810142

92-4/5

The Files

SUBMITTAL RECORD

NAME OF PROPERTY Yreka

OWNER Knut Akre

MIN. DIV. Nanaimo

ADDRESS 3909 Albert St., Burnaby 2, B.C.

LOCATION on the west side of Neroutsos Arm of Quatsino Sound about 18 miles SSW of Port Hardy or 7 miles NW of Port Alice

PHONE 298-9524

PARTNERS

CO-ORD. 50° 27½' North, 127° 33½' West

Access, Area, financial proposals, history & development, production, reserves, geology & mineralization, geophysics, previous submittals, references, remarks, recommendations.

DATE SUBMITTED June 26, 1969 APPRAISAL

DATE EXAMINED July 4-7, 1969 APPRAISAL

Field examination recommended FILE NO. Cu 92-L-5

Property not of interest at present time but should keep in touch with Knut Akre as conditions warrant.

ACCESS: 1) By float aircraft from Port Hardy-15 minutes flying time.

2) By boat from Quatsino (30 minutes) or Coal Harbour (one hour)

AREA: 16 Crown grants and 18 located claims extending from tidewater to 2900 feet elevation.

The Crown grants are as follows:

Mountain Queen L-83	Superior L-106
Mountain King L-86	Pocohontas - L-85
Elva - Lot 81	Tuscarora - L-84
New Comstock - Lot 90	Quatsino Chief - L 87
Asa Thor - Lot 107	Mohican Fractional - L-112
	Hiawatha Fractional L-88
N.S.F. Fractional - L-111	Ready Cash Fractional -L-109
Yreka Fractional -L-89	Omega Fractional -L-113
Edith Fractional - L-82	

The located claims are listed below:

Copper Queen, Copper King, 97, 98, 100, 101, 102, 103, Nora Bell #1, & #2, Friday #1 & 2, Barney #1 & #2, Edison, Edison Fraction, Tuscarora Fraction, North West #1 & #2.

FINANCIAL PROPOSALS

Mr. Akre proposed that Utah could purchase a controlling interest (perhaps 70%)

in the Yreka property through option payments over three years totalling $30,000 and through financing the property to production.

HISTORY & DEVELOPMENT:

The original claims were staked in 1898 and 1899, and were actively developed until 1903 when 2500 tons of copper ore were shipped from the Clyde zone. Due to lack of ore, work ceased and the aerial tram, bunker, and wharf were abandoned. In 1917 the tram and wharf were rebuilt and 900 tons grading 3% copper were shipped from the property. The property was then idle until 1952 when it was optioned by Noranda Exploration Company Limited from Knut Akre.

Prospecting and surface sampling were done in 1952 followed by geological mapping and diamond drilling in 1953 and 1954. Underground development on two levels, at 1900 and 1750 feet elevation, was undertaken in 1955 and 1956. Considerable drilling was done from the underground workings. A dock and permanent camp were built at this time also. A 4-wheel drive road was also built from the camp at sealevel to the 1000-foot elevation, where a sky-line operated by a double drum gasoline "donkey" connected with the 1750 and 1900- levels. An upper camp was also built for the underground development. A foot trail also leads from the end of the road to the copper workings. This development work was stopped in 1958 and the property was idle until November 1964 when it was reopened by Minoca Mines Ltd., which is jointly owned by Mitsubishi Metal Mining Co. Ltd. (51%) and Yreka Mines Ltd. (49%), which is controlled by Noranda Mines Limited. In 1965, an aerial tram from the beach to just below the 1750-level, the mine plant, and camp, were built and the underground mine was prepared for mining. A small amount of ore was mined and milled in 1965. Mining continued through 1966 and 1967 and the mine was closed on October 1, 1967 due to lack of ore. The mill and recreational buildings were sold, dismantled and shipped in 1968.

PRODUCTION:

1900 - 1903:	2500 tons	4-5% copper
1917 :	900 tons	3% copper
1965-1967 :	150,000 tons	2.9% copper

Underground development consists of:

6103' of drifting and cross-cutting
1723' of raising.

Total diamond drilling done:
200 ft. X-ray
40,388 ft. Ex and Ax

Reserves:

The present reserves at the Yreka mine are in the probable and possible categories as follows:

1) Probable Ore

Yreka mine workings below 1750 level (see 1750-level plan and section), No mining was done below the 1750-level. From discussion with Minoca Mines Ltd. manager (J.R. Billingsley) and Brameda geologist, H.M. Jones, it appears that 100-150 thousand tons grading about 1½% copper was left in the mine.

2. Possible Ore

a)	Blue Grouse	400,000 tons	± 1% Cu
b)	Upper Blue Grouse	100,000 tons	± 2% Cu.
c)	Tuscarora Zone	700,000 tons	± 0.5% Cu, 2% Zn
		1,200,000 tons	

3. Summary:

Probable and possible ore may aggregate 1,300,000 tons grading slightly over 1% copper, and 1-2% zinc.

Other areas of some ore potential on the property include: a) 6000 feet by 1000 feet of Bonanza flows and pyroclastics between the 100-and1000-foot elevations. Disseminated pyrite and pyrrhotite occur in these volcanics which are footwall to the skarn deposits.

b) 500 to 1000-foot thick section of limestone (Quatsino) and Bonanza sediments in which the known skarn deposits occur.

c) intrusive contact with Bonanza volcanics and limestone on top of Mt. Comstock--may be favorable.

Geology & Mineralization:

The Yreka area is largely underlain by flows and pyroclastics of the Bonanza group. However it is likely that a fairly complete Upper Triassic section is represented from Karmutsen flows to Bonanza flows, as shown on the attached "Section across Neroutsos Inlet" The Karmutsen flows probably underlie Neroutsos Inlet at no great depth. A relatively thin band of Bonanza limestone is exposed along the shoreline at Yreka and is probably overlain by a thin section of Bonanza sediments since some argillite outcrops along the lower part of Canyon Creek. The Bonanza section includes two fairly well bedded sections, 2000 and 3500 feet respectively above its base. These well bedded sections consist of andesitic tuffs, tuff breccias, calcareous breccias and lenses of limestone. These limestone horizons are considered the "Sutton" limestone, which is of Upper Triassic age but younger than the Quatsino limestone. As indicated on the attached section, the Yreka structure is considered a tight syncline overturned to the northeast, with an overturned anticlinal fold along

the east side of Neroutsos Inlet and another tight overturned syncline to the east. These folds plunge about 30° to the southeast. The Yreka section is intruded by a small quartz diorite intrusive about 3000 feet west of the mine area. Swarms of quartz-feldspar porphyry, andesite and diorite dikes cut the Bonanza section east of the intrusive. Most of these dikes trend about N 25° W and dip 85° southwest; however, attitudes of N-S/55°W and N 40 ° W/80° E /65° SE and N 30° W/80° NE. The northeast-striking faults are quite prominent and define a number of the main stream valleys; such as, Canyon Creek and Edison Creek. The Canyon Creek fault appears to displace the two bedded "Sutton" sections by at least 800 feet.

The Yreka orebodies consist of pyrrhotite, chalcopyrite, sphalerite, cubanite, specular hematite and magnetite as thin seams, blebs, and massive replacements of skarn zones in the upper bedded member of the Sutton limestone. The skarn zones conform fairly well with bedding and are altered sections of the tuff, tuff breccia, and, to a lesser extent, limestone. Replacement of the calcareous tuffs by skarn has been controlled by both bedding and dike swarms. All of the skarn is mineralized though much of this mineralization is quite sparse. However, virtually no sulphides are found without skarn alteration. The Yreka oreshoots are localized by the following structural controls:

1) the hanging wall of the main skarn zone (tuff contact)
2) porphyry dike swarms
3) faults, particularly N 30° E, along which the orebodies lie. Also some mineralization lies along the N 30° W set and the orebodies rake along the line of intersection of these faults.

The Yreka orebodies in the upper bedded member include the three oreshoots developed and mined underground, the Clyde zone and the Upper Blue Grouse showing. The mined orebodies are designated A, B & C and total about 200,000 tons grading 3% copper. The A body extends from the 1900-level to the 1750-level with a near vertical plunge. The B body extends from the 1900-to the 1750-level but dies out at the lower level. It plunges 65 degrees southwest. The C body consists of two small pods on the 1900-level northeast of the B body. The Clyde zone consists of three mineralized skarn zones which individually follow the northwesterly bedding trend but which are closely associated with strong faulting striking N 60° W and dipping 65° southwest. The largest of the Clyde deposits would not exceed 200 feet in length or 50 feet in width. The Clyde zone is about 1300 feet S 20° E of the underground orebodies at 1350 feet elevation. The Upper Blue Grouse zone is about 1000 feet S 70° E from the Clyde zone and at 1400 feet elevation. It apparently occurs along the faulted extension of the upper bedded member. This fault offset is at least 800 feet N 60° E. The Upper Blue Grouse zone is a small high grade skarn zone defined by N 60° W and N 30° W faulting.

The lower bedded member also exhibits mineralized skarn zones such as the Blue Grouse zone and the Tuscarora zone. The Blue Grouse zone is at 625 feet elevation about 1200 feet N 30° E from the Upper Blue Grouse.

This skarn deposit is about 400 feet long by 100 feet wide trending N 10° E, following shearing which dips 60 degrees to the east. Pyrite, pyrrhotite and chalcopyrite occur as disseminated blebs and large masses in the skarn. A 9-foot chip sample taken in massive sulphides along the face of a trench with a N 30° W trend assayed as follows: 1.6% copper; 0.24% zinc; 1.17oz/ton silver; and 0.005 oz/ton gold. A sketch of the Blue Grouse showings is attached. Skarn alteration with minor sulphides is found for several hundred feet south of the Blue Grouse showings and rusty skarn float with heavy sulphides occurs about 200' S 60° E of the showings indicating probable extensions of this zone. The Pride of the Isle showing is 900 feet N 30° E from the Blue Grouse showing, at 450 feet elevation and consists of silicified and skarny tuff with disseminated pyrite, some sphalerite, and a little chalcopyrite. This showing is perhaps 100 feet long by 40 feet wide with a northwesterly trend. It seems likely that the Blue Grouse and Pride of the Isle occurrences are at least partly controlled by N 30° E faulting.

The Tuscarora zone is 3300 feet northwest of the Blue Grouse and occurs in the same lower bedded unit. The zone extends from 900 feet to 1200 feet in elevation and is at least 600 feet long, with a N 30° E elongation, by 200 feet wide. Skarn-altered tuff and limestone is exposed in a series of cuts and natural exposures throughout this area. Bedding in this zone, as indicated by skarn-tuff banding, trends N 50° W dipping 35 degrees southwest. Several dikes of aplite, diorite and andesite prophyry are also exposed in this zone. The Tuscarora Zone appears to be fault-controlled with the major faulting trending N 30° E and dipping very steeply southeast. Faults trending N 20°-40° W and dipping steeply southwest are also prominent. Mineralization consists of pyrrhotite, pyrite, sphalerite and minor chalcopyrite as disseminations, blebs and massive replacement in the skarn. An 11-foot chip sample cut N 80° W across part of the skarn zone at 1100 feet elevation assayed: 0.09% copper; 2.80% zinc; and 0.10 oz/ton silver.

Geophysics:

Noranda Exploration did a limited ground magnetometer survey and geochemical survey in July 1964 on the upper or west end of the property on upper Canyon Creek, on the Barney and Friday claims. This survey apparently did not indicate any significant anomalies. It is also reported that electromagnetic probes were run on underground drill holes in 1967.

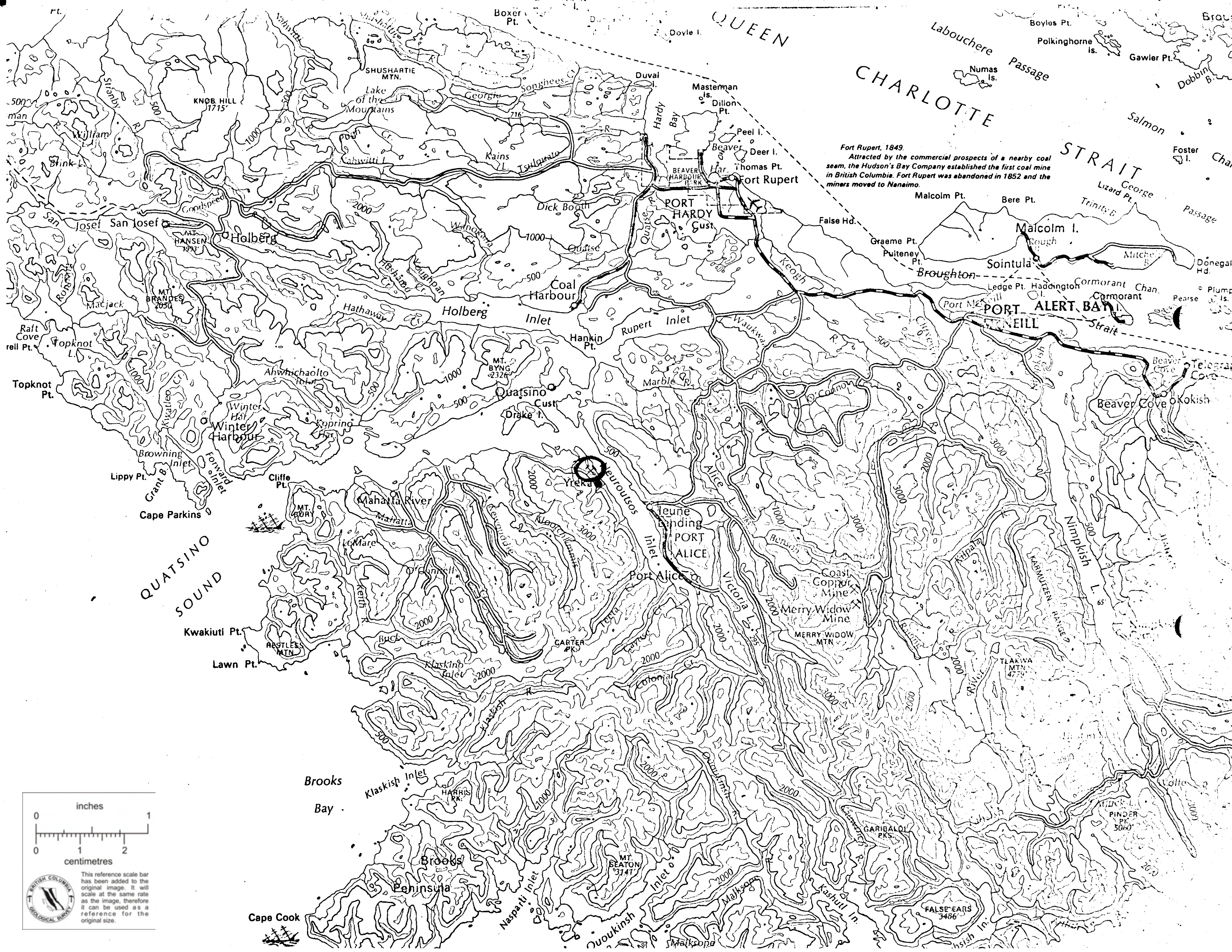
References:

1) B.C. Minister of Mines Annual Reports for 1902, 1903, 1904, 1905, 1906, 1916, 1917, 1918, 1925, 1953, 1954, 1955, 1956, 1964, 1965, 1966, and 1967.

2) Various maps of Noranda Exploration and Minoca Mines 1951-1967, supplied by Knut Akre as shown on attached list.

3) Wilson, P.R. (1955) The Geology and Mineralogy of the Yreka Property, Quatsino Sound, B.C.; unpublished thesis, Univ. of B.C.

4) Burton, A.D.K. (1957) The Structure of Yreka Mines Limited, unpublished thesis, Univ. of B.C.


QUEEN CHARLOTTE STRAIT
Fort Rupert, 1849.
Attracted by the commercial prospects of a nearby coal seam, the Hudson's Bay Company established the first coal mine in British Columbia. Fort Rupert was abandoned in 1852 and the miners moved to Nanaimo.
Boxer Pt.
Doyle I.
Labouchere Passage
Boylos Pt.
Polkinghorne Is.
Gawler Pt.
Numas Is.
Salmon
Foster I.
Duval I.
Masterman Is.
Dillon Pt.
Peel I.
Deer I.
Thomas Pt.
Fort Rupert
Beaver Har.
BEAVER HARBOUR PARK
Hardy Bay
PORT HARDY
Cust.
False Hd.
Malcolm Pt.
Bere Pt.
Lizard Pt.
George Passage
Trinity B.
Malcolm I.
Graeme Pt.
Pulteney Pt.
Sointula
Mitchell B.
Donegal Hd.
Broughton
Ledge Pt.
Haddington I.
Cormorant Chan.
Cormorant
Pearse
PORT McNEILL
ALERT BAY
Strait
Beaver Cove
Kokish
SHUSHARTIE MTN.
Lake of the Mountains
Georgie
Songhees Cr.
KNOB HILL 1715'
Stranby
William L.
Blink L.
Cahwitti L.
Kains L.
Tsulquate
Goodspeed
San Josef
MT. HANSEN 1993'
Holberg
Dick Booth
Quatse
Wanokana
Keogh
MT. BRANDES 2050
Ronning
Macjack
Hushamu
Coal Harbour
Hathaway Cr.
Holberg Inlet
Rupert Inlet
Hankin Pt.
Waukwaas
Raft Cove
Topknot L.
Topknot Pt.
Ahwhichaolto Inlet
MT. BYNG 2326'
Quatsino
Cust.
Drake I.
Marble R.
O'Connor L.
Winter Har.
Winter Harbour
Koprino Har.
Kwatleo
Browning Inlet
Forward Inlet
Lippy Pt.
Grant B.
Cliffe Pt.
MT. BURY
Cape Parkins
Mahatta River
Mahatta
Yreka
Neuroutsos Inlet
Jeune Landing
PORT ALICE
Port Alice
Alice L.
Benson
Coast Copper Mine
Merry Widow Mine
MERRY WIDOW MTN
Victoria L.
QUATSINO SOUND
O'Connell L.
Keith R.
Kwakiutl Pt.
RESTLESS MTN
Lawn Pt.
Buck Cr.
Klaskino Inlet
CARTER PK.
Colonial Cr.
Klaskish R.
KARMUTZEN RANGE
Nimpkish L.
TLAKWA MTN 4779'
Brooks Bay
Klaskish Inlet
HARRIS PK.
GARIBALDI PKS.
PINDER PK 5060'
Brooks Peninsula
MT. SEATON 3141'
Nasparti Inlet
Ououkinsh Inlet
Malksope
Kashutl In.
FALSE EARS 3486'
Cape Cook
inches
0
1
0
1
2
centimetres
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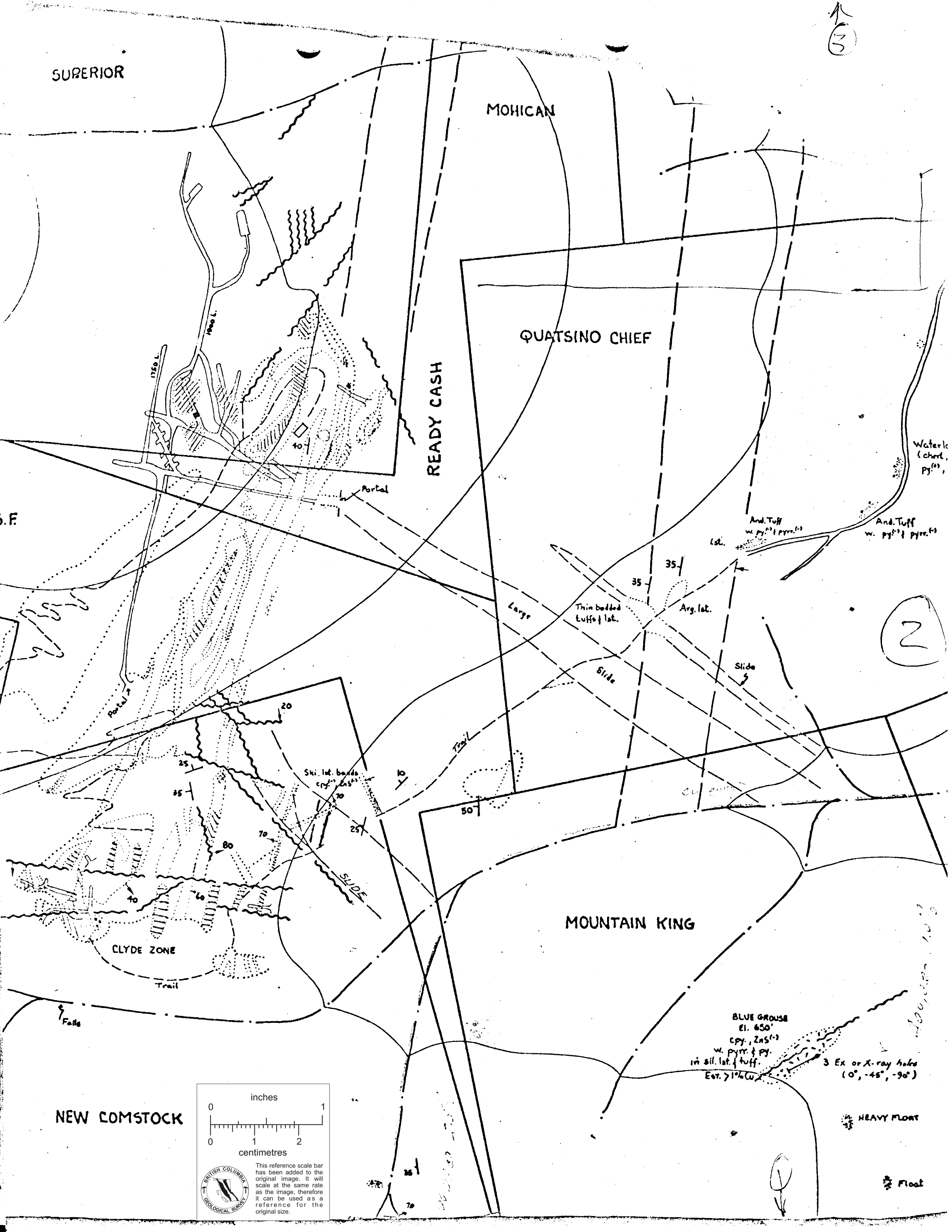
BRITISH COLUMBIA GEOLOGICAL SURVEY


SUPERIOR
MOHICAN
QUATSINO CHIEF
READY CASH
1900 L.
1750 L.
Portal
40
Large
Slide
Thin bedded tuffs & lst.
Arg. lst.
lst.
And. Tuff w. py. & pyrr.
And. Tuff w. py. & pyrr.
35
35
Slide
Trail
Ski. lst. bands
70
10
20
25
35
80
70
25
50
SLIDE
40
60
CLYDE ZONE
Trail
Falls
MOUNTAIN KING
BLUE GROUSE
El. 650'
cpy., ZnS
w. pyrr. & py.
in sil. lst. & tuff.
3 Ex or X-ray holes (0°, -45°, -90°)
HEAVY FLOAT
Float
NEW COMSTOCK
36
70
inches
0
1
0
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2
centimetres
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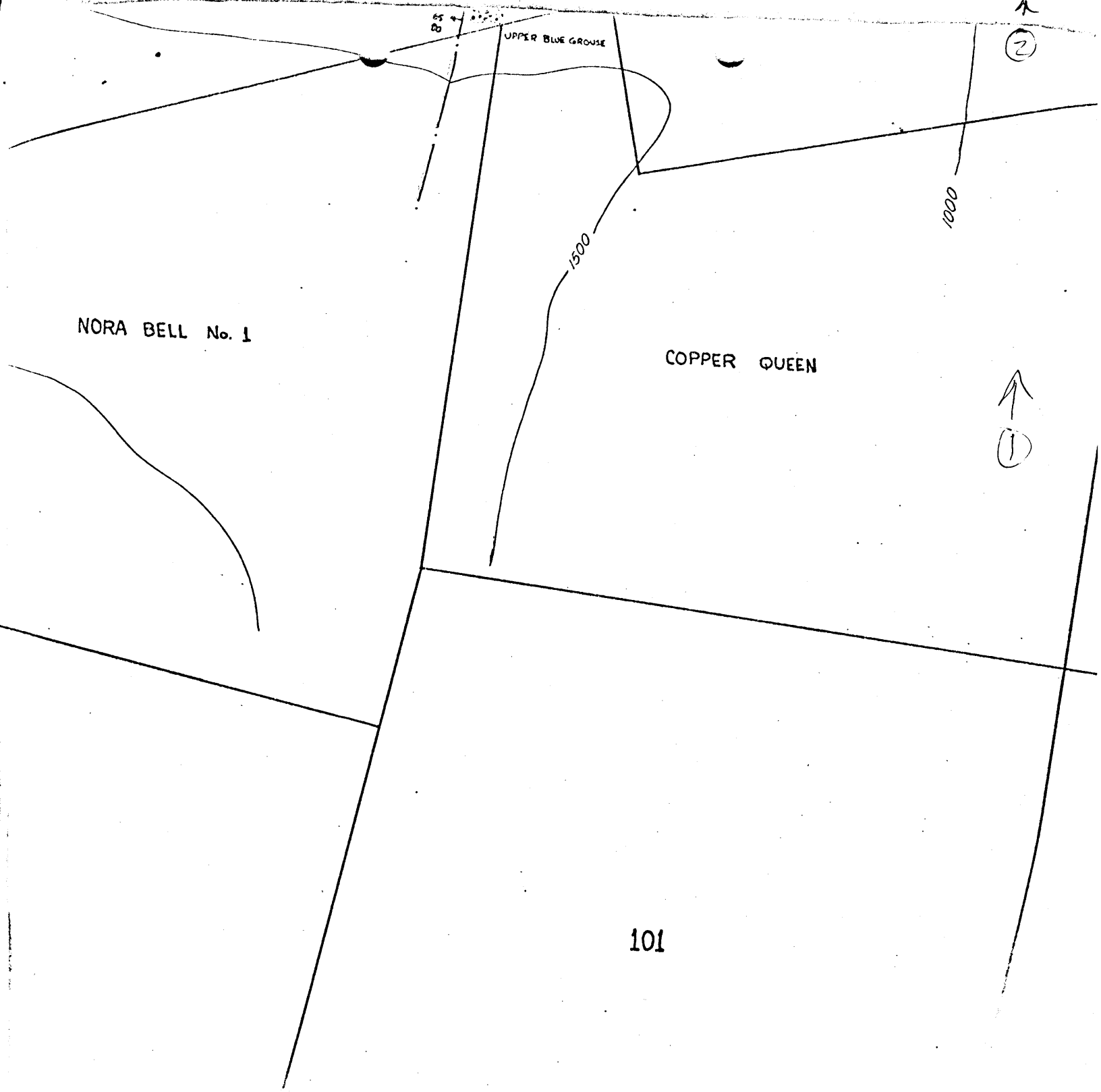
BRITISH COLUMBIA
GEOLOGICAL SURVEY
2

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BRITISH COLUMBIA
GEOLOGICAL SURVEY
NORTHWEST No. 2
TUSCARORA
TUSCARORA FR.
EDISON
2000
45
EDISON CREEK
75
80
70
75
fine grd. dio.
skarn w. pyrr.
D.D.H.
ZnS
80
TUSCARO
Aplite w. pyrr.
35
1500
25
Bl. arg. lst.
1000
SUPERIOR
MOHICAN
HIAWAT