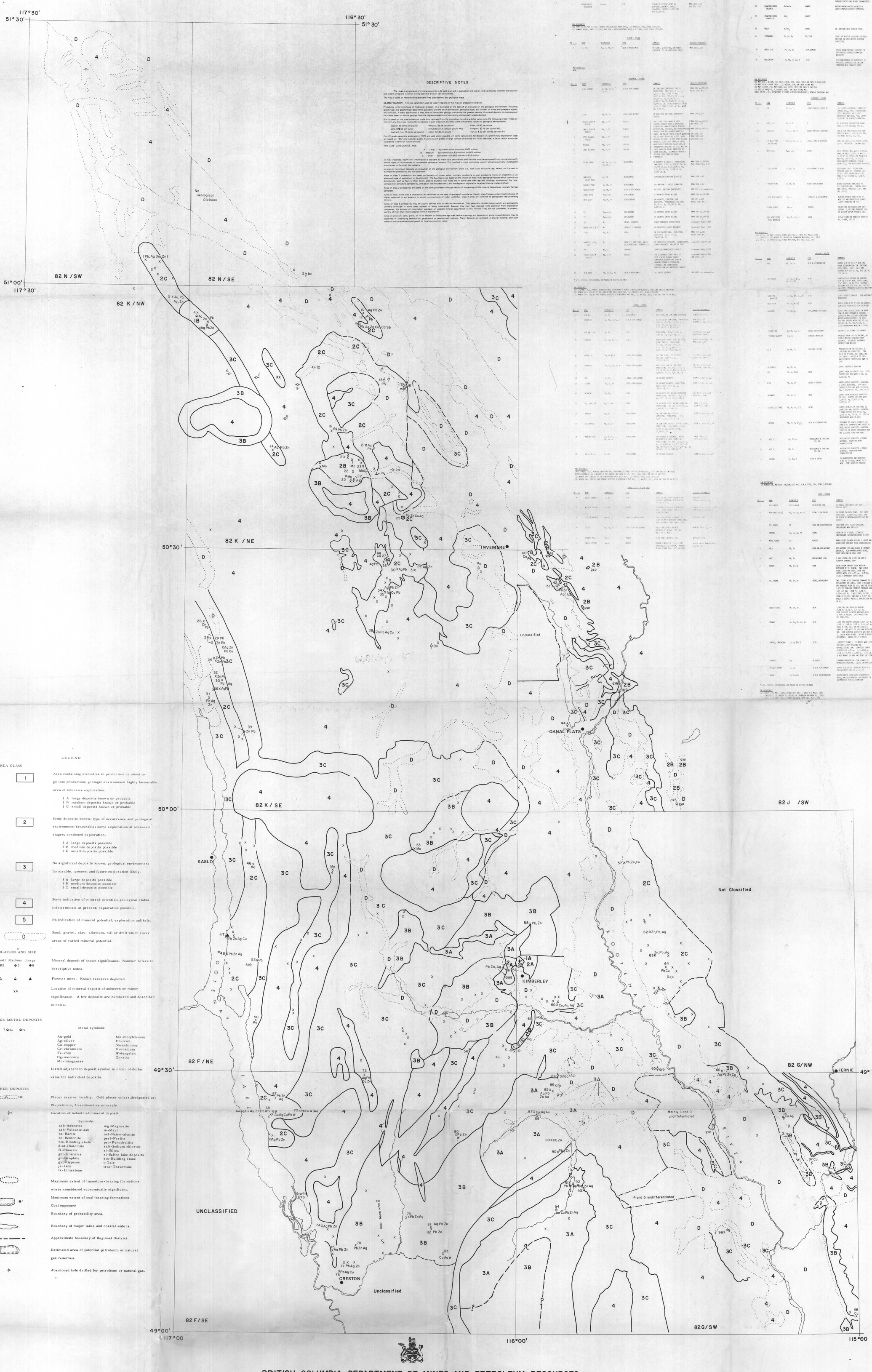
PROPERTY FILE



DESCRIPTIVE NOTES

The map is an appraisal of mineral potential to be used as an aid in evaluation and overall land use studies. It shows the location and extent of regions in which mining activities exist or can be expected.

The map is based on research using available files, publications, and geological maps.

CLASSIFICATION. The two parameters used to classify regions on this map are probability and size.

Probability is the likelihood of finding an orebody. It is estimated on the basis of an evaluation of the geological environment (including geophysical and geochemical data where available) and the areal distribution, geological type, and number of mines and prospects a given area contains. A basic assumption is that areas of favourable geology containing the greatest density of mineral deposits or extensions of such areas based on similar geology have the highest probability of containing economically viable deposits.

Size is based on the total amount of metal in or removed from the ground portrayed as a dollar value using the following prices. These are not normally the prices received by producers or past producers, but they yield comparative values for geological extrapolation.

copper, 50 cents per pound	mercury, $6.58 per pound	silver, $2.00 per ounce	
gold, $70.00 per ounce	molybdenum, $1.50 per pound MoS_2	tungsten, $2.15 per pound WO_3	
lead and zinc, 15 cents per pound	nickel, $1.35 per pound	iron, $ 8.00 per ton 60 per cent Fe	

Cut off grades generally applicable in 1972 are valid where possible, yet some calculations for deposits in a preliminary exploration stage are based on 1972 sub-marginal grades. Future cut off grades of large tonnage properties will likely decrease, a factor which should be considered in terms of future land use.

THE SIZE CATEGORIES ARE.

A - Large — equivalent value more than $500 million
B - Medium — equivalent value $25 million to $500 million
C - Small — equivalent value $0.5 million to $25 million

In most instances, insufficient information is available to make valid calculations and the size must be estimated from comparisons with similar types of occurrences in comparable geological terrains. This method is more commonly used in assessing partially investigated occurrences to the small size category.

In areas of no known deposits, an evaluation of the geological environment alone (i.e., rock type, structure, age, extent, etc.) is used to estimate the probability and size parameter.

Areas of class 1 probability are based on deposits of known value, normally producing or past producing mines or properties at an advanced stage of evaluation or development. The boundaries are based on the known or most likely geological factors which control ore distribution, such as fault or shear zones, specific plutonic rock types and in some cases their age and lithologic subdivisions, the type, composition, structural complexity, and age of the intruded rocks, and the degree of regional or localized thermal metamorphism.

Areas of class 2 probability are based on the same parameters although details of the geology of the mineral deposits are normally far less complete.

Areas of class 3 and class 4 probability are delimited on the basis of geological boundaries. Usually class 3 areas contain localized areas of higher potential or are adjacent to similar environments of higher potential. Class 4 areas are confined to geologically less promising terrains.

Areas of class 5 probability may be poorly defined with no discrete boundaries. They generally include regions which are geologically unlikely (although in some cases capable) of being mineralized. Because they may have received little attention from exploration companies, the amount of information available on possible mineral occurrences is very limited. They are not considered, at present, worthy of more than reconnaissance mineral exploration.

Areas of alluvium, sand, gravel, or till of Recent or Pleistocene age mask bedrock geology and deposits yet some mineral deposits may be discerned in underlying bedrock by geophysical or geochemical methods. Placer deposits are enclosed in alluvial material, and such material may provide sand and gravel for local construction needs.

LEGEND

AREA CLASS

1 — Area containing orebodies in production or about to go into production; geologic environment highly favourable. area of intensive exploration.

1 A large deposits known or probable
1 B medium deposits known or probable
1 C small deposits known or probable

2 — Some deposits known; type of occurrence and geological environment favourable; some exploration at advanced stages; continued exploration.

2 A large deposits possible
2 B medium deposits possible
2 C small deposits possible

3 — No significant deposits known; geological environment favourable, present and future exploration likely.

3 A large deposits possible
3 B medium deposits possible
3 C small deposits possible

4 — Some indication of mineral potential; geological status indeterminate at present; exploration possible.

5 — No indication of mineral potential; exploration unlikely.

D — Sand, gravel, clay, alluvium, till or drift which cover areas of varied mineral potential.

LOCATION AND SIZE

Small Medium Large

Mineral deposit of known significance. Number refers to descriptive notes.

Former mine. Known reserves depleted.

X6 — Location of mineral deposit of unknown or minor significance. A few deposits are numbered and described in notes.

LODE METAL DEPOSITS

7 Cu Fe

Metal symbols:

Au-gold	Mo-molybdenum
Ag-silver	Pb-lead
Cu-copper	Sb-antimony
Cr-chromium	U-uranium
Fe-iron	W-tungsten
Hg-mercury	Zn-zinc
Mn-manganese	

Listed adjacent to deposit symbol in order of dollar value for individual deposits.

OTHER DEPOSITS

Placer area or locality. Gold placer unless designated as: Pt-platinum, U-radioactive minerals

Location of industrial mineral deposit.

Symbols:

asb-Asbestos	mg-Magnesite
ash-Volcanic ash	m-Marl
ba-Barite	nal-Natro-alunite
be-Bentonite	perl-Perlite
bls-Bloating shale	pyo-Pyrophyllite
diat-Diatomite	salt-Sodium chloride
fl-Fluorite	sl-Silica
gnl-Granules	sl-Saline lake deposits
gr-Graphite	stn-Building stone
gyp-Gypsum	t-Talc
ja-Jade	trav-Travertine
ls-Limestone	

Maximum extent of limestone-bearing formations where considered economically significant.

Maximum extent of coal-bearing formations.

Coal exposure

Boundary of probability area.

Boundary of major lakes and coastal waters.

Approximate boundary of Regional District.

Estimated area of potential petroleum or natural gas reserves.

Abandoned hole drilled for petroleum or natural gas.

BRITISH COLUMBIA DEPARTMENT OF MINES AND PETROLEUM RESOURCES

PROPERTY FILE 082 GEN MINERAL INVENTORY—LAND USE MAP

OF THE

PURCELL MOUNTAIN AREA

PROPERTY FILE

82 F/SE+NE
G/SW+NW
K/SE+NE
J/SW+NW
N/SE

82 F SE+NE
G SW+NW
K SE+NE
J SW+NW
N SE

SCALE 5 0 5 10 15 20 MILES

SCALE 5 0 5 10 15 20 25 30 KILOMETRES

MINERAL POTENTIAL INTERPRETATION BY W.D. McCARTNEY, A.H. MATHESON, G.L. JAMES AND J.A. WINSBY
JUNE, 1973

Centimetre
Inch

000631