BEAR LAKE PORPHYRY COPPER DEPOSIT

860368

BRITISH COLUMBIA

NTS 94-D-2/W

Summary

The Bear Lake porphyry copper, molybdenum deposit is located 150 km. north of Smithers, B.C. in an area of rapidly advancing infrastructure (roads, railroads, power). The Bear Lake property overlies a multiphase intrusive complex varying in composition from monzodiorite to quartz-feldspar porphyry of granitic composition and ranging in age from Late Cretaceous to Tertiary. This intrusive complex intrudes volcanics belonging to the Takla (Triassic) and Hazelton (Jurassic) Groups of rocks.

Porphyry style chalcopyrite and molybdenite mineralization occurs within the monzodiorite and sometimes within the quartz feldspar porphyry dikes usually in association with quartz veins and veinlet filled fracturing within the intrusives. In addition, chalcopyrite and molybdenite has been observed within the hornfelsed envelope of volcanics for some distance away from the intrusive. Of the ten drill holes drilled on the property (1974), the three most southerly located holes returned the following values:

Drill Hole	Intersection	Cu %	Mo %
54303	460 ft.	.23	.05
54308	531 ft.	.27	.061
54304	484 ft.	.19	.035

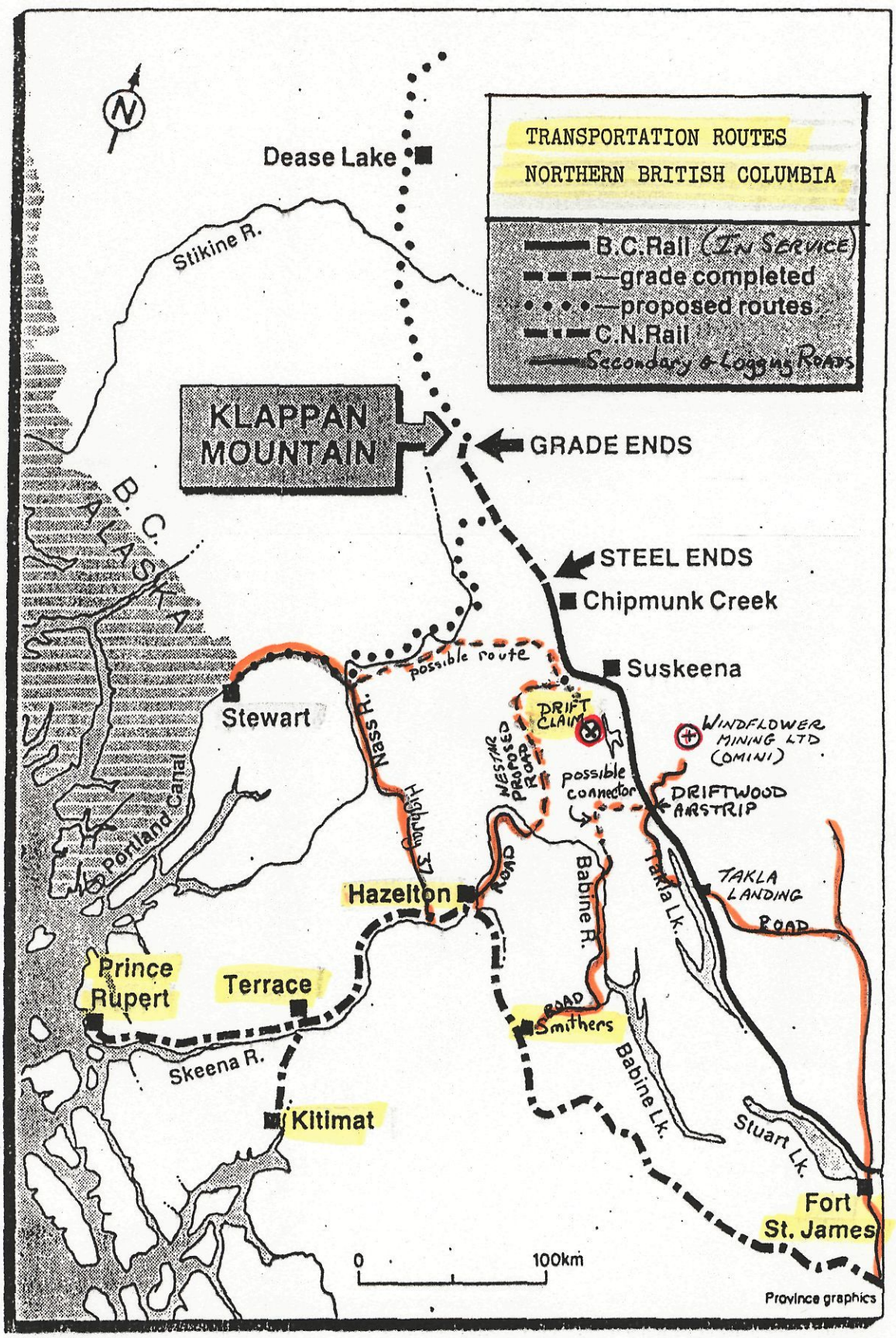
The intrusive which is mapped as extending another 450 meters to the south of the above listed drill holes remains untested. Drill holes 54304 and 54308 are 200 meters apart and if the remaining southern portion (650 meters plus) of the intrusive is found to be mineralized a substantial tonnage of Cu, Mo, ore could be delineated. An area 650 m by 300 meters in width and perhaps 200 meters in depth could easily carry a reserve of 100 million tonnes of an expected grade of perhaps .3% copper or better and .05% Mo. Anomalously high I.P. response (Frequency effect) over the same area with high copper and molybdenum geochemical values from soils appear to confirm the southerly extension of the mineralization. Any extension of the mineralization into the volcanics would also add to the estimated tonnages available.

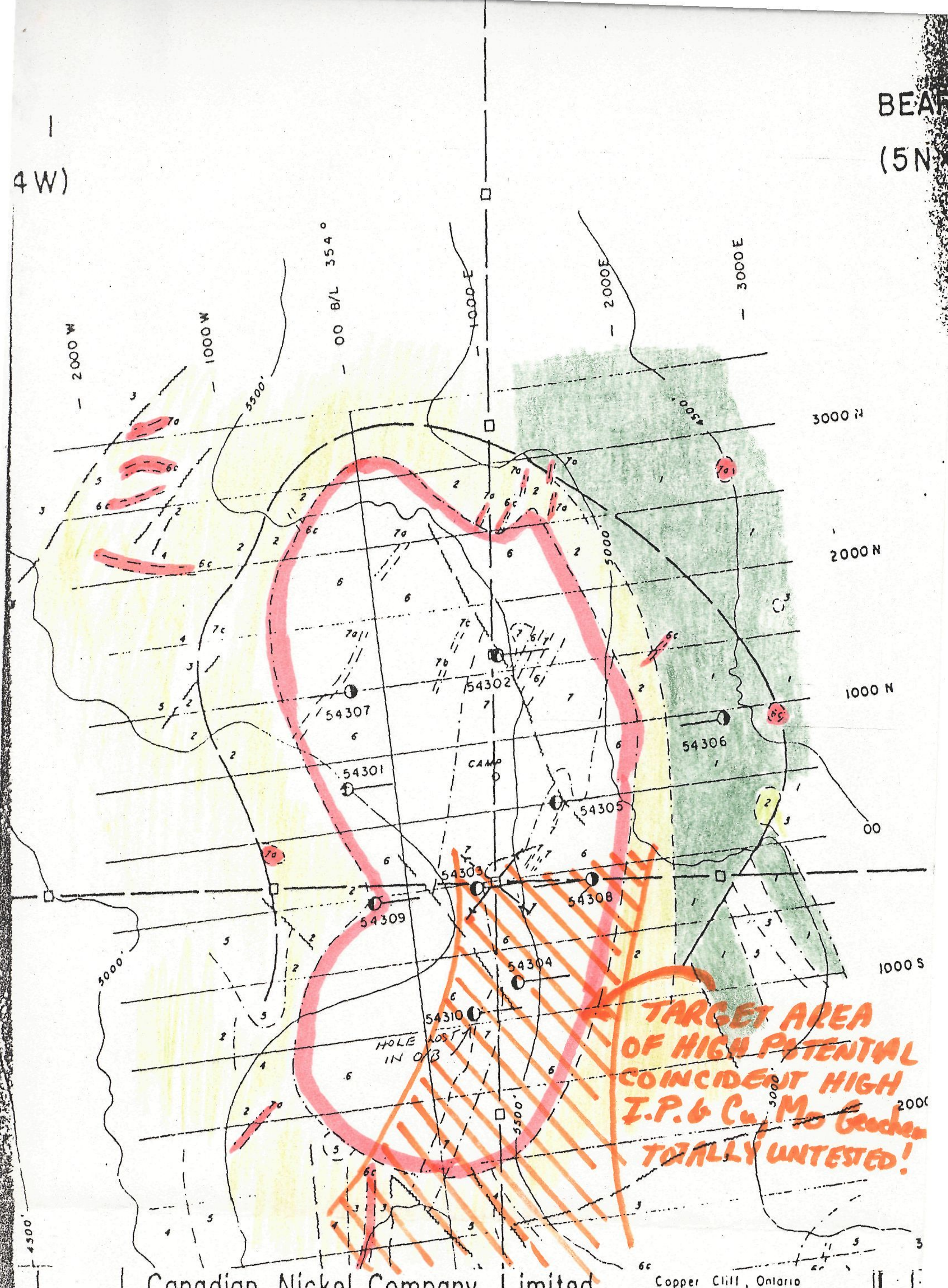
The following is a list of British Columbia copper producers indicating their published reserves

Gibralter (year end 1990)	180 million tons	.313% Cu,	.009% Mo.
Princeton Mining (year end 1989)	47.5 million tons	.45% Cu	
Afton Mining (year end 1989)	23.4 million tonnes	.46% Cu,	.011 oz. Au
Highland Valley Copper (year end 1989)	776.5 million tonnes	.41% Cu,	.0072 % Mo.

In consideration of the above and because of the very limited testing previously carried out on the Bear Lake Porphyry (10 drill holes), further drill testing is recommended on this well mineralized porphyry system.

G. Ryznar, PEng.


TRANSPORTATION ROUTES
NORTHERN BRITISH COLUMBIA
B.C.Rail (In Service)
—grade completed
—proposed routes
C.N.Rail
Secondary & Logging Roads
N
Dease Lake
Stikine R.
KLAPPAN MOUNTAIN
GRADE ENDS
STEEL ENDS
Chipmunk Creek
Suskeena
possible route
Stewart
B.C. ALASKA
Portland Canal
Nass H.
Highway 37
DRIFT CLAIM
WESTAR PROPOSED ROAD
possible connector
WINDFLOWER MINING LTD (OMINI)
DRIFTWOOD AIRSTRIP
Hazelton
Babine R.
Takla Lk.
TAKLA LANDING ROAD
Prince Rupert
Terrace
Smithers
Skeena R.
Babine Lk.
Stuart Lk.
Kitimat
Fort St. James
0
100km
Province graphics

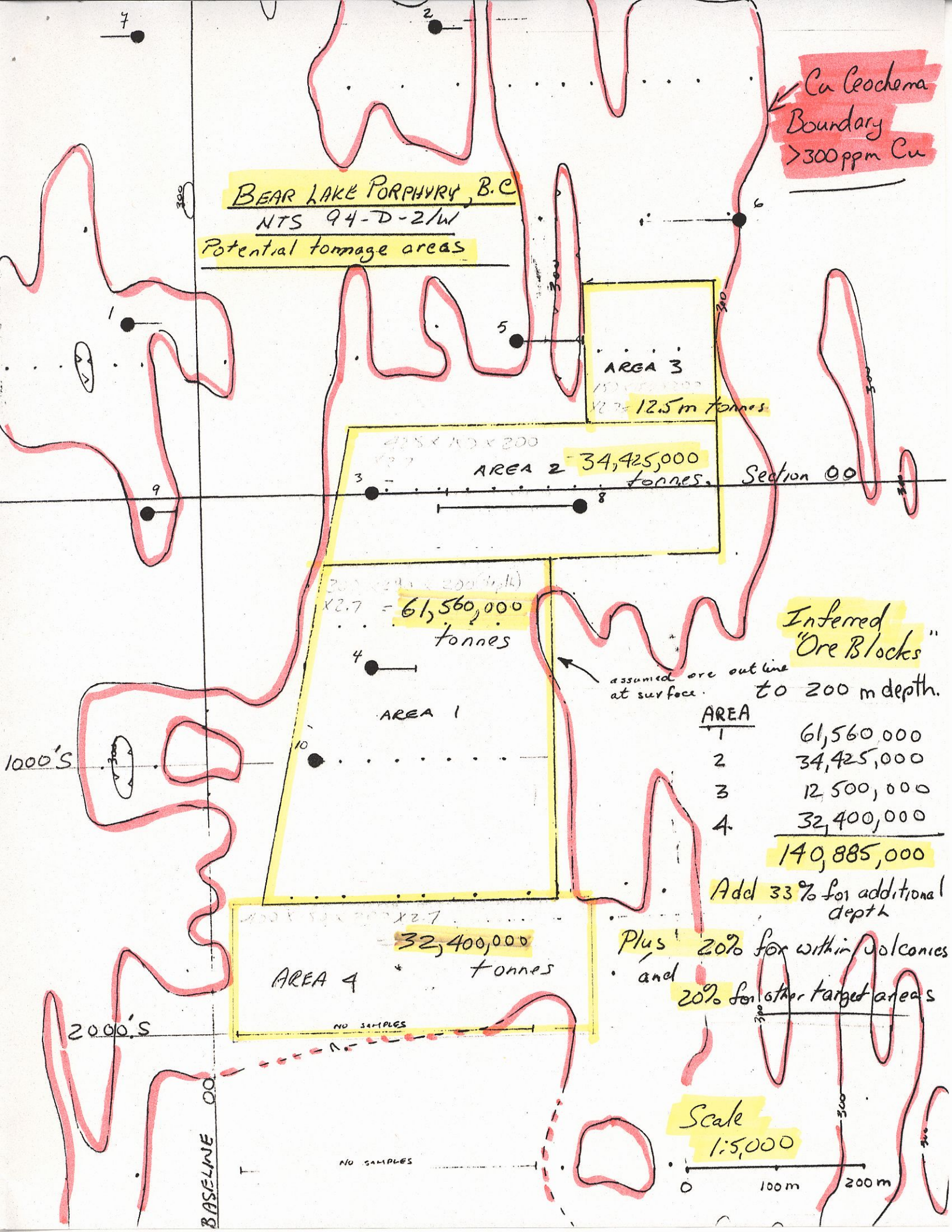


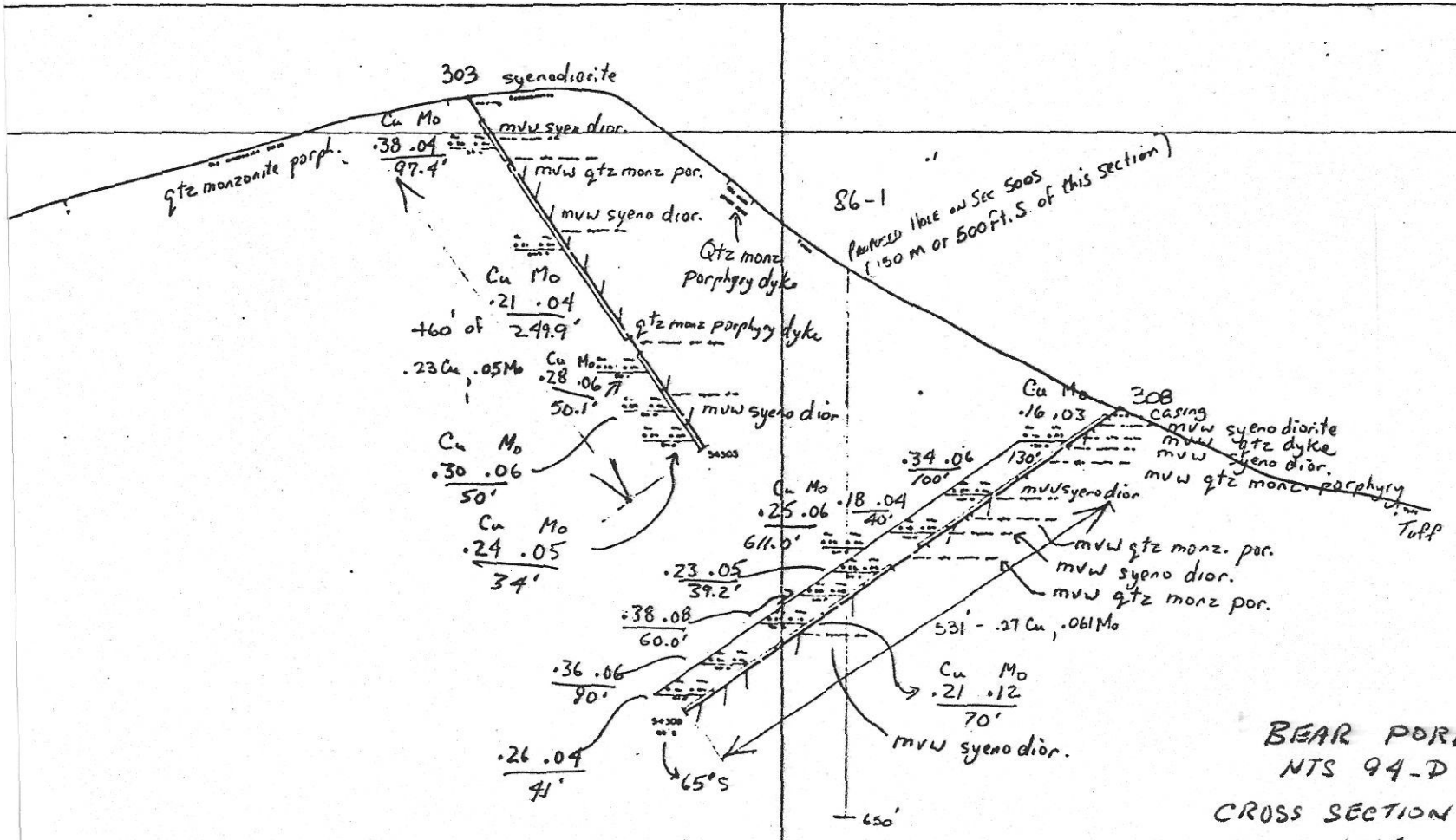
Canadian Nickel Company Limited — Copper Cliff, Ontario, POM 1NO

GEOLOGY MAP	TERTIARY & UPPER CRETACEOUS 6. Intrusives JURASSIC 2. HAZELTON VOLC. TRIASSIC 1. TAKLA BASALTS	SHEET	FIGURE 1

Project: FORMER BEAR 1-4 CLAIMS NOW DRIFT CLAIM.	Area: OMINECA MINNING DIVISION B.C.

Supervisor: E J DEBICKI	Instrument:	Survey date:	
Compiled by: P. PETO, R. ARTHUR	Drawn by: D. WALSH	Date drawn: May 28, 1982	Revised: Nov. 19, 1982
Scale: 1 : 10,000	Scale: 0 100m. 200 300m.	N.T.S. 94 D 2W	

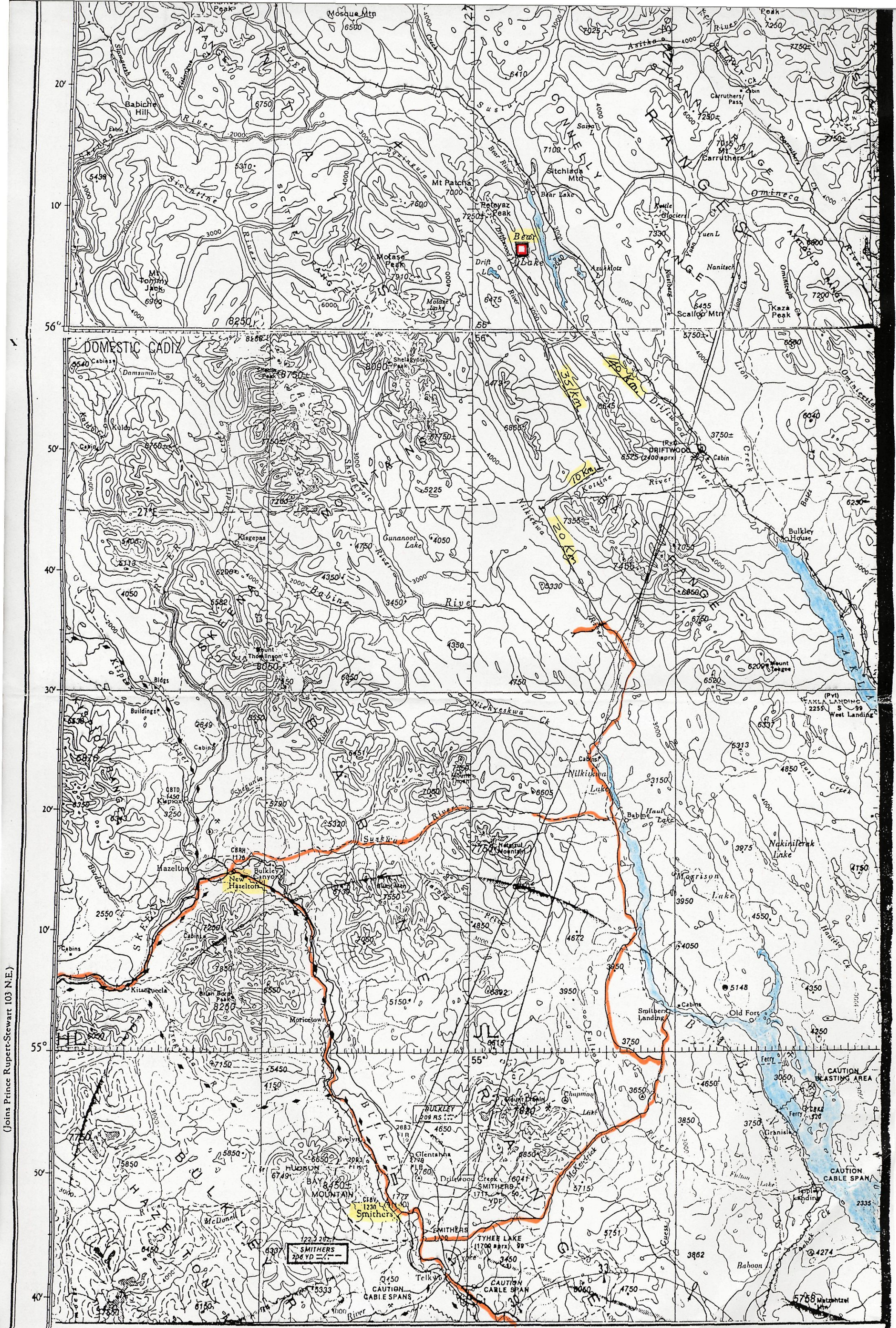

Cu Geochem Boundary >300 ppm Cu
BEAR LAKE PORPHYRY, B.C.
NTS 94-D-2/W
Potential tonnage areas
AREA 3
12.5 m tonnes
AREA 2
34,425,000 tonnes
Section 00
61,560,000 tonnes
AREA 1
assumed ore outline at surface
Inferred "Ore Blocks" to 200 m depth.
AREA
1 61,560,000
2 34,425,000
3 12,500,000
4 32,400,000
140,885,000
Add 33% for additional depth
Plus 20% for within volcanics and 20% for other target areas
32,400,000 tonnes
AREA 4
NO SAMPLES
1000'S
2000'S
BASELINE 00
NO SAMPLES
Scale 1:5,000
0
100 m
200 m



BEAR PORPHYRY, B.C.
NTS 94-D-2/W
CROSS SECTION LINE 00N
DRILL HOLES 54303, 54308

Hole #8
.28% Cu .065% Mo
471'

Scale 1" = 200'
0 200'



(Joins Prince Rupert-Stewart 103 N.E.)

ELEVATIONS IN FEET

(Joins Ocean Falls-Ootsa Lake 93 S.W.)

ELEVATIONS IN FEET

Kilometres 10 0 20 40 60 80 100 Kilometres
Nautical Miles 5 0 10 20 30 40 50 Nautical Miles
Statute Miles 5 0 10 20 30 40 50 60 Statute Miles

SCALE 1:500 000