

007282

GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL REPORT

ON THE

ABCO CLAIMS PROPERTY

ALBERNI MINING DIVISION,
BRITISH COLUMBIA

NTS 92F/2E

FOR

PROPERTY FILE

GOLD PARL RESOURCES LTD.,
Suite 405 - 595 Howe Street
Vancouver, British Columbia

012F 122

By:

Greg L. Ven Huizen, P.Eng.

December 9, 1988

1.0 SUMMARY

During 22 April - 5 May, 1988 the author was engaged by Laroth Engineering on behalf of Gold Parl Resources Inc. to conduct geological mapping and supervise geochemical soil, VLF-EM and magnetometer surveys on the property known as the Abco #2 and Abco #3 mining claims (30 units). Underground mapping and sampling was carried out on the Abco and Abco #4 mining claims (7 units) located 3 km west of the Abco #2 and Abco #3 by D. Wood, B.Sc. FGAC and E. Larabie, P.Eng. in February and September, 1988. This report covers the above work.

The examinations show that a potential for two types of mineralization exist on the property:

- 1) Gold bearing quartz veins found in shear zones exposed by underground working on the Abco claim with production to 1938 reported as 86 tons at 2.7 opt Au, 1.2 opt Ag and .34% Cu. Potential for this type of mineralization is also shown on the Abco #2 and Abco #3 claims by Au geochem anomalies.

- 2) Strataform massive sulfides indicated by base metal geochem anomalies and by pyrriferous banded cherts, siliceous pyrite, lapilli tuffs, tuffs and limestones found as stream float and/or in outcrops on the Apco #2 and Apco #3 claims.

A two phase work program is recommended to test the property for economic shear zone controlled gold mineralization and to investigate the possibility of economic stratabound massive sulfide deposits.

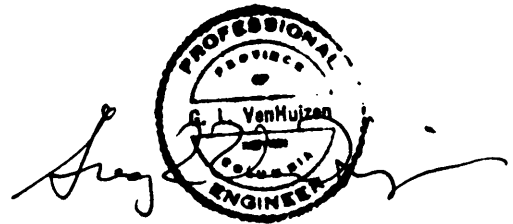
2.0 CONCLUSIONS AND RECOMMENDATIONS

It is the conclusion of the author that the Abco property shows potential for hosting economic gold-quartz mineralization hosted in N-S trending shear zones as exposed in underground workings and discussed in historical data. It should be noted that until recently the area was in a staking freeze and has not been thoroughly explored. Drilling is recommended to determine continuity and grade between the lowermost and intermediate adits which will help evaluate the potential of the gold bearing structure.

The western grid area shows geochemical anomalies and rock types favourable for massive sulfide deposits. The anomalies should be followed up with a limited geological reconnaissance of rock exposures on cliffs of the horseshoe valley east and north of the grid and a VLF-EM survey along the 0 line using a station suitable to test for E-W trending conductive structures.

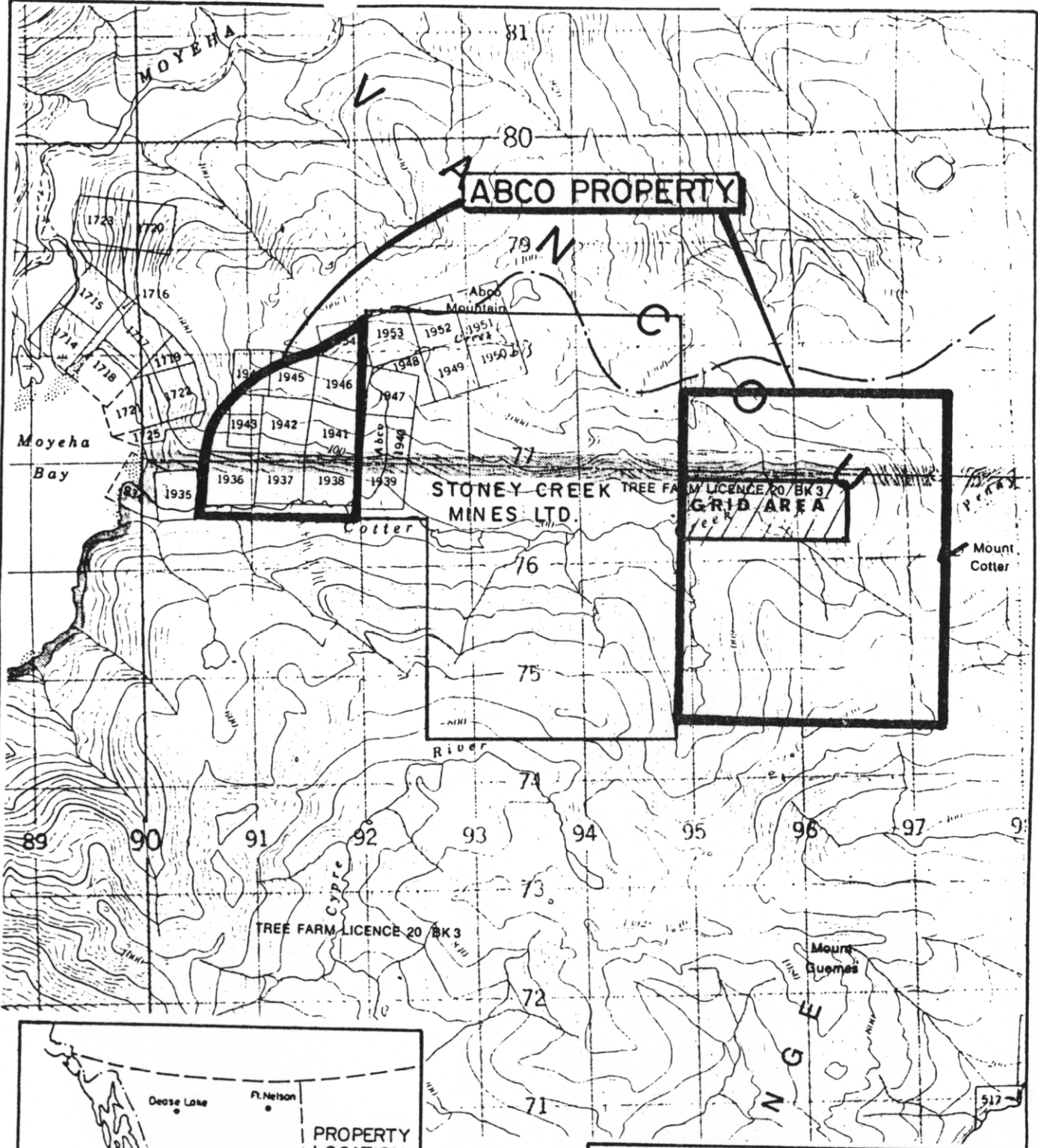
A second phase is recommended to follow up encouraging results as found in the first phase.

Respectfully submitted,

A circular professional engineer seal for the Province of Ontario. The seal contains the text "PROFESSIONAL ENGINEER" around the perimeter and "PROVINCE OF ONTARIO" in the center. A handwritten signature, "Greg L. Ven Huizen", is written across the seal.

Greg L. Ven Huizen, P.Eng.

9 December 1988

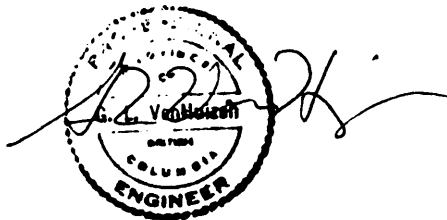


GOLD PARL RESOURCES LTD.	
ABCO PROPERTY PROPERTY LOCATION MAP	
N.T.S. 92F-5W	ALBERNI M.D., B.C.
0 1 2 3 KM.	
SCALE 1:50,000	DATE: NOV. 1988
DRAWN BY:	FIGURE No. 1

2.1 Budget and Cost

Phase 2

Mobilization barge, etc.	\$5,000.00
Sampling and mapping upper adits	3,000.00
Helicopter and float plane support	8,000.00
Diamond drilling	
400 m @ \$100.00/m (incl. camp)	40,000.00
Assaying	1,000.00
Detail geological mapping and sampling (underground and surface)	6,000.00
VLF-EM Survey (Abco 2 & 3 claims)	3,000.00
Geological supervision travel and accommodations	7,000.00
Contingencies (15% approx.)	<u>12,000.00</u>
 TOTAL	 \$85,000.00



Phase 3 Contingent on results of Phase 2

Diamond drilling

500 m @ \$100.00/m \$50,000.00

Helicopter and float plane support 3,000.00

Geological supervision

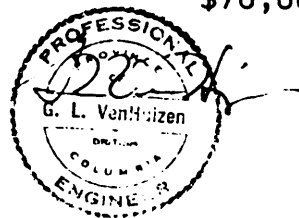
travel and assaying 7,000.00

Report preparation 4,000.00

Contingencies 6,000.00

TOTAL \$70,000.00

3.0 PROPERTY DESCRIPTION



The property as originally staked consisted of four metric mineral claims totalling 53 units. Because sixteen units were partially or totally within the boundaries of Strathcona Provincial Park, they were not allowed to be recorded and the property now consists of 37 units. The claims are divided by the Cotter claims (shown on Figure 2 - Claim Map) and are in the Alberni Mining Division, NTS 92F/5W, 45deg 13' N, 126deg 46' W.

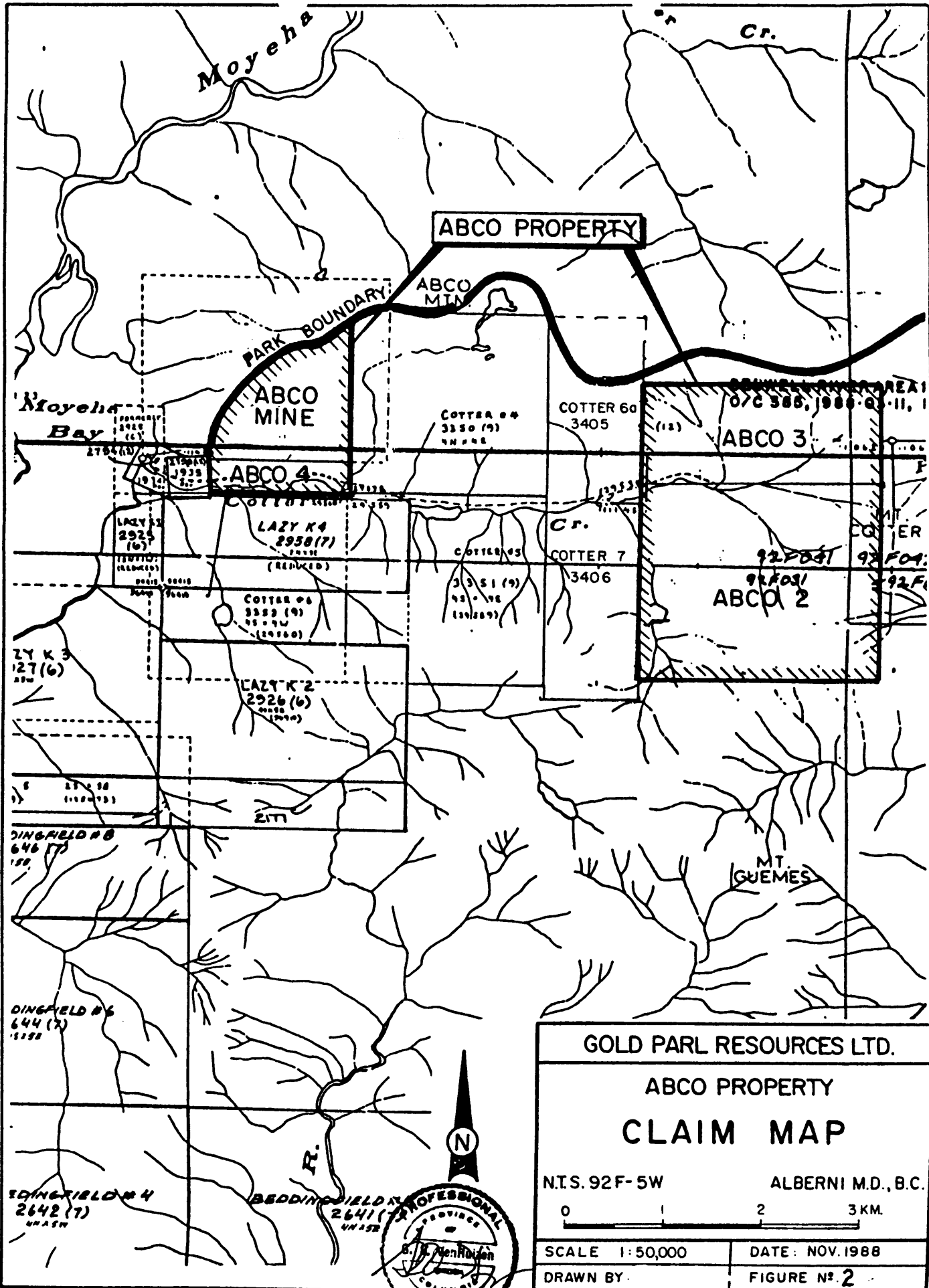
The claims are as follows:

<u>CLAIM</u>	<u>RECORD NO.</u>	<u>UNITS</u>	<u>EXPIRY DATE</u>
ABCO	3374	4	NOV. 1989
ABCO #2	3559	10	APR. 28, 1990
ABCO #3	3560	20	APR. 28, 1990
ABCO EXTENSION	3703	3	DEC. 8, 1989

The claims are registered in the name of Sam Craig of Tofino, B.C. with whom Gold Parl Resources has an option. The Abco Extension claim was registered in the name of Gold Parl Resources Ltd. The details and legality of the option agreement are beyond the scope of this report. An agreement signed between Stoney Creek Mines (Optionee of the Cotter Claims) which divides the Abco Property (Fig. 1) and Gold Parl Resources Ltd. allowing either company by way of certain expenditures to become a partner, would also reduce costs of this program if work on both properties is done simultaneously.

3.1 Location and Access

The Abco claims are located 25 km north of Tofino, B.C., 1 km east of the head of Herbert Inlet, a protected fjord on the



GOLD PARL RESOURCES LTD.	
ABCO PROPERTY	
CLAIM MAP	
N.T.S. 92F-5W	ALBERNI M.D., B.C.
SCALE 1:50,000	DATE: NOV. 1988
DRAWN BY:	FIGURE NO. 2



west coast of Vancouver Island. The claims are immediately south of the southwest corner of Strathcona Provincial Park (Fig. 2).

The property is accessible by boat and float plane from Tofino to the mouth of Cotter Creek. A 4 km four-wheel drive road made during logging operations on the property provides access within the claims area.

3.2 Topography and Climate

The property is located in an area of steep relief with elevations ranging from 50 to 1600 meters above sea-level. Slopes are generally between 30 and 60 degrees. Cliffs are common where the slope angle exceeds 40 degrees.

The climate of the area is relatively mild with abundant rainfall. The snow-line during the February work program varied between 100m to 1000m above sea level. Higher elevations on the property, especially the ridge tops, retain snow cover until June of most years.

Vegetation on the property consists primarily of cedar, hemlock and fir trees. The valley floor and lower valley sides were

logged in the early 1960's and the second growth found there is extremely dense and difficult to traverse. Old growth trees found higher in the valleys are up to 4 meters in diameter.

4.0 HISTORY OF THE PROPERTY

The earliest reference to mining activity on the Abco property is found in the 1933 Annual Report of the B.C. Minister of Mines by G.A. Clothier, M.E. who was then the Resident Engineer. The report refers to the "Mary McQuilton" claim which is now contained in the Abco claim. A portion of the report is quoted as follows:

"There are two showings on the ground, both shears in the Vancouver volcanics, similar to those at the Big Boy. Within the shears are parallel quartz veins mineralized with iron pyrites with traces of galena and zinc-blende. The lower showing at 1,700 feet elevation has not been opened up. The upper showing at 2,000 feet elevation is now being developed. An open-cut here shows a sheared width of 7 feet containing several parallel veins of quartz assaying separately up to 1.5 oz. gold per ton, the whole averaging about 0.4 oz. gold per ton. Free gold has been found."

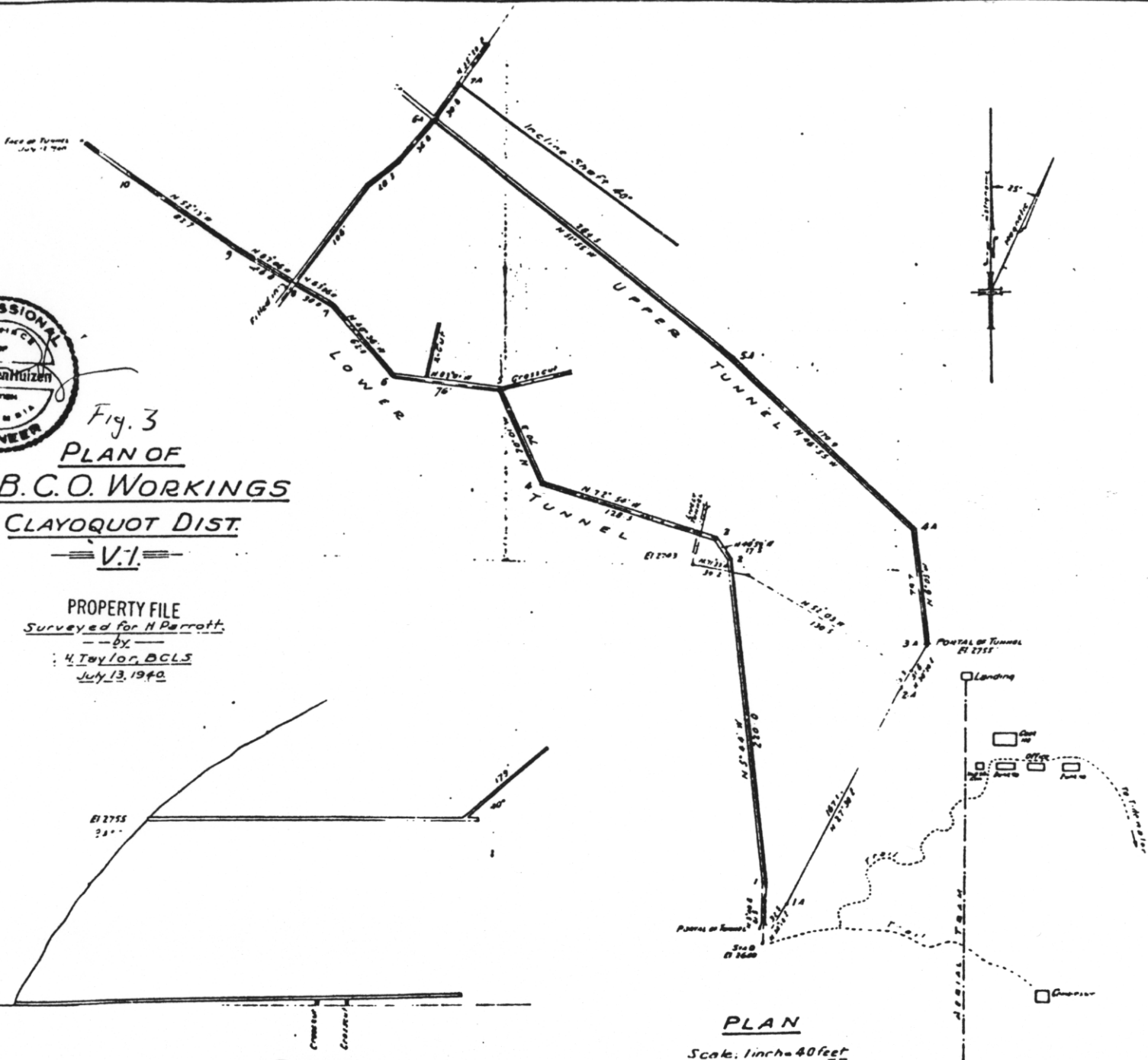
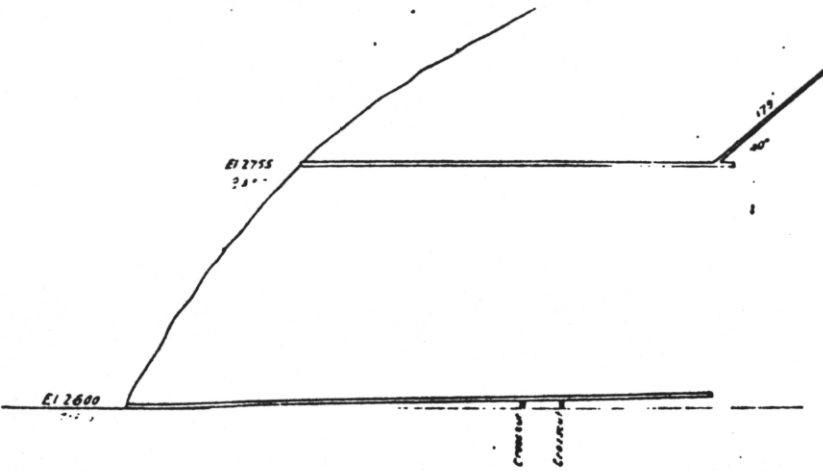


Fig. 3
PLAN OF
A. B. C. O. WORKINGS
CLAYOQUOT DIST.
 — V. I. —

92F/5W
 92E-122

PROPERTY FILE
 Surveyed for H Perrott
 by
 H. Taylor, D.C.L.S.
 July 13, 1940.



PROFILE.
 Horizontal, 1 inch = 100 feet
 Vertical, 1 inch = 50 feet

PLAN
 Scale: 1 inch = 40 feet

Development and mining activity on these claims which were subsequently renamed the ABCO mine until 1938 resulted in shipments totalling 86 tons of sorted ore material yielding 232 ounces of gold, 103 ounces of silver and 584 pounds of copper (2.70 opt Au, 1.20 opt Ag, 0.34% Cu).

The outbreak of World War II and relatively low prices for precious metals contributed to a hiatus in mining activity in this area and many other mining camps in Canada and other countries. Berton Gold Mines of Vancouver, B.C. resumed development work between 1958 and 1963. There are no production records for this work, although 260m (860 ft) of exploration drifting is in evidence in a steep gully located less than 1 km west of the Cotter Creek claims at an elevation of 305 m (1000 ft) and remains on an aerial tram line still existing which provided access to the upper levels of the mine.

The 305m (1000 ft) elevation adit was visited by Mr. D.H. Wood, B.Sc., F.G.A.C. accompanied by Mr. L.P. Othmer, P.Eng., Director of Gold Parl Resources Ltd. during February, 1988. Mr. Wood reported the following:

"Four chip samples were collected from narrow quartz vein and adjacent country rock within a discontinuous, cross faulted, north trending shear zone which returned assays of 0.118 oz/t and 0.184 oz/t for two pyrite and chalcopyrite bearing quartz vein samples and trace gold for the other two samples of fault gouge and pyritized vein and sheared volcanic host."

Because much of the northern portion of the ABCO claims was included within a staking preserve the claims were excluded from mineral exploration during the early 1970's. Changes to the southern boundary of Strathcona Provincial Park in July, 1987 resulted in the area once more being open to exploration and mining activity and the ABCO claims were staked and subsequently optioned to Gold Parl Resources Ltd.

Other known gold producers located in the immediate area of the ABCO claims include the Big Boy Mine, located 1 km west of the ABCO claim which produced 55 tons of ore material between 1933 and 1941 which yielded 163 oz of gold and 95 oz of silver with copper and lead as accessory metals (2.96 opt Au, 1.73 opt Ag).

5.0 SURVEY PROCEDURES

The 1988 work program on the Abco #2 and Abco #3 claims was intended to delineate zones which may contain gold mineralization as found in shear zones locally and which may contain massive sulfides as suggested by float rock contained in the grid area.

The claims were visited in late February by Mr. D.H. Wood, B.Sc., FGAC who was employed on behalf of Gold Parl Resources Ltd. by Laroth Engineering Ltd. Mr. Wood made a brief visit to the grid area via helicopter to reconoitier the area and took a stream silt sample from Cotter Creek. A work program was conducted between 13 April and 4 May, 1988 which was supervised by the author who was on the property between 22 April and 4 May 1988. The work program consisted of the following;

- 1) Grid emplacement; 15.4 km of east-west grid lines including 500 m of cut baseline was emplaced on the property within an area of moderate relief as well as covering the area where stream float showed a possibility of stataform sulfide deposits. Stations were established at 25 m intervals on lines 50 m apart using survey flagging, compass and hip chain, blazing and cutting in heavy underbrush with axes.

- 2) Geological mapping; Reconnaissance geological mapping was performed by the author along the grid lines and was plotted at a scale of 1:2500.

- 3) Geophysical surveys; A magnetometer survey using a Barringer Model GM-122 proton precession magnetometer was conducted over the grid area with readings in gammas obtained at 25 meter stations. A base station was maintained and all lines were looped to allow for the correction of diurnal magnetic variation. A VLF-EM survey employing a Sabre model 27 VLF-EM receiver was conducted over the grid area using Seattle as the transmitting station. All dip angle data was plotted in profile.

- 4) Geochemical survey; Soil samples were collected from the "B" horizon at depths ranging from 5 to 30 cm and placed in kraft envelopes. Samples were taken at 25 m stations on the west half of the grid area except where the grid stations were in creeks or boulder fields. The samples were allowed to dry and were sent to Acme Analytical Laboratories of Vancouver, B.C. where they were analyzed for 30 elements by ICP (induced coupled plasma) method and for gold by atomic absorption.

- 5) Rock sampling; seven rock samples were analyzed by similar methods to the above, the samples were character samples of stream float or outcrops.

6.0 REGIONAL GEOLOGY (Fig. 4)

The geology of the Cotter Creek area has been published at a scale of 1:250,000 by the Geological Survey of Canada - GSC Paper 68-50, "Geology of the Alberni Map Area (92F) and at a scale of 1:125,000 - GSC Open File 463, "The Geology of Vancouver Island", both of which are by Dr. J.E. Muller.

The area is underlain by late Paleozoic aged Sicker Group metavolcanic and meta-sedimentary rocks (unit 1 on figure 2) on the south side of Cotter Creek and by Jurassic aged Karmutsen Volcanic rocks (unit 5) on the north and southeast sides of the valley. Cotter Creek follows the trace of a steeply dipping east-west trending high angle fault which forms the contact between the two lithologies.

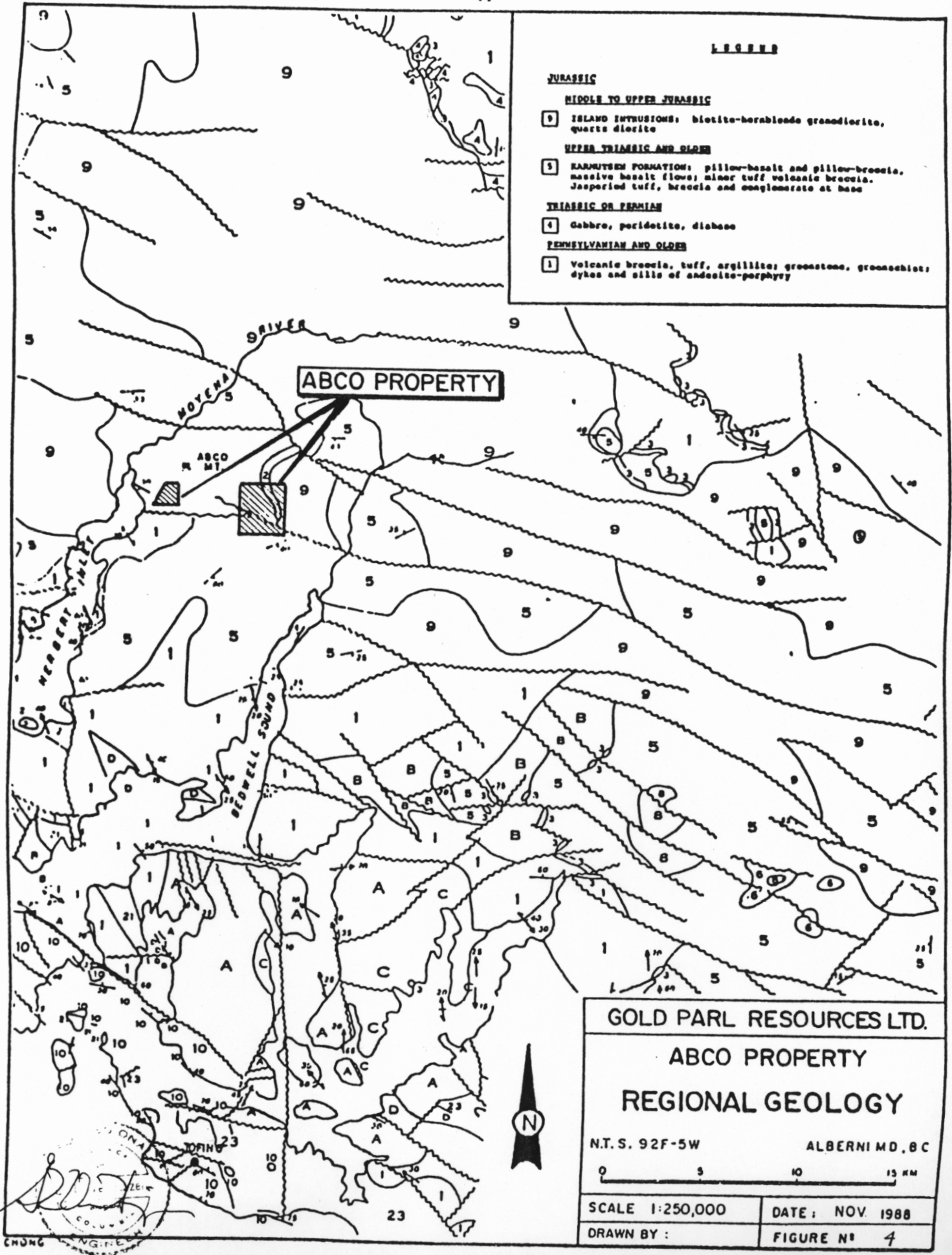
Jurassic aged diorite and granodiorite (unit 9) intrude Karmutsen Volcanics to the east and west of the Cotter Creek area and intrude Sicker Group rocks to the north of the area.

Tertiary aged porphyry dikes and sills intrude older lithologies and north trending quartz veins cut through tertiary and older rocks.

The property lies within a belt of Tertiary aged gold bearing deposits which extends from the Zeballos area of northern Vancouver Island to the Nanaimo area on the east coast of the island.

Another related belt of Tertiary aged deposits extends from the Tofino area on the west coast to the Mount Washington area on the east coast of Vancouver Island. This east-west belt of Tertiary deposits includes the Cotter Creek area as well as the northern Great Central Lake area where much attention has been centered recently on the Cream Silver Mines property.

Mineralization within the Tertiary deposits in the area occurs primarily as native gold within quartz veins associated with copper, lead and zinc sulfides. Sulfide content varies from massive to trace amounts and veins are generally narrow.



LEGEND

JURASSIC

MIDDLE TO UPPER JURASSIC

9 ISLAND INTRUSIONS: biotite-hornblende granodiorite, quartz diorite

UPPER TRIASSIC AND OLDER

3 KARNUTSEM FORMATION: pillow-basalt and pillow-breccia, massive basalt flows; minor tuff volcanic breccia. Jaspered tuff, breccia and conglomerate at base

TRIASSIC OR PERMIAN

4 Gabbro, peridotite, diabase

PENNSYLVANIAN AND OLDER

1 Volcanic breccia, tuff, argillite; greenstone, gneiss; dykes and sills of andesite-porphyr

ABCO PROPERTY

GOLD PARL RESOURCES LTD.

ABCO PROPERTY

REGIONAL GEOLOGY

N.T.S. 92F-5W

ALBERNI MD, 8C

0 5 10 15 KM

SCALE 1:250,000

DATE: NOV. 1988

DRAWN BY:

FIGURE NO 4



 CHUNG NGIEN

7.0 PROPERTY GEOLOGY (Fig. 5)

Rock types as observed by Mr. Wood, B.Sc. FGAC and Mr. Larabie, P.Eng. underground on the western section of the property consisted entirely of andesites of the Karmutsen Volcanics. The rocks were dark green in color, sometimes porphyritic in nature. The wallrock contained several sections of chlorite, sericite and silica alterations.

The eastern section (grid area on Abco #2 and Abco #3) has been mapped on surface and is plotted on figure 5. Rock exposures are fairly abundant except in the central portion of the grid area which is covered by fluvial and glacial deposits. The eastern grid is near the base of a horseshoe valley and is partially covered by detritus from erosional processes of the valley walls.

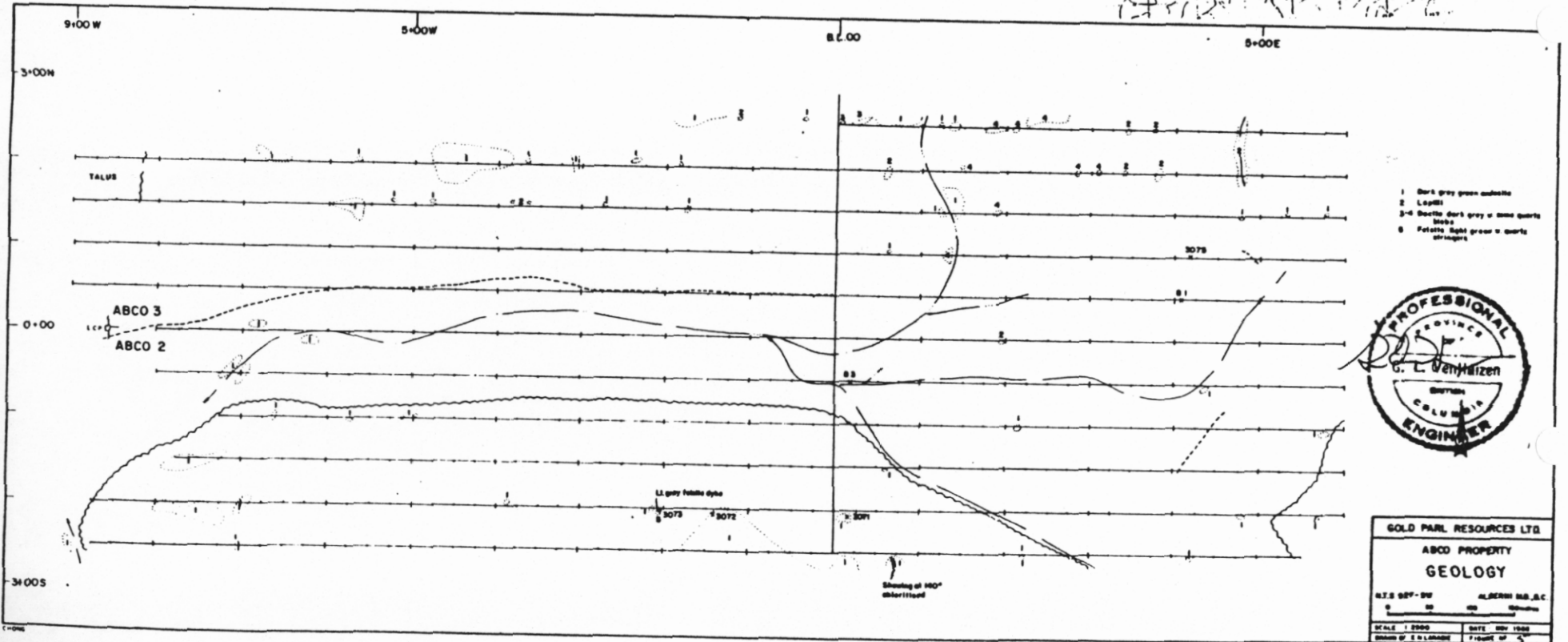
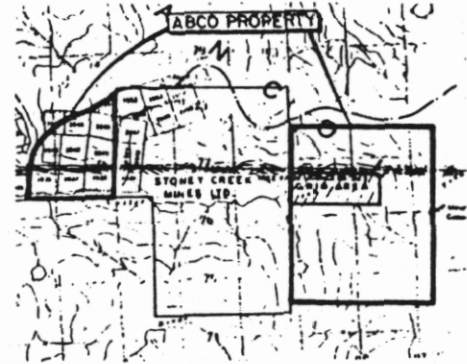
Rock types within the grid area examined and mapped by the author are as follows:

Unit 1: dark grey green andesite

Unit 2: fragmental lapilli tuffs

Unit 3 & 4: dark grey dacite containing quartz blebs

Unit 5: light green felsite with quartz stringers



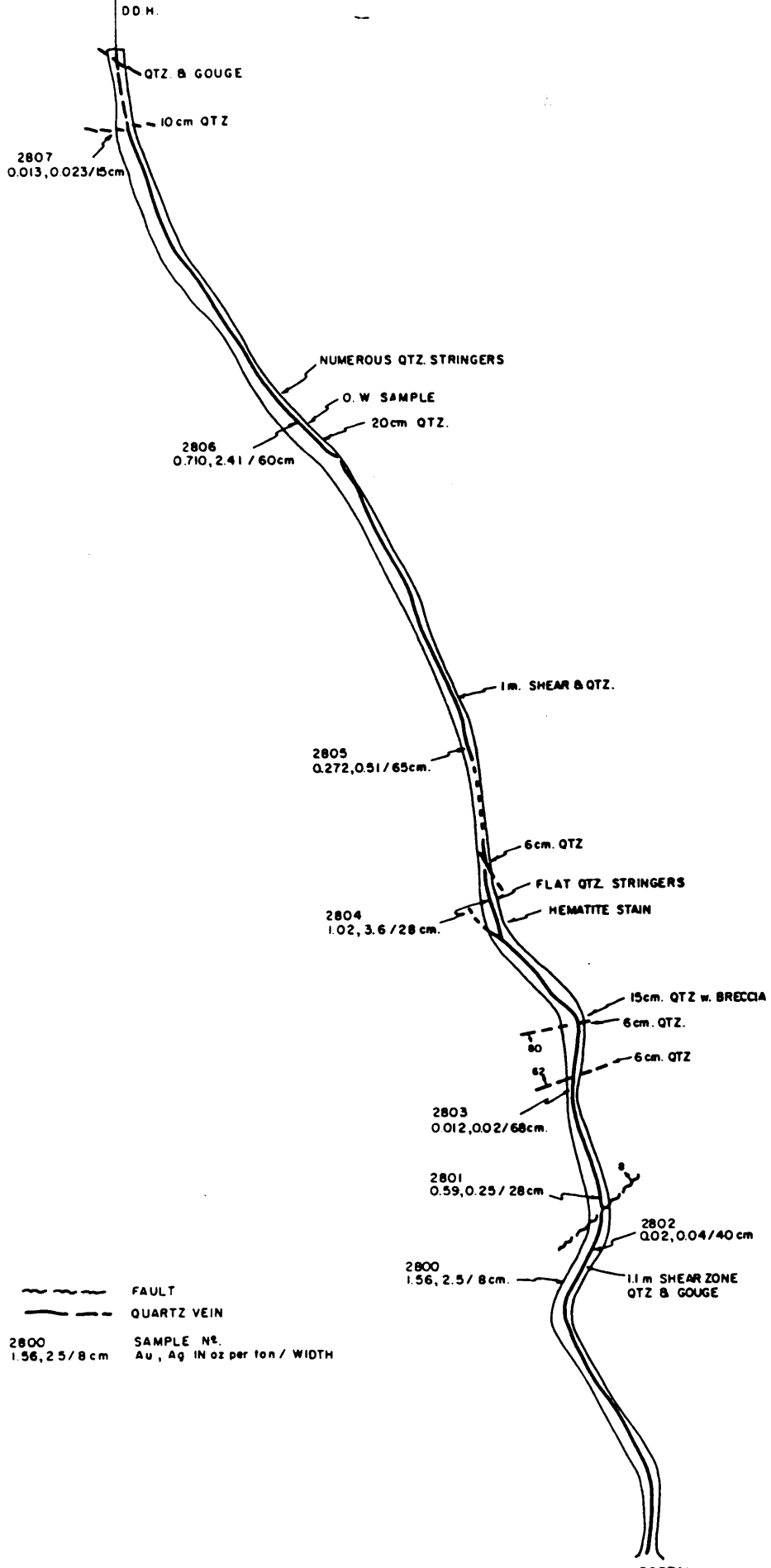
Rock types observed as float in the streams within the grid area probably originated from the valley walls which are within the property boundary. The rock types included banded pyrriferous cherts, siliceous massive pyrite, limestones, tuffs and lapillis which are rock types associated with strataform massive sulfides.

8.0 UNDERGROUND SAMPLE DESCRIPTION (Fig. 6)

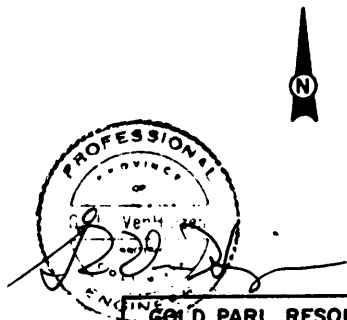
Underground development at the 840m (2755 ft) elevation consisted of 290 meters of horizontal development and 45 meters of raises. In the late 1950's and early 1960's a second program took place this time at the 305 meter (1000') elevation consisting of 265 meters of horizontal development.

Samples taken from the 305 meter level consisted of the following:

<u>Samp. No.</u>	<u>Distance From portal</u>	<u>Au/Ag opt.</u>	<u>Description</u>
2801	53 m	.490/0.25	28 cm chip sample including 12 cm of qtz-chlorite and 14 cm of sheared country rock
2802	32 m	1.560/2.49	select sample of 8 cm quartz vein with minor inclusions of chlorite, wallrock, pyrite, sphalerite and visible gold



- - - - - FAULT
 - - - - - QUARTZ VEIN
 2800 1.56, 2.5 / 8 cm SAMPLE N^o.
 Au, Ag IN oz per ton / WIDTH



GOLD PARL RESOURCES LTD.

ABCO PROPERTY
305 METRE ADIT

N.T.S. 92 F-5W ALBERNI MD., B.C.

0 10 20 30 metres

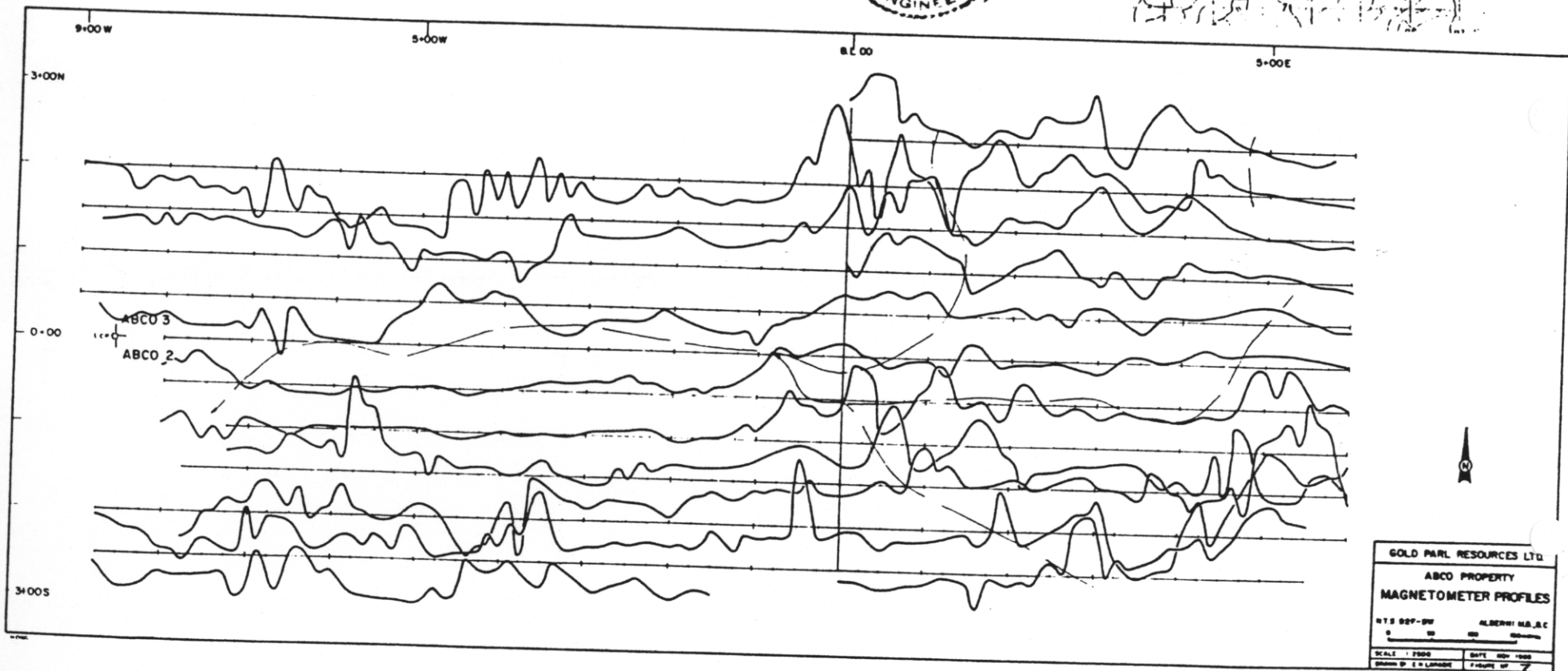
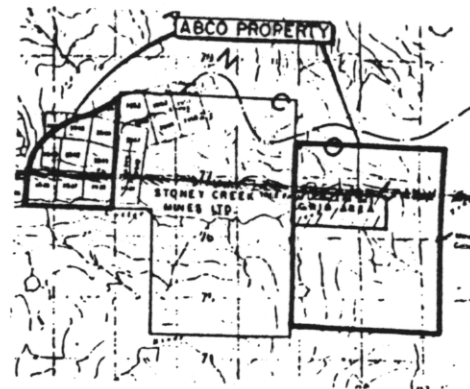
SCALE 1:500 DATE: NOV. 1988
DRAWN BY: s. l. FIGURE NO. 6

2803	68 m	.012/0.02	45 cm chip sample includes 3 cm quartz vein, 27 cm shear zone and 15 cm wall rock
2804	24 m	1.020/3.62	16 cm chip sample including 3 cm qtz vein and 13 cm sheared wall rock with fine pyrite and chalcopyrite
2805	90 m	.272/.51	65 cm chip sample of shear zone, with some clay gouge
2806	174 m	.710/2.41	60 cm chip sample including 18 cm quartz vein, 42 cm shear zone with fine grained pyrite, chalcopyrite and possibly free gold (?)
2807	229 m	0.013/0.03	15 cm chip sample of quartz stringers which crosses main zone including 8 cm of quartz
2808	40 m	0.02/0.04	44 cm chip sample including 8 cm of quartz, 26 cm shear zone and 10 cm of wall rock

9.0 DISCUSSION OF RESULTS

9.1 Magnetometer Survey

Results of the magnetometer survey on the western portion of the property show magnetometer highs on the west half of the grid with contacts indicated in a N-S direction. Along the 0 line the magnetometer readings are somewhat lower which may be indicative of an east-west trending fault separating magnetometer highs on the south from those on the north.



GOLD PEARL RESOURCES LTD.
ABCO PROPERTY
MAGNETOMETER PROFILES
NTS 927-09 ALBERTA M.A.C.
SCALE 1:2500 DATE 02/1988
DRAWN BY E.O. LANGE FIGURE 07

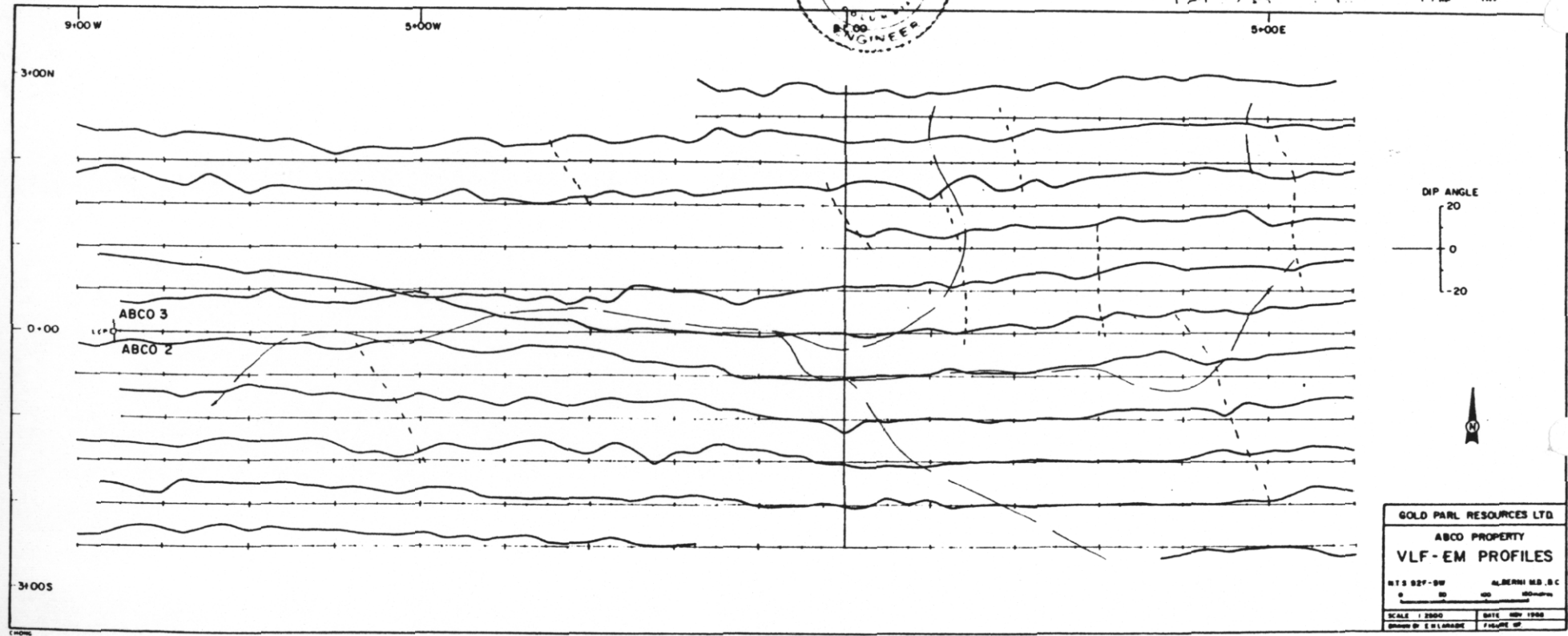
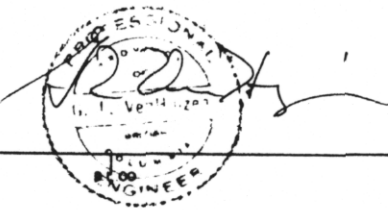
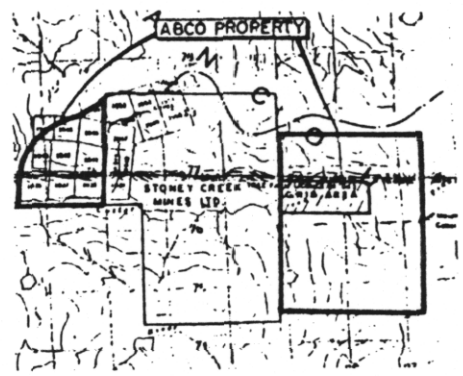
Coincident geochemical anomalies are found along this trend on the extreme western end of the 0 line in Pb, Zn and As.

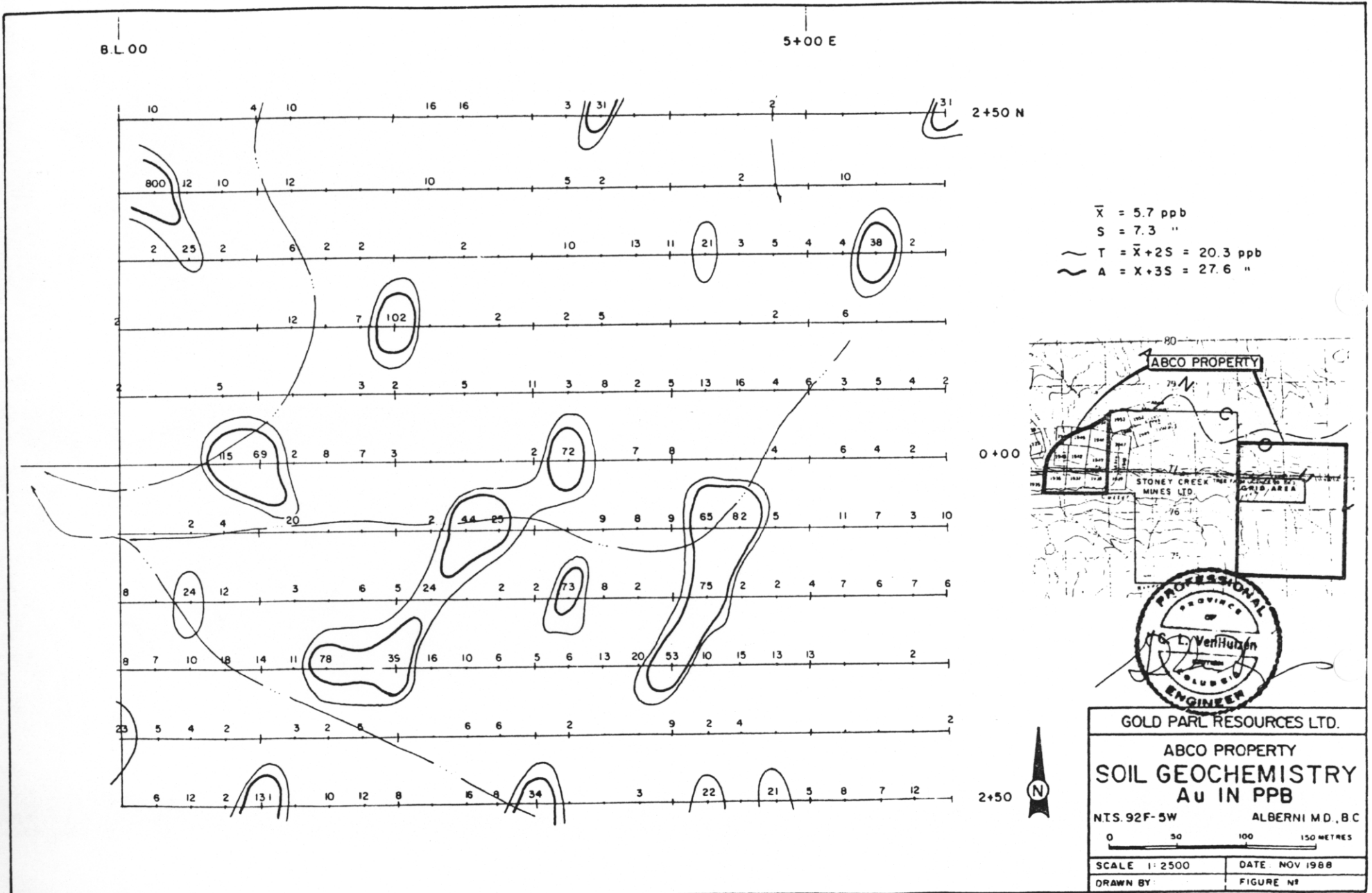
9.2 VLF-EM Survey

VLF-EM surveys were conducted to test for conductive structures trending in a N-S direction by using Seattle as the transmitting station. Results show only weak conductors trending N-S. It is questionable whether these represent bedrock or overburden anomalies. It is advised to conduct another survey receiving Hawaii or Cutler stations to test for conductive structures trending E-W.

9.3 Geochemical Surveys

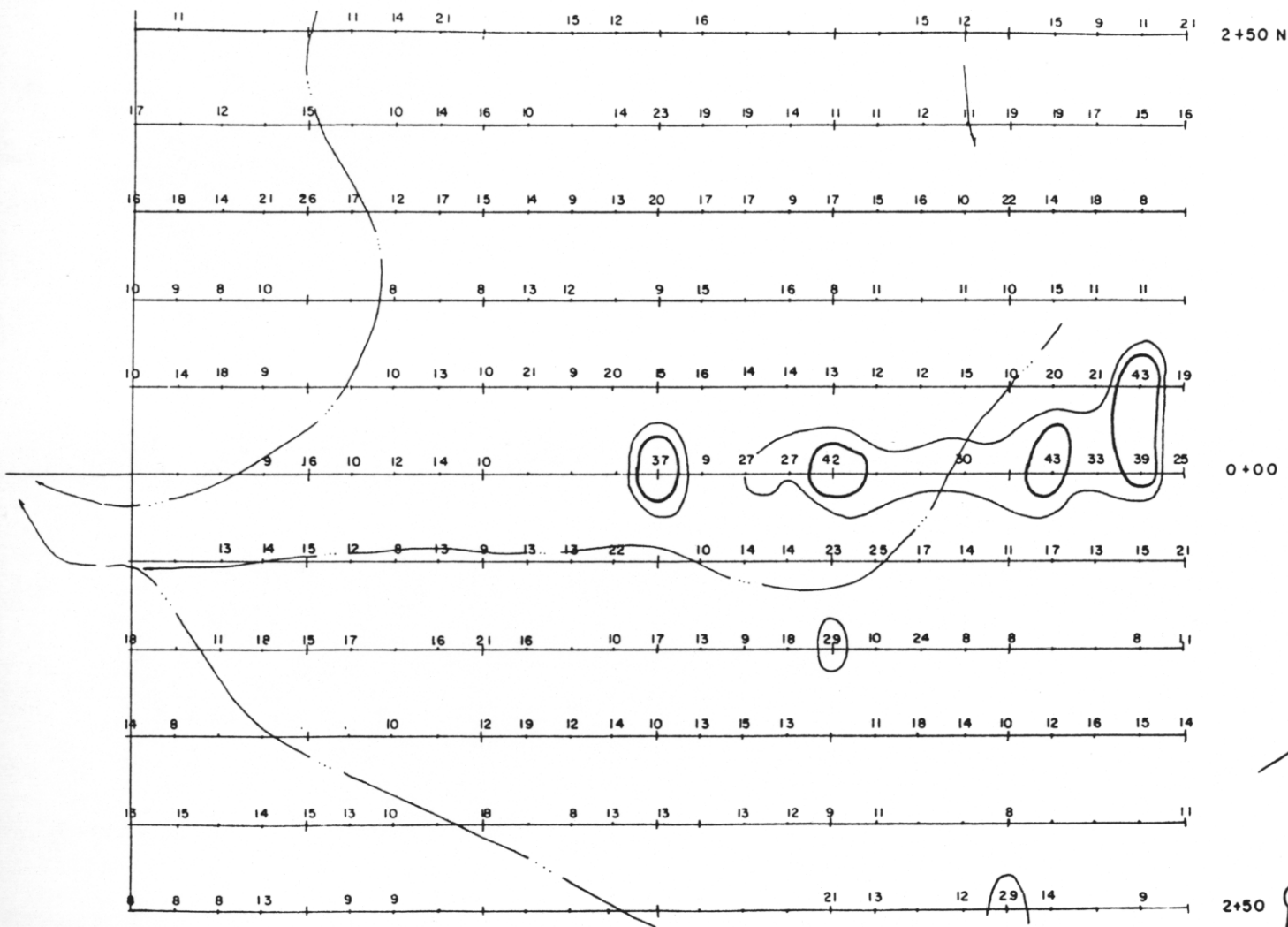
Geochemical results from soil samples taken show gold anomalies ranging up to 800 ppb with several anomalous zones in the 25 to 100 ppb. Lead, zinc and arsenic anomalies are coincident and located on the west part of the grid centered on the 0 line. Soils appeared to be fluvial and glacial in origin so the origin of the anomalies is probably from upstream between the grid area and the walls of the horseshoe valley. Efforts should be made to investigate the origin of the soil anomalies by investigating rock exposures on the cliff walls and





B.L. 00

5+00 E

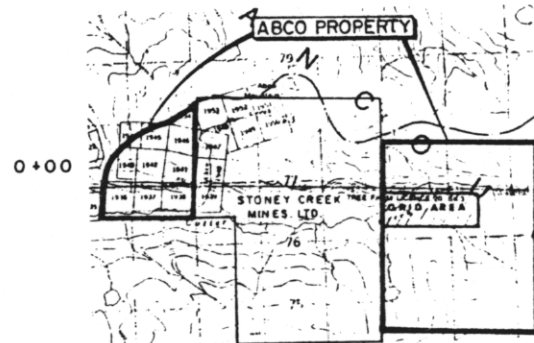


$\bar{X} = 12.6 \text{ ppm}$

$S = 7 \text{ ''}$

$T = \bar{X} + 2S = 27 \text{ ppm}$

$A = \bar{X} + 3S = 34 \text{ ''}$



[Signature]
 G. L. Venturini
 ENGINEER

GOLD PEARL RESOURCES LTD.

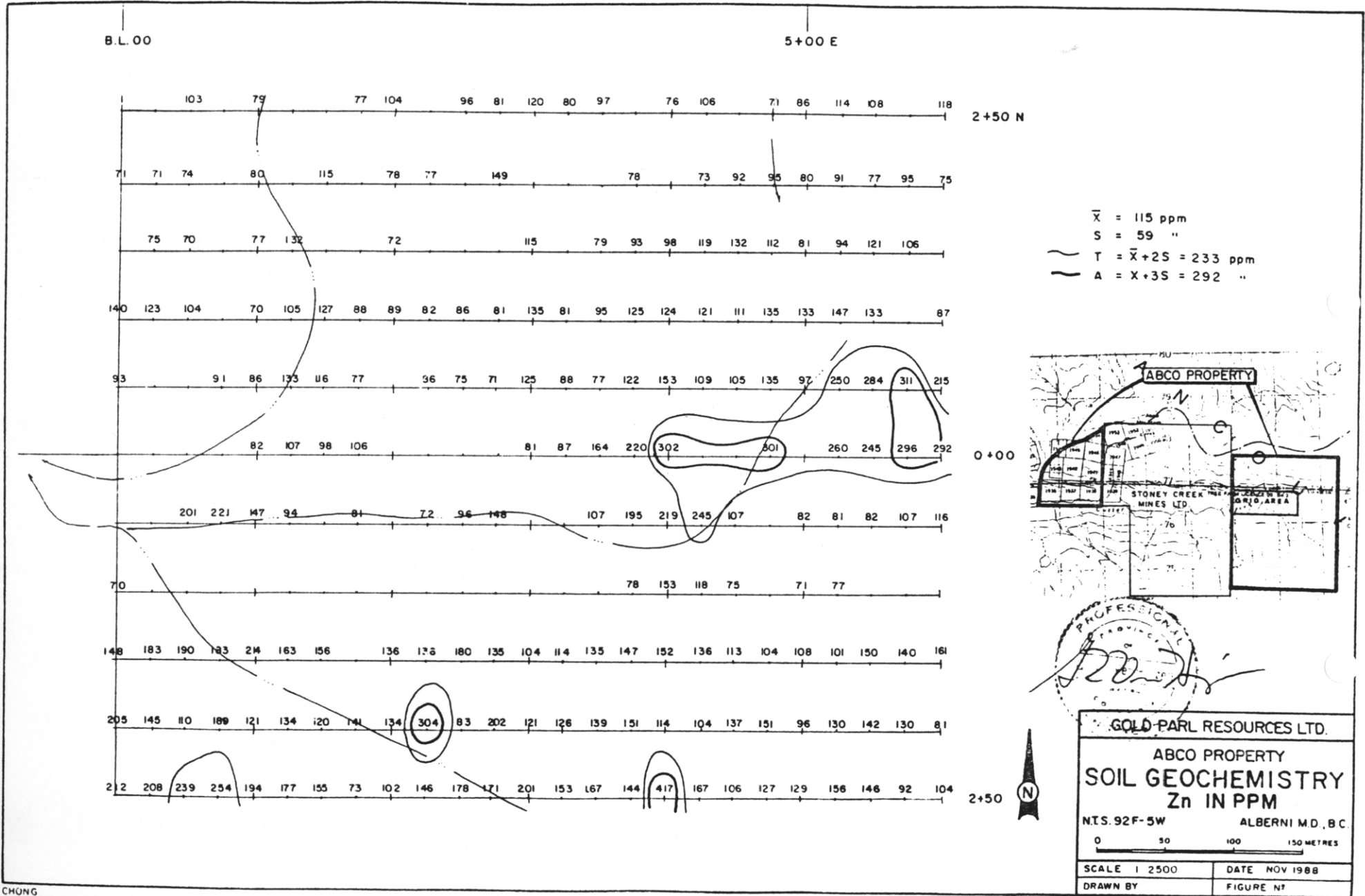
ABCO PROPERTY
SOIL GEOCHEMISTRY
Pb IN PPM

N.T.S. 92F-5W ALBERNI M.D., B.C.

0 50 100 150 METRES

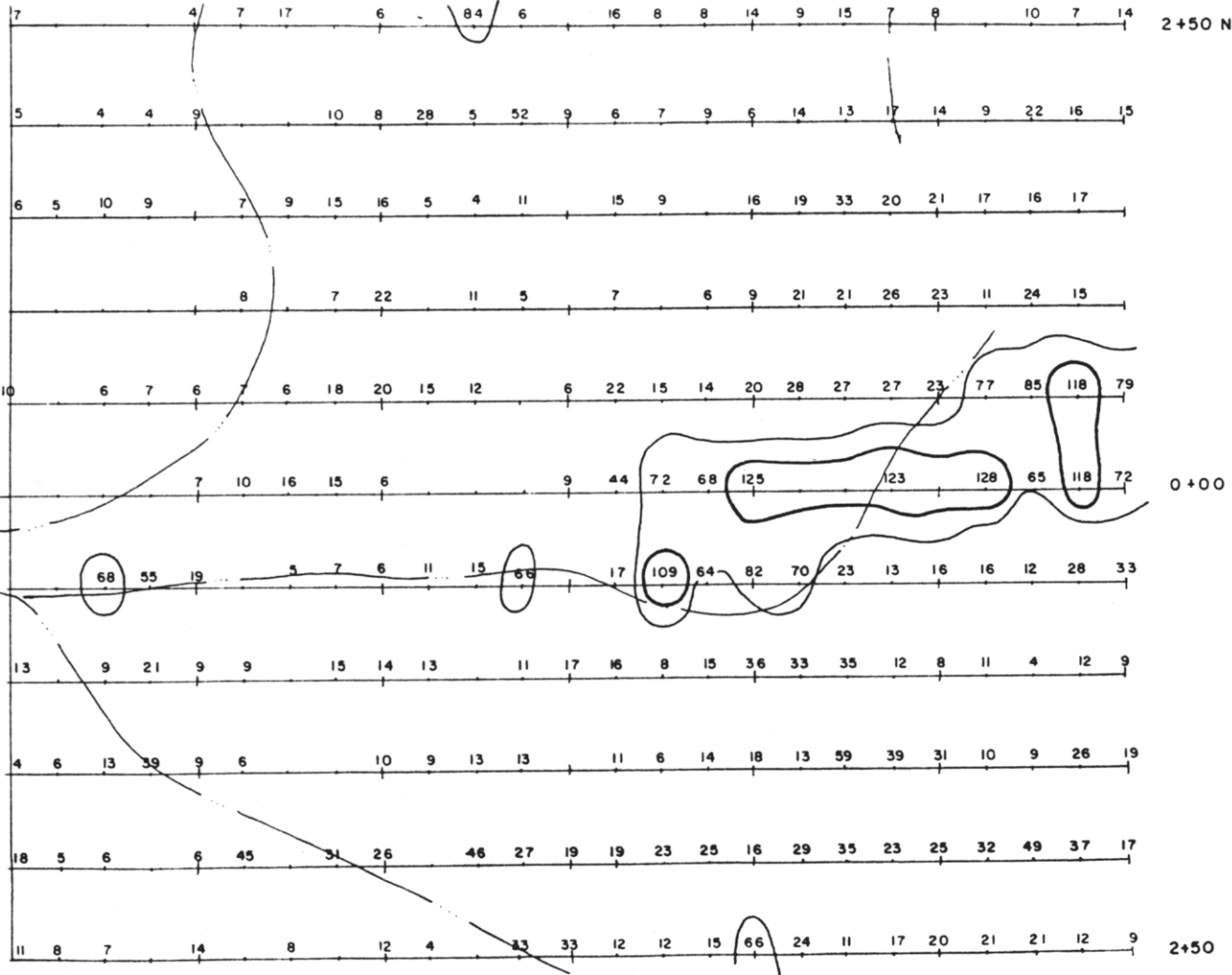
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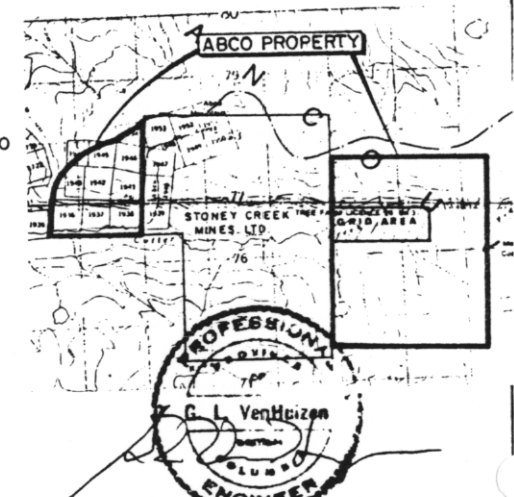


B L 00

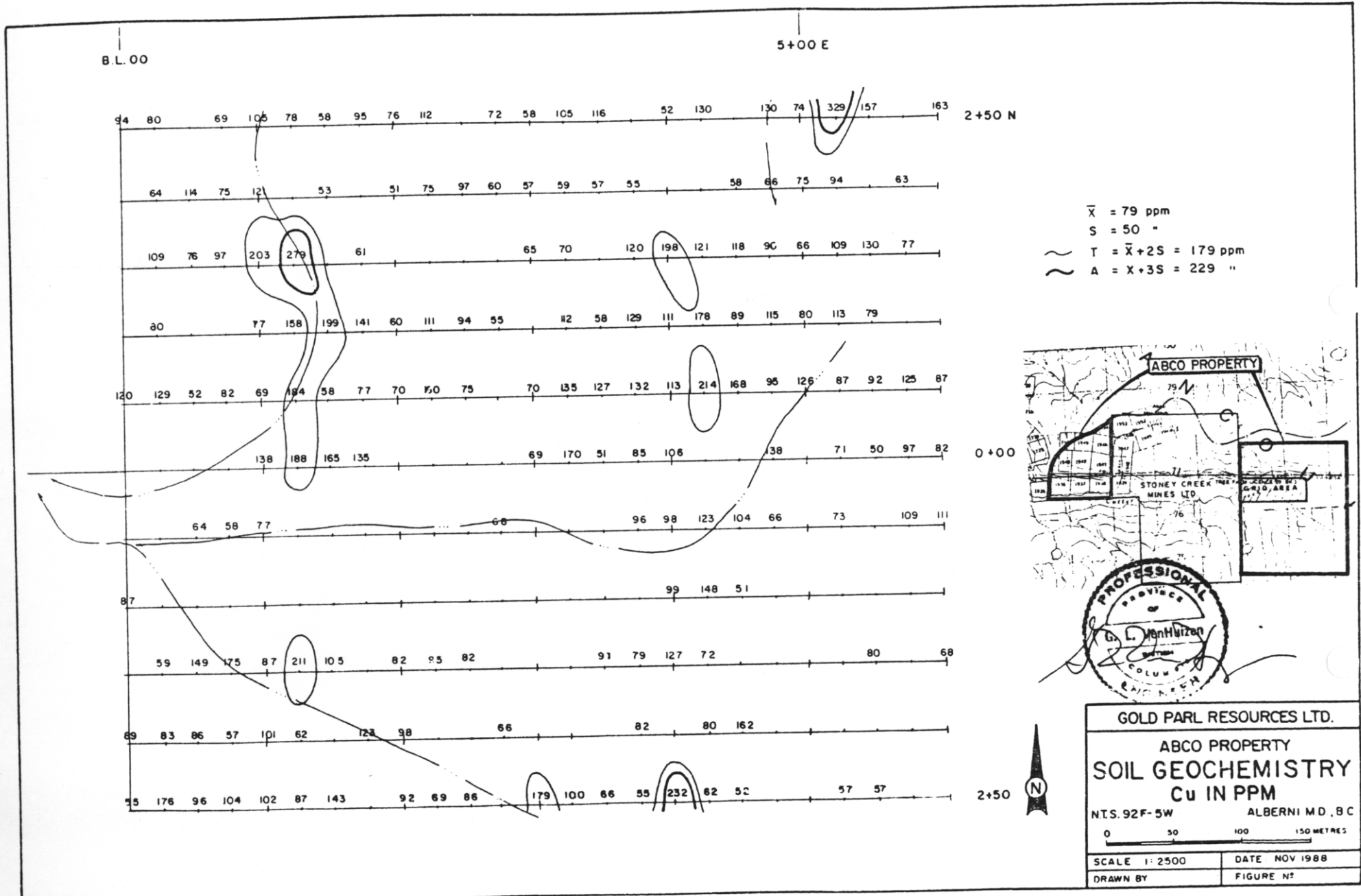
5+00 E



\bar{X} = 19.2 ppm
 S = 23 "
 $T = \bar{X} + 2S = 65$ ppm
 $A = \bar{X} + 3S = 88$ "



GOLD PEARL RESOURCES LTD.	
ABCO PROPERTY	
SOIL GEOCHEMISTRY	
As IN PPM	
N.T.S. 92F-5W	ALBERNI M.D., B.C.
0 50 100 150 METRES	
SCALE 1:2500	DATE NOV 1988
DRAWN BY	FIGURE N°



undertaking a limited VLF-EM survey using Hawaii or Cutler as the transmitting station to delineate E-W trending conductive structures.

9.4 Underground

The results of the underground mapping and sampling show a narrow but persistent shear zone containing erratic but high grade gold values. It should be noted that gold assays are probably effected by the "nugget effect" which is a problem encountered when sampling deposits containing free gold. Such deposits typically would show samples which taken individually, are not indicative of the grade of the deposit because small chip samples are highly biased by the presence or absence of minute quantities of gold. The results of sampling and historical data show that the structure contains high grade gold mineralization and has potential of hosting an economic deposit. Drilling of the deposit between the lowermost and intermediate adit is recommended to confirm the continuity of the structure and evaluate the potential of the deposit. Sampling of the upper adits (Fig. 3) is recommended prior to diamond drilling which may aid in locating ore lenses, thus making diamond drilling more effective.

11.0 REFERENCES

The following is a list of publications, public and private, which pertain to the property area and subject of this report:

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Gold-bearing on the West Coast of Vancouver Island between Esperanza Inlet and Alberni Canal; Geological Survey of Canada, Memoir 204.
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- Muller, J.E. (1977)
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