

92J/15

1970 DRILLING PROGRAM

MANITOU PROPERTY

672994

April 6th, 1970.

Mr. D.W. Tully, President,
Empire Mercury Corporation Ltd.,
205 - 569 Howe St.,
Vancouver, 1, B.C.

Dear Mr. Tully:

Re: 1970 Drilling Program -
Manitou Property

Pursuant to your request, we are pleased to submit herewith our proposals for surface diamond drilling on the Manitou property of Empire Mercury Corporation Ltd.

In 1969 diamond drilling carried out under our direction was confined to the 4000 level adit on the Main zone. This zone was explored along strike for 400 feet and down dip to about 100 feet below the level. It is our recommendation that the Main zone be explored at greater depth by surface drilling and, in addition, that one hole be drilled in each of the Empire, Grizzly, Relay and Unnas zones. It is expected that 3000 feet of BQ drilling will be required for this program.

Main Zone - See Fig. 1

This zone is composed of a north northwesterly striking band of fine-grained, green and purple andesite which is shattered and shot through with randomly-oriented, cinnabar-bearing, carbonate stringers. The andesite band is about 80' wide and is cut off on the

north by an easterly-striking serpentine band. It is believed that the zone terminates southward against the Relay fault. Length of the Main zone is about 450'.

Diamond drilling and chip sampling of crosscuts on the 4000 level indicate a grade of approximately 3 lbs. of mercury per ton across a width of 25-30'. In order to establish the potential of the Main zone, it is imperative that the zone be explored at a greater depth than was heretofore done. It is proposed that four holes be drilled from surface to intersect the Main zone about 200' below the 4000 level. The holes are as follows:

<u>D.H. No.</u>	<u>Location</u>	<u>Bearing</u>	<u>Dip</u>	<u>Proposed Depth</u>
1	20868N; 19050E	N66°E	-60°	500'
2	20758N; 19050E	N66°E	-60°	450'
3	20720N; 19210E	N66°E	-60°	350'
4	20600N; 19245E	N66°E	-60°	300'

These holes will explore the full width of the favourable andesite host rock in which the Main zone occurs. If need be, they will be drilled beyond the depth shown above in order to reach the footwall sedimentary formation.

Relay zone - See Fig. 1

The Relay zone strikes N60°W, obliquely across the north northwesterly-striking rock formations. It can be followed for 2000 feet and is irregularly mineralized with cinnabar, principally where the host rock is andesite. None of the four Relay adits is presently

accessible but a variety of rock types, including the favourable andesite, is apparently present. Dr. J.S. Stevenson's geological map of the underground workings, dated 1940, shows continuous cinnabar mineralization for 80 feet in the east Relay workings. A drill hole is proposed to intersect the downward projection of this sector of the zone which dips about 60°S.

<u>D.H. No.</u>	<u>Location</u>	<u>Bearing</u>	<u>Dip</u>	<u>Proposed Depth</u>
5	20515N; 19170E	N15°E	-50°	200'

Additional surface holes should be considered for the Relay zone if results from this hole are encouraging.

Empire Zone - See Fig. 2

The Empire zone is about 800' east of the Main zone and is possibly an extension of the Relay zone. Cinnabar mineralization is present where the fault and the associated felsite dykes pass through andesite.

Although cinnabar has been found at three locations on the Empire zone, the present drilling program includes only one hole, which will investigate depth possibilities on the principal exposure. The hole is as follows:

<u>D.H. No.</u>	<u>Location</u>	<u>Bearing</u>	<u>Dip</u>	<u>Proposed Depth</u>
6	20125N; 20278E	N22°E	-60°	250'

This hole is expected to intersect the favourable andesite and the footwall limestone.

Grizzly Zone - See Fig. 3

The Grizzly zone is about 3000' southeast of the Empire zone and here the cinnabar mineralization is associated with a felsite dyke intruding andesite and sedimentary rocks. About seventy feet of green and purple andesite, with little visible cinnabar, is exposed in an open cut.

In 1966 numerous percussion holes were drilled parallel to the southeasterly striking zone and five were reported to have intersected significant cinnabar mineralization. It is proposed to drill across the southerly dipping mineral zone as follows:

<u>D.H. No.</u>	<u>Location</u>	<u>Bearing</u>	<u>Dip</u>	<u>Proposed Depth</u>
7	18665N; 22783E	N50°E	-45°	350'

If results are favourable, additional holes will be warranted along strike.

Unnas Zone - See Fig. 4

The Unnas zone appears to be unrelated to the zones described above, being 3200' south of the Empire zone. The cinnabar mineralization is found within fine-grained, green andesite and firm sandstone, and is apparently not related to the felsite dykes. Mineralization has been exposed for 120', the best 45' assaying 6.9 lbs. Hg per ton. This is not necessarily the width.

Percussion drilling carried out in 1966 is reported to have confirmed the presence of cinnabar. Indications are that the mineralization strikes northwesterly and dips steeply to the southwest.

The drilling program calls for one hole under the principal showing but this should be expanded if results warrant. The hole is as follows:

<u>D.H. No.</u>	<u>Location</u>	<u>Bearing</u>	<u>Dip</u>	<u>Proposed Depth</u>
8	17358N; 20863E	N50°E	-45°	300'

CONCLUSION

A total of 2700' of drilling is outlined above. It is considered certain that an additional 300' will be utilized in extending holes, etc.

It appears likely that the Grizzly, Empire and Relay zones are associated with a major fault-felsite dyke structure which strikes N60°W and dips steeply to the south. All these zones occur within a fine-grained andesitic host rock.

On the Unnas zone, surface indications are that grade is somewhat higher than elsewhere on the property. It is suggested that this zone be drilled first as it is the most easily accessible.

It is proposed to visit the Manitou property about mid-April to check on drill sites, road conditions and availability of water. Drilling should commence by May 1st, 1970.

Respectfully submitted,

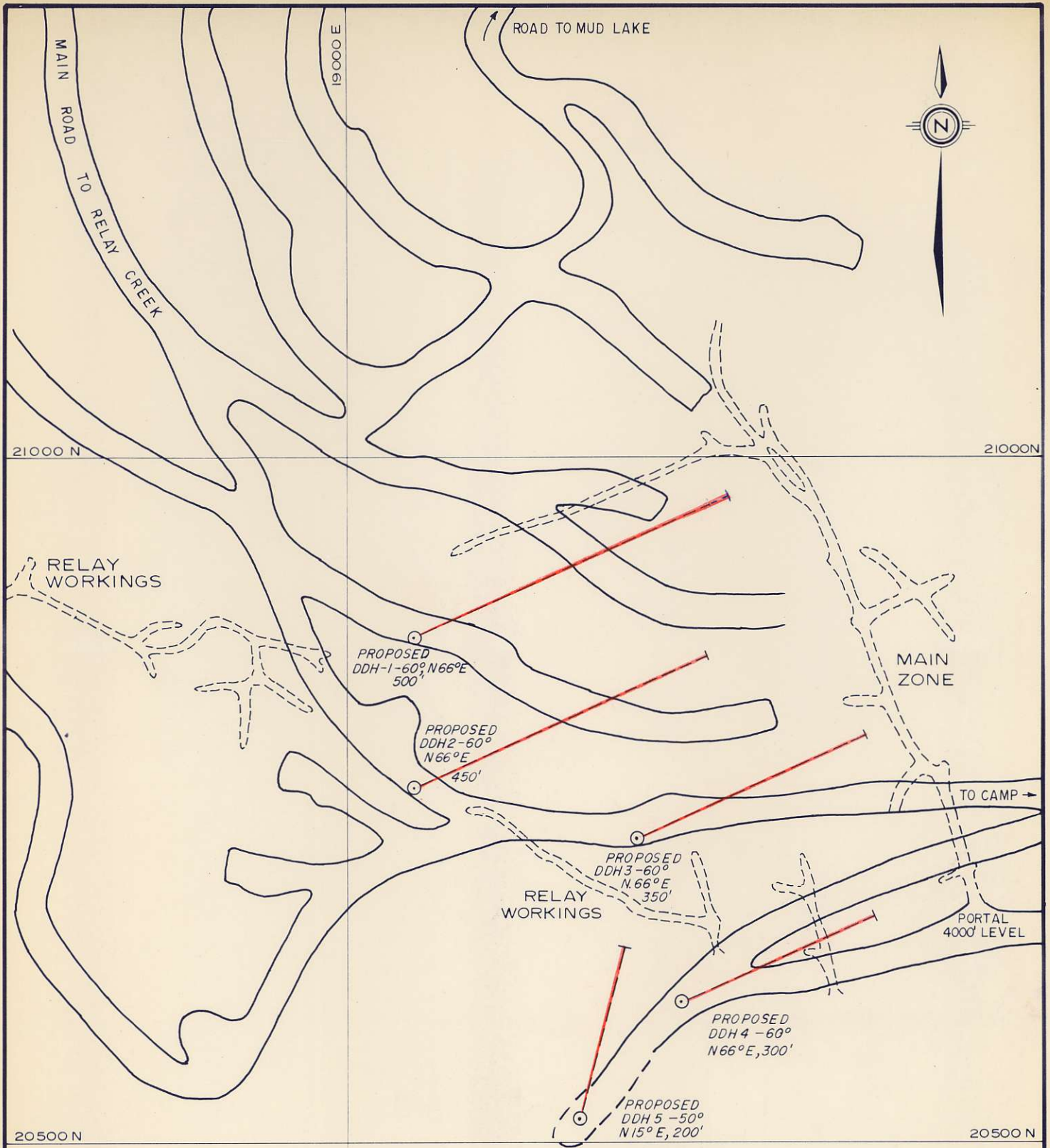
BACON & CROWHURST LTD.

R. W. Phendler

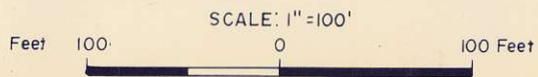
R.W. Phendler, B.Sc., P.Eng.

per W. H. Bacon

Encl. - 4 Drill Layout Sketches



BACON & CROWHURST LTD.
 EMPIRE MERCURY CORP. LTD.
 MAIN & RELAY ZONES
 SHOWING PROPOSED DIAMOND DRILLING



APRIL, 1970

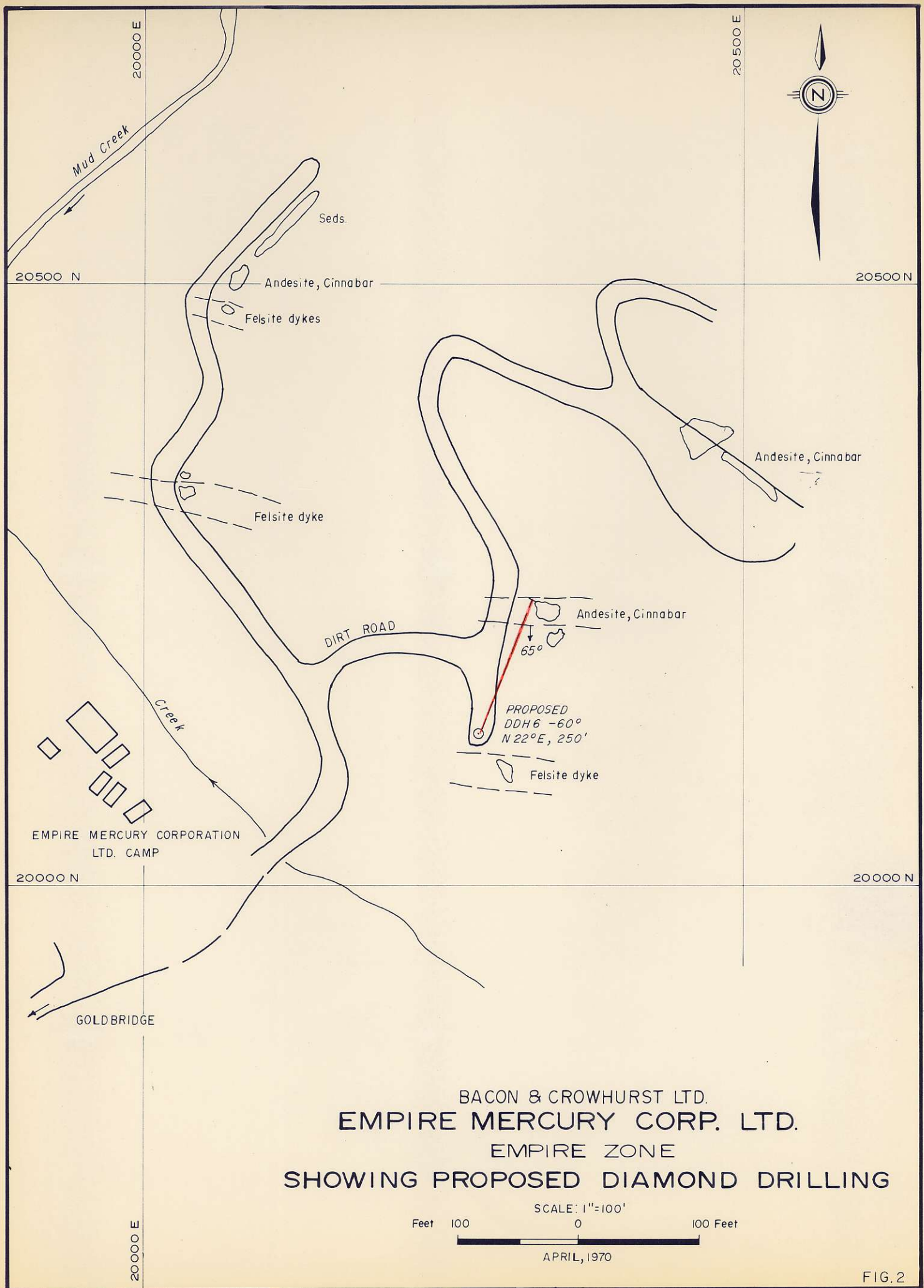
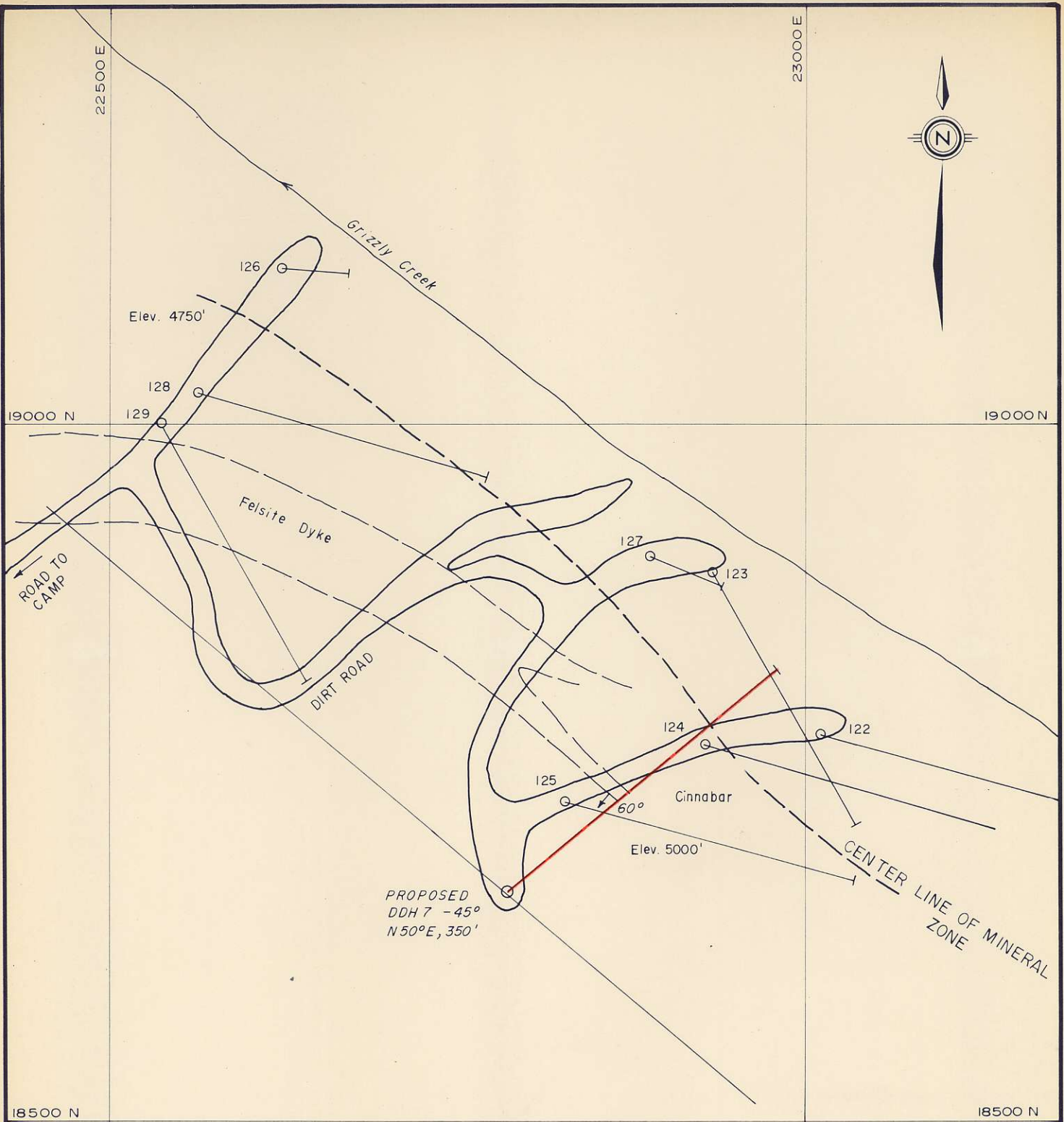
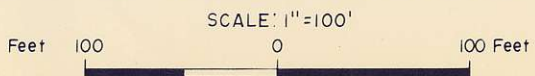


FIG. 2



○ — 1966 PERCUSSION HOLES
 Nos. 129, 128, 125, 124, 127 REPORTED TO
 HAVE INTERSECTED MINERALIZATION (Cnbr.)

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 EMPIRE MERCURY CORP. LTD.
 GRIZZLY ZONE
 SHOWING PROPOSED DIAMOND DRILLING



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FIG. 3

21000 E



17500 N

17500 N

EMPIRE MERCURY CORPORATION
CAMP - 3500'

Andesite

Cnbr.

PRINCIPAL ZONE - 69 LBS HG
45° DIP ASSUMED TO BE
SOUTHWEST

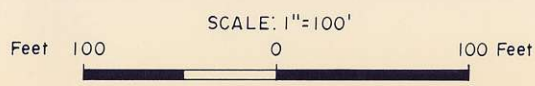
PROPOSED
DDH 8 - 45°
N50°E 300'

DIRT ROAD

Gravel Road

GOLD BRIDGE

BACON & CROWHURST LTD.
EMPIRE MERCURY CORP. LTD.
UNNAS ZONE
SHOWING PROPOSED DIAMOND DRILLING



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