long, four inches square, marked 3- 3- 2372, in mound of stone;

Thence, third course, magnetic variation thirteen degrees, thirty minutes east, south forty-four degrees west six hundred feet to corner No. 4, a pine post five feet long, four inches square, marked 3 - 4 - 2 - 3 - 2372, in mound of stone;

Thence, fourth course, magnetic variation thirteen degrees, fifty-five minutes east, north forty-six degrees west one thousand three hundred eighty-nine feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending one thousand three hundred eighty-nine feet in length along said Corliss vein or lode:

Beginning, for the description of the Grand Central lode claim, at corner No. 1, identical with corner No. 4 of said Will Ryan lode claim, from which said 19th Mile Post bears south sixty-two degrees, eleven minutes west one thousand five hundred ninety and five-tenths feet distant, ~~and distant~~, and discovery cut bears north forty-four degrees east, three hundred thirty-seven feet distant;

Thence, first course, magnetic variation thirteen degrees, twenty minutes east, north forty-four degrees east six hundred feet to corner No. 2, identical with corners Nos. 4, 1 and 1 of said Erie, Kelley and Corliss lode claims, respectively;

Thence, second <sup>course,</sup> magnetic variation thirteen degrees, five minutes east, south forty-six degrees east one thousand three hundred eighty-nine feet to corner <sup>identical with corner</sup> No. 4 of said Corliss lode claim;

Thence, third course, magnetic variation thirteen degrees, fifty-five minutes east, south forty-four degrees west six hundred feet to corner No. 4, a pine post five feet long, four inches square, marked 3 - 4 - 2 - 4 - 2372, in mound of stone;

Thence, fourth course, magnetic variation thirteen degrees, thirty minutes east, north forty-six degrees west one thousand three hundred eighty-nine feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending one thousand

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nd three hundred eighty-nine feet in length along said Grand Central vein or lode:

Beginning, for the description of the Star Light lode claim, at corner No. 1, identical with corner No. 1 of said Will Ryan lode claim;

Thence, first course, magnetic variation thirteen degrees, thirty-five minutes east, north forty-four degrees east six hundred feet to corner No. 2, identical with corners Nos. 4, 1 and 1 of said Will Ryan, Erie and Grand Central lode claims, respectively, from which discovery cut bears south six degrees, twenty-five minutes west three hundred ninety feet distant;

Thence, second course, magnetic variation thirteen degrees, twenty minutes east, south forty-six degrees east one thousand three hundred eighty-nine feet to corner No. 3, identical with corner No. 4 of said Grand Central lode claim;

Thence, third course, magnetic variation thirteen degrees, thirty minutes east, south forty-four degrees west six hundred feet to corner No. 4, a pine post five feet long, four inches square, marked 3 - 4 - 3 - 2372, in mound of stone;

Thence, fourth course, magnetic variation thirteen degrees, twenty-five minutes east, north forty-six degrees west one thousand three hundred eighty-nine feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending one thousand three hundred eighty-nine feet in length along said Star Light vein or lode:

Beginning, for the description of the Nellie lode claim, at corner No. 1, identical with corner No. 1 of said Nettie lode claim;

Thence, first course, magnetic variation thirteen degrees, thirty minutes east, north forty-four degrees east three hundred feet to a point from which discovery cut bears south forty-six degrees east twenty feet distant; six hundred feet to corner No. 2, identical with corners Nos. 4, 1 and 1 of said Nettie, Will Ryan and Star Light lode claims, respectively;

Thence, second course, magnetic variation thirteen degrees, thirty-five minutes east, south forty-six degrees east one thousand three hundred eighty-nine feet to corner No. 3, identical with corner No. 4 of said Star Light lode claim;

Thence, third course, magnetic variation thirteen degrees, twenty-five minutes east, south forty-four degrees west thirty-six and three-hundredths feet intersect the north boundary line of the J. W. Larks claim, unsurveyed; six hundred feet to corner No. 4, a pine post five feet long, four inches square, marked 4 - 2372, in mound of stone;

Thence, fourth course, magnetic variation thirteen degrees, forty-five minutes east, north forty-six degrees west nine hundred nine and fifty-eight-hundredths feet intersect said north boundary line of the J. W. Larks claim; one thousand three hundred eighty-nine feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending one thousand three hundred eighty-nine feet in length along said Nellie vein or lode:

Beginning, for the description of the Helen lode claim, at corner No. 1, a pine post five feet long, four inches square, marked 4 - 1 - 2372, in mound of stone, from which the 16<sup>th</sup> Mile Stone on the amended South Boundary White Mountain Indian Reservation bears south fifty-four degrees, fourteen minutes west seven hundred forty-one and two-tenths feet distant, and said 19th Mile Stone bears north eighty-seven degrees, forty-nine minutes west three thousand one hundred sixty-six and three-tenths feet distant;

Thence, first course, magnetic variation thirteen degrees, forty-five minutes east, north forty-six degrees west four hundred seventy-four and five-tenths feet to corner No. 2, identical with corners Nos. 3 and 4 of said Grand Central and Corliss lode claims, respectively;

205-506968

PAGE 15

PAGE  
16

Thence, second course, magnetic variation thirteen degrees, fifty-five minutes east, north forty-four degrees east six hundred feet to corner No. 3, identical with corner No. 3 of said Corliss lode claim, from which discovery cut bears south forty-four degrees west three hundred forty-six feet distant;

Thence, third course, magnetic variation thirteen degrees, thirty minutes east, south forty-six degrees east four hundred seventy-four and five-tenths feet to corner No. 4, a pine post five feet long, four inches square, marked 4 - 2372, in mound of stone;

Thence, fourth course, magnetic variation thirteen degrees, fifty minutes east, south forty-four degrees west six hundred feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending four hundred seventy-four and five-tenths feet in length along said Helen vein or lode:

Beginning, for the description of the Oregon lode claim, at corner No. 1, a pine post five feet long, four inches square, marked 1 - 1 - 2372, in mound of stone, from which said 18<sup>1</sup>/<sub>2</sub> Mile Stone bears south eighty-nine degrees, thirty-one minutes west one hundred eighty-four and six-tenths feet distant, and said 19th Mile Stone bears north seventy-eight degrees, thirty-eight minutes west two thousand eight hundred two and two-tenths feet distant;

Thence, first course, magnetic variation thirteen degrees, forty-five minutes east, north forty-six degrees west four hundred seventy-four and five-tenths feet to corner No. 2, identical with corners Nos. 3 and 4 of said Star Light and Grand Central lode claims, respectively, from which discovery cut bears north fifty-three degrees, fifty-six minutes east two hundred eighty-four feet distant;

Thence, second course, magnetic variation thirteen degrees, thirty minutes east, north forty-four degrees east six hundred feet to corner No. 3, identical with corners Nos. 3, 4 and 2 of said Grand Central, Corliss and Helen lode claims, respectively;

Thence, third course, magnetic variation thirteen degrees, fifty-five minutes east, south forty-six degrees east four hundred seventy-four and five-tenths feet to corner No. 4, identical with corner No. 1 of said Helen lode claim;

Thence, fourth course, magnetic variation thirteen degrees, forty-five minutes east, south forty-four degrees west six hundred feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending four hundred seventy-four and five-tenths feet in length along said Oregon vein or lode:

Beginning, for the description of the Olympia lode claim, at corner No. 1, identical with corner No. 1 of said Oregon lode claim;

Thence, first course, magnetic variation thirteen degrees, forty-five minutes east, south forty-four degrees west three hundred forty-one and eighty-three-hundredths feet intersect the north boundary line of said J. W. Parks claim; six hundred feet to corner No. 2, a pine post five feet long, four inches square, marked 2 - 2372, in mound of stone;

Thence, second course, magnetic variation thirteen degrees, forty minutes east, north forty-six degrees west four hundred sixteen and thirty-eight-hundredths feet intersect said north boundary line of the J. W. Parks claim; four hundred seventy-four and five-tenths feet to corner No. 3, identical with corners Nos. 3 and 4 of said Lellie and Star Light lode claims, respectively;

Thence, third course, magnetic variation thirteen degrees, twenty-five minutes east, north forty-four degrees east three hundred feet to a point from which discovery cut bears south twenty-five degrees, twenty-five minutes west twenty-four feet distant; six hundred feet to corner No. 4, identical with corners Nos. 3, 4 and 2 of said Star Light, Grand Central and Oregon lode claims, respectively;

Page 17

Thence, fourth course, magnetic variation thirteen degrees, thirty minutes east, south forty-six degrees east four hundred seventy-four and five-tenths feet to corner No. 1, the place of beginning; the survey of the lode claim, as above described, extending four hundred seventy-four and five tenths feet in length along said Olympia vein or lode;- expressly excepting and excluding from these presents, all that portion of the ground, hereinbefore described, embraced in said Victoria lode claim, unsurveyed, and the J. W. Farks claim, unsurveyed, and also all veins, lodes and ledges, throughout their entire depth, the tops or apexes of which lie inside of such excluded ground; the premises, herein granted, containing one hundred fifty-six and eighty-seven-hundredths acres, more or less:

596905-8a

NOT KNOW YE, That there is therefore hereby granted by the United States unto the said The Tri Bullion Smelting and Development Company and to its successors and assigns, the said mining premises hereinbefore described, and not expressly excepted from these presents, and all that portion of the said Kelley, Erie, Will Ryan, Nettie, Corliss, Grand Central, Star Light, Nellie, Helen, Oregon, and Olympia <sup>or</sup> veins, lodes, <sub>A</sub> ledges, and of all other veins, lodes, and ledges throughout their ~~entire~~ entire depth, the tops or apexes of which lie inside of the surface boundary lines of said granted premises in said Survey No. 2372, extended downward vertically, although such veins, lodes, or ledges in their downward course may so far depart from a perpendicular as to extend outside the vertical side lines of said premises: Provided, That the right of possession to such outside parts of said veins, lodes, or ledges, shall be confined to such portions thereof as lie between vertical planes drawn downward through the end lines of said Survey No. 2372, so continued in their own direction that such planes will intersect such exterior parts of said veins, lodes, or ledges: And provided further, that nothing herein contained shall authorize the grantee herein to enter upon the surface of a claim owned or possessed by another.

2091

TO HAVE AND TO HOLD said mining premises, together with all the rights, privileges, immunities, and appurtenances of whatsoever nature thereunto belonging unto the said grantee above named and to its successors and assigns forever; subject, nevertheless, to the above-mentioned and to the following conditions and stipulations:

First, That the premises hereby granted, with the exception of the surface, may be entered by the proprietor of any other vein, lode, or ledge, the top or apex of which lies outside of the boundary of said granted premises, should the same in its dip be found to penetrate, intersect, or extend into said premises, for the purpose of extracting and removing the ore from such other vein, lode, or ledge.

Second. That the premises hereby granted shall be held subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights as may be recognized and acknowledged by the local laws, customs, and decisions of the courts, And there is reserved from the lands hereby granted a right of way thereon for ditches or canals constructed by the authority of the United States.

Third. That in the absence of necessary legislation by Congress, the Legislature of Arizona, may provide rules for working the mining claim or premises hereby granted, involving easements, drainage, and other necessary means to its complete development.

IN TESTIMONY WHEREOF, I, Theodore Roosevelt, President of the United States of America, have caused these letters to be made patent, and the seal of the General Land Office to be hereunto affixed.

GIVEN under my hand, at the City of Washington, the eighth day of June, in the year of our Lord one thousand nine hundred and eight, and of the Independence of the United States the one hundred and thirty-second.

By the President: Theodore Roosevelt  
By M. W. Young, Secretary.  
H. W. Sanford

Recorder of the General Land Office.

(SEAL)

596905-9a

Filed for record at request of Chas. B. Yett, June 21st, A. D. 1916, at 11:58 o'clock A.M.

By M. M. Larson  
Deputy Recorder.

C. O. Larson  
County Recorder.

4-1003.

Phoenix 08327

THE UNITED STATES OF AMERICA,

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

WHEREAS a Certificate of the Register of the Land Office at Phoenix, Arizona, has been deposited in the general Land Office, whereby it appears that, pursuant to the act of Congress of May 20, 1862, "To Secure Homesteads to Actual Settlers on the Public Domain," and the acts supplemental thereto, the claim of Hugh H. Thurman has been established and duly consummated, in conformity to law, for the east half of the southwest quarter, the southeast quarter of the northwest quarter, and the southwest quarter of the northeast quarter of Section seven in Township eleven south of Range twenty-three east of the Gila and Salt River Meridian, Arizona, containing one hundred sixty acres, according to the Official Plat of the Survey of the said Land, returned to the GENERAL LAND OFFICE by the Surveyor-General:

NOT KNOW YE, That there is, therefore, granted by the UNITED STATES unto the said claimant the tract of Land above described; TO HAVE AND TO HOLD the said tract of Land, with the appurtenances thereof, unto the said claimant and to the heirs and assigns of the said claimant forever; subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of courts; and there is reserved from the lands hereby granted, a right of way thereon for ditches or canals constructed by the authority of the United States.

IN WITNESS WHEREOF, I, Woodrow Wilson

President of the United States of America, have caused these letters to be made Patent, and the seal of the General Land Office to be hereunto affixed.

GIVEN under my hand, at the City of Washington, the EIGHTEEN day of APRIL in the year of our Lord one thousand nine hundred and SIXTEEN and of the Independence of the United States the one hundred and FORTIETH.

By the President: Woodrow Wilson

By M. F. LeRoy, Secretary.

L. G. C. Lamar  
Recorder of the General Land Office.

RECORDED: Patent Number 523510

Filed for record at request of Willcox Bank & Trust Co. June 22, A.D. 1916 at 9, A. M.

By M. M. Larson  
Deputy Rec.

C. O. Larson  
County Rec.

LAW OFFICES OF  
**LAW, SNAKARD, BROWN & GAMBILL**  
A PROFESSIONAL CORPORATION  
2600 FORT WORTH NATIONAL BANK BUILDING  
FORT WORTH, TEXAS 76102

AREA 817 335-7373  
FROM DALLAS CALL: 429-2991

THOS. H. LAW  
ROBERT F. SNAKARD  
RICHARD LEE BROWN  
LAWTON G. GAMBILL  
ROBERT M. RANDOLPH  
RICE M. TILLEY, JR.  
SAMUEL A. DENNY  
WALTER S. FORTNEY  
ROBERT F. WATSON  
KENT D. KIBBIE  
DENNIS R. SWIFT  
MARVIN CHAMPLIN  
JAY S. GARRETT  
WILLIAM D. GREENHILL  
G. THOMAS BOSWELL  
JAMES W. SCHELL

WILLIAM F. McCANN  
WALKER FRIEDMAN  
CHARLES FLORSHEIM  
MARVIN E. BLUM  
MICHAEL L. MALONE  
ALAN WILSON  
LARRY L. WORDEN  
ED HUDDLESTON  
JONATHAN G. KERR  
VERNON E. REW, JR.  
A. BURCH WALDRON, III  
ROBERT W. BLAIR

OF COUNSEL  
RICE M. TILLEY

March 9, 1981



Mr. W. E. Heinrichs, Jr.  
Geologist Engineer  
HEINRICHS GEOEXPLORATION COMPANY  
810 West Grant Road  
P. O. Box 5964  
Tucson, Arizona 85703

Dear Mr. Heinrichs:

*contiguous?*

I have been retained by a small group of property owners in connection with eleven patented mineral claims lying within the Stanley Mining District in Western Graham County, Arizona. The property is currently owned by four individuals each of whom own an undivided one-fourth interest in the property.

I have enclosed for your consideration a report prepared at my request by David E. Wahl, Jr., Ph.D. In this connection, I have also included Dr. Wahl's resume for your examination. As the enclosed short report indicates, Dr. Wahl is of the opinion that the area has a potential for skarn-type mineralization. Dr. Wahl also adds that the precious metal content of outcropping breccia zones warrant further investigation. Although we are fully aware that Dr. Wahl's brief report is probably incomplete for your needs, we feel that it is of sufficient detail and accuracy to enable you to decide whether additional inquiries seem appropriate.

In considering this information please be aware that the property owners involved acquired this property recently by virtue of a family death. For a variety of family and financial reasons they are quite eager to negotiate exploration and development options on the property at extremely reasonable terms. Please consider this letter and accompanying data as a submission for consideration as a potential mineral development for your company.

March 9, 1981  
Page Two

I will be available to supply you with additional information or offer explanations which may be required after reviewing the enclosed documents. If you have any interest in the property submitted for your consideration, please do not hesitate to contact me at the enclosed law office number in Fort Worth, Texas. If necessary, either I or an authorized representative will be available to accompany you on a visit to the area at your convenience.

Thank you for your consideration and cooperation in this matter.

Yours very truly,

*Jonathan G. Kerr*

Jonathan G. Kerr

3/25/81

JGK/bw

cc: Mrs. C. E. Lyles

Client: elderly woman  
needs cash & would  
want out quickly  
ideally. However, no  
urgency or time factor  
otherwise, two or 3 others

Returned Watts call of today:  
1950-1960 Texas Tech. Prof. Report.  
will send also plot etc.  
Terry Goddard Attorney - Phx area (?)  
& B.I.A. people have expressed  
no specific hazards as far as  
Indian policy concerned.  
Others have expressed some interest.

Recommend exam be made whenever feasible & sooner  
the better, but wait for added data first,

*(W)*

STARLIGHT CLAIM GROUP EVALUATION

INTRODUCTION

The Starlight patented claim group lies within the Stanley (Stanley Butte) Mining District in western Graham County, Arizona approximately 12 miles southeast of Coolidge Dam. Access to the area is through lands of the San Carlos Apache Indian Reservation, and access routes are shown on the San Carlos Reservoir, Arizona 15' topographic sheet. As described by Ross (U.S.G.S. Bull. 763, 1925), the workings of the Starlight group occur entirely within the structurally disturbed strata of the Tornado limestone. These workings include several shafts and a partly caved 1900 foot long tunnel. Approximately \$22,000 worth of ore was taken from the Starlight group in 1905 and 1906. Although Ross notes that the Aravaipa-Stanley region had had but little production (to 1925), its inaccessibility and a lack of capital have kept the region's potential as a metal producer from being adequately tested.

FIELD OBSERVATIONS

The Starlight group was visited on Oct. 29, 1980. The following salient geological relationships were observed:

- 1) A younger quartz porphyry rhyolite dike (sample S1 - see topographic map for location) intrudes the older Precambrian granite.
- 2) Larger intrusive masses of quartz-monzonitic lithology (sample S2) crop out along the jeep trail south of the Starlight mine in sections 14 and 15. Above this intrusion is an epidote-altered quartzite (Cambrian?). Unfortunately the actual contact between the two units was not observed. Greisen-like dikes cutting the altered sandstone, however, suggest an intrusive relationship.
- 3) A quartz-porphyry rhyolite sill (sample S3) intrudes the

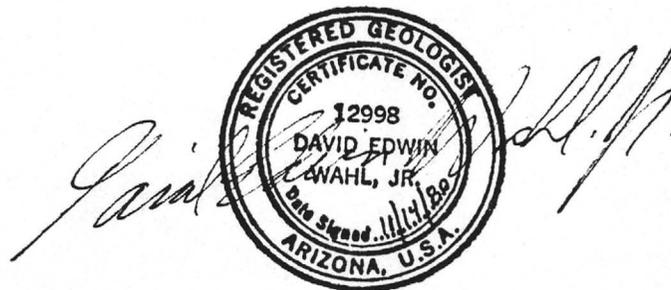
NE-dipping limestone beds immediately west of the Starlight mine. Intrusion appears to be passive and alteration is slight.

4) The Starlight workings are developed chiefly in a brecciated N18W-trending shear zone hosted by moderately recrystallized limestone. The material deposited in this 1 to 3 foot wide zone is dark calcite, copper oxides, iron oxides, chalcopyrite, and possibly silver chlorides (samples S4 and S5). Copper oxides and iron oxides also occur stratigraphically above the Starlight workings along steeply dipping (60° NE) bedding planes in slightly recrystallized crinoidal limestone (S6).

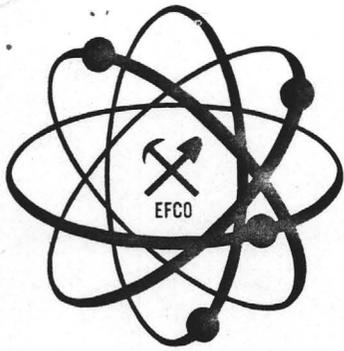
5) Structural elements are severe in Kelly Gulch. East of the Starlight mine, beds dip steeply to the NE and are probably overturned. A few hundred yards SW, the same beds have a moderate westerly dip.

#### CONCLUSIONS

The statement by Ross in 1925 that the region is little studied still holds true today. The fact that the Starlight group lies within Indian lands essentially puts it off limits for most major exploration companies. The presence of large intrusive bodies near limestone suggests the possibility of skarn mineralization (typically a high-grade type of mineralization). The sill cutting the limestone is also a favorable sign. The oxide mineralization seen at the surface could be related to skarn mineralization at depth. The biggest geological question is whether or not the large quartz-monzonite body intrudes the limestone -- the contact could be structural. If an intrusive contact is ascertained, a skarn exploration program should be considered. The new roads I observed in Mitchell Canyon could possibly be drill roads put in as part of a test for skarn mineralization by other explorationists. In short, the property has more potential as a "deep" skarn target than as a producer from surficial veins (old ore shipment reports don't indicate high precious metal content in near-surface ore).\*\*



\*\* (see Assay Appendix)



## EFCO LABORATORIES

2819 W. Ruthrauf Road

P. O. Box 5526

TUCSON, ARIZONA 85703

Phone (602) 887-4241

### Laboratory Analysis Report

David E. Wahl, Jr.  
P.O. Box 27285  
Tempe, Arizona 85282

REPORT NO. 800237

DATE SUBMITTED 11/7/80

DATE REPORTED 11/17/80

<u>Sample Number</u>	<u>PPM Copper</u>	<u>PPM Molybdenum</u>	<u>PPM Lead</u>	<u>PPM Zinc</u>	<u>PPM Silver</u>	<u>PPM Gold</u>
S- 1	795	<1	744	13	<1.0	<0.10
2	133	<1	48	15	<1.0	<0.10
3	152	<1	213	40	<1.0	<0.10
4	+1000	96	+1000	636	18.7	3.06
5	+1000	136	+1000	+1000	53.	2.34
6	+1000	82	917	156	1.5	1.44

### Geochemical Assay

<u>Sample Number</u>	<u>% Copper</u>	<u>% Lead</u>	<u>% Zinc</u>
S- 4	5.51	4.26	
5	1.03	5.53	0.19
6	10.5		

*Mary Swann*  
Signed

DAVID E. WAHL, JR., Ph.D.

P.O. BOX 27285  
TEMPE, AZ 85282  
(602) 967-0838

REGISTERED PROFESSIONAL GEOLOGIST  
ARIZONA REGISTRATION #12998

ASSAY APPENDIX

Assay results are in agreement with observations and conclusions from the field survey. The unmineralized igneous rock samples (S1 - S3) have very high trace Cu and Pb contents and such rocks could serve as mineralizers in a skarn environment.

The "high-graded" ore samples are also interesting in that they all contain anomalous gold and silver values. As expected, the deeper samples (S4, S5) contain more Au and Ag than the higher-level sample (S6). With gold at \$600/oz, 1PPM Au is worth \$17.40. Thus samples S4 & S5 respectively contain \$53.24 & \$40.72 in gold per ton of ore. Silver values must also be considered. With Ag at \$18.00/oz, S5 contains \$27.81 Ag/ton, and S4 contains \$9.81 Ag/ton (34.3PPM = 1 Troy oz/ton). Thus at least some of the "high-graded" ore on Starlight dumps contains in excess of \$60.00/ton precious metals at today's prices.

Geologically this is a very interesting and favorable area. Don't give the property away without first giving it a real test.



DAVID EDWIN WAHL, JR., PH.D.  
Registered Geologist

Address:

P.O. Box 27285  
Tempe, Arizona 85282  
  
(602) 967-0838

Personal Data:

Birthdate: 10/21/43  
Ht.: 6'0"; Wt.: 187 lbs.  
Health: Excellent  
Marital Status: Single

Education (transcripts sent on request):

June 1965 - August 1969 Louisiana State University in New Orleans  
Bachelor of Science, Geology  
GPA: 3.1 (4.0 = A)

Sept. 1969 - May 1973 University of Texas at Austin  
Master of Arts, Geology  
GPA: 3.7 (4.0 = A)  
Thesis: Geology of the El Salto Strip,  
Durango, Mexico

August 1974 - May 1980 Arizona State University  
Doctor of Philosophy, Geology  
GPA: 3.9 (4.0 = A)  
Dissertation: Mid-Tertiary Volcanic Geology  
in parts of Greenlee County, AZ, Grant and  
Hidalgo Counties, NM.

Work Experience (references sent on request):

Feb. 1980 - Present Consulting geologist/independent explorationist  
specializing in exploration and research of  
volcanogenic targets. Current consulting  
projects include precious metal and porphyry  
molybdenum evaluations in volcanic and hyp-  
abyssal environments.

July 1974 - May 1980 Fraser-Martin Mines, Inc., New York, NY:  
Part-time exploration activity (in conjunction  
with dissertation work at ASU) in SE Arizona  
and SW New Mexico. Most work involved explora-  
tion for copper, gold, and fluorite in volcanic  
terrain.

July 1979 - Nov. 1979 Conoco Minerals, Inc., Uranium Exploration:  
Selected projects involving volcanic and intru-  
sive rocks in Utah, Nevada, Idaho and Oregon.

August 1976 - May 1978 Mesa Community College, Mesa, Arizona: Visit-  
ing Instructor teaching introductory geology  
courses.

August 1977 - May 1978 Arizona State University, Tempe, Arizona:  
Instructor for night section of graduate level  
introductory geology course.

Feb. 1977 - June 1977 Arizona State University, Tempe, Arizona:  
Research Assistant; established a laboratory  
for preparation of samples for fission track  
age dating.

(over)

Feb. 1974 - July 1974 Bear Creek Mining Company, Tucson, Arizona:  
Field mapping, geophysical interpretation,  
and geochemical sampling of volcanic and  
intrusive rocks in eastern Arizona and western  
New Mexico. Regional correlation of units  
and relation of volcanic rocks to ore deposi-  
tion was prime objective of the study.

July 1973 - Jan. 1974 Geophoto Services of Texas Instruments, Dallas,  
Texas: Preparation of geological maps from  
aerial photography and other remote sensing  
media.

Sept. 1969 - May 1973 University of Texas at Austin: Teaching  
Assistant, Physical Geology, Historical Geology,  
Optical Crystallography, Mineralogy, and Field  
Geology. Tutor for university athletic depart-  
ment. Research Assistant (NASA grant), field  
and laboratory study of volcanic rocks (included  
six months field work in western Mexico).

June 1965 - August 1969 Louisiana State University in New Orleans:  
Student Assistant in the Department of Earth  
Sciences. Field assistant two summers in the  
Monterrey-Salttillo area of Mexico. Photo-  
grapher for student publications.

August 1961 - May 1965 United States Air Force: Aircraft Radio  
Repairman.

Professional Registration:

Registered in Arizona by 16 hour examination.  
Arizona Registration #12998.

Memberships:

Arizona Geological Society  
New Mexico Geological Society  
Sigma Xi  
Society of Mining Engineers of AIME  
National Association of Geology Teachers

10:54

10:53

1

Minute

Plot 1408

3/24/81

Jonathan Kerr, Esq.

Law Snatard Brown & Gambill

Ft. Worth, TX 76102

(817) 335-7373

Mr. Kerr Out - left word.

W.

April 14, 1981

Mr. Jonathan G. Kerr  
Law Offices of  
Law, Snakard, Brown & Gambill  
2600 Fort Worth National Bank Building  
Fort Worth, Texas 76102

Dear Mr. Kerr:

Referring to our telephone conversation of March 25, 1981, in which we discussed patented mineral claims within the Stanley Mining District in Graham County Arizona, the additional material discussed (1950-1960 Texas Tech. Prof. Report and patent plat, etc.) would be very much appreciated.

We would like to visit the area and make an examination but want to review the added data first.

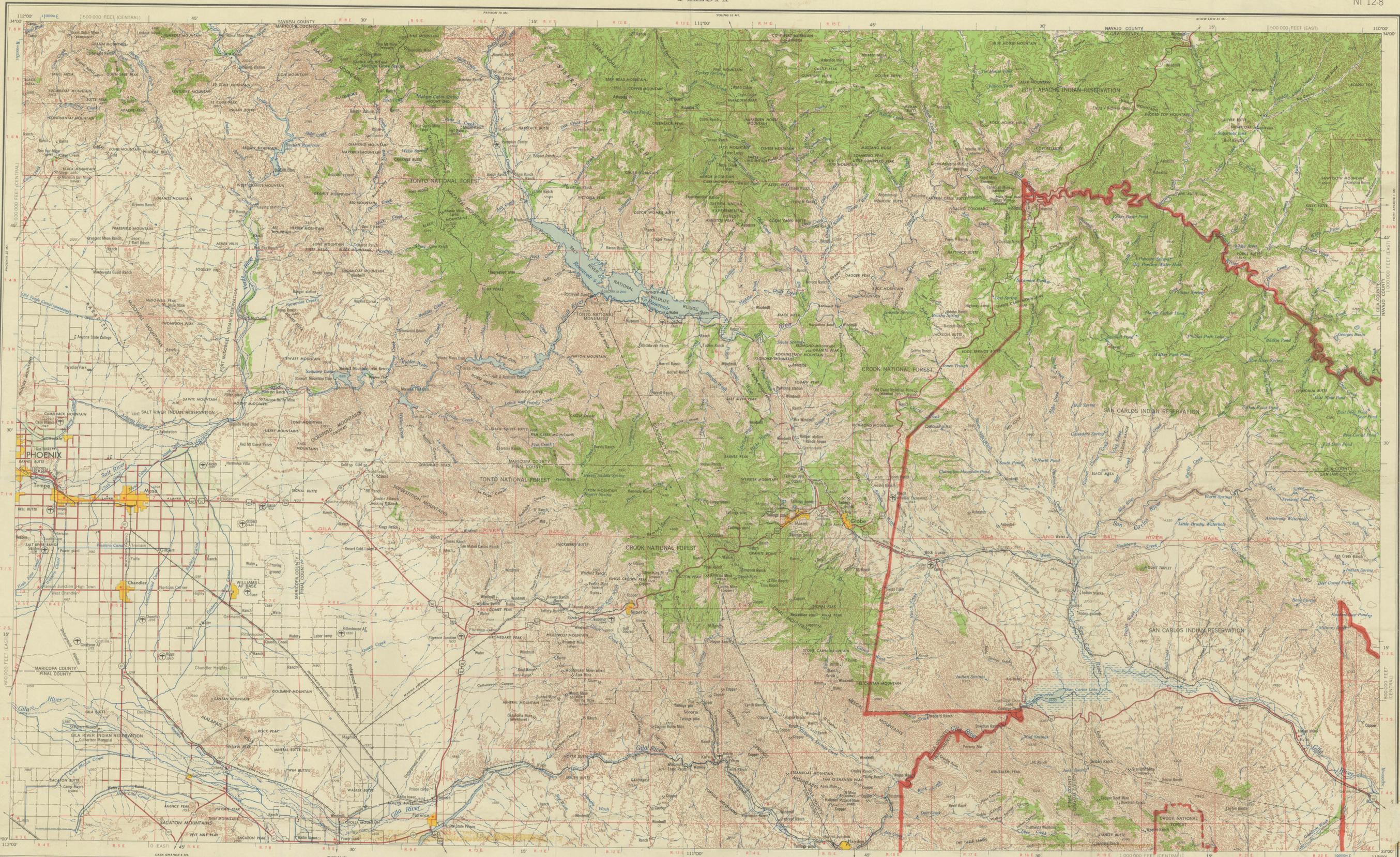
Sincerely,

Heinrichs GEOEXploration Co.

Walter E. Heinrichs, Jr.  
President

WEH:mt

*Re: your letter of  
March 9, 1981*



Prepared by the Army Map Service (BEE), Corps of Engineers, U. S. Army, Washington, D. C. Compiled in 1954 by photogrammetric methods and from Arizona, 1:24,000, USGS, 1947-50; Arizona, 1:62,500, USGS, 1950-51. Planimetric detail revised by photogrammetric methods. Horizontal and vertical control by USCGS and USGS. Photography field annotated 1954. 100,000-foot grid based on Arizona coordinate system. East and central zones. 10,000-meter Universal Transverse Mercator grid ticks, zone 12, shown in blue.

**LEGEND**

**ROAD DATA 1954**  
Figures in red denote approximate distances in miles between stars

**POPULATED PLACES**

Over 500,000	<b>LOS ANGELES</b>	Hard surface, heavy duty	Two lanes wide; Federal route marker
100,000 to 500,000	<b>OMAHA</b>	Hard surface, medium duty	More than two lanes wide
25,000 to 100,000	<b>GALVESTON</b>	Hard surface, light duty	Two lanes wide; State route marker
5,000 to 25,000	<b>Laramie</b>	Improved light duty	Two lanes wide; State route marker
1,000 to 5,000	<b>Grand Coulee</b>	Unimproved dirt	Trail
Less than 1,000	<b>Sun Valley</b>	Trail	

**RAILROADS**

- Standard gauge
- Narrow gauge
- Landplane airport
- International
- State
- County
- Park or reservation

**BOUNDARIES**

- Landplane airport
- International
- State
- County
- Park or reservation

**Other Symbols:**

- Landmarks: School, Church, Other
- Horizontal control point
- Spot elevation in feet
- Marsh or swamp
- Orchard
- Intermittent or dry stream
- Power line
- Woods-brushwood

Scale 1:250,000

0 5 10 15 20 25 30 Statute Miles

0 5 10 15 20 25 30 Nautical Miles

CONTOUR INTERVAL 200 FEET  
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

TRANSVERSE MERCATOR PROJECTION

1950 MAGNETIC DECLINATION FOR THIS SHEET VARIES FROM 14°30' EASTERLY FOR THE CENTER OF THE WEST EDGE TO 13°45' WESTERLY FOR THE CENTER OF THE EAST EDGE. MEAN ANNUAL CHANGE IS 9" WESTERLY.

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 2, COLORADO OR WASHINGTON 25, D. C.

LOCATION DIAGRAM FOR NI 12-8

NEVADA	NI 12-3	NI 12-4	NI 12-5	NI 12-6	NI 12-7	NI 12-8	NI 12-9	NI 12-10	NI 12-11	NI 12-12	NI 12-13	NI 12-14	NI 12-15	NI 12-16	NI 12-17	NI 12-18	NI 12-19	NI 12-20	NI 12-21	NI 12-22	NI 12-23	NI 12-24	NI 12-25	NI 12-26	NI 12-27	NI 12-28	NI 12-29	NI 12-30	NI 12-31	NI 12-32	NI 12-33	NI 12-34	NI 12-35	NI 12-36	NI 12-37	NI 12-38	NI 12-39	NI 12-40	NI 12-41	NI 12-42	NI 12-43	NI 12-44	NI 12-45	NI 12-46	NI 12-47	NI 12-48	NI 12-49	NI 12-50	NI 12-51	NI 12-52	NI 12-53	NI 12-54	NI 12-55	NI 12-56	NI 12-57	NI 12-58	NI 12-59	NI 12-60	NI 12-61	NI 12-62	NI 12-63	NI 12-64	NI 12-65	NI 12-66	NI 12-67	NI 12-68	NI 12-69	NI 12-70	NI 12-71	NI 12-72	NI 12-73	NI 12-74	NI 12-75	NI 12-76	NI 12-77	NI 12-78	NI 12-79	NI 12-80	NI 12-81	NI 12-82	NI 12-83	NI 12-84	NI 12-85	NI 12-86	NI 12-87	NI 12-88	NI 12-89	NI 12-90	NI 12-91	NI 12-92	NI 12-93	NI 12-94	NI 12-95	NI 12-96	NI 12-97	NI 12-98	NI 12-99	NI 12-100
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RELIABILITY DIAGRAM

SECTIONIZED TOWNSHIP

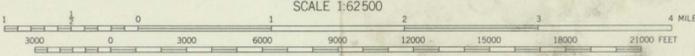
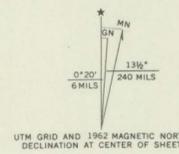
6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

TOWNSHIP OR RANGE LINE  
LAND GRANT BOUNDARY

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Mapped, edited, and published by the Geological Survey  
Control by USGS and USC&GS  
Topography by photogrammetric methods from aerial  
photographs taken 1959. Field checked 1962  
Polyconic projection. 1927 North American datum  
10,000-foot grids based on Arizona coordinate system,  
east and central zones  
1000-meter Universal Transverse Mercator grid ticks,  
zone 12, shown in blue  
Where omitted, land lines have not been established



CONTOUR INTERVAL 80 FEET  
DOTTED LINES REPRESENT 20-FOOT CONTOURS  
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION  
Heavy-duty ——— Light-duty ———  
Medium-duty ——— Unimproved dirt - - - - -  
U.S. Route



SAN CARLOS RESERVOIR, ARIZ.  
N3300—W11015/15

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

1962  
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