GEOPHYSICAL SURVEY ON

CATFACE CLAIMS

1963

Vancouver, B. C.
February 19, 1964

H. S. Lazenby
Geologist

C O N T E N T S

Maps Accompanying Report

GEOPHYSICAL SURVEY ON CATFACE CLAIMS

1963

INTRODUCTION

The Catface mineral claims lie on the southwest end of the Catface peninsula, approximately 7 miles north of Tofino, B.C., in the Alberni Mining Division.

Between September 19 and December 12, 1963, a self potential survey was run covering three areas on the property. The areas include all or part of claims Catface #18, 19, 37, 38, 39, 40; Catface #3, 11; Catface #52, 53, 63, 65.

The work was done by a surveyor and specially qualified geophysical field operators with their respective helpers.

Lines trending E-W were cut through the bush and were surveyed by chain and transit. Together with the base lines, these lines total over 86,000 feet in length; approximately 66,000 feet in the A grid, 11,000 feet in the B grid, and 9,000 feet in the Hecate Bay grid. Their relation to the claim boundaries is shown on Fig. 4 accompanying this report.

METHOD OF SURVEY

The instrument used at Catface was a Sharpe S.P. infinite impedence unit, Type VP6, serial #102. It employs a moveable field electrode on a 2000 ft. cable.

A porous pot containing copper sulphate solution with a copper rod attached was placed in a hole at the base station, situated at the north end of the property. A second pot was placed in the same hole touching the first pot. The second pot was connected to the wire on

the reel and the first directly to the potentiometer.

The pot connected to the reel was then moved up a line and a station made at 25-foot intervals. At each station a small hole was dug in the overburden and the moving pot placed in the hole. The potentiometer was balanced and the reading recorded as indicated.

On each grid a base line was run first. The other lines were then run and tied into the base line with pot error taken into account. This ensured that the readings in all three grids were relative to the base station reading.

As close as possible, the work was done under constant weather conditions.

INTERPRETATION OF RESULTS

Reports by D. J. Salt, the company geophysicist, are enclosed, together with maps showing the position where each reading was made and the reading recorded.

STATEMENT OF WORK DONE

S. Presunka - Geophysical Operator 19 Sept. - 12 Dec., 1963	49 days @ $25.00	$ 1,225.00
W. R. Schwartz - Geophysical Operator 19 Sept. - 12 Dec., 1963	46 days @ $15.60	717.60
D. Randall - Operator's Helper 19 Sept. - 12 Dec., 1963	11 days @ $15.00	165.00
S. Papp - Operator's Helper 19 Sept. - 12 Dec., 1963	75 days @ $15.00	1,125.00
R. S. McBurney - Surveyor 19 Sept. - 12 Dec., 1963	75 days @ $15.60	1,170.00
C. Weir - Surveyor 19 Sept. - 12 Dec., 1963	9 days @ $15.60	140.40
H. S. Lazenby - Geologist 19 Sept. - 12 Dec., 1963	42 days @ $25.00	1,050.00
		$ 5,593.00

To be divided as follows:

A Grid	66,000 feet = 76.7%	$ 4,289.83
B. Grid	11,000 feet = 12.8%	715.90
Hecate Bay Grid	9,000 feet = 10.5%	587.27
		$ 5,593.00

Sworn and subscribed to
at Vancouver this 19th
-- day of Feb. 1964
before me -

H.S. Lazenby

Shirley Jeanrotte
Sub-mining Recorder

STATEMENT OF QUALIFICATIONS

Graduated B.A. in Geology from the University of B.C. in May, 1955.

PROFESSIONAL EXPERIENCE

1. 1955-1956 - Geologist, Rio Canadian Exploration Ltd., engaged in mineral exploration in B.C. and Quebec.

2. 1957 - Geologist, Rio Tinto Finance & Exploration Ltd., engaged in mineral exploration in British Guiana.

3. 1957-1960 - Geologist, Northspan Uranium Mines Ltd., Lacnor Mine - engaged in mapping, grade control, diamond drill supervision.

4. 1960-1964 - Geologist, Quebec Metallurgical Industries Ltd., Frobisher Ltd., Ventures Limited, Falconbridge Nickel Mines Limited, engaged in mineral exploration, in B. C.

H.S. Lazenby

Vancouver, B. C.
February 19, 1964.

H. S. Lazenby
Geologist.

FALCONBRIDGE NICKEL MINES LIMITED

CABLE ADDRESS
"FALCONBRIJ"

7 KING STREET EAST
TORONTO 1, CANADA

TELEPHONE
362-7292

February 6th,1964.

THE MINING RECORDER,
VANCOUVER, B.C.

Dear Sir:

This is to certify that I am a geophysicist; graduate of the Geophysics Option of the Engineering Physics Course at the University of Toronto in 1948.

I have been practicing in my profession since graduation as an employee of Mining Geophysics Corporation; Ventures Limited; Falconbridge Nickel Mines Limited; and for a period as consultant.

I am a member of the Society of Exploration Geophysicists, the European Association of Exploration Geophysicists, the C.I.M.M., C.E.G.S., and Professional Engineer registered with the Association as practicing member in the Provinces of Ontario and Manitoba.

Should there be any further questions as to the acceptability of my qualifications, I would appreciate hearing from you.

Yours very truly,

FALCONBRIDGE NICKEL MINES LIMITED

DJS/jl

.....

D. J. Salt
Chief Geophysicist

FALCONBRIDGE NICKEL MINES LIMITED

1112 WEST PENDER STREET

TELEPHONE
682-3868

VANCOUVER 1, B. C., CANADA

File #8549

February 19, 1964

The Mining Recorder,
Vancouver,
B. C.

Dear Sir:

This is to certify that the work and report of H. S. Lazenby of 19th February covering the geophysical survey of the Catface Claims #18, 19, 37, 38, 39, 40; 3, 11; 52, 53, 63, 65 was done under my supervision.

Mr. Lazenby is fully qualified as a geologist with 8 years' field and underground experience since graduation.

Mr. S. Presunka, a geophysical operator, has been employed by us in that capacity for 5 years.

Mr. W. R. Schwartz has been employed by us as a senior prospector and geophysical operator for the past 3 years.

The attached statement by Mr. D. J. Salt regarding his qualifications is certified as being correct.

Yours very truly,

FALCONBRIDGE NICKEL MINES LIMITED

Alex Smith

A. Smith, P. Eng.

AS:MH
Encl.

SELF-POTENTIAL SURVEY GP-6402

CATFACE COPPER MINES LIMITED,
TOFINO, BRITISH COLUMBIA 92-F-5

SUMMARY:

Numerous self-potential anomalies indicative of the presence of sulphides have been located in areas not yet explored. Further extensive exploration is warranted.

INTRODUCTION:

In 1962 self-potential surveying and magnetometer work was tried on the Catface property to outline the disseminated copper deposits presently being explored.

The self-potential method proved to be the most effective exploration tool to find the disseminated sulphides present in this area. It is also one of the cheapest method and least affected by topography.

LOCATION & ACCESS:

The property is located at tidewater on the west shore of Vancouver Island, and is presently accessible by boat from Tofino. The main showings etc., are only accessible by helicopter. The location is shown on maps attached to the main geophysical survey sheets.

METHOD & THEORY OF SURVEY:

The base pot was set up at a station on the base line and moving pot used to measure the potential at remote stations. The moving pot was attached to a reel of wire so that the base pot need not be moved often. This technique provides the most satisfactory results with the least chance of error.

The theory of the self-potential method has been covered many times and will not be repeated here.

Two grids were surveyed, one on each side of the drilled area. It would have been valuable to have the drilled area covered with the self-potential survey, but the topography would have made it extremely difficult to conduct if not impossible.

Several reconnaissance traverses were made along logging roads, trails and creek valleys, to locate any further deposits of copper mineralization.

GEOPHYSICAL INTERPRETATION:

The results along the roads show the presence of other areas of mineralization. These are indicated as A-1, A-2 etc. There is one positive anomaly shown as A-4. This is probably associated with mineralization and is positive because the sulphides are up the slope from this point.

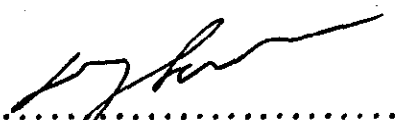
The other two survey areas completed show by the presence of the broad self-potential anomalies that there could be a very large area underlain with sulphides. These areas are outlined on the enclosed maps.

CONCLUSIONS & RECOMMENDATIONS:

The entire Catface property should be covered by detailed self-potential survey, wherever the topography permits.

The entire interpreted sulphide bearing area should be drilled to verify the presence of sulphides and check the grade.

Respectfully submitted,



DJS/jl
January 10th, 1964.

D.J. Salt

Self-Potential Survey GP-6404

CATFACE COPPER MINES LIMITED
HECATE BAY SHOWING, BRITISH COLUMBIA 92-F-5

SUMMARY:

An unusual positive anomaly has been located which could indicate the lower end of a mineralized zone. The mineralized zone should lie below the surface and up-hill from this zone.

One drill hole is recommended.

INTRODUCTION:

A self-potential survey was conducted on the Catface property in the vicinity of Hecate Bay. The survey was conducted under the supervision of H. S. Lazenby.

GEOPHYSICAL INTERPRETATION:

There was one zone of high positive values. Normally high positive values are of no interest but, in mountainous country, it is conveivable that a high positive value might occur on the lower pole of a sulphide ore body. To test this hypothesis it will be necessary to drill a vertical hole up-hill from the zone. A location has been selected and shown on the map.

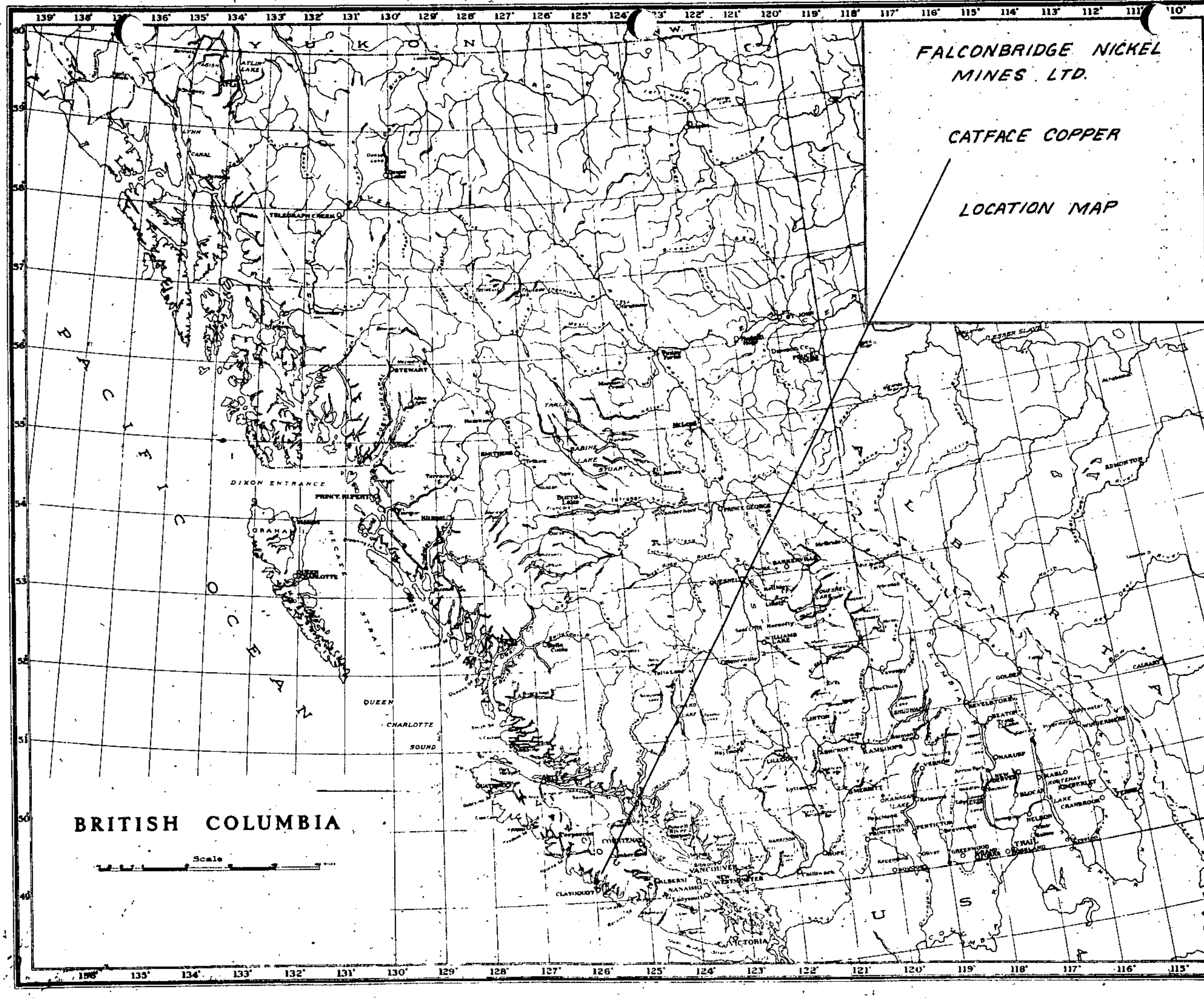
CONCLUSIONS & RECOMMENDATIONS:

It is recommended that one vertical hole to a depth of 500 feet be drilled in the location shown on the accompanying map, to determine if the high positive zone does represent sulphides, and if so to determine some idea of grade.

Respectfully submitted,

.....
D. J. Salt

DJS/jl
January 21st, 1964


FALCONBRIDGE NICKEL MINES LTD.
CATFACE COPPER
LOCATION MAP
BRITISH COLUMBIA
Scale
PACIFIC OCEAN
DIXON ENTRANCE
QUEEN CHARLOTTE SOUND
VANCOUVER
VICTORIA
CLAYOQUOT
PRINCE GEORGE
EDMONTON

541

CATFACE CLAIMS

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 541 MAP 2

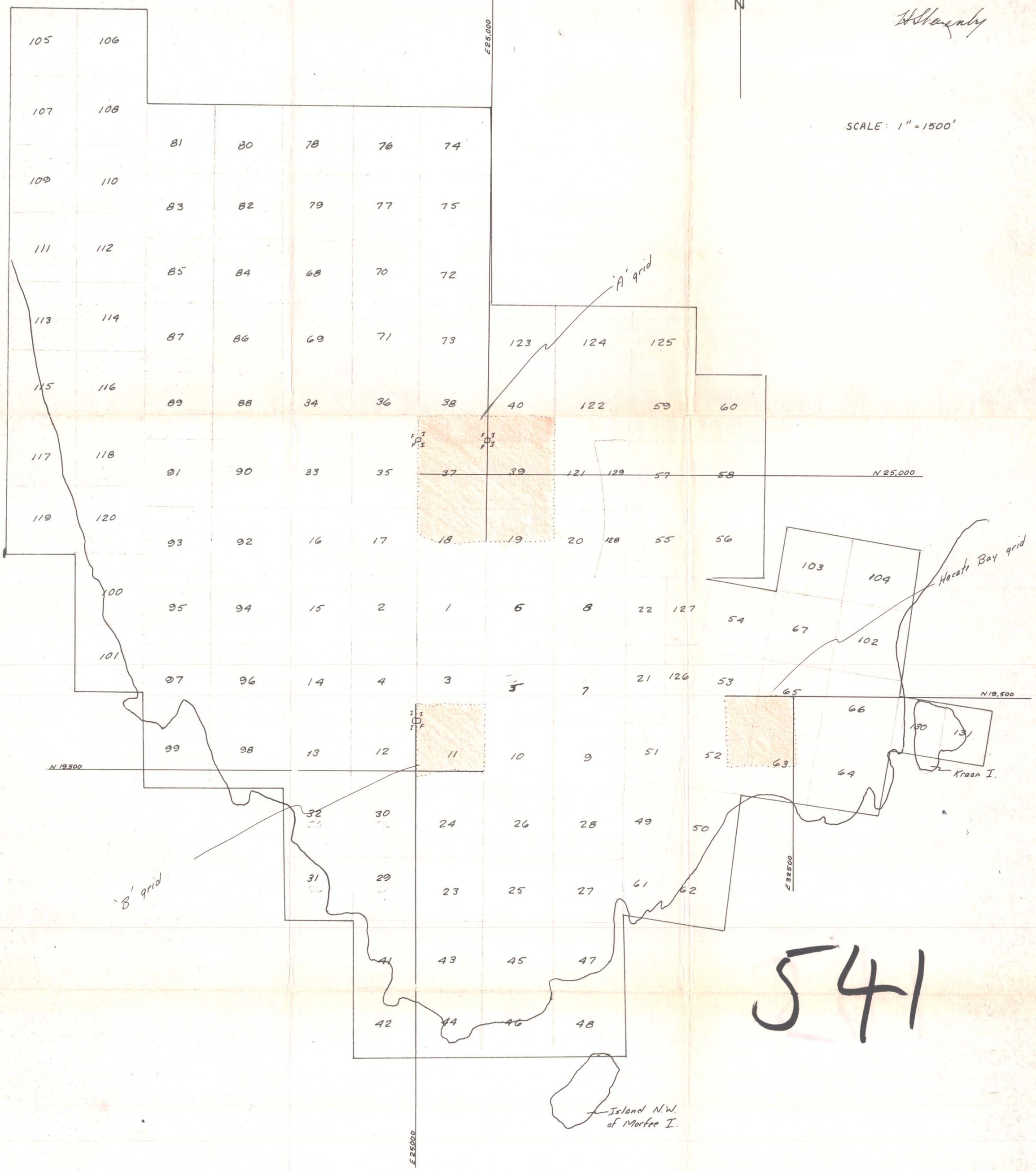
Fig. 4.

Map to accompany report by H.S. Lazenby on geophysical survey of part of 'Catface' claims, Catface peninsula, Alberni M.D., dated 10 February, 1964.

H.S. Lazenby

N

SCALE: 1" = 1500'



541

MAP CF 62-G

M2

CATFACE COPPER MINES LIMITED

RECONNAISSANCE

SELF · POTENTIAL SURVEY

Map to accompany report by H.S. Lavendy on geophysical survey of part of 'Catface' claims, Catface peninsula, Alberni M.D., dated 10 Feb., 1964

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 541 MAP 3

A-1 A-2 A-3 A-4 A-5 A-6 A-7 A-8

'Y' Line 'Z' Line 'X' Line 'W' Line

Relative Self Potential in millivolts. (Values are negative unless shown otherwise)

HECATE BAY

Kraan Island

Indian Reserve No. 18

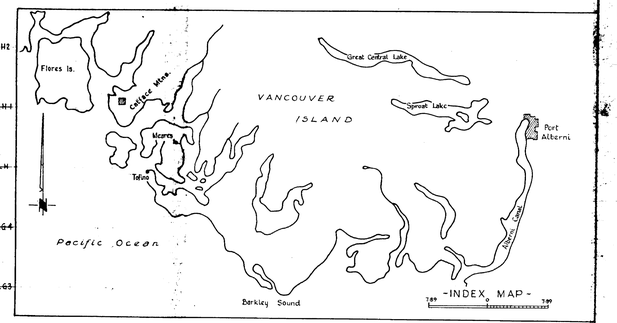
FALCONBRIDGE NICKEL MINES LIMITED

CATFACE MOUNTAIN SHOWING

M3

L-K
L-J2
L-J1
L-J
L-I4
L-I3
L-I2
L-I1
L-I
L-H4
L-H3
L-H2
L-H1
L-H
L-G4
L-G3
L-G2
L-G1
L-G
L-F4
L-F3
L-F2
L-F1
L-F
L-E4
L-E3
L-E2
L-E1
L-E

INTERPRETED AREA OF MINERALIZATION



Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 541 MAP 4

Map to accompany report by H.S. Lazenby on geophysical survey of part of 'Catface' claims, Catface peninsula, Alberni M.D. dated 19 February, 1964

LEGEND

59 / 21 — RELATIVE SELF POTENTIAL IN MILLIVOLTS (Values are negative unless shown otherwise)

CONTOUR INTERVAL 25 MILLIVOLTS

NEGATIVE DEPRESSION

FALCONBRIDGE NICKEL MINES LTD.

CATFACE AREA - TOFINO - BR. COLUMBIA

'A' - GRID

SELF POTENTIAL SURVEY

100 50 0 100 200 300 400 500
FEET

OCTOBER, 1963

AREA OF INTERPRETED MINERALIZATION

L-Z

L-Y

L-X-3'

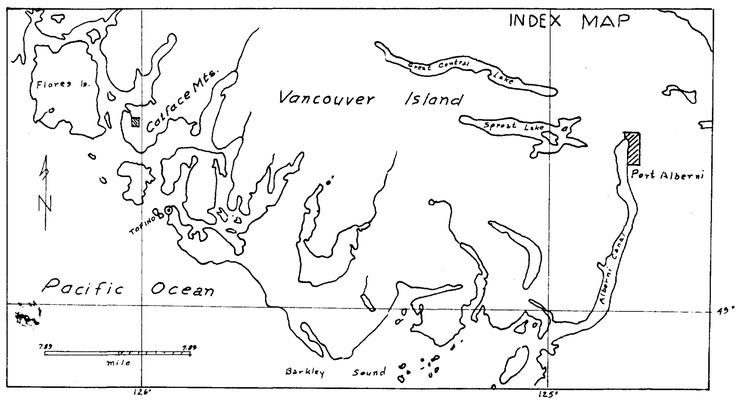
L-

L-

Logging Road

Self Potential profile 1" = 100 millivolts

Pace and compass



LEGEND

RELATIVE SELF POTENTIAL IN MILLIVOLTS (Values are negative unless shown otherwise)

CONTOUR INTERVAL 25 MILLIVOLTS

NEGATIVE DEPRESSION

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 541 MAP 5

Map to accompany report by H.S. Lozanby on geophysical survey of part of 'Catface' claims, Catface peninsula, Alberni M.D., dated 19 February, 1964.

FALCONBRIDGE NICKEL MINES LTD.

CATFACE AREA - TOFINO - BR. COLUMBIA

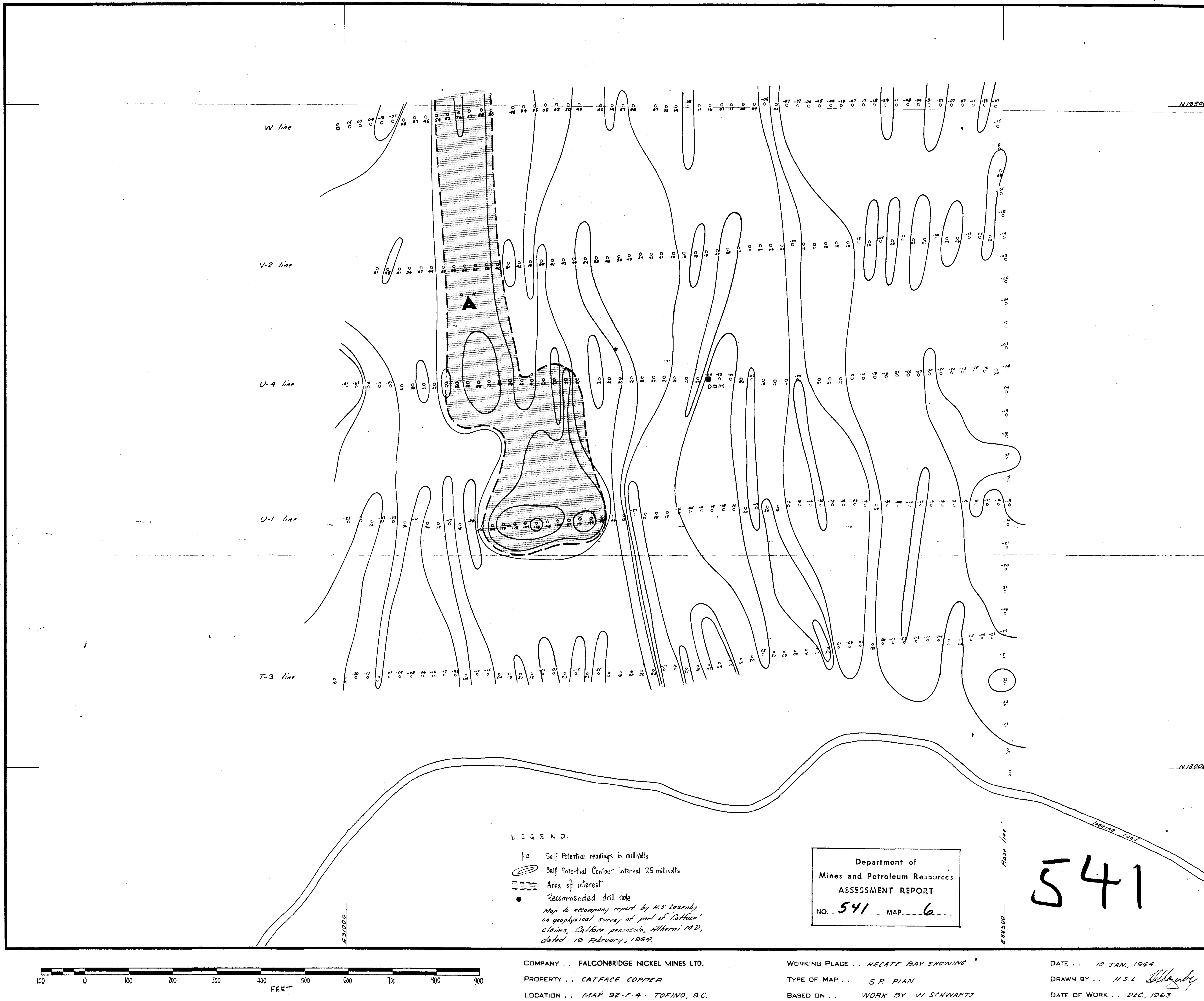
'B' - GRID

SELF POTENTIAL SURVEY

100 50 0 100 200 300 400 500

FEET

OCTOBER, 1963


MAP REF. NO.: Hecate Bay S.P.
M5
W line
V-2 line
U-4 line
U-1 line
T-3 line
"A"
D.D.H.
N19500
N18000
E31000
E32500
Base line
logging road
LEGEND.
Self Potential readings in millivolts
Self Potential Contour interval 25 millivolts
Area of interest
Recommended drill hole
Map to accompany report by H.S. Lazenby on geophysical survey of part of 'Catface' claims, Catface peninsula, Alberni M.D., dated 19 February, 1964.
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 541 MAP 6
541
100 0 100 200 300 400 500 600 700 800 900
FEET

COMPANY .. FALCONBRIDGE NICKEL MINES LTD.
PROPERTY .. CATFACE COPPER
LOCATION .. MAP 92-F-4 TOFINO, B.C.

WORKING PLACE .. HECATE BAY SHOWING
TYPE OF MAP .. S.P. PLAN
BASED ON .. WORK BY W. SCHWARTZ

DATE .. 10 JAN., 1964
DRAWN BY .. H.S.L.
DATE OF WORK .. DEC., 1963