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REPORT ON
GEOPHYSICAL, GEOCHEMICAL SURVEY
ON THE
BARB AND JUDY CLAIM GROUPS

COVERING CLAIMS

BARB GROUP

Alex 1-14, Alex 39-40, Alex 42-45,
Tan 7-8, Barb 1-8, Greg 2, 3, 5,
7, 9-14

JUDY GROUP

Alex 15-20, Alex 41, Alex 5 Fr.,
Tan 1-6, Judy 1-18, Greg 1, 4,
6, 8

LOCATED

Around the South West end of
Chuchi Lake

Latitude $55^{\circ} 12' N$

Longitude $124^{\circ} 52' W$

WORK DONE

From 10 June, 1971 to
31 July, 1971

for

Boronda Mining
Corporation Limited

by

M. R. Swanson M.Sc.
and

J. G. Simpson Ph.D., P.Eng.

93 23

Motion Copper
Project

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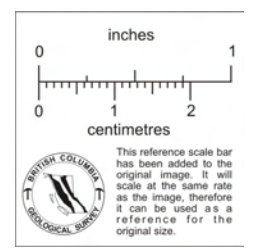
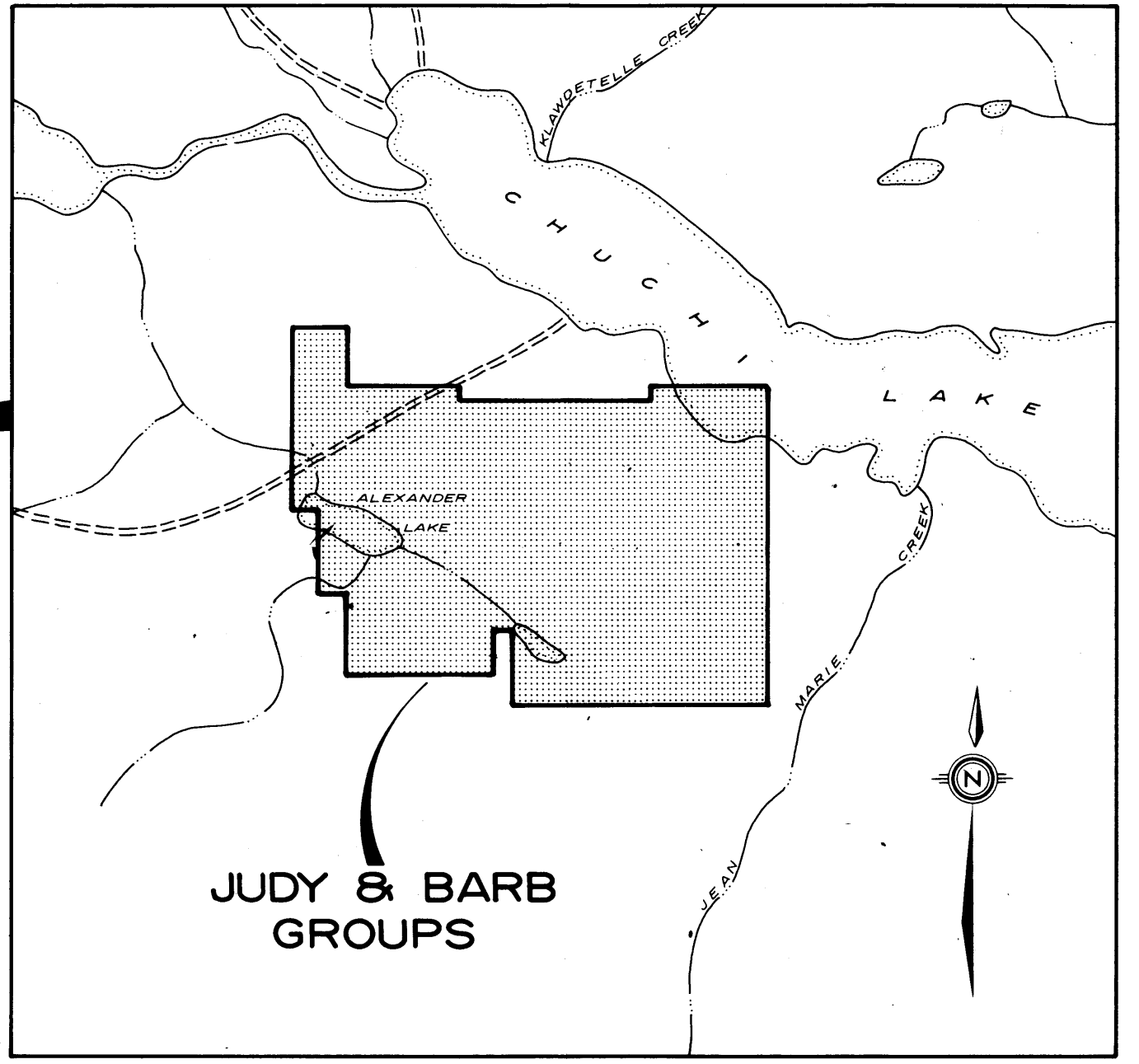
M. R. Swanson M.Sc.
and
J. G. Simpson Ph.D., P.Eng.

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ALTAIR drafting services ltd.

To accompany Geochemical, Geophysical Report on the Barb & Judy Groups dated July 21, 1971 by M. S. Swanson, M. Sc., J. G. Simpson, Phd., P. Eng.

MAP No. 1		
BORONDA MINING CORPORATION LTD.		
NATION COPPER PROPERTY		
SHEET 1- CHUCHI LAKE		
OMINECA M. D.		BRITISH COLUMBIA
LOCATION MAP		
WORK BY	DRAWN BY	DATE
	ALTAIR	AUG. - 1971

INTRODUCTION

Geophysical and soil geochemical surveys were run over parts of the BARB and JUDY groups to fill in data gaps left by previous work. The surveys were based on east-west lines spaced 1,000 feet apart on a north-south cut and picketed base-line. The geophysical work comprised Ronka EM-16 and Sharp's M.F. 1 magnetometer data, with soils being tested for copper content.

LOCATION AND ACCESS

The claims are situated on the south-west end of Chuchi Lake in the Fort St. James area. Access is by gravel road from Fort St. James to the east end of Chuchi Lake and thence by boat to the Tchentlo Lake base camp via the Nations River. Seventeen miles of road suitable for four-wheel drive vehicles provides access to the north side of the BARB and JUDY groups from which a further four miles of dirt road was completed to expedite access for the present surveys.

CLAIMS

The following claims comprising the BARB and JUDY groups are held by Boronda Mining Corporation Ltd. , with the exception of TAN 1-8, which are held by Mr. G. Jilson.

<u>GROUP</u>	<u>CLAIM NAME</u>	<u>RECORD NUMBER</u>
BARB	Alex 1-8	75785-92
	Alex 9-14	80121-26
	Alex 39-40	80133-34
	Alex 42-45	80136-39
	Tan 7-8	97759-60
	Barb 1-8	78977-84
	Greg 2, 3, 5, 7	78986, 87, 89, 91
	Greg 9-14	78993-98
JUDY	Alex 15-20	80127-32
	Alex 41	80135
	Alex Fr. #5	80120
	Tan 1-6	97753-58
	Judy 1-18	78999-79016
	Greg 1, 4, 6, 8	78985, 88, 90, 92

The claims covered by the surveys are shown on Map #2, and the work is to be applied as indicated on the accompanying Application for Certificates of Work.

GEOLOGICAL SETTING

Upper Triassic volcanics of the Takla group underlie the south-east portion of the BARB and JUDY groups. These have been intruded by quartz diorite to granodiorite which form the margin of the Hogan Batholith of late Jurassic to early Cretaceous age. The contact in this locality trends arcuately from east-west to north-east across the claim groups. Small gabbroic to ultrabasic plugs are present within the batholith margin. The rather mafic intrusives of the batholith are moderately magnetic, with principal zones of fracture trending north-northwest to north. Copper shows are associated mainly with the intrusive rocks along the principal fracture zones, which are probably related to Pinchi Fault, a major lineament trending north-northwest through the west end of Tchentlo Lake.

GEOPHYSICAL SURVEYS

Method & Procedure

Grid Survey

A north-south cut and picketed base-line was used as a grid base, from which flagged compass lines were run east-west at intervals of 1,000 feet. Stations were marked at intervals of 100 feet on all lines, which were tied into existing topography to provide overall control.

Magnetic Survey

Readings were taken at 100-foot intervals along lines, with a Sharp's M.F.1 model, reconnaissance magnetometer. All readings were corrected to a predesignated base point which was set rather high to correspond with previous surveys carried out on adjacent claims. Corrections for diurnal change were made by checks on a series of corrected points established on the base-line. The magnetometer readings obtained were contoured at suitable intervals as shown on the accompanying map #4.

Ronka EM-16 Survey

Dip angle readings were taken at 100-foot intervals with a Ronka EM-16 unit on a frequency of 18.6 ghz tuned into the Jim Creek transmitter near Seattle. These readings were transcribed to give a modified Fraser Filter reading by applying the formula $(A + B) - (C + D)$ in order to emphasise and centre anomalous conditions. The Fraser Filter data was contoured at intervals of 10^0 to aid interpretation.

Results

The contour presentation of the EM-16 and Ronka data emphasise two essentially different features. The magnetics clearly outline a north-west trending high which outlines a series of gabbroic to ultrabasic intrusives within the quartz-diorite intrusive. The Fraser Filter data, while probably affected by a strong line bias, at the line intervals utilized, closely follows the north-south fracture pattern previously noted from geological mapping on adjacent areas to the west, and although the area surveyed is largely covered it is assumed that these trends persist.

GEOCHEMICAL SURVEY

Method & Procedure

Samples were taken from the B soil horizon at intervals of 200 feet along the lines, placed in wet strength Kraft paper bags and air dried. The samples were subsequently forwarded to Barringer Research Laboratories in Vancouver where they were dried at 70°C in a hot air oven and sieved on nylon screens, to less than 80 mesh, from which a 0.2 gram sample was taken for further treatment. This was digested in perchloric acid and diluted to 10 mls., the resultant being submitted to an atomic absorption unit from which the reported copper values were read. The assays were carried out by Mr. D. Reid of Barringer Research Ltd.

Results

The samples assayed were to fill in gaps in previous surveys and being few in number and indicating scattered values, were considered unsuitable for statistical treatment, although there is an obvious correspondence between the higher values and noted magnetic highs probably associated with gabbroic to ultrabasic intrusives.

CONCLUSIONS AND RECOMMENDATIONS

The coincidence of linear magnetic highs and scattered high copper values in soils indicate that these may be associated with basic to ultrabasic intrusives of the type indicated to the southeast and known as the Asbestos Corp. Anomaly. Drilling on this feature indicated low copper values associated with the margins of an ultrabasic body. Trenching of coincident magnetic and copper soil highs, with particular attention to zones across which intense north-south EM-16 zones are indicated, should be carried out in order to further evaluate the ground. Diamond drilling of the existing geophysical targets is not recommended without some verification of mineralization other than the suspected high magnetite content.

BARB & JUDY GROUPS
GEOCHEMICAL-GEOPHYSICAL SURVEY 1971

Time and Cost Distribution

<u>Name</u>	<u>Position</u>	<u>Dates</u>	<u>Days</u>	<u>Rate</u>	<u>Total</u>
J.G. Simpson, P.Eng.	Supervisor	July 25 & 30	2	\$ 150	\$ 300
M. R. Swanson, M.Sc.	Project Mgr.	July 12-31	10	75	750
K. Hitrec	Soil Sampler	July 12-31	20	25	500
D. Londry	Magnetometer Operator	July 12-31	20	25	500
D. Olson	E.M. 16 Operator	July 12-31	20	25	500
Camp Costs:	72 man days at \$15 per day =				1,080
Assays					
Barringer Research Ltd., Vancouver					
300 soil samples for total Cu					
@ \$1.70 per sample					
					510
Contractor					
Line Cutting - R. Casimer & Assoc.					
1 - 1/4 miles base line at \$150 per line mile					
12 miles flag line at \$ 50 per line mile					
					775
Rental Equipment					
4 x 4 Tilden 20 days at \$350 per month					
E.M. 16 Unit 20 days at \$250 per month					
Magnetometer Unit 20 days at \$290 per month					
					225
					170
					190
Drafting and Map Preparation					
					200
					\$ 5,700

C E R T I F I C A T I O N

I, John Glenn Simpson, of 720 Anderson Crescent, West Vancouver, British Columbia, do certify that

1. I graduated from King's College, London University with a B.Sc. (Hons) Geology in 1958, and was awarded a Ph.D. (External) from London University in 1969.
2. I am a Fellow of the Geological Association of Canada and a registered Professional Engineer in the Province of British Columbia and have practiced my profession in Africa, Europe and Canada for the past 13 years.
3. As a salaried employee of Cyprus Exploration Corporation, Ltd., I have no direct or indirect interest in the property or securities of Boronda Mining Corporation Ltd.
4. The work described herein was carried out by M. R. Swanson, M.Sc., under my direction and supervision.

Dated at Vancouver

This

J. G. Simpson, Ph.D., P.Eng.



JUDY GROUP

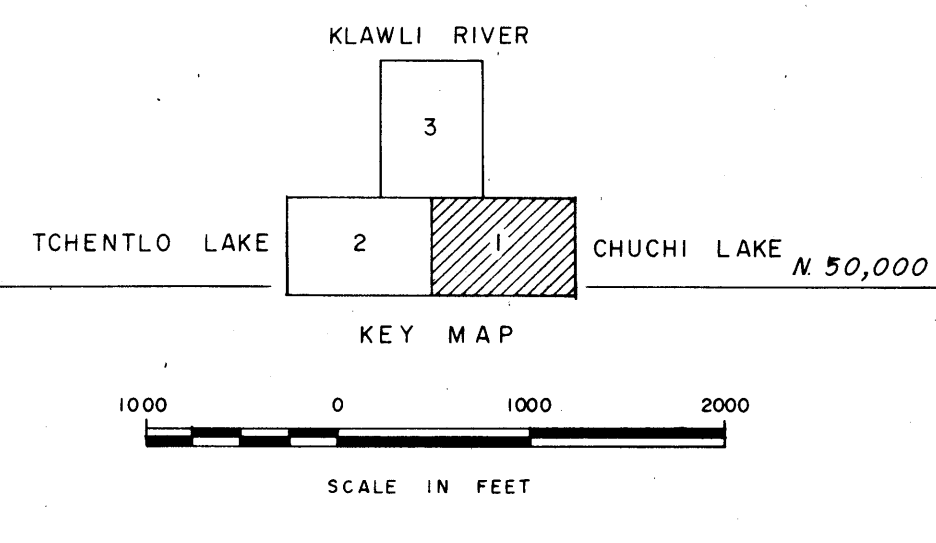
BARB GROUP

CHUCHI
LAKE

ALEXANDER
LAKE

LAKE

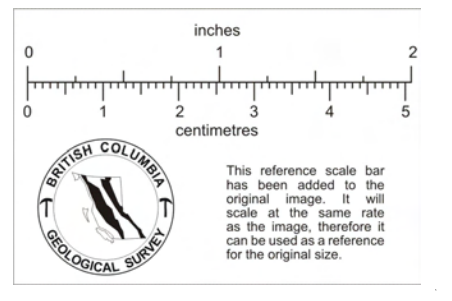
JEAN MARIE
CREEK



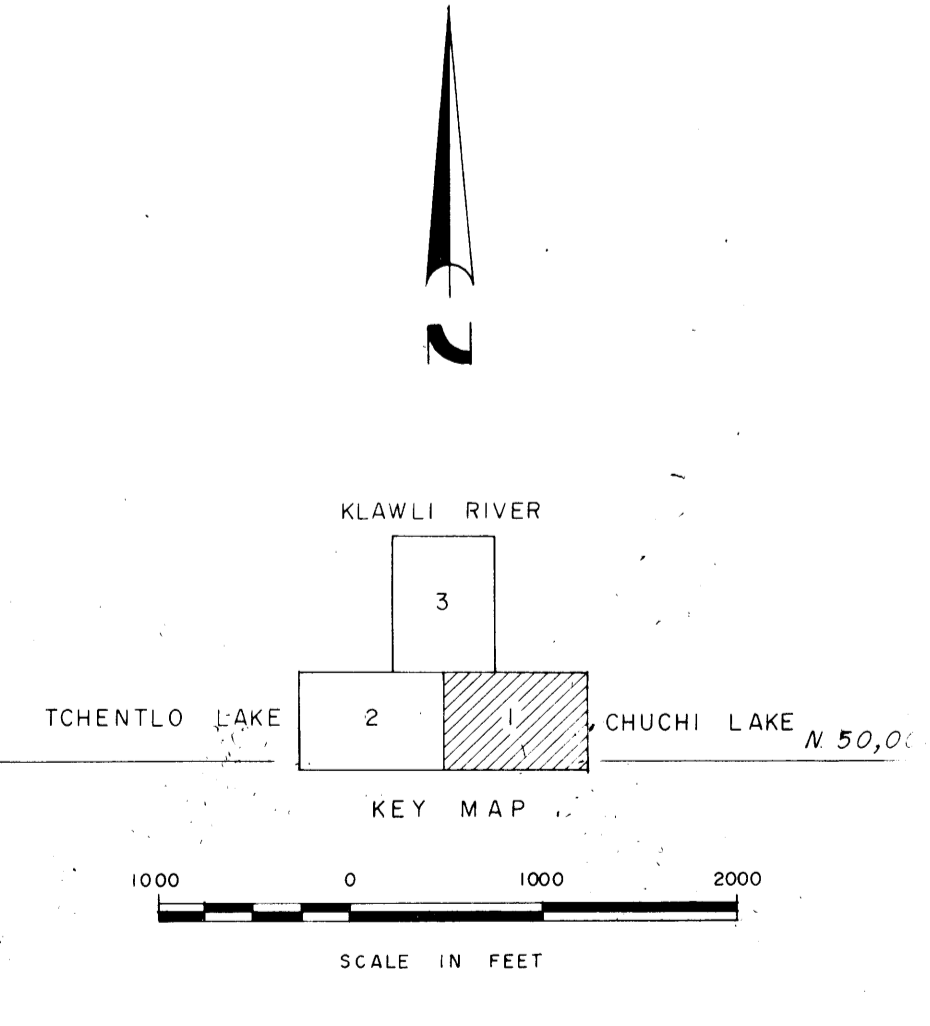
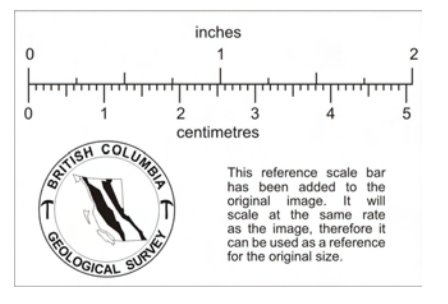
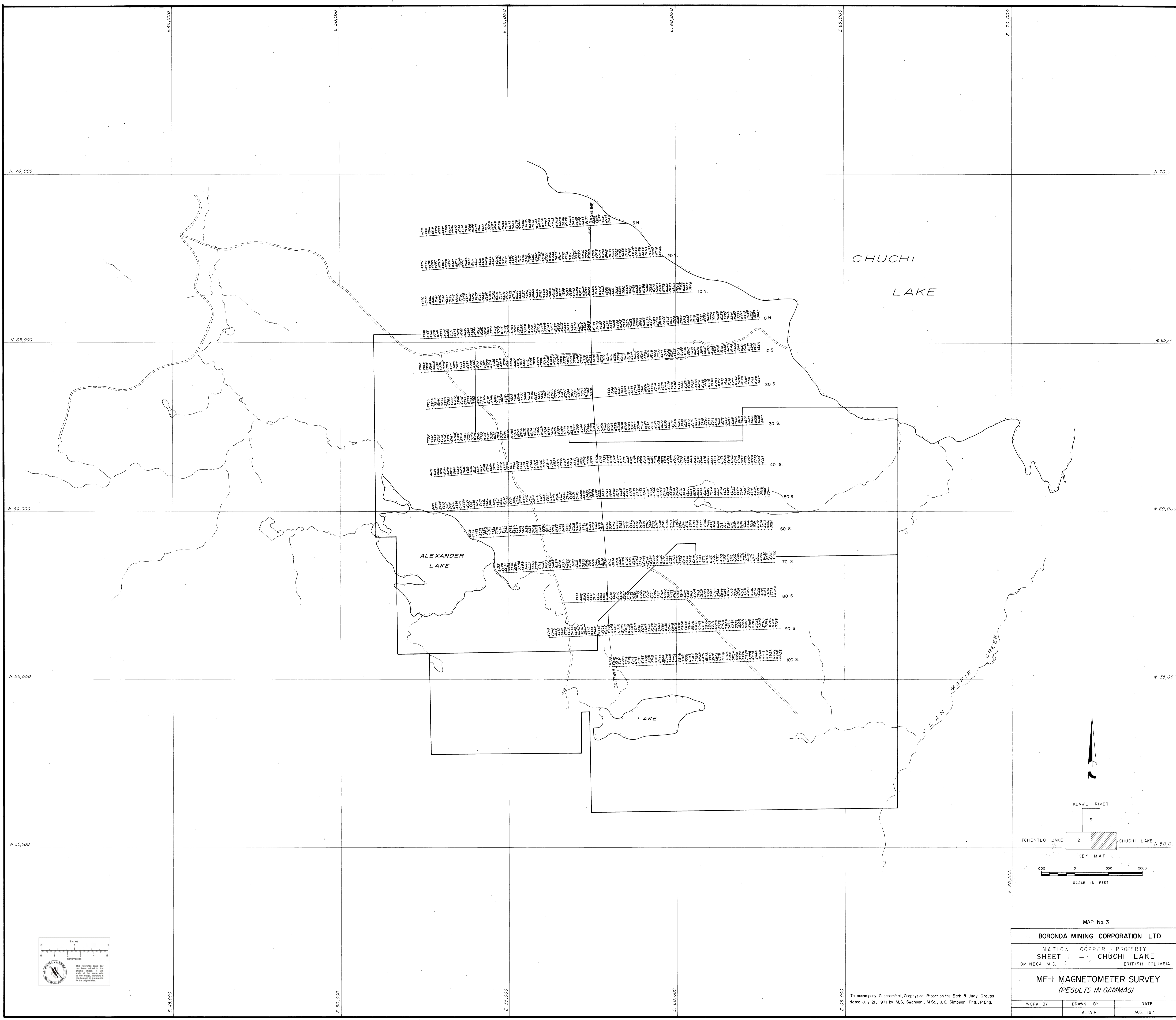
MAP No. 2

BORONDA MINING CORPORATION LTD.		
NATION COPPER PROPERTY		
SHEET 1 - CHUCHI LAKE		
OMINECA M.D.	BRITISH COLUMBIA	
CLAIMS & GRID		
WORK BY	DRAWN BY	DATE
	ALTAIR	AUG-1971

To accompany Geochemical, Geophysical Report on the Barb & Judy Groups dated July 21, 1971 by M. S. Swanson, M. Sc., J. G. Simpson, Ph.D., P. Eng.



Map 3



MAP No 3

BORONDA MINING CORPORATION LTD.

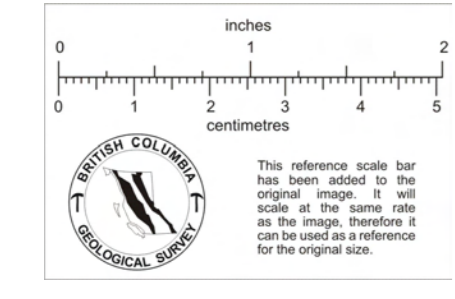
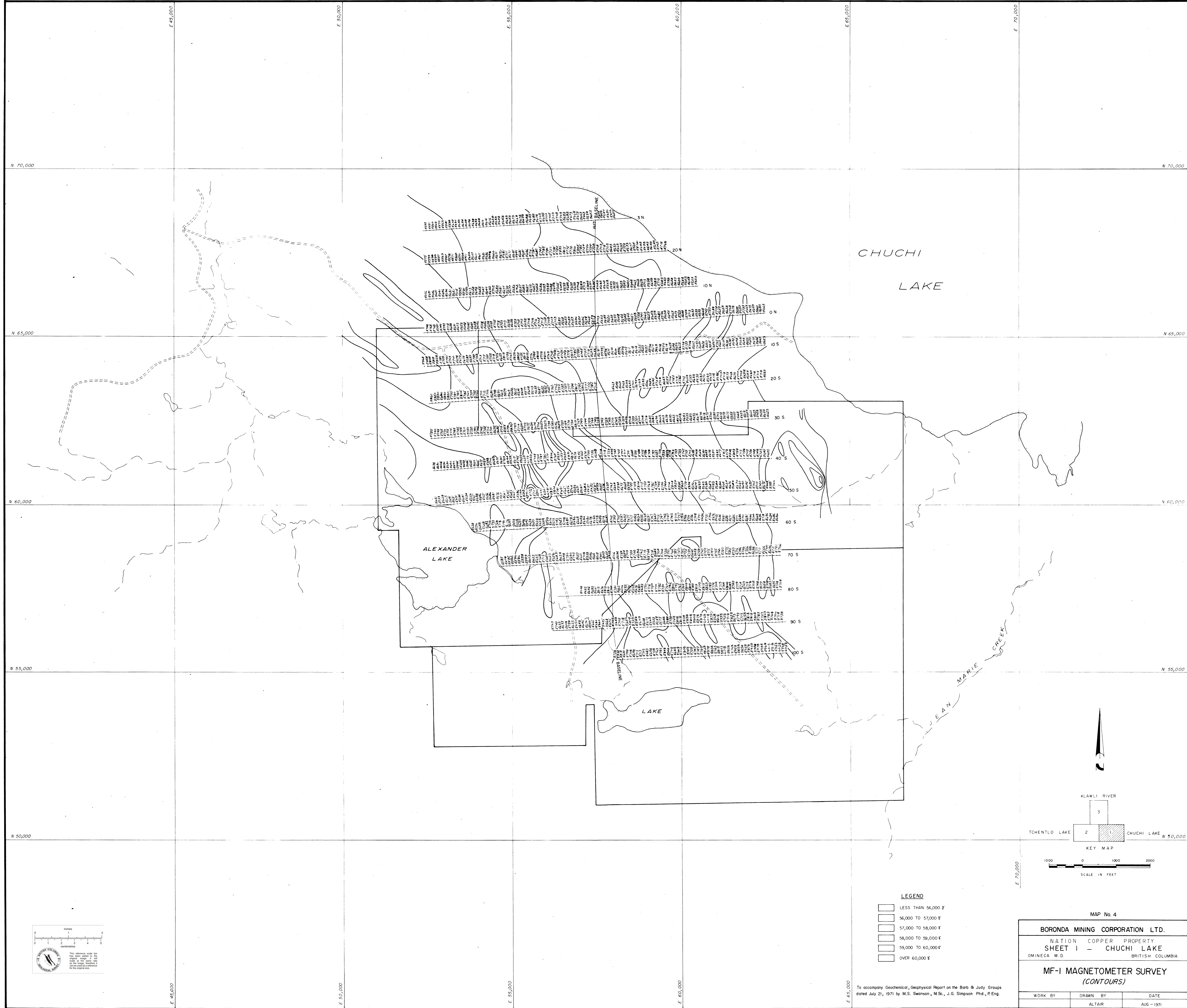
NATION COPPER PROPERTY
SHEET 1 - CHUCHI LAKE
 OMINICA M.D. BRITISH COLUMBIA

MF-1 MAGNETOMETER SURVEY
 (RESULTS IN GAMMAS)

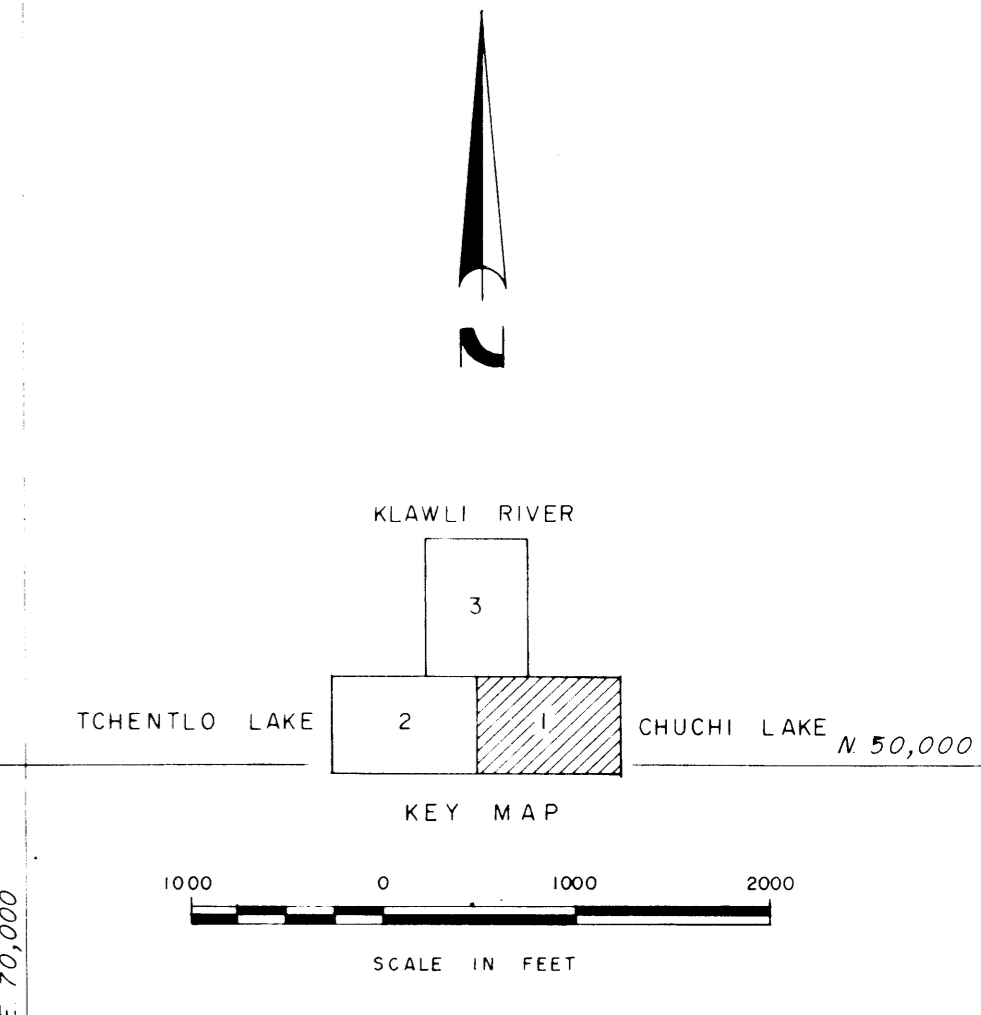
WORK BY	DRAWN BY	DATE
	ALTAIR	AUG-1971

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Map 4



- LEGEND**
- LESS THAN 56,000 F
 - 56,000 TO 57,000 F
 - 57,000 TO 58,000 F
 - 58,000 TO 59,000 F
 - 59,000 TO 60,000 F
 - OVER 60,000 F



MAP No. 4

BORONDA MINING CORPORATION LTD.

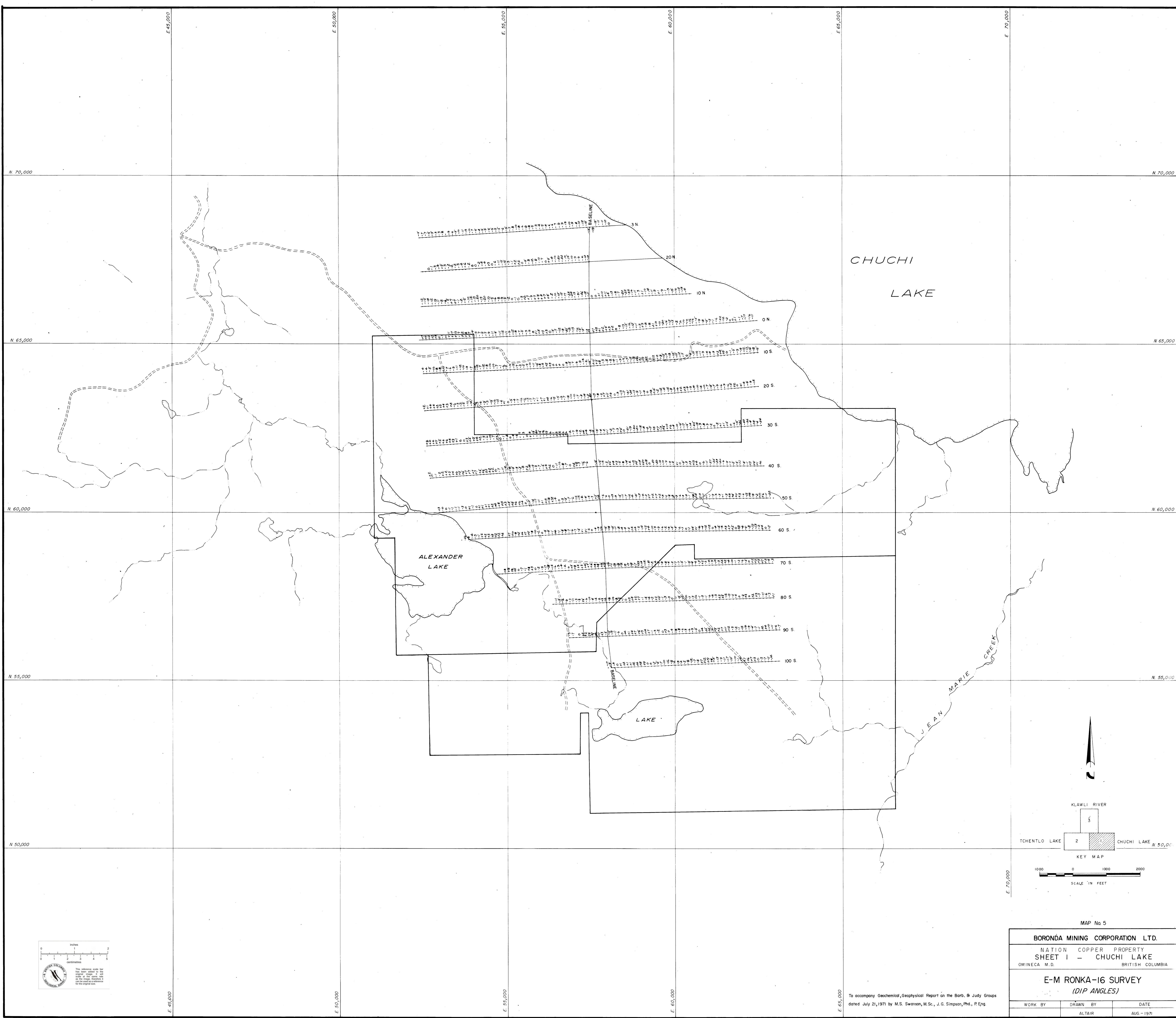
NATION COPPER PROPERTY
SHEET 1 - CHUCHI LAKE
 OMINECA M.D. BRITISH COLUMBIA

**MF-1 MAGNETOMETER SURVEY
 (CONTOURS)**

WORK BY	DRAWN BY	DATE
	ALTAIR	AUG - 1971

To accompany Geotechnical, Geophysical Report on the Barb & Judy Groups dated July 21, 1971 by M.S. Swanson, M.Sc., J.G. Simpson, Ph.D., P.Eng.

Map 5

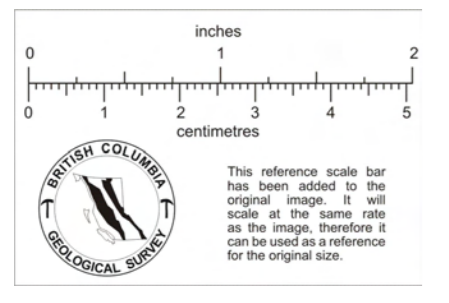
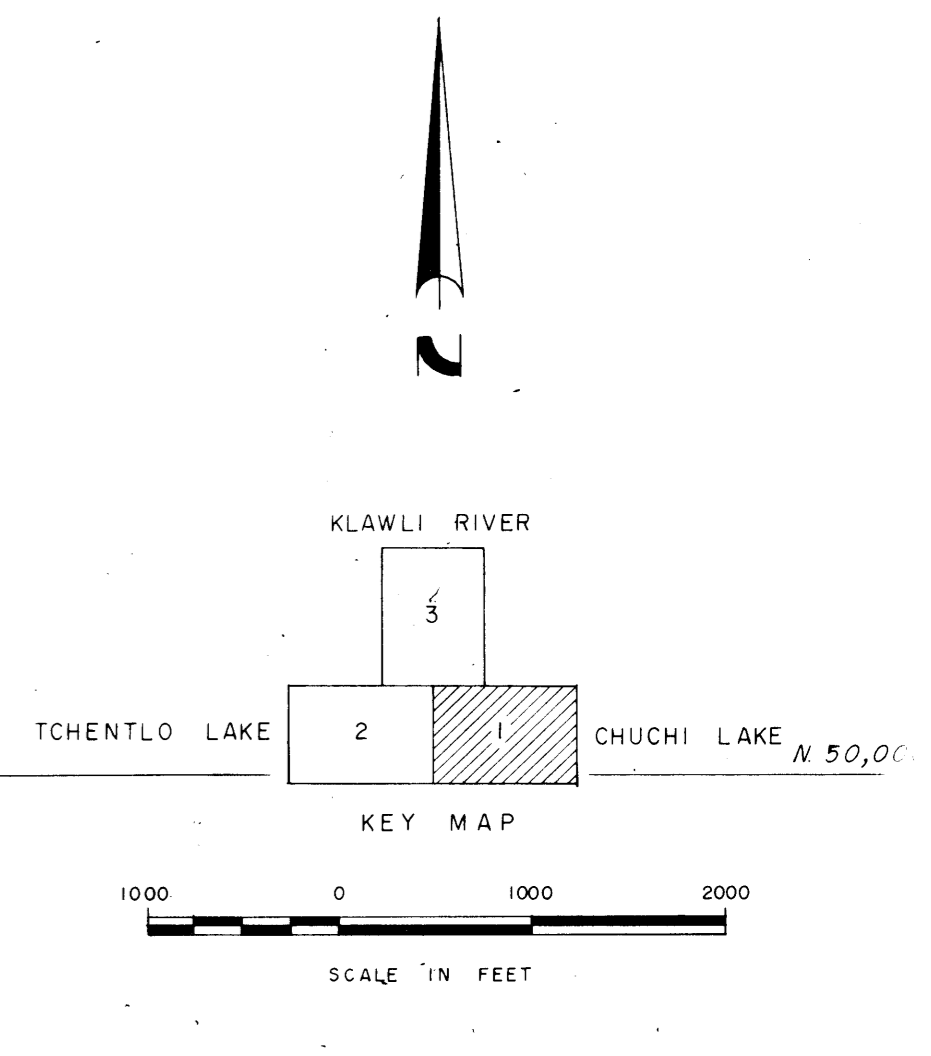


CHUCHI
LAKE

ALEXANDER
LAKE

LAKE

JEAN MARIE
CREEK



To accompany Geochemical, Geophysical Report on the Barb. & Judy Groups dated July 21, 1971 by M.S. Swanson, M.Sc., J.G. Simpson, Ph.D., P.Eng.

MAP No 5		
BORONDA MINING CORPORATION LTD.		
NATION COPPER PROPERTY		
SHEET 1 - CHUCHI LAKE		
OMINECA M.D.	BRITISH COLUMBIA	
E-M RONKA-16 SURVEY		
(DIP ANGLES)		
WORK BY	DRAWN BY	DATE
	ALTAIR	AUG - 1971

Map 6



E 45,000
E 50,000
E 55,000
E 60,000
E 65,000
E 70,000

N 70,000
N 65,000
N 60,000
N 55,000
N 50,000

MAP No. 6

BORONDA MINING CORPORATION LTD.

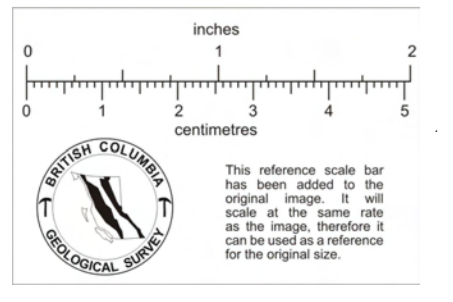
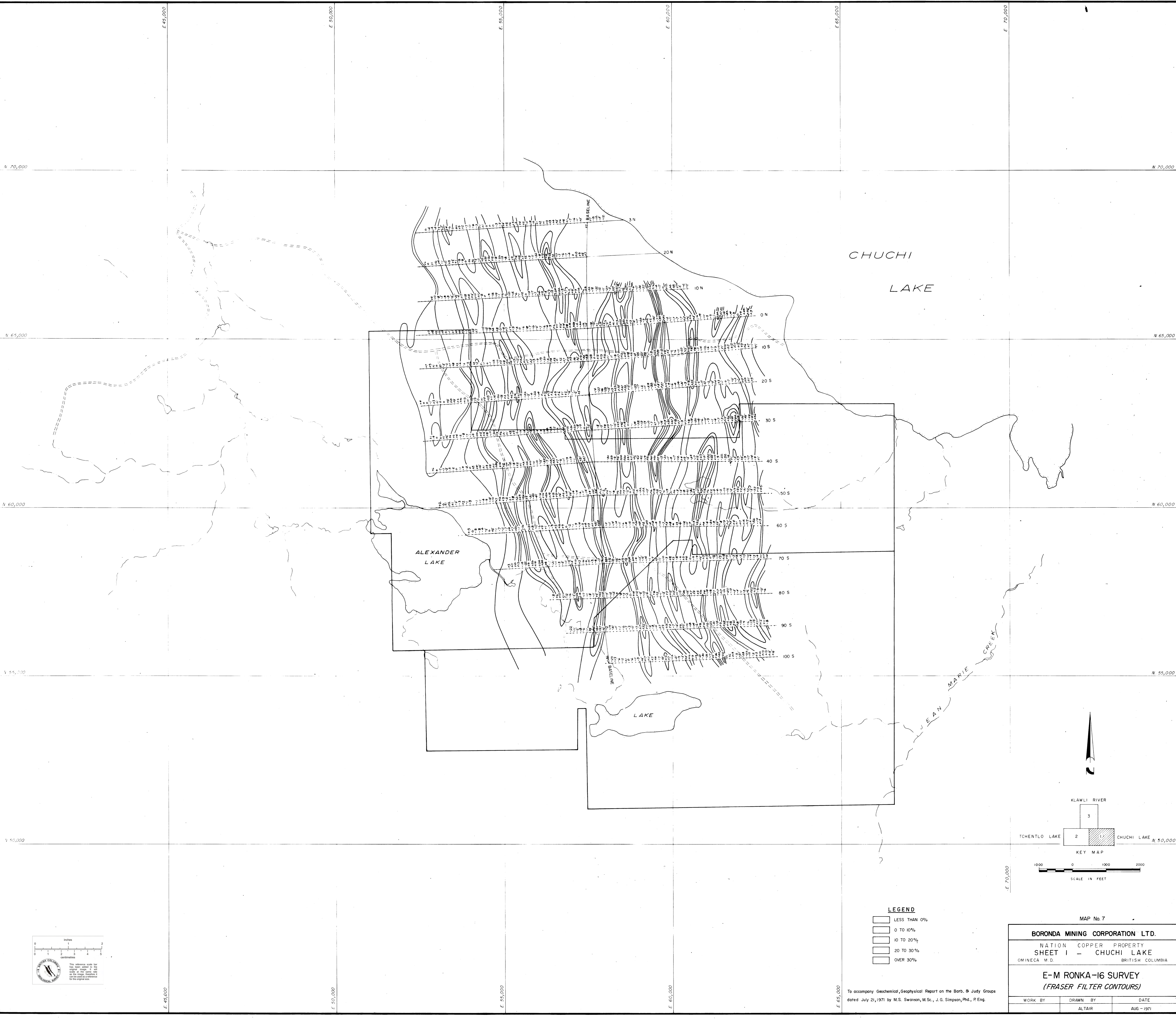
NATION COPPER PROPERTY
SHEET 1 - CHUCHI LAKE
 OMINECA M.D. BRITISH COLUMBIA

E-M RONKA-16 SURVEY
FRASER FILTER NUMBERS

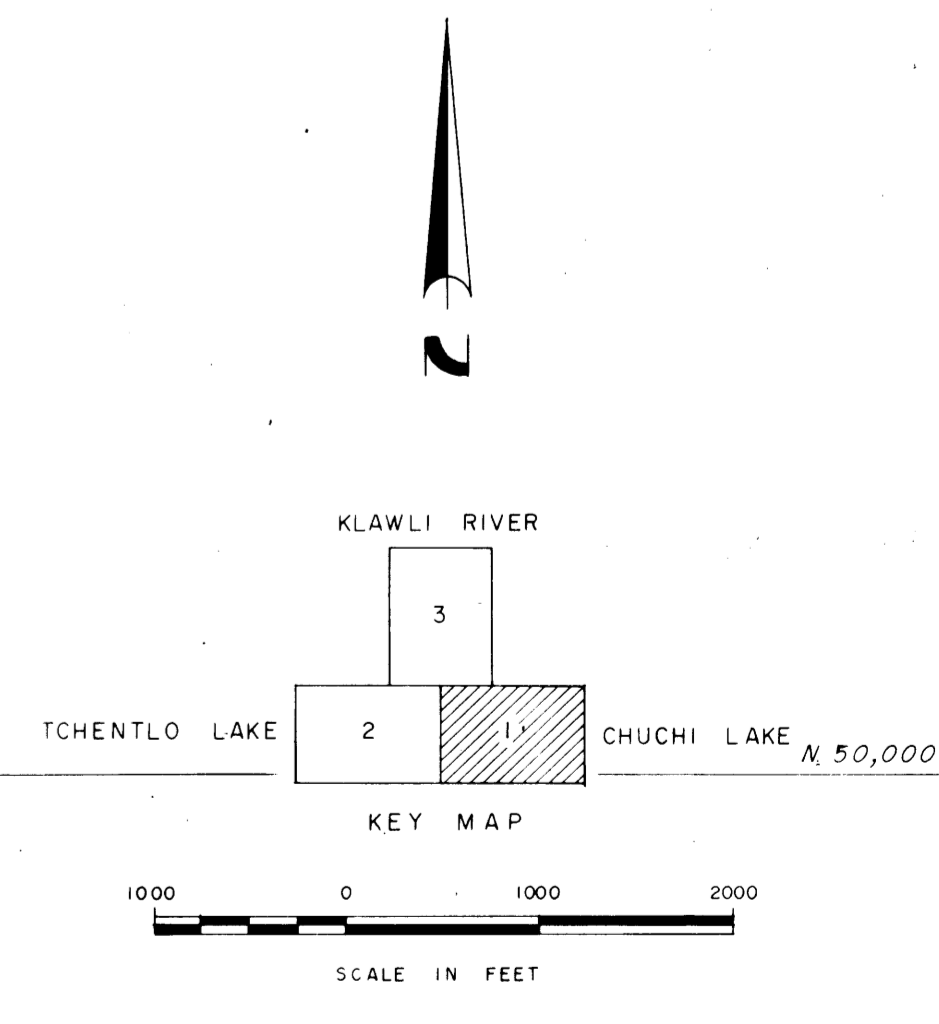
WORK BY	DRAWN BY	DATE
	ALTAIR	AUG-1971

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Map 7



- LEGEND**
- LESS THAN 0%
 - 0 TO 10%
 - 10 TO 20%
 - 20 TO 30%
 - OVER 30%



To accompany Geochemical, Geophysical Report on the Barb. B Judy Groups dated July 21, 1971 by M.S. Swanson, M.Sc., J.G. Simpson, Ph.D., P.Eng.

MAP No. 7		
BORONDA MINING CORPORATION LTD.		
NATION COPPER PROPERTY		
SHEET 1 - CHUCHI LAKE		
OMINECA M.D. BRITISH COLUMBIA		
E-M RONKA-16 SURVEY		
(FRASER FILTER CONTOURS)		
WORK BY	DRAWN BY	DATE
	ALTAIR	AUG - 1971

Map 8



N 70,000

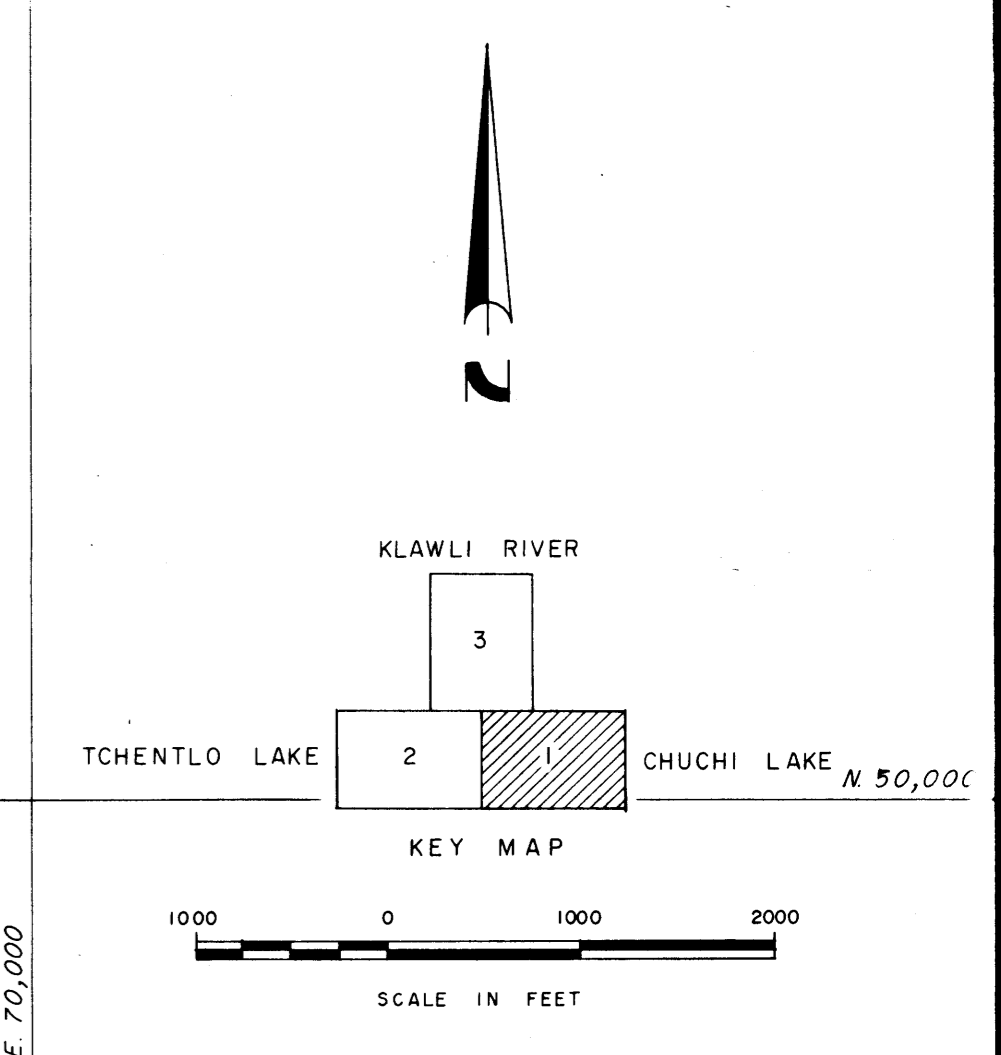
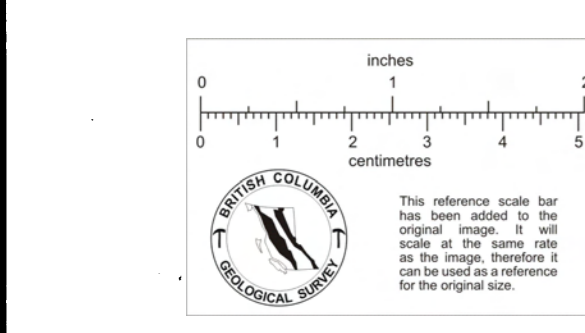
N 65,000

N 60,000

N 55,000

N 50,000

E 45,000
E 50,000
E 55,000
E 60,000
E 65,000
E 70,000



MAP No. 8

BORONDA MINING CORPORATION, LTD.

NATION COPPER PROPERTY
SHEET 1 - CHUCHI LAKE
OMINECA M.D. BRITISH COLUMBIA

**SOIL GEOCHEMISTRY
COPPER IN P.P.M.**

WORK BY	DRAWN BY	DATE
	ALTAIR	AUG - 1971

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