

4447

92L/HW

GEOLOGIC SURVEY

GEOCHEMICAL SURVEY

AND

GEOPHYSICAL SURVEY

FOR

FIRST NATIONAL URANIUM MINES LTD.

ON CLAIMS

EXCEL-EXCELSIOR & EXCEL 1-20.

IN THE

NANAIMO MINING DIVISION

OF

BRITISH COLUMBIA

MANNY CONSULTANTS LTD.

E. Amendolagine, P.Eng.

May 7, 1973

Department of  
Mines and Technical Resources  
A Division of  
NO. 4447 M.P.

### PROPERTY

The property consists of 22 contiguous mining claims known as EXCEL, EXCELSIOR, and EXCEL 1 to 20 inclusive located in the Nanaimo Mining Division of British Columbia.

<u>Name</u>	<u>Recorded No.</u>
EXCEL	33814
EXCELSIOR	33863
EXCEL 1 to 12	35057 to 35068 inclusive
EXCEL 13 & 14	35188 and 35189
EXCEL 15 to 20	35069 to 35074 inclusive

### LOCATION

The claims lie some 70 miles northwest of Gold River, some six miles north of the logging town of Nimpkish which is located at the south end of Nimpkish Lake and at 50°23' N. latitude and 126°57' W. longitude.

### ACCESS

Access is via Campbell River, Vancouver Island, some 57 miles west to Gold River on paved highway, then north some 70 miles on and all weather gravel logging road regulated by the Nimpkish Tree Farm licence, then some six miles north of the town of Nimpkish on the east shore of Nimpkish Lake.

### TOPOGRAPHY AND CLIMATE

The property lies on the east shore of Nimpkish with the topography rising from near sea level to some 3000 feet at the eastern extreme. The terrain is somewhat rugged. The area is covered by a dense mature west coast rain forest with almost jungle-like underbrush.

### GENERAL GEOLOGY

Ref. G.S.C., Memoir 272, Geology and Mineral Deposits of the Zeballos Nimpkish Area, Vancouver Island, B.C., by J.W. Hoadley and by Geological Reconnaissance Map of Vancouver Island and Gulf Islands, by J.E. Muller, 1971.

The general geology and sequence of formations for the area covering all the claims is the Carboniferous and Devonian (Sicker Volcanics) overlain by the Triassic Karmutsen Volcanics which are overlain by the Triassic Quatsino limestones which are overlain by the Bonanza sediments and flows which are all intruded by Jurassic Coast intrusives. The area is very high relief and rough topography. It is severely block-faulted.

LegendJurassicCoast Intrusions

Quartz diorite, granodiorite, quartz monzonite

Bonanza Volcanics

Andesite, dacite rhyolite tuff breccia,  
greywacke, argillite

TriassicQuatsino Limestones

Limestone, calcareous sitstone, greywacke,  
volcanic conglomerate.

Karmutsen Volcanics

Basalt, pillar lava, flow lava, breccia,  
diabase, gabbro.

CarboniferousDevonianSicker Volcanics

Meta andesites, dacites, tuffs, breccia green  
schist.

## PROPERTY EXAMINATION SURVEYS AND EVALUATION

The surveys and examination were carried out by Geologist, Peter Marshall and his assistant under the supervision of E. Amendolagine during the period of October 15th to November 22nd, 1972. They are:

### 1. EXCEL CLAIMS - NIMPKISH LAKE

#### GENERAL GEOLOGY

The excel claims straddle an embayment of the Coast Intrusives into the pre-existing Quatsino Formation to the north and the Karmutsen Group to the south.

Metasomatic magnetite with associated sulphides occur with skarn zones along the contacts of this embayment.

#### WORK DONE

A limited geologic mapping magnetometer survey and a limited number of geochemical soil samples were taken to test for geology, magnetite and copper mineralization. The control was a base line with survey lines spaced at 100 foot spacings.

DETAILED GEOLOGY

The area of interest is a skarn zone with associated metasomatic magnetite and sulphides along the contacts of the Coast Intrusive, into the pre-existing marbles of the Quatsino Formation, and the fine grained basalts of the Karmutsen Group.

The skarn zone, composed mainly of green calc-silicate minerals with pink grossularite garnets with lesser amounts of calcite, is often associated with epidote rich zones along the intrusive. The skarn appears to be fairly continuous along the contact, and in places appears to be over thirty feet wide.

Magnetite occurs as discrete massively crystalline bodies in places platy, and others very solid with only scattered vugs lined with magnetite octahedrons. These magnetite bodies appear to be a series of long lenses, in places up to 20 feet wide and over a hundred feet long with the long axis parallel the intrusive, and appear to dip away from the intrusive.

Magnetite also occurs as disseminated grains and aggregates in the skarns, and to a lesser degree into the host rocks.

Sulphides, both chalcopyrite and pyrite occurs both as veins in the magnetite bodies, and disseminated grains in the magnetite, and the skarns.

The largest and widest chalcopyrite sulphide vein mapped was five feet wide. It was traced for about twenty feet and lost in overburden. A similar occurrence was noted approximately one hundred feet and on strike measuring about three feet wide. The veins appear rich in chalcopyrite near the contacts and higher in pyrite content in the center. A chip sample across the vein gave an assay result of over 15.4% copper.

The chalcopyrite has re-acted with carbonates in the rocks in many locations to produce green malachite staining. This can be used in the field to locate the sulphides.

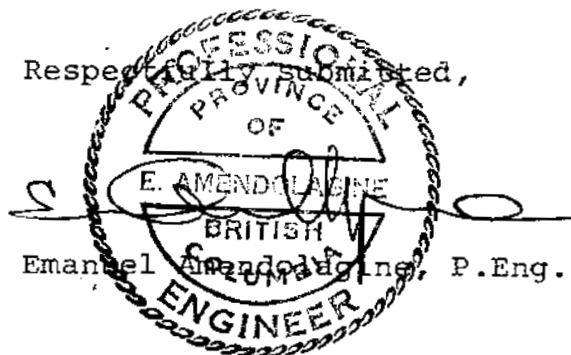
The attitude of the magnetite bodes and the skarn zone appears to dip away from the center of the intrusive, this coupled with the relatively flatly bedded host rocks, and intrusive point to a dome shaped intrusive body. The magnetic data also seems to indicate magnetite bodies under the Quatsino Formation. This is evident by a series of high, and low readings obtained over the limestone, which usually showed no evidence of alteration on the surface.

The magnetic readings range from -100,000 gammas to +85,000 gammas. The limited magnetometer survey indicated another magnetic zone some 600 feet to the south of the main zone on the Karmutsen contact with the intrusive. In this area the magnetic readings range from -2535 to +52460. gammas. This area should also be examined for mineralization.

#### CONCLUSION

The Excel-Excelsior group is the most impressive area. It requires a systematic survey consisting of magnetometer, geochemical soil sampling, limited induced polarization surveying and a geologic study of geology and mineralization. This would require a minimum of some 1500 feet of drilling to test the contact mineralized and altered zones.

This report was jointly written by the Geologist, Peter G. Marshall and Emanuel Amendolagine from information obtained from the period of October 15th, 1972 to November 22nd, 1972.

Respectfully submitted,  

 Emanuel Amendolagine, P.Eng.

MAY 7, 1973





ASSAYERS  
CHEMISTS  
GEOCHEMISTS

# CORE LABORATORIES LTD.

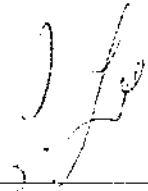
325 Howe Street Vancouver 1, B.C. Phone 688-3504

## Certificate of Analysis

REPORT NO.  
806

SAMPLE(S) FROM: MANNY CONSULTANTS  
4550 Harriet Street  
Vancouver, B.C.

SAMPLE NO.		Cu ppm
AL 1	BL	220
	1E	30
	2	58
	3	75
	4	69
	5	67
	6	47
	1W	147
	2	100
	3	60
	4	91
	5	85
	6	134
	7	93
AL 2	BL	38
	1E	70
	2	97
	3	280
	4	75
	5	91
	0.5W	175
	2W	112
	3	82
	4WA	15
	4WB	20
	4WC	335
	5	97
	6	122
A X	7	87
		45

DATE November 23/72 SIGNED 





ASSAYERS  
CHEMISTS  
GEOCHEMISTS

# CORE LABORATORIES LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

## Certificate of Analysis

REPORT NO.  
806

SAMPLE(S) FROM: MANNYH CONSULTANTS (PAGE 3)

SAMPLE NO.		Cu ppm
BL 1	18W	60
	19	63
	20	65
	21	64
	22	79
	23	67
	24	73
	25	81
	26	62
	27	83
	28	82
BL 2	1W	80
	2	101
	3	54
	4	69
	5	73
	6	83
	7	74
	8	73
	9	90
	10	64
	11	56
	13	55
	14	86
	15	52
	16	75
	17	80
	18	81
	19	32
	20	75

DATE November 23/72 SIGNED 



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CHEMISTS  
GEOCHEMISTS

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## Certificate of Analysis

REPORT NO.  
806

SAMPLE(S) FROM: MANNY CONSULTANTS (PAGE 4)

SAMPLE NO.	Cu ppm	
BL 2	21W	48
	22	69
BL 3	1E	73
	2	68
	3	10
	4	61
	5	57
	6	72
	7	61
	8	67
	9	63
	10	30
	11	36
	12	60
	13	52
	14	61
	15	42
EX	2N	114
	1N	32
	BL	50
	1S	285
	2	25
	3	8
	4	9
	5	9
	6	24
	7	27
	8	10
	9	36
	10	27

EXCEL claims

DATE November 23/72 SIGNED 



ASSAYERS  
CHEMISTS  
GEOCHEMISTS

# CORE LABORATORIES LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

## Certificate of Analysis

REPORT NO.  
806

SAMPLE(S) FROM: MANNY CONSULTANTS (PAGE 5)

SAMPLE NO.	Cu ppm
EX 11S	28
12	21
13	58
EX 113 BL	11
1S	19
2	23
3	28
4	19
5	21
6	25
7	28
8	75
9	43
10	48
11	87
12	128
13	331
14	89
15	24
16	211

*EXCEL claims*

DATE November 23/72 SIGNED [Signature]



ASSAYERS  
CHEMISTS  
GEOCHEMISTS

# CORE LABORATORIES LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

## Certificate of Analysis

REPORT NO.  
806

SAMPLE(S) FROM: MANNY CONSULTANTS (ASSAY)

SAMPLE NO.	Cu %
PM 972	.07
1072	.02
1172	.02
1372	.25
1472	15.40
1572	19.40
1672	15.20

DATE November 23/72 SIGNED 

## APPENDIX

### GEOCHEMICAL SURVEY

The geochemical soil survey was conducted by taking soil samples with a spade. The samples were taken below the humus (organic) layer, which was heavy in places, in a poorly developed grey soil. The samples were placed in paper bags and marked for location and shipped to professional assayers "Core Laboratories" in Vancouver. The method used for assaying for copper was hot  $\text{HNO}_3$ ,  $\text{HClO}_4$  decomposition and measured by atomic absorption.

R E S U M E

PETER G. MARSHALL

1. Reside in Vancouver at Buchan Hotel
2. Attended McMasters University in Hamilton, Ontario, majoring in geology-geography and that I am a language equivalent short of a degree.
3. That I have been employed as an exploration geologist since 1966 with the following companies:  
  
Sulmac Exploration; E.G. Kennedy Consultants;  
Canadian Industrial Gas and Oil;  
Catto Syndicate; Dominion Geophysics;  
Compaignie General de Geophysics; Manny  
Consultants Ltd.,
4. That I carried out a geophysical, geologic and geochemical survey on the Excel and Excelsior claims during the months of October to November, 1972.



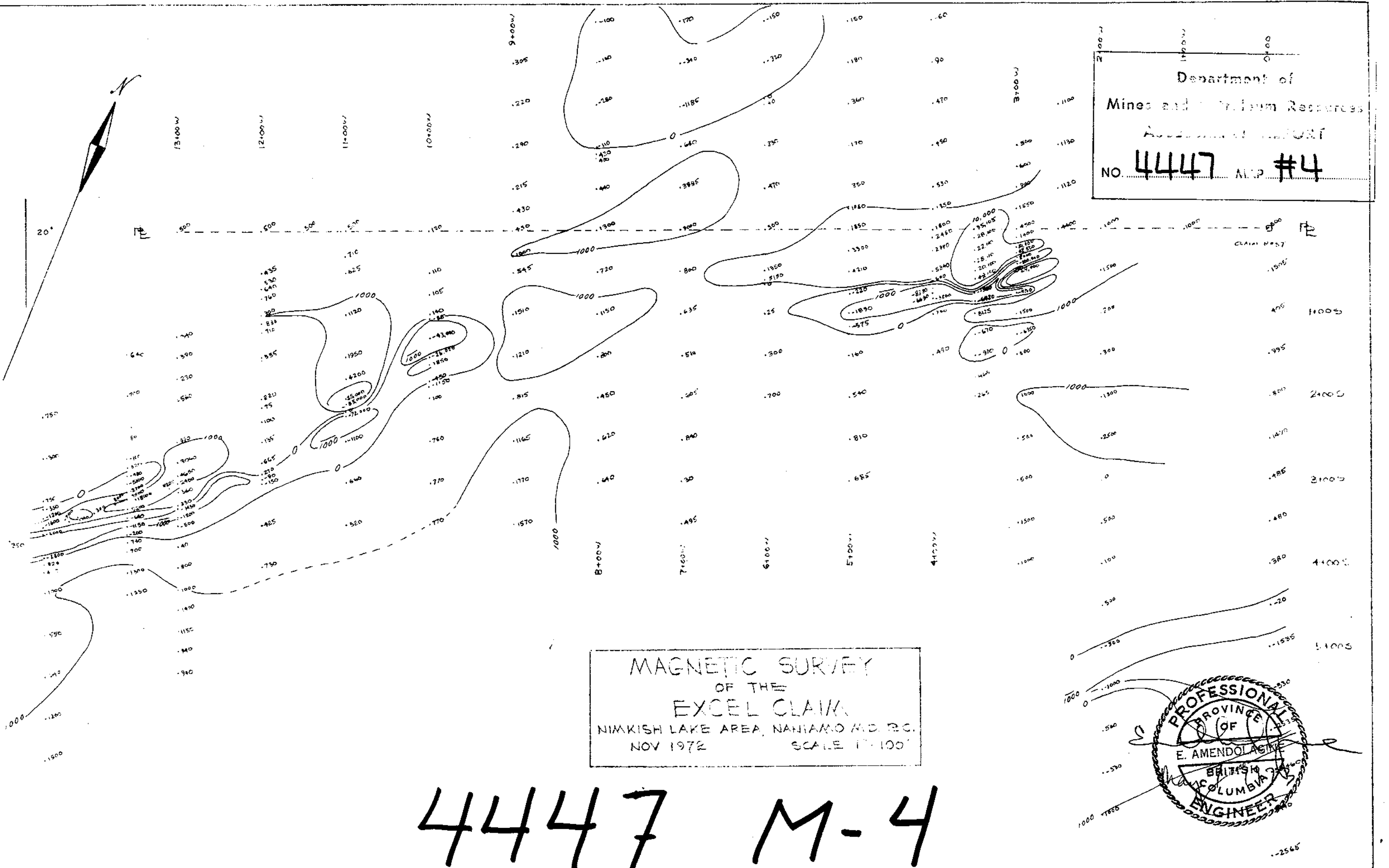
Peter G. Marshall  
Geologist

September 17, 1973

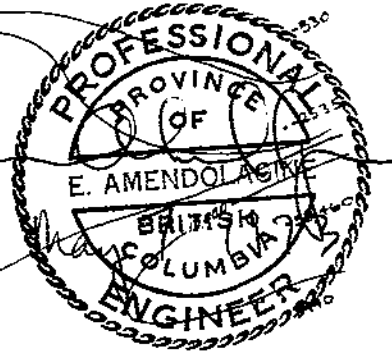




Department of  
 Mines and Technical Resources  
 Assessment Report  
 NO. **4447** M.P. #4



MAGNETIC SURVEY  
 OF THE  
 EXCEL CLAIM  
 NINKISH LAKE AREA, NANAIMO M.D. B.C.  
 NOV 1972 SCALE 1:100



4447 M-4

NORTH ISLAND HIGHWAY  
TO PORT McNEIL and BEAVER COVE BRITISH COLUMBIA

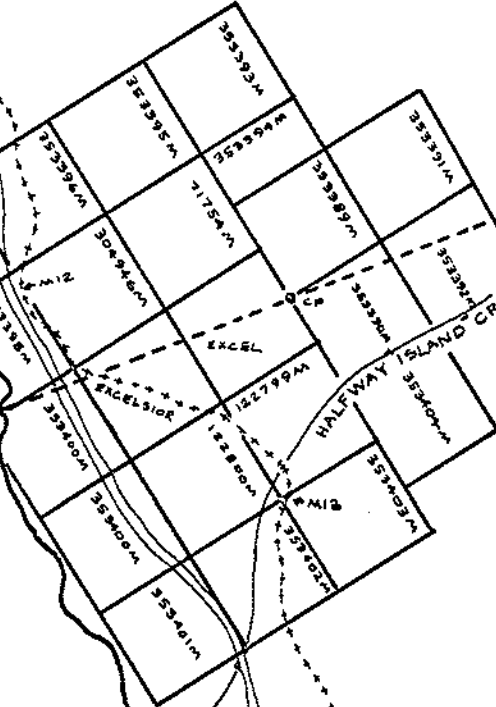
MID CANADA FOREST PRODUCTS RAILWAY  
10 MILES TO BEAVER COVE BRITISH COLUMBIA

Department of  
Mines and Technical Resources  
ANALYSIS OF CLAIMS  
NO. **4447** MAP #1



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NIMKISH LAKE



BASE LINE BEARING TO °

NOAMAS CREEK

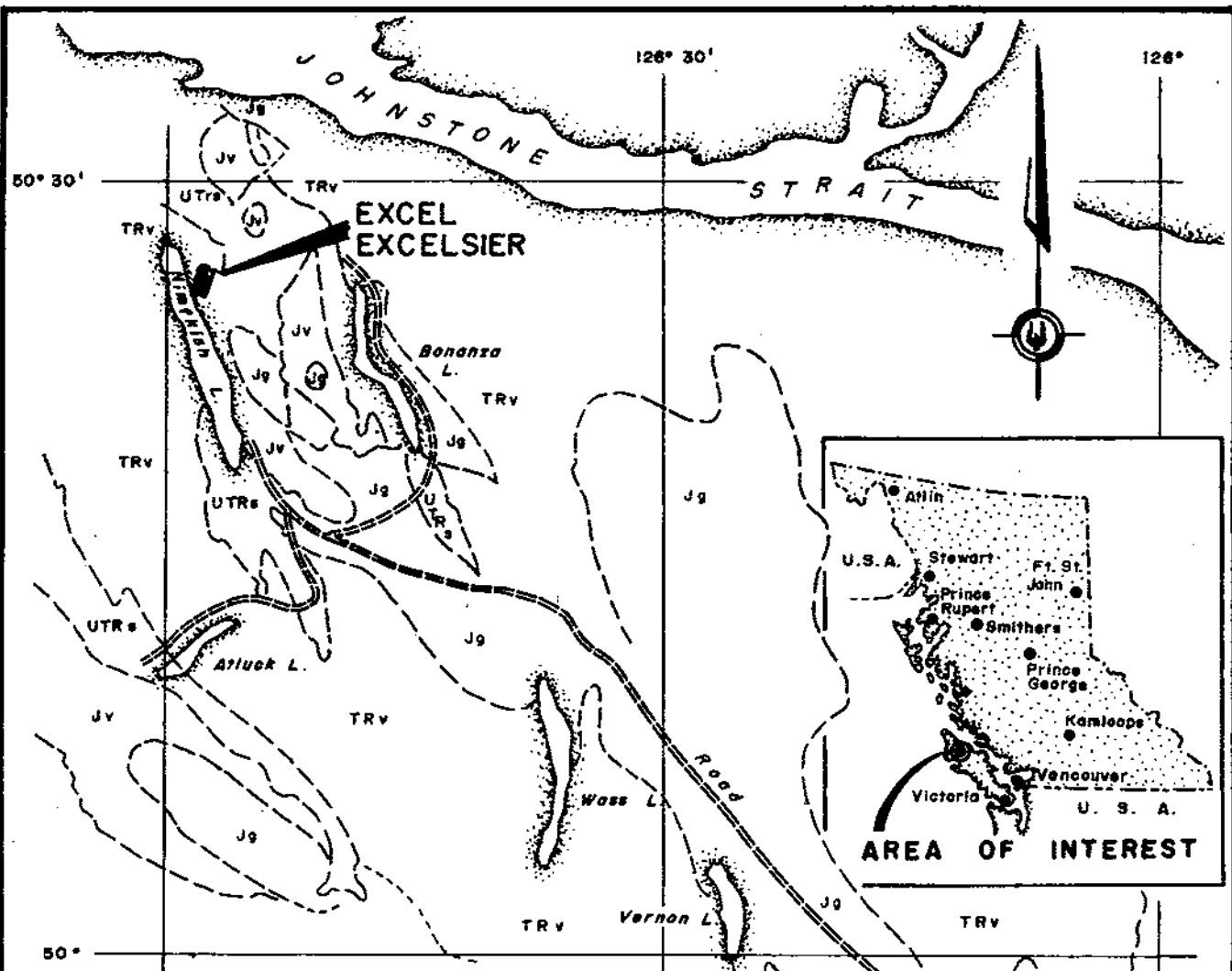
DETOUR ROAD  
BRIDGE CONSTRUCTION

*[Handwritten signature]*

MAP SHOWING LOCATION OF  
**EXCEL and EXCELSIOR CLAIMS**  
NANIAMO MINING DISTRICT  
VANCOUVER ISLAND, B.C.

BASE MAP TRACED FROM 40 CHAIN FORESTRY MAP  
R.G. MARSHALL OCT. 1973

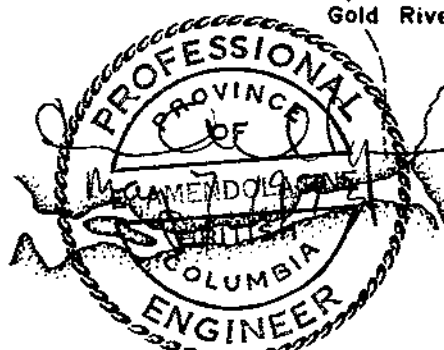
C.P.R.R.  
TO NIMKISH BRITISH COLUMBIA  
NORTH ISLAND HIGHWAY 2.5 MILES TO NIMKISH B.C.



**L E G E N D**

- JURASSIC**
- Jg Coast Island Intrusions
- Jv Bonanza Vol.
- TRIASSIC**
- UTR<sub>s</sub> Quartsino, Parson Bay
- TRv Karmutsen
- DEVONIAN**
- DC Slicker

FROM: Geol. Map Of Vancouver Island By: J.E. Muller. 1971

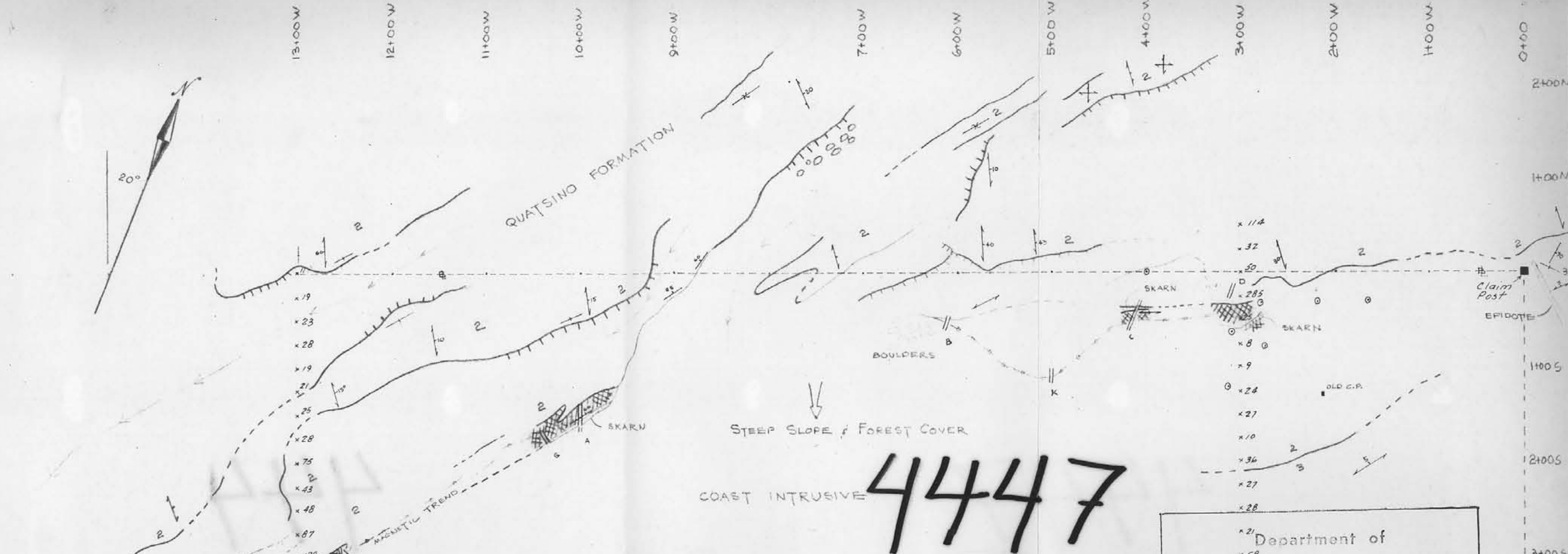


**FIRST NATIONAL URANIUM MINES LTD.**

SCALE AS SHOWN

ASSOCIATED DRAFTING LIMITED

To Accompany Report Property And Evaluation For: FIRST NATIONAL URANIUM MINES LTD. By: E. Amendolagine P.Eng.

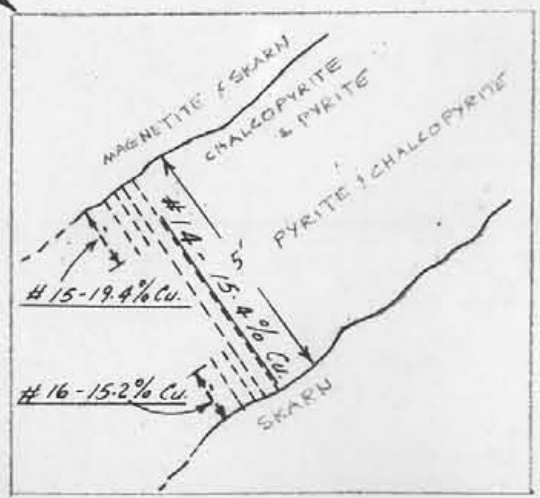


4447

M-3

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 4447 MAP #3

GEOLOGICAL MAP  
OF THE  
EXCEL CLAIM  
NIMKISH LAKE AREA, NANIAMO M.D., B.C.  
OCT - NOV 1972 BY R. MARSHALL  
SCALE 1" = 100'



CHANNEL SAMPLES  
TRENCH H

- LEGEND
- 3
  - EPIDOTE
  - SKARN
  - MAGNETITE
  - SULPHIDE VEINS
  - MARBLE
  - BASALT
  - BEDDING
  - MAIN FRACTURES
  - CLIFF
  - TRENCH
  - DRILL SITE
  - MAGNETIC TREND
  - BOULDERS
  - DRAINAGE TRENDS
  - x ppm Cu

GEOLOGY BY P.G. MARSHALL  
October and November  
1972

Formation names from G.S.C. Map 1029A Nimpkish Sheet  
H.C. Gunning 1929-31



KARLUTSEN  
FORMATION