

ASSESSMENT REPORT  
on a  
GEOPHYSICAL SURVEY

LOG NO: <i>April 9/91</i> RD.
ACTION:
FILE NO:

Conducted on the  
Clinton Claims  
NTS 92P/2W  
Clinton Mining Division  
Lat.  $51^{\circ} 09'$  Long.  $120^{\circ} 54'$

Owned by  
Charles Boitard

Operated by  
Menika Mining Ltd. (N.P.)

Author:  
John P. La Rue  
Lillooet, B.C.  
December 20, 1990

LOGICAL BRANCH  
ASSESSMENT REPORT

21,187

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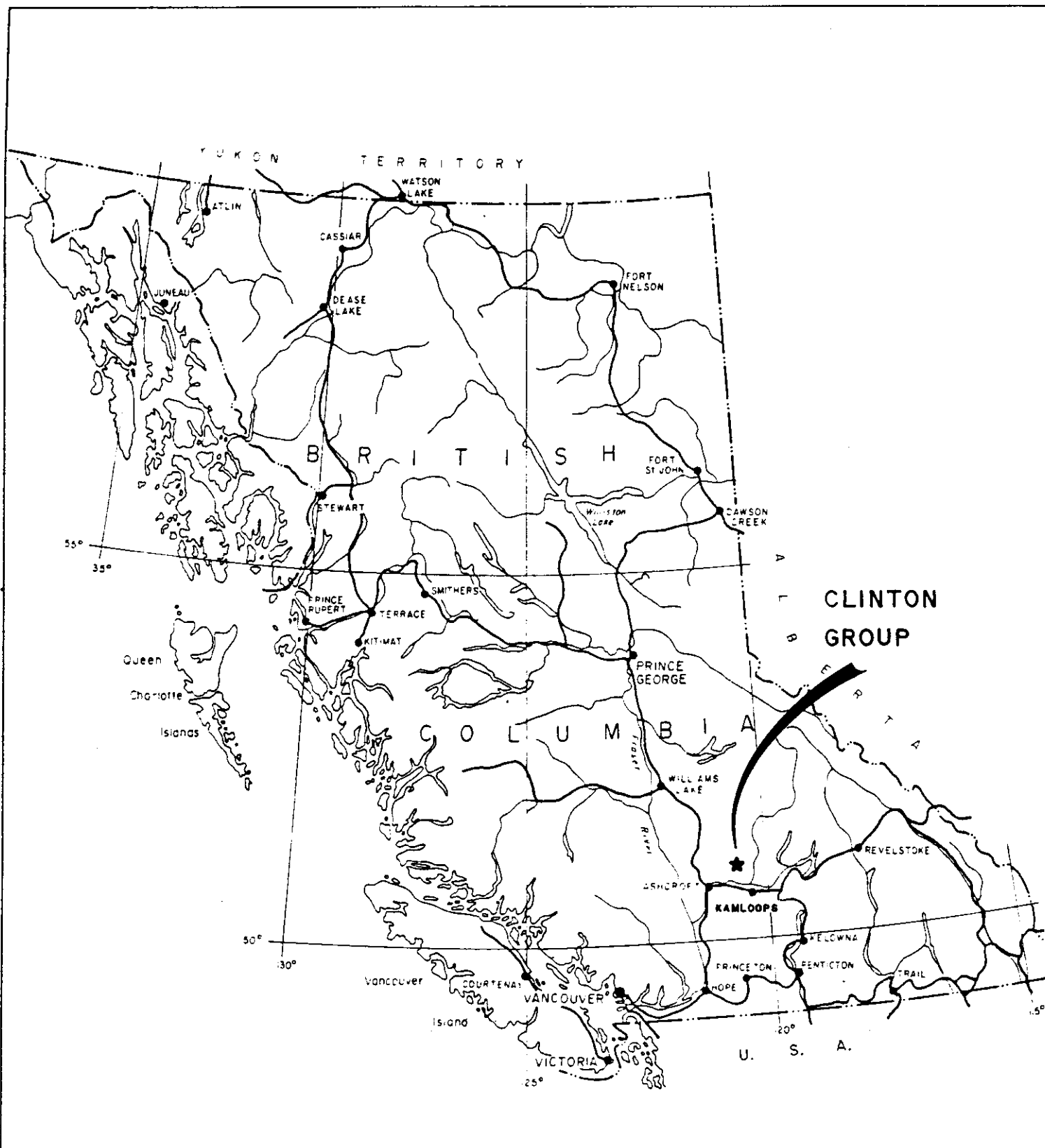
Figure 1	Location Map	
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INTRODUCTION

(i) The Clinton Group is comprised of 8 claims, located in south central British Columbia, 65 kilometers northwest of Kamloops and 48 kilometers north of Savona. The property adjoins the west side of Vidette Lake. Latitude  $51^{\circ} 09'$  Longitude  $120^{\circ} 54'$  Access to the property is via a good forestry maintenance road which connects Loon Lake to the Deadman Valley. The road to the Clinton Claim Group leaves the main road at Kilometer 33 approximately one kilometer north of Moose Creek and parallels the Deadman Valley on the west bench.

The claims lie at an approximate elevation of 960 meters, the property has been partly logged by selective method and has many trails and access roads Vidette Lake adjoins the west side of the property, this represents a reserve of water for any type of exploration. (figure 1)

(ii) The Clinton Group comprised of 8 claims representing 29 units is owned by Charles Boitard of Vancouver and operated by Menika Mining Ltd. (N.P.L.)



CLINTON GROUP

# LOCATION MAP

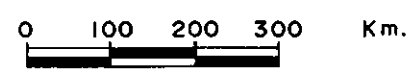
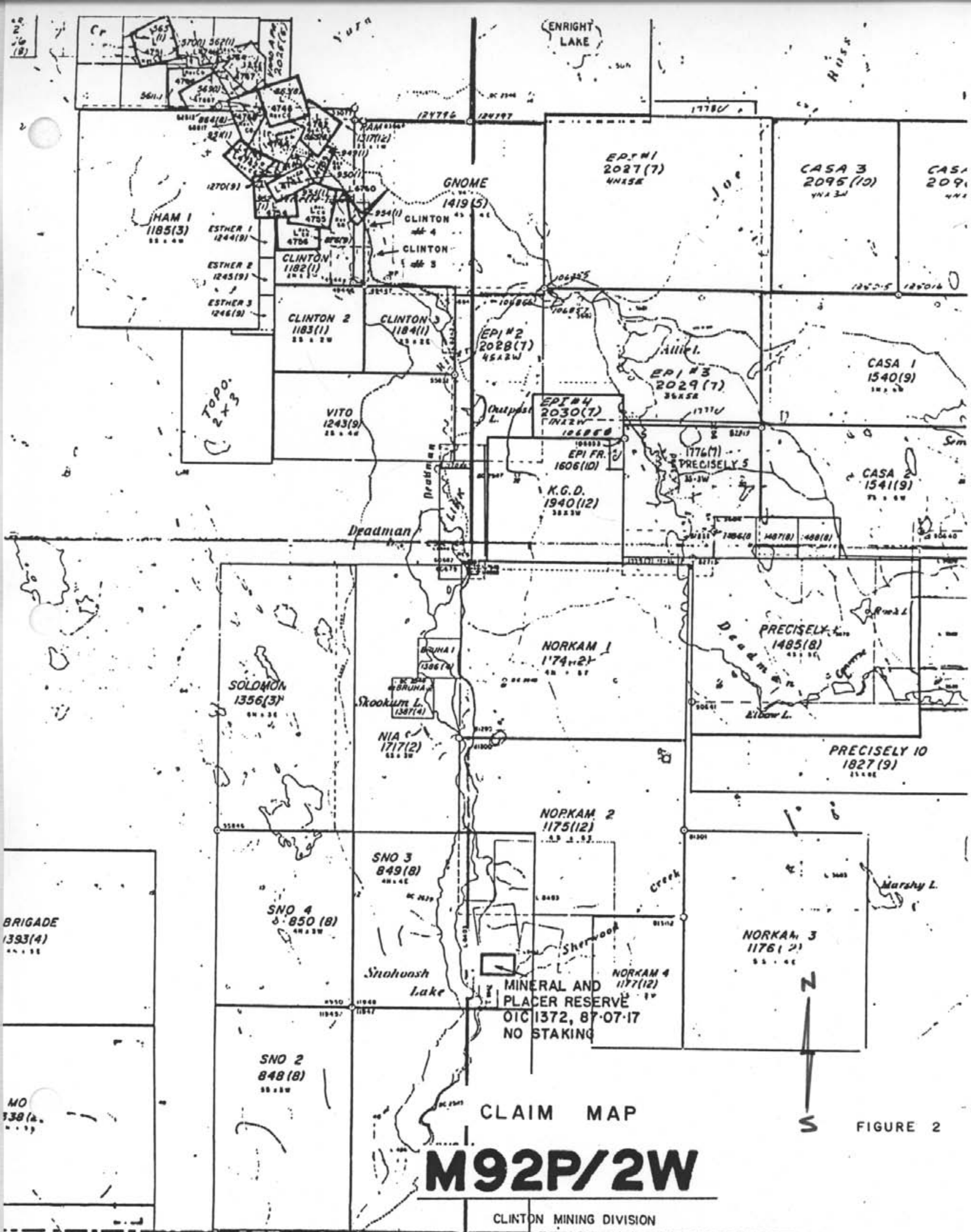
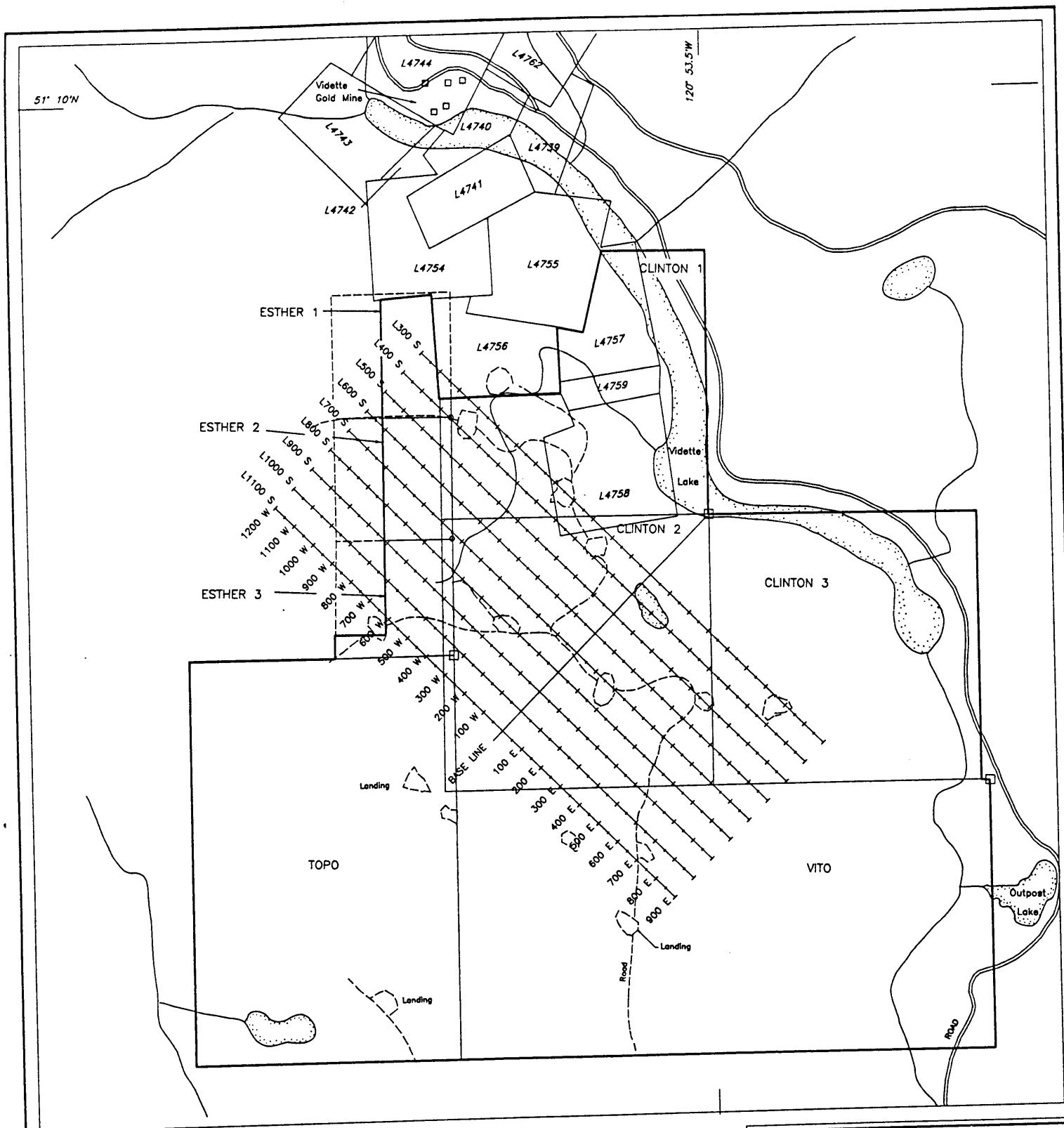


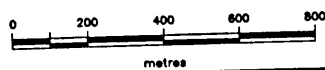
Fig 1





**LEGEND**

- CLAIM POST
- LEGAL CORNER POST
- L4760 CROWN GRANT CLAIMS



CLINTON CLAIM GROUP  
CLINTON M.D.

**CLAIM LOCATION MAP**

SCALE: 1:10,000	DATE: MARCH '91	N.T.S. 92P/2W	DRAWN BY GEO-COMP	FIGURE: 3
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<u>NAME</u>	<u>UNITS</u>	<u>RECORD #</u>	<u>EXPIRY DATE</u>
Clinton #1	4	1182	Jan. 12, 1992
Clinton #2	4	1183	Jan. 12, 1992
Clinton #3	4	1184	Jan. 12, 1992
Vito	8	1243	Sep. 20, 1992
Esther #1	1	1244	Sep. 20, 1992
Esther #2	1	1245	Sep. 20, 1992
Esther #3	1	1246	Sep. 20, 1992
Topo	6	2182	Apr. 15, 1992

The expiry date shown above includes the assessment work presented in this report.

(iii)

GEOLOGY

The Vidette Lake area is underlain mainly by plateau basalts of Miocene and pliocene age. These basalts have been cut by the Deadman River to expose Upper Triassic Nicola Group volcanic rocks and related intrusions. The intrusives consist of dykes and small plugs of feldspar porphyry varying from granitic to monzonitic in composition.

Gold mineralization in the Vidette Lake area consists of narrow, but fairly continuous, quartz veins in greenstone of the Nicola Group. The veins strike northwesterly and dip 45 to 70 degrees to the northeast. They are fissure fillings that may or may not be

accompanied by wall rock shearing. Mineralization consists of quartz and pyrite, chalcopyrite and local tellurides. High grade gold values occur with chalcopyrite in shoots averaging 36 centimeters in width. Post-mineralization faults generally strike east-west, northwest and northeasterly (from Cockfield, 1935 and Stevenson, 1936).

#### Detailed Geology

The Clinton claims are underlain by Nicola Group volcanic rocks, consisting of grey to green, augite andesite. Hornblende monzonite - quartz monzonite has been noted as float and in sub-outcrop. Plateau basalts occur along the west side of the claims. Fracture controlled pyrite and local shearing has been noted in the andesite. Allen (1982) proposes that the Vidette Lake valley is a major structure which would parallel vein structures in the Vidette mine. He also suggests that the small gully, in the southeast corner of the Clinton 1 claim, is a fault, as some geochemical and geophysical features are terminated or offset near it.

Pyrite is widespread on the claims, being up to 7% of the andesite and quartz monzonite. It occurs as fracture filling and disseminations. Chalcopyrite and malachite occur as minor constituents in fractures.



Quartz veins are reported up to 20 centimeters wide. They are irregular, steeply dipping, trend north-westerly, and contain minor pyrite. More commonly the veins are 0.1 to 5 centimeters wide, and barren (from: Allen, 1982).

### History

The area has been mapped by the Geological Survey of Canada, Cockfield (1935) and Campbell and Tipper (1971). The B.C. Ministry of Mines refers to the area on several occasions because of the former Vidette Gold Mine, Stevenson (1936) and Mitchell (1939, 40).

The old Vidette Lake Gold Mine located 1.4 km. to the northwest, produced approximately 30,000 oz. of gold from 49,000 tonnes of ore between 1930 and 1940. Gold mineralization at the Vidette Mine consists of narrow, but fairly continuous, quartz veins in greenstone of the Nicola Group.

Portions of the property were mapped and tested by soil-sampling, geochemistry and an induced polarization survey in 1982. In 1983 an access road was constructed and four diamond drill holes were completed. In 1987 three diamond drill holes were completed to further test a coincidental I.P. and geochemistry anomaly.

- (iv) 2.6 km. of survey grid were established in preparation for the I.P. Survey. The work was completed with hip chain and compass, the survey lines established by blazing the trees, and the stations marked with flagging.
- 1.8km. of I.P. survey was carried out on November 11 and 12, 1990, on the Clinton #2 and Clinton #3. The I.P. Survey consisted of 35 readings taken at 50 meter intervals.
- (v) The I.P. work for assessment purposes was carried out on approximately 10% of the Clinton #2 and the Clinton #3 Mineral Claims.

DETAILED TECHNICAL DATA AND INTERPRETATION

Starting from the Clinton LCP, 800 meters of base line were established in the southwest direction ( $225^{\circ}$ ), the line was blazed and flagged at 100 meter intervals.

The lines 300S and 400S in the southeast direction ( $235^{\circ}$ ) were blazed and flagged at 50 meter intervals. The I.P. Survey was carried out with a Sabre instrument, Model 21, frequency domain 0.3, 10.0Hz.

1.8km of induced polarization survey was completed consisting of 35 readings.

The readings were taken at 50 meter intervals with a dipole-dipole array of 50 meter separation between the transmitter and receiver  $n=1$ .

The survey was carried out for a total distance of 1.8 km. on lines 300S and 400S (figure 3).

The purpose of the induced polarization survey was to locate fracture filling or disseminated sulphides which could be associated with sulphides of economic value.

It appears that the survey carried out on lines 300S and 400S represent background only. (figure 4 & 5).

The following notes on the theory and method of field operation for the Induced Polarization method are taken from context of a geophysical report completed for McPhar Geophysics by Phillip G. Hallof, Ph.D. (Geophysics)

"Induced Polarization as a geophysical measurement refers to the blocking action or polarization of metallic or electronic conductors in a medium or ionic solution conduction. This electrochemical phenomenon occurs wherever electrical current is passed through an area which contains metallic minerals such as base metal sulphides. Normally when current is passed through ground, as in resistivity measurements, all of the conduction takes place through ions present in the water content or the rock, or soil, i.e. by ionic conduction. This is because almost all minerals have a much higher specific resistivity than water. The group of minerals commonly described as 'metallic' however, have specific resistivities much lower than ground waters. The Induced Polarization effect takes place at those interfaces where the mode of conduction changes from ionic in the solutions filling the interstices of the rock to electronic in the metallic minerals present in the rock. The blocking action or induced polarization mentioned above, which depends upon the chemical energies necessary to allow the ions to give up or receive electrons from the metallic surface, increases with the time that a d.c. current is allowed to flow through the rock; i.e. as ions pile up against the metallic interface the resistance to current flow increases. Eventually, there is

enough polarization in the form of excess ions at the interfaces, to appreciably reduce the amount of current flow through the metallic particle. This polarization takes place at each of the infinite number of solution-metal interfaces in a mineralized rock... when the d.c. voltage used to create this d.c. current flow is cut off, the Coulomb forces between the charged ions forming the polarization cause them to return to their normal position.

INSTRUMENT

The survey was conducted with a Sabre Model 21, Induced Polarization unit system. This equipment is designed to measure the I.P. effect in the frequency domain using 0.3Hz. and 10Hz.

The current is provided by a battery connected to the transmitter which is transformed with an output capacity of 100 to 500 volts, at a minimum of 100 milliamperes, according to the setting. The frequency is 10Hz and 0.3Hz.

The receiver is a sensitive A.C.-D.C. millivolt meter with a circuit capable of measuring small voltage deviation, measured as a percent change, is read directly as % frequency effect.

The apparent resistivity at each setup is calculated using the following formula:

$$2 \pi \frac{V}{I} (x) (G)$$

$$2 \pi \quad 2.68$$

V = millivolts

I = milliamperes

X = electrode spread

G = geometric constant

$$G = n1 = 3$$

$$G = N2 = 12$$

$$G = n3 = 30$$

$$G = n4 = 60$$

$$\text{MV} \times \frac{\text{spread} \times G \times 2.68}{\text{M.A.}} = \text{ohm meters}$$

SUMMARY

It is assumed that the gold and copper geochem outlined in the 1982 survey, could come from a mineralized zone on the plateau. However, the I.P. results carried out on Lines 300S and 400S of the eastern grid shown on maps # 4 and 5 of this report represent only background values.

STATEMENT OF COSTS

Detailed statement of costs and expenses incurred on the Clinton #2 and Clinton #3 Mineral Claims on Nov. 11 & 12, 1990. in the Clinton Mining Division.

Establishing a survey grid from the LCP  
Base line blazed and flagged at 100 meter spacing  
from the LCP to 800 southwest.  
The survey line 300S and 400S were blazed and flagged  
at 50 meter intervals, and have been partly cut to  
facilitate the carrying of survey equipment.

Establishing the grid mention above 3 men days	\$ 375.00
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1800 meters of I.P. survey carried at 50 meter intervals on Line 300 and 400 South all inclusive, rental, transportation, board and room \$2,000 per km.	3,600.00
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Drafting	700.00
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Typing and copying	200.00
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Report	<u>750.00</u>
	\$5,625.00

Respectfully submitted,

Charles Boitard



# MALASPINA COLLEGE

## Statement of Course Completion

JOHN P. LARUE

has

Successfully Completed 180 Hours of Instruction  
in

MINERAL EXPLORATION FOR PROSPECTORS

PRESENTED BY B.C. MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES  
B.C. MINISTRY OF EDUCATION

APRIL 16 to 30, 1983 - MESACHIE LAKE, B.C.

MAY 2, 1983

Dated at Nanaimo,  
British Columbia, Canada



Malaspina  
College

Director / Dean

Registrar

Instructor

REFERENCES

- Cockfield, W. E. (1935) B.C. Geol. Survey of Canada Memoir 179
- Stevenson, J. S. (1936) Vidette Lake Area in Min. of Mines Annual Report
- Allen, D. G. (1982) I.P., Geological & Geochemical Report
- Morris, R. J. (1987) Diamond drilling report



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

21,184 VITO

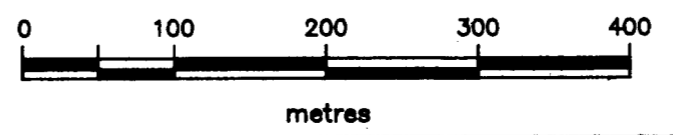
TOPO



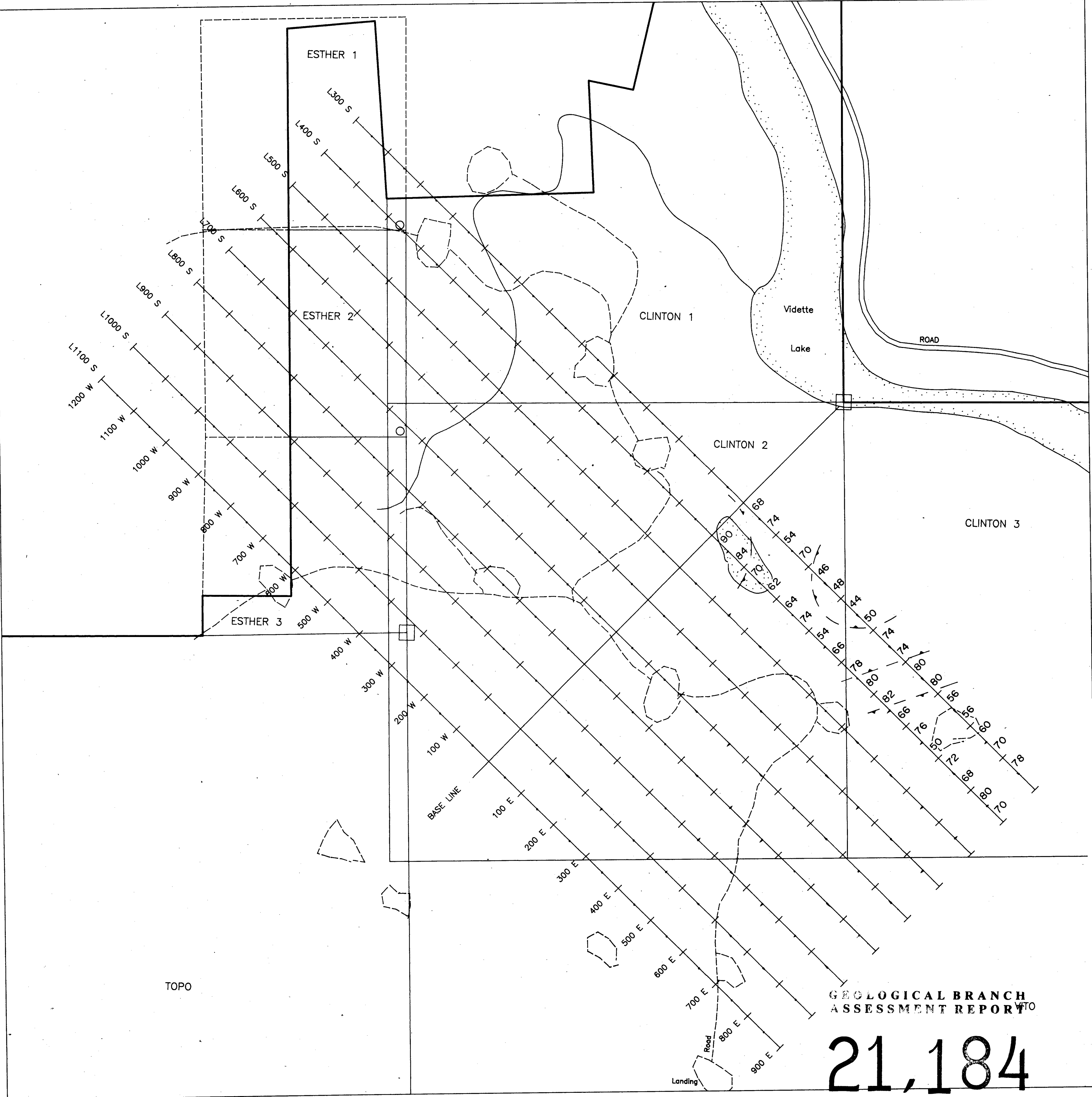
**LEGEND**

- CLAIM POST
- LEGAL CORNER POST

Instrument: Sabre Model 21  
 Type: Frequency  
 Frequency: 0.3 & 10.0 hz  
 Array Dipole: dipole-dipole  
 Electrode spacing: 50 metres  
 Dipole Separation: n=1, 50 m



<b>CLINTON CLAIM GROUP</b>				
CLINTON M.D.				
<b>INDUCED POLARIZATION SURVEY</b>				
<b>FREQUENCY EFFECT %</b>				
SCALE: 1:5,000	DATE: MARCH '91	N.T.S. 92P/2W	DRAWN BY GEO-COMP	FIGURE: 4

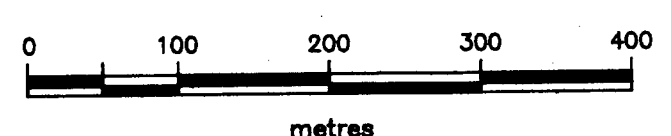


GEOLOGICAL BRANCH  
ASSESSMENT REPORT

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**LEGEND**

- CLAIM POST
  - LEGAL CORNER POST
- Instrument: Sabre Model 21  
 Type: Frequency  
 Frequency: 0.3 & 10.0 hz  
 Array Dipole: dipole-dipole  
 Electrode spacing: 50 metres  
 Dipole Separation: n = 1, 50 m



CLINTON CLAIM GROUP			
CLINTON M.D.			
INDUCED POLARIZATION SURVEY			
APPARENT RESISTIVITY			
SCALE: 1:5,000	DATE: MARCH '91	N.T.S. 92P/2W	DRAWN BY GEO-COMP
			FIGURE: 5