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A

RECONNAISSANCE REPORT

of the

GEOLOGY, MINERALIZATION

and

EXPLORATION POSSIBILITIES

on the

NORTHERN STAR PROPERTY

Yuma County, Arizona

by

R. E. Mieritz
Mining Consultant

Phoenix, Arizona

February 22, 1969

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Yuma County, Arizona

INTRODUCTION

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CONCLUSIONS

The brief examination afforded the writer sufficient information to conclude the following:

(1) That copper oxide mineralization does exist on the property and is associated with a strong persistant structure,
(2) One of several occurances is presently quite limitedly explored surface-wise by three open pits from which good oxide copper bearing material has been mined,
(3) The strong long strike length structure provides a good target for exploration on surface and by drilling,
(4) It is thought that an initial exploration and development program could indicate upwards of a half million tons of mineralized material containing 1.0% plus copper content,
(5) Adequate geologic mapping and study must be done and would indicate other mineralization within the claims which should be explored, and,
(6) Open pit mining can be considered in any operation plan.

PROPERTY, LOCATION and ACCESSIBILITY

The Northern Star copper lode claims number 26, all are unpatented and all are apparently in good legal standing although they have not been surveyed, but are contiguous as a group. (See Claim Map)

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FACILITIES

No electric power is available on the property, however, a high transmission line is approximately six miles distant to the west. No water is developed on the property although it is thought that well water could be developed about ½ to 3/4 of a mile to the east of the present workings.

A 3 inch natural gas line which services Parker, crosses the property. Except at road crossings, it lies on the surface and is a "branch" from the large "main" between Aguila and Kingman.

HISTORY and DEVELOPMENT

There is some evidence of old workings, in particular an inclined shaft which was sunk on a strong wall containing iron oxide. This work was probably done in search of gold. It is the same hanging wall of the copper oxide zone which is developed on the surface by pits and is some 800 feet distant along the strike. (See Geologic Sketch Map)

The most recent developments are the three surface pits from which approximately 4,000 tons of an excellent grade of ore has been mined and "heaped". (See Photo)

This property was under lease to a "partnership" not too long ago but it came to an abrupt end when the two partners were killed in an airplane accident. During their being however, the operators mined and "heaped" an estimated 4,000 tons and accomplished some production -- it is said about 14 tons of precipitate were produced. The "heap" (see photo) is still very much "alive" with "gree color", as well as some brown to red iron oxide which may also carry copper which is not discernible to the eye.

REGIONAL GEOLOGY

The regional rocks, 5 to 10 miles of the property, include sediments as limestone, shales and sandstones and igneous rocks as lavas, precambrian gneiss, schist, andesite dikes and granite. (See Location & Geology Map).

LOCAL GEOLOGY and MINERALIZATION

The claims have within their areas the same above mentioned rock types but no attempt was made to map them except in the immediate area of the one copper oxide occurance no partly developed by a limited amount of workings. (see Geological Sketch Map).

Of the several copper oxide occurances within the property, only one was mapped by the writer so as to provide some information as to the mode and type of mineralization present and to serve as a guide when future complete geological mapping is commenced.

Copper oxide mineralization occurs in a zone which has an apparent, surface-wise, continuous N. 10° E. strike length of at least 1200 feet and possibly more with an apparent dip of about 35° to the east. Its hanging wall is defined at only two points about 900 feet apart, (in the most northern pit and in the inclined shaft to the south). This hanging wall is recognized by a heavy, 2 to 6 inch thick red-brown iron oxide seam. Heavy concentrations of copper oxide minerals occur below the hanging wall. Dispersed copper oxide mineralization as blobs, veinlets, fracture fillings and disseminations continue away from the hanging wall for about 70 feet on the surface (about 50 feet normal to dip) where visible. The footwall of this zone has not been clearly defined nor really exposed. It is thought that the footwall may well be irregular, perhaps of an assay definition.

Copper minerals within the zone include malachite with minor amounts azurite, chrysocolla and perhaps tennorite and some cuprite. The host rock for the most part appears to be of igneous orign with some clay seams and an altered gneiss which apparently underlies the strong mineralized zone as shown on the included Geologic Sketch Map. Andesite dikes, unmineralized, are exposed in close proximity with the mineralized zone and no doubt are related to the sone of mineralization.

Grade-wise, the writer would estimate the zone to average about 1.0% copper. No pit wall or pit bottom were sufficiently clean for the writer to attempt sampling at this stage. Large bulk sampes would be required.

EXPLORATION POSSIBILITIES

The mode and type of copper mineralization exhibited in the

strong structural zone examined geologically suggests the possibility of down dip continuance of the copper mineralization, oxides and perhaps sulphides at some depth. (See Photo of Pit showing the blue and green color of the oxide minerals.)

The structure and copper mineralization are also present in the -35° incline located some 900 feet from the site of the most eastern present working. This is the only down dip penetration of the structure which has any depth.

With such evidence exhibited, a program of closely spaced vertical drill holes utilizing a "cheap cost" per foot drilling unit (rotary or percussion) is justified and a definite requirement towards determining a reserve and the grade of such reserve.

The visualized exploratory program includes a line of holes paralleling the strike of the zone and about fifty feet east of the hanging wall of the zone. Such holes should be drilled to a depth of 100 to 125 feet. A paralleling line of holes should also be drilled approximately 100 feet east of the assumed hanging wall of the zone. Such holes should reach a depth of 175 to 200 feet. A fifty foot spacing along the strike should be maintained and if the mineralization is too great in variance, the spacing should be reduced to 25 feet--where needed or required.

Such a proposed drilling program would approach an expenditure of $35,000.00 or more and could indicate 500,000 tons of material of economical grade. This is but a cost of 7¢ per ton indicated. This total expenditure includes drilling cost, sampling, assaying, supervision and sundry expenses.

Indications are that a 1% copper or better grade for the indicated zone is a very strong possibility.

Detailed geologic surface mapping of the area is also most desireous and can be carried forward simultaneous with the drilling program.

Respectfully submitted,

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

February 22, 1969

Lelon Noblitt

Tel - 669 - 2999

"Edge of Town Court"

In Parker -
Turn Rt. at Dairy
Queen -
Court is at the
end of 11th St

About 10:30 to 11:00 am
Monday - 2/3/69 - E.A.T

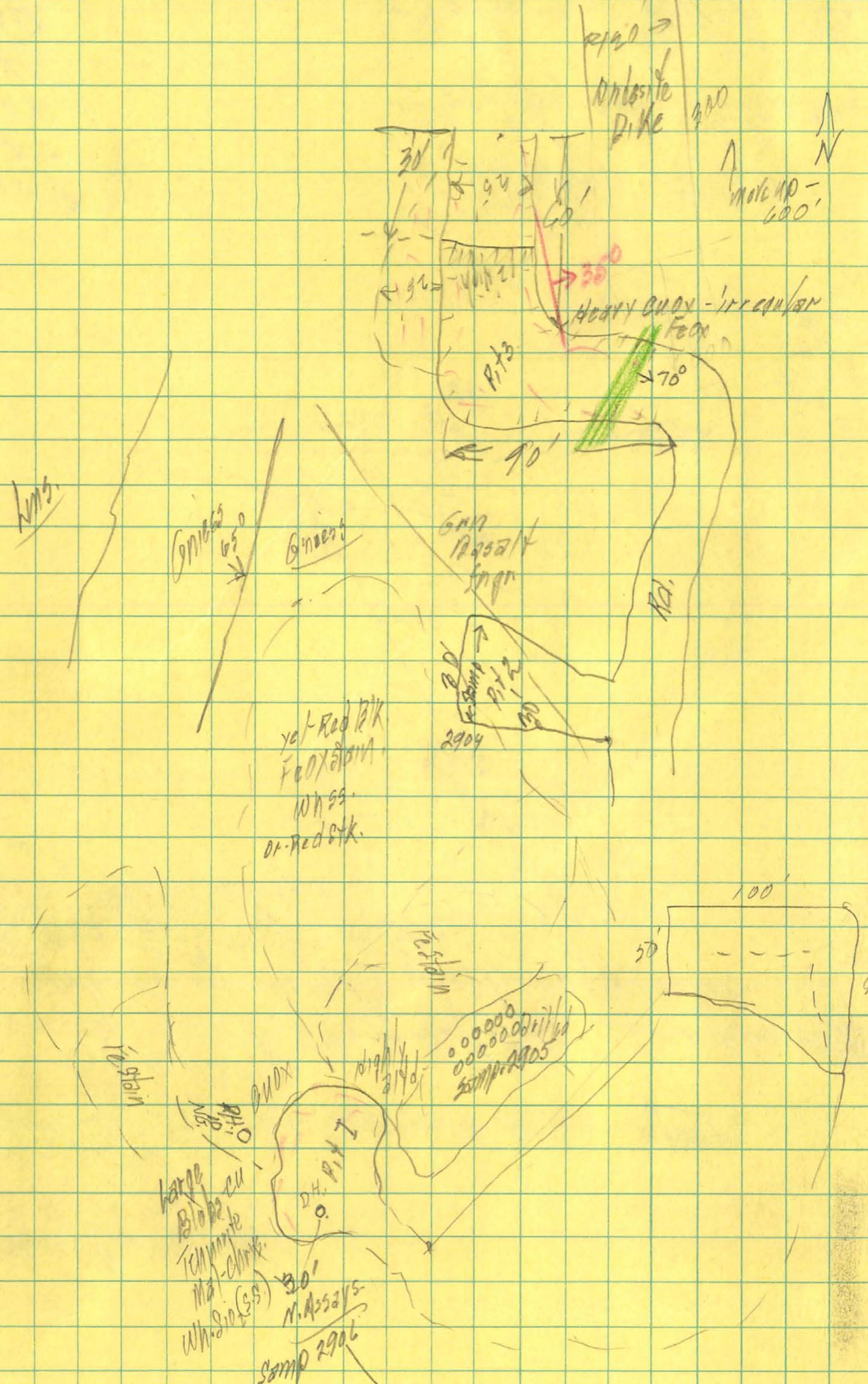
Properties looked at by Geo + SBO

Northern Star Group
(26 claims)
owned by Noblitt

Copper King Mine
(5? claims)
owned by Mrs Dilts.
supposedly available to Noblitt

New property Noblitt wants us to see —
Last Chance —
owned by Noblitt

Northern Star.



Qs - Gravel and sand, alluv.

QTs -

Qb - Basalt

QTb - " — any related dike — Hoop.

Tks - S.S. shale Cong.

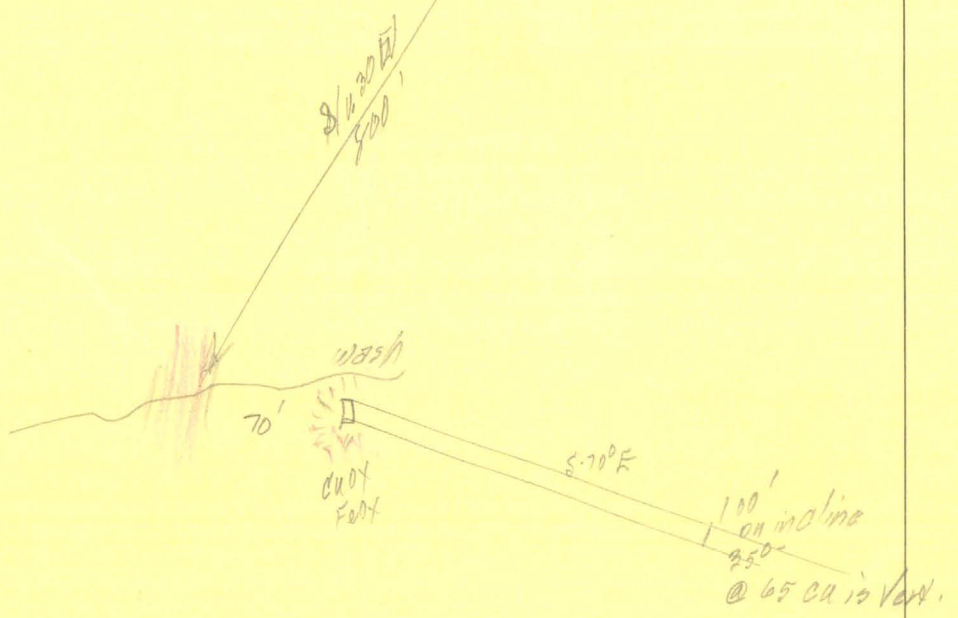
Li — Mgr - Granite. — dry to bed. dikes — Granite.

Lgr — Ms - S.S., Shale - Cong - locally metamorphosed.

PMs - Slate, Graywacke, Limestone.

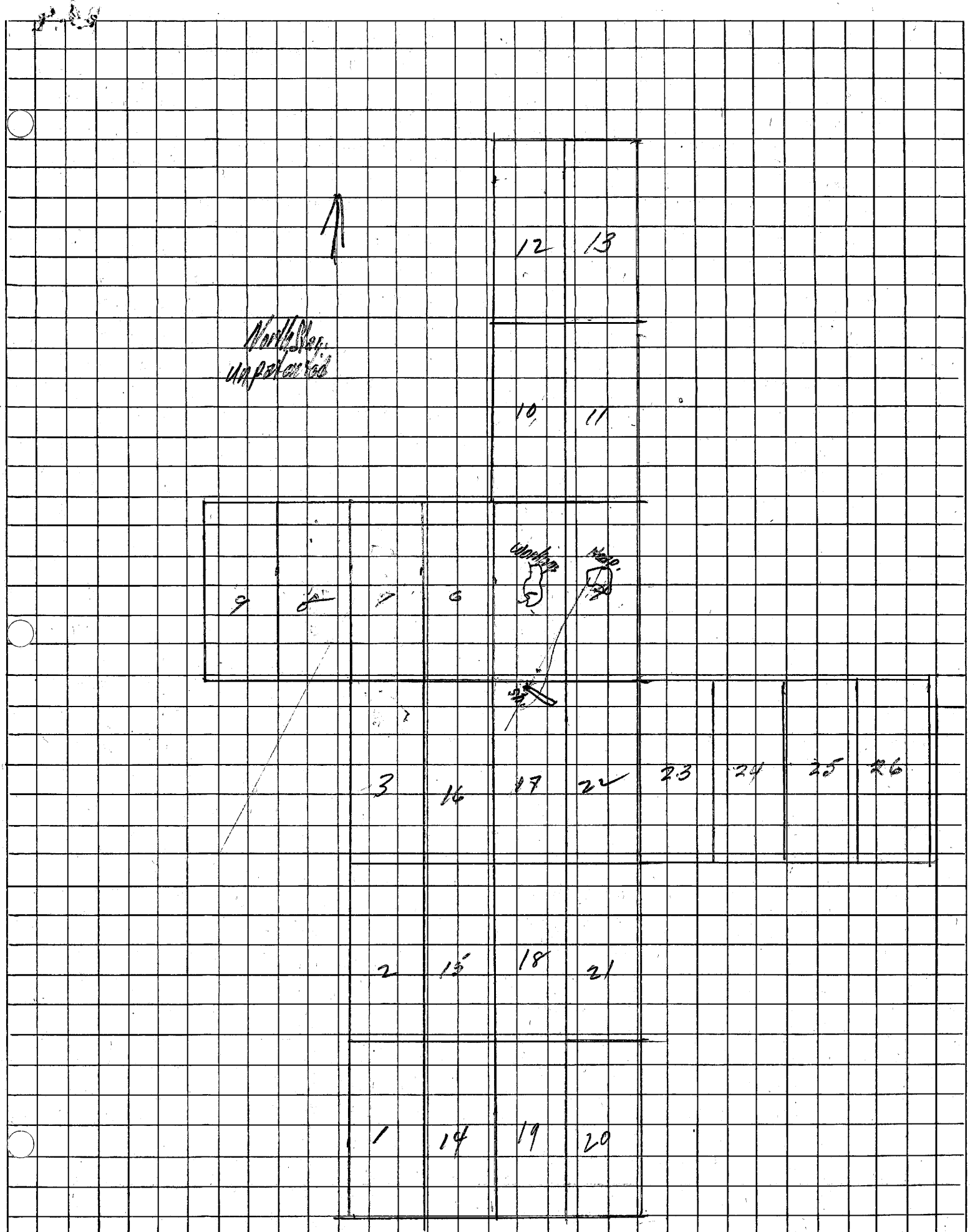
Sch. - Schist (Precambrian)

Gn - Gneiss.



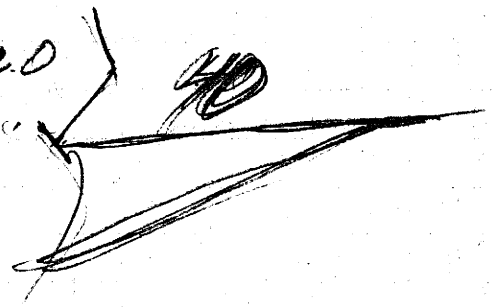
2904 -	.19
05	.07
06	.11
7	.46
8	.39

Claim Map.
Nathan Star Claims
Geologic Sketch Map 19
Part of 5
Nathan Star claims 20
Scale 1" = 100 ft. 18


North Mag.
Unplotted
12
13
10
11
9
8
7
6
5
4
3
16
17
22
23
24
25
26
2
15
18
21
1
14
19
20

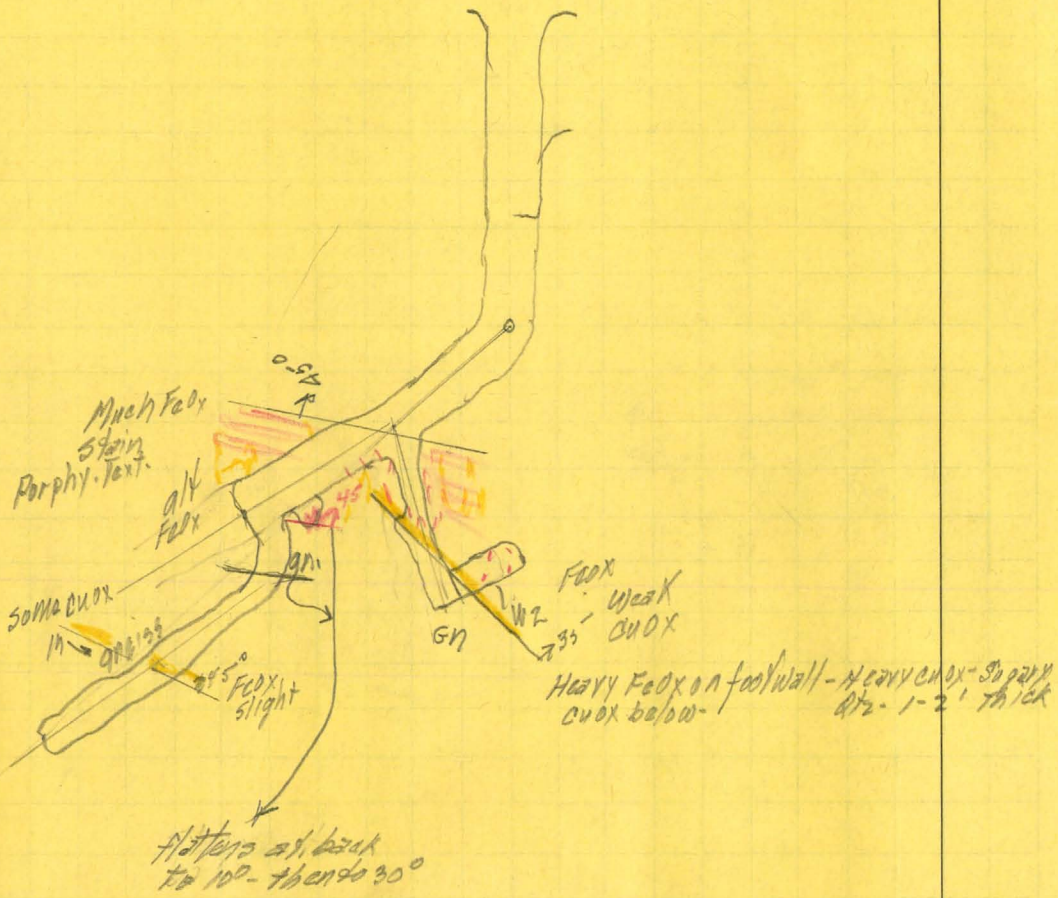
N.S.

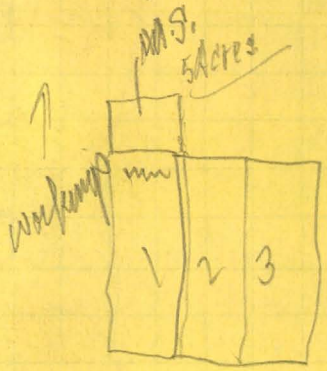
1.3 ca.o
.34 ca.

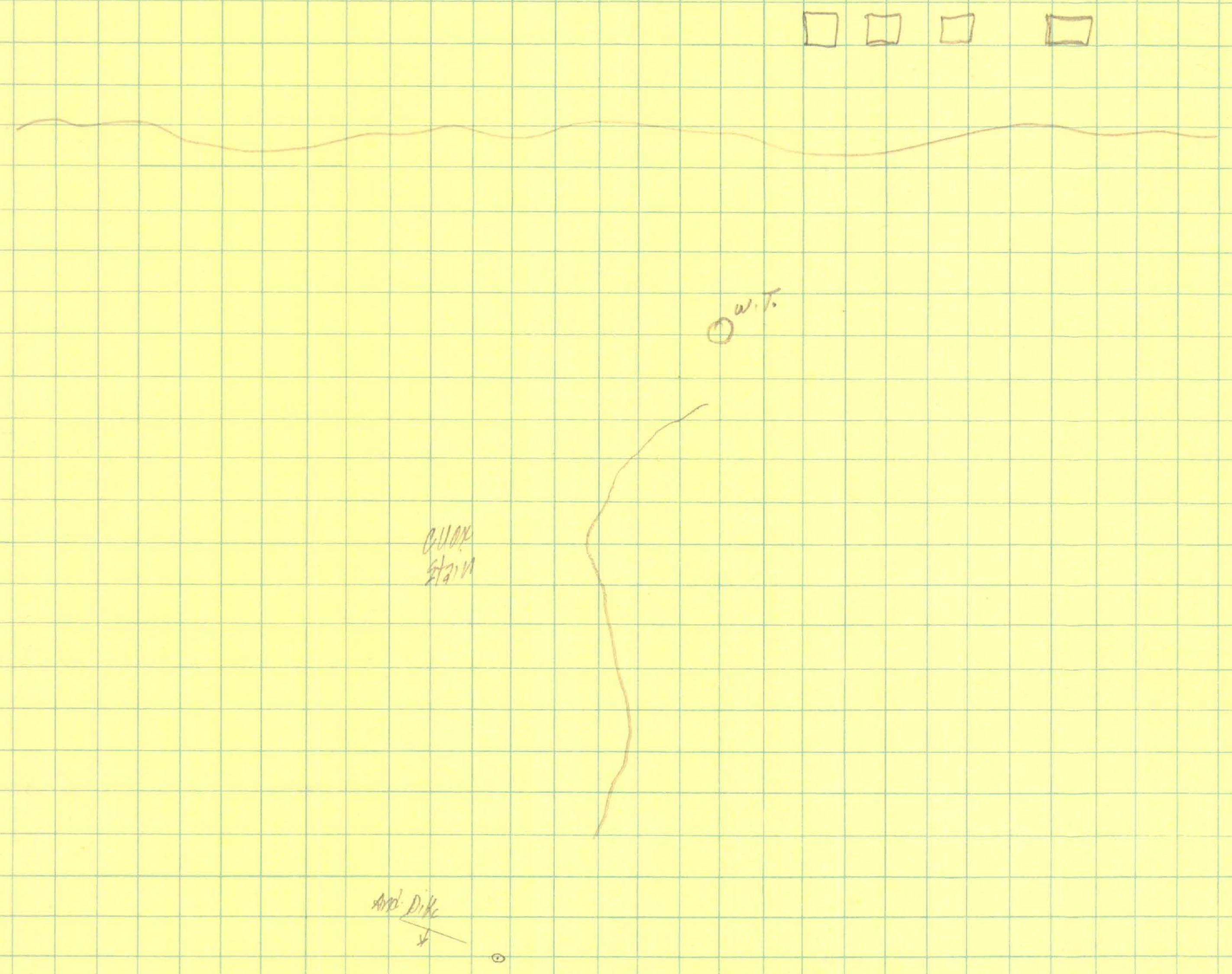


Ballam

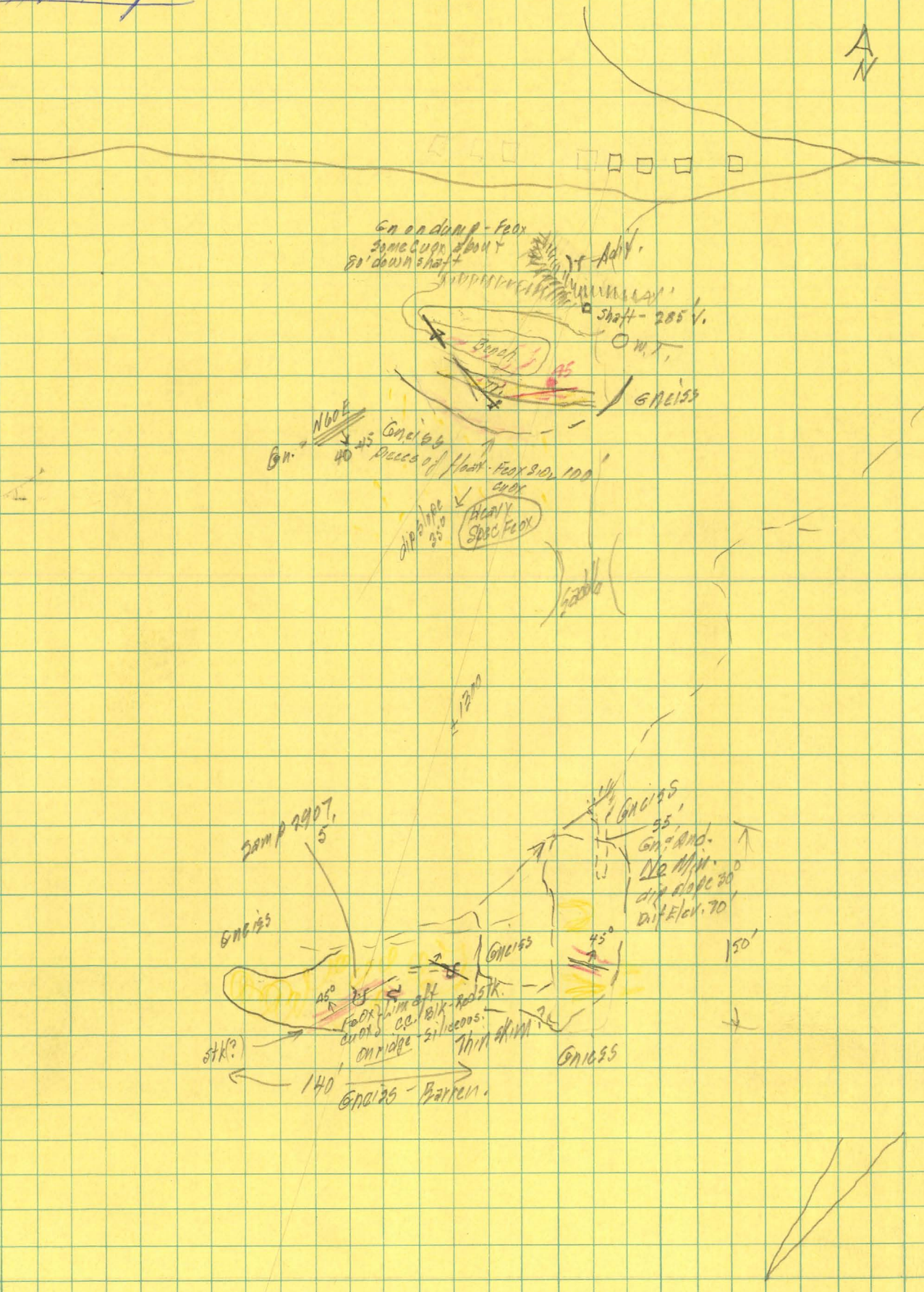
1" = 40'


Much FeOx
Staining
Porphy. Text.
alt
FeOx
some CuOx
in
gn
FeOx
slight
FeOx
- weak
CuOx
Heavy FeOx on footwall - Heavy CuOx - Sp very
CuOx below -
Flattens at base
to 100 - then to 30°


MM.S.
Sheets
1
2
3


W.T.
Stain
And Dike

Dikes Prop.


N
Gn on dump - Feox
some Cuox about
80' down shaft
Adit.
Shaft - 285 V.
O.M.T.
Bench
Gneiss
Gn. - N60E
40 NW
Gneiss
Pieces of Hard - Feox 310, 100' Cuox
pipeline 35°
Heavy Spec. Feox
Gneiss
95'
Gn. and.
Ne M.M.
dip slope 30°
Diffelck. 70'
150'
Samp 2907.
5'
Gneiss
Gneiss
45°
45°
Feox Cuox
Gneiss
Gneiss
Stk?
140'
Gneiss - Pegmen.

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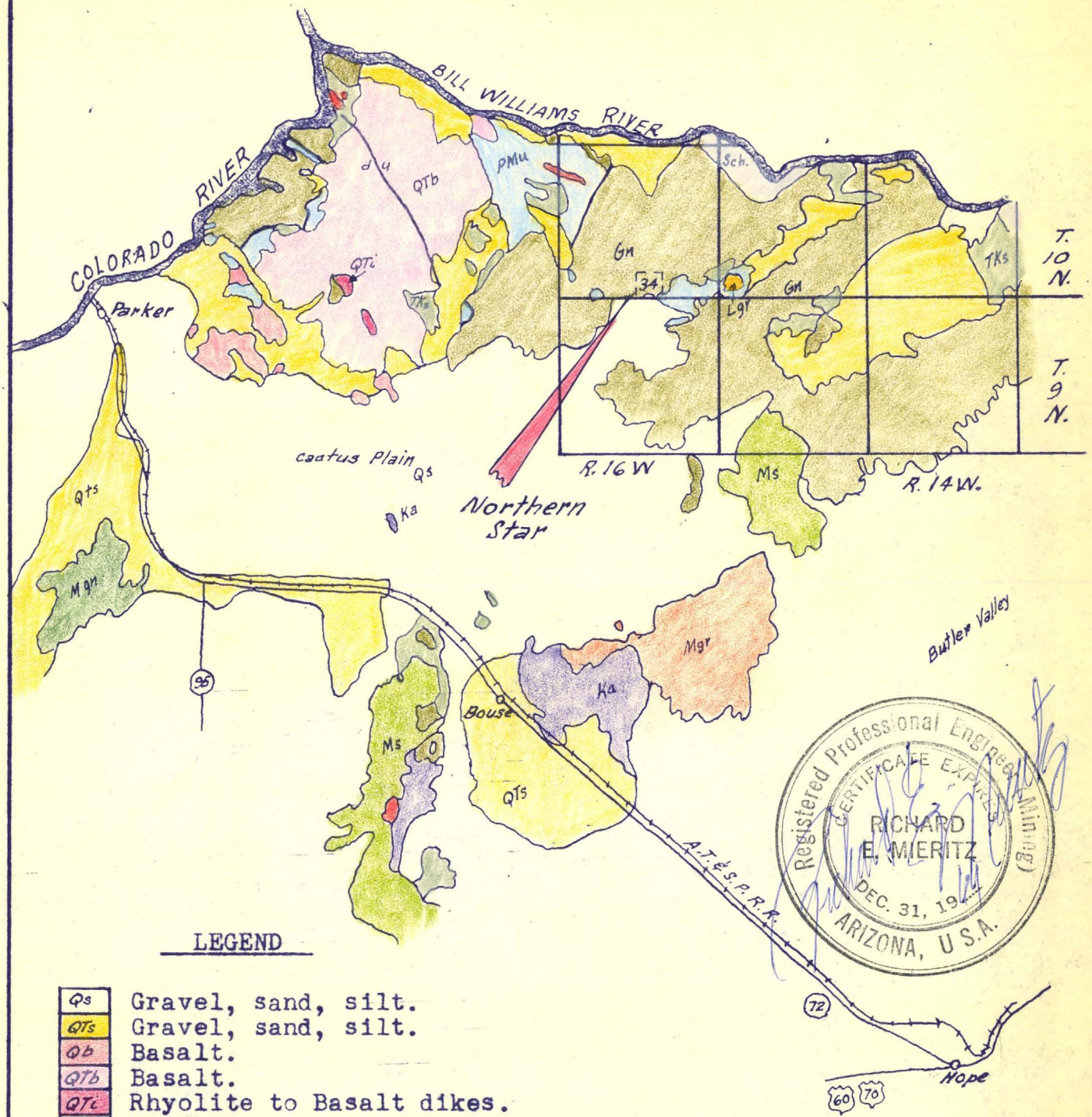


LEGEND

Qs	Gravel, sand, silt.
QTs	Gravel, sand, silt.
Qb	Basalt.
QTb	Basalt.
QTi	Rhyolite to Basalt dikes.
TKs	Sandstone, shale, congloerate.
Li	Rhyolite to Andesite dikes.
Lgr	Granite and related igneous rocks.
Ki	Dikes and plugs.
Ka	Andesite.
Mgr	Granite & related igneous rocks.
Ms	Sandstone, shale, conglomerate. Locally metamorphosed.
PMu	Shale, quartzite, limestone.
Sch.	Schist (Precambrian)
Gn	Gneiss.

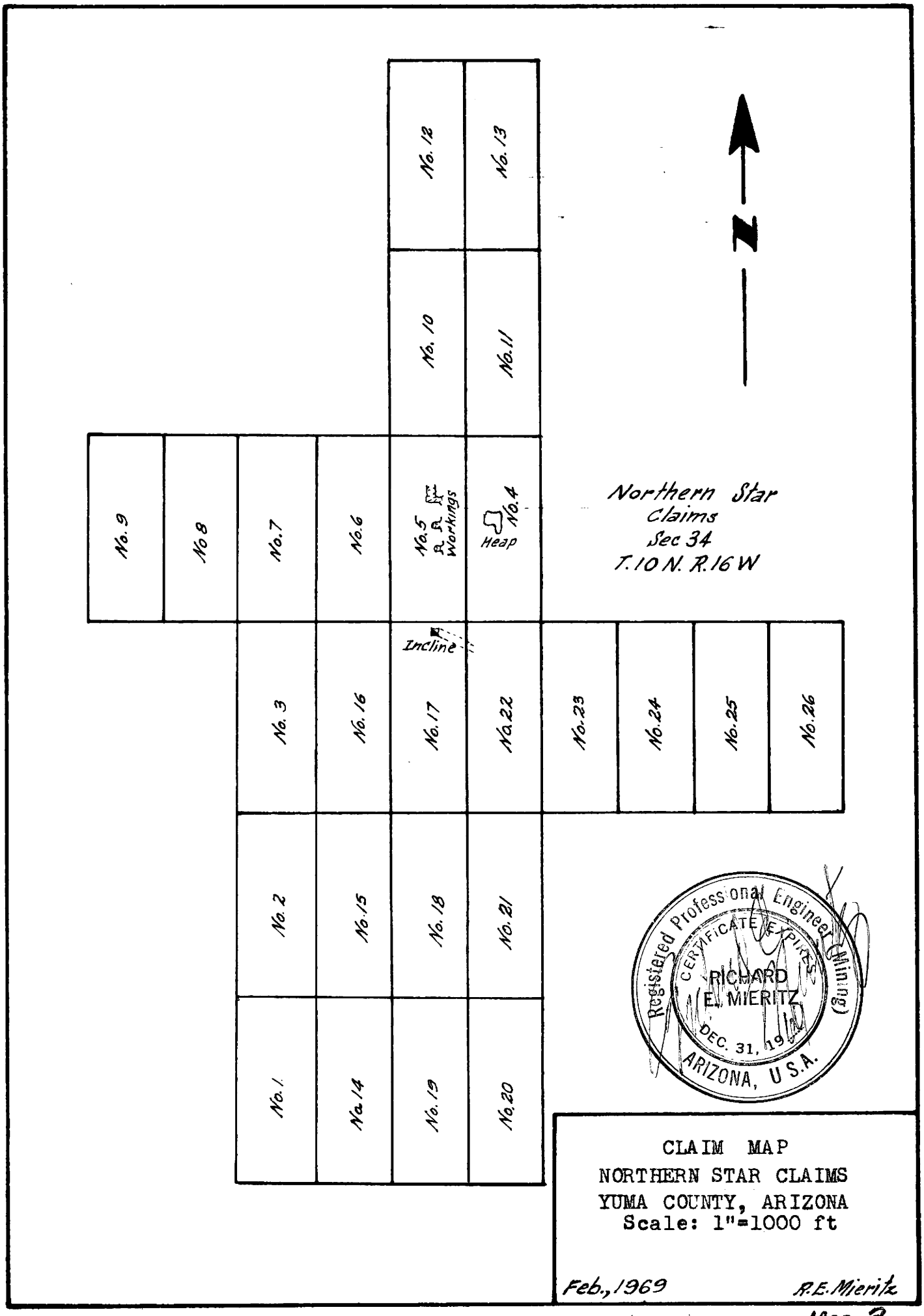
Registered Professional Engineer (Mining)
CERTIFICATE EXPIRES
RICHARD E. MIERITZ
DEC. 31, 19
ARIZONA, U.S.A.

GEOLOGIC MAP
Portion of
YUMA COUNTY, ARIZONA
Scale: 1"= 6 miles

Feb., 1969

R.E. Mieritz

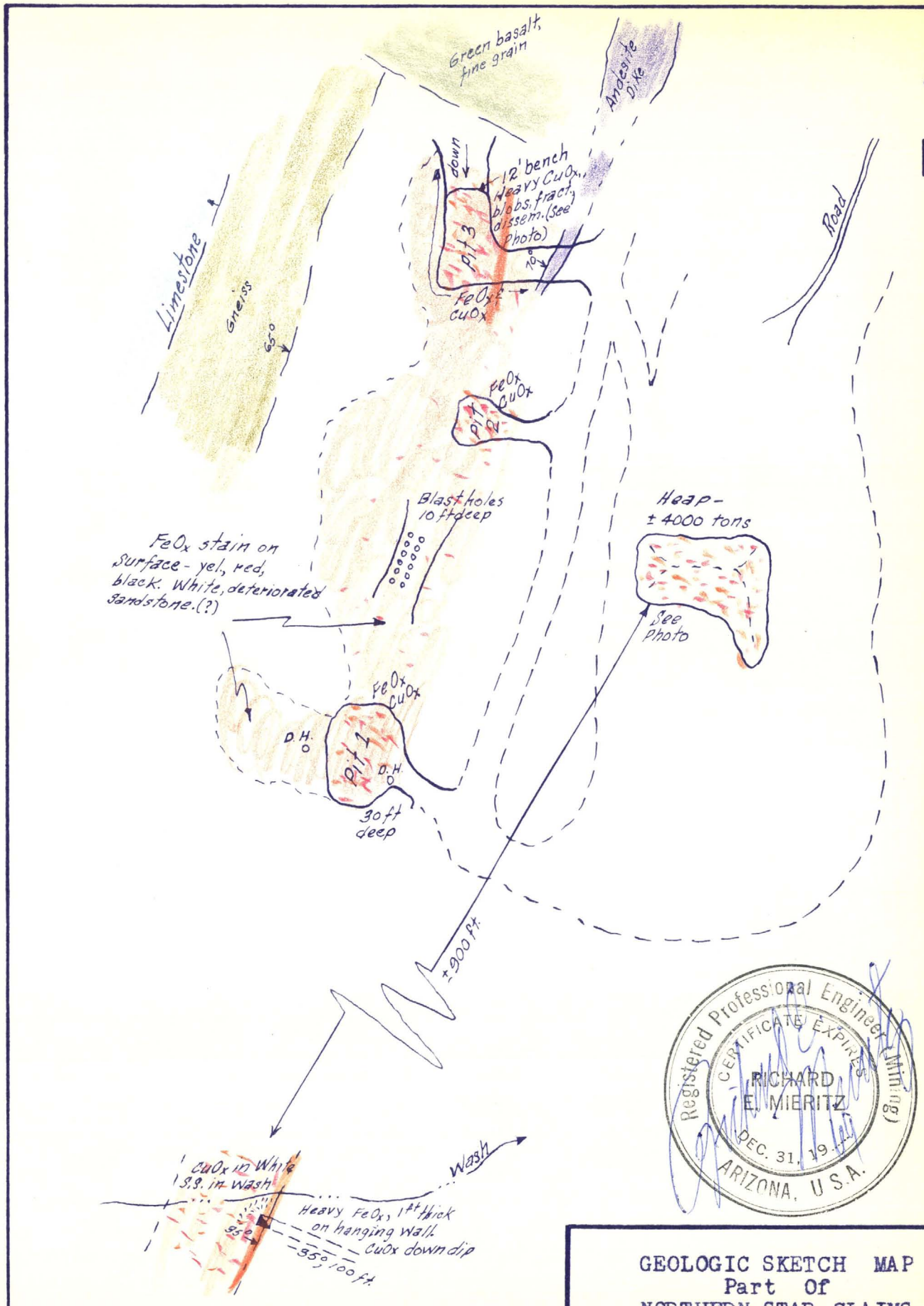
Map 1



CLAIM MAP
NORTHERN STAR CLAIMS
YUMA COUNTY, ARIZONA
Scale: 1"=1000 ft

Feb., 1969 R.E. Mieritz

Map 2



GEOLOGIC SKETCH MAP
Part Of
NORTHERN STAR CLAIMS
Yuma County, Arizona

Scale: 1"= 100 ft.

Feb., 1969 R.E. Mieritz

Map 3