CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
520-770-3500
http://www.azgs.az.gov
inquiries@azgs.az.gov

The following file is part of the

Richard Mieritz Mining Collection

ACCESS STATEMENT

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

CONSTRAINTS STATEMENT

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

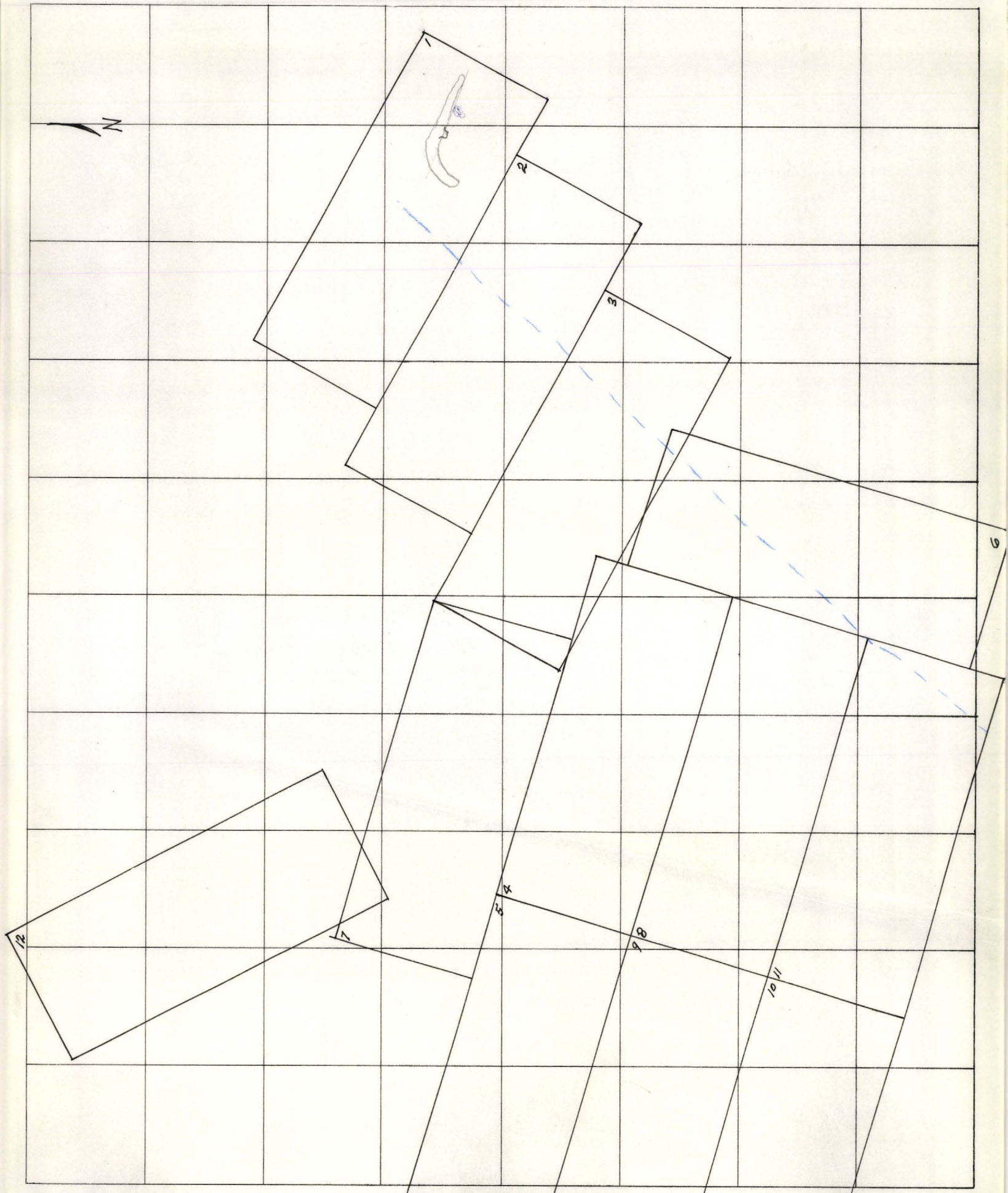
QUALITY STATEMENT

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

995.2 3.8 999.0 3.9 1002.9 Santa Rosa 1017.4 S.R. Schl 1015.8 15.5 I-8 1055.5 C.G. RR. 1059.1

1059.1
1002.9
56.2 - Turnoff
3.8
60.0 prop.

1055.5
1002.9
drapes 52.6 I-8
1015.8
1002.9
Santa Rosa School. 12.9



MINE _____ LOCATION _____ LEVEL _____

GEOLOGY BY _____ SURVEY _____ DATE _____ SCALE _____

N _____ E _____ EL. _____

WILLARD C. LACY
4034 E. BURNS ST.
TUCSON, ARIZONA

August 27, 1966

Mr. Malin Lewis
Ajo, Arizona

Mond-Tel Claim Group
Brownell Mountains
Pima County, Arizona

Dea r Mr. Lewis,

Mr. H. Clyde Davis and I spent a total of seven days in the examination and geological mapping of the area contained within the Mond-Tel claim group in the Brownell Mountains and in the area adjacent to the claims that had a bearing upon interpretation of the geology of the claims. A geological map showing our recordings and interpretations is attached.

The Mond-Tel claims lie southwest of Brownell Peak within an area of quartz monzonite (quartz latite) intrusive rock. A zone one mile long and 3,000 feet wide, with its long axis trending northeast, is marked by alteration and staining by iron oxides and scattered showings of oxide copper minerals. Alteration consists of the development of minor secondary orthoclase, and interlacing of quartz - tourmaline - specularite veinlets and pods. There is a close relationship between copper and specularite distribution.

The altered and metallized zone is bounded by a strong fault on the southeast that brings it in contact with barren Precambrian granite. On the west mineralization terminates against a diabase dike and adjacent sediments and volcanics. Intensity fades to the north and northeast.

Within the mineralized zone north-northwest trending dikes of diabase and latite are localized along fracture zones. These zone appear to have also served to localize copper mineralization.

In view of the low pyrite content of the rocks, copper values would not be leached during weathering processes. Thus, a geochemical survey of rock samples on a grid pattern within the altered area would give a good evaluation of the potential of the claims and areas of copper concentration. Samples of copper - specularite mineralization should be checked for their gold and silver content in view of a close association of precious metal values to specularite in the Ben Nevis Mt. area to the south.

A total of $1,000 in professional services and supplies were spent on behalf of this examination.

Respectfully submitted,

Willard C. Lacy
Geologist

Registered Geologist
CERTIFICATE EXPIRES
WILLARD C.
ARIZONA, U.S.A.

November 20, 1973

LETTER of CERTIFICATION

I, Richard E. Mieritz, of 1634 W. Hazelwood Street, #2, Phoenix, Maricopa County, Arizona, do hereby certify that:

(1) I am a mining engineer, graduated from the University of Wisconsin with the degree of Bachelor of Science in 1939.

(2) I have practised my profession continuously since then, receiving my Arizona State Registration as a Mining Engineer in 1956 and my Arizona State Registration as a Geologist in 1970, being a member in good standing.

(3) The report to which this letter is attached and part of, has been prepared on the basis of personal observations on the property on November 17, 1973, on the writers general geologic knowledge of the area and on the review and study of factual data of others.

(4) I have no direct or indirect interest in the property.

(5) I have no direct or indirect interest, nor do I expect to receive any interest, direct or indirect in the properties or the securities of Geo-Dyne Resources Ltd., Vancouver, B. C. or its affiliates.

Respectfully submitted,

R. E. Mieritz,
Mining Consultant,
Phoenix, Arizona.

A

GEOLOGICAL EVALUATION

and

EXPLORATION

REPORT

on the

MOND-TEL PROPERTY

Brownell Mining District

in

Pima County, Arizona

by

Richard E. Mieritz
Mining Consultant
Phoenix, Arizona

November 20, 1973

TABLE of CONTENTS

	Page
INTRODUCTION	1
PROPERTY, LOCATION and ACCESSIBILITY	1
FACILITIES	2
HISTORY, DEVELOPMENT and PRODUCTION	2
GENERAL GEOLOGY	2
MINERALIZATION	2
ORE RESERVES	3
PROPERTY POTENTIAL	3
PROPOSED EXPLORATION REQUIREMENTS - COSTS	4

INCLUDED MAPS

Map No. 1 - Location Map, State of Arizona.
Map No. 2 - Claim Map, Mond-Tel property.
Map No. 3 - Surface Geology Map, Mond-Tel property.
Map No. 4 - Sketch Map, Pit Areas, Claim No. 1.

INTRODUCTION:

At the request of and authorization by Geo-Dyne Resources Ltd., Vancouver, B. C., Canada, the writer completed a field examination of the Mond-Tel group of mining claims in Pima County, Arizona on November 17, 1973, accompanied by Mr. Harold Ferrin, co-owner of the property, and Mr. Charles Skinner.

The writers report, herewith prepared and presented, is based on the field examination, the writers geologic knowledge of the area and a review of a report by Gerald Weathers, dated October 28, 1973, who is an Arizona Registered Geologist, Phoenix, Arizona. Factual data obtained from Mr. H. Ferrin was also reviewed and studied. Such data included a copy of the recorded Affidavit of Proof of assessment improvements for year 1972-73, Geologic Map of the area completed by the Miami Copper Co., Miami, Arizona and other sundry maps.

PROPERTY, LOCATION and ACCESSIBILITY:

The property consists of 12 lode mining claims located in 1955 within the Papago Indian Reservation, T. 14 S., R. 2 E. (by projection) in unsurveyed territory, Brownell (Quijota) Mining District, Pima County, Arizona.

The claims are named MOND-TEL #1 through #12 and recorded in the Pima County recorders Office in Book 831, pages190 through 201. The claims were staked in year 1955. Each claim approximates 20 acres for a total of 240 odd acres. These claims are held by right of location, being unpatented.

The property is located approximately 60 miles southwest of Casa Grande, a moderate size city some some 55 miles southeast of Phoenix, Arizona. Travel to within four miles of the northeast portion of the property utilizes Indian Reservation blacktop road #15 southwest from Casa Grande. Using this roads crossing with the Railroad at Casa Grande, it is 56.2 miles to a very indistinguishable, unmarked turnoff to the right. Using this roads overpass crossing of I-8, this same turnoff point would be 52.6 miles distant, or from the Santa Rosa School road, the same turnoff would be 12.9 miles distant.

From this turnoff point, travel can only be accomplished by positive traction vehicles or four-wheel drive vehicles, as this desert road traverses much sandy ground and in many cases utilizes the washes as the road.

Access to the southwestern portion of the property is continued travel on blacktop road #15 to State Route 86, thence right to Quijota (Covered Wells) and three miles beyond, to a turnoff to the right. This desert road also utilizes washes and travel is only by positive traction or four-wheel drive vehicles.

Aside from these desert roads being sandy, there are many steep grades with much loose rock.

FACILITIES:

No facilities, gas, electric power or water, as public utility supplied are available on the property. Water for drilling might be available at Quijota.

There are no available accomodations in the immediate area. Motel rooms would be available in Ajo, 45 miles distant or Casa Grande.

HISTORY, DEVELOPMENT and PRODUCTION:

The property was formerly mined on a small scale for its gold content by Mr. Brownell and various lessors. In recent years the copper bearing outcrops have been prospected and high-grade (3.0% plus) copper oxides are reported to have been shipped, however, Mr. Ferrin has no records of the production.

Development consists of numerous pits, trenches, cuts, short declines, at least 2 churn drill holes by Miami Copper Company in year 1957, and access roads.

GENERAL GEOLOGY:

Rocks in the immediate area of the property, as mapped by Miami Copper Company (see Map No. 3), include basalt, diabase, quartz monzonite porphyry, Comanche sediments, Pre-Cambrian (?) quartzite and hornfels and Pre-Cambrian (?) granite.

In some instances, the writer does not agree with the nomenclature of some rock types, however, the influence this may have on the nature of the mineralization within the claims is negligible.

As mapped by Miami Copper, the property hosts a quartz monzonite porphyry along with several random striking diabase dikes. The remaining geology is basically west of the claimed area.

MINERALIZATION:

Copper mineralization within the property is limited to the oxides, mostly as malachite and azurite with minor amounts of the black oxides and sparse cuprite. Chalcantite, copper sulfate, as a greenish color, is quite frequent.

These oxides are wide spread over much of the property but most generally as wide spaced outcroppings and then only sparsely localized. A greater percentage of this mineralization is associated with the fracture planes of the rock with only a small percentage being of the disseminated type. Within the property there are two modes of mineralization: (1) in the eastern portion the oxides of copper are associated with siliceous ribs five to ten feet in width and upwards of 50 feet in length, usually with a strike of N. 60 to 70° W., and (2) in the western portion of the pro-

perty the oxides of copper occur in or near diabase (probably diabase-andesite series) dikes of random strike and varying lengths and widths.

The eastern portion mode of mineralization appears to be the most significant of the two types of occurances. With this in mind, the writer Brunton-paced a sketch map of the mineralization on Mond-Tel claim #1. (See Map No. 4). It is from this mineralization that some production came from the two pits. In this area, there is a zone of some 800 feet in length and at least 175 feet wide which contains several siliceous ribs (with probable altered tuff intervening bands) which are resistant to errosion and evidence copper oxides on the surface. In two instances, medium size pits were excavated and good to excellent ore was developed, mined and shipped. During Mr. Weathers examination of the property, he took a grab sample (MD-3) of the "muck" in the larger of the two pits and this sample assayed 1.91% Cu., 0.32 oz. Ag with a trace of gold.

Examination of the two pits indicate the copper mineralization occurs as lenticular bodies within the siliceous "rib". In the case of the larger pit the mineralization appears to be controlled by a N. 40° W., 75° SW. dipping fissure as evidenced in the small "cut" or shaft in the wall of the pit. These lenticular concentrations within the siliceous ribs become the targets for exploration.

The footwall of this "wide" zone, appears to be a highly altered tuff containing many veilets of specular hematite which seem to have many strikes and dips, but most generally a strike of N. 45° E. with a 40°SE dip.

The western portion mode of mineralization appears to be somewhat erratic but could become the target of exploration during a second or third stage or phase of continued exploration of the property.

ORE RESERVES:

There are no ore reserves within the property limits simply because the property is considered a prospect at this stage of development.

PROPERTY POTENTIAL:

The potential of the property is difficult to ascertain because there is not sufficient evidence available at this writing for the writer to correlate the surface-wise evidence with possible lengths, widths and depths of the lenticular bodies or mineralization as it would occur nor can the writer predict or forecast how many of these lenticular bodies might be present.

What is in evidence is the fact that there is an improvement in copper content from three to seven feet below the surface expression and this of course is an encouraging factor. To what depth such improvment will carry is unpredictable at this time.

Because of the lack of sufficient evidence, the writer cannot even pro-

vide an "inferred" figure of potential.

PROPOSED EXPLORATION REQUIREMENTS - COSTS:

For all practical purposes, the property is quite isolated and accessibility is not easy, particularly the eastern portion of the property where the prime target of exploration exists. Good road accessibility for equipment movement and personnel daily travel is a definite requirement. The present access of 3.9 miles from the paved road - even with temporary repair, would be a most troublesome route - thus, the writer is suggesting new road construction of approximately 2 miles in an eastward direction to the paved road, thus reducing the accessibility route by 50% and establishing a less troublesome route.

Geological surface mapping will also be required and this expense is reflected in the first phase of the proposed exploration program.

Water for diamond drilling could be an expensive cost item and just might make the diamond drilling cost prohibited. The writer therefor suggests the use of percussion drilling - down-the-hole-hammer - as the exploration tool in the initial phase of the program. Diamond drilling could be considered at a leter date for deepening drilled percussion holes.

The writer envisions some 15 to 20 drill holes from 200 to 300 feet deep in the mineralized zone which is shown on the Sketch Map No. 4. These holes should be designed to test the surface exposed siliceous ribs and at locations where copper mineralization is in evidence.

The envisioned preparatory work and exploration for a Phase I program and its cost is as follows:

PHASE I

Access road construction, 2 miles, paved road to eastern portion of property (20 days @ $400.-/day)	$ 8,000.-
Surface goelogical mapping, 2/3 month, Fees and expenses	$ 2,000.-
Drill site preparation, Dozer wor,(15 days @ $400.-/day)	$ 6,000.-
Percussion drilling, 6,000 feet @ $14.00/ft., including personnel expenses, sampling and assaying.	$ 84,000.-
Project Supervision, Fees and Expenses, 3 months @ $2,700.-/month	$ 8,100.-
Contingencies, overrun of work, underestimate	$ 12,900.-
PHASE I total	$ 121,000.-

PHASE II

Phase II should be a continuation of percussion drilling but as "fillin" drilling. At the same time, diamond drilling should be utilized to deep-

en selected drilled percussion holes to depths of 600 to 800 feet.

The envisioned PHASE II program and its cost is as follows:

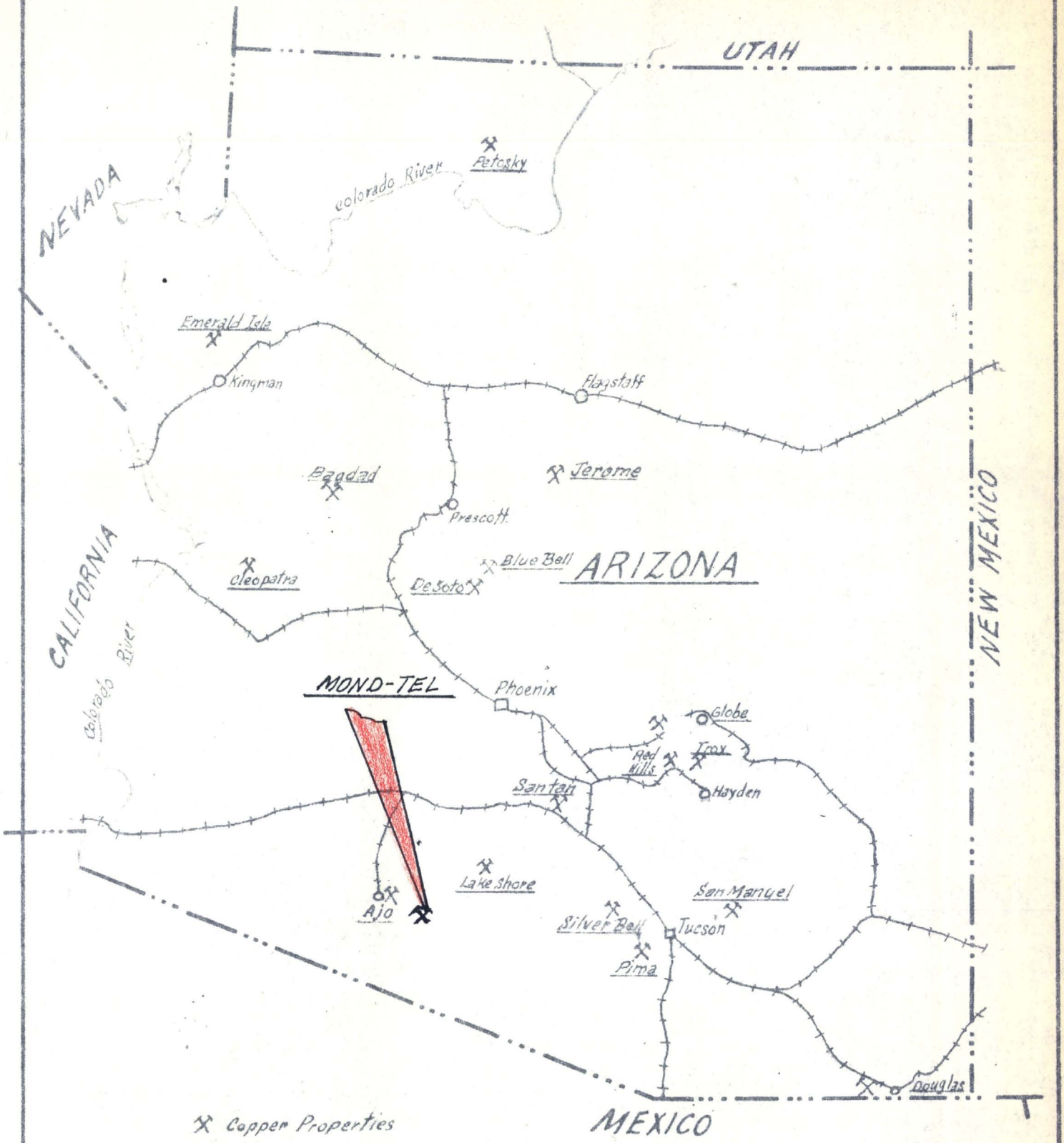
PHASE II

Drill site preparation, (15 days @ $400.-/day)	$ 6,000.-
Percussion drilling (fillin), 3000 feet @ $14.-/ft., including personnel expenses, sampling and assaying.	$ 42,000.-
Diamond drilling, new holes and deeping some percussion holes, 3000 feet @ $20.-/ft., including sampling, assaying and personnel expenses.	$ 60,000.-
Diamond drilling Extras, casing, reaming, etc	$ 10,000.-
Project Supervision, 3 months @ $2,700.-/month. Fees and expenses.	$ 8,100.-
Contingencies, overrun of work, under estimate.	$ 13,900.-
PHASE II total	$ 140,000.-

Respectfully submitted,

R. E. Mieritz,
Mining Consultant,
Phoenix, Arizona.

November 20, 1973

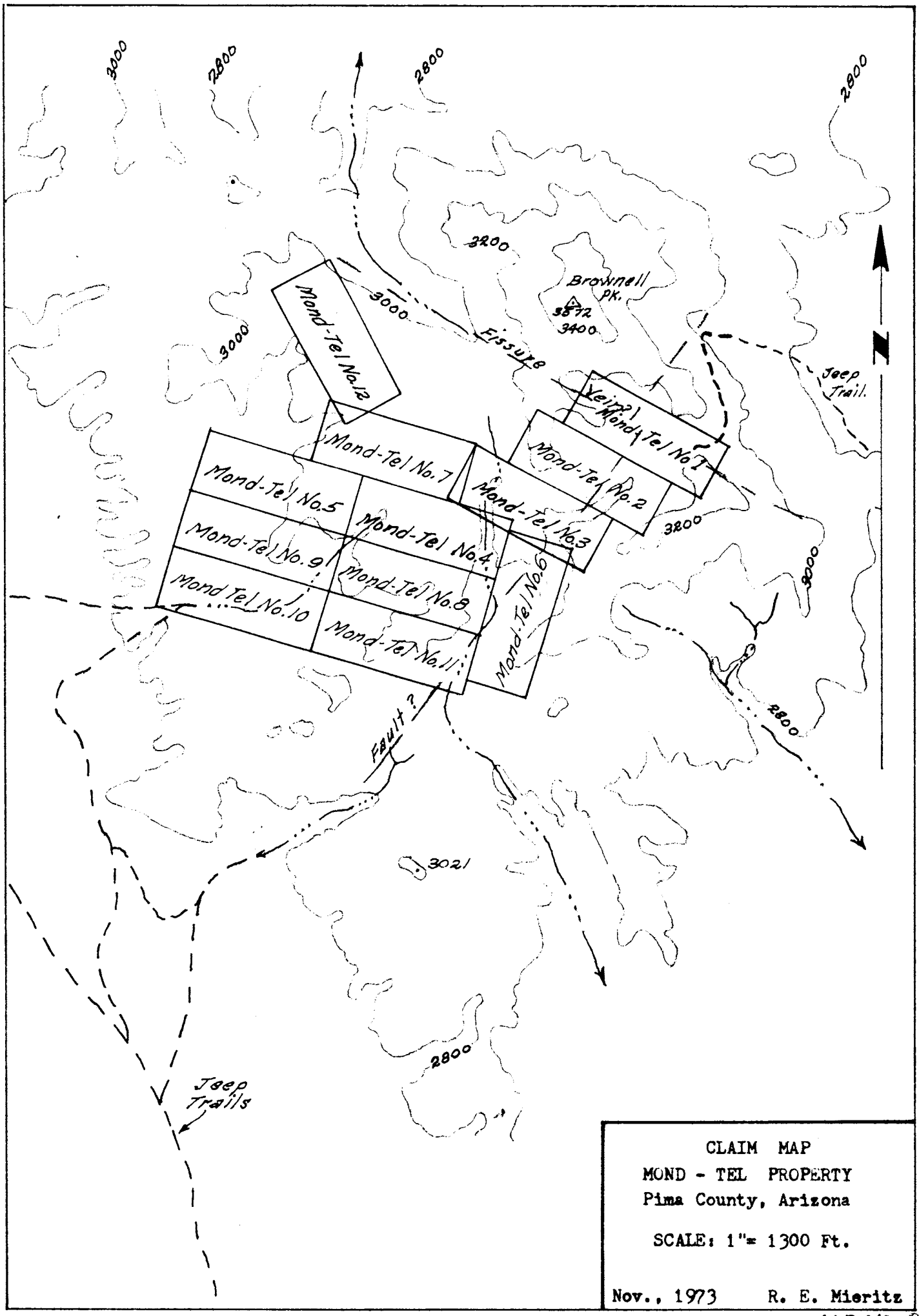


LOCATION MAP

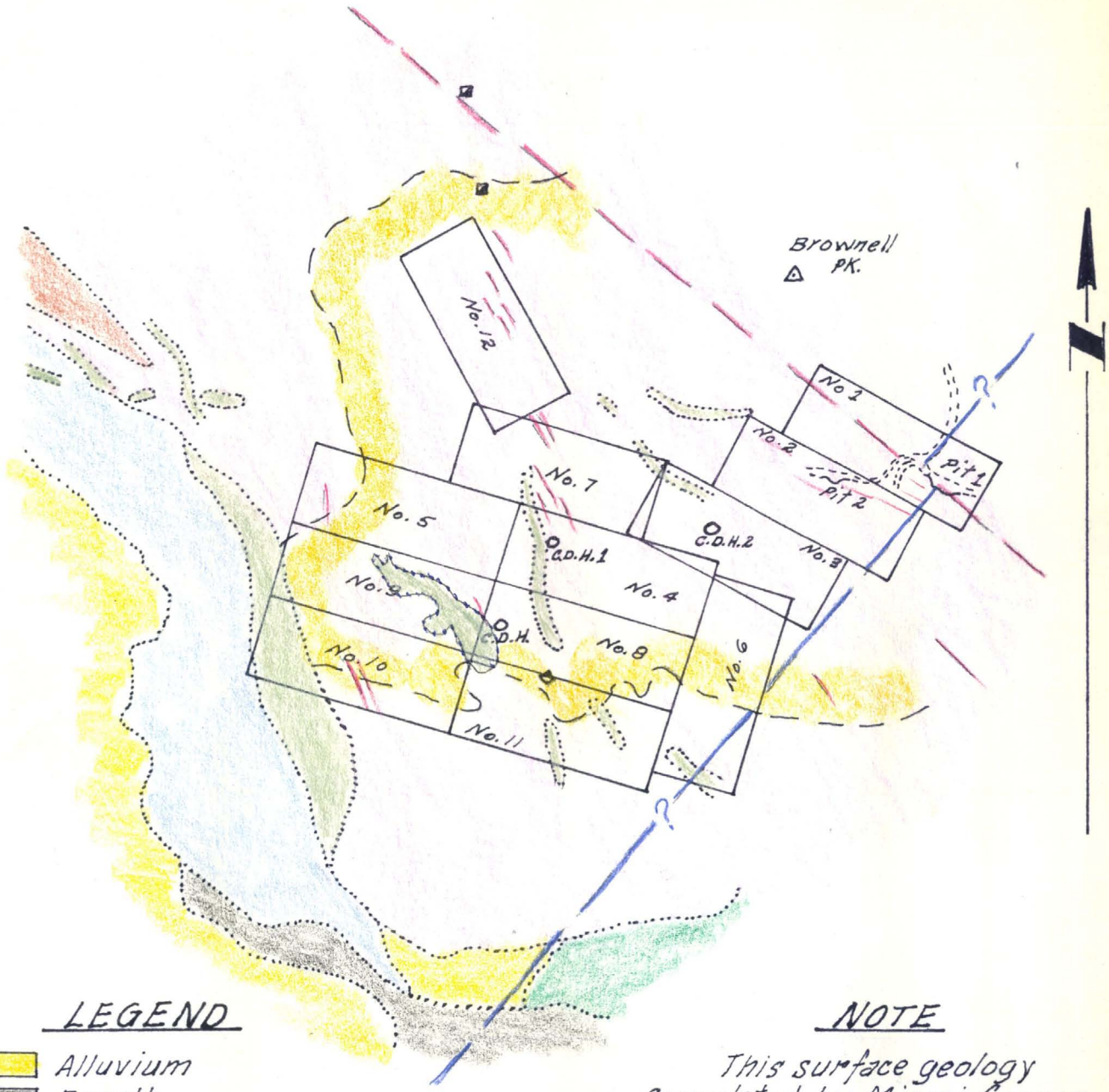
STATE of ARIZONA

March 3, 1959 R.E. Mieritz

MAP No 1


3000
2800
2800
2800
3200
Brownell Pk.
3872
3400
3000
Fissure
3000
Mond-Tel No.12
Jeep Trail.
Mond-Tel No.7
Mond-Tel No.2
Mond-Tel No.3
Mond-Tel No.5
Mond-Tel No.4
Mond-Tel No.9
Mond-Tel No.8
Mond-Tel No.10
Mond-Tel No.11
Mond-Tel No.6
3200
3000
2800
Fault ?
3021
2800
Jeep Trails
CLAIM MAP
MOND - TEL PROPERTY
Pima County, Arizona
SCALE: 1"= 1300 Ft.
Nov., 1973 R. E. Mieritz

MAP Nº 2



LEGEND

- Alluvium
- Basalt
- Diabase
- Quartz Monzonite Porphyry
- Comanche Sedimentaries
- Pre-Cambrian (?) Quartzite & Hornfels
- Pre-Cambrian (?) Granite
- Area of iron oxide capping
- Fault
- Copper mineralization

NOTE

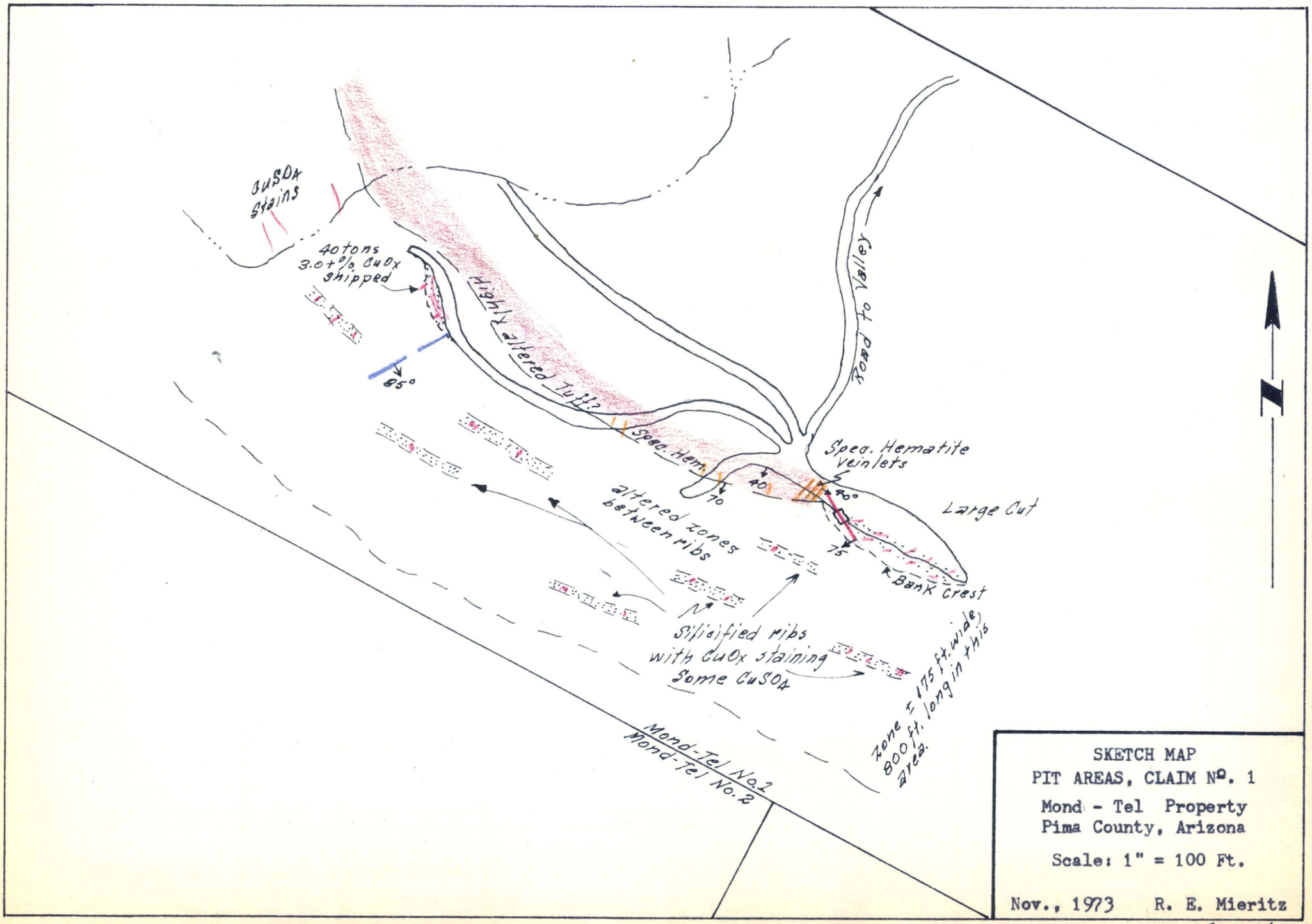
This surface geology completed by Miami Copper Company, Miami, Arizona, August, 1957.

SURFACE GEOLOGY MAP
MOND - TEL PROPERTY
Pima County, Arizona

SCALE: 1"= 1300 Ft.

Nov., 1973 R. E. Mieritz

MAP № 3



SKETCH MAP
PIT AREAS, CLAIM Nº. 1
Mond - Tel Property
Pima County, Arizona
Scale: 1" = 100 Ft.
Nov., 1973 R. E. Mieritz

MAP Nº 4