

1138

DIFFERENTIAL INDUCED POLARIZER SURVEY

POLARIS MINES LTD.

RON 1-8 Mineral Claims and

Adjacent areas near Merritt

50° 120' 3" W. British Columbia

by

72 1/2 W

A. Labounsky, E.M. and K. J. Christie, B. Sc.

November

1967

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November, 1967

D. I. P. SURVEY  
RON MINERAL CLAIMS  
Merritt, B. C.

*Empire State Building*  
TELEPHONE BRYANT 9-8584  
CABLE: LABUNINC

## Introduction

At the request of Neil H. McDiarmid, President, Polaris Mines Limited, arrangements were made to have a geophysical survey conducted on the RON 1-8 mineral claims, which adjoin Craigmont Mines' property in the Merritt area of British Columbia. This report summarizes the results of a Differential Induced Polarizer Survey and presents recommendations.

## Method of Field Work

The initials D. I. P. stand for Differential Induced Polarizer, which means that the instrument automatically selects and shows on the meter the highest obtainable ionization potential of the ground being tested. A short Direct Current pulse of wide ranges of cascading voltages is sent through the ground. This short pulse differentially induces dipole moments in the ground material and the operator records the highest induced intensity which shows on the instrument meter. The printed brochure in the appendix to this report explains the principle of operation of the D. I. P.-2 instrument. Insulated cable is connected to the ground through electrode rods spaced any desired distance apart. In order to interpret readings that may be obtained on any particular property, it is necessary to establish a background of adjacent areas, therefore, more than one profile should be run. In this case three profiles were taken, one of the area to be tested and two on adjacent areas. Prior to commencement of the survey, the road going through the RON 1-8 mineral claims was flagged at claim lines so that no time would be lost determining exact locations of stations. Two days were spent selecting the best roads on which profiles might be taken before the survey started.

## Procedure Followed

On this survey, a spacing of 3,000 feet was maintained throughout, thus probing the ground down to a depth of 1,500 feet. Ordinarily consecutive stations at which meter readings are taken, do overlap 50% along the traverse. In this case stations were placed 3,000 feet apart also, in order to cover as much ground as possible in a short time. The RON claims survey was extended beyond its bounds in north-south and east-west directions for the purpose of comparison. Plotting of D. I. P. intensities

obtained on profiles were done uniformly on one mile to an inch horizontal scale, thus equalizing differences in station elevations. Positions of stations on profile may not be exactly 3,000 feet apart because oftentimes the cable between stations followed a sinuous path in the road, but the readings obtained always represent the ground effect on the straight line between the electrode rods. The intensities shown on profiles are drawn on a vertical scale of 100 units per inch. Although this scale was selected for convenience the actual intensity numbers do relate directly to the ohmic conductance of copper and can be expressed in terms of percentage of copper being 100%. Dividing each intensity figure by 5 converts it into a percentage intensity of that of copper. If a D. I. P. instrument were shorted across its terminals with copper wire the meter reading on the instrument's 100 scale would be about 500. When the electrical characteristics of the ground are fairly uniform the half elliptical shape of the intensity curve shown on the profile closely represents the cross sectional response of the ground between stations in depth. The lateral effect quickly diminishes with the inverse square of the distance from the centre line of the electrodes. The D. I. P. survey was completed in four days. Approximately 42 stations were completed covering a total traverse distance of about 25 miles employing two field parties, one on foot and the other with four-wheel drive vehicles. Snow was encountered at higher elevations. It has no effect on the performance of D. I. P. instruments except it slows down the progress of work.

University Laboratories, Inc.,  
New York

POLARIS MINES LIMITED

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Received \$1,000.00 for the use of DIP -2 during the month  
of November, 1967



A. Labounsky, E. m.  
Executive Vice President.

A. Labounsky, E.M.  
Bayville New York

POLARIS MINES LIMITED

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Received \$1,500 as per following breakdown:

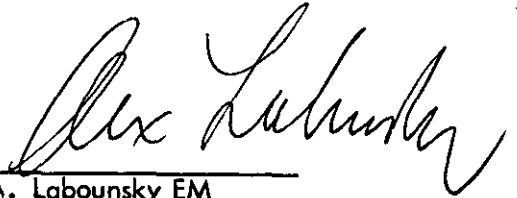
Air ticket New York to Vancouver return \$338.10

5 days at \$200.00 per day 1,000.00

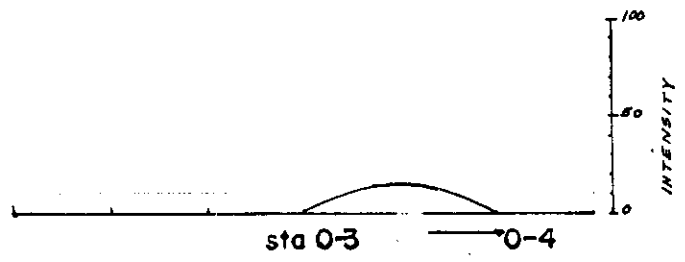
Out of pocket expenses 161.90

\$ 1,500.00

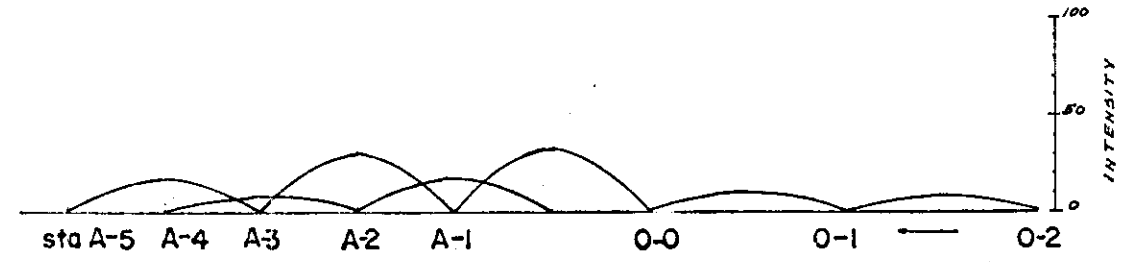
\$ 1,500.00



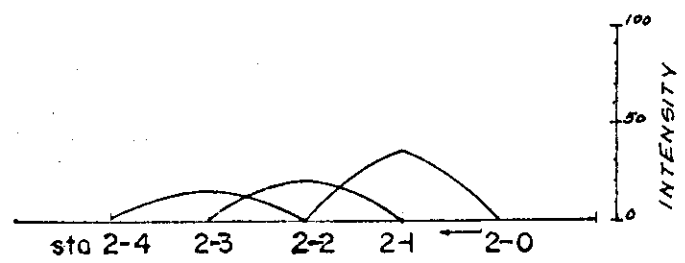
A. Labounsky EM  
On behalf of University Laboratories, Inc.



Profile along the west line of Ron claim no.7



Profile along the road bisecting Ron claims from north to south



Profile north-south along east- Ron claims

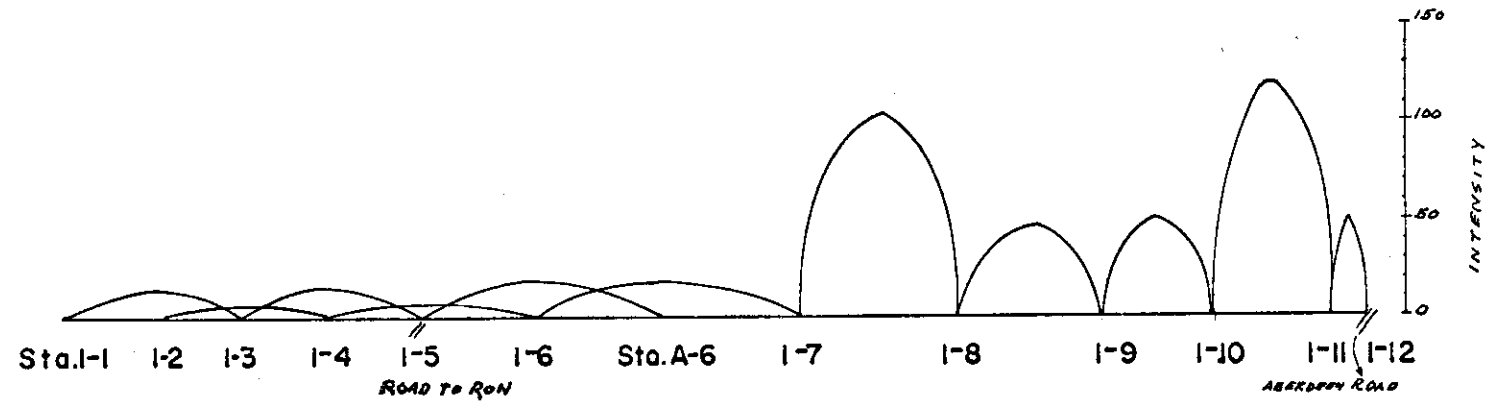
PROFILE NO. 1

Horizontal Scale: 1 Inch = 3000 Feet

Vertical Scale: 1 Inch = 100 Units

(Note: Profiles represents DIP Traverses in the north-south direction  
\_middle traverse is tied to Profile No.2 near sta. A-5 )

*Profile No. 1*



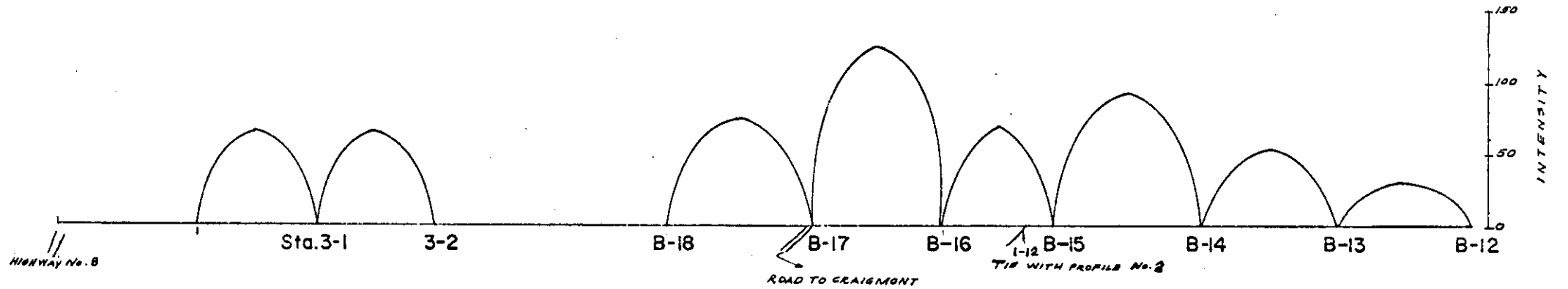
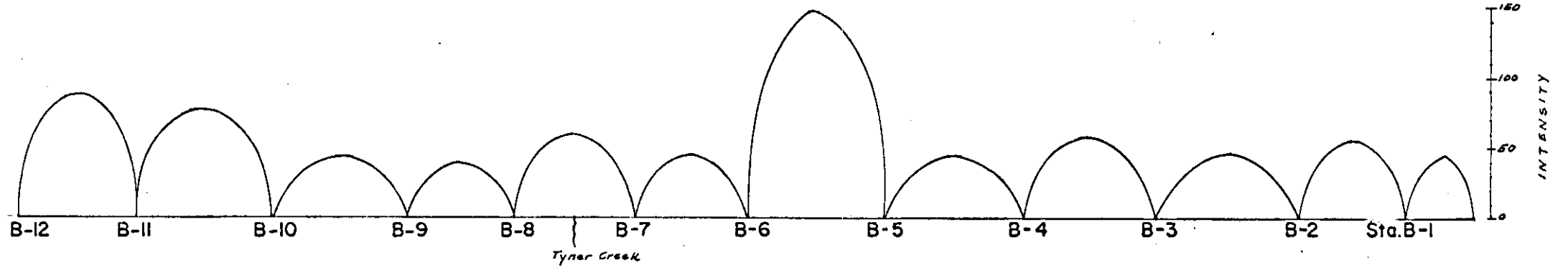
PROFILE NO. 2

Horizontal Scale : 1 Inch = 3000 Feet

Vertical Scale : 1 Inch = 100 Units

(Note: Profile begins at Jackson Lake extending eastward to tie with Profile No. 3 at sta. I-12)





PROFILE NO. 3

Horizontal Scale : 1 Inch = 3000 Feet

Vertical Scale : 1 Inch = 100 Units

(Note : Profile begins at Aberdeen Mine southward along Aberdeen Road and ending at Lower Nicola at intersection with Highway No. 8)

### Interpretation and Conclusions

The intensity readings gathered during the D. I. P. survey over the three principal traverses indicate rather wide spread values from a low of 5.5 to a high of 147 units. Anyone studying these results would be correct in saying that chances of finding copper sulphide ores in areas with low readings down to a depth of 1,500 feet would be poor indeed in contrast with the areas where much higher intensity readings were obtained. Usually the difficulty in rational interpretation of D. I. P. results arises where the anomaly readings are not far apart for the entire area. Neither can one be certain that high readings necessarily indicate presence of valuable deposits. In such instances a geologist relies upon the knowledge of other related factors such as area mineralization pattern, principal structural features, the nature of hostrock, its history and the like. Commenting on the individual profiles in the light of the overall results, the Profile No. 1 containing some 12 stations on the RON claims does not show significant contrast in generally low intensity readings to justify further work. Profile No. 2 in its western portion confirms the RON claims low intensity readings. While its eastern counterpart shows significant rise in intensity long before it reaches the junction with Profile No. 3 between stations B-15 and B-16. The pronounced rise in intensity may not be solely due to a probable broad fault zone which, if present, would run north-south along Guichon Creek Valley, thus increasing all intensity readings along Profile No. 3. A heavy blanket of overburden would consistently increase D. I. P. intensity readings. Having one depth (1,500 feet) determination at all stations on this survey, the influence of glacial materials and other surface factors on the readings, is not easily assessed. Reducing all intensity readings along Profile No. 3 to those of Profile No. 1 and more of the western portion of Profile No. 2 would still leave noticeable anomalies in the area of Profile No. 3 junction with the road to Craigmont Mines. Also a sizeable anomaly would remain at station B-11 and B-12 and another one at station B-6. These three anomalies deserve a closer scrutiny. The first two anomalies may indicate a separate orebody in "en echelon" juxtaposition to the Craigmont orebody, while the anomaly at station B-6 would have to be verified by additional D. I. P. traverses before asserting its specific relationship to a possible copper sulphide deposit in depth.

### Recommendations

It is recommended that:

1. No further work be conducted on the RON claims.
2. The two areas, one directly east of the Craigmont open pit and north to station B-10 and the other one at station B-6 be further examined by D. I. P. instruments for about one week of field survey to evaluate the potential of the area.

### Acknowledgement

Sincere thanks are extended here to your able personnel for their unreserved assistance to me in every way. They have conducted one D. I. P. survey party entirely on their own.

Respectfully submitted on behalf of

UNIVERSITY LABORATORIES, INC.

by:

A handwritten signature in cursive script, appearing to read "Alex Labounsky".

ALEX LABOUNSKY, E. M.  
Executive Vice President.

## V I T A

Alexander Nicholas Labounsky

U.S. Citizen, married, two children, own home - Casa Wayaawi, Bayville, Long Island, N.Y., 11709.

Graduated from Columbia University with three degrees:

A.B. - Liberal Arts, Columbia College

B.S. - Majoring in Geology, Columbia University

E.M. - Engineer of Mines, Columbia University School of Mines.

Member of the American Institute of Mining & Metallurgical Engineers and the New York Section of Professional Engineering Societies.

Listed in "Who's Who in Engineering".

Qualified as expert engineer in the U.S. Court of Claims.

Holds New York State Real Estate Broker's license.

Received Citation from the Secretary of War.

### Professional Record:

Has been consulting geologist and mining engineer for many years. Specialized in valuation work on businesses involving mineral resources in the U.S. and abroad for private syndicates, investment houses and companies. Received credit for recommending the purchase of 519 mining claims in Blind River, Ontario. This resulted in the formation of Stanrock Uranium Corporation which has been earning close to one million dollars per month.

### Personal References:

Mr. Cleveland E. Dodge, Vice President, Phelps-Dodge Corporation, 300 Park Avenue, New York City - Tel. PL 1-3200.

Dr. Joseph Barker, Member of the Board of Directors, First National City Bank, New York City - Tel. 914 NE 6-7960

John Howley, Esq., Hall, Casey, Dickler & Howley, Chanin Building, New York City Tel. MO 1-3100.

Bank References: The Chase Manhattan Bank, 34 Street Branch, New York City (checking account), PE 6-6480

Mr. Richard Ginglen, Vice President, Chemical Bank Trust, 46 Street Branch, N.Y.C. 922- 6362

Completed full courses in the Geophysical Sciences under Prof. M. Hubbard King of Columbia University and Prof. Hyland of Colorado School of Mines.

**K. J. Christie, B.Sc., P.Eng.**  
*Consulting Mining Engineer*  
British Columbia, Yukon and Northwest Territories  
1030 Bayview Drive, Ladner, B.C.

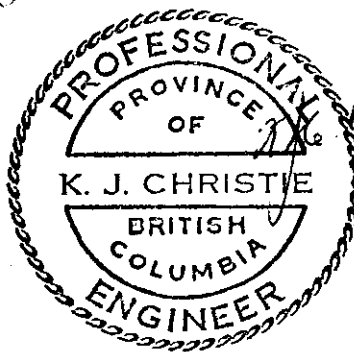
CERTIFICATION

November 22nd, 1967

I, Kenneth John Christie, residing at 1030 Bayview Drive, Ladner, B. C., having a Bachelor of Science degree in Mining Engineering and am licensed to practise as a Professional Engineer in the Province of British Columbia, was present during the conducting of this D. I. P. Survey as well as prior to its commencement and organized the equipment and supervised the personnel required to do the survey, under the direction of A. Labounsky.

*K. J. Christie*

K. J. Christie, B. Sc., P. Eng.



*Polaris Mines Limited*

(NON-PERSONAL LIABILITY)

TELEPHONE: 684-7266

501 PHILLIPS BUILDING  
535 THURLOW STREET  
VANCOUVER 5, B. C.

November 28th, 1967

Mining Recorder,  
Merritt, B. C.

Dear Sir:

In accordance with the conditions governing acceptance of geological, geophysical and geochemical surveys as assessment work I herewith submit a report by A. Labounsky, E.M., Geophysicist from New York City, Executive Vice President of University Laboratories, Inc. and Mr. K. J. Christie, B. Sc., P. Eng, a registered Professional Engineer in the Province of B. C., under whose supervision the work was conducted.

The appendix of the report contains:

- (a) Field Notes of all Parties
- (b) Brochure on DIP instrument
- (c) Past performance
- (d) Costs

A breakdown of Costs and work performed is as follows:-

(A) Personnel engaged doing Geophysical Survey - RON 1 - 8

Nov. 9	Rueben Fast and K. J. Christie flagging lines for Geophysical Survey.
Nov. 10	Rueben Fast and K. J. Christie flagging lines for Geophysical Survey.
Nov. 11	Rueben Fast completed flagging lines
Nov. 14 - Nov. 19	A. Labounsky, K. J. Christie doing reconnaissance for Geophysics, completing survey and interpreting results.
Nov. 20 - Nov. 22	A. Labounsky and K. J. Christie compiling report of results of geophysical survey.
Nov. 14 - Nov. 19	Rueben Fast doing reconnaissance and performing geophysical work on RON 1 - 8 mineral claims.
Nov. 15	Vernon Corkle, helper, geophysical survey.
Nov. 16	Vernon Corkle and Dennis Mulligan, helpers geophysical survey.

.....2

Nov. 17. Vernon Corkle and Dennis Mulligan, helpers,  
geophysical survey.  
Nov. 18. Vernon Corkle and Dennis Mulligan, helpers,  
Geophysical survey.

Salaries, Fees and Wages

A. Labounsky	5 days @ \$200.00/day	1,000.00
K. J. Christie	12 days @ \$40.00/day	480.00
R. Fast	9 days @ \$20.00/day	180.00
V. Corkle	4 days @ \$20.00/day	80.00
D. Mulligan	3 days @ \$20.00/day	60.00
		\$ 1,800.00

(B) Rental of equipment used for Geophysical Survey

Nov. 9 - 11	One four wheel drive vehicle @ \$15.00/day	45.00
Nov. 14 - 19	Two four wheel drive vehicles 6 days @ \$15.00/day per vehicle	180.00
Nov. 17 & 1/2 day - 18th	One four wheel drive vehicle @ \$15.00/day	22.50
		247.50
Rental of Geophysical DIP-2		1,000.00
		1,245.50

Summary

Fees and Wages	\$ 1,800.00
Rental of equipment	1,245.00
	\$ 3,045.00

Yours very truly,

POLARIS MINES LIMITED (N. P. L.),

Per: 

Rueben Fast

# University Laboratories, Inc.

Empire State Building

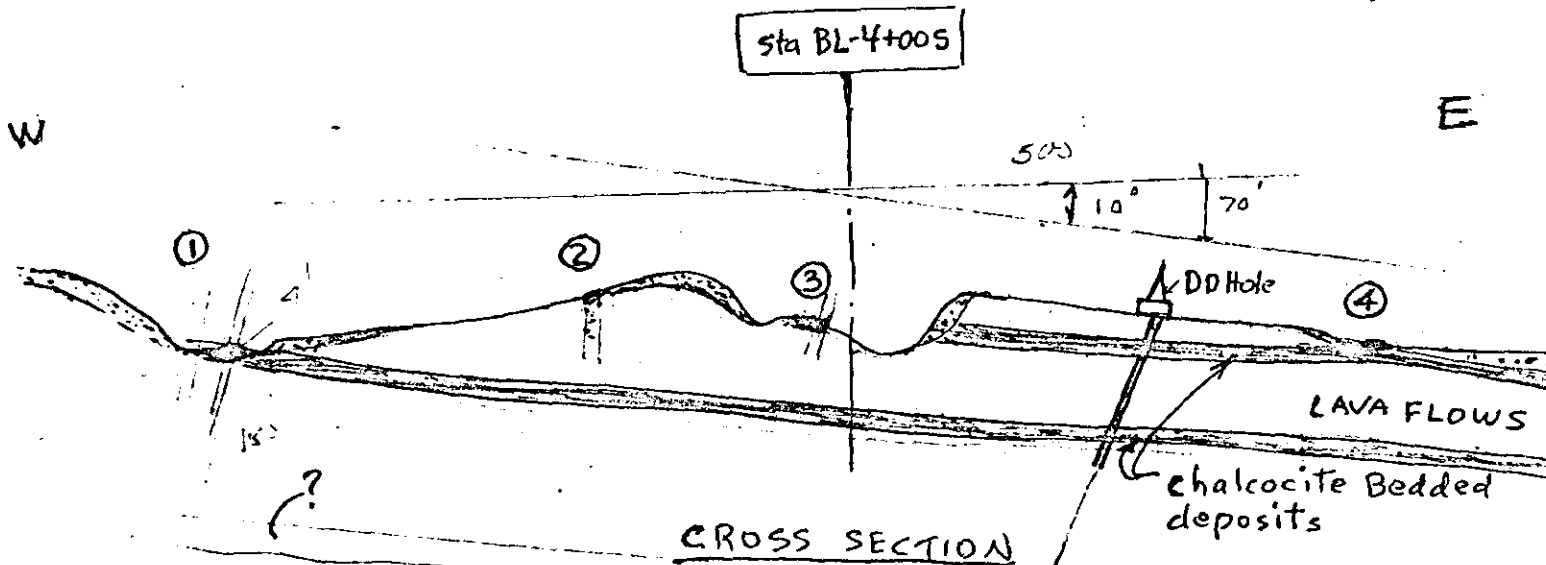
TELEPHONE BRYANT 9-8584

CABLE: LABUNINC

A COPY OF THE ORIGINAL FIELD NOTEBOOK Page 3 of DIP-2  
Instrument survey illustrating the discovery of copper  
ore deposits near Coronation Gulf, NWT., Canada.

This is a sample of Classical work performed by DIP-2  
in interpreting and locating extension of copper ore bodies in depth  
from several "FLOATS" of copper ore found on the surface.

Location: 2 miles South of Hope Lake, Coppermine River, LTD' property  
near Coronation Gulf, Northwest Territories, Canada. June, 1967



Numbers ①, ②, ③ & ④ show Copper ore on the surface, known as "FLOATS".  
DIP-2 readings increased in depth going East from Sta BL-4+005  
indicating that there are two parallel copper ore bodies, one above the  
other, dipping down at low angle to the East. This DIP-2 discovery  
has been confirmed later by diamond drilling at location shown above.

University Laboratories, Inc.

Page 3



A PAGE FROM ORIGINAL NOTEBOOK SHOWING  
HIGH ANOMALY DISCOVERED BY DIP-2 SURVEY

Sept 21 cont. 3.

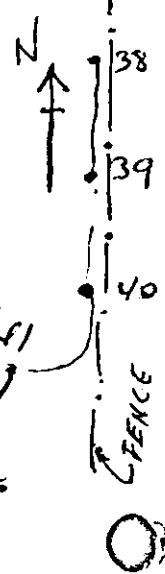
Sta 49 12.0 @ 10. Start Sta 191.2 2000' <sup>wire length</sup> — 12.0 @ 10

Edge of paved highway "50".

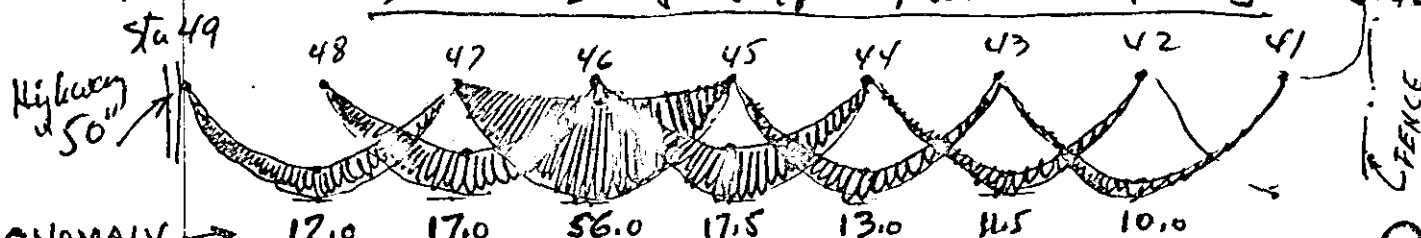
Returned to Ely at abt 6 pm. Report to Fred Farnsworth on the results of DIP survey on line 33 mining claim tomorrow.

University Laboratories Inc.  
Empire State Building  
New York

TABULATION OF RESULTS OF HIGH ANOMALY

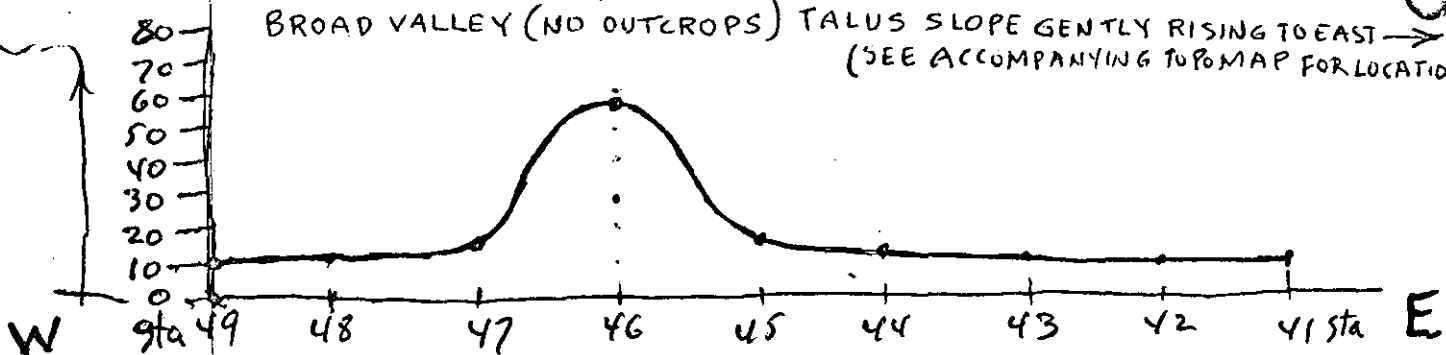


← Stations 1000 feet apart; Wire 2000ft long. →



ANOMALY →

BROAD VALLEY (NO OUTCROPS) TALUS SLOPE GENTLY RISING TO EAST  
(SEE ACCOMPANYING TOPO MAP FOR LOCATION)



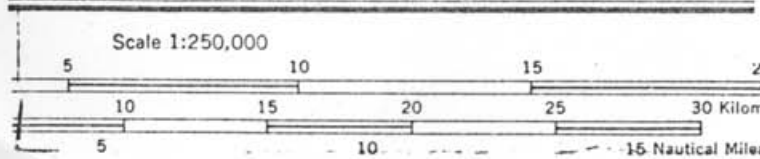
This extremely HIGH Anomaly is located on dirt road beginning at Sta 49 at intersection with State Highway # 50 and leading Eastward toward Monitor Mine (Abandoned) for a distance of 5000 feet or corresponding to line between Section 12 and Section 13, T14N, R64E, Taylor Mining District, Steptoe Valley, White Pine County, State of Nevada. On strike with Silver King Mine

DISCOVERY POST FOR 12 CLAIMS IS PLACED AND RECORDED IN WHITE PINE COUNTY, ELY, NEVADA, IN THE NAME OF ROBERT DEMING #1 To #12





**LOCATION MAP**  
 12 MINING CLAIMS: ROBT. DEMING #1 THRU #12  
 DISCOVERED BY DIP-2 INSTRUMENT.  
 TAYLOR MINING DISTRICT, WHITE PINE COUNTY,  
 ELY, NEVADA.  
 SEPT. 21, 1967.



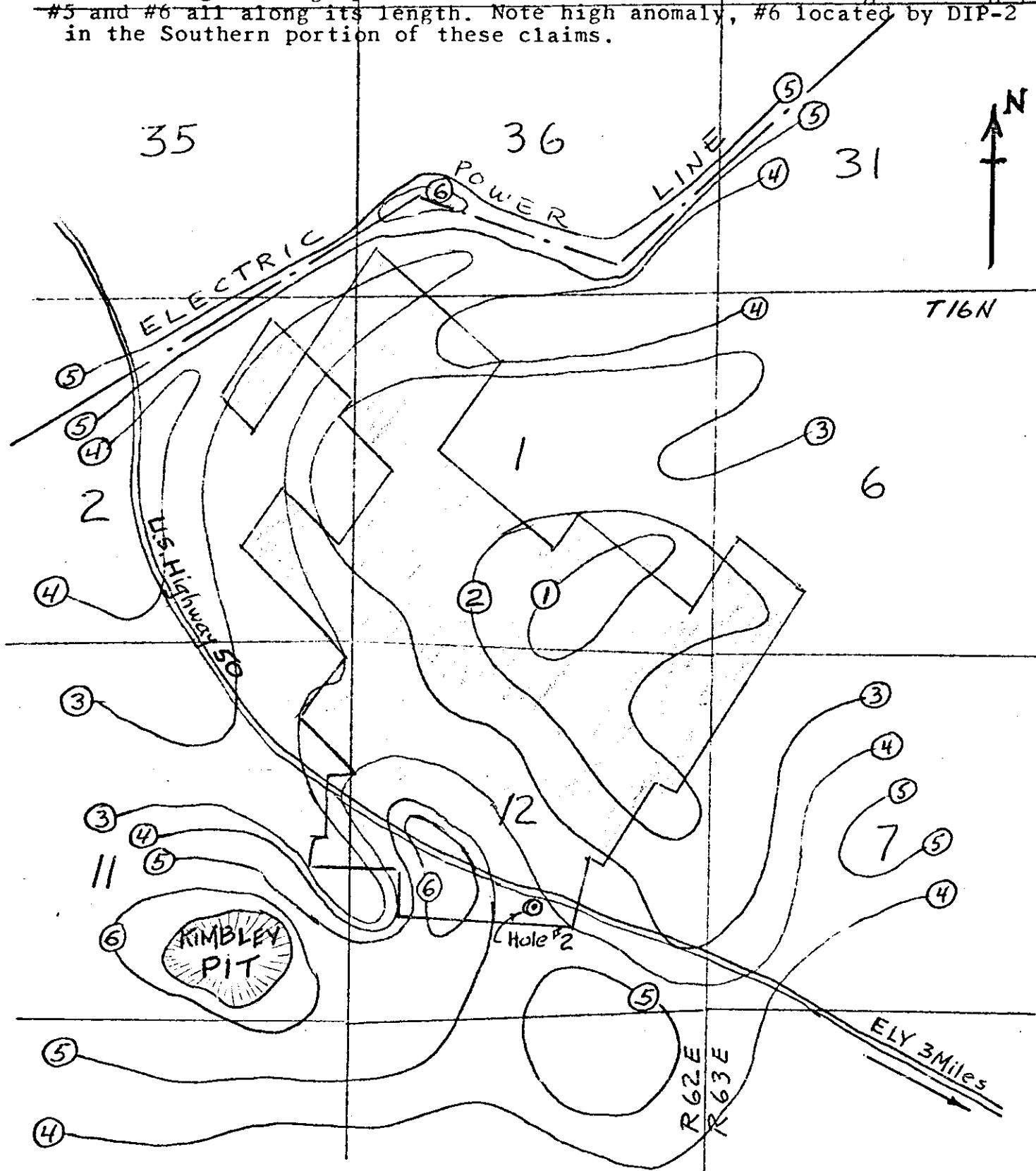
120°	42°	
VVA	MC DERMIT	
NK 11-7	NK 11-8	NK 11-9

GENERALIZED DIP-2 ANOMALY MAP

*University Laboratories, Inc.*

Golden Avenue 38 mining claims, lying to the East of and adjoining Kennecott Copper Corp. property, Ely District, White Pine County, Nevada.

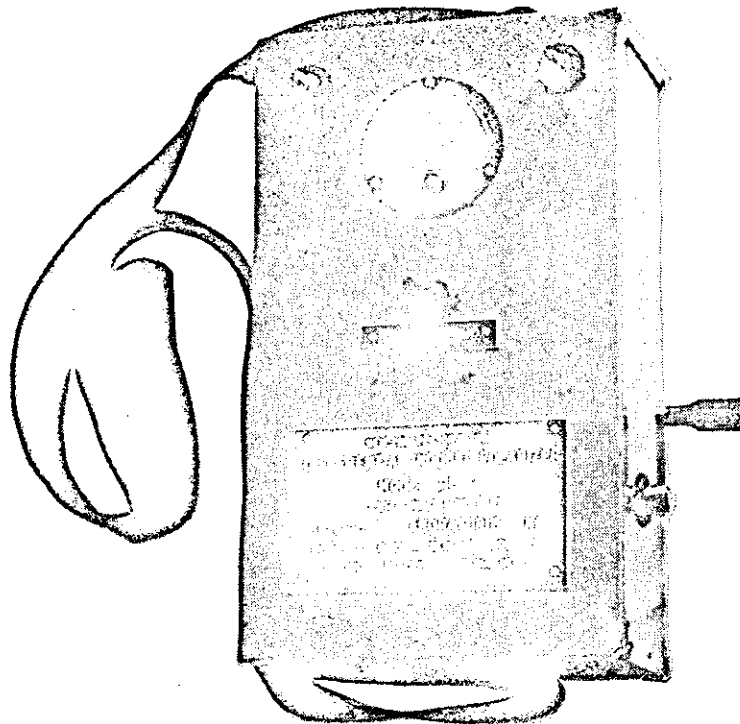
DIP-2 survey stations are 1000 feet apart. The cable length is 2000 feet long, giving 1000 feet depth penetration and 50% lateral overlap. Anomaly contours increase in intensity from #1 to #6. The overhead high voltage power transmission line also shows high readings, #5 and #6 all along its length. Note high anomaly, #6 located by DIP-2 in the Southern portion of these claims.



September, 1967

# Differential Induced Polarizer

## MODEL DIP-2



Advertisement in the Engineering & Mining Journal - August, 1967

Revolutionary New Prospector's Tool  
Model DIP-2

### DIFFERENTIAL INDUCED POLARIZER

Provides a wide range of D.C. and multiple frequency A.C. voltages. Portable: 8#. Size: 7"x4"x12". Operates without batteries. Sealed instrument guaranteed for 3 years under normal use. Limited quantity, custom built, supplied with 1,000 ft. electrode cable, ground electrodes, lead wires, reel and stand, and complete instructions. Instant response to most of the metallic ores. Successfully proven in locating copper ore in basalts.

Licensed under & m'd by

**UNIVERSITY LABORATORIES, INC.**

Empire State Building, New York, N. Y. 10001

Geophysical surveys by graduate geologists using DIP-2 can be arranged on contract basis.

Tel. 516-628-8383.

# *USE DIP-2 TO GUIDE YOU TO HIDDEN MINERAL WEALTH.*

## GENERAL DESCRIPTION

The Differential Induced Polarizer, Model DIP-2, has been designed for use in locating most of the metallic ores. It has been thoroughly tested in the Laboratory and in the field. It has been proven in the field as a most reliable instrument for locating copper ore in basalts, black sands in placers, gold and silver, lead and zinc, and is applicable in locating all mineral deposits which respond to electric currents. In designing DIP-2 every effort was made to insure its dependability under adverse field conditions. Its light weight aluminum casing, containing a hand operated generator, a highly sensitive meter and balanced circuitry, was made as water resistant against rain or snow as possible. A hermetically sealed meter originally ordered for the DIP-1 model to read zero at the middle of the dial for D.C. and A.C. currents has been re-set to zero at the extreme left so that readings increase from left to right. This meter was built for rough handling and has a luminous dial and a luminous needle for easy reading even in the dark. It is extremely sensitive and gives instant response in terms of actual values instead of absolute values. For safety, a semi-clutch has been built into the instrument to allow a degree of free movement of the crank handle in order to prevent accidental stripping of the reduction gears on the generator. The terminal posts and a three way toggle switch are arranged around the glass cover of the meter as an added protection to prevent breakage of the glass. The gummed rubber strips are glued at the corners of the instrument to absorb shocks. A non-adjustable, strong, nylon belt is provided as a carrying strap. In spite of the built in safety features it is recommended that the instrument be handled with care so that it will give satisfactory service for many years.

Over a period of many years University Laboratories, Inc. has been conducting original research and development work in the field of ionization of metallic and non-metallic substances for which it has received patents. The DIP-2 instrument is the latest product of this work.

Briefly, the principle of the DIP-2 operation can be described as follows: When current is passed through a medium, such as ground, and this current is abruptly terminated, a back electromotive force, BEMF, may result. This is known as induced polarization, IP. There are instruments on the market that deliver pre-set voltages both in D.C. and A.C. currents. Instead, the DIP-2 instrument supplies D.C. and A.C. **pulses in a wide range of voltages.** When a material is capable of ionization, such ionization can be induced best by a specific imposed potential. This potential corresponds to the ionization potential of the material in question. The DIP-2 instrument supplies a wide choice of potentials from a few volts to over 100 volts and frequencies from one-tenth to over fifty cycles per second. By a turn of the crank handle the meter needle will move instantly to many positions on the dial in response to the ionization potentials, and the highest reading thus obtained will correspond to the ionization potential of the ground under test.

## FIELD OPERATING INSTRUCTIONS

When a starting station is selected in the field, unwind the electric cable wire over the ground to be tested for any distance desired. A thousand feet of cable wire is provided with the instrument. The reel on the stand can hold up to 2500 feet of this wire. Drive the electrode rods into the ground to about a foot in depth, at both ends of the cable wire. Use a hammer to firm the ground around the electrode rods in order to assure good contact, otherwise erratic or no readings at all will result. In bone dry or frozen ground, pour some water into the hole for better contact. Connect the instrument terminal posts by the lead wires, one to the first electrode rod and the other to the cable wire on the reel. Attach the other end of the cable wire to the second electrode rod.

Set the three way toggle switch located on top of the instrument straight up at #1 position. Gently move the crank handle back and forth for about a quarter of a complete turn and observe the meter needle move. CAUTION: In this position, never spin the crank handle around fast or the meter needle will break off. If the meter needle goes off the scale to the right, set the toggle switch to the right (to the side of the instrument where the crank handle is located) at the #10 position and repeat the crank handle movement. Now all readings are reduced by a factor of ten. If the meter needle still goes off the scale, set the toggle switch to the opposite side at #100 position and repeat the movement of the handle. Now all readings are reduced by a factor of 100. The movements of the crank handle are performed in the following way: Move the handle slowly one way and slowly back a quarter of a turn in order to see in which direction the needle moves on the scale. Then move the handle a little faster in that direction. Wait a second before returning the handle back very slowly to the starting position. Allow about two seconds before repeating these movements and observe the highest reading to which the needle moved. Practice these interval sequence movements of the handle at various speeds in order to obtain the highest reading. DO NOT YANK THE HANDLE HARD. The ionization potential of the ground being tested is induced by DIP-2 differentially with a normal turn of the handle. The meter needle will show, among many, one highest reading that corresponds to the ionization potential of the ground under test. Record in the note book the highest reading obtained, identifying the station, distance, direction of traverse and any distinct geological features. This completes the test for one station. Before proceeding to the next station, several more readings can be taken at shorter distances between the electrode rods if warranted by reason of higher readings. Disconnect the instrument and other connections and move to the next station. The cable wire can be dragged on the ground without being rewound each time. Do not let the lead wires dangle as they may be ripped off in the underbrush. At the next station reconnect the equipment as before and reproduce the same movements of the crank handle as at the previous station. Locate stations in a grid pattern as on a checkerboard with traverses running North-South and East-West. At stations where higher readings were obtained repeat tests with shorter distances between the electrode rods in multiples of a 1000 feet, that is 200' 400', etc. apart or 250', 500, 750' apart.

Normally electric pulses penetrate the ground in a semi-elliptical shape to a depth of about one half of the distance between the electrode rods. By changing the spacing between them, an ore body can be delineated as to its thickness and depth. When field work is completed store equipment in a dry place. Plot all readings in a plan view and in sections. These may show a series of high readings in the form of anomalies. These anomalies may indicate the presence of a mineral deposit. Double-check your high readings and follow by drilling. An experienced prospector, for example, can tell whether there is a concealed blank fault or a vein when the instrument at times gives the same reading for both. The interpretation of the readings obtained, therefore, is all important.

The DIP-2 surveys can be run by one man but this would mean more walking. A two man crew, one carrying the instrument and the other the reel and stand, can cover a lot of ground much faster. The instrument can be seen at our quarters on Long Island, ~~it can be purchased new or rebuilt, it can be rented or~~ we will run a DIP-2 geophysical survey on a contract basis. You will find DIP-2 indispensable in guiding the drilling and in prospecting for many years to come.

Write or call — 516 628-8383.

Licensed under and manufactured by  
**UNIVERSITY LABORATORIES, INC.**

Empire State Building

New York, N. Y. 10001, U.S.A.

All Rights Reserved

### GUARANTEE

This sealed instrument, Differential Induced Polarizer, Model DIP-2 is guaranteed to the purchaser shown below for three years (3 years) and it will be replaced free of charge except for shipping costs. This guarantee is void if the instrument is broken or damaged to the extent that the meter fails to register as designed. This guarantee becomes effective when its serial number is registered under the purchaser's name, dated and signed by the authorized Officer of our Company.

Purchaser's Name .....

Address .....

Serial #..... UNIVERSITY LABORATORIES, INC.

Date: .....

Executive Vice President

Corp. Seal

PRINTED IN U.S.A.



FIELD PARTY

Nov. 17 Fri  
 KEN CHRISTIE  
 DENIS MULLIGAN  
 ALEX LABOUNSKY

ABERDEEN ROAD DIP TRAVERSE  
 NORTH OF LOWER NICOLA, BC.

Started at # mine on track on cross fault  
 going south (actually parallel to fault about 1500')  
 ABOUT BROOM & GUCHON CREEKS CONFLUENCE.  
 3000' electric spool on gear - 4.6 @ 10  
 speedometer - 912.3

Sta B-1 4.6 @ 10

Sta B-2 5.6 @ 10 speedometer 912.94 going S - 5.6 @ 10  
 level ground

B-3 4.5 @ 10 " 913.50 " " " - 4.5 @ 10  
 500' past is a gully to the West  
 lot of cobble stone size glacial  
 boulders.

Sta B-4 5.8 @ 10 speed 14.06 " " - 5.8 @ 10  
 made a wrong turn and deducted 500ft

Sta B-5 4.2 @ 10 Speed - 14.76 " " - 4.2 @ 10

Ken went back 3000 feet to talk to Denis -  
 the tailman at & forgetting the walkie talkie but  
 rely on wire stopping & immediately connects  
 his rod

Sta B-6 14.7 @ 10 speed - 15.32 - 14.7 @ 10

Sta B-7 4.3 @ 10 speed 15.88 - 4.3 @ 10

Sta B-8 6.0 @ 10 speed - 16.44 - 6.0 @ 10

Sta B-9 3.9 @ 10 speed - 917.00 - 3.9 @ 10

Sta B-10 4.2 @ 10 speed - 917.56 - 4.2 @ 10



B-11	7.8 @ 10	speed - 918.12	- 7.8 @ 10
B-12	8.9 @ 10	speed - 918.68	- 8.9 @ 10
B-13	3.1 @ 10	" 919.24	- 3.1 @ 10
B-14	5.3 @ 10	" 919.80	- 5.3 @ 10
B-15	9.2 @ 10	" 920.36	- 9.2 @ 10

B-16 7.0 @ 10 - 550ft from next sta OR - 7.0 @ 10  
 speedometer 920.45 <sup>2450ft from B-15</sup>

B-16 is short from last sta B-15 (INSTEAD OF 3000 feet - IT IS 2450 feet)

had trouble in row stupid car running over our cable but safety feature prevented breaking the wire - only pulley on footage meter was broken which fell on the road.

It is dark and late, decided to reel in and go home

921.05 intersection with

Craigmont Rd.

The length of cable on today's run was measured by footage meter - IT IS = 3145 feet

STATIONS SPACING = 3000 feet set by car speedometer = .56

Field Notes,  
K.J. Christie

Nov 15<sup>th</sup>

Road at north end of Mamit Lake on west side  
Intersection at 798.5

North end of Mamit on west side 799.0

804.0 - Clearing with road going N.W. - near  
Gypsum Mountain

805.6 - several road

806.0 - turned west at bottom of draw at bottom of  
escarpement in Broom creek

807.4 returned from abortive northerly recce past old mine

807.7 met good road from south leading to Chataway Lake to north  
west, searching for east-west passage - signed Henry Hudson

810.9 - several IP lines & trenches - road to left

812.8 - met road leading to left, sharp Y turn going southerly

813.3 - met road leading west - forestry marked

815.5 - met north-south road with sign post marked Twin

Junction marked with red tape on east side of road

828.7 Came out to Highway at DOT Ranch

Nov 16<sup>th</sup>

ccc

Reuben's Station 7 - 70.4

Reuben's Station 6 - 70.74

\* 70.9 Ron Group turn off, of Jackson Lake road

MagLine  
A-15 at 71.4

North end of Ron 7 & 8 - 72.5	.7769
	<u>7289</u>
	480

Electrode in ground at 7289 on meter going south. Speedometer reading 873.1 on road  
Stopped at 73.4 on speedometer - read meter 7769 multiplied by 2.9 - curves on road will account for discrepancy

Speedometer at 2.5 miles 873.78

8306 on meter reading

$$\frac{7289}{1117} \times 2.9 = 3279.3 \text{ put white mark on cable}$$

Station A-1 is at intersection of north claim line

Time 2:00 PM

of Ron 7 and 8 and road going south

Reading of 3.2 at 10, repeat, 3.2 at 10

Road is on slope of hill which trends east-west. Rocks are boulders of well rounded granite rock

Backed up on road reeling in cable - met Dennis went back to Station A-1 then Dennis paced back 1500'

Speedometer now reads 73.67

Speedometer at 73.9 - white mark did not show up thus less than 3,000' this station is at north end of Ron 5 & 6

(3)

Nov 16<sup>th</sup> (continued)

Station A-2 at north end of Ron 5+6  
south end of Ron 7+8 where it intersects road

A-2 reads 17.2 at 1 going south 17.2 at 1  
dense trees, diorite boulders on top level spot just  
before going up hill

Stn A-3

3.0 at 10 going south repeat 3.0 at 10  
Station is at south end of Ron 5+6 and N end of  
Ron 3+4 on road. On east slope of a hill  
Diorite boulders

Stn A-4

At Mag line A-12-12W going south

Reading 8.0 at 1 repeat 8.0 at 1

Stn A-5 at SW corner of Ron 1 going south

Reading is 17.5 at 1 repeat 17.5 at 1

Speedometer 76.7

Tail man was 500' past his claim line

Reading at Jackson Lake road junction 76.85

(4)

stn A-6

Nov 16<sup>th</sup> continued

At junction of Jackson Lake road and  
old power line

Speedometer reads 77.2

Reading is 19.5 at 1 repeat 19.5 at 1  
Down Hill going along

Friday Nov 17<sup>th</sup> in the year of our Lord 1967 A7

Speedometer reading 98.04 at Junction Hwy 8 + road to Craigmont at lower Nicola - going north.

Turn off below Craigmont mine to Aberdeen Road 01.7

Junction of road leading west off Aberdeen Road 10.3  
Up hill on road west & back to junction 10.9

9304

8310  
994

Footage Meter begins Speedometer 911.7

Tail end beyond old mine - west - then we went back down road past the old mine, cut onto the road ~~at~~ then stepped to take a reading on meter which was  $9304 - 8310 \times 2.9 = 2992.6$  so we go for another hundred feet or more - Alex complaining that my gloves aren't fur lined - went to reading 9344',  $9394 - 8310 \times 2.9 = 3143.6$

\* Station B-1 - which is in a flat area sands small diorite boulders, jackpine 3" to 4" butts  
Reading 4.6 at 10 at 3000' repeat 4.6 at 10  
Speedometer 912.3 now pulling sable

\* Station B-2 - 3,000' from B1  
Reading 5.6 at 10 repeat 5.6 at 10 flat area of jackpines  
Speedometer reading  $912.94$   
Next stop at  $913.50$  will be 3000'

\* Station B-3 - 3000' south of B-2  
Reading 4.5 at 10 repeat 4.5 at 10

Nov 17<sup>th</sup> continued

Next speedometer stop  $913.5$   
 $\underline{.56}$   
 $14.06$

\* Station B-4 - 3000' from B-3 going south

Reading was not taken as we were 500 feet out so we moved down the road 500' to new position

Reading is  $5.8$  on 10  $5.8$  on 10

Next speedometer reading  $14.2$   
 $\underline{.56}$

Next stop  $14.76$

\* Station B-5  
Reading  $4.2$  at 10 repeat  $4.2$  at 10

$14.76$   
 $\underline{.56}$   
 $15.32$  next stop

\* Station B-6  
Reading is  $14.7$  on 10 going south  $15.32$   
 $\underline{.56}$   
 $15.88$

\* Station B-7  
Reading is  $4.3$  at 10 repeat  $4.3$  at 10  
speedometer next stop  $\underline{.56}$   
 $16.44$

\* Station B-8  
Reading is  $6.0$  at 10 repeat  $6.0$  at 10

~~Speedometer~~  $916.44$   
 $\underline{.56}$   
Next stop will be at  $917.00$



Nov 17<sup>th</sup> continued

\* Station B-9 going south 917.0  
 DIP Reading is 3.9 at 10 next speedometer 917.56  
 .56

\* Station B-10 going south at 917.56  
 Reading is 4.2 at 10 repeat 4.2 at 10 917.56  
 we are now on a sandy hill ridge .56  
 Next stop 918.12  
 .56

\* Station B-11 going south  
 Reading 7.5 at 10 reading 7.5 at 10  
 Next speedometer stop 918.68  
 .56

\* Station B-12  
 Reading is 8.9 at 10. Next stop 919.24  
 .56

\* Station B-13 919.80  
 Reading is 3.1 at 10  
 speedometer Next Stop 19.8  
 .56

\* Station B-14 Reading is 5.3 at 10  
 Reading 5.3 at 10 Next stop 20.36  
 .56

\* Station B-15 Reading is 9.2 at 10 20.92  
 Reading 9.2 at 10

\* Station B-16 Next stop 20.9  
 However tail man's lights dead - truck came by  
 pulled wire so took a reading at speedometer 20.4  
 20.45

B-16-A 550 feet from B-16 20.56



(8)

Saturday Nov 18<sup>th</sup>

Junction of Hwy 8 and Promontory road which is 1.3 miles west of Lower Nicola - 41.1 reading  
Turn off from Promontory Road, to the right 43.25  
Craigmont Mine office 946.7

Started at B-16<sup>A</sup> which was only 550' beyond B-15 going south - Speedometer reading 957.44 next stop will be 958.00

Station B-17 at junction of Aberdeen + Craigmont road  
Speedometer at 958.0

\* B-17 reading is 12.4 at 100 Speedometer 958.0

\* B-18 Speedometer reading is to be 958.56

Reading 7.5 at 100 on road 3000' south on road from Craigmont to lower Nicola Repeat reading is 7.5 at 100. - B-18 is opposite tailings pond below Craigmont mill - now we rewind the cable

- now -  
we will go back through Craigmont - so be it

Starting point going up hill speedometer is 960.25 add .56 for 3000' ~~to be~~ 960.81 but reel not unwound until 960.88 - not bad though.

\* Station B-19

Reading is 3.4 at 100 going south 3.4 at 100  
In meadow

Went back & checked reading at tail end - found that there was a field at 1 showing a polarity

Speedometer now reads 962.08 next stop 962.64

(9)

Saturday Nov 18<sup>th</sup> continued

Next stop 962.64 which will be Station B-20  
Saskatchewan Stampede 4 right now

BUT - Trouble with pulling cable - 2 me.  
on 2 trees - speedometer 63.65

Next stop  $\frac{63.65}{56}$   
64.21

\* Stn. B-20

Reading 2.5 at 100 - BEMF 2.8  
Repeat 2.5 at 100

Going south in valley

Next stop  $\frac{64.21}{56}$  64.77 coming up

\* Station B-21

Reading 2.3 at 100 BEMF 2 at 1

That is all for to-day now we pack up  
reel in and F.F. at the high port.

Sunday Nov. 19<sup>th</sup>

Stored equipment, took inventory, the two instruments  
complete with two telephones and batteries taken by  
A. Labounsky while reels, cable, stands, meter etc stored  
in Peel office.

left Merrill for Vancouver, arriving at midnight

R. Christen

Nov. 14<sup>th</sup> - Rueben Fast's notes

FROM CRAIGMONT NORTH 30.6 MILES  
JACKSON LAKE TURN OFF 732.5 "  
EIM CHAINS TURN OFF 735.7 "  
TURN OFF TO BETTEND CHAINS. 735.0 " & FROM.  
& BACK INTO MERRITT. FROM CRAIGMONT ROAD.  
CROSSING PERL N° 1-10 M.C. 736.4 RED FLAG.  
PUT UP.

737.2 ONLY TORWEST WORKINGS & CORE HAVING  
AROUND MAINLY GRANITE DIORITE.

37.9 MARK N° 27, 28, 29, 30 JULY 8/67.

DRAWN END AT 740.0 TURNED AROUND.

DROVE BACK TO MARK. N° 27-28-29-30 M.C.

MILEAGE 742.3 & TURNED RIGHT TO HIGHWAY  
RETAGGED WITH RED RIBBON TO NO N°.

743.2 RETURNED TO RED RUBBON MARKED NO N°  
& TURNED WEST.

R. EAST & WEATHER CLOUDY & MILD WITH  
 U. CORNELL DIFFERENTIAL INDUCED POLARIZER ABOUT 8 INCHES OF SNOW.  
 NOV. 15/67 SURVEY MODEL DIP-2

REMARKS

GOT UP TO LOCATION LINE OF PEEL NO  
 1-1A M.C. AT 11:20 AM. & STARTED  
 PULLING OUT WIRE. LOCATION LINE RUNS  
 NORTHERLY.

STATION OF BACK	STATION OF ELECTRODE	READING OF SCALE 1-10 OR 100	METER READING	DISTANCE BETWEEN ELECTRODES	METER READING
--------------------	----------------------------	---------------------------------------	------------------	-----------------------------------	------------------

0	2	1	8.5	3000'	8.5
---	---	---	-----	-------	-----

SMALL LAKE ABOUT 150 FEET WEST OF  
 STAT. N#1

STATION N#2 AT INITIAL POSTS OF PEEL  
 NO 3 & 4 M.C. & FINAL POSTS OF PEEL NO 1 & 2 M.C.

STAT. N#2 IN LOW GROUND AT NORTH END  
 OF SWAMP STAT. N#0 TO 2 FAIRLY FLAT &  
 JACK PINE TIMBER AREA TOO THICK

COULD NOT GET WIRE THROUGH, STARTED TO  
 RAIN

STARTED ROAD SURVEY @ 2:15 PM.

1-1	1-3	1	12.5	3000'	12.5
-----	-----	---	------	-------	------

STATION 1-1 3000' FEET WESTERLY ALONG  
 ROAD FROM PEEL NO 1-1A CHAIN LINE

STATION 1-2 AT PEEL CHAIN LINE ON ROAD  
 ROAD OVERBURDEN WITH GRANITE DIORITE  
 FLAT, RUNNING SURVEY EASTERLY

1-2	1-4	1	6.0	3000'	6.0
-----	-----	---	-----	-------	-----

STATION 1-4 300 FEET EASTERLY OF SMALL  
 CREEK RUNNING NORTH EAST. STATION  
 1-4 ON ROAD RUNNING TOWARDS CRAIGMONT  
 EASTERLY

1-3	1-5	1	18.0	3000'	18.0
-----	-----	---	------	-------	------

STATION 1-5 IS 300 FEET WESTERLY OF  
 THE PASTIN SHOWING ALONG THE ROAD  
 STAT. 1-5 IS OVERBURDEN WITH GRANITE FLAT

1-4	1-6	1	5.5	3000'	5.5
-----	-----	---	-----	-------	-----

STAT. 1-6 ON ROAD GOING DOWN  
 HILL EASTERLY TO CRAIGMONT

1-5	1-7	10	2.0	3000'	2.0
-----	-----	----	-----	-------	-----

STAT. 1-7 ON ROAD ON A DOWN HILL  
 SLOPE TO CRAIGMONT EASTERLY  
 OVER BURDEN WITH GRANITE DIORITE  
 FLAT. RAINING HARD

STAT. OF BACK ELECTRODE	STAT. OF INSTRUMENT	READING OF SCALE 1-100000	READING OF METER	DISTANCE BETWEEN ELECTRODES	READING OF METER	REMARKS
R. EAST * WEATHER CLOUDY WITH SUNNY PERIODS U. CORRECTION DIFFERENTIAL INDEXED POLARIZER NOV. 16/07 SURVEY MODEL DIP-2						MILD WITH ABOUT 5 INCHES OF SNOW. USED BLUE & GRAY WIRE
GOT UP TO LOCATION LINE AT 11:45 AM ON RON N° 1-2 M.C. NORTH OF CRAIGMONT ON EAST BOUNDARY OF CHAIN'S. SURVEY STARTS 1500 FEET TRUE NORTH FROM NORTH EAST CORNER OF RON N° 3 M.C. N-E CORNER IS STAT. 2-1						2-0 TO 2-2 ABOUT 400' SOUTH OF NORTH EAST CORNER OF RON N° 3 M.C. & STAT 2-1 CROSSED A ROAD RUNNING N.E. & S.W. GROUND FROM STAT. 2-0 TO 2-2 IS UP & DOWN WITH FIR & JACK PINE TIMBER WITH OVERBORDEN. LINE IS WELL CUT OUT SURVEY RUNS SOUTH WITH DIORITE FLOAT STAT. 2-2 N.E. CORNER OF RON N° 6 M.C.
2-0	2-2	10	3.3	3000'	3.3	
2-1	2-3	10	2.2	3000'	2.2	STAT. 2-3 N.E. CORNER OF RON N° 4 M.C. GROUND FAIRLY LEVEL. <sup>GRANITE</sup> DIORITE OUTCROP ABOUT 200 FEET SOUTH OF STAT. 2-3 ABOUT 600 FEET SOUTH OF STAT. 2-3 A SMALL CREEK RUNNING N.E. & S.W.
2-2	2-4	1	13.0	3000'	13.0	STAT. 2-4 NORTH EAST CORNER OF RON N° 2 M.C. OVERBORDEN WITH HEAVY TIMBER WINDFALL. TIME AT STAT. 2-4 1:45 P.M. TRIED TILL 3: PM TO GO ANOTHER 1500' FEET. WAS IMPOSSIBLE. TO HEAVY WINDFALL & JACK PINE. WASNT EVEN A BLAKE LINE.



R. EAST & WEATHER CLOUDY WITH SUNNY  
 U. CORKLE RDN 1-8 M.C. NORTH OF CRAWFORD  
 NOV. 17/57 SURVEY MODEL DTP-2

STARTED TO PULL OUT WIRE AT  
 12:30 P.M. TOOK FIRST READING AT  
 2:15 P.M. VARY THICK WINDFALL JACK  
 PINE. GOT BACK TO TRUCK AT 3:30 P.M.

PERIODS. PULLED IN BACK WIRE

STAT. OF INSTRUMENT AT S.W. CORNER  
 OF RDN N<sup>o</sup> 7 M.C. RUNNING LINE TO  
 THE NORTH. FRONT ELECTRODE 2700 FEET  
 NORTH OF RDN N<sup>o</sup> 7 S.W. CORNER.  
 THICK JACK PINE & WINDFALL ALL  
 OVERBORDEN; FAIRLY FLAT GROUND  
 GOT

STATION OR BOLT	STAT. OF ELECTRODE	SCALE	DISTANCE BETWEEN	
			METER	ELECTRODE
2700' NORTH	RDN N <sup>o</sup> 7	1	14.0	2700'

0-1	0-0	1	10.0	3000'
-----	-----	---	------	-------

0-2	0-1	1	7.5	3000'
-----	-----	---	-----	-------

STAT. 0-0 ON ROAD AT FALLEN TREE  
 RUN LINE NORTH 0-0 TO 0-1 3000'  
 ROAD COVERED WITH ABOUT 5 INCHES  
 OF SNOW

STAT. 0-1 TO 0-2 IS 3000' ALONG  
 ROAD NORTH OF RDN N<sup>o</sup> 1-3 M.C.  
 FINISHED TAKING LAST READING  
 ON ROAD AT 5 P.M.

R. EAST & WEATHER CLOUDY WITH  
 V. BOREL RIGDEL DIR. - 2 SURVEY  
 NOV. 18, 1917 SURVEYED EASTERLY FROM  
 STAT. 1-7 ON ROAD NORTH & WEST  
 OF CRAIGMONT OPEN PIT.

SUNNY PERIODS. & 2 INCHES OF NEW SNOW.  
 REMARKS.

STAT. 1-8 IS ON CRAIGMONT DUMP  
 ABOUT 800' EASTERLY OF ROAD RUNNING  
 TO ROAD NO. 1-8 M.C.

STAT. OF BACK	STAT. OF	RANGING OF	RANGING ON	DIST. BETWEEN	DIP
ELECTRONIC	INSTRUMENT	SCALE	METERS	FEET	DEGREES
1-7	1-8	10	10.2	3000'	10.2
1-8	1-9	10	4.5	3000'	4.5
1-9	1-10	10	5.0	3000'	5.0

STAT. 1-9 IS 600 FEET EASTERLY OF  
 DUMP FROM CRAIGMONT

STAT. 1-10 ON CRAIGMONT ROAD  
 GOING TO OPEN PIT.  
 STAT. 1-9 TO 1-10 GOING DOWN HILL  
 WITH OVERBURDEN.

1-10	1-11	10	12.0	3000'	12.0
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FROM STAT. 1-10 TO 1-11 IN RUNS  
 S45°E  
 STAT. 1-11 ABOUT 600' NORTH OF CRAIGMONT  
 MINES MILL.  
 STAT. 1-12 ABOUT 500' EASTERLY OF  
 ROAD UP TO OPEN PIT.  
 STAT. 1-11 ABOUT 150' EASTERLY OF  
 SMALL POWER LINE

300' EAST OF 1-11	1-12	10	5.0	300	5.0
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STAT. 1-12 ABOUT 450 FEET EASTERLY  
 OF STAT. 1-11.  
 STAT. 1-12 IS ON ABERDEEN ROAD  
 DEEP VALLEY BETWEEN STAT. 1-11 & 1-12  
 RUNNING ABOUT N 20° E

R. EAST  
V. COCKLE  
NOV. 18/67

SURVEY FROM LOWER VULCAN  
ALONG ROAD TO CRAIGMONT

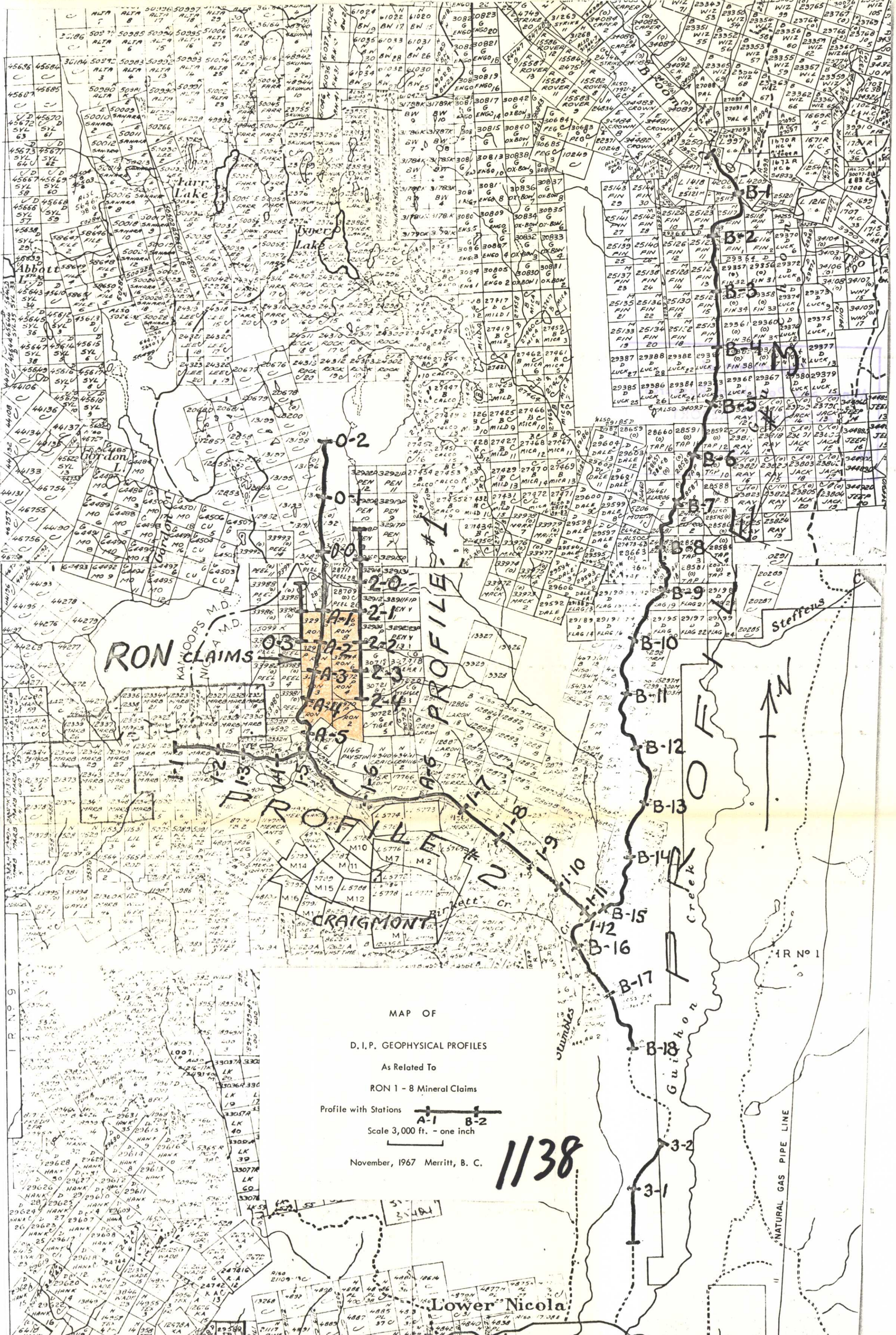
REMARKS.

BACK SIGHT CODE	STAT. OF INSTRUMENT	READING OF SCALE	READING OF METER	DIS. BETWEEN BACKSIGHT
3-0	3-1	10	6.5	3000'
3-1	3-2	10	6.5	3000'

STAT. 3-0 AT OLD GARBAGE DUMP SIGN  
METALINA ROAD TO CRAIGMONT ABOUT 3/4 OF  
6.5 MILE FROM MERITT HIGHWAY.  
RUNNING LINE ABOUT TRUE NORTH.  
VERY FLATE GROUND STAT. 3-1 ABOUT  
150' FEET EAST OF CRAIGMONT ROAD

6.5 STAT. 3-2 ABOUT 150' AWAY TO THE  
EAST FROM CRAIGMONT ROAD  
BURBURNEN & FLATE WITH LITTLE  
STANDING JACK PINE  
STAT. 3-2 ABOUT 1400' FEET SOUTH  
OF POWER LINE RUNNING EAST WEST  
TO CRAIGMONT.





**RON CLAIMS**

MAP OF  
 D. I. P. GEOPHYSICAL PROFILES  
 As Related To  
 RON 1 - 8 Mineral Claims  
 Profile with Stations  
 A-1 B-2  
 Scale 3,000 ft. - one inch

November, 1967 Merritt, B. C.

1138

Lower Nicola