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PROSPECTING REPORT

Huckleberry M.C. , L. 4272, Record # 1934 (8).
Omineca M.D.

NTS Coords: N 6114500 , E 584000. Map 93 M / 4E.

Lat.: N 55° 10' 30", Long. W 127° 41'

Owners : Cobre Exploration Ltd as to 70 %
Francis B. Whiting as to 30 %.

Operator : Cobre Exploration Ltd.

Consultant : Whiting Mining Services International Ltd.

Author : F.B. Whiting, Ph.D., P.Eng.

Date Submitted : August 29 , 1980.

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A. INTRODUCTION

Location:

The Huckleberry M.C. is situated 7000 metres south-southwest of the community of South Hazelton, B.C., in the Omineca Mining Division. The claim is located 2000 m east of Highway # 16, on the western foothills of the Rocher Deboule Range, at an elevation of 500 - 850 m above sea level. It is reached by a dirt road that branches from Comeau Road, which joins Highway 16 about 2800 m south of Seeley Lake Park.

History of the Property:

The Huckleberry M.C. was crown-granted to H.C. Wrinch in 1923, as Lot 4272. Work on the ground had been done in the period 1914 - 1918 by a Mr. Comeau who had a ranch nearby, and worked on adjoining ground exploring what was known as the Cap or Comeau showing, a vein carrying copper and silver. Work on the Huckleberry claim in that period appears to have consisted of prospecting, trenching, and the driving of a short adit towards a rusty shear that carries a small amount of silver.

The claim reverted to the Crown and was acquired by a succession of owners. In the period 1969 - 1972 the claim was explored by Chapparal Mines Ltd, which conducted partial Induced Polarization and soil-sampling surveys, and drilled one hole to a depth of 282 m. That company also made numerous long bulldozer trenches on the crest of the ridge.

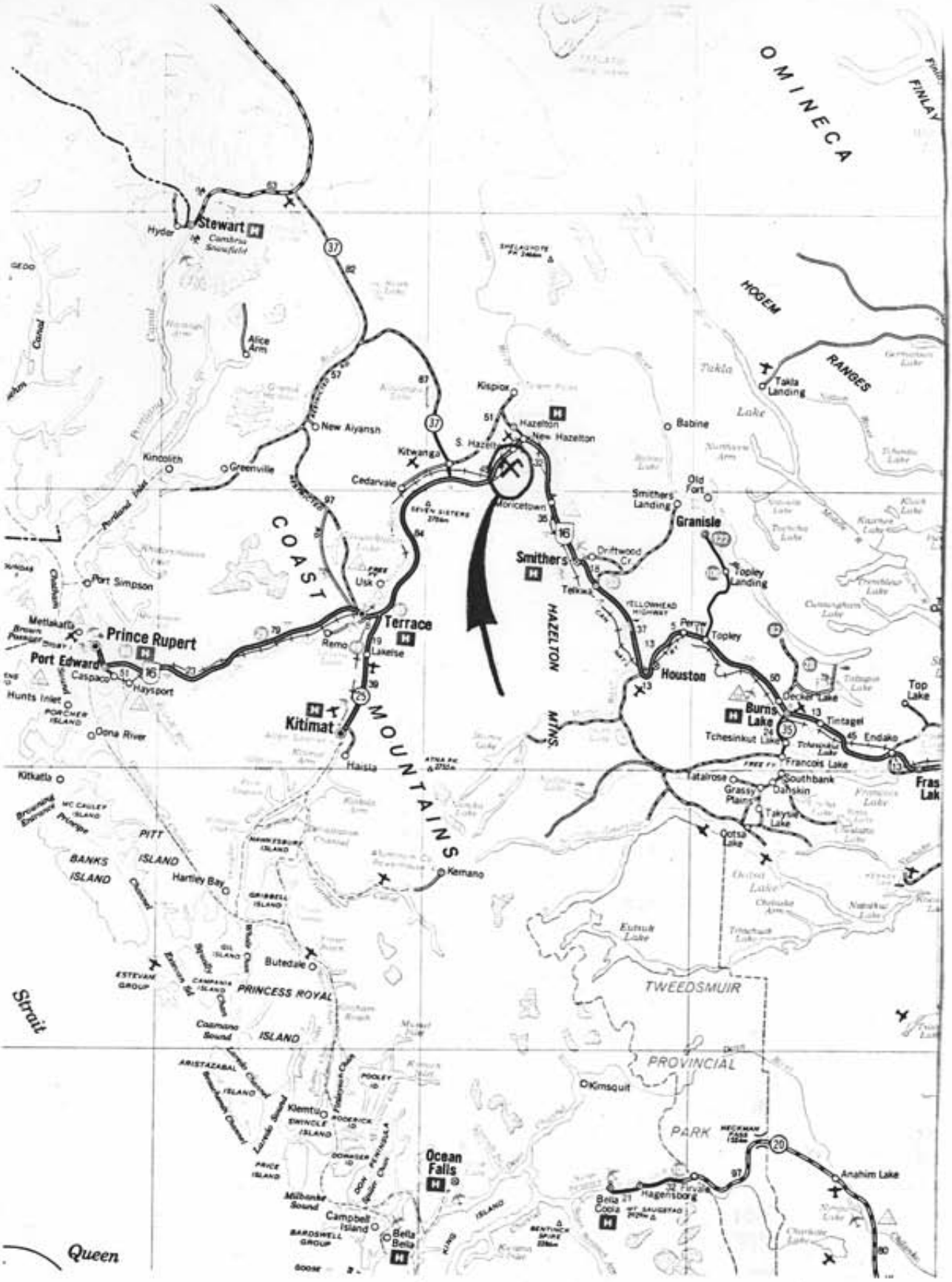
In 1979 the claim, having again reverted to the Crown, was acquired by F.B. Whiting, who staked three claims totalling 41 units over surrounding ground. He later assigned a 70 %

interest in the claim to Cobre Exploration Ltd.

The economic potential of the claim lies in its intense hydrothermal alteration , fracturing, and pyritization, which is of the " porphyry-copper " type. While so far , little copper has been found, sampling suggests that parts of the alteration zone could carry small amounts of gold and silver, possibly enough to constitute an exploitable open-pit operation. The area explored so far is in the center of the altered area, and may represent a barren pyritic core, with the possibility of finding better mineralization somewhere around the periphery of the alteration zone. A secondary target would be individual veins similar to the adjoining Cap / Comeau vein, with copper and silver. The 282-m drillhole is reported to have intersected scattered galena at depth.

Work Done :

Work done prior to July 31, 1980 consisted of prospecting, geological examinations, and sampling of road cuts and bull-dozer trenches in the pyritized zone. Office work consisted of compilation of technical reports, review of soil sampling and I.P. survey results, and collection of reports from several sources. Area covered by prospecting : 8 hectareas.



NTS SHEET 93M/4E

FIG. 1

LOCATION MAP

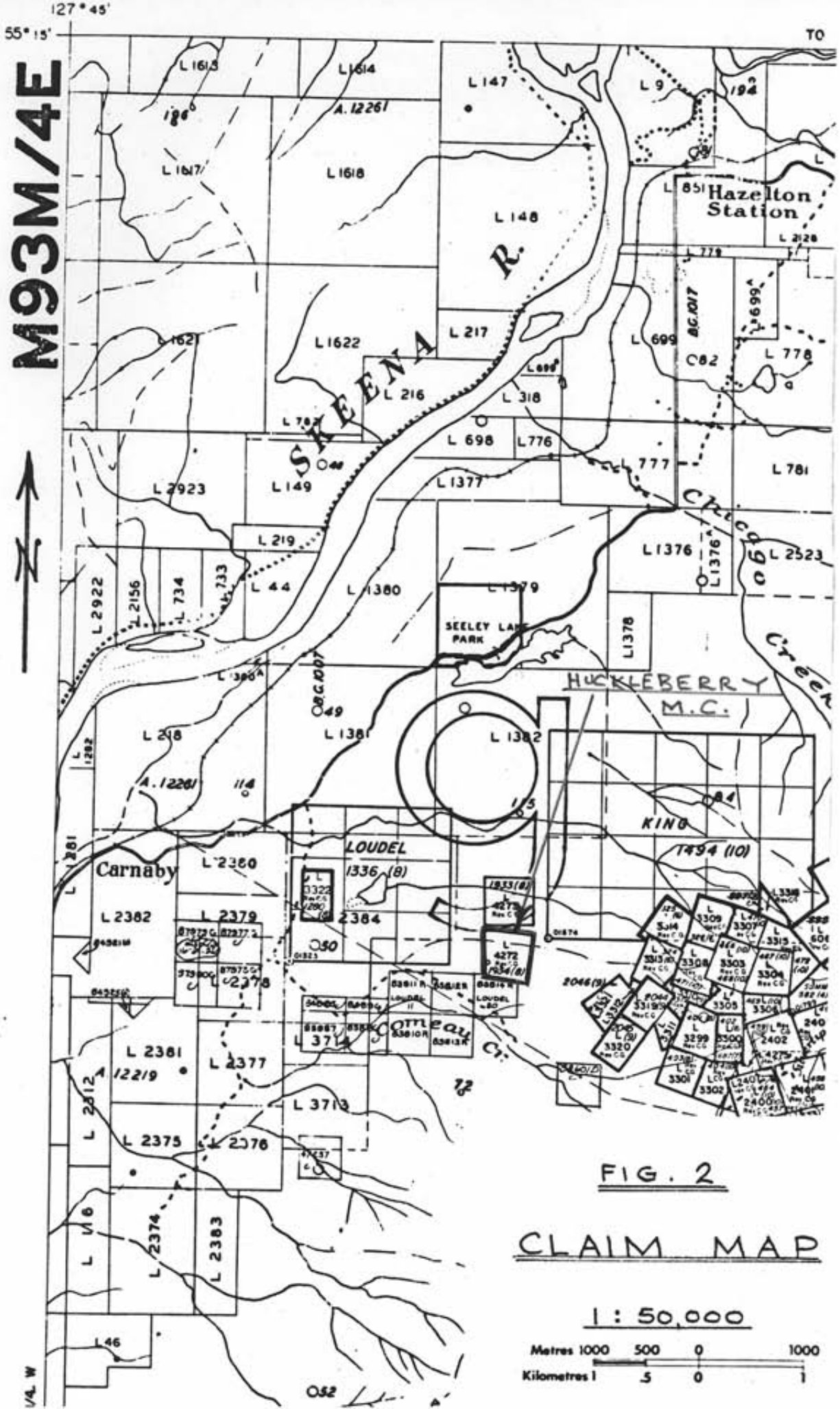
SCALE IN MILES AND KILOMETRES

ONE INCH EQUALS APPROXIMATELY 38 MILES

MILES 0 5 10 20 30 40

KILOMETRES 0 5 10 20 30 40 50 64

ONE CENTIMETRE EQUALS APPROXIMATELY 24 KILOMETRES


M93M/4E
127° 45'
55° 15'
TO
Hazelton Station
SKEENA R.
Carnaby
LOUDEL
KING
HUCKLEBERRY M.C.
SEELEY LAKE PARK
Cottleau Cr.
Creek
L 147
L 148
L 217
L 216
L 318
L 698
L 776
L 777
L 781
L 699
L 778
L 1377
L 1376
L 2523
L 1380
L 1381
L 1382
L 1378
L 1622
L 1618
L 1617
L 1613
L 1614
L 2923
L 149
L 219
L 44
L 2922
L 2156
L 734
L 2380
L 2382
L 2379
L 2378
L 2381
L 2377
L 2375
L 2376
L 2374
L 2383
L 3713
L 3714
L 46
A. 12261
A. 12219
1494 (10)
1336 (8)
2384
2046 (9)
1833 (8)
1834 (8)
FIG. 2
CLAIM MAP
1 : 50,000
Metres 1000 500 0 1000
Kilometres 1 .5 0 1

B. TECHNICAL DATA & INTERPRETATION

Regional Geology:

Figure 3 shows the regional geology as depicted on G.S.C. Map 971 A " Smithers - Fort St. James Sheet. On this map the area of the claim is shown as underlain by Map-unit 15 : Upper Jurassic-Lower Cretaceous conglomerate, sandstone, shale, argillite, greywacke, quartzite, tuff, and minor lava. A more detailed map by A. Sutherland-Brown shows those beds to lie farther to the west, and the immediate area of the Huckleberry claim to be underlain by andesites of the Brian Boru Formation, a subdivision of the Hazelton Group. Figure 4 gives the legend for Figure 3.

Local Geology:

Figure 5 illustrates the local geology, with the Brian Boru andesites, map-unit 2, being bordered on the east by the Cap Fault, and on the west by map-unit 1, the Red Rose Formation. These beds dip east at 30 -45°.

The approximate outline of the large pyritic alteration zone is shown.

Figure 6 shows in more detail the area prospected and the samples taken inside the Huckleberry claim. Other samples were taken elsewhere within the alteration zone. The alteration zone is characterized by having intense kaolinization, widespread criss-crossed fracturing with films of pyrite on all fracture surfaces, and considerable pyrite in the body of the rock, generally very fine-grained. Samples from outside of the claim have given assays in the range of 0.4 to 0.8 ounces of silver per ton (12 - 24 grams per short ton.), with traces of gold. Veins on adjoining

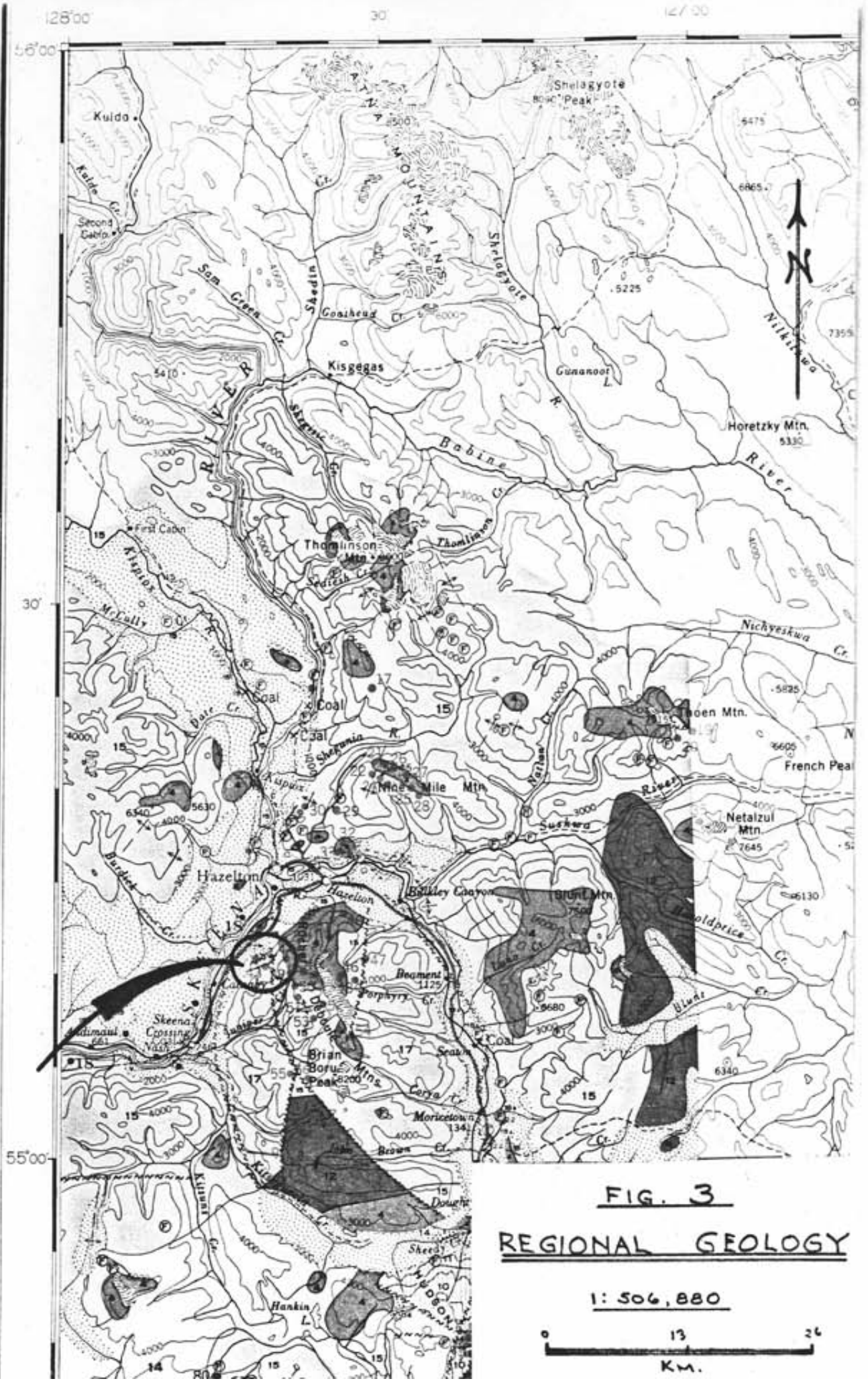


FIG. 3

REGIONAL GEOLOGY

1: 506,880

0 13 26
KM.

TRIASSIC AND JURASSIC

UPPER TRIASSIC AND LATER

TAKLA GROUP

9 — *Andesitic and basaltic flows, tuffs, breccias, and agglomerate; interbedded conglomerate, shale, greywacke, limestone, and coal;* **9a**, *shale, greywacke, conglomerate, tuff, and limestone (Upper Triassic)*

PALÆOZOIC

CARBONIFEROUS (?) AND PERMIAN

PENNSYLVANIAN (?) AND LATER

CACHE CREEK GROUP (6,7,8)

8 — *Andesitic flows, tuffs, and breccias, with minor basic intrusions (greenstone); chlorite and hornblende schists; minor argillite, chert, and limestone. May include some undifferentiated younger rocks*

7 — *Ribbon chert, argillaceous quartzite, argillite, greenstone similar to 8, limestone; minor conglomerate and greywacke. Mainly younger than 6 and older than 8*

6 — *Massive limestone; minor argillite, slate, chert, and greenstone; mainly older than 7 and 8*

PROTEROZOIC

CAMBRIAN AND EARLIER

LOWER CAMBRIAN AND EARLIER

WOLVERINE COMPLEX (in part)

5 — *Micaceous, chloritic, and garnetiferous schists; quartzite, crystalline limestone; minor granitic gneiss and pegmatite*

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS OR LATER

UPPER CRETACEOUS OR LATER

4 — *Granite, granodiorite, and diorite, in part porphyritic; some rhyolite*

JURASSIC OR CRETACEOUS

UPPER JURASSIC OR LOWER CRETACEOUS

OMINECA INTRUSIONS

3 — *Granodiorite, quartz diorite, diorite; granite, syenite, gabbro, pyroxenite*

PERMIAN (?) AND/OR LATER

POST-MIDDLE PERMIAN, PRE-UPPER JURASSIC (?)

TOPLEY INTRUSIONS

2A-2C
- **2A**, *granite and granodiorite*
- **2B**, *syenite*
- **2C**, *diorite*

POST-MIDDLE PERMIAN, PRE-UPPER TRIASSIC (?)

TREMBLEUR INTRUSIONS

1A,1B
- **1A**, *peridotite, dunite; minor pyroxenite and gabbro; serpentinized and steatitized equivalents.*
- **1B**, *pyroxenite; minor peridotite and gabbro; serpentinized and steatitized equivalents; may be in part post-Triassic*

WOLVERINE COMPLEX (in part)

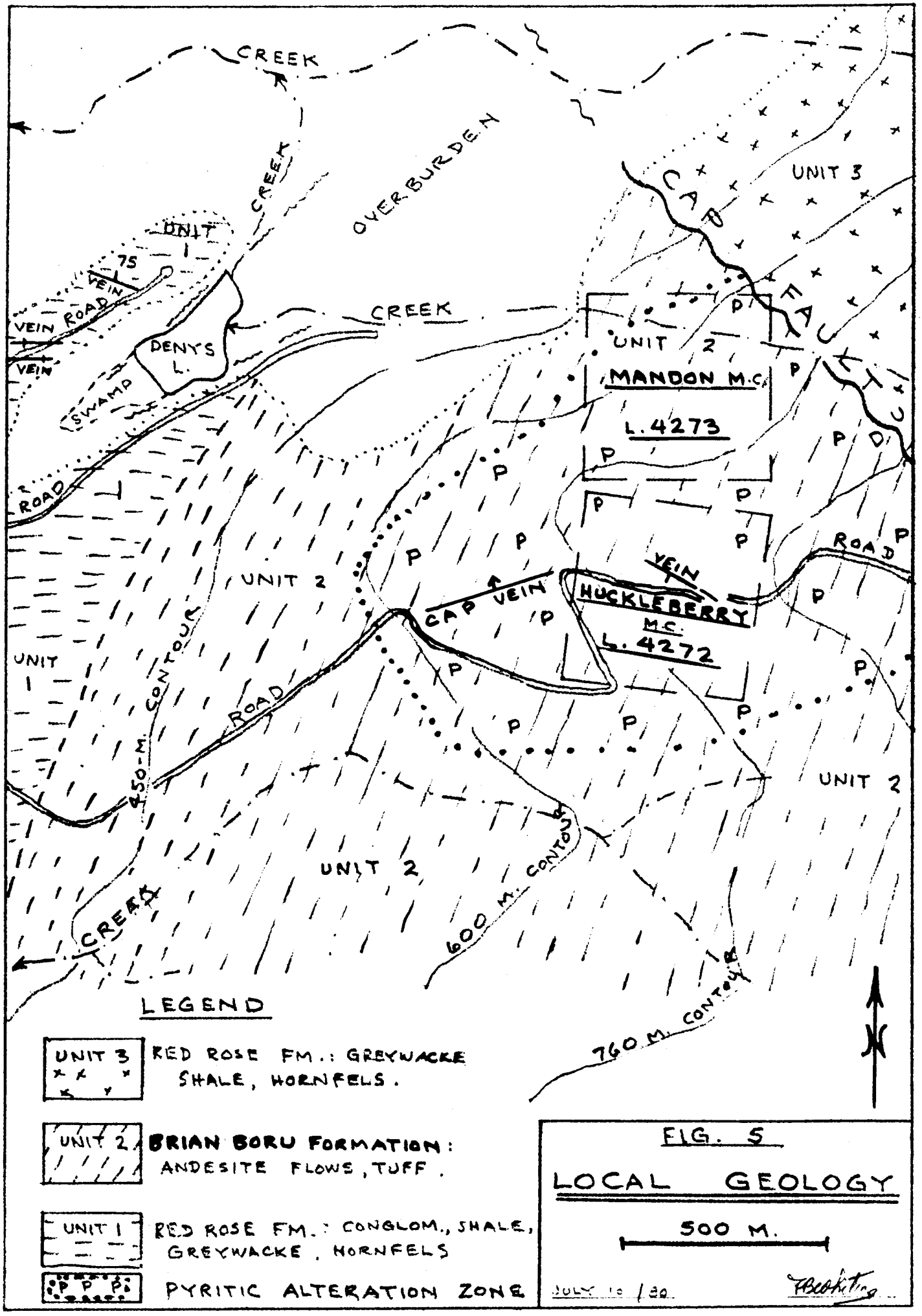
A — *Granitic gneiss, pegmatite, granite or granodiorite; minor schists. Mainly granitized equivalents of 5*

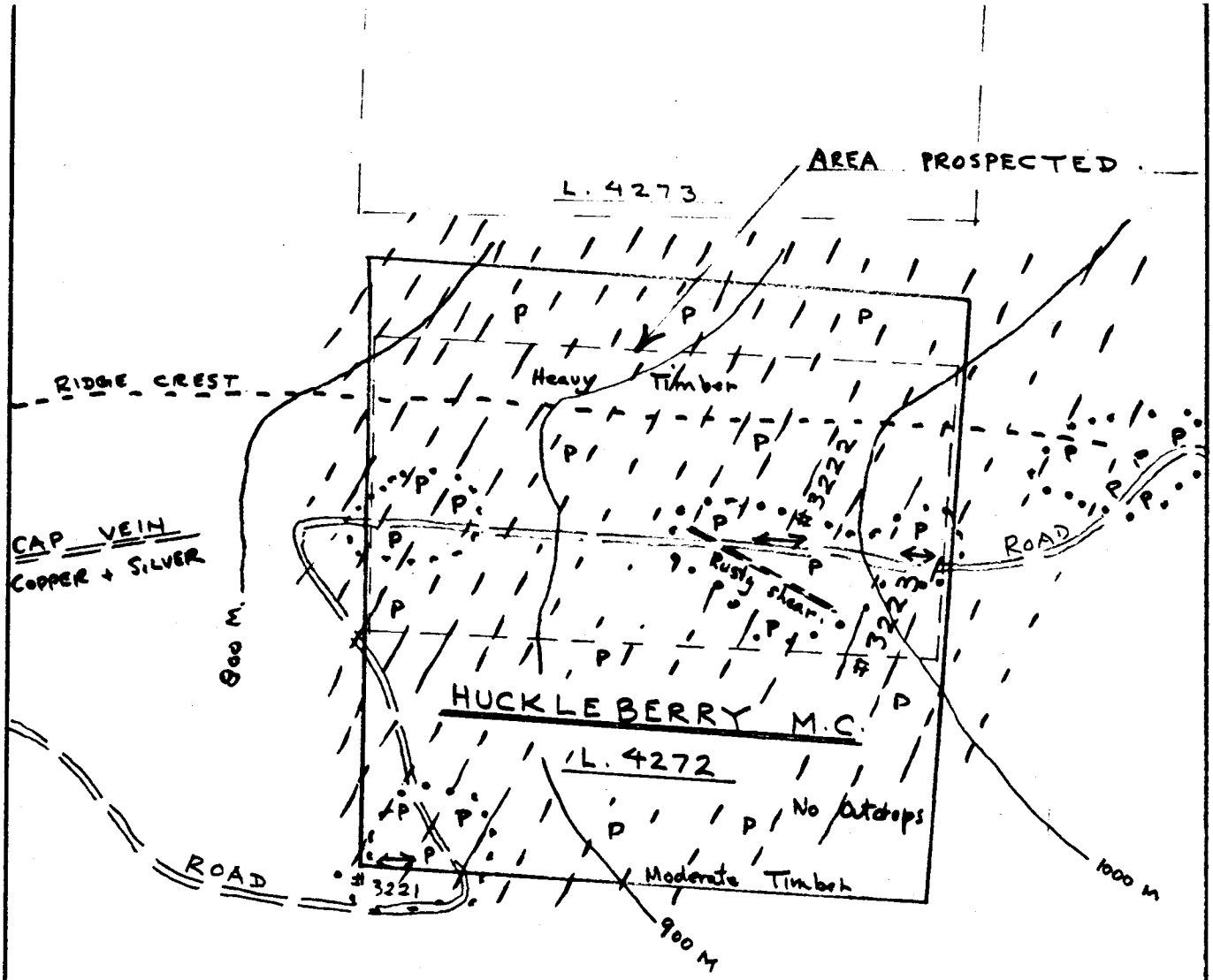
Sedimentary rocks (not otherwise distinguished by colour from associated volcanic rocks)

Heavily drift-covered areas

FIG. 4

LEGEND


CREEK
OVERBURDEN
CREEK
UNIT 1
75
VEIN
VEIN ROAD
VEIN
DENYS L.
SWAMP
CREEK
ROAD
UNIT 3
CAP FAULT
UNIT 2
MANDON M.C.
L.4273
P
UNIT 2
CAP VEIN
VEIN
HUCKLEBERRY M.C.
L.4272
ROAD
UNIT 1
450 M. CONTOUR
ROAD
UNIT 2
UNIT 2
600 M. CONTOUR
CREEK
760 M. CONTOUR
LEGEND
UNIT 3
RED ROSE FM.: GREYWACKE SHALE, HORNFELS.
UNIT 2
BRIAN BORU FORMATION: ANDESITE FLOWS, TUFF.
UNIT 1
RED ROSE FM.: CONGLOM., SHALE, GREYWACKE, HORNFELS
PYRITIC ALTERATION ZONE
FIG. 5
LOCAL GEOLOGY
500 M.
JULY 10 / 80



SAMPLE #1	M.	oz Au/t.	oz Ag/t.	Gm Ag/t
3221	8 M.	<0.002	0.04	1.2
3222	45 M.	<0.002	0.04	1.2
3223	15 M.	<0.002	0.05	1.5

LEGEND

BRIAN BORU FORMATION: ANDESITE FLOWS & TUFFS

PYRITIC ALTERATION ZONE: Hydrothermal Alteration, Kaolinization, Sericitizn.

FIG. 6

DETAIL PLAN

0 100 200 M

July 10 /80

ground carry up to several percent copper with 2 - 8 ounces of silver, small amounts of gold, a little cobalt, and scattered indications of slight radioactivity.

The three samples collected from inside the claim gave only very low silver contents, in the range of 0.04 - 0.05 oz./ ton (1.2 - 1.4 grams per short ton). The rusty shear shown in the central eastern part of the claim was earlier reported to carry up to 2 oz. of silver per ton (62 grams).

Interpretation :

The central part of the pyritic alteration zone is considered to have little economic potential, as the extensive bulldozer trenches expose wide areas of onlt trace gold/silver mineralization, and no copper or molybdenum. As stated in the Introduction, it is believed that these exposures may represent a barren core, and that better mineralization may occur somewhere around the periphery of the alteration zone, under heavily timbered areas where no outcrops exist.

Former soil-sampling surveys were done for lead, zinc, and copper. Since the recent major changes in the prices of gold and silver , a large deposit carrying 15 - 25 grams of silver per ton, with a little gold, could be as viable as a copper deposit of 0.6 % Cu. It is recommended that an extensive soil survey be made aimed at gold and silver.

C. ITEMIZED COST STATEMENT

Item	Date of Work	Cost	Total
F.B. Whiting Geologist-prospector.....	Oct. 26 & 29 1979	$ 150 / day	$ 300.00
Meals & Accomodation	2 days	@ $ 30 / day	60.00
Vehicle Use	120 km	@ $ 0.20 / km	24.00
Report preparation & copying	July 26-27/80		63.00
		Total.....	$ 447.00

Respectfully submitted,

F.B. Whiting, P.Eng.
Whiting Mining Services
International Ltd.
Report Prepared : July 29,'80
Report Submitted: Aug.29,'80

D. STATEMENT OF QUALIFICATIONS

Name : Francis B. Whiting

Profession : Geological Engineer

Education: Bachelor of Applied Science, U.B.C., 1946.
Master of Science in Geology, McGill University 1948.
Doctor of Philosophy in Geology and Economics, Mass. Institute of Technology, 1951.

Professional Associations:

Assoc. of Prof. Engineers of British Columbia.
Assoc. of Professional Engineers of the Yukon.
Member, Society of Economic Geologists.

Experience:

1944 - 48 : Summer work in Canada for G.S.C., International Mining Corp., Placer Development, New Jersey Zinc Exploration, Hedley Mascot Gold Mines.

1951 - 1968 : Employed by St. Joseph Lead Co as mine geologist in Southeast Missouri, Chief Geologist at Aguilar Mine in Argentina, Exploration Manager in Argentina.

1968 - 1973 : Exploration Manager for Canada for W.R. Grace & Co.

1973- 1976 : Regional Manager for Western North America for Brascan Resources Limited.

1976 - present: President, Whiting Mining Services International Ltd; geological consultant; independent prospector.