



Province of  
British Columbia

Ministry of  
Energy, Mines and  
Petroleum Resources

ASSESSMENT REPORT  
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)	TOTAL COST
--------------------------	------------

AUTHOR(S) P. S. Roberts ..... SIGNATURE(S) Strato. Geological Engineering Ltd.  
A. E. Hunter ..... *H. Leis*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED Feb. 14/89. Apr. /89. YEAR OF WORK 1988

PROPERTY NAME(S) RAT. GROUP, A#2, RC#2, RC#4, RC#5, RAIN, BLACK BEAR, EUREKA, BRITISH PACIFIC, MIDDAY, SOUTHERN CROSS, TUFF'S LOST EAR

COMMODITIES PRESENT AU

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION Alberni NTS 92-C/15W

LATITUDE 48° 53' 00" LONGITUDE 124° 59' 00"

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

A#2, RC#2, RC#4, RC#5, RAIN, BLACK BEAR, EUREKA, BRITISH PACIFIC, MIDDAY, SOUTHERN CROSS, TUFF'S LOST EAR

OWNER(S)

(1) Tenquille Resources Ltd (2) Heino Leis

MAILING ADDRESS

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Vancouver, B. C.  
V6C 1H2

3566 King George Highway  
Surrey, B. C.  
V4A 5B6

OPERATOR(S) (that is, Company paying for the work)

(1) Rattler Resources Ltd. (2)

MAILING ADDRESS

3566 King George Highway  
Surrey, B. C.  
V4A 5B6

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

Property underlain by Quatsino Limestones, Bonanza Acid to basic volcanics and pyroclastics, and granite, granodiorite and quartz diorite intrusives belong to island intrusions group. These rocks range in age from upper triassic to the cretaceous era. Mineralization consists of pyrite, pyrrhotite, chalcopyrite, sphalerite, galena, gold and silver. The mineralization is related largely to metasomatic skarns of the calcic-iron type.

REFERENCES TO PREVIOUS WORK

Christenson (1987), Mueller J. E. (1980), Mueller J. E., Carson D. J. T. (1968)

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)		RAIN, RC#5, RC#4	\$11,850.00
Ground			
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	8.4 km	RAIN, TUFF'S LOST EAR, RC#5	11,850.00
Electromagnetic	8.1 km	RAIN, RC#4	11,850.00
Induced Polarization	14.3 km	RC#4, RAIN, RC#5	31,600.00
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ....)			
Soil	389	TUFF'S LOST EAR, RC#1, RC#5, RAIN	
Silt			
Rock	19	RAIN, RC#1, RC#5	11,850.00
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralogic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)			

TOTAL COST 79,000.00

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted	Rept. No.			Information Class
Date				

LOG NO: 0425

RD.

ACTION:

FILE NO:

# RATTLER RESOURCES LTD.

FILMED

Report  
on the  
Sarita River Claim Group

Alberni Mining Division  
British Columbia

N. Latitude: 48° 53' 00"

W. Longitude: 124° 59' 00"

NTS 92 C/15 W

by

P.S. Roberts, B.Sc. and A.E. Hunter, Geop.

STRATO GEOLOGICAL ENGINEERING LTD.  
3566 King George Highway  
Surrey, British Columbia  
V4A 5B6

December 15, 1988

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,662



## SUMMARY

The Sarita River Claim Group is located some 60 kilometers southwest of Port Alberni, Vancouver Island, British Columbia.

The claim group consists of seven crown grants and six located claims for a total of 42 contiguous mineral claim units. The total area is calculated to be 1977 acres (800 hectares) subject to survey. Access to the property is obtained via a gravel road from Port Alberni to Bamfield which is maintained by MacMillan Bloedel. The road distance is about 75km from Port Alberni and 20km from Bamfield.

The property is underlain by Quatsino limestones, Bonanza acid to basic volcanics and pyroclastics, and granite, granodiorite and quartz diorite intrusives belonging to the Island Intrusions Group. These rocks range in age from the upper Triassic to the Cretaceous Era.

Considerable mineral exploration has been targeted on the area in the past. The current program had two objectives, to locate additional skarn zones on new claims using reconnaissance geological, geochemical and geophysical surveys; and to locate deep geophysical targets using an induced polarization (I.P.) resistivity survey in conjunction with previous I.P. resistivity and geological surveys. The 1988 program consisted of collection and analysis of 389 soil samples, 19 rock samples, 6.2km of reconnaissance VLF-EM and magnetometer, 2km of detailed VLF-EM and magnetometer, 7.5km of I.P. resistivity surveys and geological mapping.

Mineralization consists of pyrite, pyrrhotite, chalcopyrite, sphalerite, galena, gold and silver. The mineralization is related largely to metasomatic skarns of the calcic-iron type (Christenson, 1987).

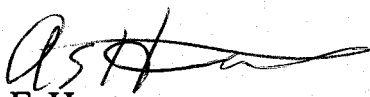
The 1987 program consisted of soil and rock geochemistry, VLF-EM, magnetometer, 3.5km of shallow I.P. resistivity surveys, geological mapping and ten short diamond drill holes totaling 311 meters. Prior to 1987 twenty diamond drill holes and forty percussion drill holes were completed on the property. The majority of the drilling was done around the Sarita Mainline at the northern boundary of the property. Short percussion and diamond drill holes were also completed on the Upper and Lower Showings.



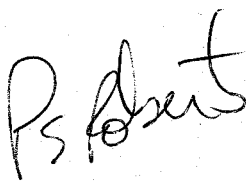
It is concluded that the Sarita River Claim Group is in a geological environment suitable for hosting an economic body of precious and/or base metals.

The 1988 work located two deep I.P. resistivity targets that require further exploration. A skarn zone was located on the newly acquired Rain Claim. Further work should be done on this skarn zone to locate the source of an associated precious and base metal soil geochemistry anomaly. The staking of the Rain and TLE claims has resulted in additional ground to be explored. Further geological, geophysical, and geochemical reconnaissance work should be conducted to locate additional skarn zones.

Respectfully submitted,  
Strato Geological Engineering Ltd.

  
A.E. Hunter  
Geophysicist

December 15, 1988

  
P.S. Roberts, B.Sc.  
Geologist



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## 1. INTRODUCTION

### 1.1 Objectives

Pursuant to a request by the Directors of Rattler Resource Ltd., a comprehensive exploration program was undertaken over parts of the Sarita River claim group by Strato Geological Engineering Ltd. The work performed included geophysical surveys and geological sampling over several areas of interest on the property.

The objectives of this exploration program were as follows:

- to use geophysical techniques to locate sources of mineralization at depth;
- to explore the Rain claim and other areas that have received little attention to date; and
- to map new road cuts.

### 1.2 Location and Access

The Sarita River property is located on Poett Heights, south of the Sarita River, Barclay Sound, Vancouver Island, B.C. (Figures 1 and 2). The property is situated in the Alberni Mining Division, within National Topographic System areas 92 C/14E and 92 C/15W (Figure 3). The Ohiat Band Numakus Indian Reserve No. 1 borders the property to the north.

The claim group is accessed by a well-maintained gravel road, the Sarita Mainline, which connects Port Alberni to Bamfield. The road distance to Port Alberni is 71km (44 miles); Bamfield lies 19.4km (12 miles) to the west. This road crosses the north edge of the property. A MacMillan-Bloedel logging road, BR 107, leads south from the Sarita Mainline into the middle of the property for a distance of 850m, at which point it splits. Northeasterly and southwesterly trending dead-end road systems, each 2-2.5km in length, provide access to the center of the property. Following the 1987 exploration program (Christenson, 1987) additional roads were constructed on the property which have facilitated more extensive mapping of the area.

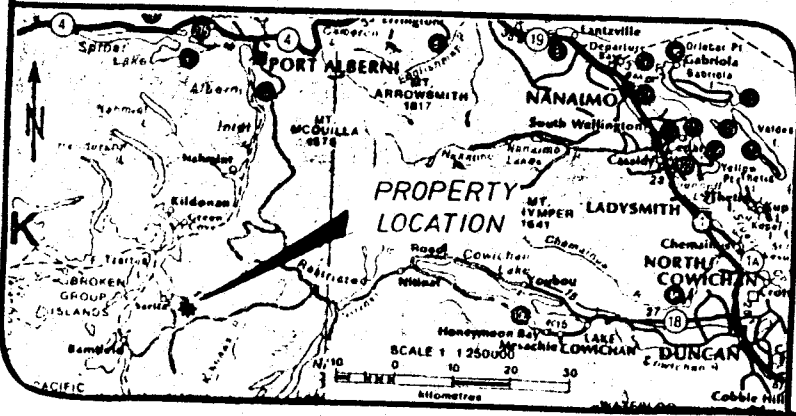
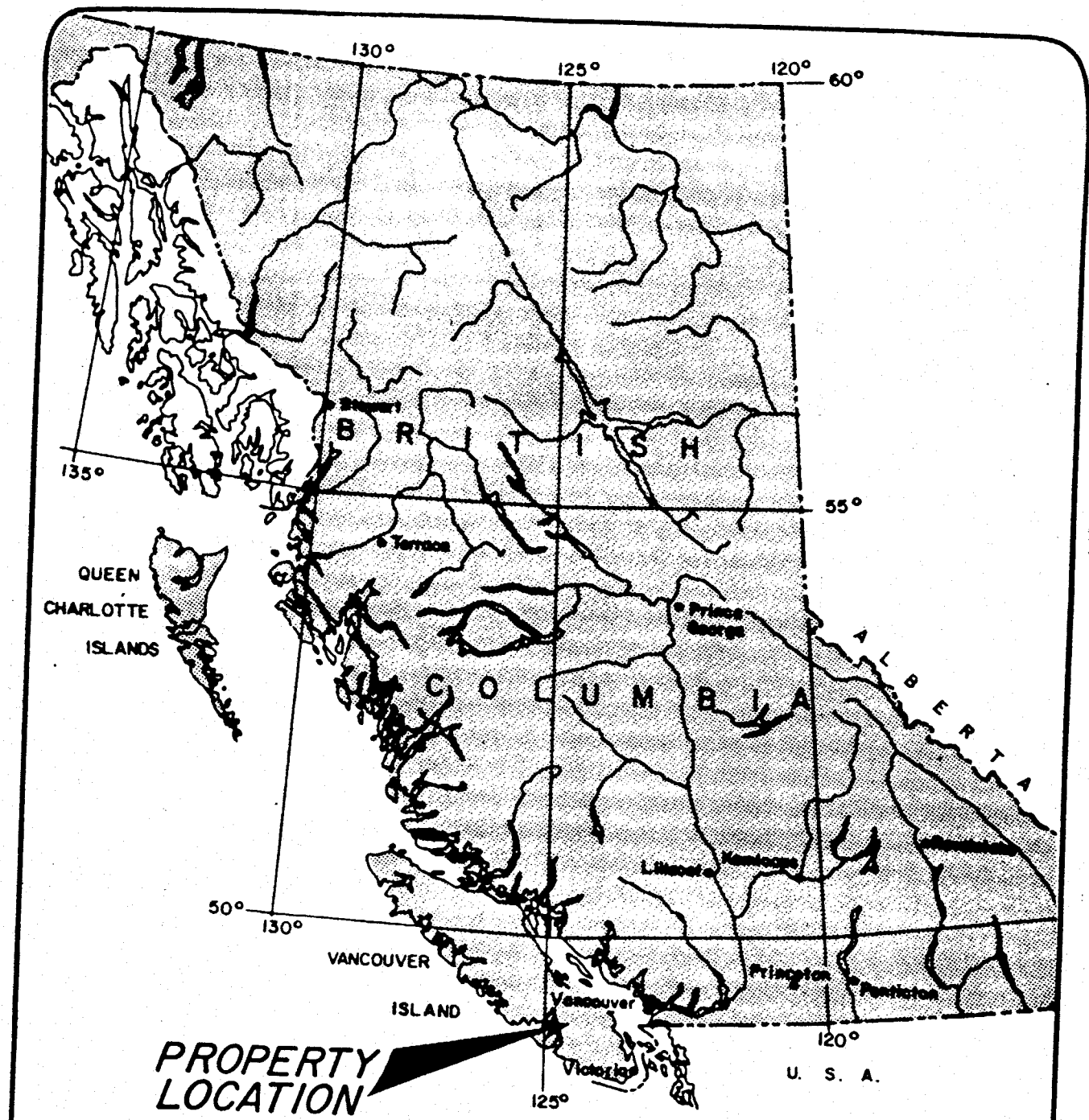


FIGURE I  
**RATTLER RESOURCE LTD.**  
**SARITA RIVER PROPERTY**  
 ALBERNI M.D. — VANCOUVER ISLAND, BC  
 NTS 92C/15W  
**LOCATION MAP**

SEPT 1988



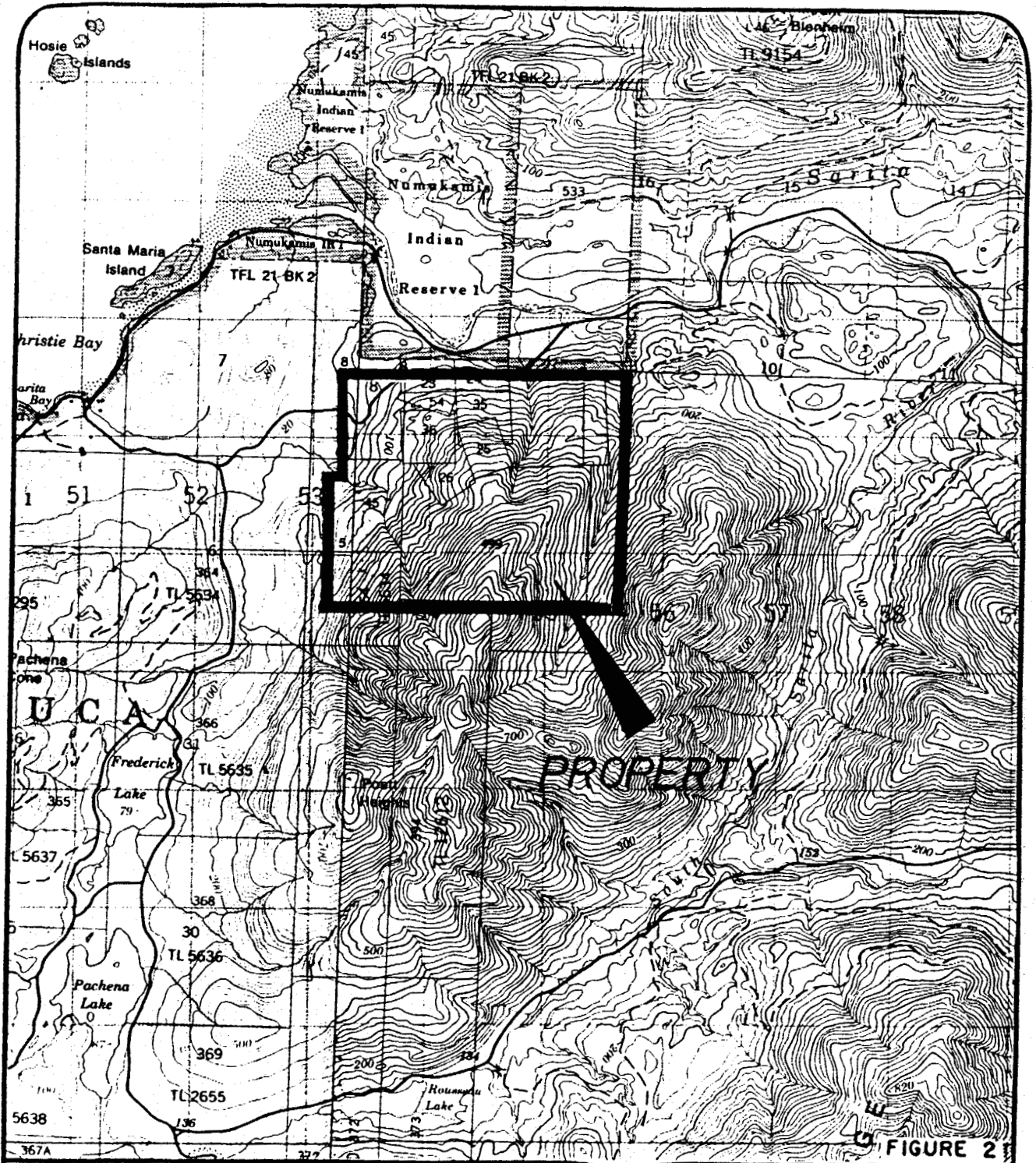


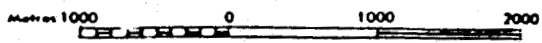
FIGURE 2

After  
NTS 92C/14, 15

RATTLER RESOURCE LTD.  
SARITA RIVER PROPERTY  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92C/15W

TOPOGRAPHIC MAP

Scale 1:50,000



SEPT 1988



### 1.3 Physiography

The Sarita River property lies on the northern and western slopes of Poett Heights, the name given to the north-northeasterly trending ridge which rises to an elevation of about 793m (2600 feet). Poett Heights is heavily forested, primarily with stands of Western Hemlock, lesser Western Red Cedar, and subordinate Douglas Fir. These tree types reflect the abundant rainfall experienced by the west coast of Vancouver Island (mean annual precipitation of 254 to 381cm, (100-150 inches)). Year-round maritime conditions are encountered, including prolonged cloudiness and moderate temperatures. Black bears commonly move down the two streams draining the western face of Poett Heights and joining just above the camp.

The western edge of the property is a swampy lowland, drained by Frederick Creek. Both this creek and the Sarita River are classified as salmon spawning streams and are subject to Fisheries control.

Information obtained at MacMillan Bloedel Franklin River Division indicates future logging will extend to the east and south of the present clear-cut within the next few years. A proposed road is indicated on Figure 5 but may not be completed for the next 2 - 3 years.

### 1.4 Property Status

The Sarita River Property consists of six located mineral claims and seven Crown Grant claims comprising twenty-seven claim units. The claims are situated in the Alberni Mining Division, Vancouver Island, British Columbia. Information on file at the office of the Gold Commissioner at Nanaimo, B.C. is as follows:

### LOCATED MINERAL CLAIMS

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>
A#2	170(2)	2Wx3S = 6	14/02/90
RC#2	167(2)	2Wx3S = 6	14/02/90
RC#4	534(9)	2Wx2N = 4	06/10/90
RC#5	200(5)	2Sx2E = 4	25/05/90
Rain	3557(3)	3Sx3E = 9	25/04/89
Toffs Lost Ear	3652	2Nx3E = 6	26/08/89

### PATENTED MINERAL CLAIMS

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>
Black Bear	Lot #23	1	Taxes due May 30 annually
Eureka	Lot #24	1	Taxes due May 30 annually
British Pacific	Lot #25	1	Taxes due May 30 annually
Middy	Lot #26	1	Taxes due May 30 annually
Southern Cross	Lot #35	1	Taxes due May 30 annually
United	Lot #36	1	Taxes due May 30 annually
Union	Lot #54	1	Taxes due May 30 annually

The claim posts had been previously established and most were not examined during this program. However, the legal corner post for the Rain claim was located and used as the LCP for the Toff's Lost Ear claim. The Toff's Lost Ear claim was staked immediately north of the Rain claim in order to acquire ground that appeared to be a favorable host to sulfide mineralization based upon the results of the induced polarization and resistivity surveys. It consists of two units north by three units east for a total of six units.

Tenquille Resources Ltd. is the registered owner of the Sarita River Property, except for Toff's Lost Ear which is beneficially owned by Rattler Resource Ltd. The property is the subject of an option agreement, through which Tenquille granted an option to Rattler to acquire a 50% interest in the property by incurring a total of \$200,000 in exploration expenses by February 29, 1989.

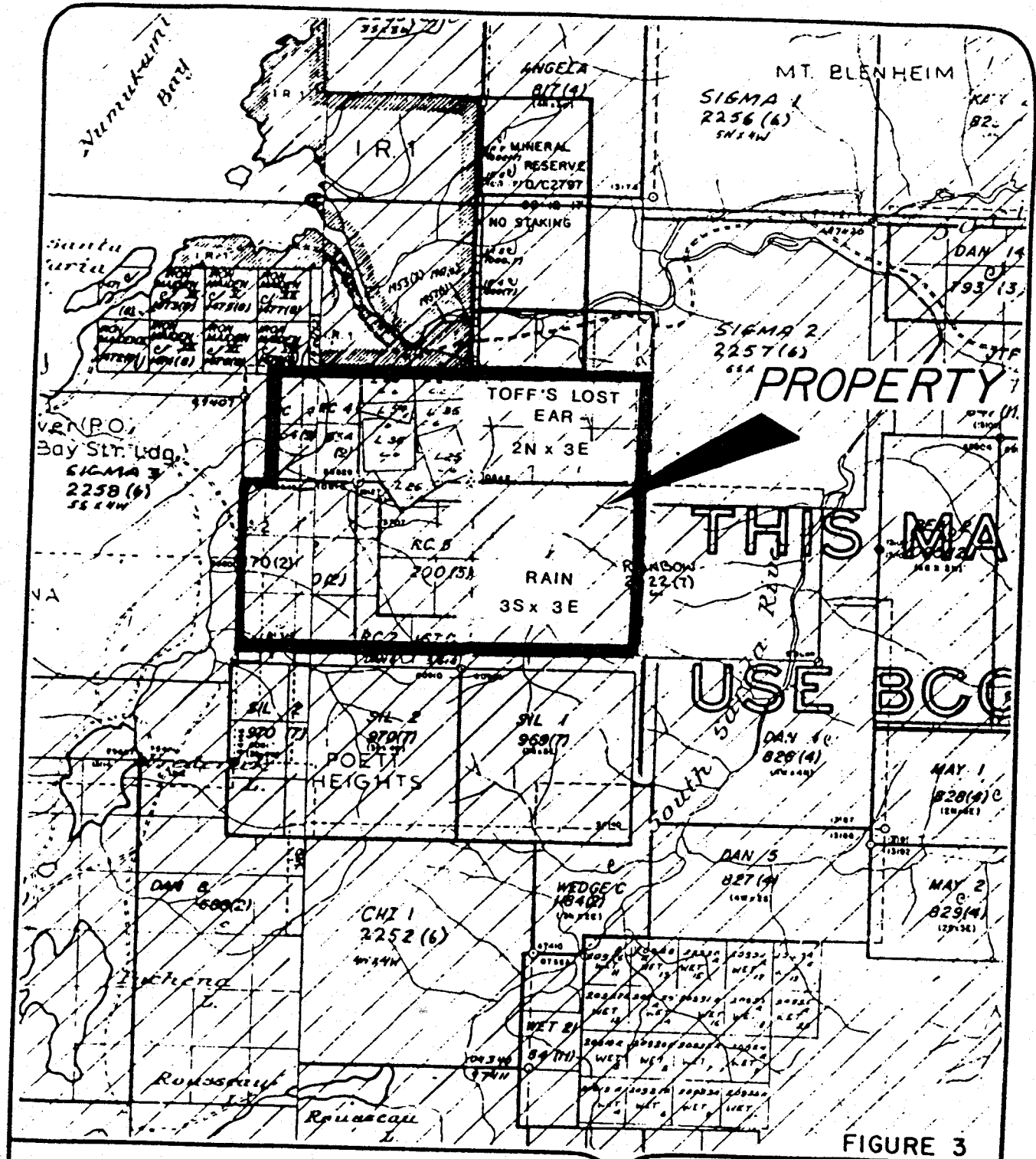


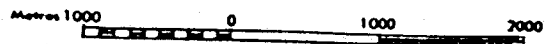
FIGURE 3

AFTER  
MINERAL TITLES MAP  
M92C/15W

RATTLER RESOURCE LTD.  
SARITA RIVER PROPERTY  
ALBERNI M.D. — VANCOUVER ISLAND, BC  
NTS 92C/15W

CLAIM MAP

Scale 1:50,000



SEPT 1988



## 1.5 Operations and Communications

The program consisted of 2 field crews; one that performed soil sampling reconnaissance VLF-EM and magnetic surveys; and a second that carried out the I.P. resistivity survey. The first crew consisted of P. Roberts, S. Conley and M. Falk and worked between July 9-28, 1988. The second crew consisted of A.E. Hunter, J. McKeown, M. Falk, S. Schellenberg and D. Stretton and worked between July 28 and August 18, 1988. The crews were housed in three tents at a campsite shown on Figure 5. Between August 27 and 29, 1988 the TLE claim was staked and soil grid B was completed.

## 2. HISTORY AND PREVIOUS DEVELOPMENT

From Tully's report of 1987. References to figures and appendices are Tully's own.

"Mineral exploration for iron is recorded for the year 1895 in the area of Sarita River and the Poett Heights property. Apparently some exploration activity for iron continued until 1922. An adit resulting from this work was recorded on the south side of a roadway on the Numukamis Indian Reserve 1, on a survey by Wright, Hillyard and Parry for Nomad Mines Ltd., in 1979 to establish the boundary between the seven Crown Grants and the Indian Reservation. According to the record, the Crown Grant mineral claims were filed in the years 1901, 1907, 1926.

In 1961, a dip needle survey was carried out in the vicinity of what was then called the 'Pachena Creek Swamp Adit'. This adit may have been the above-mentioned adit on the Numukamis Indian Reserve.

Peel Resources Ltd. performed a magnetometer survey over the OMA #1 - #4 claim group in 1966. At this time, trenching and test-pitting were done on the LOWER showing near elevation + 200 meters and some 180 feet of X-Ray core size diamond drilling was reported carried out. This writer found a collar of a drill hole of this core size on the LOWER SHOWING.

Katanga Mines Ltd. did a magnetometer survey over some of the present claim area under the direction of W. Timmins in 1909. The claim group included the Sunny, Omar, K.S., B.S., and Gambler claims.

In 1970, W.J. Weymark, P. Eng., reported a description of a copper-iron deposit on the Ohiaht Indian Reserve No. 1 to M.W. Hawrelak. His report dated November 27, 1970 included assays for copper and a recommendation for a magnetometer survey, according to K. Vincent Campbell, Ph.D.



In 1971, R.W. Kenway, P. Eng., examined the Katanga Mines Sarita River property. This report dated May 26, 1971 indicates several samples containing interesting values in silver in the area of the LOWER SHOWING.

B.C. Assessment Report 5472 dated May 17, 1975 on the DOER Claim Group, located in the area of the present RC#4 claim, was prepared by J.W. McLeod for Grand West Mines.

On February 10, 1978, Nomad Mines Ltd. acquired an option on the seven Crown Grant mineral claims numbered 23-26, 35, 36 and 54. On October 2, 1979, the A2, RC#2, RC#4, RC#5 mineral claims were also acquired by Nomad Mines.

Nomad drilled ten percussion drill holes on the Numukamis Indian Reserve in February 1979 on a showing of pyrite, pyrrhotite and chalcopyrite. This showing is located on the Indian Reserve about 375 feet north of the south boundary. These percussion drill holes were numbered PH-1 to PH-10 inclusive. Two of these holes indicated significant values in gold and silver. Two check percussion holes N2T and N6T were drilled in August 1979 under the direction of P.W. Richardson, Ph.D., P. Eng. The assay results from the two check drill holes indicated a correlation in part with the two previously drilled holes that reported good grade gold and silver assays.

Five percussion drill holes were located for Nomad Mines Ltd., along the logging road on the Black Bear Crown Grant Lot 23 in November 1979 to test a shear zone reported to carry gold values. This indicated zone is located approximately 800 feet south and slightly west of the above described and previously drilled sulfide mineral zone of the Indian Reserve, which was reported to be under agreement to Nomad from the Reservation authority. These holes, numbered N-1 through N-5, were drilled some time in December 1979. Two of these holes, N-1 and N-2, were reported by Nomad Mines as carrying significant values in gold. On January 15, 1980, the writer examined the sample cuttings from percussion drill holes N-1 and N-2 and to ok check samples. The results of this examination were discussed in this writer's report dated January 24, 1980 with related accompanying correspondence.

Nomad Mines Ltd. continued percussion drilling during January and February, 1980. The results of this work are recorded by K. Vincent Campbell, Ph.D., in his report dated March 26, 1981, on file with the British Columbia Ministry of Energy, Mines and Petroleum Resources as Assessment Report #9509 (Parts 1 and 2). K.V. Campbell's account on pages 12-14 of his report is as follows:

'Percussion drilling along the main road continued in January and February, 1980. The identification of the drill sites is confused. The assay certificates (Appendix XI) refer to H#6 to H#16 inclusive and PH-23 to PH-25 inclusive. A plan of the hole locations by A. Ashton, P. Eng. of Nomad Mines identifies holes P6 to P24 inclusive and P26. Mr. Wayne Spence, who drilled the holes, informs me that only 25 holes were drilled and that P26 is PH-25. On this plan (Appendix XII) the initial five holes of the drill program, N-1 to N-5, are identified as P1 to P5. Of the assays listed in Appendix XI interesting gold values are reported from H#7, H#9, H#13, H#14, H#15 and H#16.

Diamond drilling with a 1" Winkie drill took place at the upper showing in January 1980. Six holes were drilled; ND-1 (no assay), ND-2, ND-3 (= DN3), ND-4, D-5 and D-6. Of these, interesting gold and silver values were reported in ND-2 and ND-3 (Appendix XIII).

In November and December 1979 and January 1980, D.W. Tully examined a portion of the property. In his report for Nomad Mines dated January 24, 1980 he reviewed the 1978-79 history of the property and recommended a two-stage program of exploration (Appendix XIV). He also collected five samples at the lower and upper showings and the locations of these is shown on his figure of Dec. 3, 1979 which accompanies the assay certificate in Appendix XV. He took magnetometer and EM-16 (VLF) readings and these are shown on the same figure.

In the spring of 1980 S.E.R.E.M. Ltd. undertook diamond drilling in the area of the 1979 percussion drill holes N-1 and H#9 (= N-9 or P9) along the main road. The core samples had very low gold contents. Rock types present in the core were a variety of volcanic rocks, diorite and skarn.

Nomad Mines initiated grid establishment and geochemical soil sampling in the summer of 1980 and the results have been incorporated into the main body of this report.

#### Summary of Previous Findings

1. Gold assays to 0.74 oz/ton and silver assays to 0.90 oz/ton are reported from percussion drill sites north of the Poett Heights property (PH-1 to PH-10) on the Indian Reserve (Appendices V, VI).
2. Gold assays from percussion drill holes N-1 and N-2 along the Port Alberni-Bamfield road indicate values to 0.49 oz/ton with silver assays to 0.60 oz/ton. These locations were check sampled and assayed with a lack of agreement was noted (Appendices VII, VIII, IX, X).
3. Further percussion drilling along the main road and the logging road leading south into the property (H#6 to H#16, PH-23 to PH-25) gave samples assaying to 0.98 oz/ton gold and 0.68 oz/ton silver (Appendix XI).
4. Selected samples taken from the vicinity of the upper showing assayed to 15.35 oz/ton silver (Appendix III). Mineralization was reported to be in shear zones in volcanics. Diamond drilling (Appendix XIII) gave samples assaying to 0.04 oz/ton gold and 5.64 oz/ton silver. The diamond drilling was to the northeast of the high silver-bearing sample sites reported earlier.
5. Surface samples of the lower showing (Appendix XV) assayed 0.04 oz/ton gold and 0.05 oz/ton silver.' "

In 1987 Strato Geological Engineering Ltd. conducted a program of mineral exploration for Rattler Resource Ltd. involving geophysical surveys, soil and rock sampling, detailed geological mapping and 305m of diamond

drilling. This work was carried out along the existing logging roads as well as over a newly established grid located mainly on the RC#5 claim.

The nature of the gold and silver mineralization has not been adequately determined. The mineralization is often associated with skarn zones in limestones and related marbles of the Quatsino Formation.

### 3. GEOLOGY

#### 3.1 Regional Geology

The rock units of Vancouver Island include the Triassic Karmutsen and Quatsino Formations and the overlying Jurassic Bonanza Group, intruded by the Jurassic Island Intrusions and West Coast Complex (Figure 4). Table 1 is a summary of the rock units found on the south side of Barclay Sound, as indicated on the geological map of Vancouver Island by J.E. Muller, 1977, and compiled by K.V. Campbell, 1981.

The Parson Bay Formation is in diachronous contact with the Quatsino Limestone; the two units are difficult to separate in the field, particularly in the Sarita River area where they occur as rafts without significant lateral extent. These two units were mapped together as one unit and referred to as Quatsino limestone.

The Sarita River property lies in the western-most tectonic subdivision of the Canadian Cordillera, termed the Insular Belt. This tectonic region has been shown to be composed of several fault-bounded, stratigraphically distinct, allochthonous terranes. Some of these terranes have migrated thousands of kilometers and have been added by accretion to the western continent of North America. Vancouver Island forms part of the "Wrangellia" terrane. Parts of this terrane are found stretching to northern Alaska (Ben-Avraham and Nur, 1983).

At one time, Wrangellia was a volcanic plateau situated in the Pacific Ocean. It may have originally formed as part of a continent, been detached and submerged, uplifted as a volcanic plateau, and subsequently accreted onto the North American continent. The evidence for this evolutionary history has been accumulated largely within the past ten years; the interested reader is referred to Jones, Siberling, and Hillhouse (1977), Monger and Price (1979), and Ben-Avraham and Nur (1983).

This complex history has favored the creation of several diverse ore-forming environments. Deposits of volcanogenic massive sulfides, skarns, porphyry coppers, and gold-quartz veins have been located on Vancouver Island.

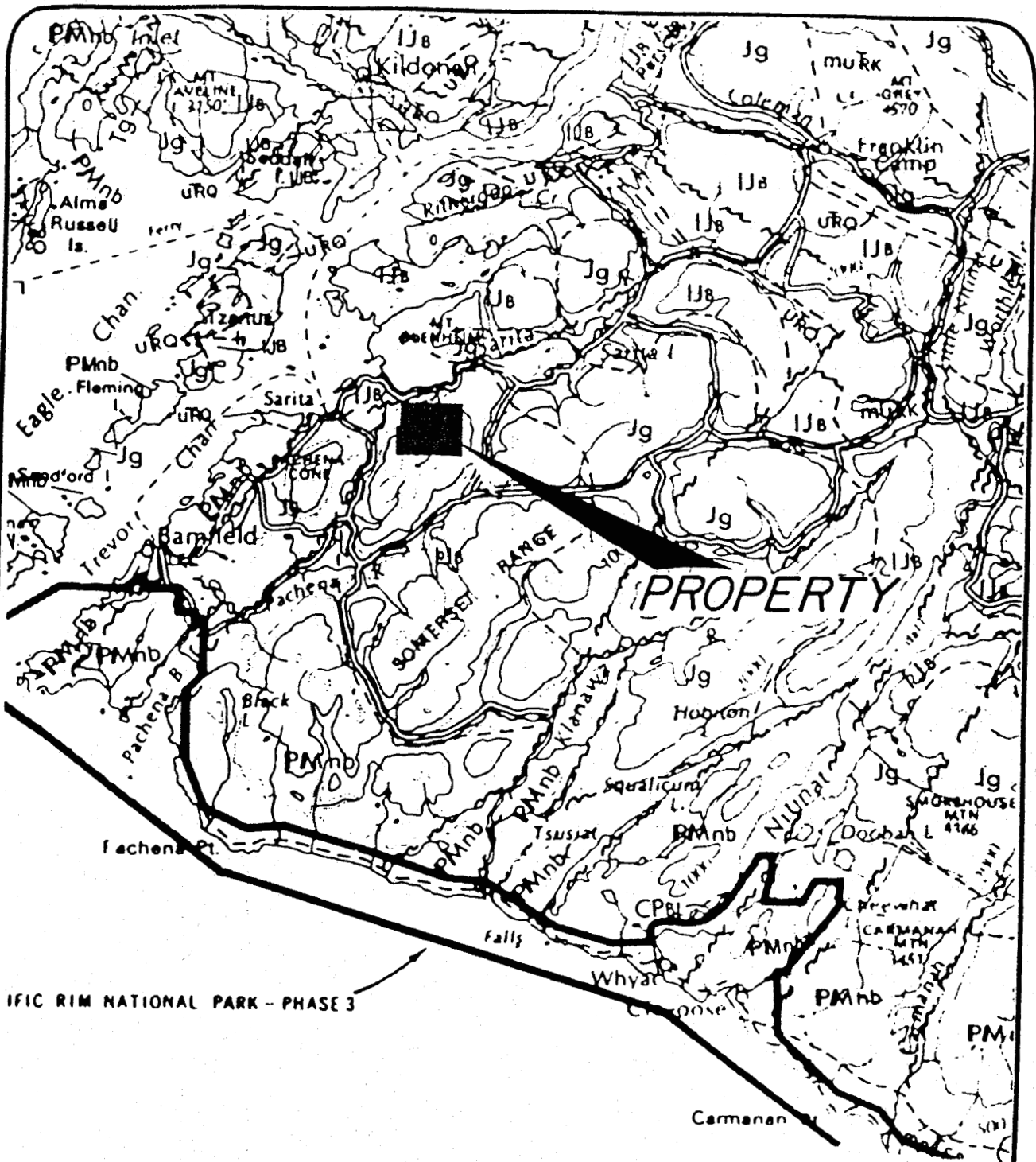


FIGURE 4

- Jg - ISLAND INTRUSIONS
- IJB - BONANZA GP. VOLCANICS
- URQ - QUATSINO LIMESTONE
- muRK - KARMUTSEN Fm.
- PMnb - BASIC WESTCOAST COMPLEX

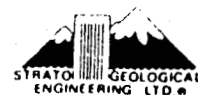
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RATTLER RESOURCE LTD.  
 SARITA RIVER PROPERTY  
 ALBERNI M.D. — VANCOUVER ISLAND, BC  
 NTS 92C/15W

REGIONAL GEOLOGY  
 (After O.F. 463)

SEPT 1988



**TABLE 1**

**ROCK UNITS OF SOUTHERN BARCLAY SOUND**

Age	Rock Unit	Thickness	Description
Mid to Late Jurassic	Island Intrusions		granite to quartz diorite intruding Bonanza Group as high level stocks and dikes
	Westcoast Complex		intrusions of quartz diorite, amphibolite, hornblende-plagioclase gneiss
Early Jurassic	Bonanza Group	average 1,500 m	lava, tuff, breccia, interbedded with argillite and greywacke. Volcanics are mainly basaltic and rhyolitic, but dacitic and andesitic types are present
Late Triassic	Parson Bay Formation	300 to 600 m	interbedded calcareous black argillite, calcareous greywacke, sandy to shaly limestone
	Quatsino Formation	25 to 500 m	massive the thick bedded very fine grained limestone

### 3.2 Property Geology

K.V. Campbell (1981) presented a geologic map of the Sarita River property and described the rock units of the area. The work undertaken for this report serves to expand the areas investigated, using Campbell's and Christenson's earlier studies as a framework.

The Franklin River Division of McMillan Bloedel has recently completed a road building program in advance of a proposed logging program. The new road extensions off Branch 107 have been mapped geologically to build upon the information previously gathered and reported by L. Christenson (1987). Figure 5 provides an overview of the grid locations on the Sarita River property at a scale of 1:5000. Figure 6 offers a 1:1000 detailed geological map of the new roads as well as proposed lithological contact.

Campbell provided detailed descriptions of the rock units found on the Sarita River property; a complete re-capitulation of those descriptions is not required for the purpose of this report. A brief description of the rock types, largely summarized from Campbell's work, is as follows:

#### (a) Quatsino Formation:

A fine grained to micro-crystalline limestone with a black to dark grey fresh surface and a bluish grey to white weathered surface. The unit is mainly massive; a sub-unit of limestone breccia with calcareous shaley laminations occurs in the area of the Upper Showing, and at the terminus of the south-western road system (the outcrop drilled by DDH-87-1 and 2). This sub-unit is also found along BR 107E, mostly visible as loose boulders of local origin.

#### (b) Bonanza Group:

Much of Poett Heights is composed of rocks of the Bonanza Group; a heterolithic assemblage of lavas, breccias, and tuffs. Rock types include light colored rhyolite, dacites, and tuff; green to purplish andesite, feldspar porphyries, and fine grained basalt; green tuffs; and numerous dikes. The rhyolites, dacites, and tuffs are intensely shattered and similar in appearance; during this program they were mapped together as one unit.



(c) Westcoast Complex:

Campbell mapped several exposures of dark green, medium grained hornblende diorite and quartz diorite along the main road, which he assigned to the Westcoast Complex.

(d) Island Intrusions:

Much of the northern and northwestern claim area is underlain by a light colored, medium grained, massive, well jointed granodiorite. Detailed geological mapping was completed over the Large Rain grid (Figure 7). Within this grid, a small detailed grid referred to as the Small Rain grid (Figure 8) was established over an iron-rich magnetite skarn.

The Large Rain Grid contains few outcrop localities. Most occur along the river predominantly as fresh pot-holed limestone with occasional small pyrite and magnetite blebs found as convoluted and broken veinlets.

To the south of line 14, along the river, silicified volcanics occur at least to the southern grid boundary. The area beyond the grid to the south was not investigated.

Within the Large Rain grid, a pyrite magnetite skarn was identified and thoroughly examined. The Small Rain grid was established over this showing with 200 meter long lines spaced 25 meters apart. The orange rusty outcrops are highly resistant to weathering and stand out plainly in the forest.

This area was sampled geochemically by rock samples PR-88-006, 007, 008, 009, but was found to be enriched only in copper with negligible concentrations of Pb, Zn, Ag, As and Au. Soil samples collected on the Large Rain grid reveal precious and base metal anomalies immediately downslope from this area. This area requires further work to establish the source of the precious metal mineralization.

From the easterly end of line 11, a river traverse was undertaken for 500 meters up a small creek in an easterly direction. The rocks consisted entirely of massive to well bedded limestone as seen in the river. No eastern

lithological boundary has yet been determined. The total extent of the limestone is therefore unknown.

A tentative northern lithological contact was examined in the river approximately 100m south of the Toff's Lost Ear northern claim boundary. The limestone is highly contorted here displaying high angle drag folds in contact with a shattered silicified dark green volcanic rock. The volcanics found on the claim line (samples TLE-88- 001, 002, 003, 004) all contain abundant pyrite, up to 30%, however the geochemical results indicate low grade occurrences for all elements analyzed for. Visually, these rocks appear identical to the volcanics found in the area of samples PR-88-003 and PR-88-009.

Samples PR-88-001, 003, 004 and 009, Figure 6, all originate from within a volcanic outlier. A second outlier is located approximately 100 meters to the northeast. These volcanic blocks appear to be nested on top of the underlying limestone which is thought to completely underlie both "rafts".

Christenson (1987) includes in his report a schematic east-west cross section showing small limestone and skarn rafts in place over a large volcanic pile. Recently acquired geological information suggests that the extent of the Quatsino limestone is much greater than previously noted, especially beneath the Rain and TLE claims.

### **3.3 Economic Geology (Quote from Christenson, 1987)**

"Mineralized showings in the Sarita River area have been shown to relate to the metasomatic skarn type (Young and Uglow, 1926). Skarn deposits are among the most abundant and variable of all types of mineral deposits. They have been divided into several classifications based on geologic and mineralogic features; a brief discussion of the Sarita River type is included here as it serves to define exploration methodology.

Skarn forms from the replacement of carbonate-bearing rocks as a result of intrusive activity. Two broad skarn categories exist: those formed by the replacement of dolomite produce magnesian silicates and are termed magnesian skarns; skarn that replaces limestone forms iron-calcium silicates and is termed calcic skarn. Sub-classes of these types are defined by the dominant economic

mineral present. Six major sub-classes exist: Fe, W, Cu, Zn-Pb, Mo and Sn. Variations within these sub-classes are common, based on such factors as rock type and depth of emplacement (Einuadi and others, 1981).

Based on the results of rock and drill core geochemistry the Sarita River deposit can be classified as a calcic skarn, or more specifically, a calcic-iron skarn. These are virtually the only type found in oceanic island-arc terranes. Meinert (1984) states that these skarn types are particularly interesting because of their large size and minor element suite of Au, Co, Cu, and Zn.

The Sarita River skarns formed as a result of the proximity of the Island Intrusions (granodiorite) and Quatsino Limestone. The skarns themselves are seen mostly in Bonanza Volcanics; particularly the more siliceous volcanics and tuffs. The deposits range from a very iron-rich magnetite-pyrrhotite skarn with abundant garnet and pyroxene, to a pyrrhotite-pyrite-chalcopyrite-sphalerite rich skarn.

A search of the literature pertaining to Vancouver Island skarn deposits has revealed a close correlation between the Sarita River deposit and the Iron Hill property, located 37km (23 miles) SW of Campbell River. Iron Hill was mined in the 1950's for iron in a skarn setting. Similarities between the Sarita and Iron Hill deposits include:

1. The skarn formation is related to a granodioritic intrusion.
2. Skarn did not form at the contact with the granodiorites; fluids traveled some distance through volcanic rocks.
3. Both deposits are formed primarily in volcanics at the contact with Quatsino Limestone; the volcanics of Iron Hill are of a more basic variety.
4. The contact of skarn with unreplaced rock is sharply defined but irregular.
5. Away from limestone, skarn formation in volcanics is incomplete and forms mainly in pods, tabular bodies and veins.

6. Skarn formed most readily in structurally prepared volcanics; - at Sarita River, skarn forms in the silicic volcanics and tuffs, which Campbell (1981) noted to be intensely shattered.

The salient feature connecting both deposits is the proximity of ore to limestone. At a distance from limestone only small occurrences of skarn are found. This suggests that without an adjacent limestone body, ore formation is on a small scale.

The Iron Hill deposit was formed in volcanics of the Karmutsen Group. The Sarita River skarn has formed in the Bonanza Group volcanics and tuffs. This may or may not be significant; the Karmutsen is a more basic rock unit than the silicic members of the Bonanza Group. This may account for the iron-rich nature of the Iron Hill deposit, as metasomatic exchanges have more iron available in basic rock types."

Previous work has suggested that the skarns returning good gold values are those which contain chalcopyrite and/or sphalerite. The pyrrhotite-magnetite iron-rich skarns generally do not contain significant precious metal development (Christenson, 1987).

## 4. GEOPHYSICS

### 4.1 Objectives and Methods

Three different types of surveys were used on the Sarita River claims for two different purposes. A reconnaissance VLF-EM and magnetometer survey was performed over the Rain claim to locate and detail iron rich skarn zones. An induced polarization/resistivity survey was used to provide information to depth in an area located mainly to the south and east of the I.P.-resistivity work done by Christenson in 1987.

### 4.2 VLF-EM Survey

A Sabre Electronics Model 27 Receiver (Appendix V) was used to do VLF-EM surveys. A total of 6.1km over the Large Rain grid was surveyed using the Hawaii transmitter at a frequency of 23.4 kHz. The survey was conducted east-west along seven grid lines with a line separation of approximately 100 meters. Dip angle and relative field strength were measured at 12.5 meter intervals along each line.

A total of 2km of a Small Rain grid within the Large Rain grid was also surveyed using the Cutler, Maine transmitter at a frequency of 17.8 kHz. This survey was conducted along 10 grid lines bearing 20 degrees at stations 10 meters apart. Each line was 200 meters long with a 25 meter separation between lines. Again, dip angle and relative field strength measurements were taken.

Profile plot plan maps and Fraser filtered contour maps (Figures 12 to 15) of both the Large and the Small Rain grid areas display the data that was recorded.

The dip angle and relative field strength from the profile plot plan map of the Large Rain grid (Figure 13) is generally variable with very few features of obvious interest. Two areas, however, do stand out from the rest. The first is along Line 14S between approximately 3+50E and 4+00E, where two field strength peaks are associated with a dip angle anomaly. This anomaly indicates an area of mineralization corresponding to a gossanous skarn outcrop at this location. The second area of interest is along Line 16S between

0+50E and 1+50E. There is a strong maximum in the relative field strength which is, however, associated with only a moderate dip angle anomaly. A black to dark green andesite was mapped along this line from 0+50L to 1+00E. Also there is some gossanous outcrop in the area of this relative field strength high.

The contour map of the Fraser filtered dip angle data of the Large Rain grid (Figure 12) shows one area of interest. This is the area surrounding 4+00E along Line 14S, corresponding to a maximum of 26 filtered degree units.

The profile plot plan map of the Small Rain grid (Figure 15) shows a strong correspondence between maxima in the relative field strength, maximum slope of the dip angle and the gossanous skarn outcrops observed in this area. The best examples of this are at 0+00 on Line 7E and at 0+00 on Line 8E. This maximum in field strength with the associated maximum slope in dip angle runs from 0+00 on Line 9E along the baseline (0+00) to Line 4E before turning to the SW and ending at about 0+40S on Line 2E.

In addition, there is a very slight change in the dip angle with a weak field strength high that runs along a trend at 0+50N from Line 1E to Line 5E. This seems to be associated with a fault in this area.

The Fraser filter contour map of the Small Rain grid (Figure 14) shows a strong high running from 0+40S on Line 2E to 0+00 on Line 4E and along the baseline to Line 9E. The maximum occurs at 0+00 on Line 7E. The high corresponds to a line of gossanous iron-bearing skarn outcrops. There is also a weak high associated with the fault in the NW section of the grid.

#### 4.3 Magnetic Survey

A Scintrex Model MP-2 proton precession magnetometer (Appendix V) was used to do two magnetometer surveys. A total of 6.4 kilometers on the Large Rain grid was surveyed along 7 grid lines running east-west. The line separation was approximately 100 meters and the station separation was 12.5 meters. Total magnetic field measurements were taken.

A total of 2km on the Small Rain grid, located within the Large Rain grid, was also surveyed. The survey was conducted along 10 grid lines with a bearing of 20 degrees. Each line was 200 meters long with a 25 meter separation between lines. Total magnetic field measurements were taken at stations 10 meters apart.

Magnetic contour maps of both the Large and the Small Rain grid areas (Figures 16 and 17 respectively) display values that result from the subtraction of a base field of 55000 gammas. The most significant feature of the magnetic contour map of the Large Rain grid is the magnetic high that runs from 2 + 60E to 4 + 25E on Line 14S. Values in this region reach at maximum of over 6000 gammas at 4 + 75E, and corresponds to gossanous iron-bearing skarn outcrop in this area.

The magnetic contour map of the Small Rain grid (Figure 17) shows strong magnetic highs (4000 gammas) at 0 + 40S on Line 3E, at 0 + 10S on Line 5E, and at 0 + 00 and 0 + 50N on Line 7E. These strong magnetic highs are associated with gossanous iron-bearing skarns which also cause VLF-EM anomalies (discussion section 4.2).

There is also an anomalous trend along 0 + 50N from Line 4E to Line 8E which approximately corresponds to the weak VLF-EM anomaly apparent of Figures 14 and 15. Both these features are probably related to a fault cutting across the grid in this area. The magnetic anomaly is also connected with a small skarn area centered on Line 7E around 0 + 50N.

#### 4.4 I.P. - Resistivity Surveys

A total of five induced polarization (I.P.) - resistivity survey lines were run over a total of 7.5km. Four lines (L1, L2, L4, L5) were run at a bearing of 229 degrees for a total of 6.8km and one line (L3) was run at 245 degrees for 800 meters. Line 3 was centered north of the upper showing (Christenson, 1987) and was intended to establish the geophysical signature of the upper showing and its continuity with the lower showing. The remaining lines were established across the hillside generally south and east of previous I.P. - resistivity surveys (Christenson, 1987) conducted on the road systems present in 1987. Approximately 500 meters of each of these lines (except for L3) climb uphill steeply between stations 300 and 800 on most lines.

All lines were surveyed employing a pole-dipole configuration. A common infinity location was established near the Sarita River on the east side of the creek bisecting the Rain claim. The transmitter was set up at convenient locations near the northeast ends of the lines. All parties maintained radio contact with Motorola HT-90 hand held FM walkie talkies. A dipole spacing (a) of 100 meters was used on all lines, except Line 3 where 50 meters was used. Generally up to six dipole separations were employed giving a maximum depth of penetration of 300 meters on all lines save Line 3 where it is 150 meters.

A Hunttec Mark IV 7.5 kW transmitter and matching receiver were used to conduct a time domain survey (Appendix V). A pulse frequency of 1/8 Hz (2 seconds on (+), 2 seconds off, 2 seconds on (-), 2 seconds off) was used. Sampling for chargeability was done over ten 150 ms windows commencing 200 ms after shutdown.

What follows is a brief line by line description of the results of the I.P. - resistivity survey:

#### Line 1 (Figure 22)

A well defined apparent resistivity low, with values as low as 600 ohm-meter, is centered at 350 and extends to depth. This low is closely flanked by apparent resistivity highs (around 10,000 ohm-meter) and the contrast between the high and low values reaches 30. A chargeability high of up to 80 msec is coincident with the southwesterly flanking resistivity high. This pattern is very similar to that located at 6+50N of I.P. survey Line 3 done by Christenson in 1987. At this location the geology in the roadcut reveals a limestone on the east in fault contact with intermediate to basic volcanics. The anomaly on Line 1 is near the proposed contact of the volcanic and limestone units. At 600 this contact is observed in the roadcut where a skarn and evidence of fault movement are also apparent. Faulting is also observed on the roadcut above Line 1 between 3+00 and 6+00 in two places. Two negative chargeabilities are noted at n=4 and 6 with the transmitter electrode at 1200.



### Line 2 (Figure 23)

The high noted flanking the low on Line 1 is again noticed here where it is again accompanied by a high chargeability centered at 600.

Between 900 and 1400 a series of steeply dipping apparent resistivity highs are accompanied by chargeability highs and flanking lows. When the transmitter electrode is at 1100 four negative chargeabilities are noted from  $n=2$  to  $n=6$ . The very narrow nature of this pattern and the negative chargeabilities suggest it could be the result of channeling of current along a conductive fault zone. Christenson (1987) mapped an easterly trending fault, with a dip of 64 degrees to the north, in a gully on road 107C. A strike extension of this fault crosses Line 2 at 1100. Christenson mapped a limestone and a skarn zone to the south of this fault which was tested by DDH 87-9.

Numerous anomalous values of base metals and silver are found in this general area on Soil Grid A (Figure 9).

### Line 3 (Figure 24)

This line was surveyed to establish signature near the old upper showing which is located 25 meters southwest of 350. A slight apparent resistivity low on the edge of regions of low and slightly higher chargeability is apparent.

### Line 4 (Figure 25)

The data shows an apparent resistivity high flanked by a low and accompanied by a weak chargeability high on the northeast end of the line. This pattern is somewhat similar to that found at the northeast end of Line 1.

### Line 5 (Figure 26)

The data shows a shallow apparent resistivity low flanked by highs and accompanied by a very weak chargeability high located on the northeast end of the line. This pattern is somewhat similar to that found on the northeast end of Line 1.

The pseudo-section data is also presented in plan form (Figures 18 to 21) for values of  $n=2$  (corresponding to an average depth of penetration of 150 meters) and  $n=4$  (corresponding to a 250 meter average depth of penetration). The apparent resistivity low on the northeast end of the lines is evident as is the flanking resistivity high to the southwest and the chargeability high. The pattern of flanking apparent resistivity highs and lows accompanied by an even more pronounced chargeability anomaly pattern in the southwest half of Line 2 is also apparent. The location of an inferred fault which could explain this anomaly. This fault is observed in outcrop on Branch 107C. (Christenson, 1987).

## 5. GEOCHEMISTRY

The geochemical program consisted of both rock and soil sampling. A total of 389 soil samples and 19 rock samples were taken. The soils were sampled generally at between 20cm and 30cm depth from within the "B" soil horizon. All samples were sent to Acme Analytical Labs Ltd. in Vancouver, B.C. for treatment. Analysis was done by the ICP-MS method for copper, lead, zinc, silver and arsenic while gold was analyzed for by the atomic absorption method for greater reliability. See Appendices I and II for analytic procedures and geochemical results.

The soil samples were taken in four different grid locations (Figure 5). Most soils were taken along lines 10 south to 17 south of the Large Rain grid, which represent easterly extensions to Christenson's 1987 grid. A new baseline was established in a north-south direction along Christenson's Line 8 + 00E. The new grid lines begin at 0 + 00E and extend east to the river, for a distance of between 800 and 1000 meters (Figure 9).

No soils were taken specifically over the small rain grid, however portions of Line 13S, 14S and 15S include this area and along with rock samples PR-88-006, 007, 008 and 009, it is considered to have been thoroughly examined.

Three lines of soils were taken along the northern claim area near the Sarita Mainline. These were established to test geochemically the old crown grant claims located here. These lines are labeled L1, L2 and L3 and known as Soil Grid C. Station 5 + 25E on L2 was anomalous in copper, zinc, arsenic and silver and the nearby stations carried slightly enhanced gold values. These anomalies were also evident to the north and south on L1 and L3.

A third grid area known as Soil Grid B, was established along the northeast portion of the 1988 I.P. lines from stations 2 + 00m to 8 + 00m (Figure 10). Lines 1, 2 and 4 were sampled as well as portions of the in-between lines. These are designated 1 + 50, 2 + 50 and 4 + 50, however this is not meant to imply metric distances, although the lines are approximately midway between the I.P. lines. Line 3, which was run over the Upper Showing to define a characteristic geophysical signature, was not soil sampled.

The fourth grid area that was soil sampled consists of Lines 10 + 50N, 11 + 50N, 12 + 50N and 13 + 50N and is known as Soil Grid A. These extend from the new baseline west for 200 meters. This was done to re-evaluate the presence of a mineralized zone identified by Christenson's soil sampling program.

The four grid areas, which overlap to some extent, are considered separate for statistical purposes.

### 5.1 Soil Geochemistry Results

The soils were taken as separate populations over different areas of interest. For statistical purposes, separate anomalous threshold values were determined for each population, however, these values were generally found to be coincidental with only minor differences noted for the various elements analyzed for.

	Christenson 1987		1988	
	Weakly anomalous	Strongly anomalous	Weakly anomalous	Strongly anomalous
Cu	150-300 ppm	> 300 ppm	100-200 ppm	> 200 ppm
Pb	50-100 ppm	> 100 ppm	16-20ppm	> 20 ppm
Zn	175-275 ppm	> 275 ppm	100-130 ppm	> 130 ppm
As	125-275 ppm	> 275 ppm	30-50 ppm	> 50 ppm
Ag	1-2 ppm	> 2 ppm	0.5-0.9 ppm	> 0.9 ppm
Au	30-90 ppb	> 90 ppb	9-20 ppb	> 20 ppb

#### Gold

During this program, a range of 1-98 ppb Au in soils was returned. Values from 9-20 ppb are considered weakly anomalous based on histogram plots of all soils collected. Values above 20 ppb are considered anomalous. Anomalous values are found on Line 2 at 6 + 25 of grid B, near the Br. 107F turn off from Br. 107 (Figure 10 and 5). This is a multi-element anomaly over 3 stations for 75m. It coincides with an inferred geological contact between Bonanza Volcanics and Quatsino limestone.

Over the Large Rain Grid (Figure 9), several one to two station multi-element anomalies occur. The anomaly on Line 14S corresponds to the magnetic skarn of the Small line grid showing. A two station multi-element anomaly near 8 + 00E on line 12S was defined, however its cause is unknown.

Grid A (Figure 9), the grid established west of the Large Rain grid baseline, defined multi-element anomalous values. Thus, confirming the presence of mineralization as determined by Christenson.

### Silver

Silver values range between 0.1-1.5 ppm with 0.5-0.9 ppm considered weakly anomalous and values greater than 0.9 anomalous. The silver anomalies generally coincide with the anomalous gold trends over the Large Rain grid area (Figure 9). There is a multi-element anomaly running across Lines 1, 2, and 3 of grid C (Figure 11) near the Sarita Mainline. This linear anomalous zone is possibly associated with the granodiorite of the Island Intrusions which is inferred to be in contact with the Bonanza Volcanic. Alternately, numerous drainage gullies, running downhill from the area of the Lower Showing, suggest this could be the source of mineralization.

### Arsenic

Arsenic values range between 2-975 ppm with 30-50 ppm being considered as weakly anomalous and values greater than 5- ppm anomalous. The arsenic anomalies generally coincide with gold and silver. Grid A (Figure 9) confirms a strong arsenic occurrence at 150W on L1350S where 975 ppm was returned. Five adjacent stations along L2, grid B (Figure 10) returned anomalous arsenic values but these are not coincident with significant multi-element anomalies. Arsenic is generally closely associated with gold and silver anomalies.

### Copper

Copper values range between 2-658 ppm with 100-200 ppm considered weakly anomalous and values greater than 200 ppm anomalous. Copper is generally closely associated with the other elements analyzed for with the areas around the Small Rain grid and Grid A (Figure 9) showing the most

dominant anomalous trends. Bornite and chalcopyrite were noted in the rock samples from the Small Rain grid and most likely provide the source of Copper for this area. The copper anomaly over grid A was previously identified by Christenson. There is little outcrop in this area and the source has not been identified.

### Lead

Lead values range between 2-113 ppm with 16-20 ppm considered weakly anomalous and values greater than 20 ppm anomalous. In the area of grid A (Figure 9) the lead values are generally elevated. 30 ppm was used as a threshold value for plotting purposes here. Lead is generally associated with other metals, however random weakly anomalous values are also common.

### Zinc

Zinc values range between 20-2725 ppm with 100-130 ppm considered weakly anomalous and values greater than 130 ppm anomalous. Zinc is generally found associated with other metals. The strongest anomalous value 2725 ppm occurs in the linear mineralized zone of grid C (Figure 11) at 5+25E on Line 2. All metals were strongly enhanced here except for gold.

The eastern end of I.P. line 1+50 as sampled in Soil Grid B (Figure 10) appears strongly anomalous and is open to the North and East. The source of the mineralization here is unknown.

Without exception, the anomalous threshold values established within this population of 389 soil samples are significantly lower than those limits established by Christenson. This is likely a result of the fact that soils taken as part of his program are from an adjacent grid area where more mineralized zones (Upper Showing, etc.) are known to occur.

## 6. DISCUSSIONS AND CONCLUSIONS

Detailed mapping was conducted along the new roads added to the Branch 107 system by logging activity since the last report. This, along with reconnaissance mapping along creeks and claim boundaries to the northeast, suggests a slight change to Christenson's schematic model of the area. He shows small rafts of limestone and skarn in place over a large volcanic pile. The new information suggests a large extent of Quatsino limestone in the TLE and northern Rain claims. Mapping should be conducted on the northeastern area of the TLE claim to confirm this. The limestone contains two small rafts of felsic to intermediate volcanics. These rafts are located near an I.P. resistivity anomaly.

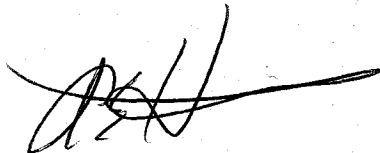
The I.P. resistivity anomaly spans the northeast end of I.P. Lines 1, 2, 4 and 5. The TLE claim was staked to cover the area of this anomaly. The anomaly could be associated with a fault and/or skarn zone. Evidence of both is found on the road at 600 on I.P. Line 1. Further evidence of faulting is found on the road above Line 1 between 3+00 and 6+00. A geochemical anomaly is found to the northeast of the I.P. - resistivity anomaly at 200 on Lines 1+00 and 1+50 of Soil Grid B. This soil anomaly is open to the north. The I.P. - resistivity anomaly could be considered as a drill target. A drill hole of at least 100 meters would be necessary to adequately test this area. More geochemistry should be conducted to the north of Soil Grid B to close off the anomalies discovered by this program.

Soil Grid C revealed a geochemical anomaly that might be related to run-off from the Lower and Upper Showings. This could be further investigated. In the area of Soil Grid A geochemistry confirmed the anomalous values of precious and base metals found by Christenson in 1987. I.P. - resistivity surveys in this area suggest the presence of a fault. A fault associated with limestone and skarn was tested by DDH 87-9 (Christenson, 1987). This fault is found by a gully on Branch 107C and trends towards the I.P. - resistivity anomaly. Geophysical, geological and geochemical information suggests this area could prove a viable drill target. An attempt could be made to locate bedrock before drilling, either with a cat or by blasting. A drill hole of at least 100 meters would be necessary to adequately test this area. A steep incline to the south of the road could make it necessary to move the drill site off existing roads.

Mapping and geophysical surveys have located another skarn zone on the Rain claim. A precious and base metal anomaly is associated with this area. This skarn zone is of the calcic-iron type. Meinert (1984) states that these skarn types are particularly interesting because of their large size and minor element suite of Au, Co, Cu, and Zn. Further work, possibly involving blasting, should be undertaken to locate the source of the associated soil geochemistry anomaly. The area is on a steep heavily forested slope over two hundred meters from the nearest road.

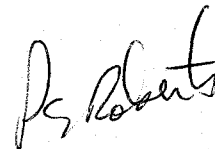
Significant areas of the Rain, TLE, RC1 and RC2 are underexplored. Reconnaissance geological, geochemical and geophysical surveys should be conducted in these areas.

Respectfully submitted,  
Strato Geological Engineering Ltd.



A.E. Hunter  
Geophysicist

December 15, 1988



P.S. Roberts, B.Sc.  
Geologist



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8. CERTIFICATES

I, Paul S. Roberts of 3190 East 29th Avenue, of the City of Vancouver, Province of British Columbia do hereby certify that:

1. I graduated in 1986 from Memorial University of Newfoundland with a Bachelor of Science degree in Geology.
2. I am employed as a Geologist by Strato Geological Engineering Ltd. with offices at 3566 King George Highway, Surrey, B.C., V4A 5B6.
3. I have worked fulltime as a Geologist with Strato Geological Engineering Ltd. since the fall of 1987 and prior to that worked intermittently as a research assistant during summer months while in school.
4. I have not received, nor do I expect to receive any direct, indirect or contingent interest in the properties or securities of Rattler Resource Ltd.
5. This assessment report is based on field work performed by myself.

Dated at Surrey, Province of British Columbia, this 15th day of December, 1988.

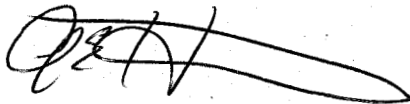
*Paul S. Roberts*

Paul S. Roberts, B.Sc.  
Geologist

I, AL E. HUNTER, of Vancouver, British Columbia, Canada do hereby certify the following:

1. I have completed the courses of the Bachelor of Applied Science program in Geological Engineering (Option II) from the University of British Columbia, Vancouver, British Columbia, and will receive a degree upon completion of a thesis.
2. Since leaving University I have practised my profession in western and northern Canada for approximately 7 years.
3. I have no direct, indirect or contingent interest, nor do I expect to receive such interest, in the securities or properties of Rattler Resource Ltd.

DATED at Surrey, British Columbia this 15th day of December, 1988.



A.E. Hunter  
Geophysicist

## TIME-COST DISTRIBUTION

Work was carried out during the period July 5 to December 30, 1988.

### Personnel

Ralph Englund  
Don Tully  
Al Hunter  
Paul S. Roberts  
Marvin Falk  
David Stretton

Project Co-ordinator  
Engineer  
Geophysist  
Geologist  
Geologist  
Field Assistant

### Cost Distribution

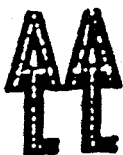
Labour (183 mandays)	\$40,395.00
Room and Board (183 mandays)	11,765.00
Field Supplies	1,600.00
Geochemical Analysis	4,329.00
Data processing, Mapping, Drafting, Report & Property Visit	2,786.00
Transportation & Fuel - 2 Trucks (109 days)	11,445.00
Geophysical Equipment, Radio's & Supplies	<u>6,825.00</u>
<b>TOTAL</b>	<b><u>\$79,145.00</u></b>

Signed \_\_\_\_\_

*H. Heis*

Strato Geological Engineering Ltd.

**APPENDIX I**  
**Geochemical Preparation & Analytical Procedures**



ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone : 253 - 3158

GEOCHEMICAL LABORATORY METHODOLOGY - 1985

Sample Preparation

1. Soil samples are dried at 60°C and sieved to -80 mesh.
2. Rock samples are pulverized to -100 mesh.

Geochemical Analysis (AA and ICP)

0.5 gram samples are digested in hot dilute aqua regia in a boiling water bath and diluted to 10 ml with demineralized water. Extracted metals are determined by :

A. Atomic Absorption (AA)

Ag\*, Bi\*, Cd\*, Co, Cu, Fe, Ga, In, Mn, Mo, Ni, Pb, Sb\*, Tl, V, Zn  
(\* denotes with background correction.)

B. Inductively Coupled Argon Plasma (ICP)

Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cu, Cr, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

Geochemical Analysis for Au\*

10.0 gram samples that have been ignited overnight at 600°C are digested with 30 mls hot dilute aqua regia, and 75 mls of clear solution obtained is extracted with 5 mls Methyl Isobutyl Ketone.

Au is determined in the MIBK extract by Atomic Absorption using background correction (Detection Limit = 1 ppb).

Geochemical Analysis for Au\*\*, Pd, Pt, Rh

10.0 - 30.0 gram samples are subjected to Fire Assay preconcentration techniques to produce silver beads.

The silver beads are dissolved and Au, Pd, Pt, and Rh are determined in the solution by graphite furnace Atomic Absorption. Detections - Au=1 ppb; Pd, Pt, Rh=5 ppb

Geochemical Analysis for As

0.5 gram samples are digested with hot dilute aqua regia and diluted to 10 ml. As is determined in the solution by Graphite Furnace Atomic Absorption (AA) or by Inductively Coupled Argon Plasma (ICP).

Geochemical Analysis for Barium

0.25 gram samples are digested with hot NaOH and EDTA solution, and diluted to 20 ml.

Ba is determined in the solution by ICP.

Geochemical Analysis for Tungsten

0.25 gram samples are digested with hot NaOH and EDTA solution, and diluted to 20 ml. W in the solution determined by ICP with a detection of 1 ppm.

Geochemical Analysis for Selenium

0.5 gram samples are digested with hot dilute aqua regia and dilute to 10 ml with H<sub>2</sub>O. Se is determined with NaBH<sub>3</sub> with Flameless AA. Detection 0.1 ppm.



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Assaying & Trace Analysis

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Geochemical Analysis for Uranium

0.5 gram samples are digested with hot aqua regia and diluted to 10 ml.

Aliquots of the acid extract are solvent extracted using a salting agent and aliquots of the solvent extract are fused with NaF,  $K_2CO_3$  and  $Na_2CO_3$  flux in a platinum dish.

The fluorescence of the pellet is determined on the Jarrel Ash Fluorometer.

Geochemical Analysis for Fluorine

0.25 gram samples are fused with sodium hydroxide and leached with 10 ml water. The solution is neutralized, buffered, adjusted to pH 7.8 and diluted to 100 ml.

Fluorine is determined by Specific Ion Electrode using an Orion Model 404 meter.

Geochemical Analysis for Tin

1.0 gram samples are fused with ammonium iodide in a test tube. The sublimed iodine is leached with dilute hydrochloric acid.

The solution is extracted with MIBK and tin is determined in the extract by Atomic Absorption.

Geochemical Analysis for Chromium

0.1 gram samples are fused with  $Na_2O_2$ . The melt is leached with HCl and analysed by AA or ICP. Detection 1 ppm.

Geochemical Analysis for Hg

0.5 gram samples is digested with aqua regia and diluted with 20% HCl.

Hg in the solution is determined by cold vapour AA using a F & J scientific Hg assembly. An aliquot of the extract is added to a stannous chloride / hydrochloric acid solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it is measured by AA.

Geochemical Analysis for Ga & Ge

0.5 gram samples are digested with hot aqua regia with HF in pressure bombs.

Ga and Ge in the solution are determined by graphite furnace AA.

Detection 1 ppm.

Geochemical Analysis for Tl (Thallium)

0.5 gram samples are digested with 1:1  $HNO_3$ . Tl is determined by graphite AA. Detection .1 ppm.

Geochemical Analysis for Te (Tellurium)

0.5 gram samples are digested with hot aqua regia. The Te extracted in MIBK is analysed by AA graphite furnace. Detection .1 ppm.

Geochemical Whole Rock

0.1 gram is fused with .6 gm  $LiBO_2$  and dissolved in 50 mls 5%  $HNO_3$ . Analysis is by ICP or M.S. ICP gives excellent precision for major components. The M.S. can analyze for up to 50 elements.

**APPENDIX II**  
**Soils & Rock Assay Certificates**



SARITA

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: JUL 29 1988

DATE REPORT MAILED: Aug. 9/88.

### GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: P1-P7 SOIL P8 ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

STRATO GEOLOGICAL LTD. FILE # 88-3109 Page 1

SAMPLE#	<i>Roster Sarita</i>						
	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB	
LINE1 1+00E	19	16	36	.3	2	1	
LINE1 1+25E	11	12	33	.2	3	1	
LINE1 1+50E	10	8	35	.3	2	1	
LINE1 1+75E	18	6	61	.2	2	4	
LINE1 2+00E	22	11	29	.2	2	4	
LINE1 2+25E	24	10	49	.1	2	1	
LINE1 2+50E	148	12	66	.2	10	1	
LINE1 2+75E	13	10	35	.1	2	1	
LINE1 3+00E	13	12	36	.2	4	1	
LINE1 3+25E	21	12	40	.2	4	1	
LINE1 3+50E	18	8	31	.2	2	1	
LINE1 3+75E	38	9	40	.2	2	1	
LINE1 4+00E	6	8	19	.1	4	1	
LINE1 4+25E	29	12	50	.2	5	1	
LINE1 4+50E	15	11	54	.2	2	1	
LINE1 4+75E	28	8	78	.6	2	2	
LINE1 5+00E	33	11	102	.4	9	3	
LINE1 5+25E	29	11	69	.3	20	1	
LINE1 5+50E	38	113	233	1.1	117	2	
LINE1 5+75E	19	12	60	.2	16	1	
LINE1 6+00E	16	20	47	.4	15	2	
LINE1 6+25E	29	12	72	.4	11	1	
LINE1 6+50E	98	16	96	.3	11	1	
LINE1 6+75E	14	11	72	.3	28	1	
LINE1 7+00E	21	8	56	.1	26	3	
LINE1 7+25E	15	12	48	.3	121	1	
LINE1 7+50E	24	12	72	.3	37	1	
LINE1 7+75E	48	9	126	1.0	218	2	
LINE1 8+00E	23	11	87	.5	154	1	
LINE1 8+25E	32	10	92	.5	111	1	
LINE1 8+50E	20	9	63	.2	51	2	
LINE1 8+75E	39	10	104	.6	87	1	
LINE1 9+00E	24	12	82	.4	57	1	
LINE1 9+25E	23	12	119	.2	158	1	
LINE1 9+50E	32	8	83	.4	13	2	
LINE1 9+75E	17	8	53	.2	7	1	
STD C/AU-S	57	36	132	6	39	47	

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
LINE1 10+00E	36	19	76	.2	18	2
L2 0+00E	15	6	36	.2	6	4
L2 0+25E	24	11	40	.1	7	2
L2 0+50E	27	12	58	.1	7	1
L2 0+75E	22	7	40	.1	4	3
L2 1+00E	14	10	30	.1	3	2
L2 1+25E	21	9	30	.1	5	1
L2 1+50E	30	7	46	.1	5	3
L2 1+75E	7	10	24	.1	2	3
L2 2+00E	5	9	21	.1	2	1
L2 2+25E	10	8	42	.1	3	2
L2 2+50E	18	10	30	.1	9	1
L2 2+75E	15	4	32	.1	6	1
L2 3+00E	9	13	28	.2	5	3
L2 3+25E	10	11	24	.1	4	2
L2 3+50E	10	7	32	.2	10	2
L2 3+75E	23	14	40	.1	11	1
L2 4+00E	22	12	51	.1	11	4
L2 4+25E	49	5	45	.2	15	8
L2 4+50E	89	15	70	.1	33	8
L2 4+75E	26	12	100	.1	20	3
L2 5+00E	20	13	58	.2	30	5
L2 5+25E	275	34	2725	1.3	346	4
L2 5+50E	52	10	414	.2	134	3
L2 5+75E	32	10	90	.1	112	6
L2 6+00E	17	11	34	.2	12	4
L2 6+25E	49	12	79	.1	89	4
L2 6+50E	36	11	73	.1	16	4
L2 6+75E	21	11	76	.4	18	6
L2 7+00E	50	9	110	.3	12	4
L2 7+25E	47	15	95	.2	41	5
L2 7+50E	37	10	64	.2	32	1
L3 0+00E	17	12	30	.1	4	1
L3 0+25E	6	12	26	.1	2	1
L3 0+50E	13	9	21	.1	9	1
L3 1+00E	11	11	21	.1	7	1
STD C/AU-S	57	39	127	7.0	41	47

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
L3 1+25E	5	5	15	.1	2	1
L3 1+50E	15	9	14	.2	3	1
L3 1+75E	17	12	18	.3	6	1
L3 2+00E	5	11	14	.2	2	1
L3 2+75E	17	14	27	.3	6	2
L3 3+00E	16	10	39	.3	8	1
L3 3+25E	14	12	41	.4	12	2
L3 3+50E	14	7	33	.2	8	1
L3 3+75E	13	7	27	.3	5	3
L3 4+75E	6	9	24	.2	11	1
L3 5+00E	8	10	27	.3	10	1
L3 5+25E	15	11	43	.5	26	1
L3 5+25E A	18	31	44	.8	93	1
L3 5+75E	18	5	96	1.1	167	2
L3 6+00E	19	20	83	.8	76	1
L3 6+25E	25	8	152	.2	100	1
L3 6+50E	14	12	92	.4	34	1
L3 6+75E	41	15	124	.3	106	1
L3 7+00E	11	7	69	.4	95	1
L3 7+25E	23	12	63	.3	16	2
L3 7+50E	20	8	39	.3	10	1
L3 7+75E	19	8	34	.2	6	1
L3 8+00E	7	8	23	.3	3	1
L3 8+25E	4	6	16	.1	2	1
L3 8+50E	16	8	88	.4	5	1
L3 8+75E	10	7	37	.4	3	2
L3 9+00E	6	10	27	.3	2	1
L3 9+25E	9	8	41	.1	2	1
L3 9+50E	7	13	42	.3	2	2
L3 9+75E	30	9	75	.1	4	1
L10S 0+00E	22	7	38	.2	6	2
L10S 0+50E	265	11	39	.6	3	3
L10S 1+50E	31	17	59	.3	16	2
L10S 2+00E	47	8	36	.1	11	1
L10S 2+50E	109	10	119	.5	50	1
L10S 3+00E	24	8	46	.3	8	2
STD C/AU-S	57	37	131	6.7	38	47

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
L10S 3+50E	50	13	62	.4	33	5
L10S 4+00E	12	12	59	.3	9	1
L10S 4+50E	6	7	29	.2	8	1
L10S 5+00E	36	15	55	.4	22	1
L10S 5+50E	4	10	58	.3	4	1
L10S 6+00E	14	10	43	.2	4	1
L10S 6+50E	5	8	17	.1	3	1
L10S 7+00E	9	16	66	.3	6	1
L10S 7+50E	5	13	65	.2	4	1
L10S 8+00E	6	12	44	.3	5	2
L10S 8+50E	19	10	32	.2	6	1
L10S 9+00E	11	12	27	.1	2	1
L10S 9+50E	39	13	69	.2	12	1
L11S 0+00E	21	11	43	.1	5	1
L11S 0+50E	92	16	41	.4	3	2
L11S 1+00E	39	9	41	.3	4	1
L11S 1+50E	66	11	150	.5	20	1
L11S 2+00E	41	11	89	.4	11	1
L11S 2+50E	68	17	55	.5	12	1
L11S 3+00E	34	17	93	.4	41	1
L11S 3+50E	50	11	83	.3	14	2
L11S 4+00E	33	12	86	.2	11	1
L11S 4+50E	28	11	81	.1	9	1
L11S 5+00E	23	10	76	.4	11	1
L11S 5+50E	19	14	67	.3	6	1
L11S 6+00E	24	11	54	.2	11	1
L11S 6+50E	11	13	29	.1	4	1
L11S 7+00E	2	5	14	.2	2	1
L11S 7+50E	4	12	66	.2	5	2
L11S 8+00E	24	10	69	.3	16	1
L11S 8+50E	33	11	84	.2	9	1
L11S 9+00E	36	8	78	.3	14	1
L11S 9+50E	35	11	67	.4	15	1
L12S 0+00E	24	10	40	.2	12	1
L12S 0+50E	48	16	43	.4	16	2
L12S 1+00E	55	11	49	.4	11	1
STD C/AU-S	58	38	132	6.8	42	48

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
L12S 1+50E	95	15	122	.1	26	1
L12S 2+00E	38	6	58	.3	14	10
L12S 2+50E	46	12	93	.1	14	1
L12S 3+00E	89	15	75	.3	18	2
L12S 3+50E	31	7	86	.3	7	1
L12S 4+00E	20	12	47	.3	6	1
L12S 4+50E	15	10	44	.1	4	2
L12S 5+00E	16	7	26	.5	6	1
L12S 5+50E	42	12	25	.3	2	1
L12S 6+00E	14	10	38	.1	3	1
L12S 6+50E	54	12	35	.3	5	2
L12S 7+00E	115	12	60	.4	13	4
L12S 7+50E	409	16	128	.5	65	16
L12S 8+00E	352	12	416	1.0	157	13
L12S 8+50E	52	16	73	.4	19	1
L12S 9+00E	43	8	55	.4	18	1
L12S 9+50E	55	10	79	.2	7	13
L12S 10+00E	57	9	35	.1	15	1
L13S 0+00E	91	13	46	.6	23	1
L13S 0+50E	86	6	67	.4	23	1
L13S 1+00E	194	9	59	.4	34	2
L13S 1+50E	34	7	115	.3	36	1
L13S 2+00E	80	5	111	.2	17	1
L13S 2+50E	46	16	56	.3	12	2
L13S 3+00E	52	13	34	.2	8	3
L13S 3+50E	61	12	34	.4	21	1
L13S 4+00E	21	8	21	.1	8	1
L13S 4+50E	38	19	47	.2	19	1
L13S 5+00E	50	11	40	.4	3	2
L13S 5+50E	63	16	36	.4	6	1
L13S 6+00E	40	13	46	.2	8	1
L13S 6+50E	77	17	70	.4	22	3
L13S 7+00E	118	11	76	.3	18	2
L13S 7+50E	80	12	106	.3	30	9
L13S 8+00E	38	12	86	.2	30	2
L13S 8+50E	29	11	41	.2	12	1
STD C/AU-8	57	39	127	7.1	40	51

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
L13S 9+00E	16	10	45	.1	6	1
L14S 0+00E	63	9	362	.3	17	41
L14S 0+50E	126	16	706	.8	33	32
L14S 1+00E	61	11	51	.2	14	4
L14S 1+50E	41	7	27	.3	11	1
L14S 2+00E	17	4	45	.2	7	1
L14S 2+50E	120	6	28	.2	25	1
L14S 3+00E	87	6	32	.1	6	1
L14S 3+50E	89	9	40	.2	11	1
L14S 4+00E	190	8	63	.5	35	1
L14S 4+50E	378	3	55	.7	22	42
L14S 5+00E	290	15	94	1.0	21	1
L14S 5+50E	658	13	121	1.5	243	77
L14S 6+00E	152	12	231	.4	76	1
L14S 6+50E	75	13	83	.3	36	1
L14S 7+00E	50	8	44	.1	11	1
L14S 7+50E	85	12	97	.5	47	1
L14S 8+00E	62	12	89	.6	33	2
L14S 8+50E	42	9	100	.2	17	1
L14S 9+00E	32	9	85	.1	6	2
L15S 0+00E	24	13	47	.1	23	1
L15S 0+50E	27	20	81	.4	38	12
L15S 1+00E	51	9	35	.1	20	2
L15S 1+50E	26	7	42	.1	8	2
L15S 2+00E	2	7	20	.1	3	1
L15S 2+50E	10	11	34	.1	6	1
L15S 3+00E	36	10	29	.1	4	1
L15S 3+50E	30	8	33	.2	4	1
L15S 4+00E	5	3	52	.1	2	1
L15S 4+50E	19	9	27	.1	14	1
L15S 5+00E	79	13	68	.3	24	13
L15S 5+50E	82	11	74	.2	20	1
L15S 6+00E	50	12	46	.2	11	1
L15S 6+50E	48	9	51	.2	7	1
L15S 7+00E	59	10	55	.2	9	3
L15S 7+50E	43	11	51	.1	7	1
STD C/AU-S	58	37	132	6.5	41	49

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
L15S 8+00E	32	13	43	.2	5	1
L16S 0+00E	11	17	38	.4	6	1
L16S 0+50E	78	23	60	.4	95	1
L16S 1+00E	20	10	33	.1	6	1
L16S 1+50E	25	12	23	.1	3	2
L16S 2+00E	25	13	33	.1	2	2
L16S 2+50E	25	11	38	.1	2	1
L16S 3+00E	37	9	38	.2	2	1
L16S 3+50E	25	13	75	.1	2	1
L16S 4+00E	65	15	38	.5	2	1
L16S 4+50E	38	9	56	.2	3	2
L16S 5+00E	26	12	40	.2	4	1
L16S 5+50E	41	7	44	.1	2	1
L16S 6+00E	40	12	47	.1	2	1
L16S 6+50E	59	15	65	.3	253	17
L16S 7+00E	11	8	34	.1	13	1
L16S 7+50E	7	9	28	.1	23	1
L16S 8+00E	19	16	98	.1	15	1
L17S 0+00E	52	46	103	.6	136	5
L17S 0+50E	26	17	72	.5	11	1
L17S 1+00E	23	15	49	.3	5	24
L17S 3+00E	66	9	94	.2	9	1
L17S 3+50E	47	11	52	.1	7	1
L17S 4+00E	39	6	27	.4	9	1
L17S 4+50E	41	14	51	.3	2	1
L17S 5+00E	54	15	61	.2	7	1
STD C/AU-S	57	38	132	6.7	41	50

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
PR-88-001	32	5	94	.2	7	1
PR-88-002	9	2	70	.6	8	1
PR-88-003	7	8	56	.1	2	1
PR-88-004	4	4	68	.4	12	1
PR-88-005	1660	7	34	.3	7	1
PR-88-006	2385	7	86	.8	5	3
PR-88-007	4844	7	50	.8	12	2
PR-88-008	1946	10	52	.6	26	5
PR-88-009	3566	14	51	1.6	4	2
STD C/AU-R	58	37	132	6.6	39	490



ACME ANALYTICAL LABORATORIES LTD.  
 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
 PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: SEP 6 1988

DATE REPORT MAILED: *Sept. 16/88.*

**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: P1-P5 SOIL P6 ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

STRATO GEOLOGICAL LTD. FILE # 88-4270 Page 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
R L13+50N 2+0CW	15	17	31	.1	11	6
R L13+50N 1+75W	100	8	41	.1	56	63
R L13+50N 1+50W	246	15	45	.3	975	98
R L13+50N 1+25W	32	23	37	.1	26	8
R L13+50N 1+00W	19	18	31	.1	6	5
R L13+50N 0+75W	9	10	22	.1	3	1
R L13+50N 0+50W	95	16	33	.1	21	3
R L13+50N 0+25W	55	10	26	.1	5	1
R L13+50N 0+00W	4	9	15	.1	2	1
R L12+50N 2+00W	82	32	111	.4	42	5
R L12+50N 1+75W	114	14	54	.2	149	6
R L12+50N 1+50W	174	20	126	.3	107	1
R L12+50N 1+25W	58	16	81	.1	17	1
R L12+50N 1+00W	51	9	67	.1	6	1
R L12+50N 0+75W	105	23	186	1.0	14	5
R L12+50N 0+50W	56	20	140	.1	31	1
R L12+50N 0+25W	49	16	86	.2	14	1
R L12+50N 0+00W	104	22	222	.1	29	1
R L11+50N 2+00W	44	23	56	.3	5	2
R L11+50N 1+75W	190	40	142	1.1	15	1
R L11+50N 1+50W	32	20	36	.1	8	1
R L11+50N 1+25W	34	15	51	.3	8	1
R L11+50N 1+00W	20	21	41	.2	5	1
R L11+50N 0+75W	15	21	32	.1	7	1
R L11+50N 0+50W	38	24	47	.3	6	6
R L11+50N 0+25W	17	18	39	.1	6	1
R L11+50N 0+00W	39	23	56	.2	2	1
R L10+50N 2+00W	26	25	57	.1	4	1
R L10+50N 1+75W	19	29	44	.1	7	1
R L10+50N 1+50W	22	25	54	.1	3	2
R L10+50N 0+75W	9	18	44	.2	2	1
R L10+50N 0+50W	22	17	64	.2	4	1
R L10+50N 0+25W	7	22	36	.1	6	1
R L10+50N 0+00W	8	12	48	.2	4	1
R L4+50N 4+25E	22	39	90	.4	7	1
R L4+50N 4+50E	41	17	63	.1	29	3
STD C/AU-S	59	40	132	6.7	40	49

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
R L4+50N 4+75E	50	19	63	.3	25	93
R L4+50N 5+00E	10	11	49	.5	8	1
R L4+50N 5+25E	21	12	122	.2	47	1
R L4+50N 5+75E	6	7	37	.2	2	1
R L4+50N 6+00E	8	13	39	.1	2	1
R L4+50N 6+25E	8	15	33	.2	2	1
R L4+50N 6+50E	22	12	89	.1	5	1
R L4+50N 6+75E	16	9	54	.1	6	5
R L4+50N 7+00E	12	8	52	.2	2	1
R L4+00N 2+00E	15	13	64	.1	13	1
R L4+00N 2+25E	18	12	71	.2	10	1
R L4+00N 2+50E	12	6	71	.1	14	1
R L4+00N 2+75E	8	2	35	.1	18	1
R L4+00N 3+00E	27	11	58	.1	12	1
R L4+00N 3+25E	16	12	97	.1	16	1
R L4+00N 3+50E	16	6	47	.2	20	1
R L4+00N 3+75E	28	16	102	.1	25	1
R L4+00N 4+00E	33	18	77	.1	34	9
R L4+00N 4+25E	15	14	98	.4	12	11
R L4+00N 4+50E	16	12	55	.1	7	2
R L4+00N 4+75E	26	10	72	.1	11	1
R L4+00N 5+00E	18	17	81	.2	9	1
R L4+00N 5+25E	15	14	88	.4	15	1
R L4+00N 5+50E	14	18	64	.3	8	1
R L4+00N 5+75E	52	13	57	.2	11	2
R L4+00N 6+00E	27	15	57	.3	30	1
R L4+00N 6+25E	122	9	69	.3	8	4
R L4+00N 6+50E	348	13	69	.4	124	5
R L4+00N 6+75E	29	5	83	.2	8	1
R L4+00N 7+00E	29	7	82	.3	19	1
R L2+50N 6+00E	25	8	43	.1	35	1
R L2+50N 6+25E	49	17	69	.3	36	51
R L2+50N 6+50E	87	11	94	.3	15	76
R L2+50N 6+75E	13	10	50	.1	7	2
R L2+50N 7+00E	192	14	61	.3	4	1
R L2+50N 7+25E	17	6	86	.2	7	1
STD C/AU-S	58	41	132	6.8	42	53

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
R L2+50N 7+50E	51	15	109	.1	9	1
R L2+50N 7+75E	127	9	170	.1	23	1
R L2+50N 8+00E	29	6	68	.1	12	1
R L2+00N 2+00E	18	13	131	.1	28	1
R L2+00N 2+25E	22	7	54	.2	62	1
R L2+00N 2+50E	16	12	31	.2	18	1
R L2+00N 2+75E	27	8	75	.3	7	1
R L2+00N 3+00E	22	2	96	.3	7	1
R L2+00N 3+25E	27	2	84	.1	6	1
R L2+00N 3+50E	43	10	164	.1	8	1
R L2+00N 3+75E	31	16	65	.3	75	1
R L2+00N 4+00E	17	3	56	.1	54	1
R L2+00N 4+25E	37	16	71	.2	172	1
R L2+00N 4+50E	23	11	55	.1	62	1
R L2+00N 4+75E	16	2	31	.1	78	1
R L2+00N 5+00E	15	3	39	.3	24	1
R L2+00N 5+25E	37	13	49	.1	28	1
R L2+00N 5+50E	41	8	55	.1	24	1
R L2+00N 5+75E	32	9	60	.2	20	1
R L2+00N 6+00E	67	11	102	.2	185	25
R L2+00N 6+25E	154	11	162	.2	178	5
R L2+00N 6+50E	64	21	119	.2	47	2
R L2+00N 6+75E	104	12	64	.1	17	1
R L2+00N 7+00E	110	13	62	.2	13	1
R L2+00N 7+25E	16	10	35	.1	3	1
R L2+00N 7+50E	14	9	47	.2	2	1
R L2+00N 7+75E	17	8	46	.1	9	1
R L2+00N 8+00E	36	14	44	.3	2	1
R L1+50N 2+00E	392	67	1589	.8	501	27
R L1+50N 2+25E	33	30	164	.5	130	1
R L1+50N 2+50E	16	16	53	.3	14	1
R L1+50N 2+75E	31	21	58	.3	17	1
R L1+50N 3+00E	12	6	28	.2	11	1
R L1+50N 3+25E	83	9	125	.3	9	1
R L1+50N 3+75E	42	8	90	.4	12	1
R L1+50N 4+00E	90	10	104	.1	2	1
STD C/AU-S	60	38	131	6.8	37	51

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
R L1+50N 4+25E	21	14	100	.2	15	3
R L1+50N 4+50E	25	14	57	.3	62	3
R L1+50N 4+75E	10	13	28	.2	13	1
R L1+50N 5+00E	27	11	62	.1	18	1
R L1+50N 5+25E	40	13	43	.1	23	2
R L1+50N 5+50E	24	15	46	.1	7	2
R L1+50N 5+75E	26	11	48	.1	12	1
R L1+50N 6+00E	61	13	71	.3	9	6
R L1+50N 6+25E	24	14	60	.1	14	1
R L1+50N 6+50E	31	11	65	.1	19	1
R L1+50N 6+75E	38	14	89	.1	19	1
R L1+50N 7+00E	46	29	172	.1	71	2
R L1+50N 7+25E	138	83	465	.3	239	3
R L1+50N 7+50E	136	14	80	.2	13	1
R L1+50N 7+75E	14	17	55	.2	8	1
R L1+00N 2+00E	25	19	98	.1	121	1
R L1+00N 2+25E	11	22	66	.1	72	1
R L1+00N 2+50E	14	52	96	.2	63	1
R L1+00N 2+75E	28	18	73	.3	45	1
R L1+00N 3+00E	42	12	62	.1	25	7
R L1+00N 3+25E	28	17	69	.2	17	1
R L1+00N 3+50E	20	8	50	.3	20	1
R L1+00N 3+75E	25	12	45	.2	9	3
R L1+00N 4+00E	11	10	31	.2	13	1
R L1+00N 4+25E	31	11	91	.1	47	1
R L1+00N 4+50E	22	13	52	.1	13	1
R L1+00N 4+75E	32	11	68	.1	23	1
R L1+00N 5+00E	10	11	62	.1	13	1
R L1+00N 5+25E	28	11	86	.1	213	1
R L1+00N 5+50E	26	17	38	.3	11	1
R L1+00N 6+00E	95	26	158	.2	162	1
R L1+00N 6+25E	26	12	48	.1	7	1
R L1+00N 6+50E	15	17	45	.1	9	1
R L1+00N 6+75E	20	8	39	.1	6	1
R L1+00N 7+00E	19	15	41	.2	15	1
R L1+00N 7+25E	77	16	61	.3	7	2
STD C/AU-S	58	43	132	6.9	40	49

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
R L1+00N 7+50E	13	7	61	.3	3	1
R L1+00N 7+75E	77	9	52	.2	2	1
R L1+00N 8+00E	59	11	55	.2	5	1
STD C	58	43	132	7.1	39	-

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
TLE-88-001	21	2	27	.1	87	2
TLE-88-002	1	5	40	.1	22	1
TLE-88-003	2	2	25	.1	25	1
TLE-88-004	916	5	29	.6	111	8
TLE-88-005	8	2	22	.1	5	1
TLE-88-006	24	3	42	.1	45	1
TLE-88-007	1	5	6	.1	8	1
TLE-88-008	120	2	121	.1	9	1
TLE-88-009	1	5	47	.1	18	1
TLE-88-010	78	8	27	.1	7	1
STD C/AU-R	57	37	132	6.9	42	530

**APPENDIX III**  
**Rock Sample Descriptions**

## Rock Sample Descriptions

- PR-88-001 a shattered dark green silicified volcanic rock containing approximately 5% pyrite with traces of chalcopyrite. The sample contains ubiquitous small calcite stringers.
- PR-88-002 a highly calcified fine grained limestone with minor pyrite and traces of chalcopyrite. The sample was taken in a small shear zone.
- PR-88-003 similar to PR-88-001, slightly above average pyrite concentration noted.
- PR-88-004 similar to PR-88-003 in appearance but with extensive limonite staining.
- PR-88-005 similar to PR-88-004 and taken nearby.
- PR-88-006 pyrite, magnetite and minor sphalerite from small rain grid. All limonitic skarn material.
- PR-88-007 same as PR-88-006
- PR-88-008 same as PR-88-006
- PR-88-009 same as PR-88-006
- TLE-88-001 semi-massive fine to medium grained pyrite. 20-30% in dark green, fine grained shattered volcanic host. Appearance is similar to PR-88-003.
- TLE-88-002 same as TLE-88-001
- TLE-88-003 float found near claim line in newer bed. 30% pyrite. Similar to TLE-88-001
- TLE-88-00 43cm wide pyritic quartz vein in dark green shattered volcanic host.
- TLE-88-005 black weathered recrystallized carbonate in skarnified fault zone.
- TLE-88-006 fine grained greenish black limestone containing up to 4% pyrite.

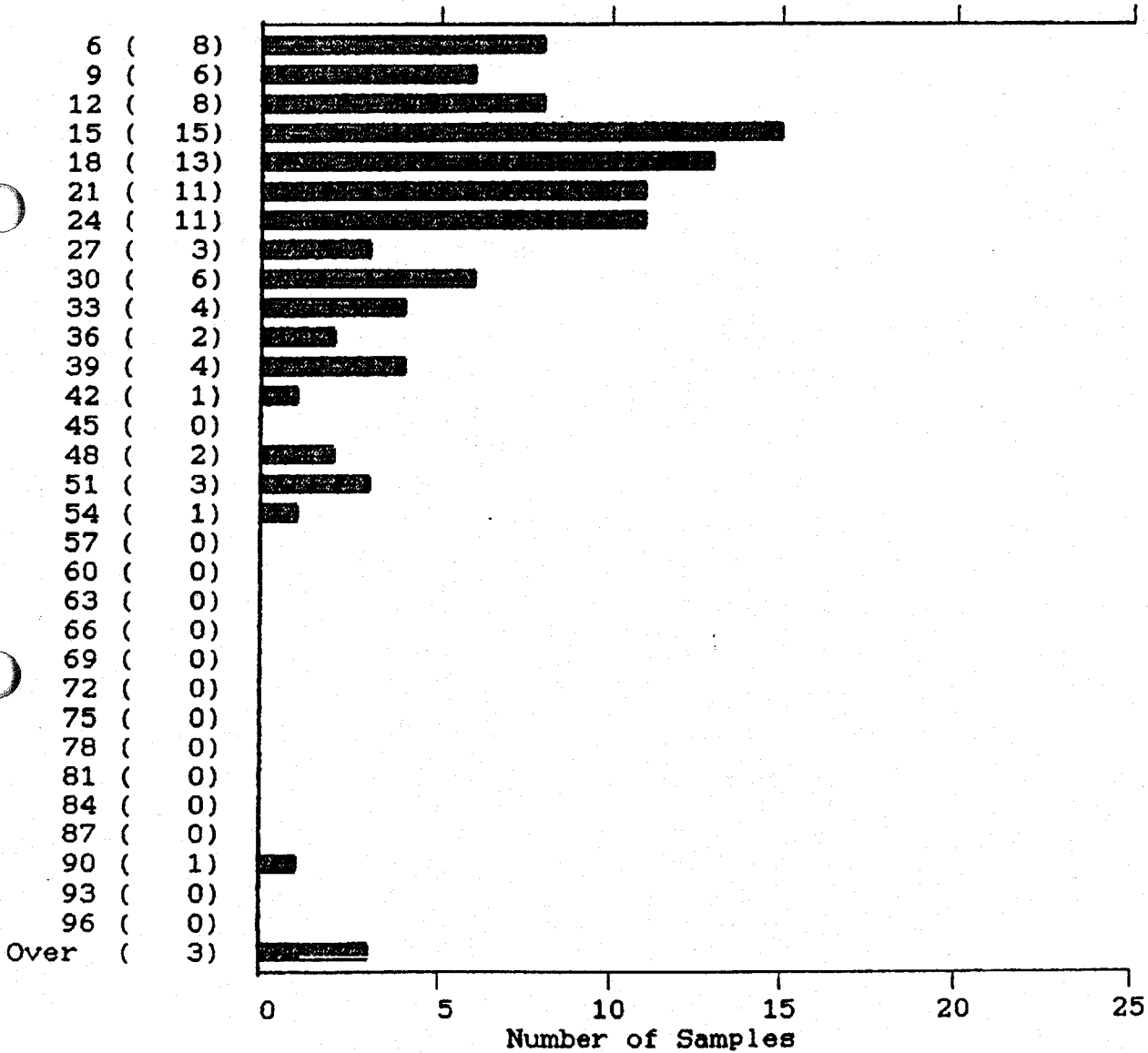


- TLE-88-007 taken in a fault gouge composed of grey fine grained to clay size material.
- TLE-88-008 taken in greenish pyritic andesite dyke.
- TLE-88-009 20-30% pyrite in a highly shattered dark green silicified volcanic host. Identical in outward appearance to TLE-88-001.
- TLE-88-010 banded limestone with minor pyrite, pyrrhotite & traces of galena in 4-5cm wide andesitic sills.

**APPENDIX IV**  
**Soil Histograms**

STRATO GEO. (88-3109 L1 -> L3)

Cu  
(PPM)



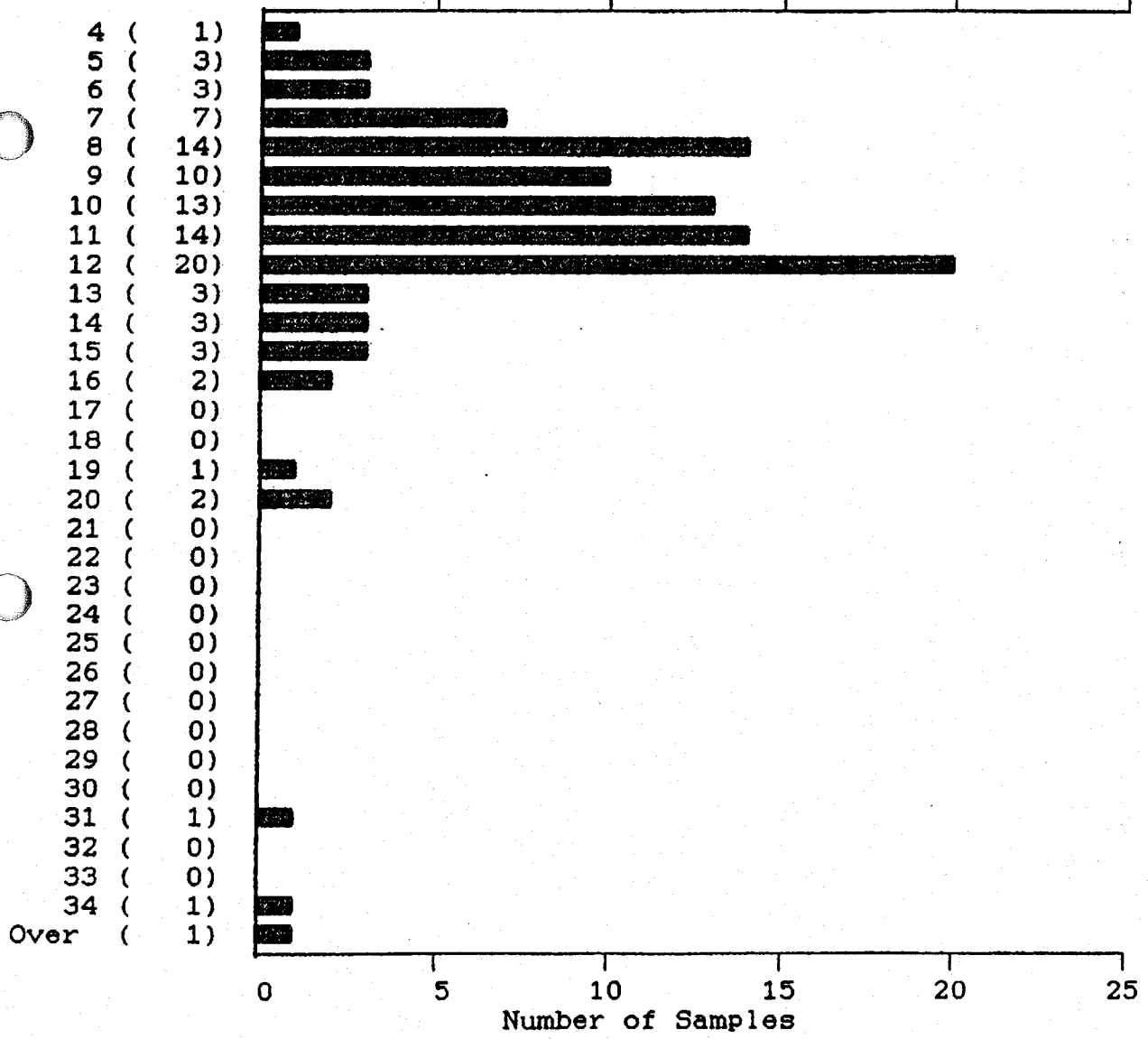
102 Samples

Maximum: 275  
Minimum: 4

Mean: 26  
Median: 19  
Standard Deviation: 32

STRATO GEO. (88-3109 L1 -> L3)

Pb  
(PPM)



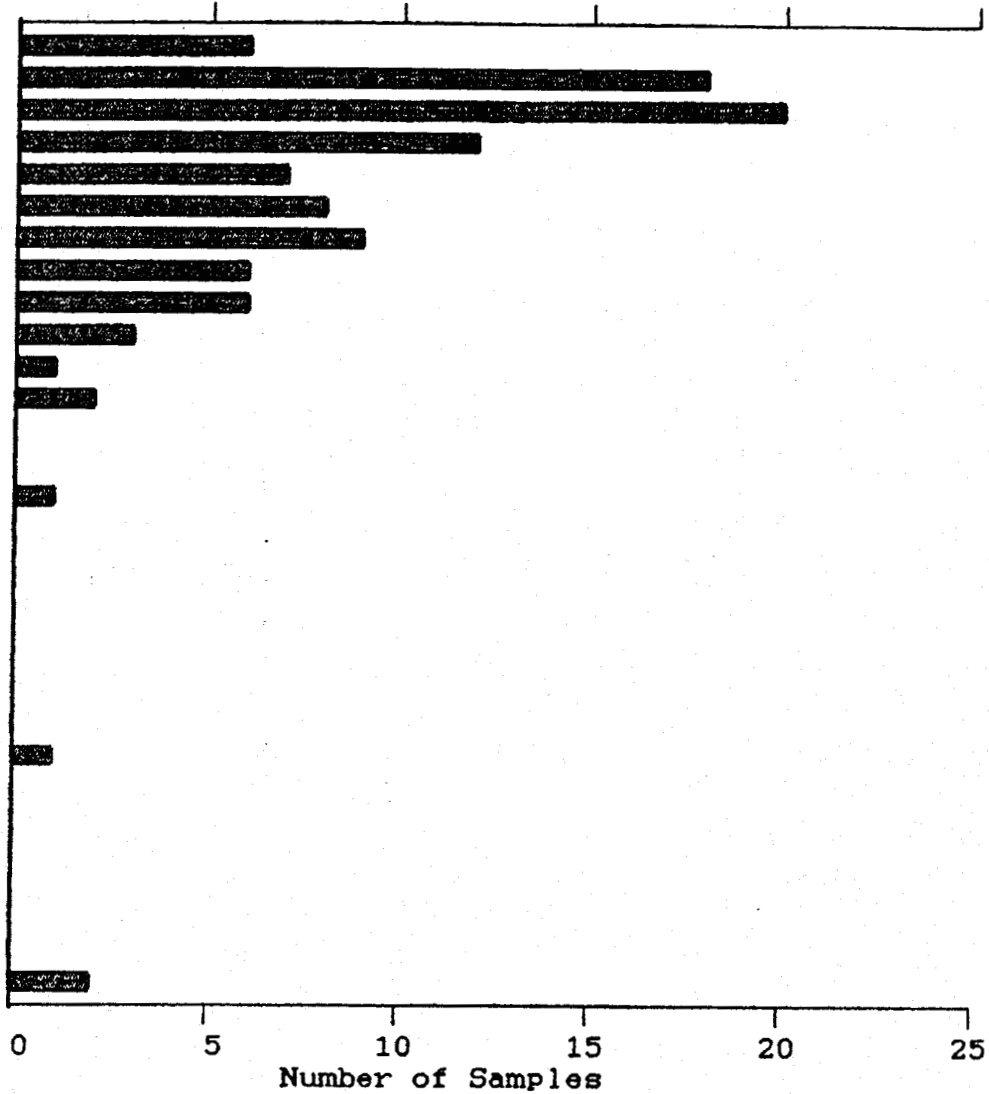
102 Samples	Maximum: 113	Mean: 12
	Minimum: 4	Median: 10
		Standard Deviation: 11

STRATO GEO. (88-3109 L1 -> L3)

---

Zn  
(PPM)

20 ( 6)  
 30 ( 18)  
 40 ( 20)  
 50 ( 12)  
 60 ( 7)  
 70 ( 8)  
 80 ( 9)  
 90 ( 6)  
 100 ( 6)  
 110 ( 3)  
 120 ( 1)  
 130 ( 2)  
 140 ( 0)  
 150 ( 0)  
 160 ( 1)  
 170 ( 0)  
 180 ( 0)  
 190 ( 0)  
 200 ( 0)  
 210 ( 0)  
 220 ( 0)  
 230 ( 0)  
 240 ( 1)  
 250 ( 0)  
 260 ( 0)  
 270 ( 0)  
 280 ( 0)  
 290 ( 0)  
 300 ( 0)  
 Over ( 2)



102 Samples

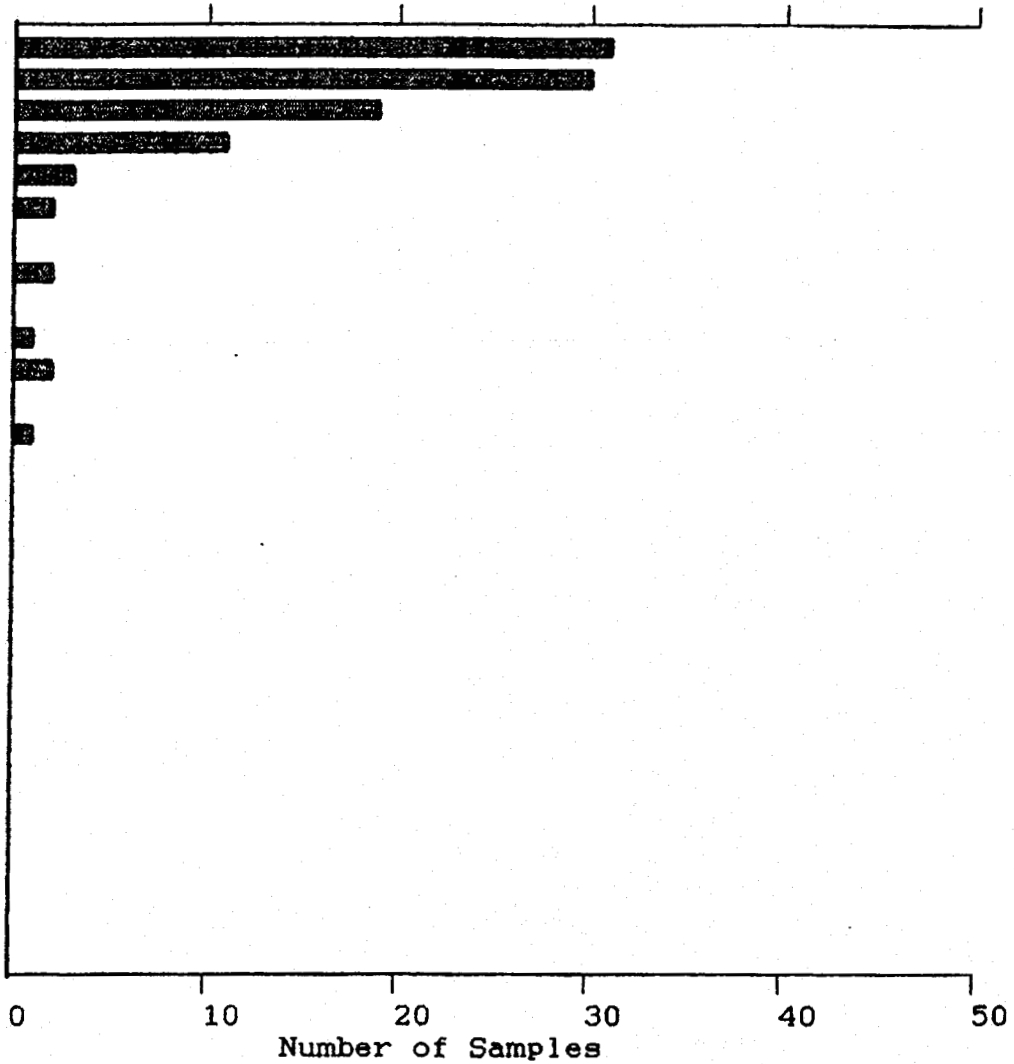
Maximum: 2725  
 Minimum: 14

Mean: 85  
 Median: 45  
 Standard Deviation: 267

STRATO GEO. (88-3109 L1 -> L3)

Ag  
(PPM)

0.1	(	31)
0.2	(	30)
0.3	(	19)
0.4	(	11)
0.5	(	3)
0.6	(	2)
0.7	(	0)
0.8	(	2)
0.9	(	0)
1.0	(	1)
1.1	(	2)
1.2	(	0)
1.3	(	1)
1.4	(	0)
1.5	(	0)
1.6	(	0)
1.7	(	0)
1.8	(	0)
1.9	(	0)
2.0	(	0)
2.1	(	0)
2.2	(	0)
2.3	(	0)
2.4	(	0)
2.5	(	0)
2.6	(	0)
2.7	(	0)
2.8	(	0)
2.9	(	0)



102 Samples

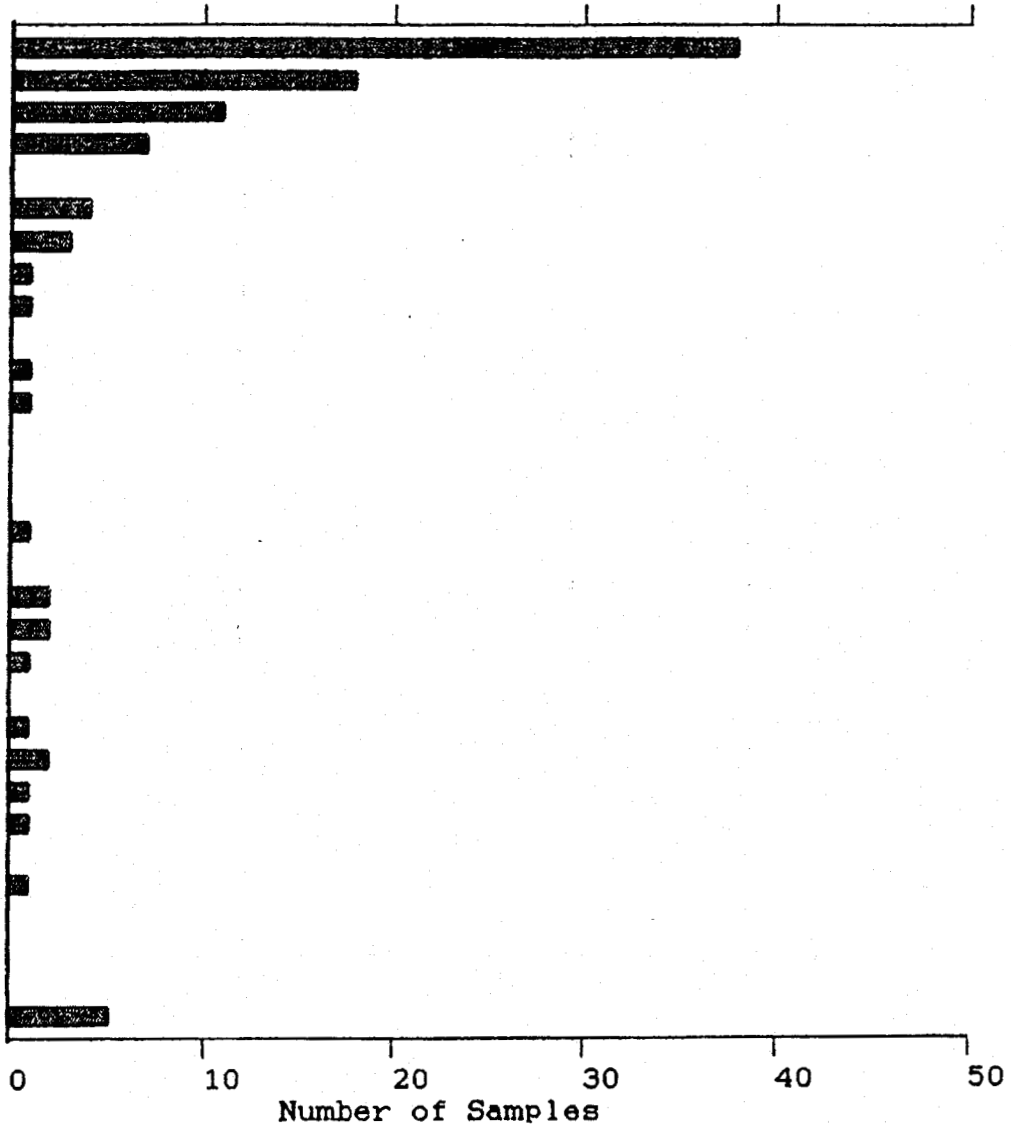
Maximum: 1.3  
Minimum: 0.1

Mean: 0.3  
Median: 0.2  
Standard Deviation: 0.2

STRATO GEO. (88-3109 L1 -> L3)

As  
(PPM)

5	(	38)
10	(	18)
15	(	11)
20	(	7)
25	(	0)
30	(	4)
35	(	3)
40	(	1)
45	(	1)
50	(	0)
55	(	1)
60	(	1)
65	(	0)
70	(	0)
75	(	0)
80	(	1)
85	(	0)
90	(	2)
95	(	2)
100	(	1)
105	(	0)
110	(	1)
115	(	2)
120	(	1)
125	(	1)
130	(	0)
135	(	1)
140	(	0)
145	(	0)
150	(	0)
Over	(	5)



102 Samples

Maximum: 346  
Minimum: 2

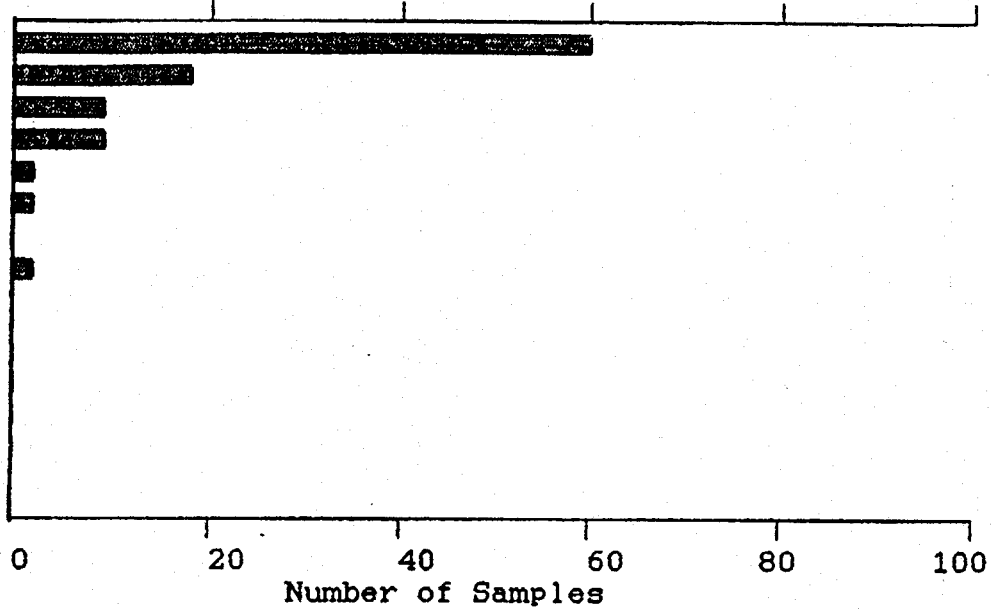
Mean: 31  
Median: 9  
Standard Deviation: 54

STRATO GEO. (88-3109 L1 -> L3)

---

Au\*  
(PPB)

1 ( 60)  
2 ( 18)  
3 ( 9)  
4 ( 9)  
5 ( 2)  
6 ( 2)  
7 ( 0)  
8 ( 2)  
9 ( 0)  
10 ( 0)  
11 ( 0)  
12 ( 0)  
13 ( 0)  
14 ( 0)  
15 ( 0)



102 Samples

Maximum: 8  
Minimum: 1

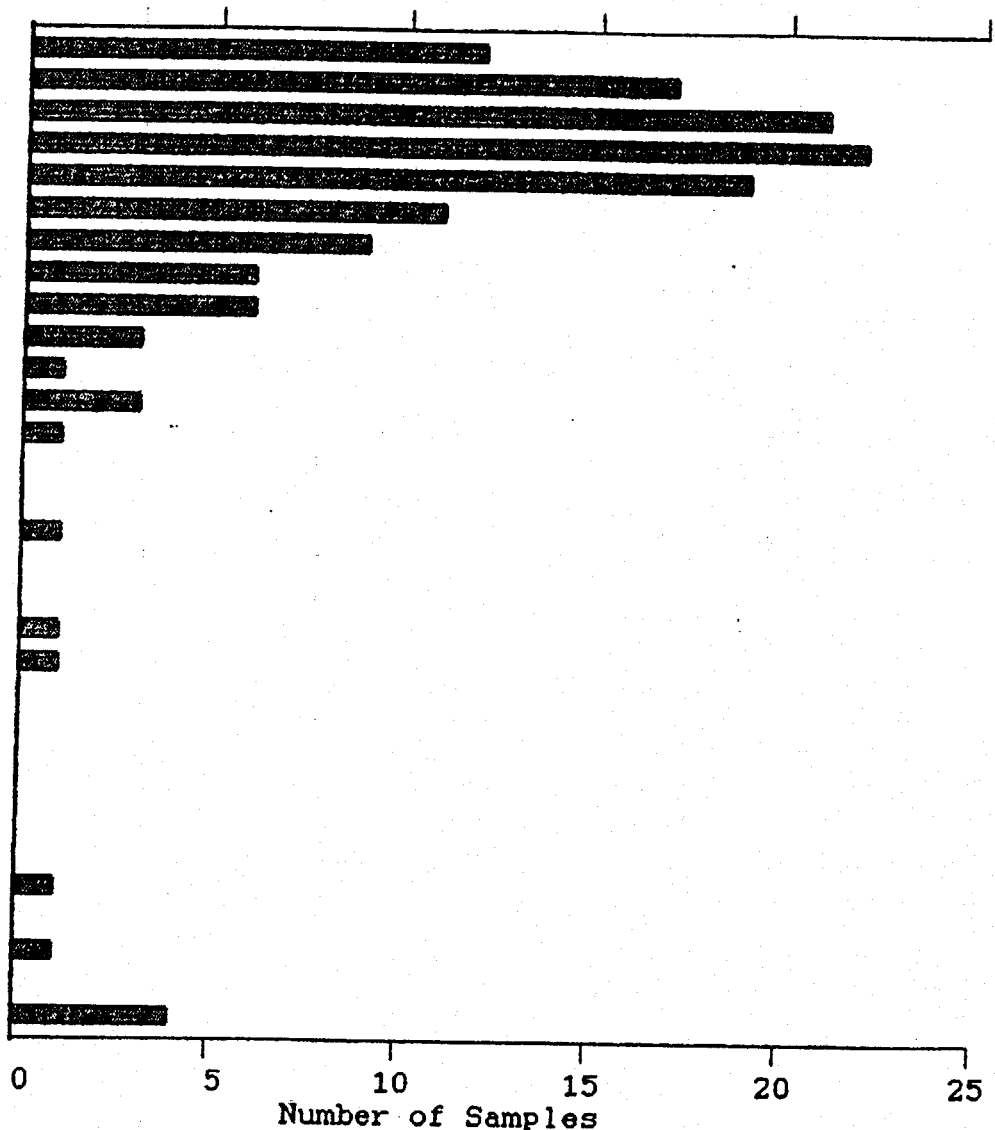
Mean: 2  
Median: 1  
Standard Deviation: 1



STRATO GEO. (88-3109 L10 -> L17)

Cu  
(PPM)

10	(	12)
20	(	17)
30	(	21)
40	(	22)
50	(	19)
60	(	11)
70	(	9)
80	(	6)
90	(	6)
100	(	3)
110	(	1)
120	(	3)
130	(	1)
140	(	0)
150	(	0)
160	(	1)
170	(	0)
180	(	0)
190	(	1)
200	(	1)
210	(	0)
220	(	0)
230	(	0)
240	(	0)
250	(	0)
260	(	0)
270	(	1)
280	(	0)
290	(	1)
300	(	0)
Over	(	4)



140 Samples

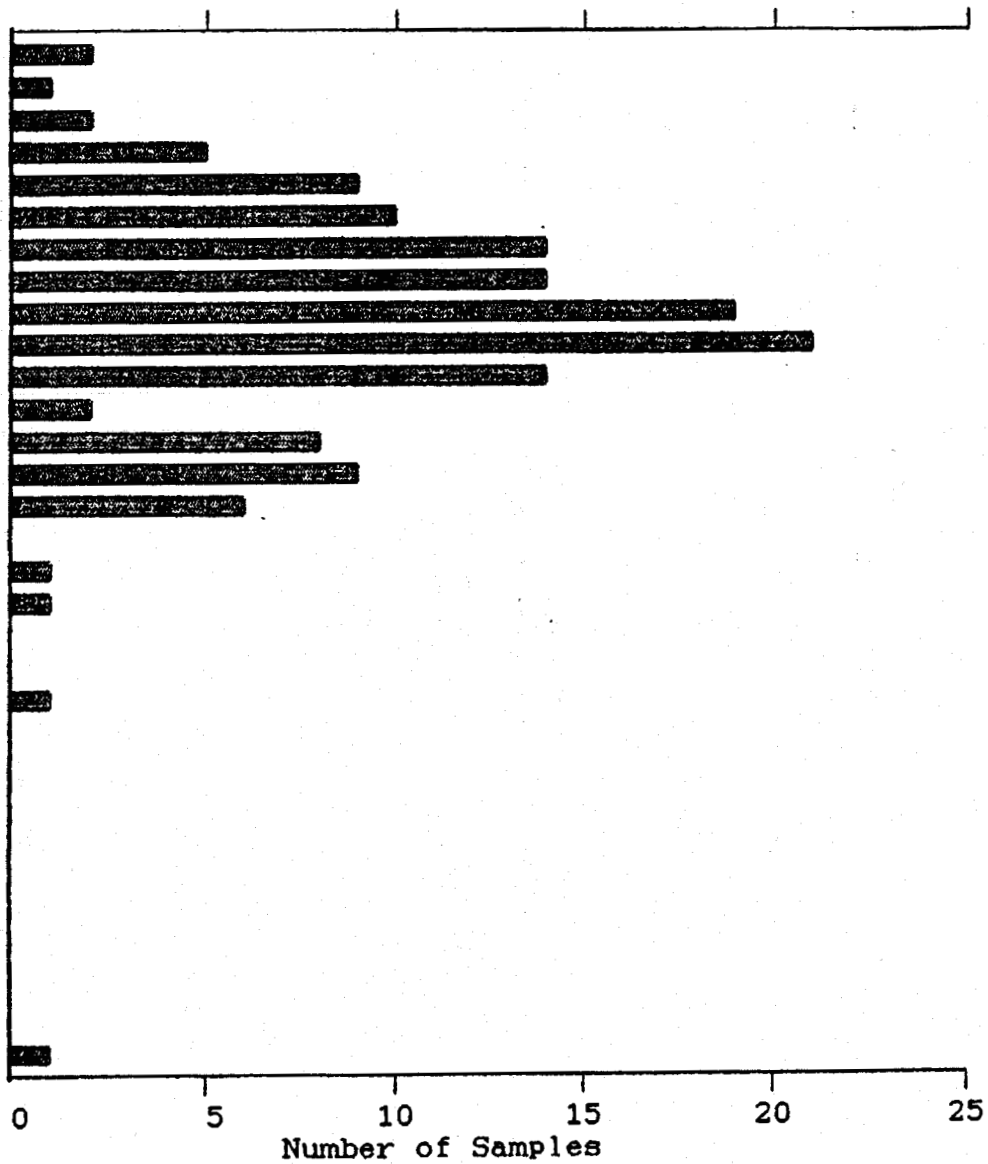
Maximum: 658  
Minimum: 2

Mean: 60  
Median: 39  
Standard Deviation: 82

STRATO GEO. (88-3109 L10 -> L17)

Pb  
(PPM)

3 ( 2)  
 4 ( 1)  
 5 ( 2)  
 6 ( 5)  
 7 ( 9)  
 8 (10)  
 9 (14)  
 10 (14)  
 11 (19)  
 12 (21)  
 13 (14)  
 14 ( 2)  
 15 ( 8)  
 16 ( 9)  
 17 ( 6)  
 18 ( 0)  
 19 ( 1)  
 20 ( 1)  
 21 ( 0)  
 22 ( 0)  
 23 ( 1)  
 24 ( 0)  
 25 ( 0)  
 26 ( 0)  
 27 ( 0)  
 28 ( 0)  
 29 ( 0)  
 30 ( 0)  
 31 ( 0)  
 32 ( 0)  
 33 ( 0)  
 Over ( 1)



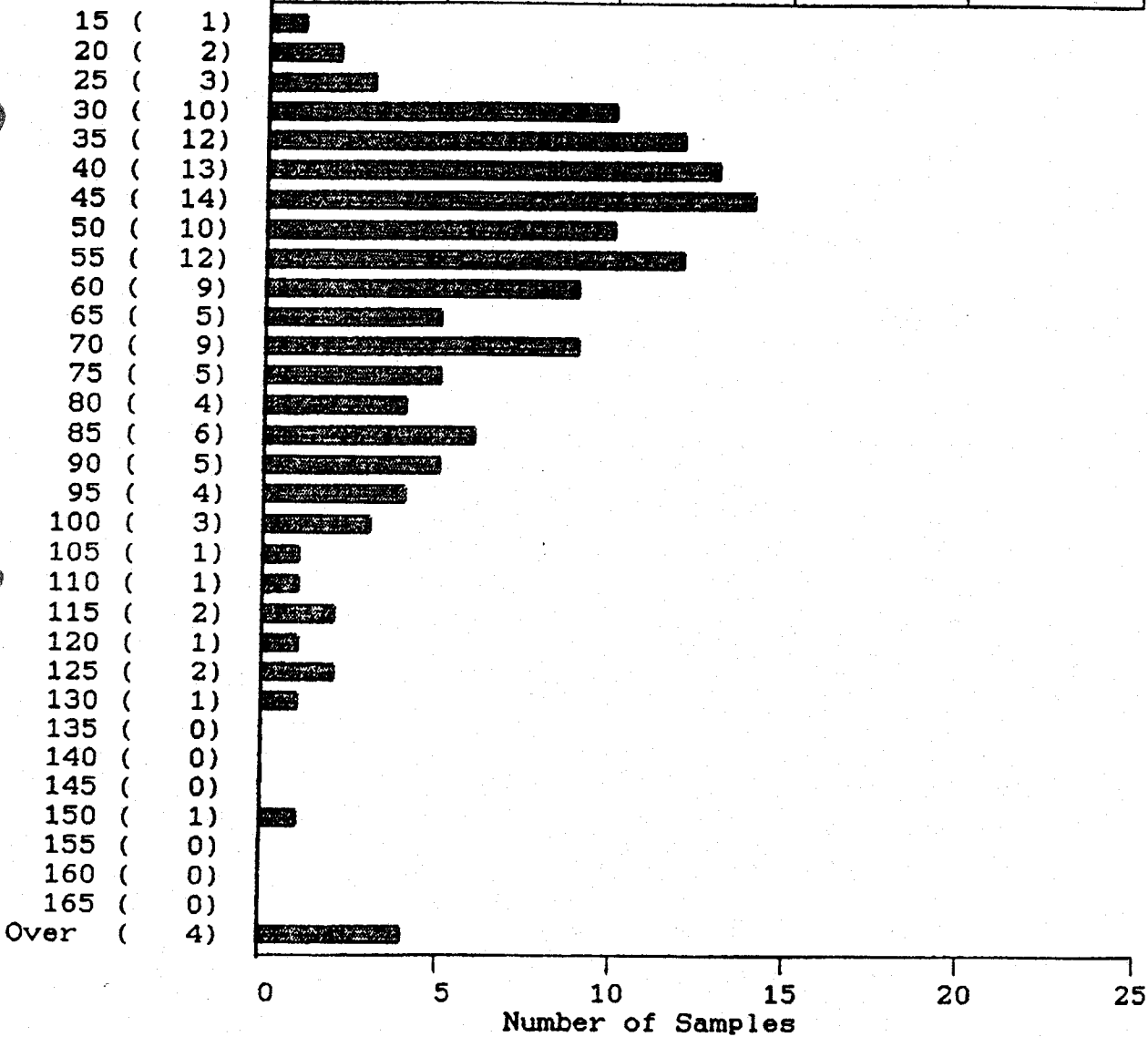
140 Samples

Maximum: 46  
 Minimum: 3

Mean: 11  
 Median: 11  
 Standard Deviation: 4

STRATO GEO. (88-3109 L10 -> L17)

Zn  
(PPM)



140 Samples

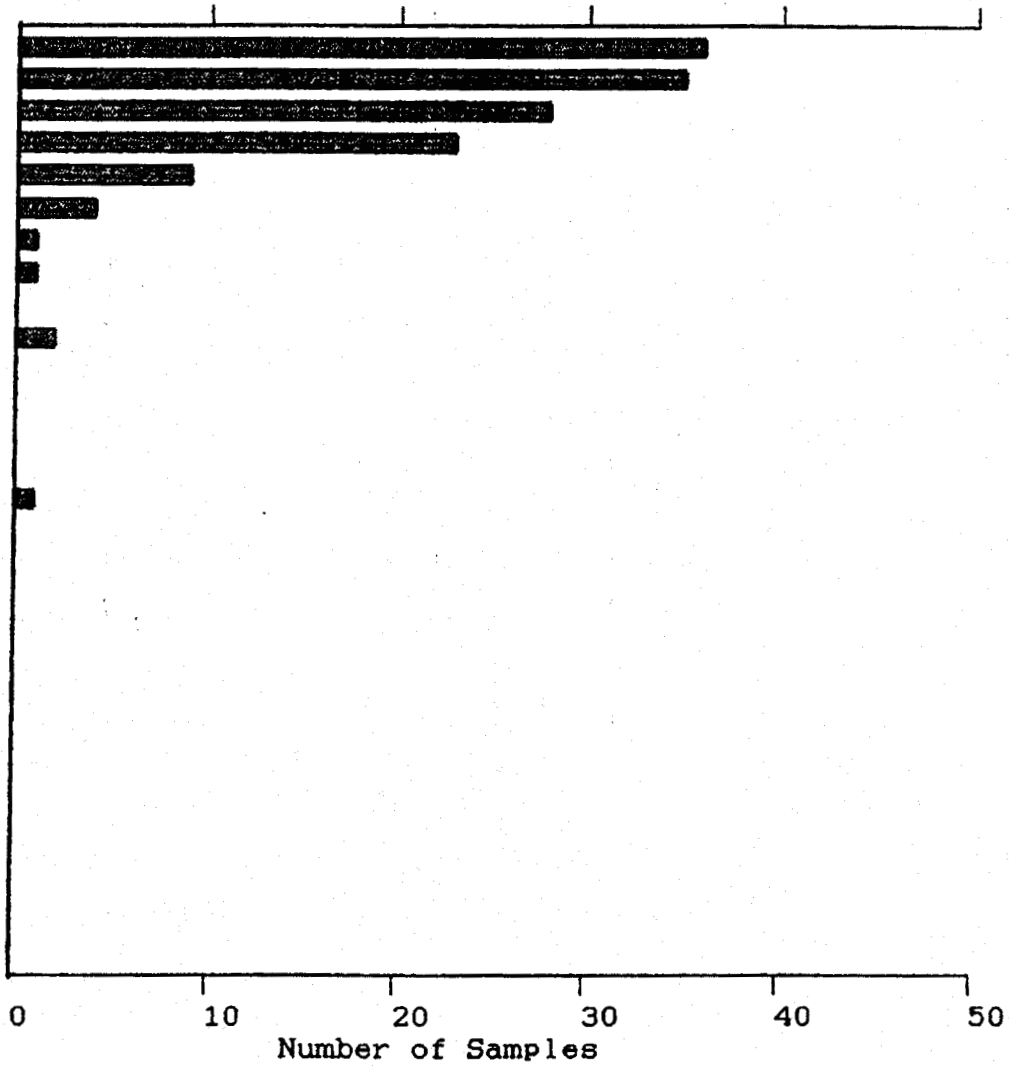
Maximum: 706  
Minimum: 14

Mean: 68  
Median: 52  
Standard Deviation: 73

STRATO GEO. (88-3109 L10 -> L17)

Ag  
(PPM)

0.1	(	36)
0.2	(	35)
0.3	(	28)
0.4	(	23)
0.5	(	9)
0.6	(	4)
0.7	(	1)
0.8	(	1)
0.9	(	0)
1.0	(	2)
1.1	(	0)
1.2	(	0)
1.3	(	0)
1.4	(	0)
1.5	(	1)
1.6	(	0)
1.7	(	0)
1.8	(	0)
1.9	(	0)
2.0	(	0)
2.1	(	0)
2.2	(	0)
2.3	(	0)
2.4	(	0)
2.5	(	0)
2.6	(	0)
2.7	(	0)
2.8	(	0)
2.9	(	0)



140 Samples

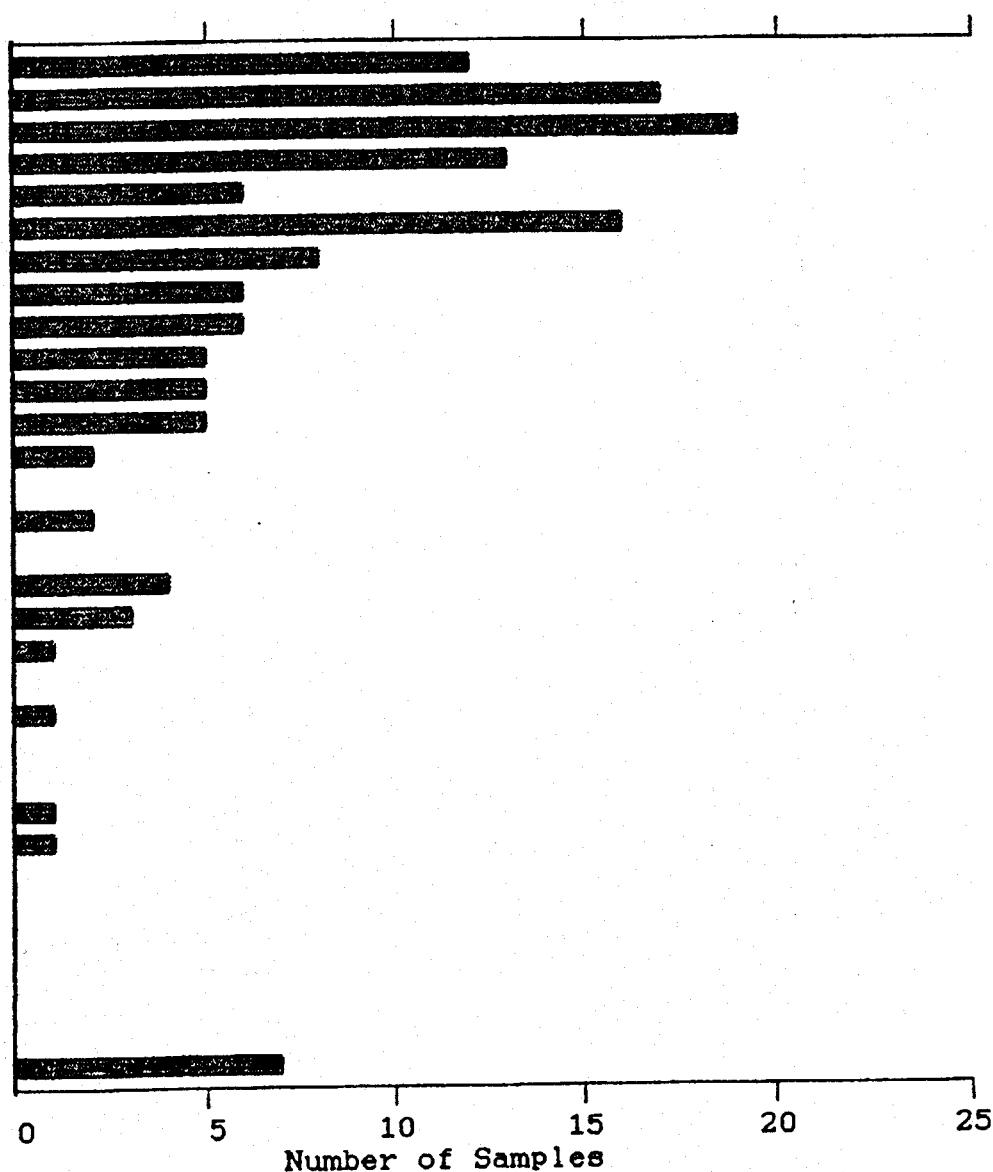
Maximum: 1.5  
Minimum: 0.1

Mean: 0.3  
Median: 0.2  
Standard Deviation: 0.2

STRATO GEO. (88-3109 L10 -> L17)

As  
(PPM)

2 ( 12)  
 4 ( 17)  
 6 ( 19)  
 8 ( 13)  
 10 ( 6)  
 12 ( 16)  
 14 ( 8)  
 16 ( 6)  
 18 ( 6)  
 20 ( 5)  
 22 ( 5)  
 24 ( 5)  
 26 ( 2)  
 28 ( 0)  
 30 ( 2)  
 32 ( 0)  
 34 ( 4)  
 36 ( 3)  
 38 ( 1)  
 40 ( 0)  
 42 ( 1)  
 44 ( 0)  
 46 ( 0)  
 48 ( 1)  
 50 ( 1)  
 52 ( 0)  
 54 ( 0)  
 56 ( 0)  
 58 ( 0)  
 60 ( 0)  
 62 ( 0)  
 Over ( 7)



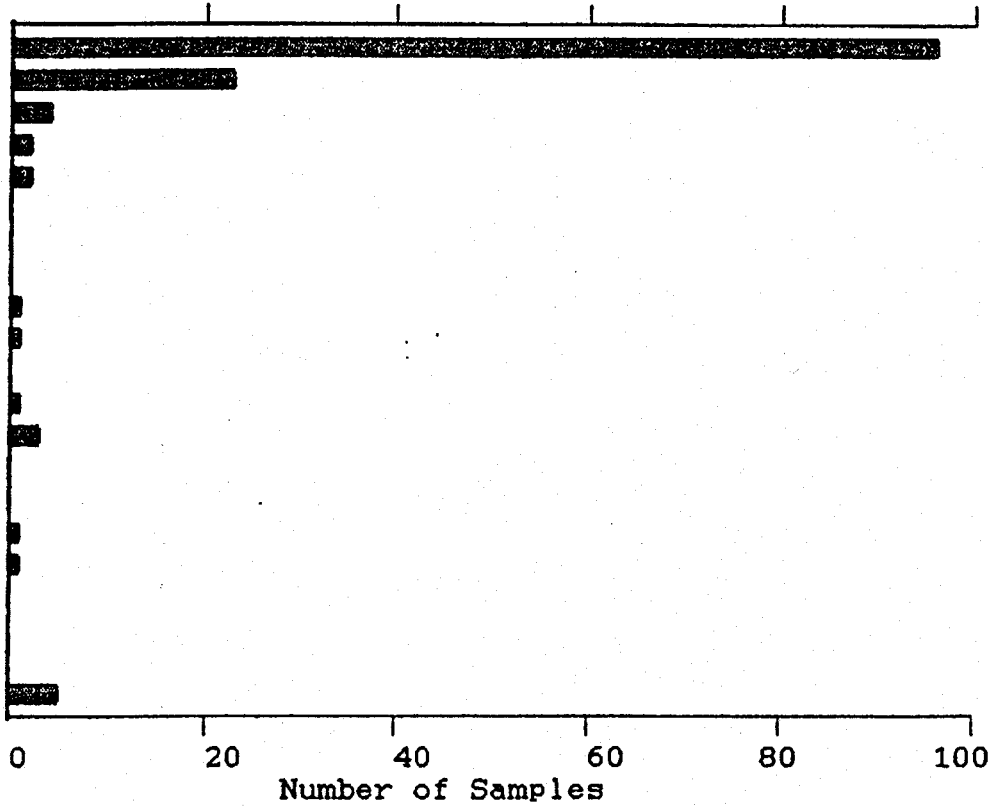
140 Samples      Maximum:      253      Mean:      19  
 Minimum:      2      Median:      11  
 Standard Deviation:      35

STRATO GEO. (88-3109 L10 -> L17)

---

Au\*  
(PPB)

1	(	96)
2	(	23)
3	(	4)
4	(	2)
5	(	2)
6	(	0)
7	(	0)
8	(	0)
9	(	1)
10	(	1)
11	(	0)
12	(	1)
13	(	3)
14	(	0)
15	(	0)
16	(	1)
17	(	1)
18	(	0)
19	(	0)
20	(	0)
Over	(	5)

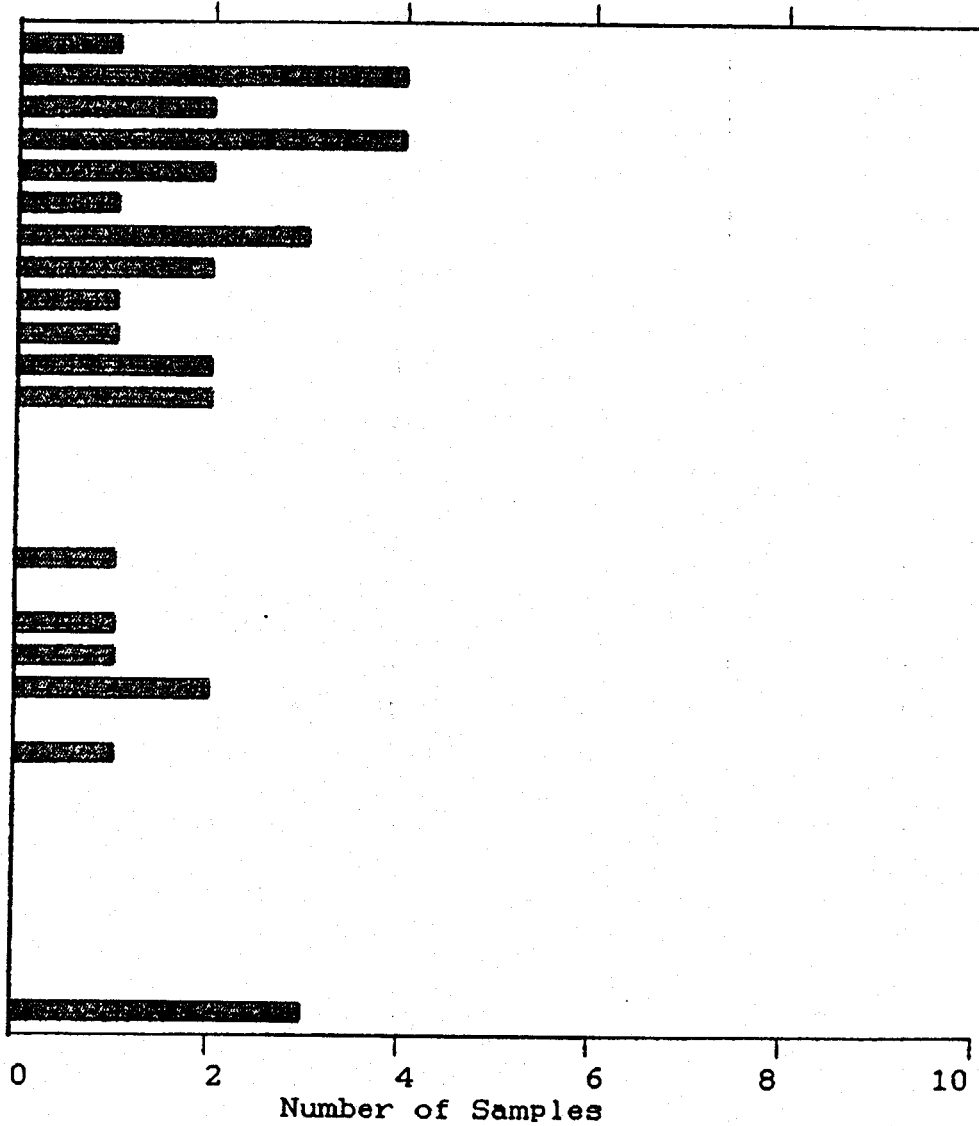


140 Samples	Maximum:	77	Mean:	4
	Minimum:	1	Median:	1
			Standard Deviation:	9

STRATO (88-4270 L1050 -> L1350)

Cu  
(PPM)

5 ( 1)  
 10 ( 4)  
 15 ( 2)  
 20 ( 4)  
 25 ( 2)  
 30 ( 1)  
 35 ( 3)  
 40 ( 2)  
 45 ( 1)  
 50 ( 1)  
 55 ( 2)  
 60 ( 2)  
 65 ( 0)  
 70 ( 0)  
 75 ( 0)  
 80 ( 0)  
 85 ( 1)  
 90 ( 0)  
 95 ( 1)  
 100 ( 1)  
 105 ( 2)  
 110 ( 0)  
 115 ( 1)  
 120 ( 0)  
 125 ( 0)  
 130 ( 0)  
 135 ( 0)  
 140 ( 0)  
 145 ( 0)  
 150 ( 0)  
 Over ( 3)



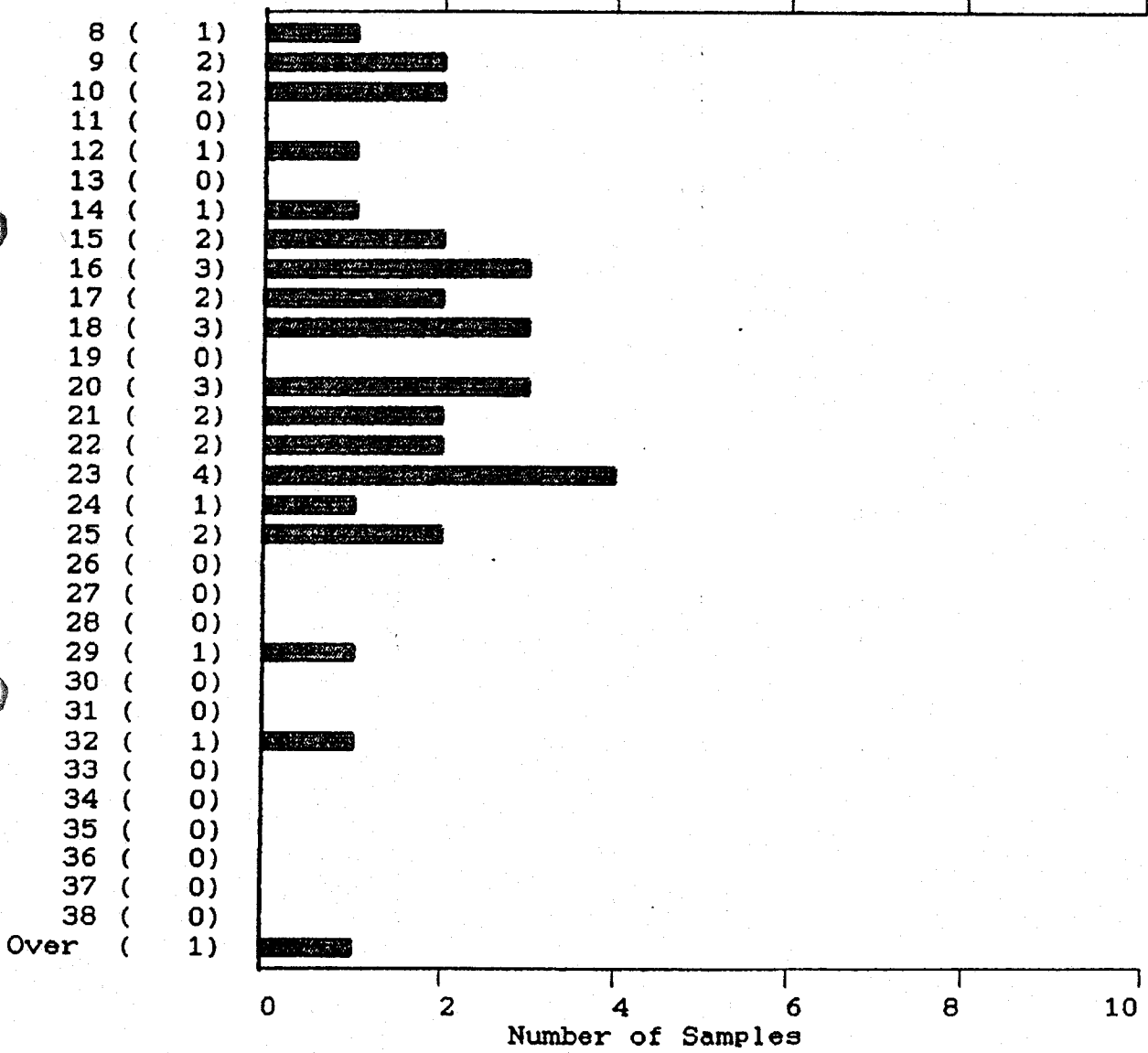
34 Samples

Maximum: 246  
 Minimum: 4

Mean: 56  
 Median: 34  
 Standard Deviation: 56

STRATO (88-4270 L1050 -> L1350)

Pb  
(PPM)



34 Samples

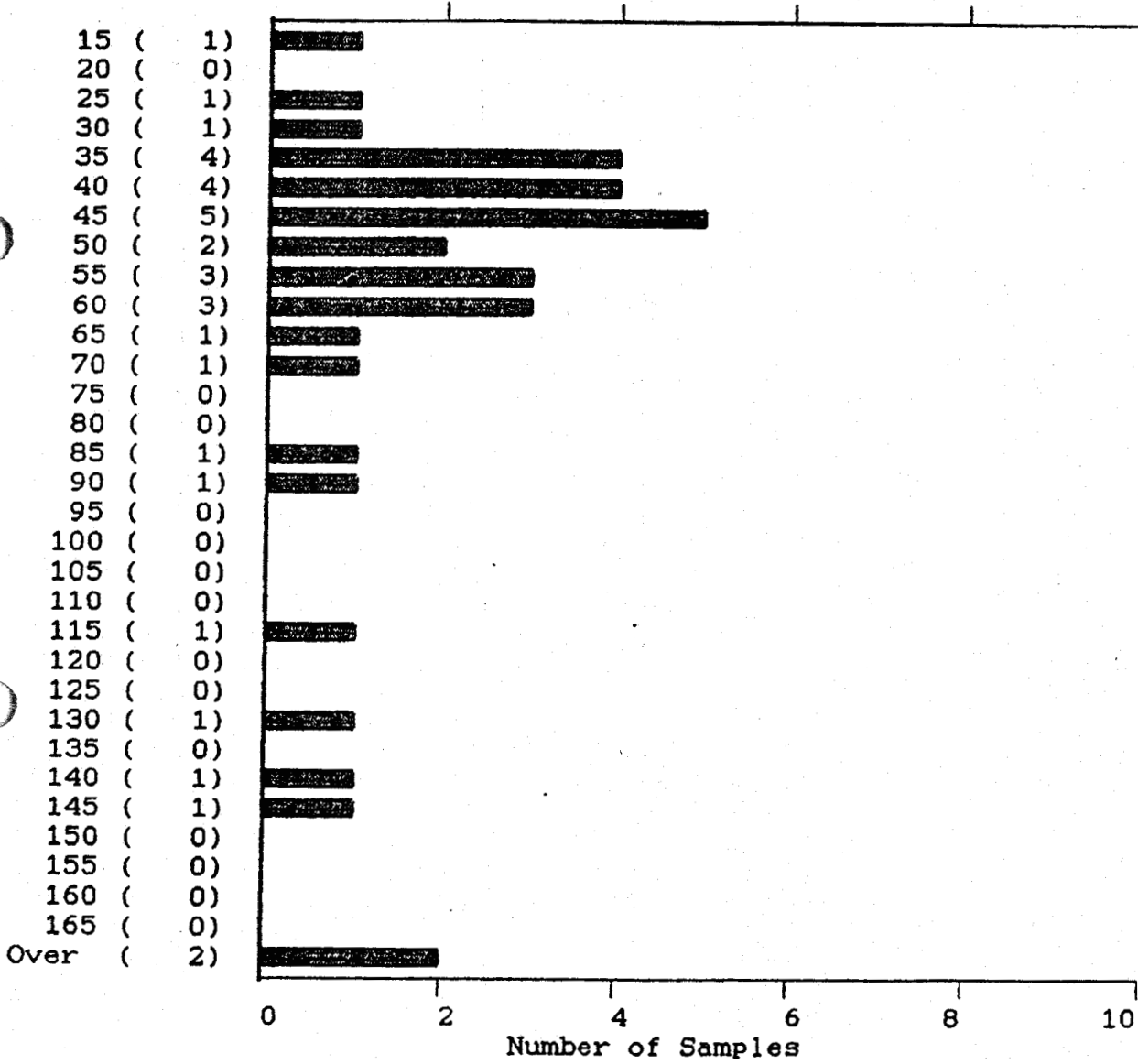
Maximum: 40  
Minimum: 8

Mean: 19  
Median: 18  
Standard Deviation: 7



STRATO (88-4270 L1050 -> L1350)

Zn  
(PPM)

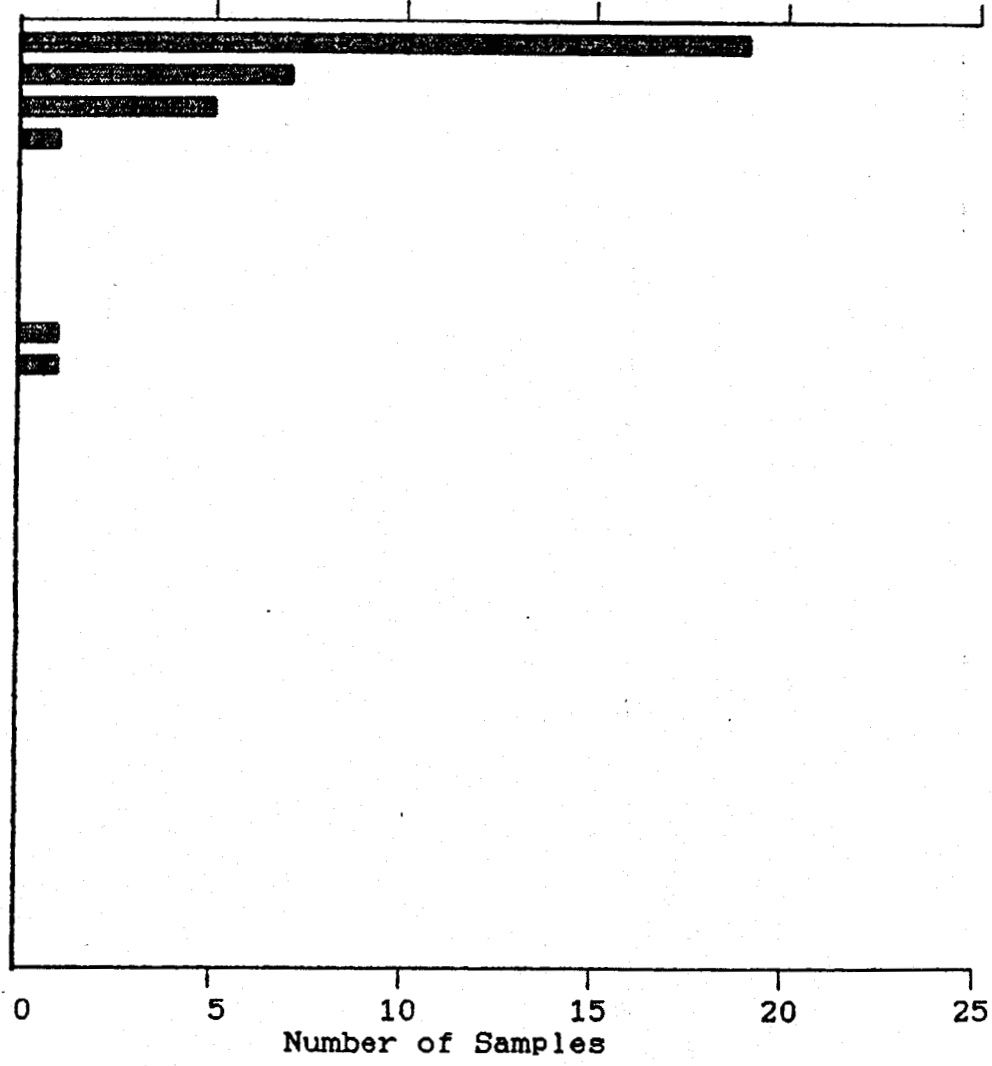


34 Samples	Maximum:	222	Mean:	65
	Minimum:	15	Median:	47
			Standard Deviation:	47

STRATO (88-4270 L1050 -> L1350)

Ag  
(PPM)

0.1 ( 19)  
 0.2 ( 7)  
 0.3 ( 5)  
 0.4 ( 1)  
 0.5 ( 0)  
 0.6 ( 0)  
 0.7 ( 0)  
 0.8 ( 0)  
 0.9 ( 0)  
 1.0 ( 1)  
 1.1 ( 1)  
 1.2 ( 0)  
 1.3 ( 0)  
 1.4 ( 0)  
 1.5 ( 0)  
 1.6 ( 0)  
 1.7 ( 0)  
 1.8 ( 0)  
 1.9 ( 0)  
 2.0 ( 0)  
 2.1 ( 0)  
 2.2 ( 0)  
 2.3 ( 0)  
 2.4 ( 0)  
 2.5 ( 0)  
 2.6 ( 0)  
 2.7 ( 0)  
 2.8 ( 0)  
 2.9 ( 0)



34 Samples

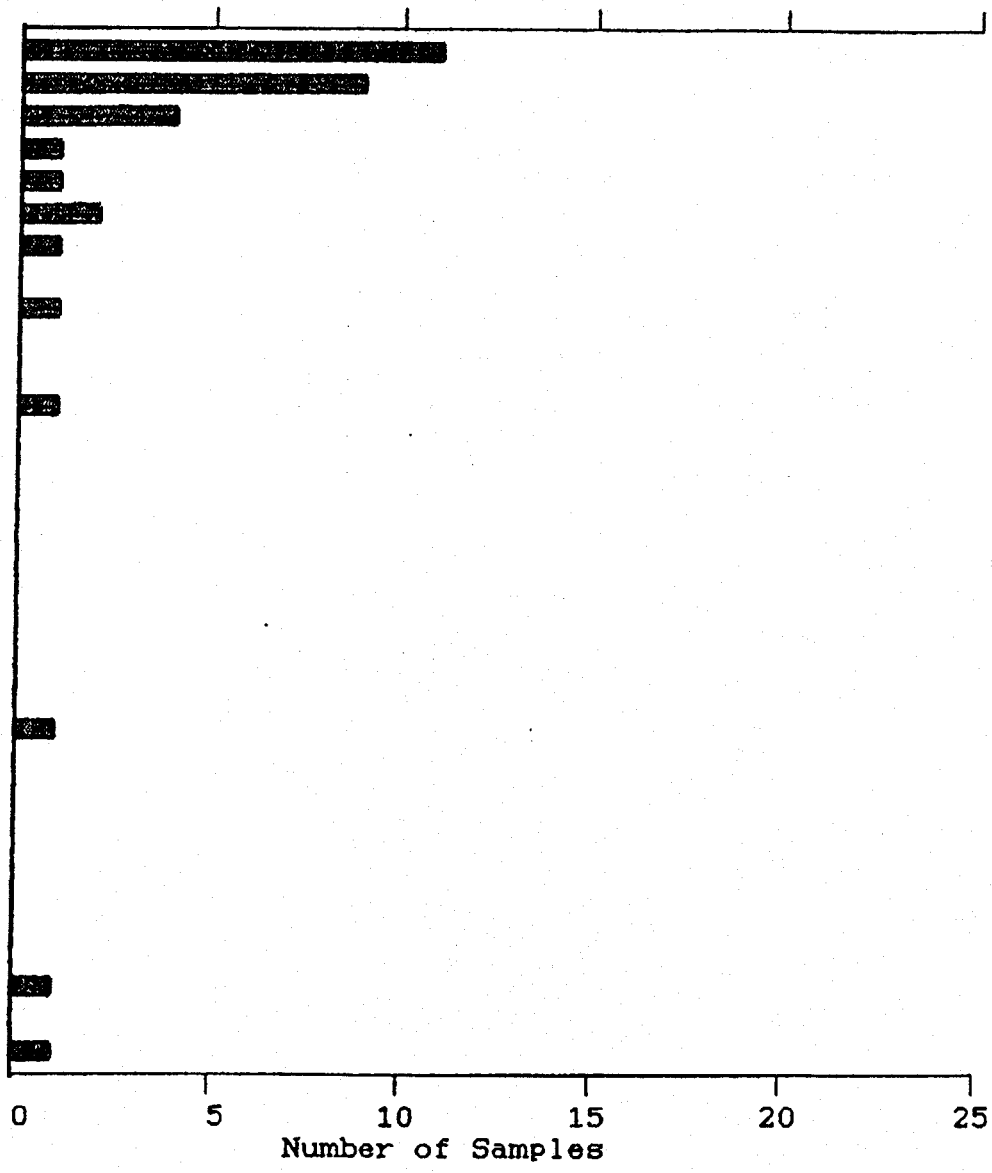
Maximum: 1.1  
 Minimum: 0.1

Mean: 0.2  
 Median: 0.1  
 Standard Deviation: 0.2

STRATO (88-4270 L1050 -> L1350)

As  
(PPM)

5 ( 11)  
 10 ( 9)  
 15 ( 4)  
 20 ( 1)  
 25 ( 1)  
 30 ( 2)  
 35 ( 1)  
 40 ( 0)  
 45 ( 1)  
 50 ( 0)  
 55 ( 0)  
 60 ( 1)  
 65 ( 0)  
 70 ( 0)  
 75 ( 0)  
 80 ( 0)  
 85 ( 0)  
 90 ( 0)  
 95 ( 0)  
 100 ( 0)  
 105 ( 0)  
 110 ( 1)  
 115 ( 0)  
 120 ( 0)  
 125 ( 0)  
 130 ( 0)  
 135 ( 0)  
 140 ( 0)  
 145 ( 0)  
 150 ( 1)  
 155 ( 0)  
 Over ( 1)



34 Samples

Maximum: 975

Minimum: 2

Mean: 47

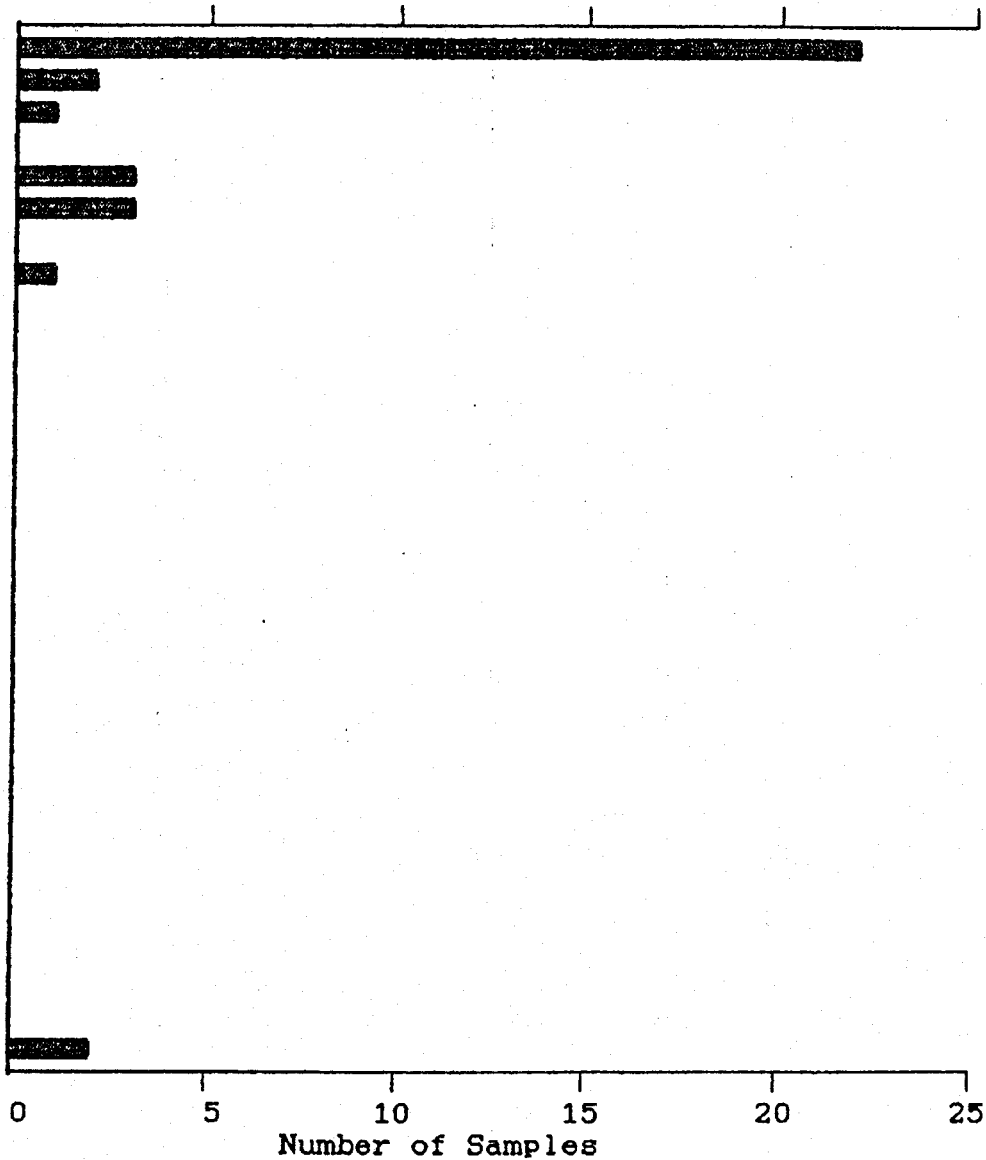
Median: 7

Standard Deviation: 164

STRATO (88-4270 L1050 -> L1350)

Au\*  
(PPB)

1 ( 22)  
 2 ( 2)  
 3 ( 1)  
 4 ( 0)  
 5 ( 3)  
 6 ( 3)  
 7 ( 0)  
 8 ( 1)  
 9 ( 0)  
 10 ( 0)  
 11 ( 0)  
 12 ( 0)  
 13 ( 0)  
 14 ( 0)  
 15 ( 0)  
 16 ( 0)  
 17 ( 0)  
 18 ( 0)  
 19 ( 0)  
 20 ( 0)  
 21 ( 0)  
 22 ( 0)  
 23 ( 0)  
 24 ( 0)  
 25 ( 0)  
 26 ( 0)  
 27 ( 0)  
 28 ( 0)  
 29 ( 0)  
 30 ( 0)  
 31 ( 0)  
 Over ( 2)



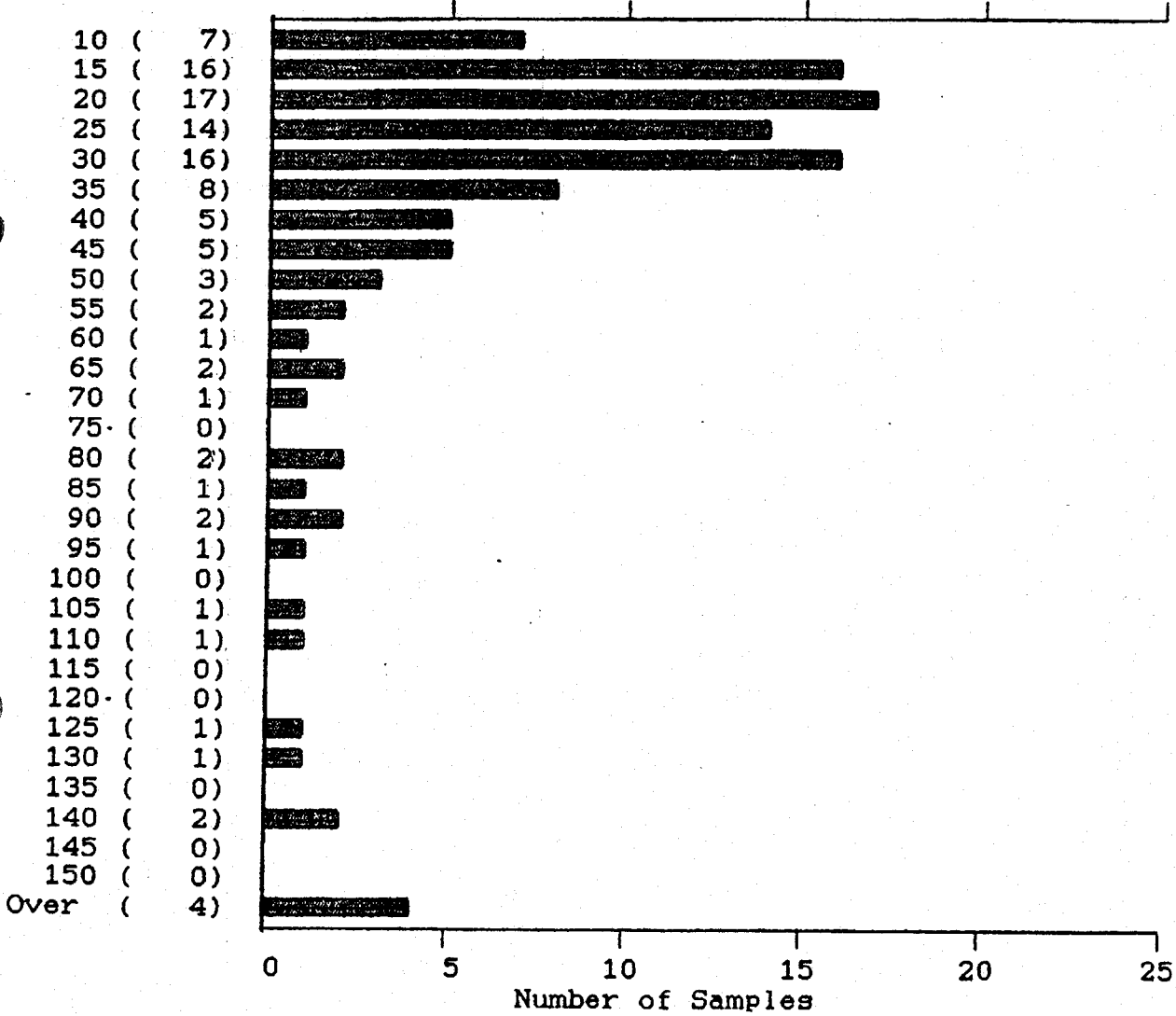
34 Samples

Maximum: 98  
 Minimum: 1

Mean: 7  
 Median: 1  
 Standard Deviation: 19

STRATO GEO. (88-4270 L1 -> L450)

Cu  
(PPM)



113 Samples

Maximum: 392

Mean: 43

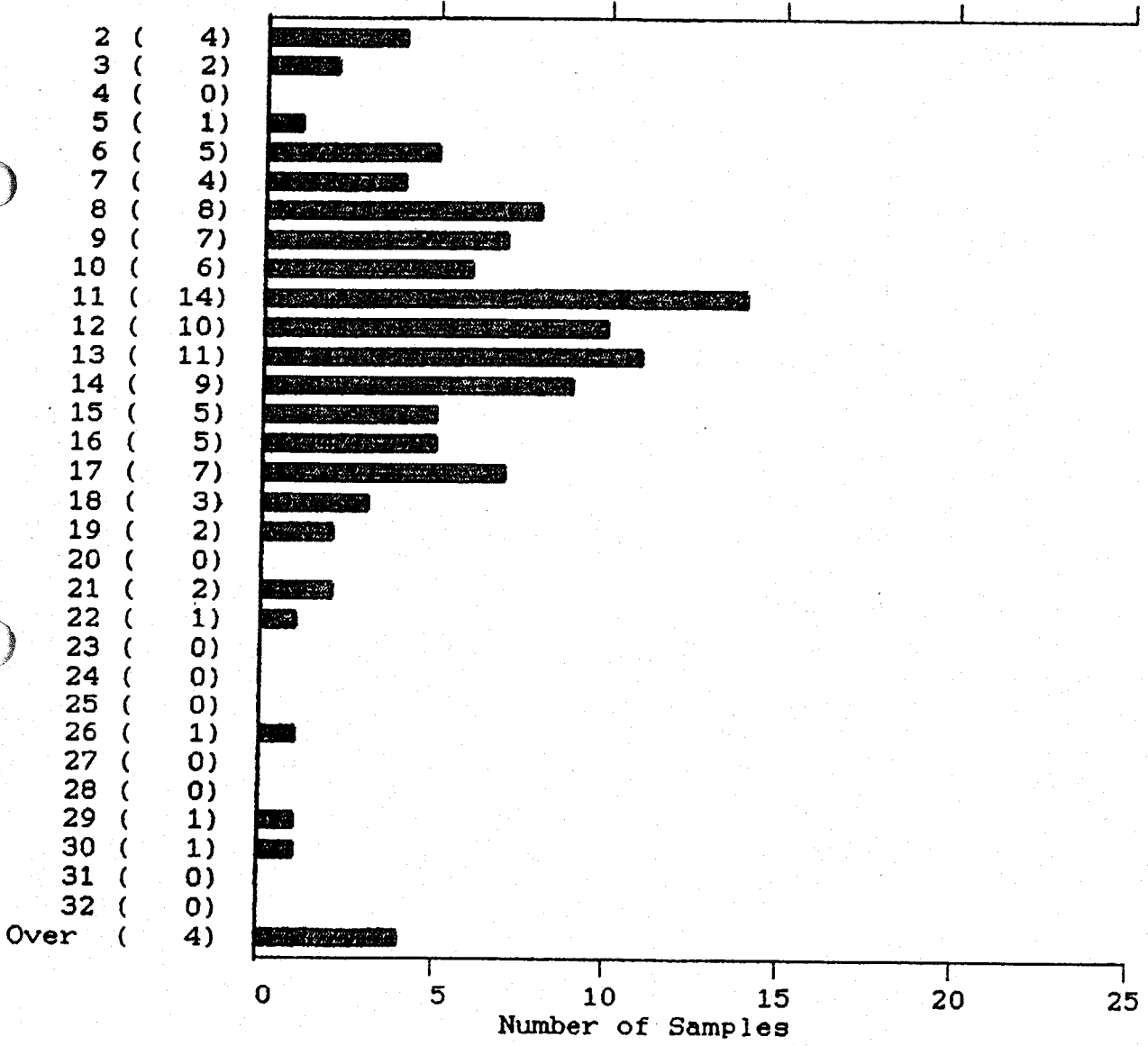
Minimum: 6

Median: 26

Standard Deviation: 55

STRATO GEO. (88-4270 L1 -> L450)

Pb  
(PPM)

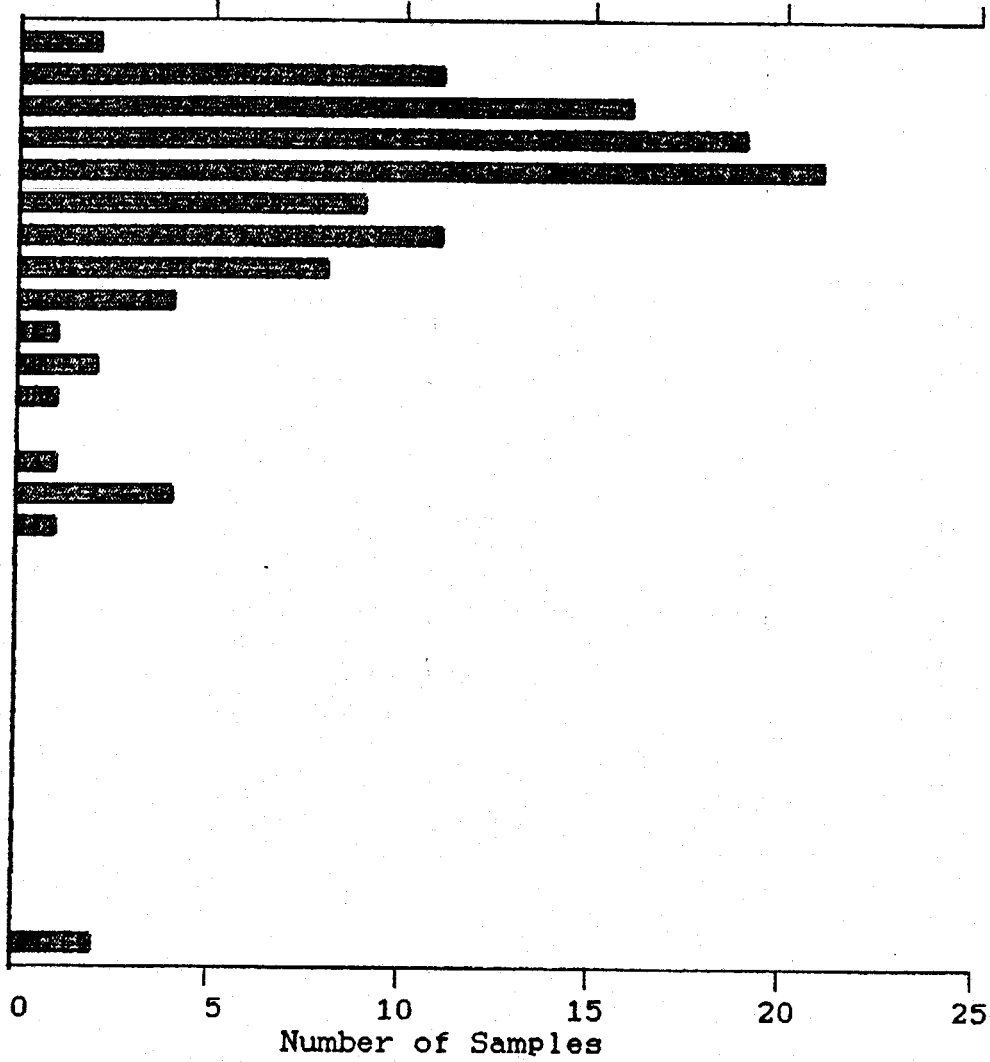


113 Samples	Maximum:	83	Mean:	14
	Minimum:	2	Median:	12
			Standard Deviation:	11

STRATO GEO. (88-4270 L1 -> L450)

Zn  
(PPM)

30 ( 2)  
 40 ( 11)  
 50 ( 16)  
 60 ( 19)  
 70 ( 21)  
 80 ( 9)  
 90 ( 11)  
 100 ( 8)  
 110 ( 4)  
 120 ( 1)  
 130 ( 2)  
 140 ( 1)  
 150 ( 0)  
 160 ( 1)  
 170 ( 4)  
 180 ( 1)  
 190 ( 0)  
 200 ( 0)  
 210 ( 0)  
 220 ( 0)  
 230 ( 0)  
 240 ( 0)  
 250 ( 0)  
 260 ( 0)  
 270 ( 0)  
 280 ( 0)  
 290 ( 0)  
 300 ( 0)  
 Over ( 2)



113 Samples

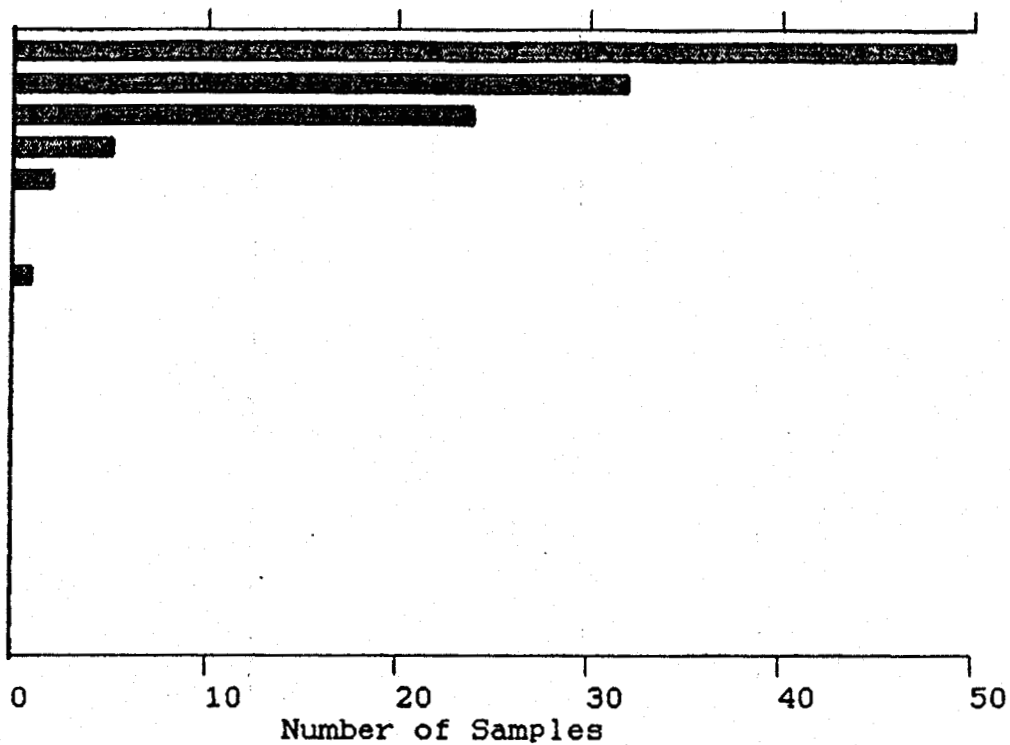
Maximum: 1589  
 Minimum: 28

Mean: 88  
 Median: 63  
 Standard Deviation: 150

STRATO GEO. (88-4270 L1 -> L450)

Ag  
(PPM)

0.1 ( 49)  
 0.2 ( 32)  
 0.3 ( 24)  
 0.4 ( 5)  
 0.5 ( 2)  
 0.6 ( 0)  
 0.7 ( 0)  
 0.8 ( 1)  
 0.9 ( 0)  
 1.0 ( 0)  
 1.1 ( 0)  
 1.2 ( 0)  
 1.3 ( 0)  
 1.4 ( 0)  
 1.5 ( 0)  
 1.6 ( 0)  
 1.7 ( 0)  
 1.8 ( 0)  
 1.9 ( 0)

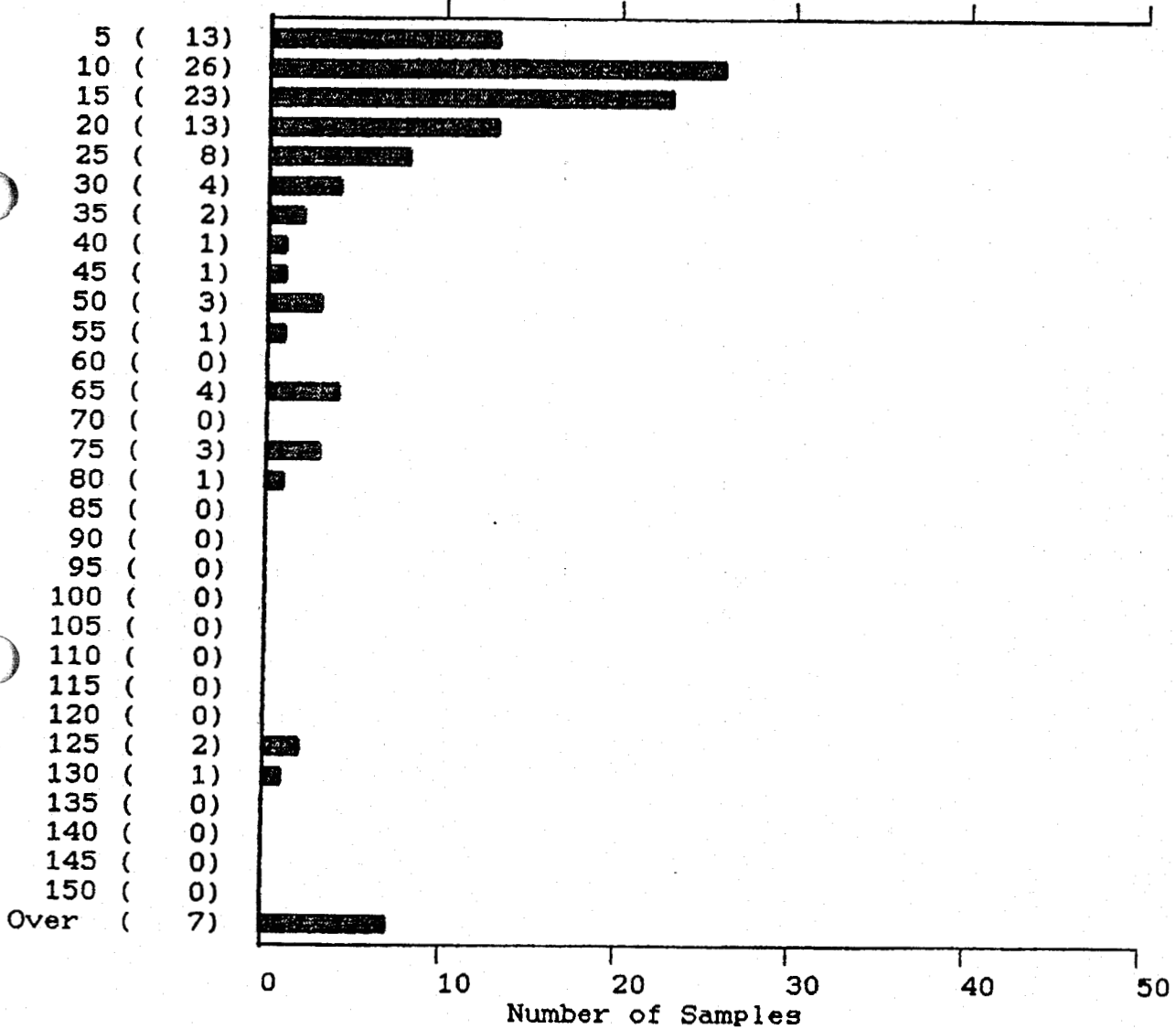


113 Samples	Maximum: 0.8	Mean: 0.2
	Minimum: 0.1	Median: 0.2
		Standard Deviation: 0.1



STRATO GEO. (88-4270 L1 -> L450)

As  
(PPM)



113 Samples

Maximum: 501  
Minimum: 2

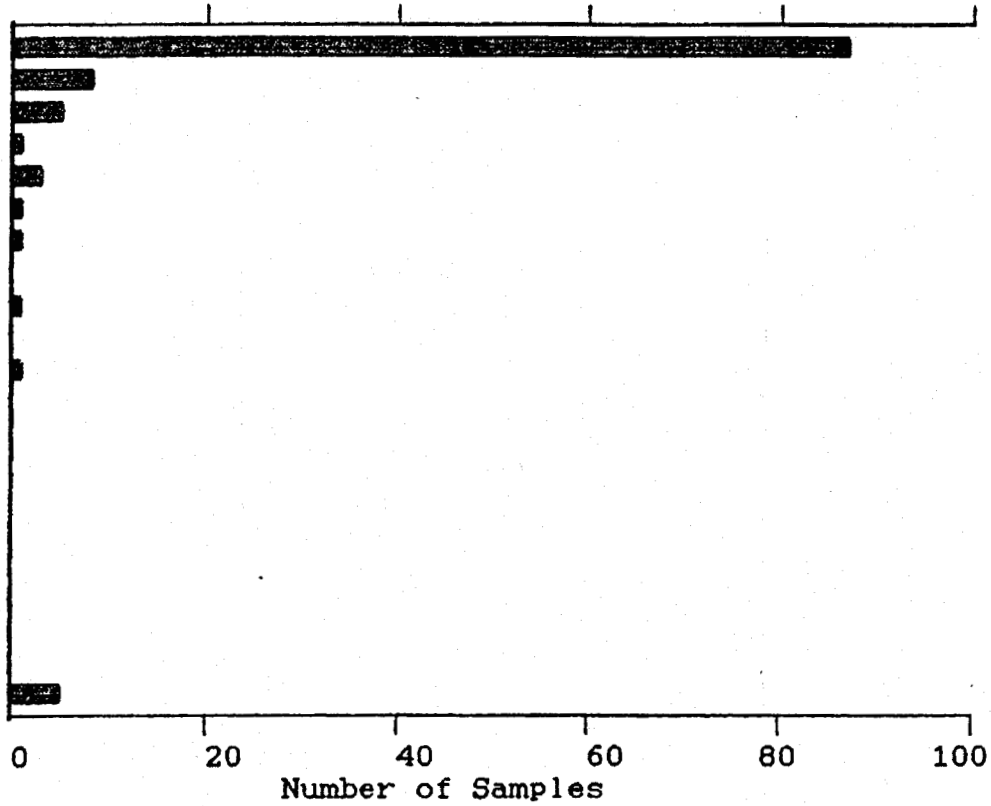
Mean: 35  
Median: 14  
Standard Deviation: 63

STRATO GEO. (88-4270 L1 -> L450)

---

Au\*  
(PPB)

1 ( 87)  
 2 ( 8)  
 3 ( 5)  
 4 ( 1)  
 5 ( 3)  
 6 ( 1)  
 7 ( 1)  
 8 ( 0)  
 9 ( 1)  
 10 ( 0)  
 11 ( 1)  
 12 ( 0)  
 13 ( 0)  
 14 ( 0)  
 15 ( 0)  
 16 ( 0)  
 17 ( 0)  
 18 ( 0)  
 19 ( 0)  
 20 ( 0)  
 Over ( 5)



113 Samples

Maximum: 93  
 Minimum: 1

Mean: 4  
 Median: 1  
 Standard Deviation: 12

**APPENDIX V**  
**Equipment Specifications**

## SCINTREX MODEL MP-2, PRECESSION MAGNETOMETER

- Resolution:** 1 gamma.
- Total Field Accuracy:**  $\pm 1$  gamma over full operating range.
- Range:** 20,000 to 100,000 gammas in 25 overlapping steps.
- Informal Measuring Program:** A reading appears 1.5 seconds after depression of the Operate Switch and remains displayed for a total of 3.7 seconds per single reading. Recycling feature permits automatic repetitive readings at 3.7 second intervals.
- External Trigger:** External trigger input permits use of sampling intervals longer than 3.7 seconds.
- Display:** 5 digit LED (light emitting diode) readout displaying total magnetic field in gammas or normalized battery voltage.
- Data Output:** Multiplied precession frequency and gate time outputs for base station recording using interfacing optionally available from Scintrex.
- Gradient Tolerance:** Up to 5000 gammas/meter.
- Power Source:** 8 alkaline "D" cells provide up to 25,000 readings at 25 degrees under reasonable signal/noise conditions (less at lower temperatures). Premium carbon-zinc cells provide about 40% of this number.

## SABRE MODEL 27 VLF-EM RECEIVER

### SPECIFICATIONS

Source of Primary Field - VLF radio stations (12 to 24 KHz).

Number of Stations - 4, selected by switch; Cutler, Main on 17.8 KHz and Seattle, Washington on 24.8 KHz are standard, leaving 2 other stations that can be selected by the user. Currently these are Hawaii at 23.4 KHz and Annapolis, MD at 21.4 KHz.

#### Types of Measurements

1. Dip angle in degrees, read on a meter-type inclinometer with range of + or - 60 degrees and an accuracy of + or - 1/2 degrees.
2. Field strength, read on a meter and a precision digital dial with an accuracy exceeding 1%.
3. Out of phase component, read on the field strength meter as a residual reading when measuring the dip angle.

#### Dimensions and Weight

Approx. 9 1/2" x 2 1/2" x 8 1/2" (24.2cm x 6.3cm x 21.6cm).

5 lbs (2.37 kg)

#### Batteries

8 alkaline penlite cells (AA cells). The instrument will run continuously on one set of batteries for over 200 hours; so that in normal on-off use, the batteries will last all season. The battery condition under load is shown by pushing a button and reading voltage on the field strength meter.

Note: The instrument is not waterproof and must be protected by placing in a plastic bag for use under wet survey conditions.

# HUNTEC MARK IV INDUCED POLARIZATION RECEIVER

## A. GENERAL SPECIFICATIONS

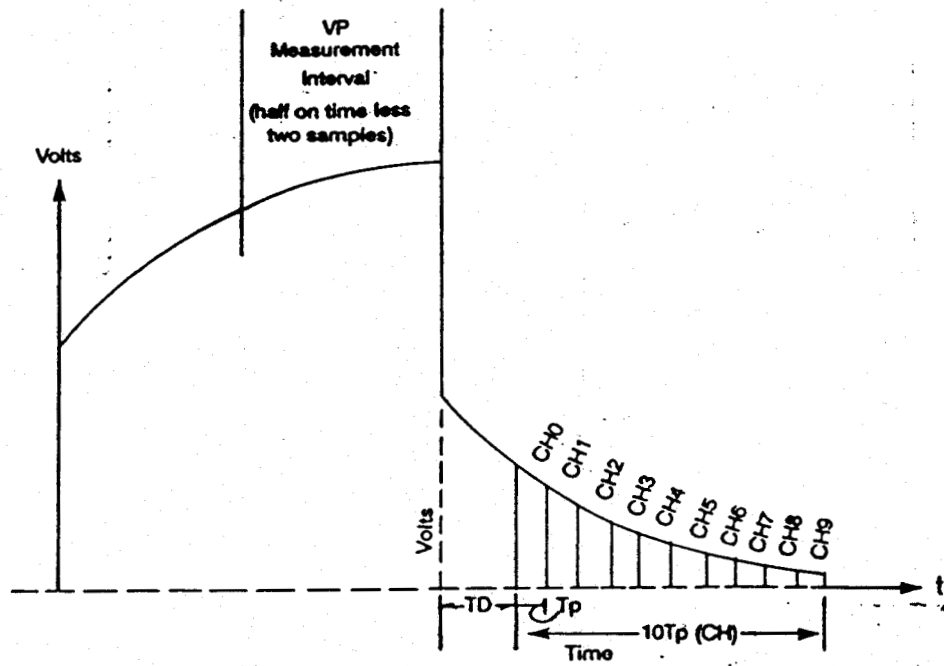
### 1. Inputs

#### Signal Channel

Range:	-5 5x10 to 10 volts. Automatic gain ranging. Overload indication above 10 volts.
Resistance:	9 Greater than 10 Ohms differential (i.e. between + and - terminals).
Capacitance:	-11 Less than 3 x 10 Farads.
Bias Current:	-8 Less than 10 Amperes.
Bandwidth:	Basic bandwidth is 100Hz. A 12 Hz digital lowpass filter is selectable via a switch on the programming panel.
SP Cancellation Range:	-5 to +5 volts (automatic).
Protection:	Low leakage diode clamps, gas discharge surge arresters, field replaceable fuses.
Terminals:	Two color-coded (red and black) signal inputs plain chassis ground terminal. Push posts: 120 volt insulation, accepts maximum 1.5mm diameter wire.

#### Reference Channel

Maximum:	5 volts peak.
Overload Indication:	Operates above approximately 5 volts peak.
Resistance:	5 2 x 10 Ohms differential.
Capacitance:	-11 Less than 3 x 10 Farads.
Input Connector:	Four pin female (includes battery and ground, for operating references isolation amplifiers).



Time Domain Waveform

## HUNTEC MARK IV 7.5 KW TRANSMITTER

### SPECIFICATIONS

Power:	96-144 V line to neutral, 3 phase, 400 Hz (from Hunttec generator set), 7500W.
Output:	Voltage: 100-3200V dc in 10 steps; Current: 16A maximum on low ranges.
Current regulator:	<0.1% current change for 10% change in load resistance. Settling time to 1% approx. 15 msec.
Output frequency (selectable on front panel):	1/16 Hz to 1 Hz (time domain and complex resistivity). 1/16 Hz to 4 Hz (frequency domain).
Frequency accuracy:	$\pm 50$ ppm, -30 degrees to 60 degrees C.
Output duty cycle - defined as tON/(tON + tOFF):	1/2 to 15/16 in increments of 1/16 (time domain). 15/16 (complex resistivity). 3/4 (frequency domain).
Output current meter:	Two ranges - 0-10A, 0-20A.
Ground resistance meter:	Two ranges - 0-10K ohms, 0-100K ohms.
Input voltage meter:	0-150V.
Dummy load:	Two levels - 2000W, 6000W.
Temperature range:	-34 degrees C to 50 degrees C.
Size:	53 x 43 x 43 cm (21 x 17 x 17 ins).
Weight:	50 kg (110 lbs.)



## ALTERNATOR

### SPECIFICATIONS

#### Engine

Type: Onan 25HP, NHC-MS 3600 rpm.  
Fuel: regular or unleaded automobile grade gasoline.  
Tank capacity: 3 3/4 gallons (US) 14 litres.  
Duration: typically 2 hours.  
Lubricating Oil: 3 1/2 quartz (US), below 0 degrees F, 5W-30 SAE, 0 degrees to 30 degrees F, 10W-30, 5W-30 SAE, above 30 degrees F, 30SAE.  
Starter: electric start.

#### Alternator

Type: Bendix Eclipse - Pioneer 28E01-1-A.  
Drive: Double Vbelt, Gates Rubber Co., matched pair 3V-400 super HC V belt.

#### Mechanical

Overhall height: 31 ins., 79 cm.  
Width: 31 ins., 79 cm.  
Length: 40 ins., 102 cm.  
Weight: 450 lbs., 205 kg (with fuel and oil).

#### Voltage regulator

Type: Hunttec 100-1999  
Regulation: 9%, no load to full load.  
Output cable/connector: 50 ft. cable terminated with connector type MS3106E18-10S.  
Size: 9 1/2 ins x 6 3/4 ins x 4 5/8 ins. (24 mm x 17 mm x 12 mm).  
Weight: 4 1/4 lbs., 1.9 kg.

ARIS SUMMARY SHEET

District Geologist, Victoria

Off Confidential: 90.02.14

ASSESSMENT REPORT 18662

MINING DIVISION: Alberni

PROPERTY: Rat  
LOCATION: LAT 48 53 00 LONG 124 59 00  
UTM 10 5416163 354594  
NTS 092C15W

CAMP: 023 Sarita - Gordon River Area

CLAIM(S): Toff's Lost Ear, Rain, RC 4-5  
OPERATOR(S): Rattler Res.  
AUTHOR(S): Roberts, P.S.; Hunter, A.E.  
REPORT YEAR: 1989, 95 Pages

COMMODITIES

SEARCHED FOR: Gold

KEYWORDS: Mesozoic, Quatsino Formation, Bonanza Group, Island Intrusions  
Limestone, Andesite, Granite, Granodiorite, Chalcopyrite, Sphalerite  
Galena, Gold

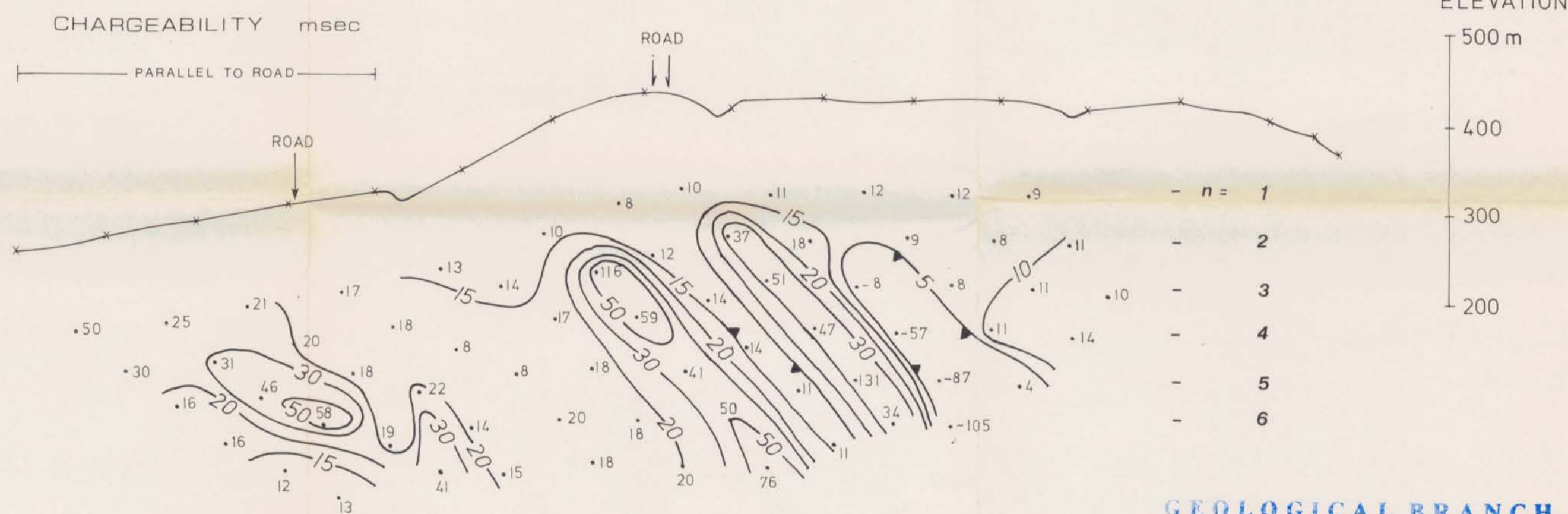
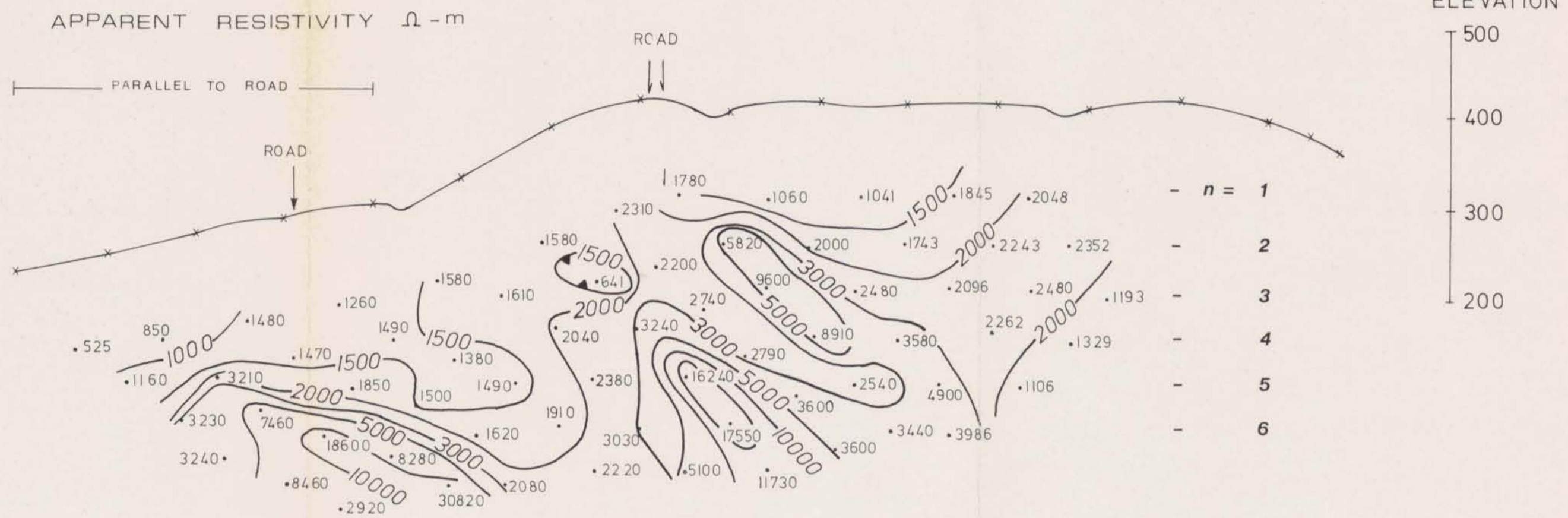
WORK

DONE: Geological, Geochemical, Geophysical  
EMGR 6.2 km; VLF  
Map(s) - 4; Scale(s) - 1:1000, 1:2500  
GEOL 1977.0 ha  
Map(s) - 4; Scale(s) - 1:1000, 1:2500, 1:5000  
IPOL 14.3 km  
Map(s) - 9; Scale(s) - 1:2500, 1:5000  
MAGG 6.2 km  
Map(s) - 2; Scale(s) - 1:1000, 1:2500  
SILT 19 sample(s) ; CU, PB, ZN, AG, AS, AU  
SOIL 389 sample(s) ; CU, PB, ZN, AG, AS, AU  
Map(s) - 3; Scale(s) - 1:2500

RELATED

REPORTS: 07943, 09509  
MINFILE: 092C 006, 092C 032, 092C 096

000 200 400 600 800 1000 1200 1400 1600 1800 2000

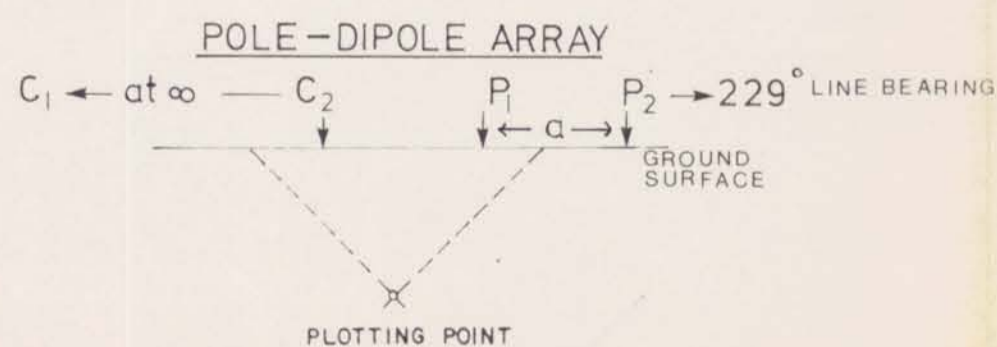


CONTOUR INTERVALS: 1, 1.5, 2, 3, 5, 10

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,662

SCALE 1: 5000  
0 80 160 240 METRES



$$\rho a = 2\pi a n(n+1) \sqrt{\Omega - m} \text{ (apparent resistivity)}$$

$M = \text{msec (chargeability)}$   
 $a = 100 \text{ m}$   
 $n = 1 \text{ to } 6$

INSTRUMENTATION

Tx: HUNTEC M4 7.5kW  
 Rx: HUNTEC M4  
 $f = 1/8 \text{ Hz}$   
 $T_D = 200 \text{ MSec}$   
 $T_I = 150 \text{ MSec (10 WINDOWS)}$   
 TIME DOMAIN SURVEY

FIGURE 23

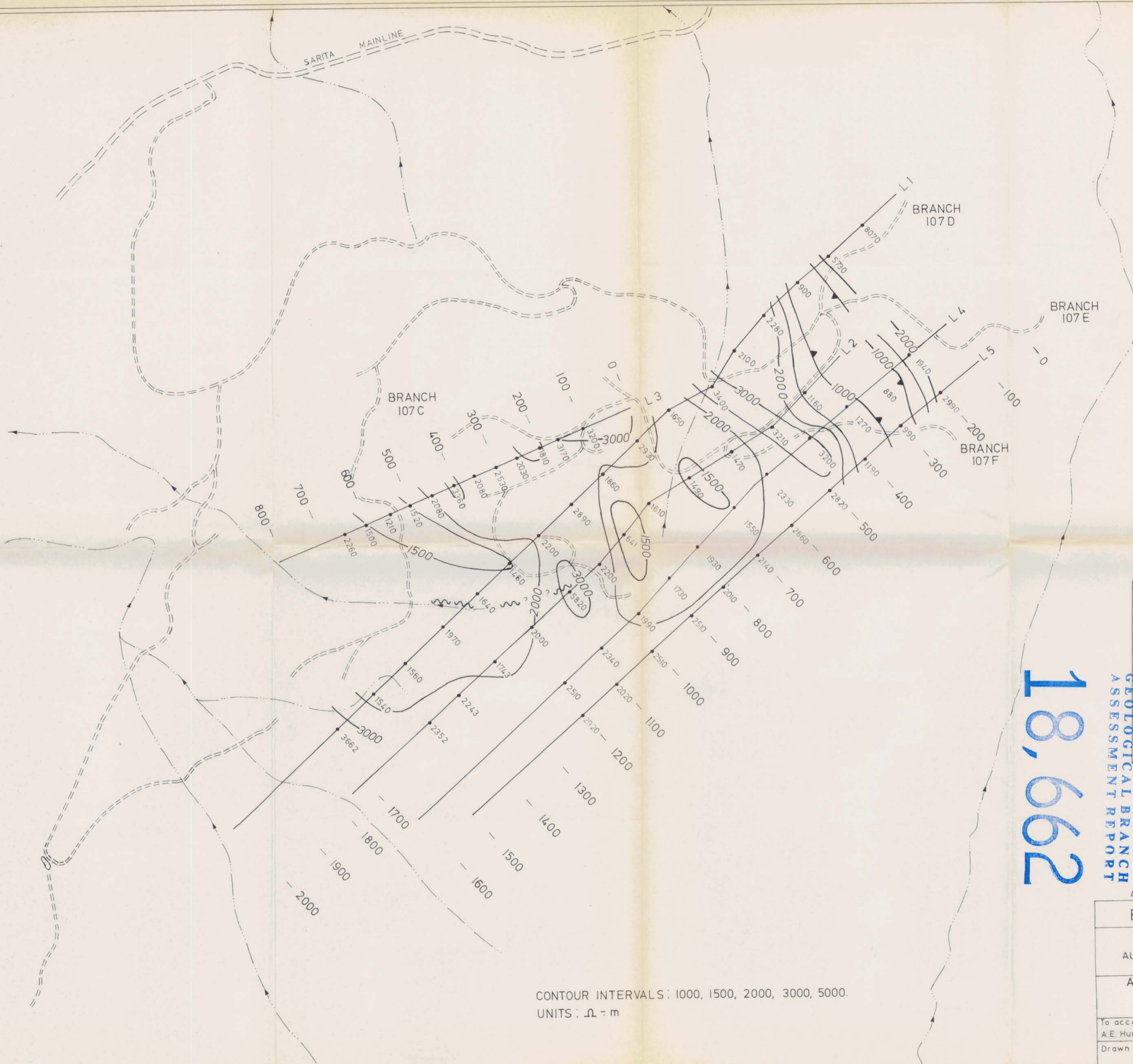
RATTLER RESOURCE LTD.

SARITA RIVER PROPERTY  
 ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
 NTS 92 C/15 W

LINE 2  
 APPARENT RESISTIVITY & CHARGEABILITY  
 PSEUDO SECTION

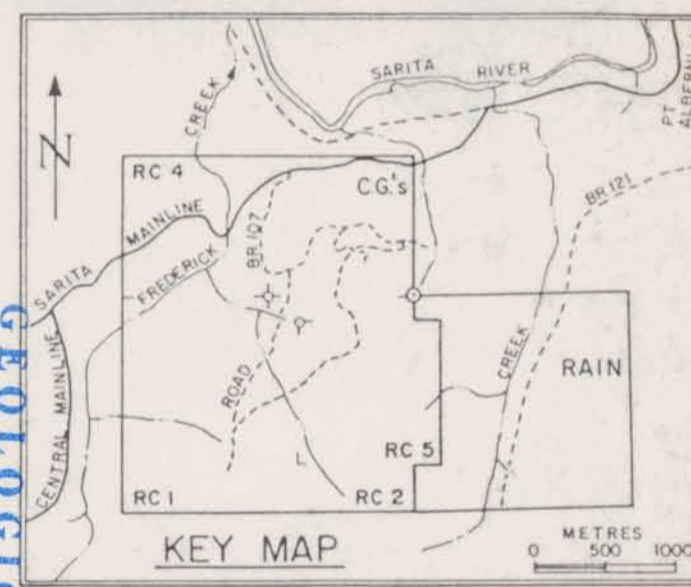
To accompany a report by:  
 A.E. Hunter Geop & P.S. Roberts B.Sc.

Drawn by: AEH/KK Date: Sept 1988



**INSTRUMENTATION**  
 Tx: HUNTEC M4 7.5kW  
 Rx: HUNTEC M4  
 f = 1/8 Hz  
 T<sub>D</sub> = 200MSec  
 T<sub>I</sub> = 150 MSec (10 WINDOWS)

**TIME DOMAIN SURVEY**  
 POLE - DIPOLE ARRAY  
 $\rho_a = 2\pi a n(n+1) \frac{1}{\Omega} \Omega \cdot m$  (apparent resistivity)  
 M = msec (chargeability)  
 a = 100 m  
 n = 1 to 6



SCALE: 1:5000  
 0 100 200 300 METRES

18,662

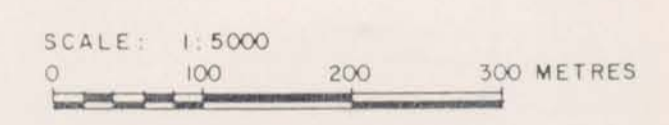
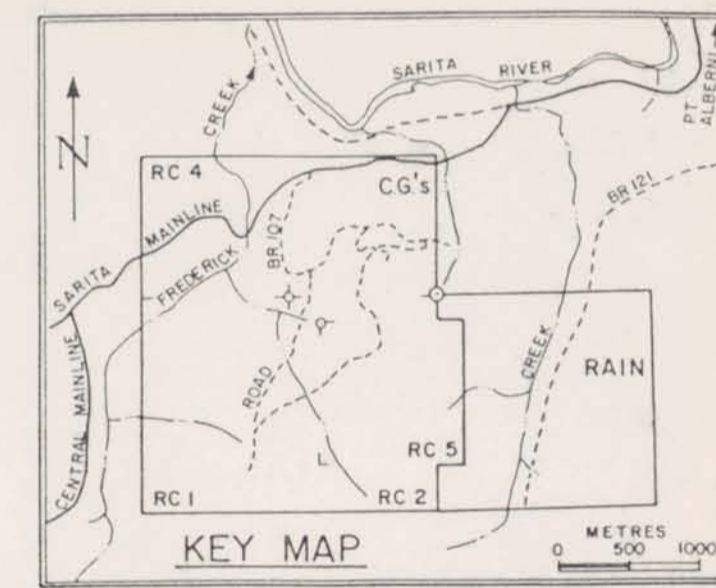
GEOLOGICAL BRANCH ASSESSMENT REPORT

FIGURE 18

RATTLER RESOURCE LTD.	
SARITA RIVER PROPERTY ALBERNI M.D. — VANCOUVER ISLAND, B.C. NTS 92 C/15 W	
APPARENT RESISTIVITY PLAN CONTOUR MAP n = 2	
To accompany a report by: A.E Hunter, Geop & P.S Roberts Bsc.	
Drawn by AEH/KK	Date: Sept 1988

CONTOUR INTERVALS: 1000, 1500, 2000, 3000, 5000.  
 UNITS:  $\Omega \cdot m$

**INSTRUMENTATION**  
 Tx : HUNTEC M4 7.5kW  
 Rx : HUNTEC M4  
 $f = 1/8$  Hz  
 $T_D = 200$  MSec  
 $T_1 = 150$  MSec (10 WINDOWS)  
 TIME DOMAIN SURVEY  
 POLE-DIPOLE ARRAY  
 $\rho_a = 2\pi a n(n+1) \frac{\rho}{I}$  (apparent resistivity)  
 $M =$  msec (chargeability)  
 $a = 100$  m  
 $n = 1$  to 6



AEH & PS  
 FIGURE 21

**RATTLER RESOURCE LTD.**

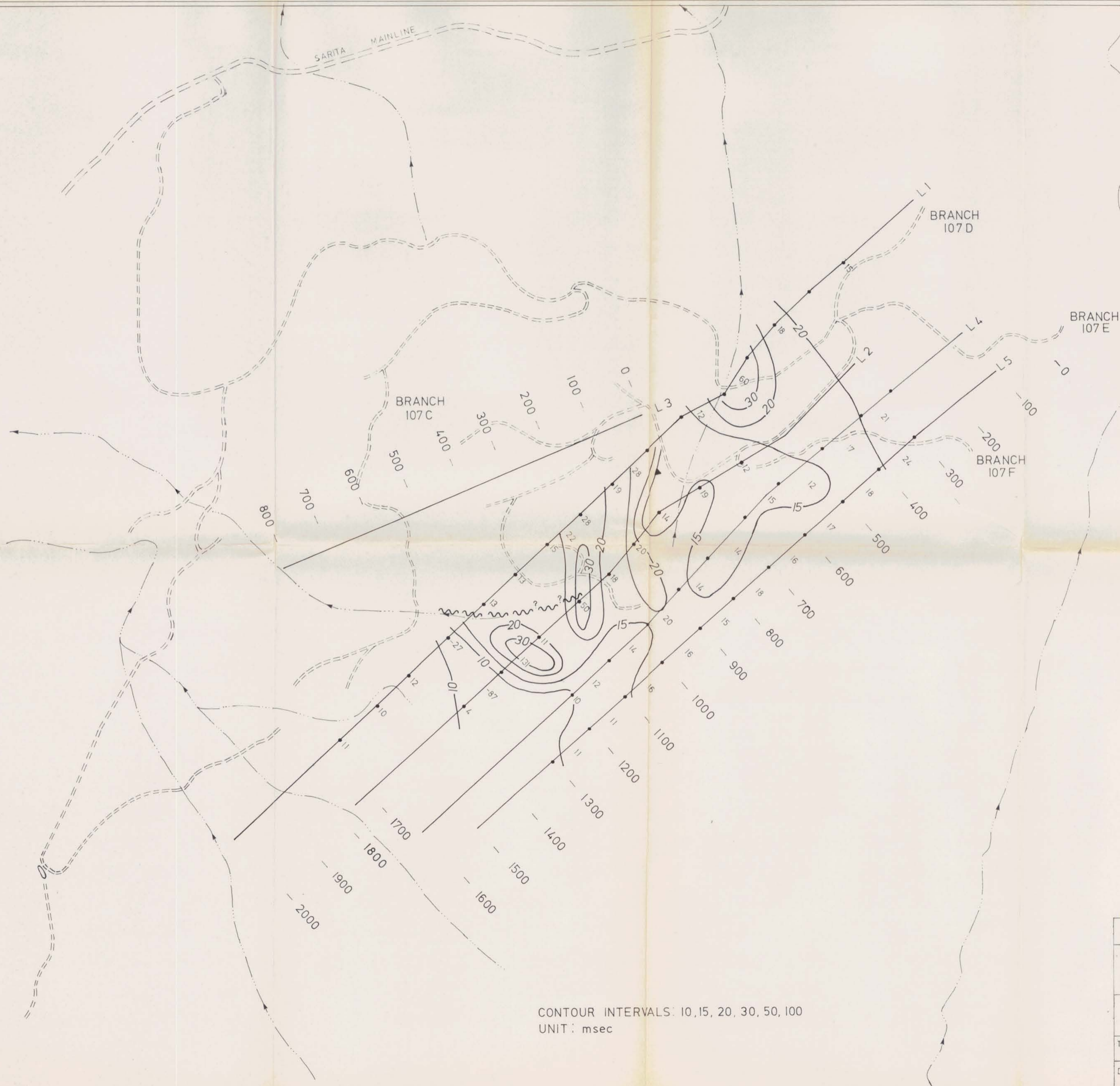
SARITA RIVER PROPERTY  
 ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
 NTS 92 C/15W

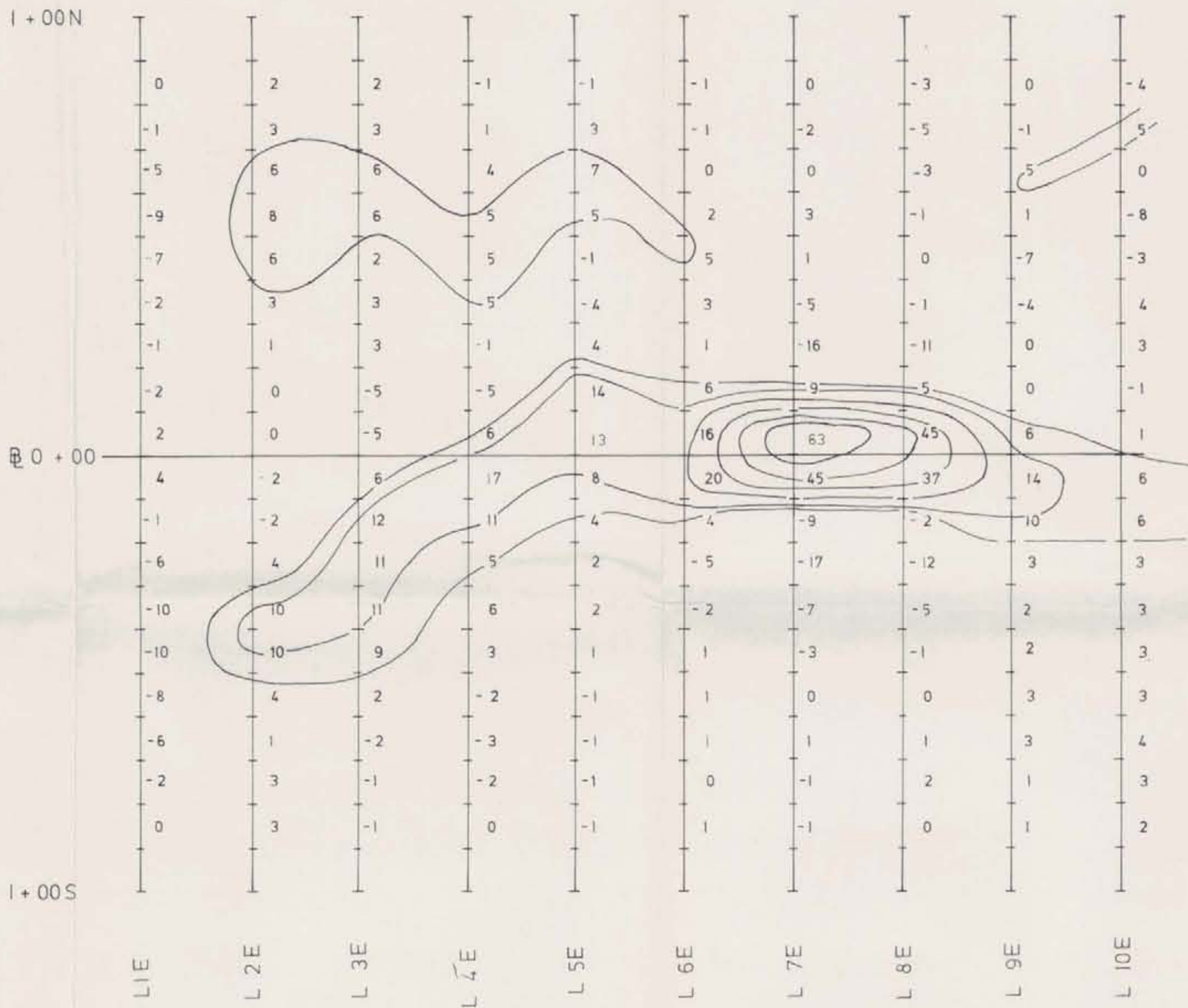
CHARGEABILITY PLAN  
 CONTOUR MAP  
 $n = 4$

To accompany a report by:  
 A.E. Hunter, Geop. & P.S. Roberts Bsc.

Drawn by: AEH/KK      Date: Sept 1988

CONTOUR INTERVALS: 10, 15, 20, 30, 50, 100  
 UNIT: msec

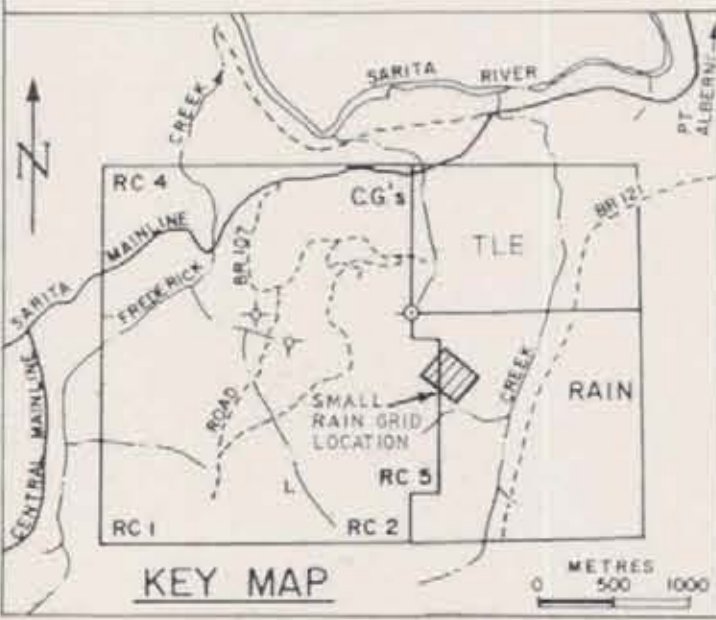




**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,662**

SCALE 1:500  
0 25 50 75 METRES




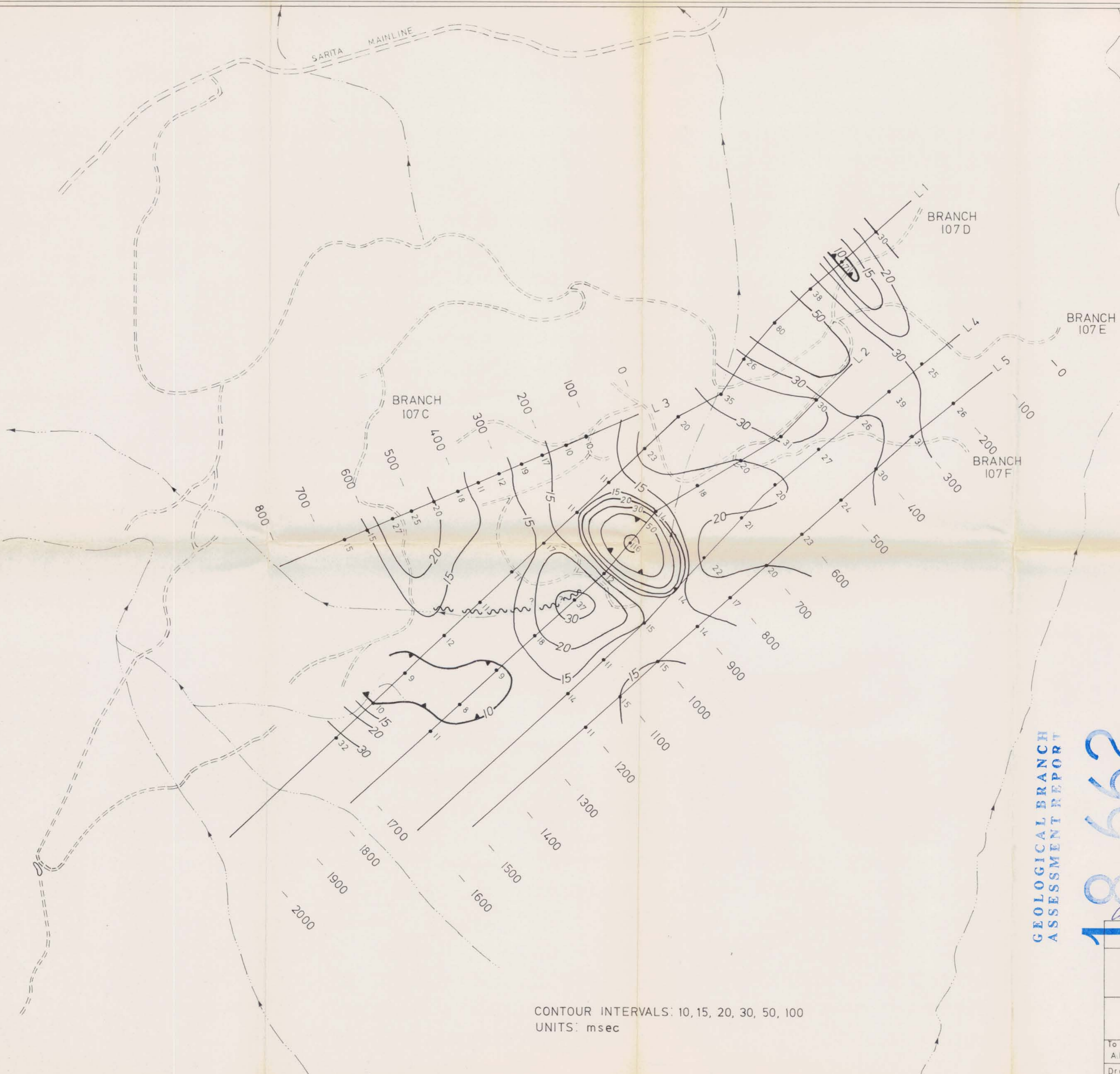
**NOTE**

CONTOUR INTERVAL +10° DIP ANGLE  
15° CONTOUR LINE PLOTTED INSTEAD  
OF 0° CONTOUR)

RECEIVER: SABRE ELECTRONIC MODEL 27  
TRANSMITTER: CUTLER, MAINE  
FREQUENCY: 17.8 KHZ

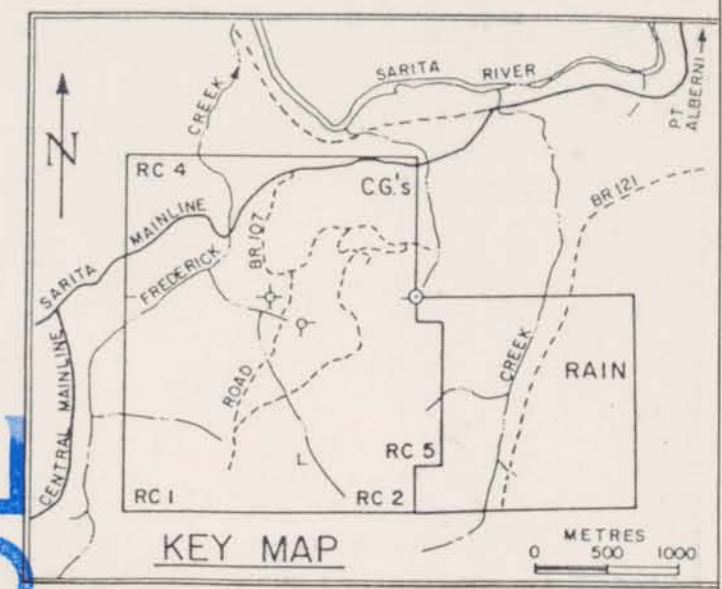
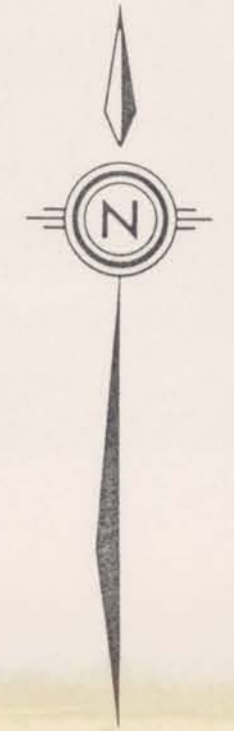
*ASB Bc* FIGURE 14

<b>RATTLER RESOURCE LTD.</b>	
SARITA RIVER PROPERTY ALBERNI M.D. — VANCOUVER ISLAND, B.C. NTS 92 C/15W	
VLF-EM SURVEY SMALL RAIN GRID FRASER FILTER CONTOUR MAP	
To accompany a report by: A.E. Hunter, Geop. & P.S. Roberts Bsc.	
Drawn by MF/KK	Date: Sept 1988
 STRATIGRAPHIC GEOLOGICAL ENGINEERING LTD.	



CONTOUR INTERVALS: 10, 15, 20, 30, 50, 100  
 UNITS: msec

**INSTRUMENTATION**  
 Tx: HUNTEC M4 7.5kW  
 Rx: HUNTEC M4  
 $f = 1/8$  Hz  
 $T_D = 200$  MSec  
 $T_I = 150$  MSec (10 WINDOWS)  
 TIME DOMAIN SURVEY  
 POLE - DIPOLE ARRAY  
 $\rho_a = 2\pi a n(n+1) \frac{I}{I} \Omega \cdot m$  (apparent resistivity)  
 $M = msec$  (chargeability)  
 $a = 100$  m  
 $n = 1$  to  $6$



SCALE: 1:5000  
 0 100 200 300 METRES

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FIGURE 19  
 RATTLER RESOURCE LTD.

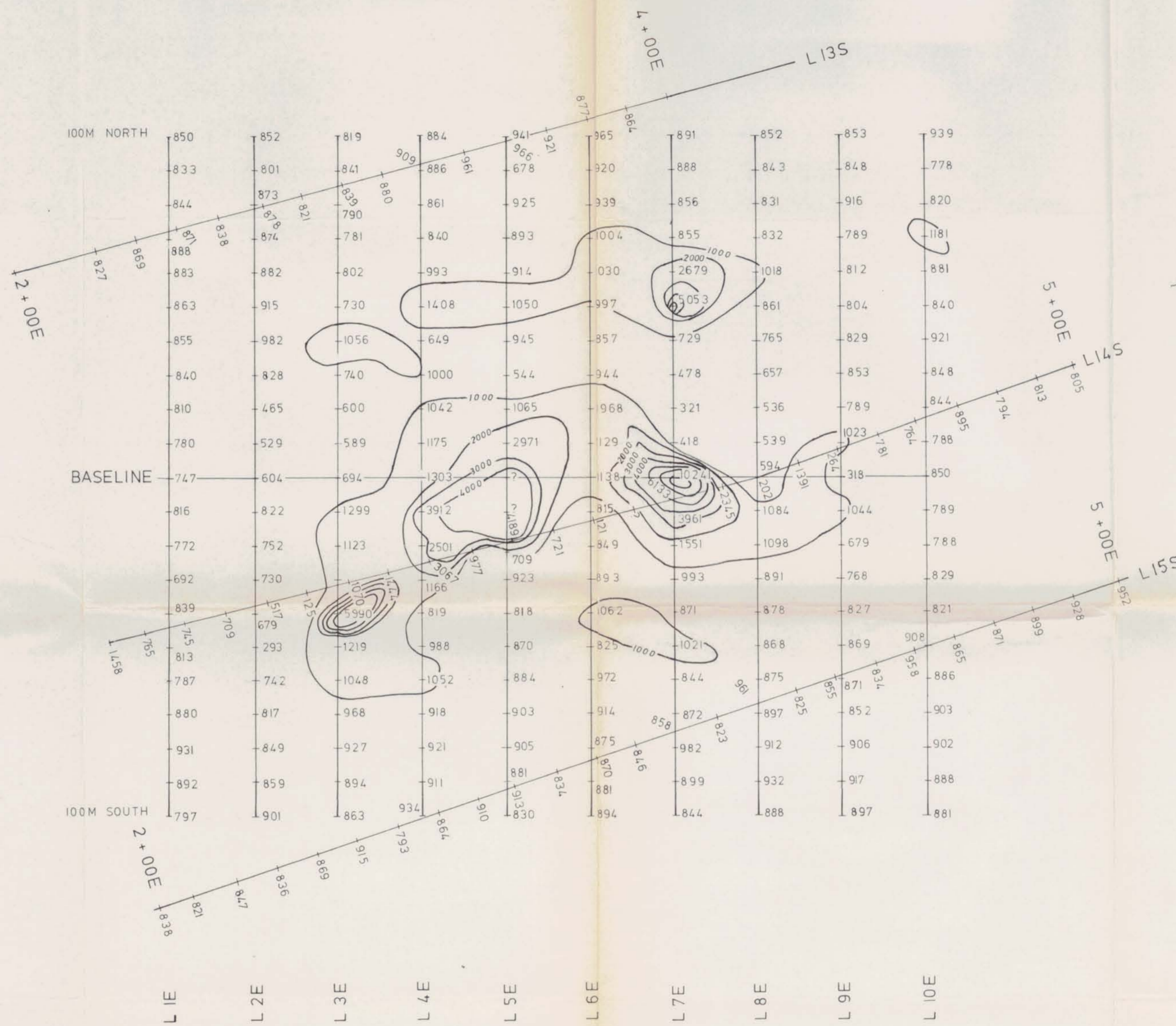
SARITA RIVER PROPERTY  
 ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
 NTS 92 C/15 W

CHARGEABILITY PLAN  
 CONTOUR MAP  
 $n = 2$

To accompany a report by:  
 A.E. Hunter, Geop. & P.S. Roberts Bsc

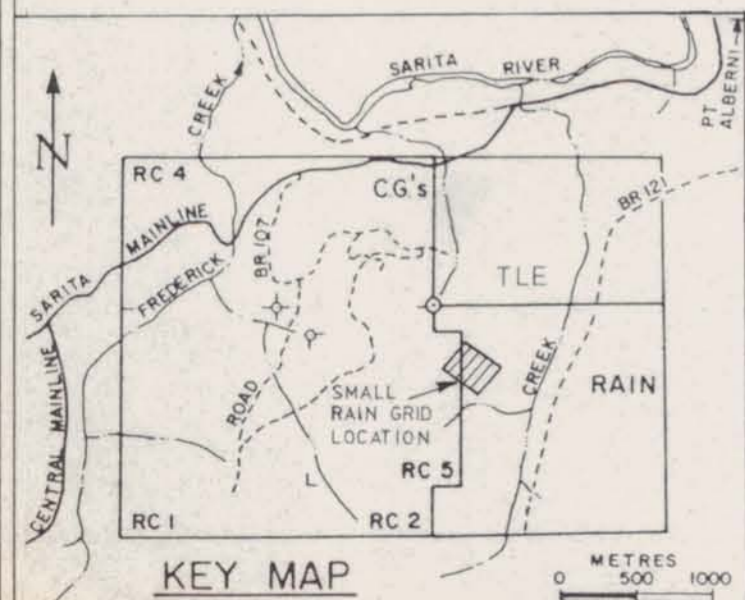
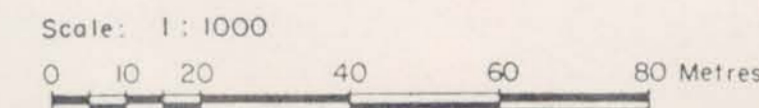
Drawn by: AEH/KK Date: Sept 1988





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NOTE:  
INSTRUMENT: SCINTREX PORTABLE PROTON PRECESSION MAGNETOMETER  
MODEL NO: 767010  
SERIAL NO: 8007643

CONTOUR INTERVAL 1000 GAMMAS  
BASE LEVEL 55000 GAMMAS

*Psa* FIGURE 17

**RATTLER RESOURCE LTD.**

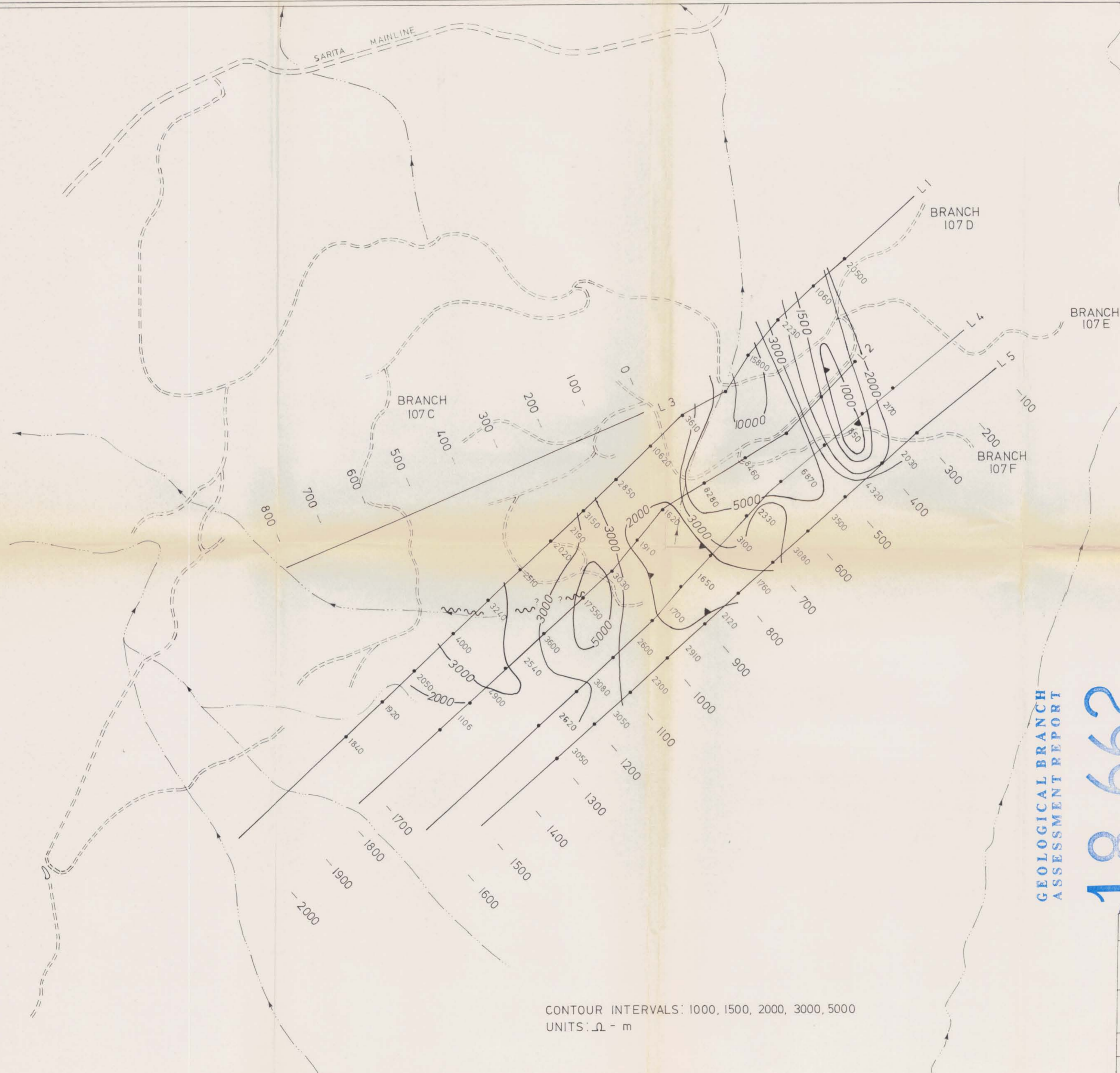
**SARITA RIVER PROPERTY**  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15W

**MAGNETIC SURVEY**  
(SMALL RAIN GRID)

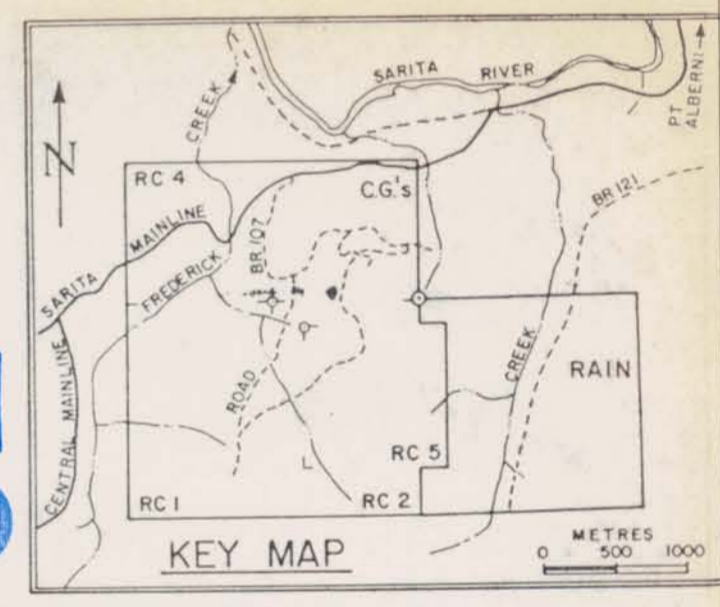
To accompany a report by:  
A.E. Hunter, Geop. & P.S. Roberts Bsc.

Drawn by: PSR/IKK      Date: Sept. 1988



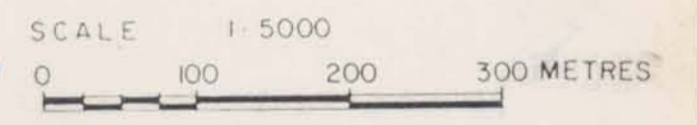


**INSTRUMENTATION**  
 Tx : HUNTEC M4 7.5kW  
 Rx : HUNTEC M4  
 f = 1/8 Hz  
 T<sub>D</sub> = 200MSec  
 T<sub>I</sub> = 150MSec (10 WINDOWS)  
**TIME DOMAIN SURVEY**  
 POLE - DIPOLE ARRAY  
 $\rho_a = 2\pi a n(n+1) \frac{\rho}{I} \Omega\text{-m}$  (apparent resistivity)  
 M = msec (chargeability)  
 a = 100m  
 n = 1 to 6



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CONTOUR INTERVALS: 1000, 1500, 2000, 3000, 5000  
 UNITS:  $\Omega$  - m

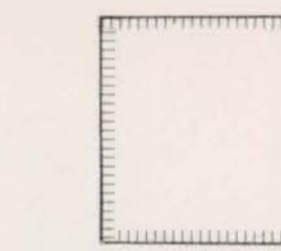
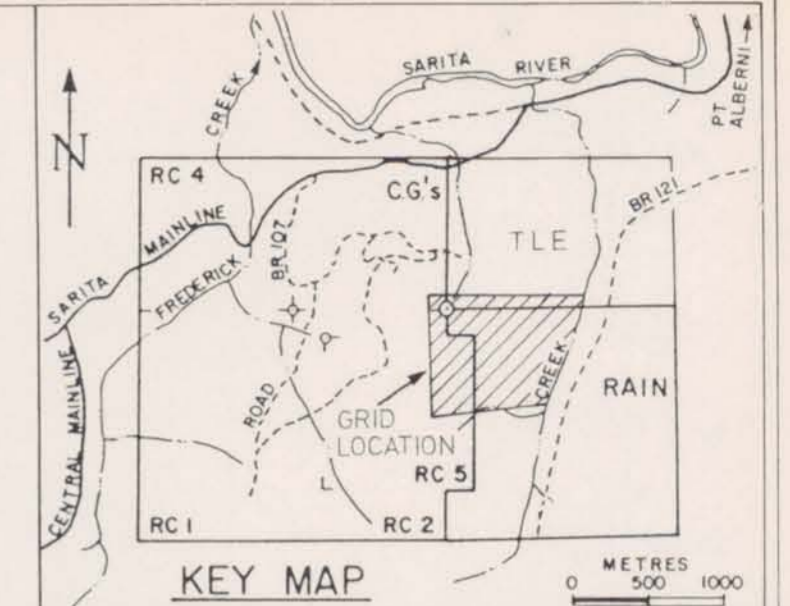
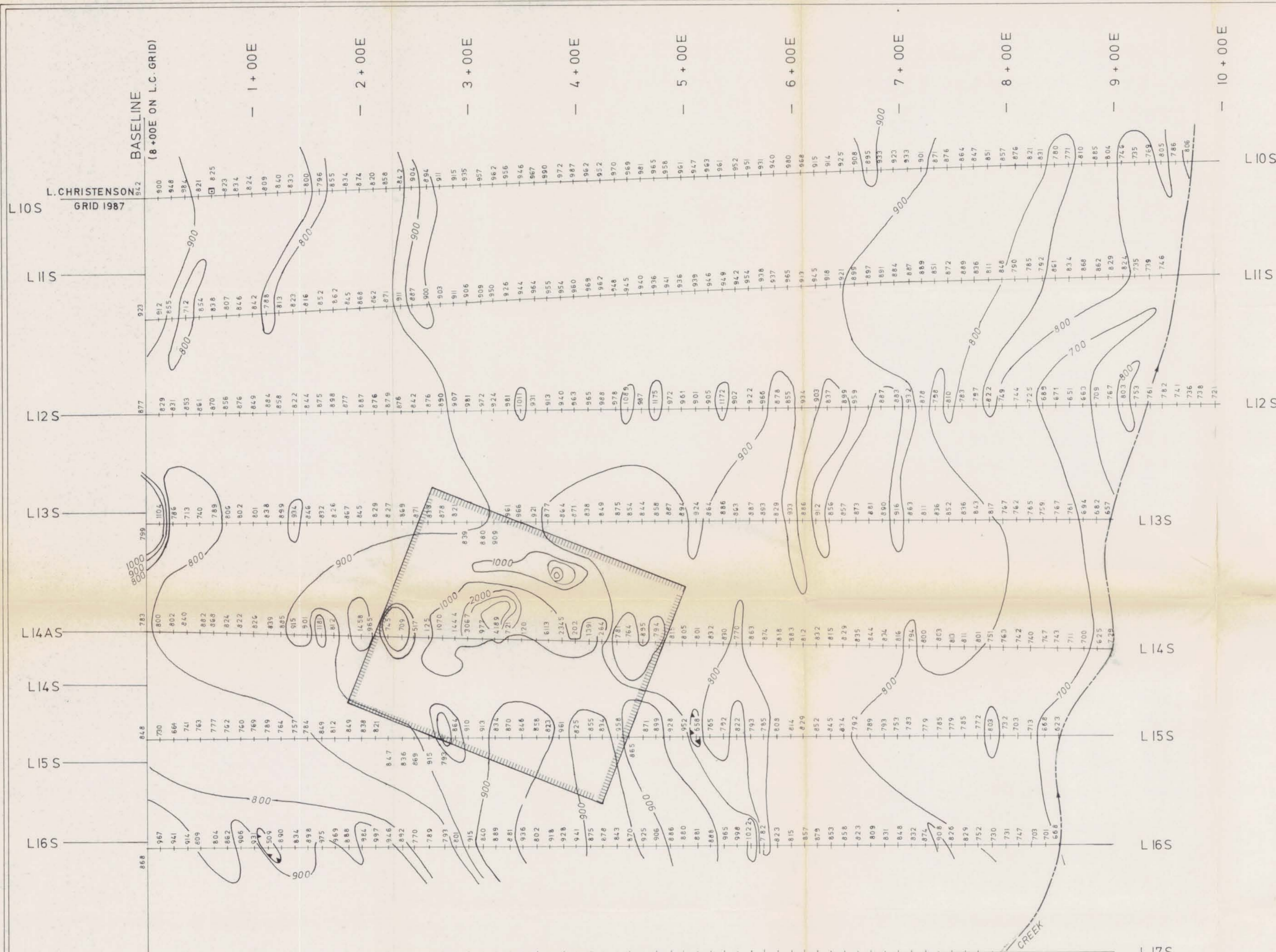
FIGURE 20

**RATTLER RESOURCE LTD.**

SARITA RIVER PROPERTY  
 ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
 NTS 92 C/15 W

APPARENT RESISTIVITY PLAN  
 CONTOUR MAP  
 n = 4

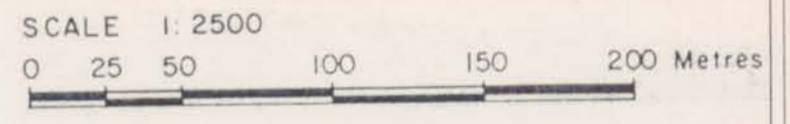
To accompany a report by: A.E. Hunter, Geop & P.S. Roberts Bsc.		
Drawn by AEH/KK	Date: Sept 1988	



SMALL RAIN GRID

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**NOTE**  
INSTRUMENT SCINTREX M.P-2 PROTON PRECESSION MAGNETOMETER  
MODEL NO 767010  
SERIAL NO. 8007643

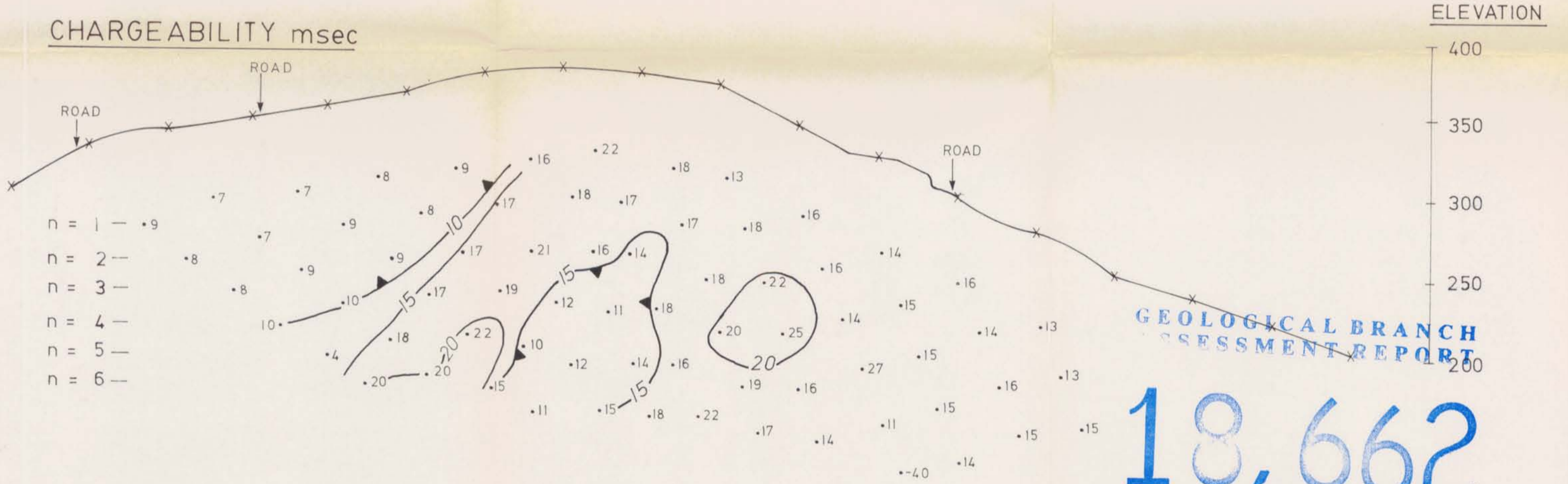
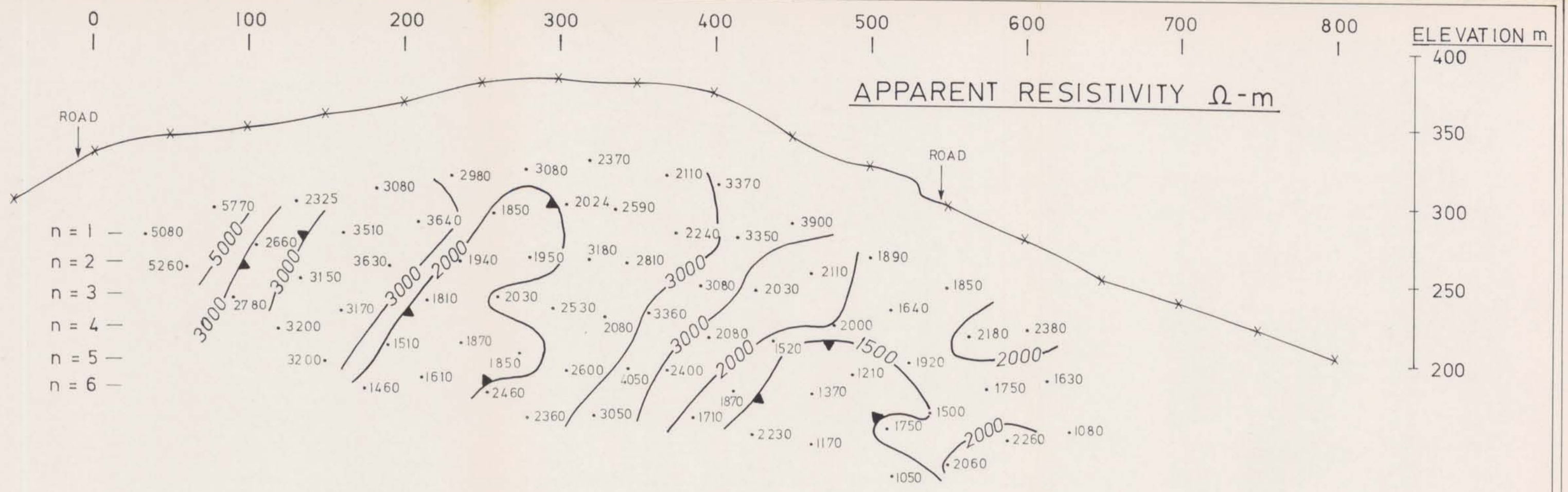
*PSR* *PSR* **FIGURE 16**

**RATTLER RESOURCE LTD.**  
**SARITA RIVER PROPERTY**  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15W

**MAGNETIC CONTOUR MAP**  
LARGE RAIN GRID

To accompany a report by:  
A.E. Hunter, Geop & P.S. Roberts Bsc.  
Drawn by: PSR/IKK Date: Sept 1988



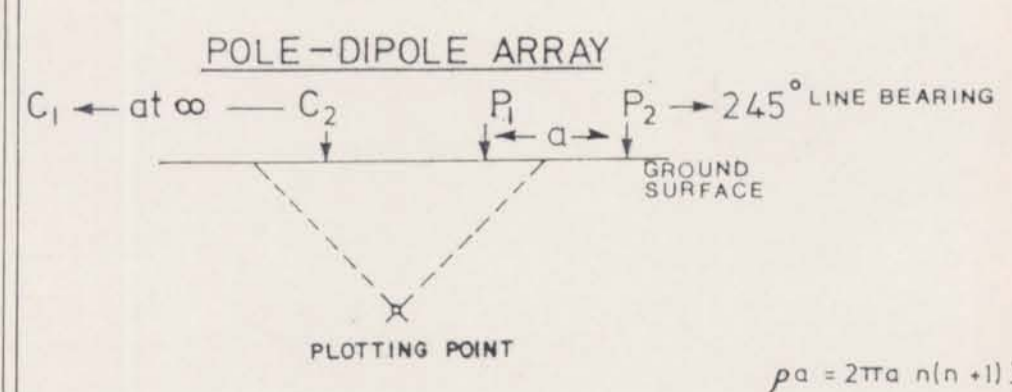


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CONTOUR INTERVALS: 1, 1.5, 2, 3, 5, 10

Scale 1: 2500  
 0 50 100 150 Metres



$\rho_a = 2\pi a n(n+1) \frac{\rho}{I}$  (apparent resistivity)  
 M = msec (chargeability)  
 a = 50  
 n = 1 to 6

**INSTRUMENTATION**  
 Tx: HUNTEC M4 7.5kW  
 Rx: HUNTEC M4  
 f = 1/8 Hz  
 T<sub>0</sub> = 200Msec  
 T<sub>1</sub> = 150Msec (10 WINDOWS)  
 TIME DOMAIN SURVEY

*AEH* *psc* FIGURE 24

**RATTLER RESOURCE LTD.**

**SARITA RIVER PROPERTY**  
 ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
 N.T.S. 92 C/15W

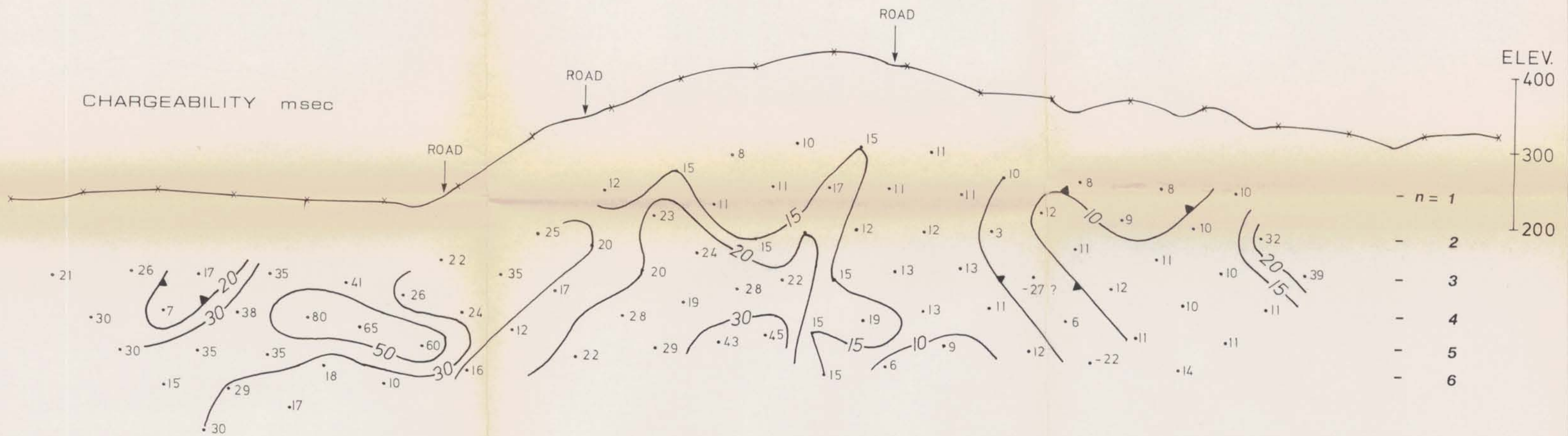
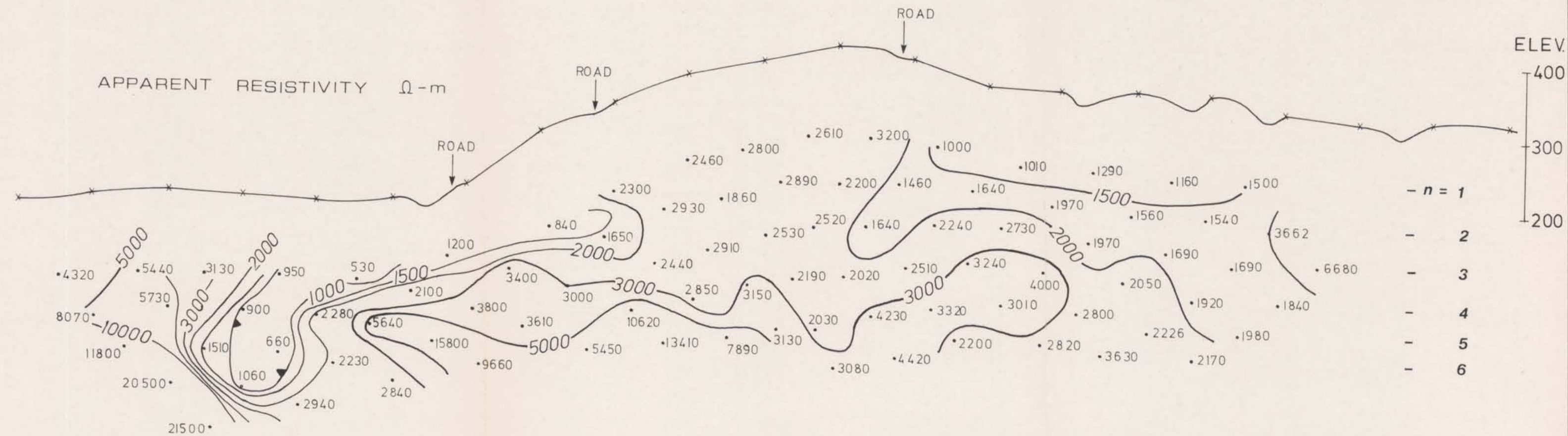
**LINE 3**  
**APPARENT RESISTIVITY & CHARGEABILITY  
 PSEUDO-SECTION**

To accompany a report by:  
 A.E Hunter Geop & P.S Roberts Bsc.

Drawn by  
 AEH/KK

Date:  
 Sept 1988

000 200 400 600 800 1000 1200 1400 1600 1800 2000

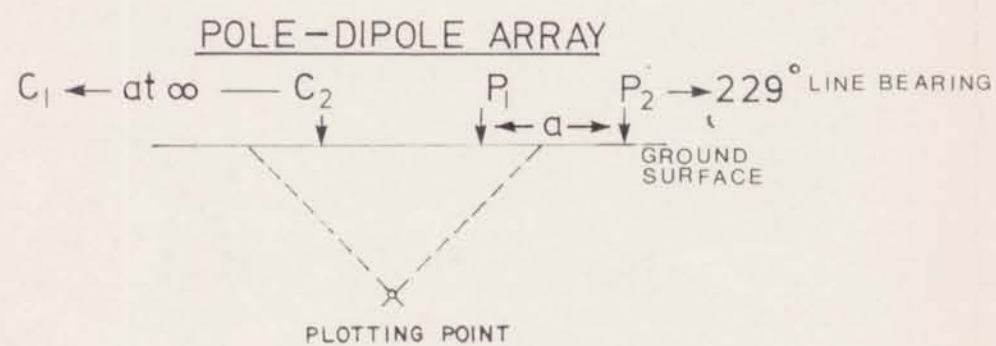


CONTOUR INTERVALS: 1, 1.5, 2, 3, 5, 10

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SCALE 1: 5000  
0 80 160 240 METRES



$$\rho_a = 2\pi a n(n+1) \frac{\rho \Omega \cdot m}{I} \text{ (apparent resistivity)}$$

M = msec (chargeability)  
a = 100 m  
n = 1 to 6

INSTRUMENTATION

Tx: HUNTEC M4 7.5kW

Rx: HUNTEC M4

f = 1/8 Hz

T<sub>0</sub> = 200Msec

T<sub>1</sub> = 150 MSec (10 WINDOWS)

TIME DOMAIN SURVEY

FIGURE 22

RATTLER RESOURCE LTD.

SARITA RIVER PROPERTY  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15W

LINE I  
APPARENT RESISTIVITY & CHARGEABILITY  
PSEUDO SECTION

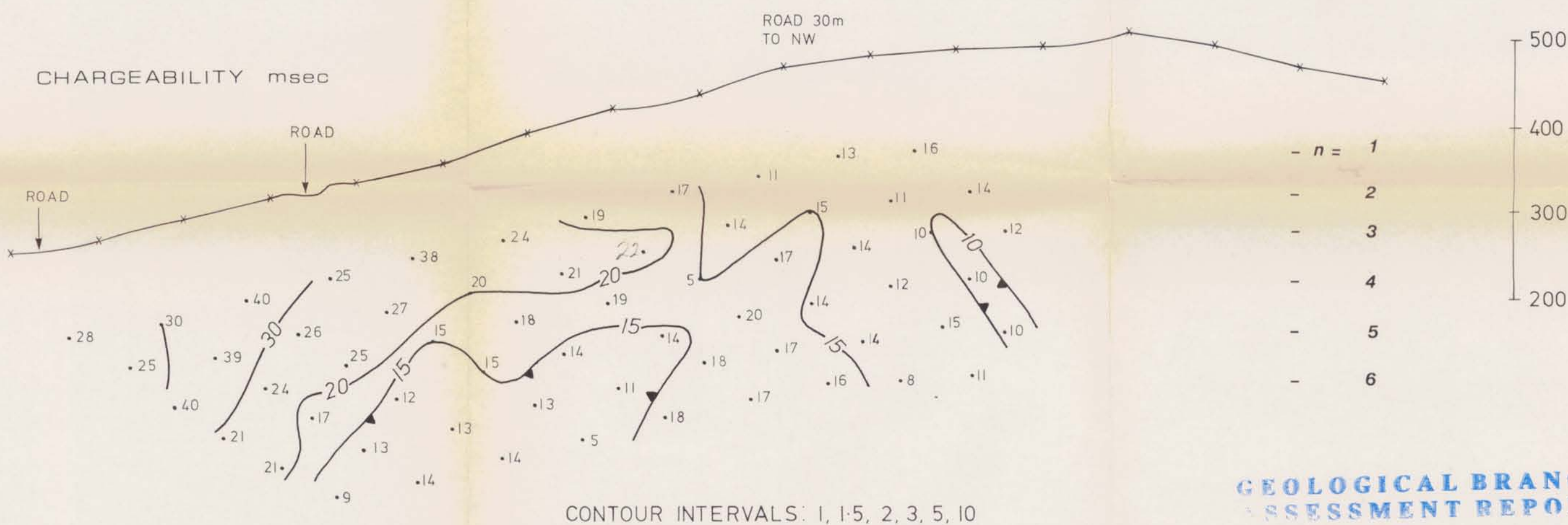
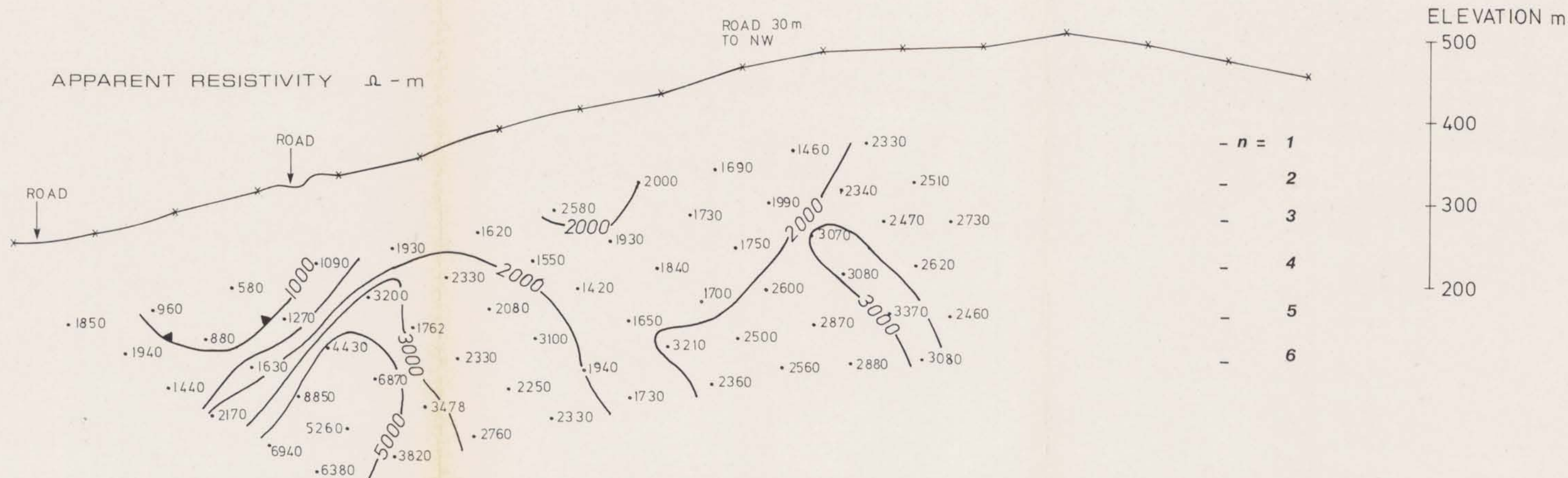
To accompany a report by:  
A.E. Hunter Geop. & P.S. Roberts Bsc.

Drawn by  
AEH/KK

Date:  
Sept. 1988



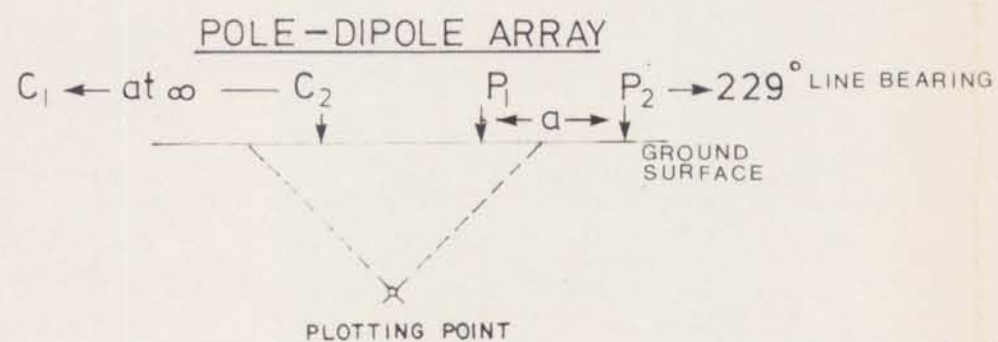
000 200 400 600 800 1000 1200 1400 1600 1800 2000



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SCALE 1: 5000  
0 80 160 240 METRES



$$\rho_a = 2\pi a n(n+1) \frac{V}{I} \Omega - m \text{ (apparent resistivity)}$$

M = msec (chargeability)

a = 100 m

n = 1 to 6

INSTRUMENTATION

Tx: HUNTEC M4 7.5kW  
Rx: HUNTEC M4  
f = 1/8 Hz  
T<sub>D</sub> = 200Msec  
T<sub>I</sub> = 150Msec (10 WINDOWS)

TIME DOMAIN SURVEY

FIGURE 25

RATTLER RESOURCE LTD.

SARITA RIVER PROPERTY  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15 W

LINE 4  
APPARENT RESISTIVITY & CHARGEABILITY  
PSEUDO SECTION

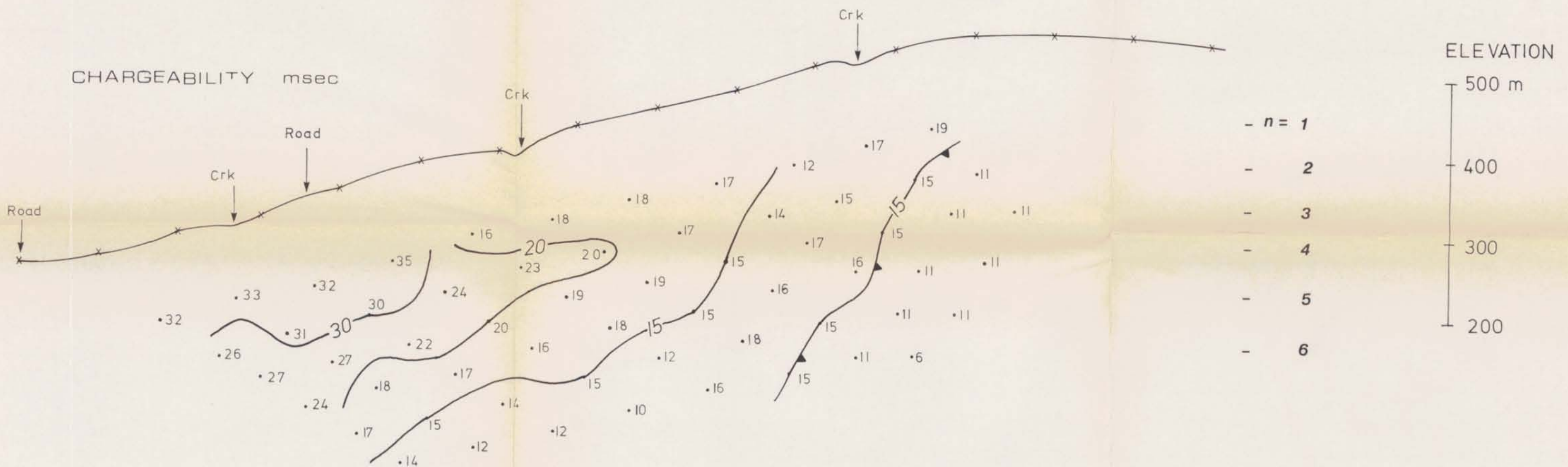
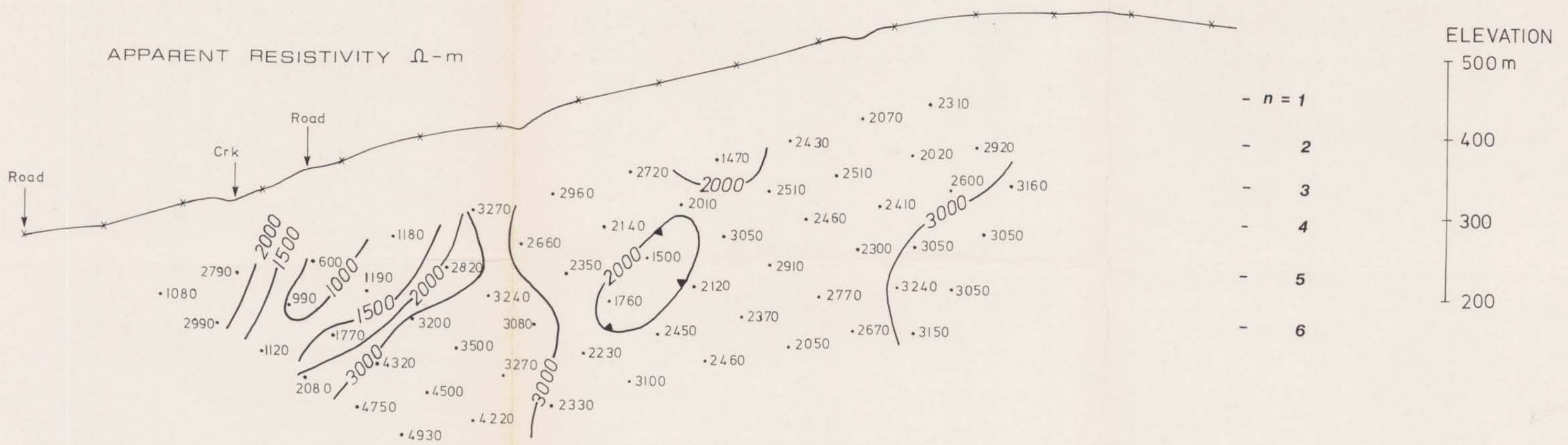
To accompany a report by:  
A.E. Hunter Geop & P.S. Roberts Bsc.

Drawn by  
AEH/KK

Date:  
Sept. 1988

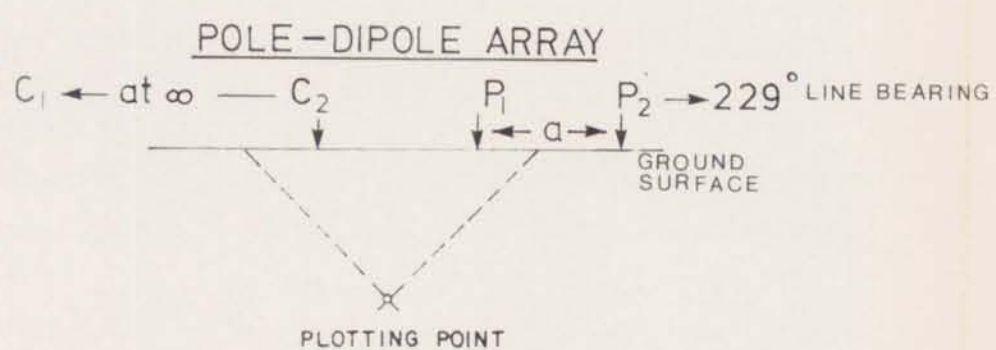


000 200 400 600 800 1000 1200 1400 1600 1800 2000



CONTOUR INTERVALS: 1, 1.5, 2, 3, 5, 10

SCALE 1: 5000  
0 80 160 240 METRES



$$\rho_a = 2\pi a n(n+1) \frac{I}{I} \Omega\text{-m (apparent resistivity)}$$

M = msec (chargeability)

a = 100 m

n = 1 to 6

INSTRUMENTATION

Tx: HUNTEC M4 7.5kW

Rx: HUNTEC M4

f = 1/8 Hz

T<sub>D</sub> = 200Msec

T<sub>I</sub> = 150Msec (10 WINDOWS)

TIME DOMAIN SURVEY

FIGURE 26

RATTLER RESOURCE LTD.

SARITA RIVER PROPERTY  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15 W

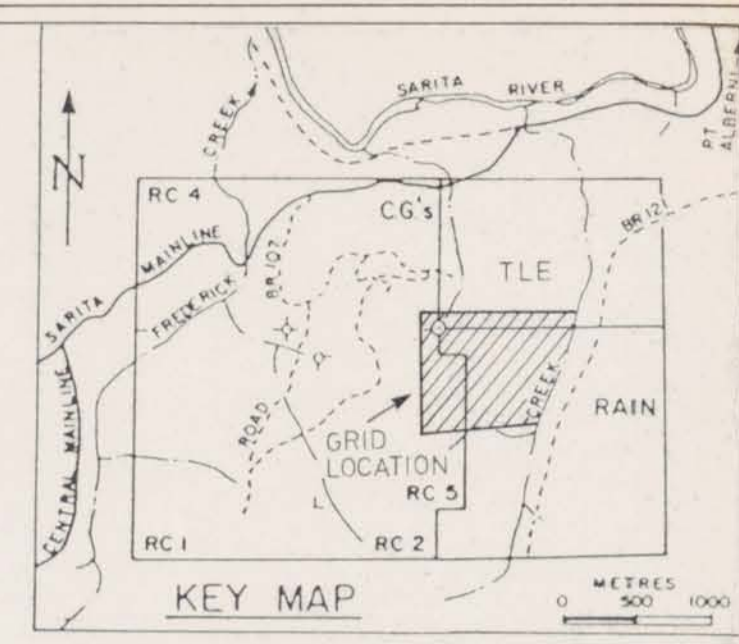
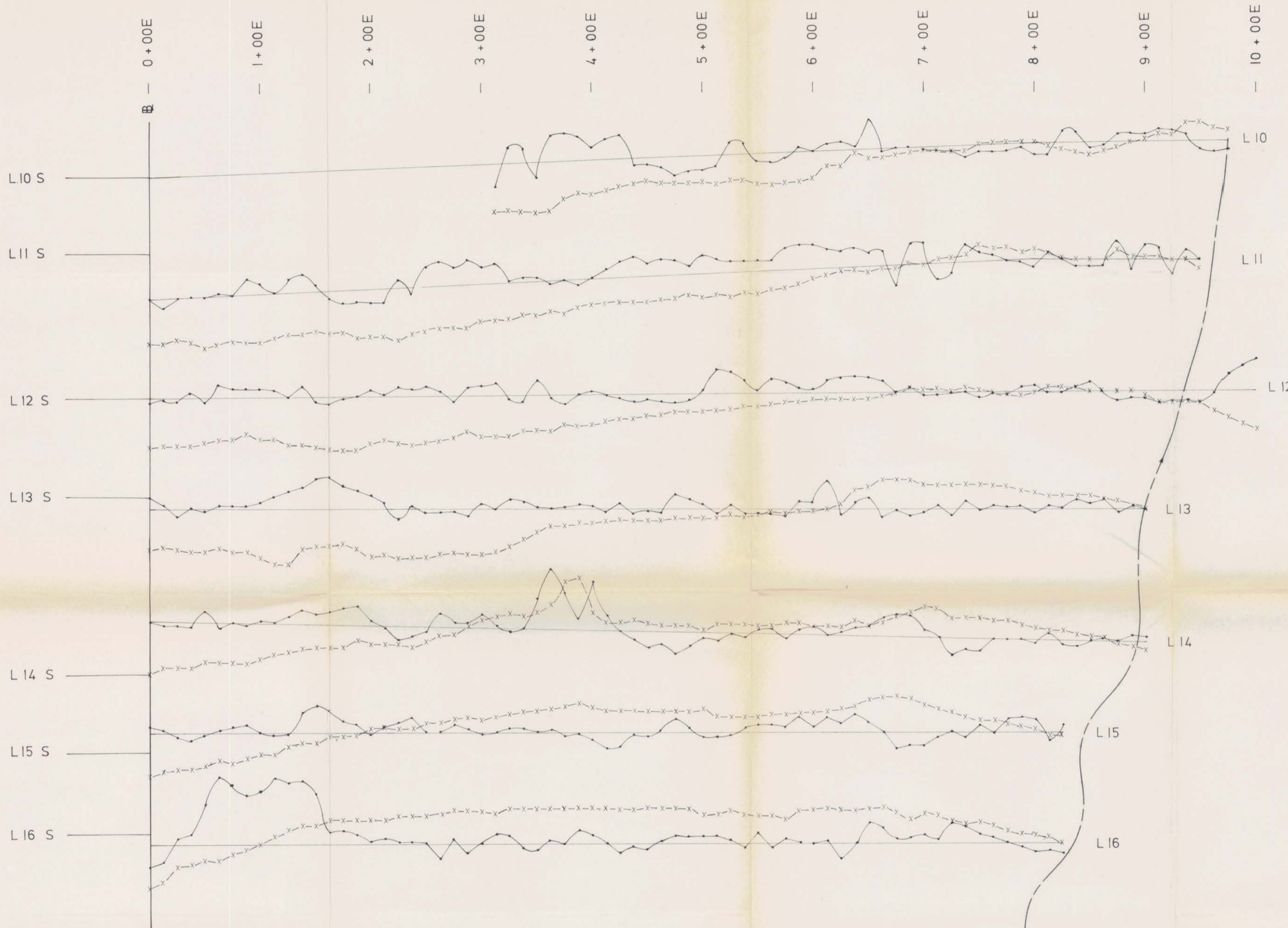
LINE 5  
APPARENT RESISTIVITY & CHARGEABILITY  
PSEUDO SECTION

To accompany a report by:  
A.E. Hunter Geop. & P.S. Roberts Bsc.

Drawn by  
AEH/KK

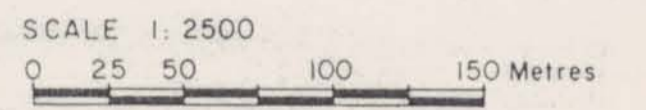
Date:  
Sept 1988



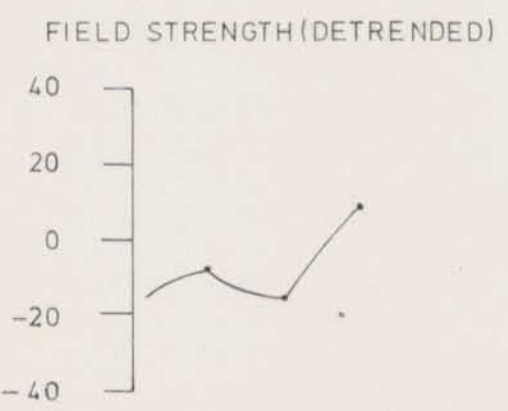
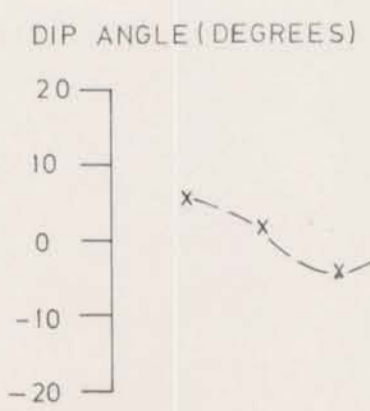


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SCALES



NOTE:  
RECEIVER: SABRE ELECTRONICS MODEL 27  
TRANSMITTER: HAWAII  
FREQUENCY: 23.4 KHz

FIGURE 13

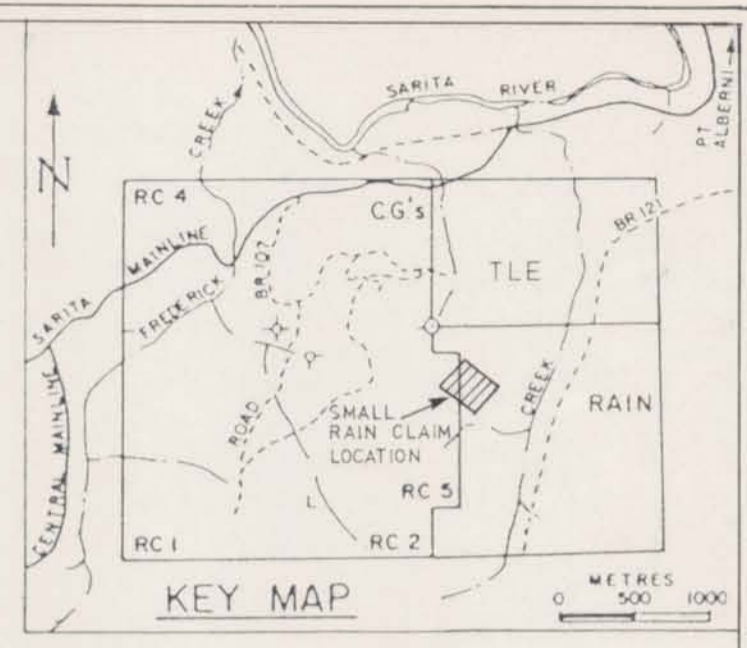
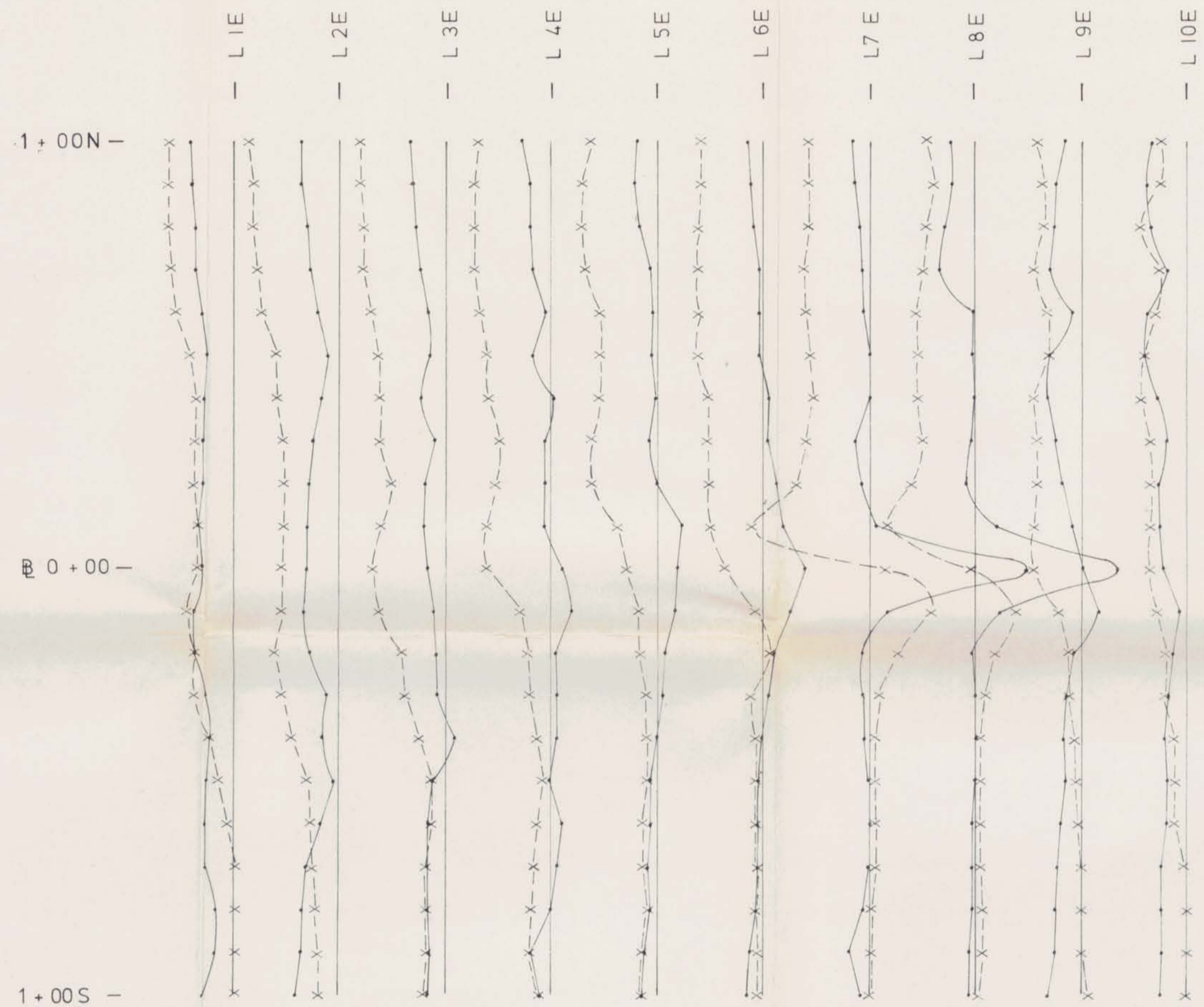
RATTLER RESOURCE LTD.

SARITA RIVER PROPERTY  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15 W

VLF-EM SURVEY  
PROFILE PLOT PLAN  
LARGE RAIN GRID

To accompany a report by:  
A.E. Hunter, Geop. & P.S. Roberts Bsc.

Drawn by MF/IKK Date: Sept 1988



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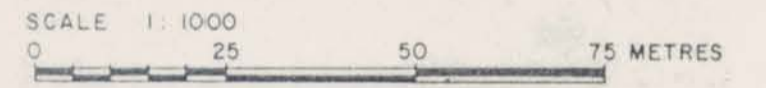


FIGURE 15

**RATTLER RESOURCE LTD.**

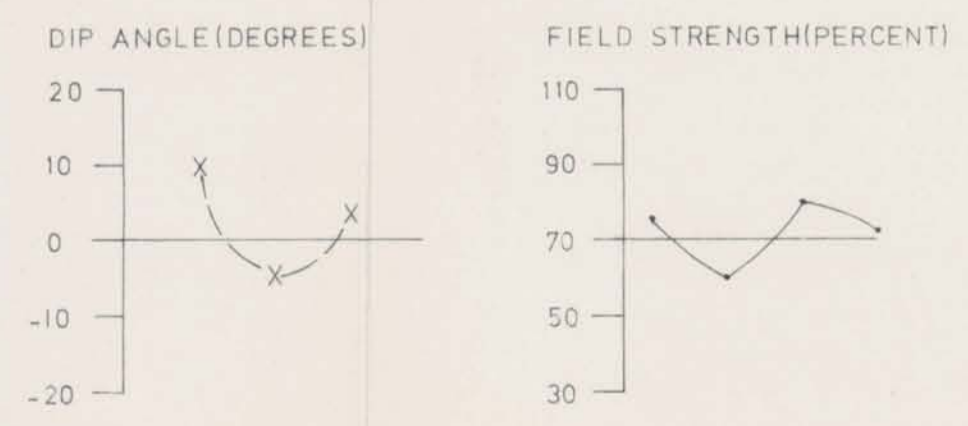
**SARITA RIVER PROPERTY**  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15 W

**VLF-EM SURVEY**  
SMALL RAIN GRID  
PROFILE PLOT PLAN

To accompany a report by:  
A.E. Hunter, Geop & P.S. Roberts Bsc.  
Drawn by MF/IKK Date: Sept 1988

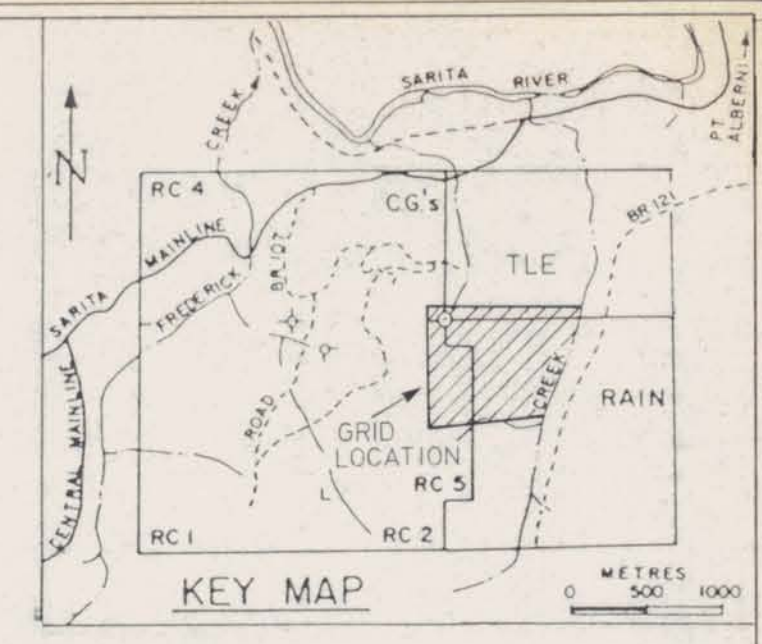
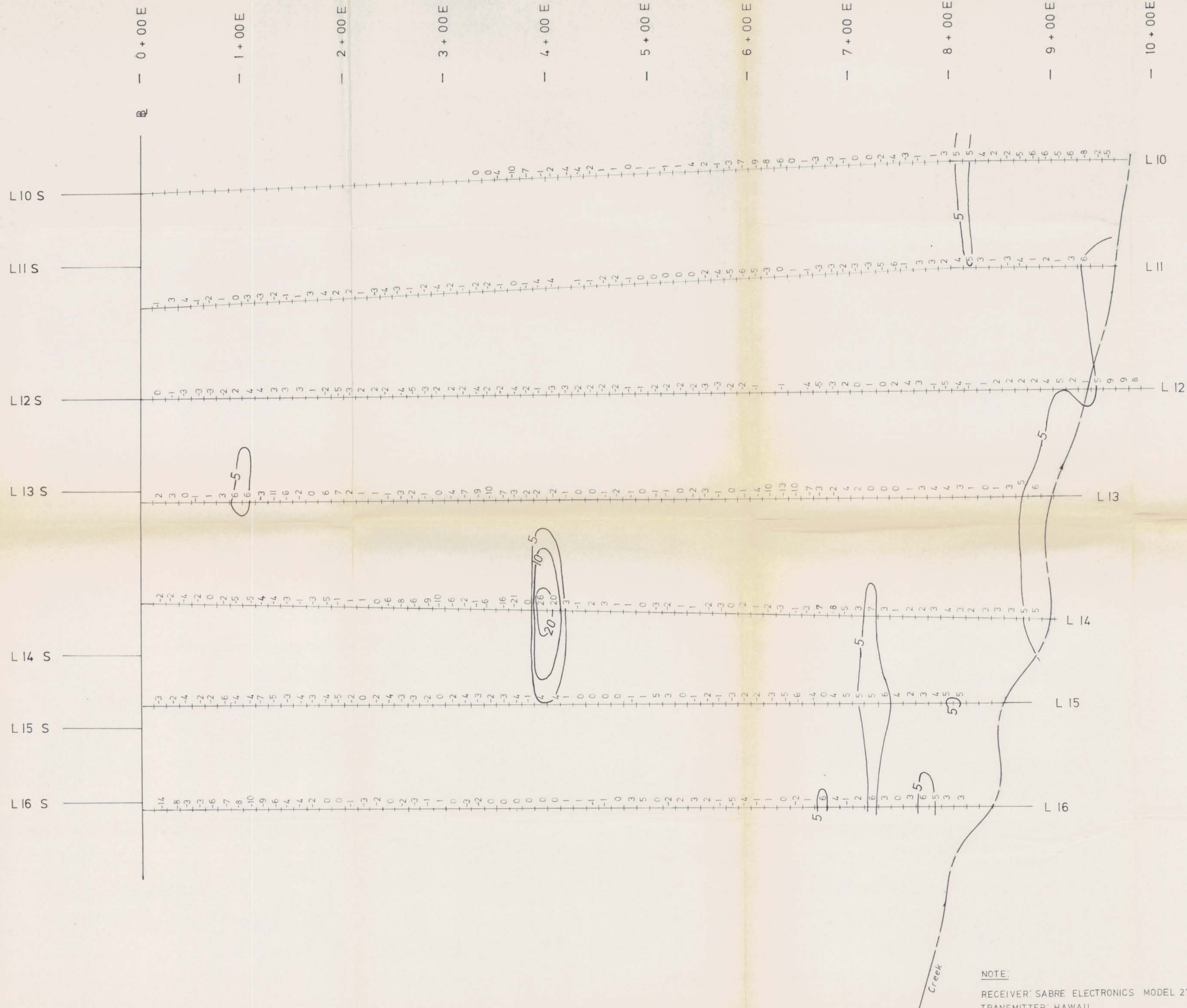


**SCALES**



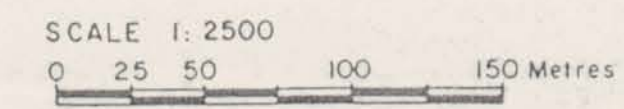
**NOTE:**  
RECEIVER: SABRE ELECTRONIC MODEL 27  
TRANSMITTER: CUTLER  
FREQUENCY: 17.8 KHZ





**GEOLOGICAL BRANCH  
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NOTE:  
RECEIVER: SABRE ELECTRONICS MODEL 27  
TRANSMITTER: HAWAII  
FREQUENCY: 23.4 KHZ  
  
CONTOUR INTERVAL: 5°, 10°, 20°

RCB BCR

FIGURE 12

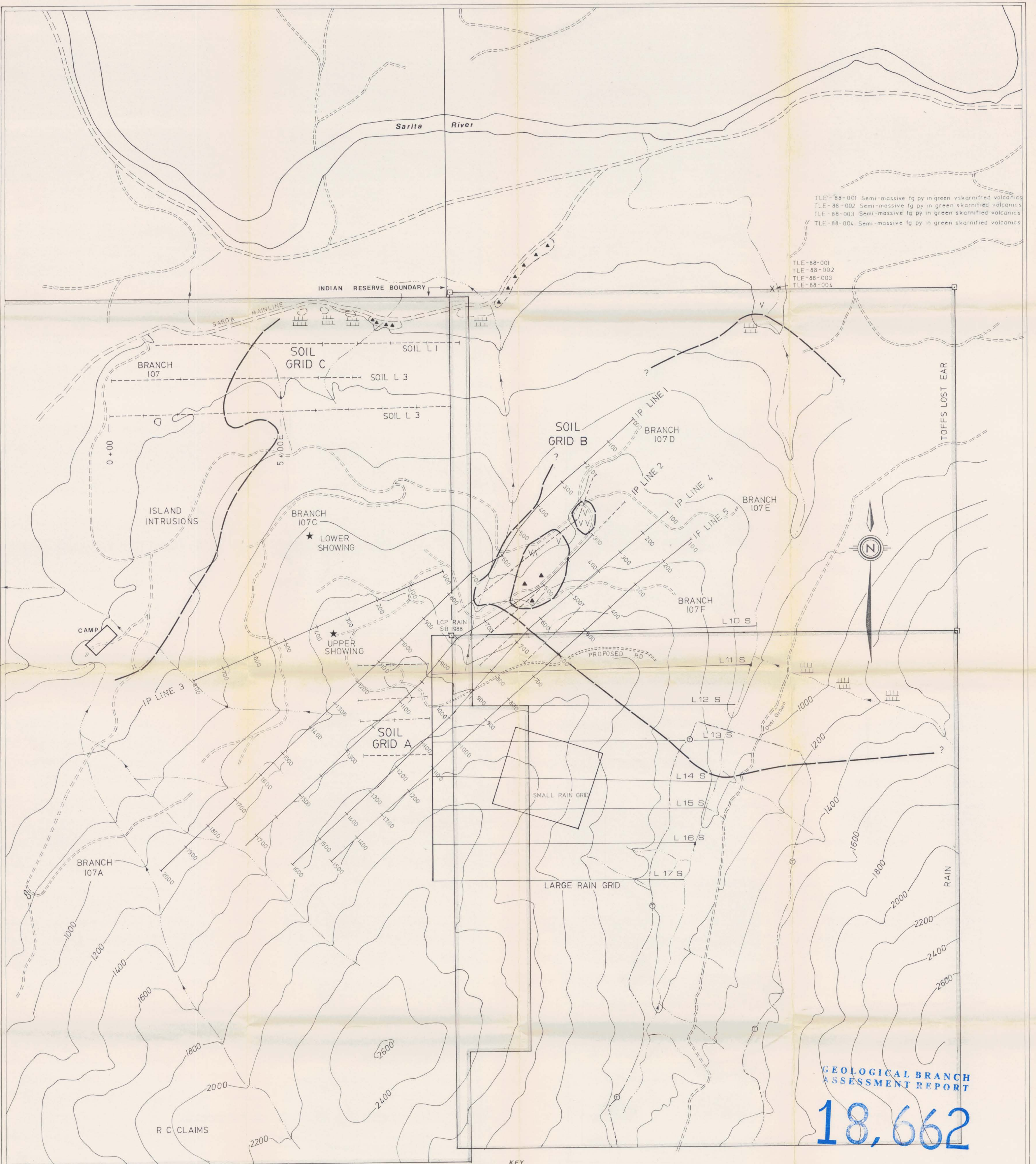
**RATTLER RESOURCE LTD.**

SARITA RIVER PROPERTY  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15W

**VLF-EM SURVEY  
FRASER FILTER CONTOUR MAP  
LARGE RAIN GRID**

To accompany a report by:  
A.E Hunter, Geop & P.S Roberts Bsc

Drawn by: MF/KK Date: Sept 1988



TLE-88-001 Semi-massive fg py in green skarnified volcanics  
 TLE-88-002 Semi-massive fg py in green skarnified volcanics  
 TLE-88-003 Semi-massive fg py in green skarnified volcanics  
 TLE-88-004 Semi-massive fg py in green skarnified volcanics

TLE-88-001  
 TLE-88-002  
 TLE-88-003  
 TLE-88-004

**LEGEND**

- ~ Streams
- == Roads
- - - Trails
- Property Boundary
- - - - - Logged Area
- IP Grid 1988
- - - Lithological Contacts

LARGE RAIN GRID  
 1988 GEOPHYSICAL  
 VLF-EM GRID

**KEY**

ROCK UNITS

JURASSIC

ISLAND INTRUSIONS

- + GRANODIORITE
- X DIORITE

BONANZA GROUP

- ▲ SILICIFIED VOLCANICS (RHYOLITES, DACITES, TUFFS, AGGLOMERATES)
- V ANDESITE - GREEN, APHANITIC TO FELDSPAR PORPHYRY
- ▲ BASALT ANDESITE - PURPLE TO BLACK MAINLY APHANITIC
- ▲ VOLCANICS, UNDIVIDED

UPPER TRIASSIC

QUATSINO LIMESTONE (LURQ)

- LIMESTONE, LIMESTONE BRECCIA
- SILICEOUS MARBLE

SCALE 1:5000  
 0 80 160 240 320 400 METRES

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FIGURE 5  
 RATTLER RESOURCE LTD.

SARITA RIVER PROPERTY  
 ALBERNI M.D. VANCOUVER ISLAND, B.C.  
 NTS 92 C/15W

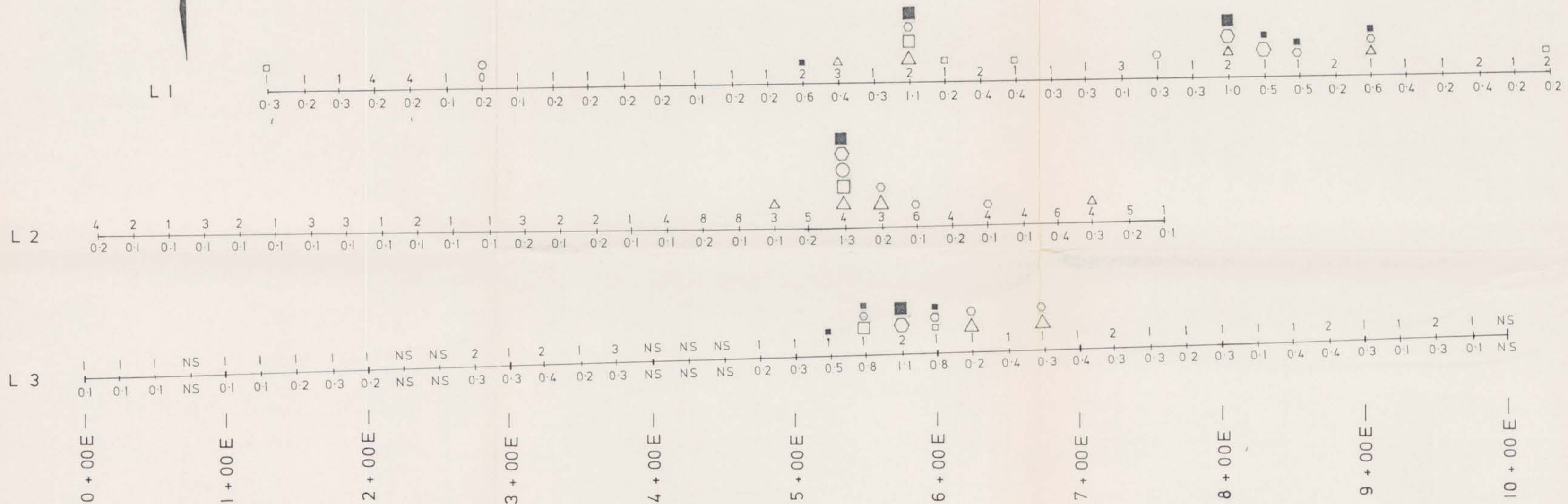
**GRID LOCATION MAP**

To accompany a report by:  
 AE Hunter Geop & PS Roberts Bsc.

Drawn by PSR/KK Date: Sept. 1988

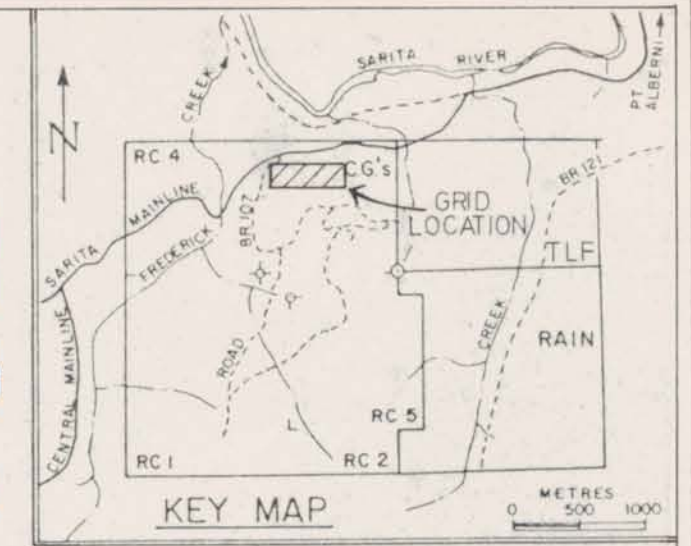


### SOIL GRID C



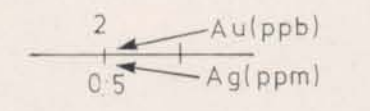
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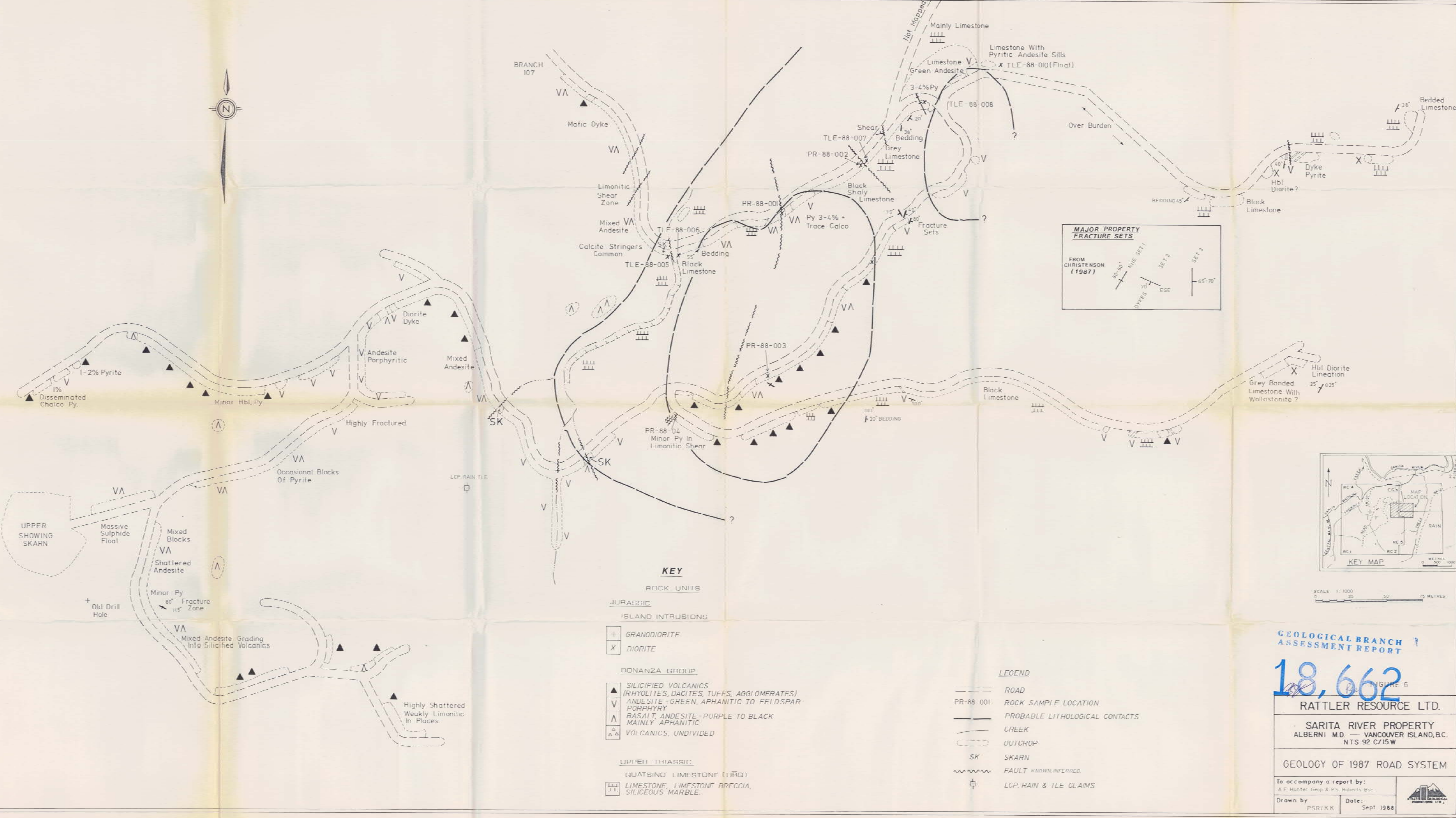
Anomalous Geochem Results

	<u>Weakly Anomalous</u>	<u>Highly Anomalous</u>
Au(ppb)	9-20 ◆	>20 ◆
Ag(ppm)	0.5-0.9 ■	>0.9 ■
Cu(ppm)	100-200 ○	>200 ○
Pb(ppm)	16-20 □	>20 □
Zn(ppm)	100-130 △	>130 △
As(ppm)	75-125 ○	>125 ○



*AEH* *PSR* **FIGURE 11**

<b>RATTLER RESOURCE LTD.</b>	
SARITA RIVER PROPERTY ALBERNI M.D. — VANCOUVER ISLAND, B.C. NTS 92 C/15 W	
SOIL GEOCHEMISTRY GRID C Au, Ag & ANOMALOUS VALUES	
To accompany a report by: A.E. Hunter, Geop. & P.S. Roberts B.Sc.	
Drawn by MFIKK	Date: Sept 1988



**KEY**

**ROCK UNITS**

**JURASSIC**

**ISLAND INTRUSIONS**

- + GRANODIORITE
- X DIORITE

**BONANZA GROUP**

- ▲ SILICIFIED VOLCANICS (RHYOLITES, DACITES, TUFFS, AGGLOMERATES)
- V ANDESITE - GREEN, APHANITIC TO FELDSPAR PORPHYRY
- △ BASALT, ANDESITE - PURPLE TO BLACK MAINLY APHANITIC
- △ VOLCANICS, UNDIVIDED

**UPPER TRIASSIC**

- QUATSINO LIMESTONE (U<sub>1</sub>Q)
- ▨ LIMESTONE, LIMESTONE BRECCIA, SILICEOUS MARBLE

**LEGEND**

- ROAD
- PR-88-001 ROCK SAMPLE LOCATION
- PROBABLE LITHOLOGICAL CONTACTS
- CREEK
- OUTCROP
- SK SKARN
- ~ FAULT (KNOWN, INFERRED)
- ⊕ LCP, RAIN & TLE CLAIMS

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**18,662** FIGURE 6

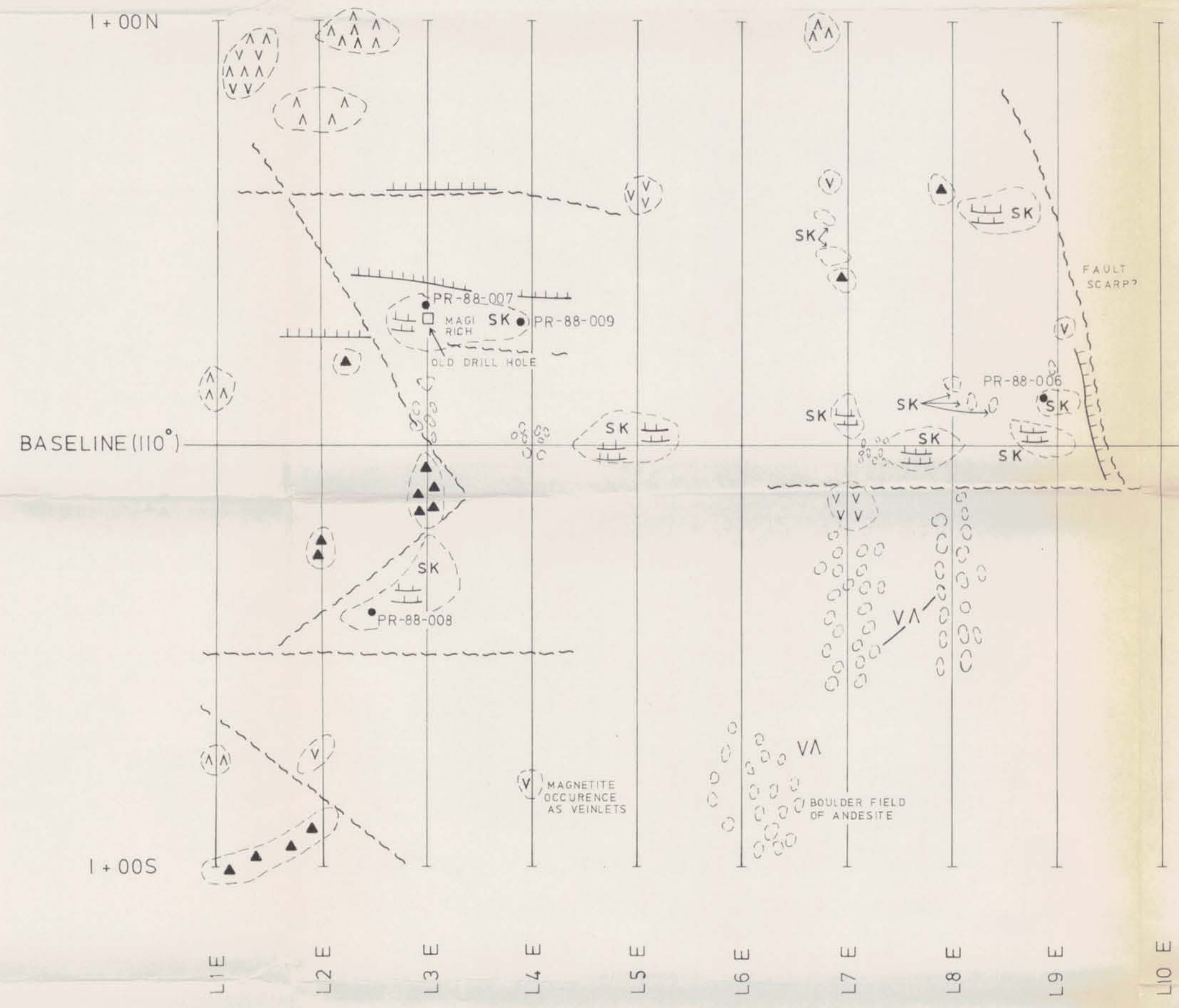
**RATTLER RESOURCE LTD.**

**SARITA RIVER PROPERTY**  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15W

**GEOLOGY OF 1987 ROAD SYSTEM**

To accompany a report by:  
A.E. Hunter, Geop. & P.S. Roberts B.Sc.  
Drawn by: PSR/KK Date: Sept 1988





LEGEND

ROCK UNITS

JURASSIC

ISLAND INTRUSIONS

- + GRANODIORITE
- x DIORITE

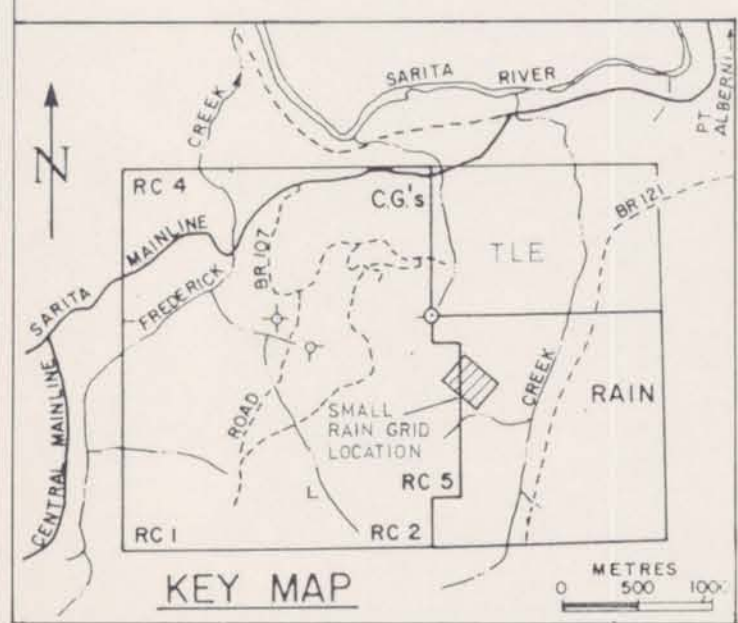
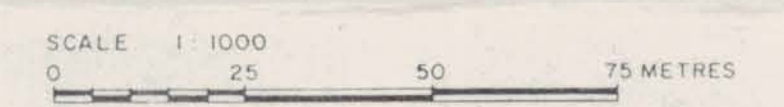
BONANZA GROUP

- ▲▲▲ SILICIFIED VOLCANICS
- v  
v v ANDESITES GREEN (APHANITIC TO PORPHYRITIC)
- ▲▲  
▲▲ BASALT, ANDESITES (PURPLE TO BLACK APHANITIC)
- ▲  
▲▲ VOLCANICS UNDIVIDED
- ||||| SKARNIFIED VOLCANICS

UPPER TRIASIC

QUATSINO LIMESTONE (U R Q)

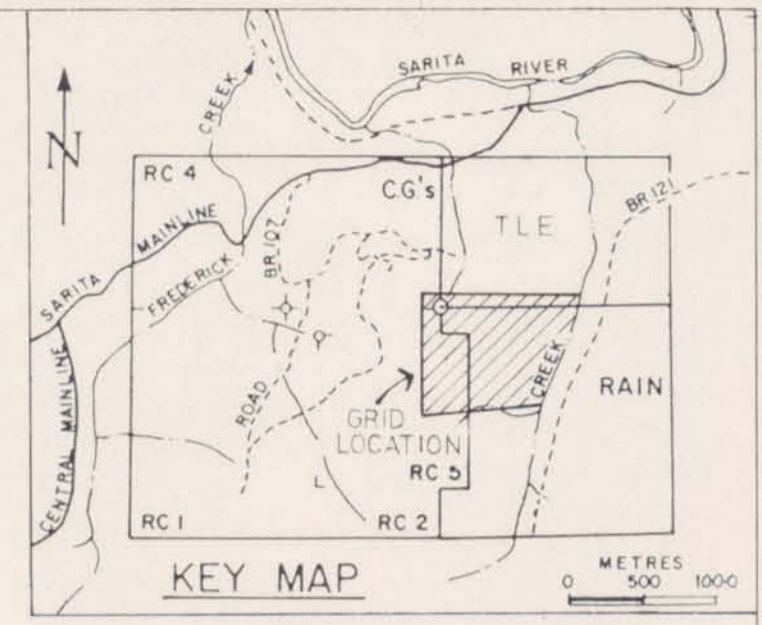
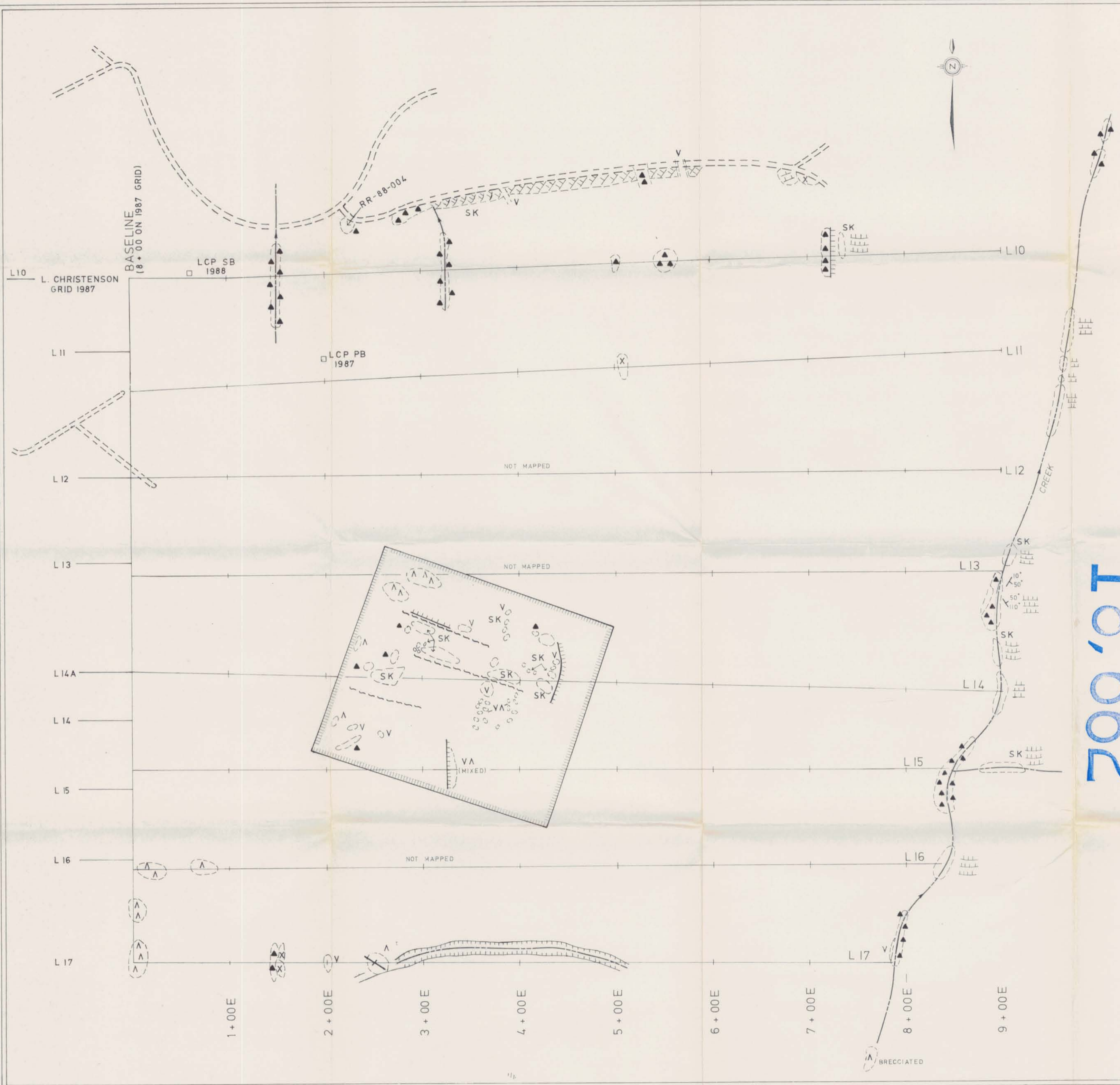
- ||||| LIMESTONE, LIMESTONE BRECCIA, SILICEOUS MARBLE.
- ||||| SHARP SLOPE CHANGE (SCARP)
- ~~~~~ FAULTS
- SK OUTCROP SK: SKARN
- RR-88-006 ROCK SAMPLE LOCALITY
- == ROAD



GEOLOGICAL BRANCH ASSESSMENT REPORT

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FIGURE 8	
RATTLER RESOURCE LTD.	
SARITA RIVER PROPERTY ALBERNI M.D. — VANCOUVER ISLAND, B.C. NTS 92 C/15 W	
GEOLOGY SMALL RAIN GRID	
To accompany a report by:	
A.E. Hunter Geop. & P.S. Roberts B.Sc.	
Drawn by PSR/KK	Date: Sept 1988



- LEGEND**
- ROCK UNITS**
- JURASSIC**
- ISLAND INTRUSIONS**
- + GRANODIORITE
  - x DIORITE
- BONANZA GROUP**
- ▲ SILICIFIED VOLCANICS
  - v ANDESITES GREEN (APHANITIC TO PORPHYRITIC)
  - △ BASALT, ANDESITES (PURPLE TO BLACK APHANITIC)
  - ◻ VOLCANICS UNDIVIDED
  - ◻ SKARNIFIED VOLCANICS
- UPPER TRIASIC**
- UQ QUATSINO LIMESTONE (UQ)
  - LIMESTONE, LIMESTONE BRECCIA, SILICEOUS MARBLE
  - SC SHARP SLOPE CHANGE (SCARP)
  - F FAULTS
  - OC OUTCROP SK:SKARN
  - RR-88-006 ROCK SAMPLE LOCALITY
  - R ROAD
  - C CREEK

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SCALE 1:2500  
0 25 50 100 150 Metres

PSR  
Psn

FIGURE 7

**RATTLER RESOURCE LTD.**

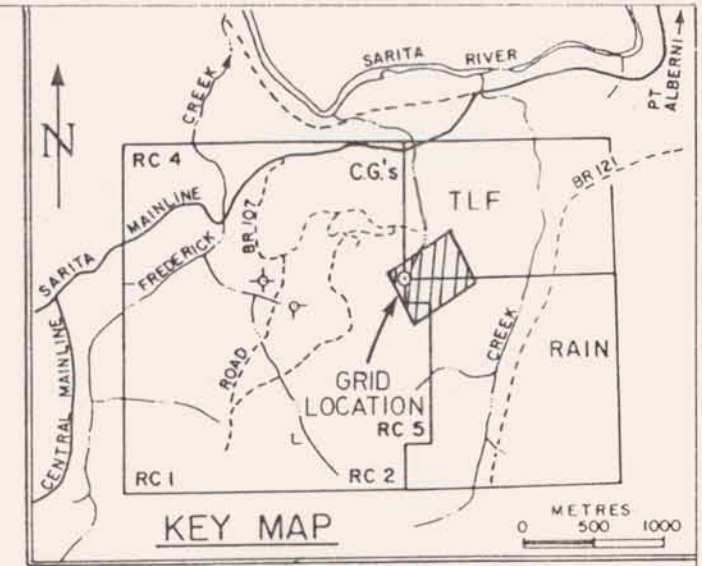
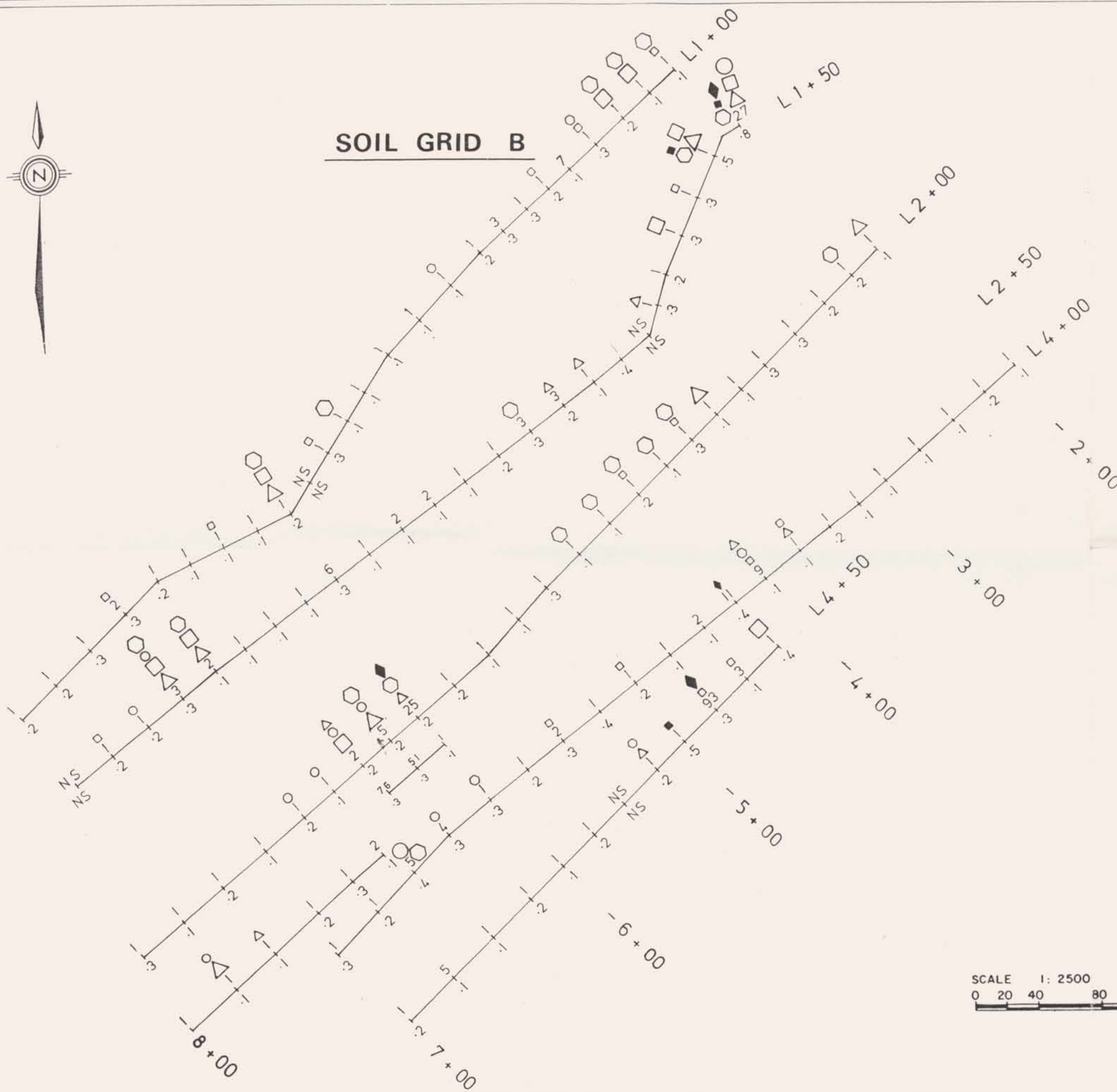
SARITA RIVER PROPERTY  
ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
NTS 92 C/15W

**RAIN CLAIM GEOLOGY**

To accompany a report by:	
AE Hunter Geop & PS Roberts Bsc	
Drawn by	Date:
PSR/KK	Sept 1988



**SOIL GRID B**



Anomalous Geochem Results

	Weakly Anomalous	Highly Anomalous
Au (ppb)	9 - 20 ◆	> 20 ◆
Ag (ppm)	.5 - .9 ■	> .9 ■
Cu (ppm)	100 - 200 ○	> 200 ○
Pb (ppm)	16 - 20 □	> 20 □
Zn (ppm)	100 - 130 △	> 130 △
As (ppm)	30 - 50 ○	> 50 ○

3 ← Au (ppb)  
 .4 ← Ag (ppm)

GEOLOGICAL BRANCH ASSESSMENT REPORT

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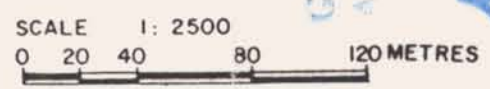


FIGURE 10

**RATTLER RESOURCE LTD.**

SARITA RIVER PROPERTY  
 ALBERNI M.D. — VANCOUVER ISLAND, B.C.  
 NTS 92 C/15W

**SOIL GEOCHEMISTRY  
 GRID B  
 Au, Ag & ANOMALOUS VALUES**

To accompany a report by: A.E Hunter, Geop. & P.S Roberts Bsc		
Drawn by MF/KK	Date: Sept 1988	