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ROBERT J. SEARLS  
300 PARK AVENUE  
NEW YORK 22, N.Y.

✓ RECEIVED FEB 1 1960

January 26, 1960

AIR MAIL

Mr. Walter E. Heinrichs, Jr.  
Heinrichs Geoexploration Company  
P. O. Box 5671  
Tucson, Arizona

Dear Walt:

The "area" referred to in line four-  
teen, paragraph two of my letter of January 16  
is the pit area on the east side of the property.

Sincerely yours,



Robert J. Searls

RJS:dl

ROBERT J. SEARLS  
300 PARK AVENUE  
NEW YORK 22, N.Y.

January 16, 1960

RECEIVED JAN 25 1960

AIR MAIL

Mr. Walter E. Heinrichs, Jr.  
Heinrichs Geoexploration Company  
P. O. Box 5671  
Tucson, Arizona

Re: Wickenburg, Arizona  
Oberon's Claims

Dear Walt:

I had a much more pleasant day to visit Wickenburg than you did. I'm sorry you weren't along. After doing battle with Scarborough in his suite of rooms, I was taken out to the property in a Thunderbird by Mr. Van Glahm. I understand you went out in a Jeep which I'm sure puts one in a much less adventurous frame of mind.

I didn't have much time, and besides visiting the incline shaft and the pit area, I only walked up the new road to the top of the hill where, according to the tracks, you rode! I saw all I needed to see to confirm the independent opinion which has been reached by one hundred separate geologists over the last one hundred years. This includes Bob Fulton and you. Returning to the car I told Mr. Van Glahm that I thought he was a reasonable man and that I could not tell him anything that would recommend his spending money on the property; but that in spite of my opinion and those before me, he still wanted to get it out of his system, to ask you to get some photos, do some scouting and spot a few holes in the area. I continued by saying that according to the map, Cerro had the same thought, that is, this was probably the largest single structure or group of structures on the property and, in view of the more favorable rock types and indicated mineralization, worth a couple holes, one inclined and one vertical (as shown on the map). Furthermore I said, perhaps you could get the logs of these holes or at least a description from Lacy which possibly could alter my qualified recommendation. I said I would

Mr. Walter E. Heinrichs, Jr.  
January 16, 1960  
Page 2

write you the substance of this statement.

Mr. Van Glahm, who certainly struck me as a realist, accepted these remarks and thanked me genuinely. We had a pleasant chat while driving back to the deluxe suite where Mr. Scarborough was having a little snooze. I believe Mr. Van Glahm or Mr. Scarborough will contact you after they have received your report. They left for Los Angeles just as I left for Denver, but Scarborough plans to return Monday.

I certainly was glad to see you again. Thank you for taking the time to drop by. Please give my very best to Jeanne and the kids.

Sincerely yours,

*Robert J. Searls*

Robert J. Searls  
*RS*

RJS:dl

HEINRICH'S GEOEXPLORATION COMPANY  
P. O. BOX 5671 TUCSON, ARIZONA

Lacy report  
mailed to

N.S. Oberon  
Wickenburg, Ariz.

1/20/60

J.S.

WILLARD C. LACY  
2014 E. Burns St.  
Tucson, Arizona

July 26, 1955.

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

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

I. Summary and Conclusions:

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

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

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

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

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

0.06% cu      0.4 oz. ag.      0.01 oz. au

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

A general sample of reject oxides from the dump of the "Golden Gate" open-pit assayed:  
1.1% Cu, 0.4% Pb, 0.01% Zn

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

Additional examination and development should include:

- (1) Detailed geological map, utilizing colored aerial photographs;
- (2) Testing of vein structures by cross-cuts from a 1300 meter tunnel joining the King Solomon Gulch ("Golden Gate") with the Humlin Wash ("Camp B"). This would give about 180 meters of back under the divide area, and might total about 2000 meters of underground work.
- (3) Surface diamond drilling of the "Golden Gate" prospect, to be supplemented by churn drilling about the diamond drill holes indicate ore potentialities, and (4) rehabilitation and sampling of the "Camp B" workings with diamond drilling to check ore values in the walls.
- (5) A study of a water supply should be made.

II. Scope:

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

III. Location:

Oberon's claims are located ten miles northeast of Wickenburg, Arizona, in the Blue Tank Mining District, Yavapai County, T2N, R3W, Sections 15, 17, 20 and 21 at an elevation of about 3,400 feet. Wickenburg lies on the Topeka-Atchison-Santa Fe Railway and on U.S. highway #60-70-89, 4 1/2 miles north of Phoenix.

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

IV. Property - Ownership - History:

The claims covering the mineralized area, about one square mile, belong to F.N. Oberon. The titles are not as yet clear, and there

are fractions which are still open and should be covered before any work is begun. The details of the claims and ownership fall outside the province of this report.

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

#### V. Physical Features:

The Oberon properties lie in the Wickenburg Mountains in an area of late youth stage of dissection with moderate relief - about 100 to 400 feet in the mineralized area.

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

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

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

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

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

There is no equipment at the property except a headframe suitable for exploration work at "Camp 1", and a couple of shacks which could be made useable for temporary housing at "Camp 2".

#### VI. General Geology

The Oberon prospects lie in an area of pre-Cambrian gneisses and schists (Local Schist) of sedimentary and igneous origin which have been intruded by an irregular granite mass. Its contact with the gneiss is irregular and usually accompanied by a wide zone of injection gneisses. Xenoliths and pendants of the schists and gneisses within the granite are common. Pegmatite, apparently related to the granite, occur as dikes 10 to 60 feet wide in the contact zone and in pockets within the intrusive. These pegmatites carry tourmaline, and in the district contain lithium minerals and values in urechites. Dike extensions of the granite intrusive have a north-south trend.

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

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

### VII. Mineral Resources:

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

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

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

Exploration from the "Camp B" shafts has revealed sulphide mineralization in the 270' level in chalcoprite, bornite and at least chalcocite (probably secondary after bornite) with minor molybdenite and schreibite. Native copper is present in the upper enriched zone, and the oxide minerals include the usual cuprite, malachite, azurite and chrysocolla. The mineralization where explored was in the intrusive contact area within the aneils. Assay information is sketchy - shown on the attached sketch of underground workings - and means little other than high-grade pockets are present. A grab sample from the dump area of sulphide rejects assayed:

0.047 Cu      0.003 Ag      0.001 Au

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

1.15% Cu      0.003 Ag      0.001 Au

Miscellaneous assay results from grab samples and smelter returns mean little other than giving an idea of gold and silver values accompanying the copper. Gold values appear to be consistently higher at the "Golden Gate" prospect. These are shown on page 5.

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

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

Miscellaneous Asset Information

"Golden Gate"	12/1	12/2	12/3	12/4	12/5	12/6	12/7	12/8	12/9
1/2/43.	14.47	1.78	1.0						
7/3/43.	28.57	10.57	0.7						
12/17/47.	-	7.8	0.7						
9/29/43	-	5.45	0.1						
.	-	5.05	0.1						
.	-	13.45	0.1						
.	-	8.25	0.1						
.	-	8.81	0.4						

"Case #"

5/6/43.	12 <sup>00</sup>	10.35	Tr	
"	6 <sup>00</sup>	11.95	0.3	
"	24 <sup>00</sup>	0.31	Tr	
"	30 <sup>00</sup>	1.86	0.1	
"	30 <sup>00</sup>	2.44	Tr	
6/27/43.	-	2.6	0.2	
"	-	3.8	0.4	
"	-	3.0	0.2	
"	-	8.1	0.07	
"	-	2.7	0.2	
"	-	2.4	0.2	
"	-	2.0	0.1	
1/1/43.	-	5.85	0.4	
9/19/43.	-	6.00	0.4	

? These last penny - NCL.

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

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

(2) In the areas of converging and "horsetailing" of the vein structures there is developed wide zones or isolated chattering which show the relief type limonite over 100 feet with up to 1200 feet length at the "Golden Gate". A similar situation occurs at "Camp B", but outcrops are lacking. These two localities have a good chance of yielding a large tonnage of low-grade concentrate ore which can be extracted by open cut methods.

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

#### VIII. Development:

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

After a detailed geological map has been made of the area - utilizing colored photography, since the vein structures show clearly due to their coloring - the following minimum program is recommended:

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

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

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

A study should be made of water sources by competent engineers for mining and general water requirements. It was recalled that it required about one hour per day with a 50 gpm pump to lower the water in the mine workings. The water all came from the 150' level; the 220' level was dry.

#### A. Metallurgy

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

#### K. Ore Reserves and Possibilities

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

W. C. Lacy

20 January 1960

Mr. John R. Scarborough  
220 N. Fowler Avenue  
Fowler, California

Re: Nick Oberan Copper Claims  
Wickenburg Area, Yavapai County, Arizona

Dear John:

Attached are the original and one duplicate copy of my report. Another duplicate copy and carbon of this letter is also being sent to Mr. vonGlahn.

Hope you made satisfactory contact with Bob Searls. I am sure he gave you some more ideas and suggestions--especially if he got to see the property. I saw him briefly at the Adams Hotel and gathered that their interest is somewhat conditional on future developments.

Do not hesitate contacting us if you have any questions or new results and ideas. If you continue the dozing program you will need technically competent and careful sampling to know what the material will run. Nick may be qualified to direct this, but in any event it must be supervised by some one experienced in sampling techniques for adequately reliable results.

It was a pleasure meeting you, Nick and Mr. von Glahn. Your courtesy and assistance is sincerely appreciated and we wish you every success in your ventures. Please let us know if we can be of further help at any time.

Our duplicate statement is enclosed.

Very truly yours,

HEINRICHS GEOEXPLORATION COMPANY

Walter E. Heinrichs, Jr.  
President & General Manager

WEH: jh  
Encl: 4  
cc: Mr. Elmer C. von Glahn

NICK OBERAN - GOLDEN GATE AND CAMP "B" CLAIMS  
BLUE TANK DISTRICT  
YAVAPAI COUNTY, ARIZONA

15 JANUARY 1960

for

Mr. John R. Scarborough & Mr. Elmer C. Glahn

by

Walter E. Heinrichs, Jr.  
HEINRICHS GEOEXPLORATION COMPANY  
P. O. BOX 5671 Tucson, Arizona

## INTRODUCTION

At the request of Mr. John R. Scarborough of Fowler, California by telephone on 13 January 1960 from Shreveport, La. and on 14 January 1960 from Tucson, Arizona, arrangements were made to meet at Wickenburg, Arizona on 15 January 1960 and on that date, accompanied by Mr. Nick Oberan of Wickenburg, a short preliminary inspection of the area of the claims was made by jeep and on foot.

Being near Wickenburg, and having numerous good accessible roads and trails on the property, fairly complete coverage of the area was made in a relatively short time. Certain familiarity provided from previous examinations and knowledge of the general area, and some recorded data from our files and that furnished by Messers Scarborough and Oberan was helpful--in particular, Dr. Willard C. Lacy's report to Cerro de Pasco Corp. of 26 July 1955.

## CONCLUSIONS & RECOMMENDATIONS

Mineralization exposed on these claims is very similar to a general type existing in quite a few places throughout the Bradshaw Mountains region. Most often, these occurrences have been in the gneiss and schist or along contacts with them. Generally these gneisses and schists are thought to be older pre-Cambrian (Yavapai or Pinal) rocks. When and where productive, the deposits have yielded copper, usually from scattered, intermittent, lenses or pods along vein-type zones by relatively expensive underground methods. Average grade was probably in the range of 3% - 5% copper. When occasional higher grade spots were encountered, and during periods of low labor costs and/or high metal prices, the mines were quite active.

Under these conditions, an economic operation today, is extremely difficult. Success for underground work today requires constant good management and the following simple sulfide deposit situations:

1. low grade, less than 1.5%      evenly distributed large tonnage reserve in range of tens of millions of tons mineable by cheap caving methods. Concentrator (mill) essential, and smelter preferred.
2. medium grade 2%-5%            well defined structure, cheap and easy to constantly explore and develop, with medium cost methods. Hundreds of thousands of tons reserves, mill necessary.
3. high grade 7% plus            typical high cost methods. Mill preferred, but might not be essential, could ship direct to smelter. Tens of thousands of tons reserves.

If the ore is non-sulfide it must be high enough grade to ship direct or amenable to leaching which is relatively rare. If the ore is mixed oxide-sulfide or complex, this will present serious added expenses which can only be tolerated on very large tonnage operations. Open cut methods provide substantial savings in mining costs, but again they are usually only feasible on a large tonnage basis.

In order of increasing probability, the immediate above paragraph and preceeding situations #1 & #3 appear rather remote, but not entirely impossible. The most likely possibility, if any, is situation #2 above. A reasonably reliable prediction of the probabilities of the existence of any of the above factors and the economics which might be involved is out of the question without additional data. Similarly, from purely an engineering standpoint, there is absolutely no evidence to support the justification of a mill on the property at this time.

To properly and efficiently appraise these factors, a systematic evaluation project is recommended. This should include integration of all available

data on the property followed by a small step by step exploration program of integrated examination, geology, geophysics, trenching, sampling and drilling. Such a program could be financed privately from high risk venture or tax capital sources, or possibly on a 50-50 basis with the Federal Interior Department's Office of Minerals Exploration (O.M.E.). Personal private capital is not recommended. Expenditures should be appropriated on a staged basis, with successful or favorable results a requisite for each stage before proceeding to the next one, otherwise, serious consideration for abandoning the project should be made.

First stage recommended is a combination of preliminary reconnaissance geology, geophysics and sampling. Since the best reported mineral values are now under water in the main Camp "B" shaft this should be de-watered and resampled. Estimated cost of de-watering is of the order of \$10,000.00. Adequate preliminary recon geology, geophysics and sampling should not exceed \$25,000.00. Second stage would involve more detailed geology and geophysics and drilling, with about 90% of the cost in drilling and a minimum ideal total of approximately \$50,000.00.

Such an approach, if competently managed, will help locate and better delineate information on possible size, shape, depth, continuity, quality, quantity and grade of deposition, which are prime requirements for mill considerations and financing, especially for S.E.C. approved public subscription, and a reasonably detailed engineering proposal and commitment to such a program would be needed to obtain favorable response to any O.M.E. "loan" application.

Although the Cerro drill logs were not available, there is some doubt, regardless of their results, that the work which was done was conclusive and representative of most of the possibilities. Under these circumstances, the

evidence does warrant additional cautious investigation as proposed herein for a potential type of operation as herein indicated. If at any time, results are definitely contrary to general expectations, a reappraisal of the program should be made so that the approach is kept constantly in line with the results.

#### OBSERVATIONS

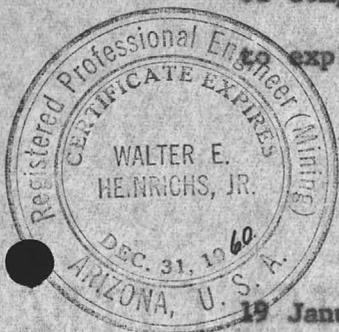
Although my conclusions differ somewhat from Dr. Lacy's, the general observations are similar. I did not get quite the same impression regarding the granite intrusive into the gneiss and schist although there is no question that both exist. I did not see the pegmatite Lacy referred to, but feel sure it is there as elsewhere in the region. This may also account for the lack of radioactivity in my random surface specimens as Lacy also reported some radioactivity. Most of these specimens were weakly or non-magnetic. One piece of drill core gneiss was strongly magnetic and one piece of iron "gossan" and one piece of schist core was fairly magnetic. The diorite is quite strongly magnetic.

Mineralized zones are fairly strong and some seem to persist for over one mile in length. Their average apparent surface width is 10' to 25' with a few spots 100' wide or more. True underground widths and related ore widths cannot be estimated without further exposure. These zones may be true fissure veins or intrusions along faults or contacts. Elsewhere, similar zones have been described partly as replacements in the old metamorphic rocks. Some sort of complex segregation phenomenon could also be imagined, but would be difficult to explain and substantiate except merely as a theory.

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

*Walter E. Heinrichs, Jr.*  
Walter E. Heinrichs, Jr.  
President & General Manager



19 January 1960  
P. O. Box 5671  
Tucson, Arizona

NICK OBERAN - GOLDEN GATE AND CAMP "B" CLAIMS

BLUE TANK DISTRICT

YAVAPAI COUNTY, ARIZONA

15 JANUARY 1960

for

Mr. John R. Scarborough & Mr. Elmer C. Glahn

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Such an approach, if competently managed, will help locate and better delineate information on possible size, shape, depth, continuity, quality, quantity and grade of deposition, which are prime requirements for mill considerations and financing, especially for S.E.C. approved public subscription, and a reasonably detailed engineering proposal and commitment to such a program would be needed to obtain favorable response to any O.M.E. "loan" application.

Although the Cerro drill logs were not available, there is some doubt, regardless of their results, that the work which was done was conclusive and representative of most of the possibilities. Under these circumstances, the

evidence does warrant additional cautious investigation as proposed herein for a potential type of operation as herein indicated. If at any time, results are definitely contrary to general expectations, a reappraisal of the program should be made so that the approach is kept constantly in line with the results.

#### OBSERVATIONS

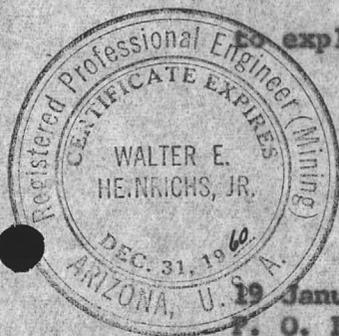
Although my conclusions differ somewhat from Dr. Lacy's, the general observations are similar. I did not get quite the same impression regarding the granite intrusive into the gneiss and schist although there is no question that both exist. I did not see the pegmatite Lacy referred to, but feel sure it is there as elsewhere in the region. This may also account for the lack of radioactivity in my random surface specimens as Lacy also reported some radioactivity. Most of these specimens were weakly or non-magnetic. One piece of drill core gneiss was strongly magnetic and one piece of iron "gossan" and one piece of schist core was fairly magnetic. The diorite is quite strongly magnetic.

Mineralized zones are fairly strong and some seem to persist for over one mile in length. Their average apparent surface width is 10' to 25' with a few spots 100' wide or more. True underground widths and related ore widths cannot be estimated without further exposure. These zones may be true fissure veins or intrusions along faults or contacts. Elsewhere, similar zones have been described partly as replacements in the old metamorphic rocks. Some sort of complex segregation phenomenon could also be imagined, but would be difficult to explain and substantiate except merely as a theory.

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

  
Walter E. Heinrichs, Jr.  
President & General Manager



January 1960  
P. O. Box 5671  
Tucson, Arizona

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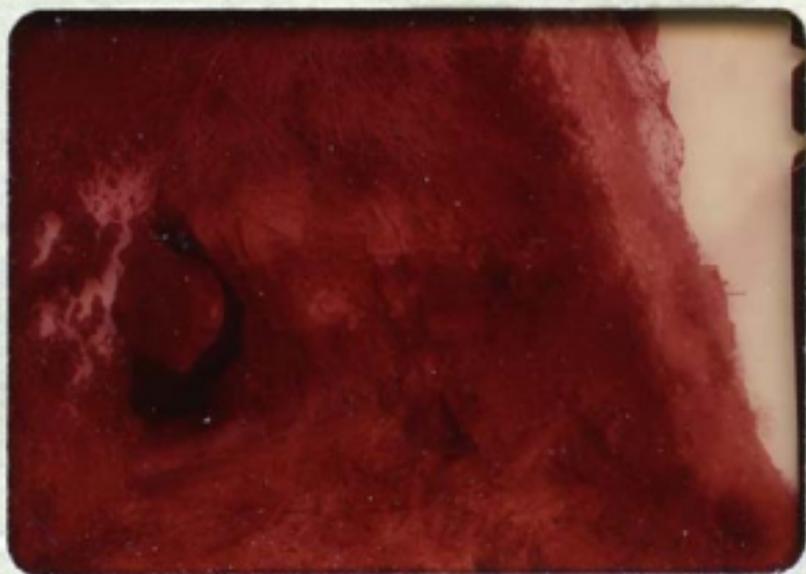


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