GEOCHEMISTRY-GEOPHYSICAL REPORT

ON THE

M.B.10 CLAIM [20 UNITS]

SKEENA M.D.

Lat. 53⁰36'

Long. 132⁰17'W

NTS 103F/9W

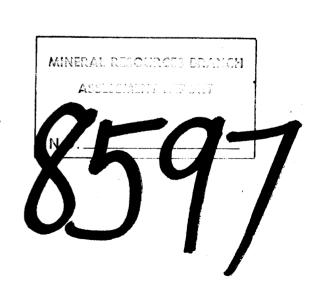
for

BRIDGE RESOURCES LTD. Vancouver, B.C.

Ьу

A.F. ROBERTS, P. ENG.

January 26, 1981



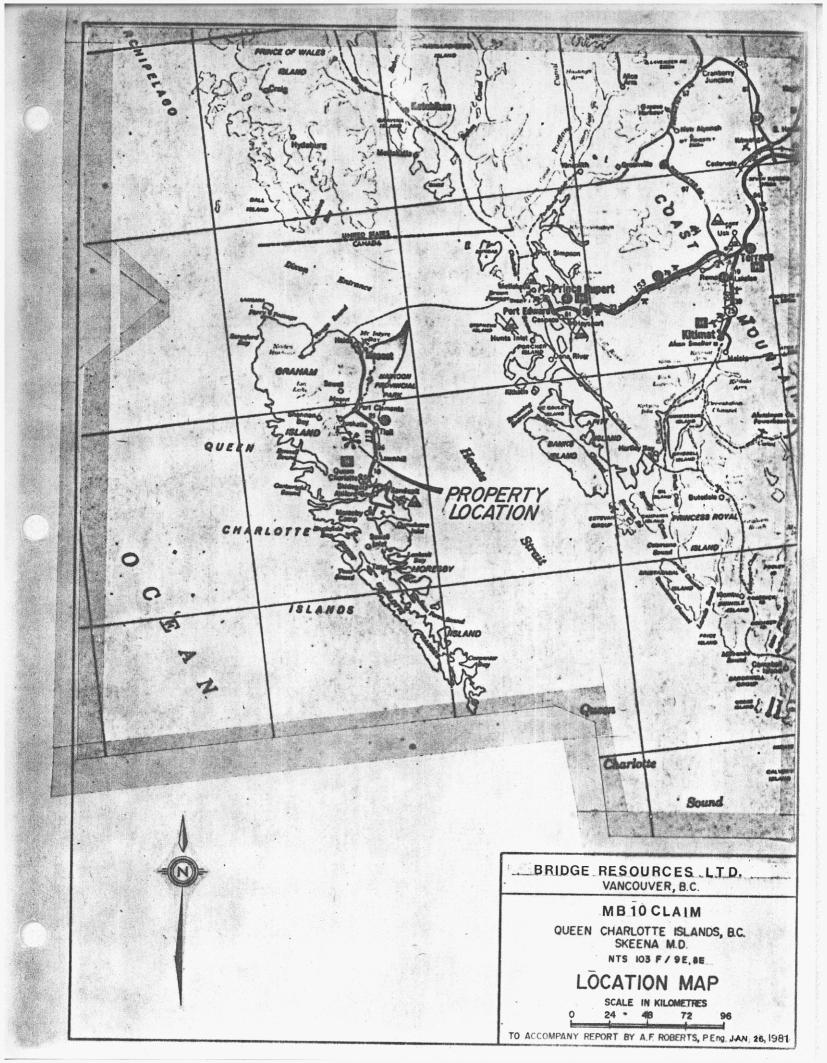
A. F. ROBERTS, P.ENG.

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2] Road Map: MacMillan-Bloedel 7/16" = 1 mile
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	REFERENCES	
5]	B.C. Department of Mines & Petroleum Resources 54, Geology of the Queen Charlotte Islands, B.G Sutherland Brown 1968	
6]	History of the Queen Charlotte Islands, B.C., K. Dalzell	Vol. II,
8]	B.C. Department of Mines & Petroleum Resources Gold Prospect, Queen Charlotte Islands, B.C., A. Sutherland Brown, T.G. Schroeter, 1977	
9]	Reports and Drill Logs, A.F. Roberts, P.Eng., solidated Cinola Mines Ltd., and other companion to date	for Con- es, 1977
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S U M M A R Y

The current Geochemistry-Geophysical exploration program on the Company's M.B.10 claim in the Queen Charlotte Islands, has shown two fairly strong gold-arsenicsilver anomalies, and several other anomalous gold areas in the SE four units.

These are associated with positive areas indicated by Fraser Filter anomalies, and low to moderate Total Field anomalies.

There is an indication that stronger anomalies may lie to the north and west, from a previous, reconnais—sance type geochemistry program.

Geological mapping of the surface outcrops would help in identifying anomalous areas, and the effect of drainage.

A Phase I program of geological mapping, with geochemistry and VLF-EM surveying over the balance of the property is recommended.

The estimated cost of this program is \$2,375.00/unit or a total of \$38,000.00.

Phase II would consist of trenching and diamond drilling, which cannot be estimated without the results of Phase I, but would probably cost in the order of \$150,000.00.

spectfully submitted,

. Roberts, P. Eng.,

huary 26, 1981

A. P. ROBERTS, P.ENG.

1

GEOCHEMISTRY-GEOPHYSICAL REPORT

ON THE

M.B.L] CLAIM [20 UNITS]

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Lat. 53⁰36'

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January 26, 1981

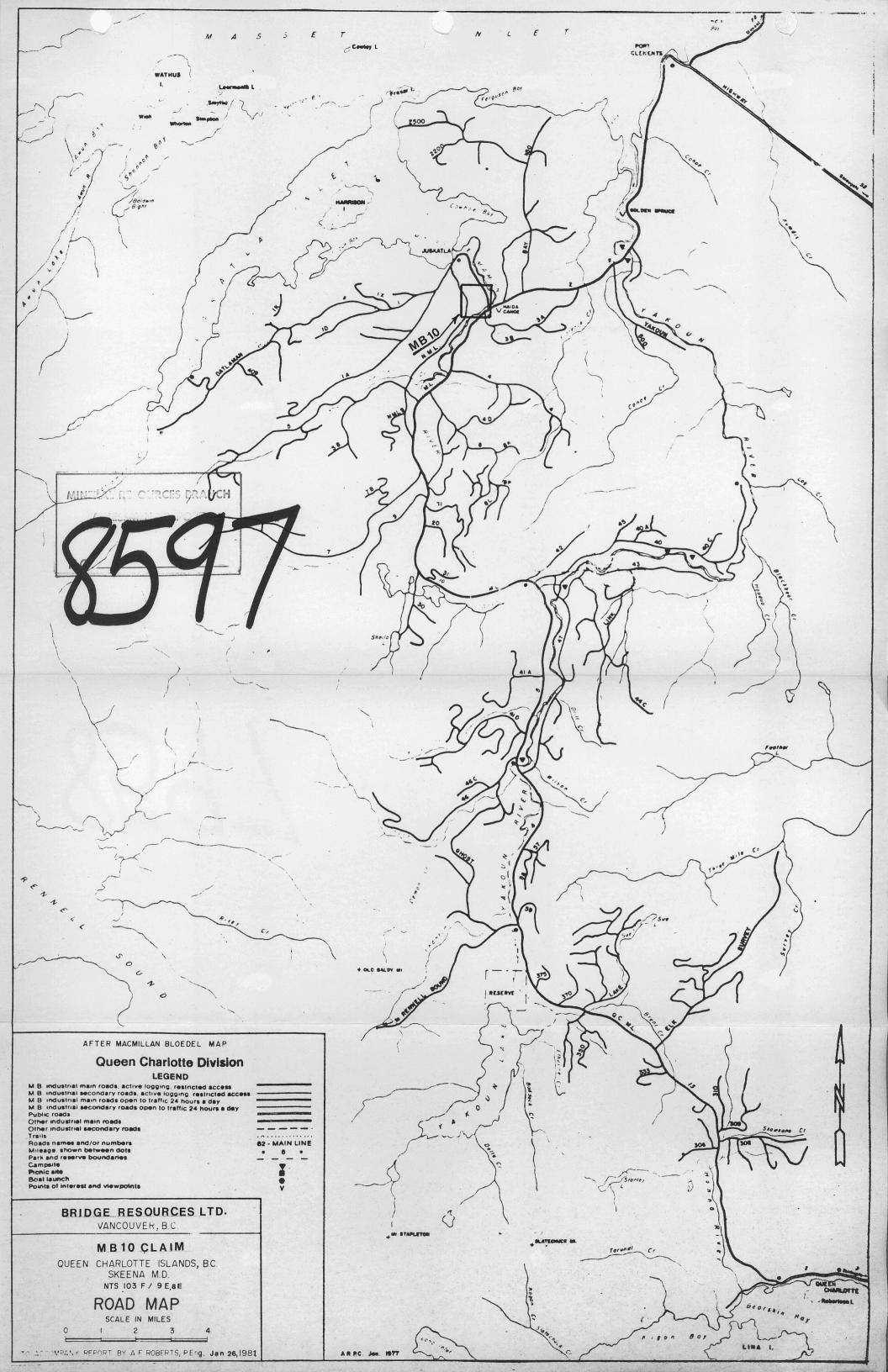
INTRODUCTION

This report is authorized by the Directors of the Company.

It is an analysis of the results of a combined geochemical - VLF-EM - geophysical program carried out over the southeast four units of the Company's 20 unit property.

This program was carried out in the period December 1-10, 1980. The writer was on the property October 4-6, 1979, and has been on other properties in close proximity several times since then.

This program, and construction of the maps was done by Strato Geological Ltd. of Vancouver. The contouring was done by the writer.



LOCATION, ACCESS, TOPOGRAPHY 1] 2] 3]

The L.C.P. for the claim, the northwest corner, lies about due south of Juskatla, and east of a branch road in an area of burnt slash. The claim lies to the south and east of the post.

Two main roads cut through the property from Jus-katla, and several branch roads. The property lies on both sides of the Mamin River, which flows northeasterly across the claim. A north flowing tributary cuts through the west side of the surveyed area.

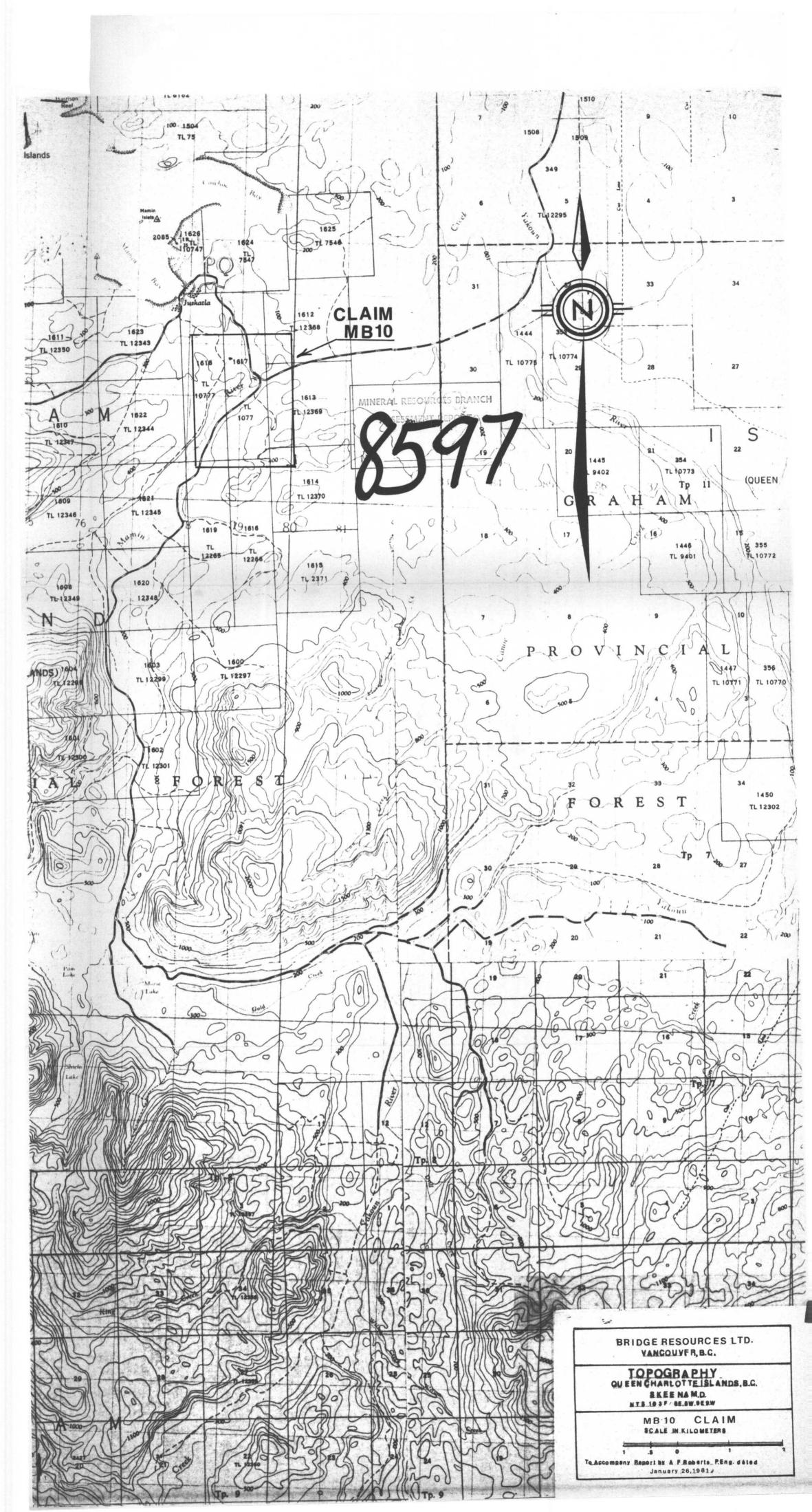
As these are active logging roads, permission to use them during working hours should be obtained from the offices of MacMillan-Bloedel in Juskatla, or from the Queen Charlotte City yard.

Topography is one of low relief, elevations ranging from 30 to 125 metres A.S.L.

The area is being actively logged, and the claim is covered by fresh and old slash, second growth, and some virgin timber.

Low sections of ground are swampy, especially near small flowing trickles. There is sufficient water on the property for diamond drilling and domestic purposes.

[Frontispiece]	Location Map: B.C. Road Map, 12 m. = 24 km	1]
[Follows page 1]	Road Map: MacMillan-Bloedel, 7/16" = 1 mile	2]
[Follows page 2]	Topographic Map: NTS 103F/9W 1:50,000	3]



CLAIM 4]

Name Units Record No. Expiry Date

M.B.10 20 862 December 20, 1980

Assessment work, of which this report is part, was filed for two years, bringing the expiry date to December 20, 1982.

The Legal Post was examined and found to fulfill the requirements of the Mining Act, as were other posts examined.

The <u>exact</u> location, and the area of the claim can only be determined by a legal survey.

HISTORY 5] 6]

There is no record of previous work being done on the claim.

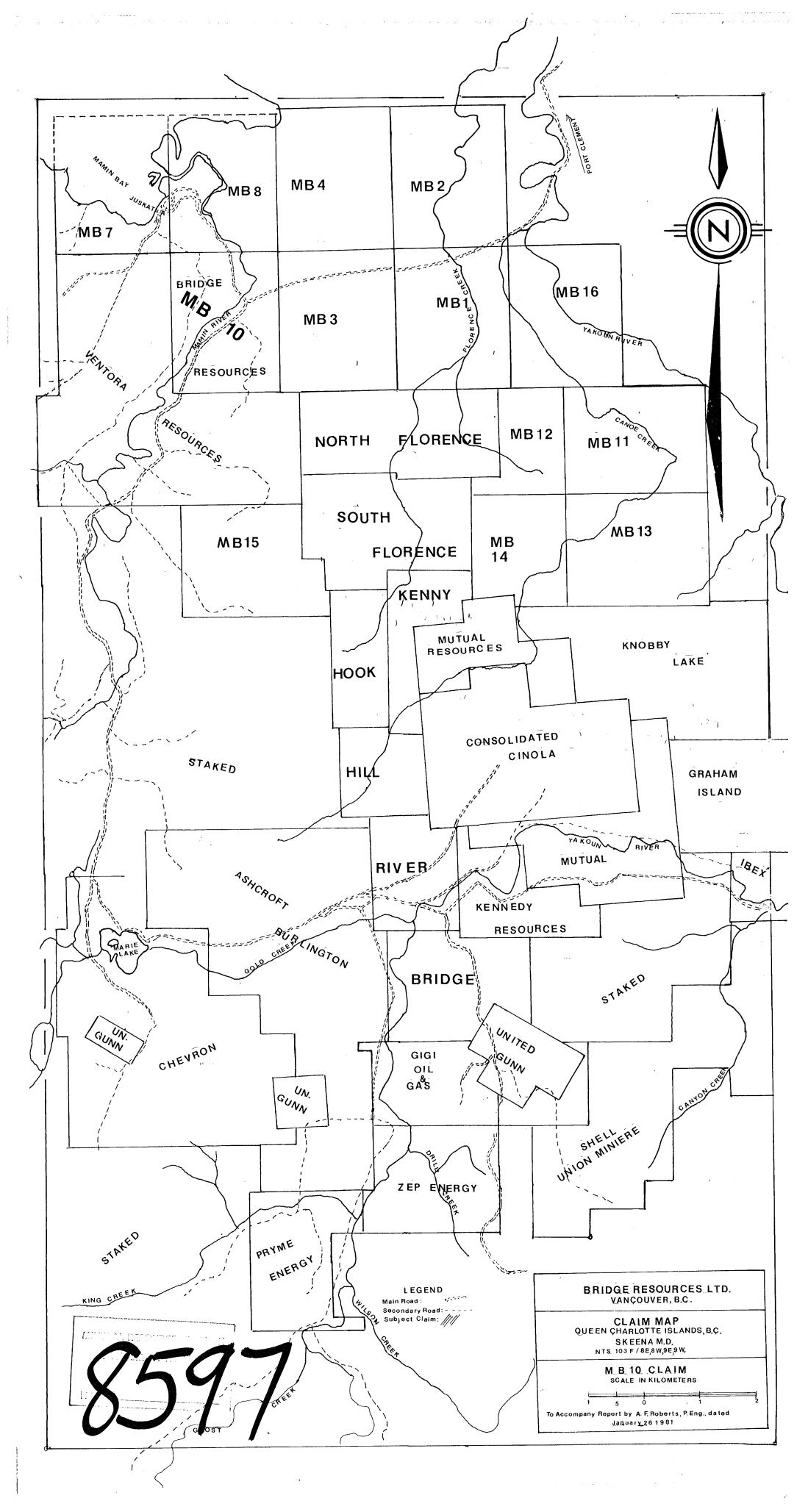
It was staked in 1979 during the rush following the successful drilling results on the Consolidated Cinola property, about 8 km to the south where several million tons of low grade ore have been drilled off, and production is contemplated.

A number of companies, including majors, are active in the area, and there are several diamond drilling programs in progress.

^{4]} Claim Map: 1:50,000 Derived from B.C.
Department of Mines & Petroleum Resources and other sources [Follows page 3]

^{5]} B.C. Department of Mines & Petroleum Resources, Bulletin 54, Geology of the Queen Charlotte Islands, B.C.; A. Sutherland Brown 1968

^{6]} History of the Queen Charlotte Islands, Vol. 11; K. Dalzell



GENERAL GEOLOGY, STRUCTURE 7] 8] 9]

In general, according to Bulletin 54, the property is underlain by the Paleocene Masset Formation consisting of sub-aerial basalt flows and breccias, rhyolite, ash flows, and dacite.

The NE corner of the claim is covered with Quatenary alluvium overlying Mio-Pliocene Skonun Formation consisting of sandstone, mudstone, and conglomerates.

Few outcrops were seen on the examination, and these consisted of rhyolite, rhyolite ash containing 1 mm pebbles, and minor brownish pyrite.

No structure was noted, nor indicated on the map.

It is possible that the Sandspit Fault or one of its strands pass through the property. It is thought that this fault is associated with the mineralization of the Cinola property.

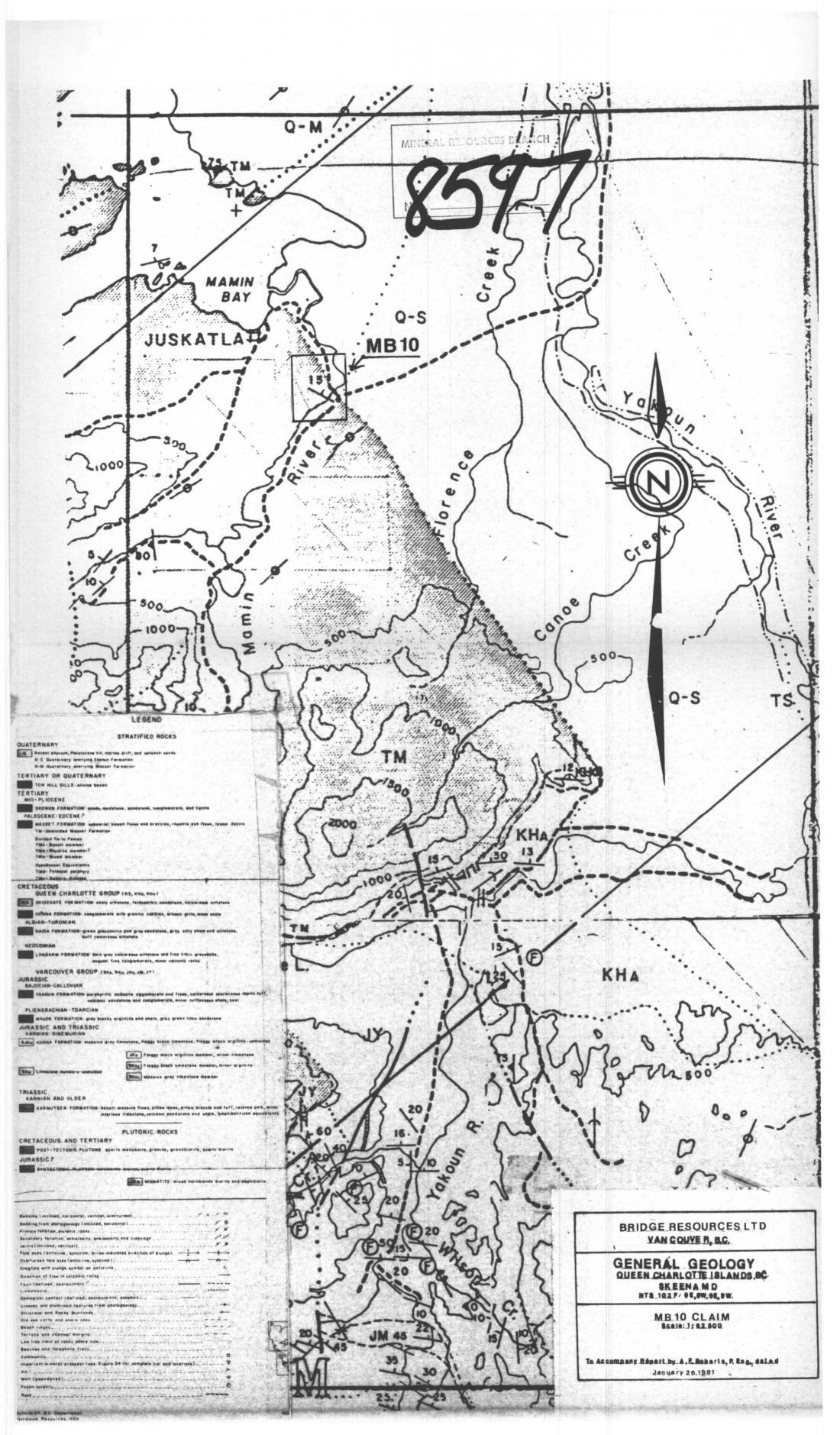
Gold is known on the Dome claims, Harrison Island, about $12~\rm km$ to the northwest, more or less on strike with the Sandspit fault or its strands. 10

^{7]} General Geology Map: Bulletin 54; 1:125,000 [Follows page 4]

^{8]} B.C. Department of Mines & Petroleum Resources, Babe Gold Prospect, Queen Charlotte Islands, B.C. [103F/9]; A. Sutherland Brown, T.G. Schroeter, 1977

^{9]} Reports and Drill Logs by A.F. Roberts, for Consolidated Cinola Mines Ltd., and other companies, 1977 to date

^{10]} Report on the Dome 1-4 Claims, Harrison Island, Queen Charlotte Islands, B.C., for Consolidated Kalco Valley Mines Ltd., A.F. Roberts, P.Eng., February 12, 1979



Rock samples taken by the writer from various parts of the Islands have assayed small uneconomic values in gold but <u>never</u> trace or blank. The inference is that gold occurs with pyrite, and is present in more than one type of rock. Free gold was seen on two occasions.

GEOCHEMISTRY 11] 12] 13]

The geochemistry program was carried out on a 100×50 metre grid. The eastern boundary of the claim was used as a base line, and the lines were laid out westerly from the base line.

The area covered was 2 units by 2 units, or 20% of the property area.

All samples were taken from the "B" horizon, stored in standard wet-proof kraft paper bags, and sent to Acme Analytical Labs Ltd. for analysis.

All samples were assayed for gold, silver, arsenic and mercury.

An attempt was made to correlate these assays with a previous program over part of the same area, on wide spaced north-south lines. As all sign of the previous work was gone, this could not be done. Also, in trying to line up the current work with the last work was unsatisfactory as too many of the past samples were taken in the "A" horizon, and the lines being of different spacings and directions.

^{11]} Plate E - Geochemistry, Gold, Arsenic
1 cm = 25 m. [Back Pocket]

Plate F - Geochemistry, Silver, Mercury 1 cm = 25 m. [Back Pocket]

^{13]} Appendix "A" - Assay Certificates
- Analysis Procedure [End of Report]

Gold

The background for gold is 5 ppb, the lowest value measured with the A.A. [1 ppb can be obtained using another method currently available at the same laboratory, but at additional expense].

Thirty-six samples assayed at from twice to four times background. That is, 17% of the total samples are considered anomalous. Seven of them occur as single spots. The balance occur in groups of two, with the following exceptions:

One 4-spot, Lines 15 - 25, 0 - 1+00W
One 3-spot, Line 55, 2+50 - 3+50W, and open to the south

The largest are 2-5 spot anomalies in the north-west corner of the map, open to the west, and to the north.

Arsenic

The values, as reported, are rather low, but not out of line with those of other work in this area. 12 ppm has been taken as a threshold value.

The best anomalous arsenic area is mostly coincident with the gold values in the northwest corner of the map, and involves an area extending from 6+00 west to 10+00 west, and from 5+00N to 3+00N.

Silver

Silves values are also low, and 0.3 ppm has been used as a threshold value against a background value of 0.1 ppm. 0.3 ppm is also the maximum assayed value in this program.

Most of these values are coincident with the gold anomalies, particularly in the northwest corner and on Line 5+00 south.

Mercury

Mercury, again, is low, so that 200 ppb is used as threshold and 300 ppb is considered anomalous.

A few of the anomalous areas are coincident with silver-gold anomalies.

The major exception is in the northwest corner anomalies where mercury is definitely lacking in expression.

In general, the geochemical anomalies indicate a north-south trend, with slight variations to both the east and west.

GECPHYSICAL VLF_EM 14] 15] 16] 17] 18]

The geophysical program was carried out over the same grid as the geochemistry. The readings were taken at 25 metre intervals on the east-west lines.

14]	Appendix B, Operating Instructions, Sabre Model 27, VLF-EM Fraser Filter Calculations	[End of	Report]
15]	Plate A, Plan, Dip Angle, 1 cm = 25 m .	[Back	Pocket]
16]	Plate B, Plan, Fraser Filter	[Back	Pocket]
17]	Plate C, Plan, Total Field	[Back	Pocket]
18]	Plate D, Plan, Cross Sections, Dip Angle, Fraser Filter, Total Field,		_
	1 cm = 25 m.	[Back	Pocket]

The instrument used was a Sabre Model 27, VLF-EM unit, Serial No. 103, made by Sabre Electronics Ltd., of Burnaby, B.C.

Seattle, Frequency 18.6 KHz, was the station used as a power source.

Plans were drawn of the Total Field, Dip Angle, and the calculated Fraser Filter values.

Cross sections were drawn of Dip Angle, Fraser Filter, and Total Field values on each of the 11 lines.

In the cross sections Line 5+00N shows six probable crossovers, four of which are negative, and two positive with corresponding high Fraser Filter values.

The Total Field is extremely high on this line up to 42% above a background of 50%.

Similarly, Line 4+00N matches the previous line, except the probable crossovers are only four in number, and the Total Field is lower.

From here south, the dip angle is generally negative with reduced Fraser Filter profile, and a generally negative Total Field.

The exception is on the west ends of Lines 3+005, 4+005, 5+005, where the crossovers are negative, with fair positive Fraser Filter and Total Field <u>values</u>.

In plan, the Dip Angle shows a northerly trend of all axis with a slight bias to the northeast. Contouring reveals rather broad flat areas both positive and negative, and low relief.

The Fraser Filter Plan shows a greater relief, the same general north to northeasterly trend in both positive and negative areas.

The Total Field plan on Line 5+00N shows a high of 93% at 5W+00 tapering off in both directions, the highs corresponding to a negative Filter area.

Similarly on Line 4+00N the high of 83% occurs at 5+00%, and a single 80% at 2+75%, again in a negative Filter area.

Generally, the Total Field areas decrease southerly until at Line 2+005 they start to rise again, to a maximum of 72% on the west end of Line 5+005 [9+00W], from east to west, with the highest readings being in low positive or negative filter areas.

CONCLUSIONS

It is unfortunate that the current exploration program could not confirm the results of the previous program, as stations could not be located in the field.

The current program has indicated a north to northeasterly trend to underlying structures.

The gold-arsenic values are low but consistent

with the values found in the previous program, and show a similar strike trend.

The best gold-silver-arsenic anomalies are in the northwest corner of the map area.

This area is also coincident with low positive Fraser Filter areas, or close to them.

The gold-silver anomaly in the southwest corner is also considered fair, as it ties in with fair Fraser Filter anomalies.

Total Field in the area of these anomalies is in the order of 10% to 25% above background. The high readings in the centers of the two northerly lines have no known cause.

The four-spot gold anomaly on Lines 1+00S and 2+00S on the east boundary should be followed up.

Geological mapping of the property would help in defining anomalous areas and the effect of drainage patterns.

RECOMMENDATIONS

Continue the geochemical-geophysical exploration program to cover the remaining 16 units, but take the soil samples on the 25 metre spacing.

Map the surface geology of the property using the geochemistry lines as control.

ESTIMATED COSTS

Phase I

Contractor's estimate - \$1,750.00/unit 16 units	\$ 28,000.00
Geological mapping, reports, maps, etc.	5,000.00
Sub-total	33,000.00
15% contingencies	4,950.00
Total	\$37,950.00

Say \$38,000.00

<u>Phase II</u>

With success in Phase I, Phase II will consist of trenching and diamond drilling and can be expected to cost in excess of

\$150,000.00

Respectfully submitted,

A.F. Roberts, P.Eng., January 26, 1980

at Artuto



CERTIFICATE

I, A.F. Roberts, of 812 Fairbrook Crescent, Richmond, British Columbia, do hereby certify that:

- l] I am a graduate of the University of British Columbia, B.Ap. Sc., in Mining Engineering, 1951.
- 2] I am a Registered Professional Engineer of the Province of British Columbia; and am a Member of the Canadian Institute of Mining and Metallurgy.
- I have practiced my profession since 1951, with Quatsino Copper-Gold Mines Ltd., Giant Mascot Mines Ltd., Cochenour-Willans Gold Mines Ltd., Mogul Mines Ltd., Kerr-Addison Gold Mines Ltd., Atlantic Coast Copper Corporation Ltd., Wasamac Mines Ltd., Brenda Mines Ltd., and T.C. Explorations Ltd.

Since January 1970, I have been an independent Consulting Engineer.

Previous to, and during University, I worked underground as a miner, and on several exploration-development projects.

- 4] The accompanying report is based entirely on my personal examination of the property December 1-10, 1980 and on material referred to in the text.
- I have no interest, direct or indirect, in the Bridge Resources Ltd., nor have I any interest, direct or indirect, in any companies with whom the Company may be associated. I have not, nor do I expect to receive any interest in the shares of any company, in its securities, or any company with which it may become associated.
- 6] I consent to the use of this report in, or in conjunction with, a prospectus, or a statement of material facts, relating to the raising of funds for this project.

DATED at Vancouver, British Columbia this twenty-sixth day of January, 1981.

A.F. Roberts, P.Eng.

A. F. ROBERTS, P.ENG.

APPENDIX A

ASSAY CERTIFICATES
ASSAY PROCEDURES



· 2

To: Strato Geological Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

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

phone: 253 - 3158

File No. 80-1578

Type of Samples __ Soils

GEOCHEMICAL ASSAY CERTIFICATE

Disposition_____ MB - 10 SAMPLE No. Au Αq As Hg L3N 7+50 .015 4 .3 .040 1 8+00 .090 .010 12 2 . 1 3 8+50 .005 . 1 16 .120 .005 .3 9+00 18 .115 4 9+50 .005 . 1 .050 5 L3N 10+00 .005 .1 .090 6 L4N 8+00 8 .010 .3 14 .105 9 8+50 .010 . 1 18 .090 9+00 .005 . 1 18 .105 10 .015 9+50 . 1 17 .120 11 L4N 8 .120 10+00 .010 12 13 8+50 .200 .005 14 9+00 . 1 2 010 .130 15 9+50 .3 020 6 .075 16 . 2 L5N 10+00 .015 .140 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

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DETERMINATION:....

DATE SAMPLES RECEIVED Dec. 24, 1980

DATE REPORTS MAILED **6**, 1981

ASSAYER



To: Strato - Geological Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6 phone: 253 - 3158

File No. 80-1542

Type of Samples __Soil____

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GEOCHEMICAL ASSAY CERTIFICATE

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DETERMINATION:	ASSAYER ())
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To: Strato - Geological Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

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

phone:253 - 3158

File No. __80-1542

Type of Samples __Soil___

TE Disposition_____

GEOCHEMICAL ASSAY CERTIFICATE

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****	4+50	Р	.005	.1	2	.080									34
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ΑII	reports	are	the	confidencial	property	of	clients
ΑII	results	are	in P	PM.			

DETERMINATION:....

DATE SAMPLES RECEIVED Dec. 9, 1980

DATE REPORTS MAILED_Dec. 22, 1980

ASSAYER



To: Strato Geological Ltd., 800 - 543 Granville St., Vancouver, B.C. V6C 1X8

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6 phone: 253 - 3158

File No. 30-1578

Type of Samples Soils

GEOCHEMICAL ASSAY CERTIFICATE Disposition_

MB - 10

110	- 10											
	S AMPLE No.		Au	Ag	As	Hg						
BL2	2 L1 0+00 0+25 E 0+50 E 0+25 W L1 0+50 W		.005 .005 .005 .005	.2 .3 .3 .2	6 17 6 5	.235 .280 .140 .150 .160						1 2 3 4 5 6
BL2	L2 0+00 0+25 E 0+50 E 0+25 W		.005 .010 .005 .005	.2 .1 .2 .2	2 7 2 4 3	.275 .270 .200 .240 .270			•			7 8 9 10 11 12
	L1S 8+00 8+50 9+00 L1S 9+50	ļ ,	.005 .005 .005 .005	.1 .1 .1	12 12 13 7.	.150 .135 .105 .085		The second secon		The second secon		13 14 15 16
	L3S 9+00 9+50 L3S 10+00		.005 .005 .005	.4	2 1 4	.035 .045 .030					† †	17 18 19 20 21
	L0 7+50 8+50 9+00 9+50 L0 10+00		.005 .005 .005 .005	.1 .1 .1 .1 .2	6 13 2 1 3	.090 .150 .135 .065 .045						22 23 24 25 26 27
	L1N 8+50 9+00 9+50 L1N 10+00		.005 .005 .005 .005	.1 .3 .2 .2	5 2 1 1	.030 .195 .035 .100	e e e e e e e e e e e e e e e e e e e				· · · · · · · · · · · · · · · · · · ·	28 29 30 31 32
	L2N 6+00 6+50 7+50 8+00 8+50 9+00 9+50 L2N 10+00		.005 .005 .005 .005 .005 .005 .005	.1 .1 .3 .2 .3 .1	14 16 13 17 18 15	.090 .110 .190 .090 .175 .125 .120 .095						33 34 35 36 37 38 39 40

ΑII	reports	are	the	confidencial	property	ot	clients
All	results	are	in P	PM.			
010	COTION						

DETERMINATION:....

* P = -20 mesh and pulverized.

DATE SAMPLES RECEIVED Dec. 24, 1980

DATE REPORTS MAILED ___ Jan_ 6, 1981

ASSAYER



To: Strato - Geological Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6 phone: 253 - 3158

File No.	<u>80-1542</u>
----------	----------------

Type of Samples __Soil____

GEOCHEMICAL ASSAY CERTIFICATE

Disposition_____

S AMPLE No.	Au	Ag	As	Hg							
5S 7	.00!		1	.110	<u></u>						
7+50	.00		3	.120	:	•	1				
8	.009	5 .1	1	.180							
5S 8+50	.010		1 . 1	.210	· :		•				
5N 0+00	001		1	100			·				
0+50	.009		1	.190				*	1	ļ	
1	.00		1	.270	i r	•	:				
1+50	.005		7	.180							
2	.010		, 1	.180							
2+50	.009		2	.160						į	
3 3+50	.005		1	.120		:	* * * * * * * * * * * * * * * * * * * *				
4	.005		2	.260		**************************************					• • • • • • • • • • • • • • • • • • • •
4+50	.005		5	.240					* *****		
5	.005	.1	4	.160	-	de commerce e maner a					
5+50	.005		5	.140		•	.1				
6 6+50	.020		16	.130							.
7	.005		6	.110		f	:	•			
5N 7+50	.010		11	.150			1				
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ΑII	reports	are	the	confidencial	property	of	clients
ΑII	results	ar e	in P	PM.			
D.O	FOTION.						

DIGESTION:....

DETERMINATION:....

DATE SAMPLES RECEIVED Dec. 9, 1980

DATE REPORTS MAILED Dec. 22, 1980

ASSAYER



2

To: Strato - Geological Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6 phone:253 - 3158

File No.	80-1542

Type of Samples Soil

GEOCHEMICAL ASSAY CERTIFICATE

Disposition_____

SAMPLE No.		Au	Ag	As	Hg						
1N 1+50 2 2+50 3 3+50 4 4+50 5	P	.005 .005 .005 .005 .005 .005	.1 .1 .3 .2 .3	2 1 2 2 1 4 1	.280 .160 .160 .300 .180 .190 .150						1 2 3 4 5 6 7 8
2S 0+00 1 1+50		.005 .010 .005	.1 .1 .1	2 1 1 3	.210 .260 .190 .160				: : : : : :		9 10 11 12 13
2 2+50 3 3+50 4		.005 .005 .005 .010	.2 .2 .2 .1	1 4 3 1 2	.160 .170 .220 .240 .070					1	14 15 16 17 18
4+50 5 5+50 6+50 7		.005 .005 .005 .005	.1 .1 .2 .2	2 1 1 1 2	.180 .090 .060 .150		: :		· · · · · · · · · · · · · · · · · · ·		19 20 21 22 23
2S 7+50 2N 0+00 0+50 1	P	.005 .005 .005	.1 .1 .1	3 4 3 5	.100 .190 .150 .165		•				 24 25 26 27 28
1+50 2 2+50 3 3+50	P	.005 .005 .005 .005 .005	.2 .2 .1 .1	1 8 1 1 2 2	.120 .130 .070 .100 .120 .180			· · · · · · · · · · · · · · · · · · ·			 29 30 31 32 33 34
4+50 2N 5	P	.005	.1	1 3	.070	 		1	i		 35 36 37 38 39

ΑII	reports	are	the	confidencial	property	of	clients
ΑII	results	are	in P	PM.			
DIG	ESTION:	•					

DETERMINATION:....

DATE SAMPLES RECEIVED—Bee - 9 - 1980 ---DATE REPORTS MAILED Dec. 22, 1980

ASSAYER

To: Strato - Geological Ltd., Mineral Exploration Contractors, 800 - 543 Granville St.,

Vancouver, B.C. V6C 1X8

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

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

phone:253 - 3158

File No. __80-1542

Type of Samples __Sojl____

GEOCHEMICAL ASSAY CERTIFICATE Disposition.

1	S AMPLE No.		Au	Ag	As	Hg				 . "				
·	BL2 L3 0+25 E 0+50 E 0 0+25 W BL2 L3 0+50 W		.005 .005 .005 .005 .005	.1 .2 .1 .2	1 1 1 4 2	.280 .240 .270 .200 .180		· · · · ·	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					1 2 3 4 5
	BL2 L4 0+25 E 0+50 E 0 0+25 W BL2 L4 0+50 W		.005 .005 .010 .010	.1 .1 .2 .1	1 1 3 1	.200 .210 .200 .210 .200								7 8 9 10 11 12
	0N 0+00 1 1+50 2		.005 .005 .005 .005	.3	1 7 3	.200 .180 .230 .310	- Marine Marine			en e	 		 	13 14 15 16
	2+50 3 3+50 4		.005 .005 .005	.1 .1 .1 .2	1 1 1	.170 .350 .110								17 18 19 20
	4+50 5 5+50 6	P	.005 .005 .010	.1 .1 .1 .2	1 1 1 2	.110 .150 .075	·· · · · · · · · · · · · · · · · · ·		 			•		21 22 23 24
	oN 6+50 1S 0+00 0+50	P	.010	.1	1	.335						•		25 26 27 28
3• .	2 2+50	P P	.010	.1 .1 .1 .1	8 1	.140		10 Miles (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						29 30 31 32
	3+50 4 1S 5+50	P	.005 .005 .005	.1 .1 .1 .1	1 1 1	.135 .245 .110 .095								33 34 35
	1N 0+00 0+50 1N 1		.005	.2	1 1 1	.240 .110 .245			· · ! ·					36 37 38 39 40

ΑII	reports	are	the	confidencial	property	of	clients				
ΑII	results	are	in P	PM.							
DIGESTION:											

DETERMINATION:....

P = -20 mesh and pulverized

DATE SAMPLES RECEIVED__Dec_9_1980__

DATE REPORTS MAILED Dec. 22, 1980

ASSAYER

ACME ANALYTICAL LABORATORIES LTD. 852 E. Hastings St., Vancouver, B.C. V6A 1R6

Phone: 253-3158

Geochemical Analysis of Ag, As and Hg

Sample preparation

Soil samples are dried at $75^{\circ}\mathrm{C}$ and sieved to -80 mesh. Rock samples are ground to -100 mesh.

Digestion

A .50 gram sample is digested with dilute aqua regia in boiling water bath and diluted to 10 mls with demineralized water.

Determination

Ag and As are determined by direct reading ICP emission spectrometer. Hg is determined by cold vapour AA using F & J scientific Hg assembly. An aliquot is add to stannous chloride-hydrochloric acid solution. The reduced; Hg is carried by bubbling air through the solution and passed into the Hg cell determined by AA.

Geochemical Analysis of Au

Digestion and extraction

A 10 gram sample which has been ignited over night at 600°C is digested hot with dilute aqua regia, and the clear solution is extracted with Methyl Isobuthyl ketone.

Determination

Au is determined by AA from the MIBK extractant with background correction.

APPENDIX B

OPERATING INSTRUCTIONS

SABRE MODEL 27 VLF-EM UNIT
FRASER FILTER CALCULATIONS

Instruments Led.

4245 LAST HASTINGS STREET

TELEPHONE: 201-1017

SABRE MODEL 27 VLF-EM RECEIVER

The model 27 EM unit was designed originally for a large Canadian mining company to overcome the deficiencies inherent in existing units.

The instrument is so stable and selective that completely reliable measurements can be made on distant stations without interference from nearby powerful transmitters. Stability and selectivity are especially important when making field-strength measurements, which are now being emphasized as a means of locating conductors.

This EM receiver is very compact, requires no earphones or loudspeakers and is housed in a heavy scotch saddle leather case. All of these features add up to make an ideal one-man EM unit of unexcelled electrical performance and mechanical ruggedness. SPECIFICATIONS

Source of Primary Field - VLF radio stations (12 to 2), KHz.) Number of Stations - 4, selected by switch; Cutler, Main on 17.8 KHz. and Seattle, Washington on 18.6 KBz. are standard, leaving 2 other stations that can be selected by the user.

Types of Measurement

- 1. Dip angle in degrees, read on a meter-type inclinometer with a range of + 60° and an accuracy of + 2°.
- 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.

SABRE MODEL 27 VLF-EM RECEIVER - (Continued)

Dimensions and Weight

Approx. 93" x 23" x 83"; Weigha 5 lbs.

Pattorios

8 alkaline penlite cells. The instrument will run continuously on 1 set of batteries for ever 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.

SELECTION OF STATIONS:

The stations are selected by the switch on the control panel, with the following abbreviations being used;

C = Cutler, Maine. Frequency = 17.8 Khz. S = Seattle, Wash. Frequency = 18.6 Khz. A = Annapolis, Md. Frequency = 21.4 Khz. Frequency = 23.4 Khz.

The two most useful stations are Cutler and Scattle and these will be used almost exclusively. Note that Scattle is off the air for several hours on Thursdays for maintenance (between 10 A.M. and 2 P.M. usually). Cutler is off the air for the same length of time every Friday.

If Equipment fails to operate:

- (a) Check that station is transmitting (see above). If one station appears to be dead, check another one to see if it is operating normally.
- (b) Check batteries. If they read low or the reading begins to drop after the test button is held down for a few seconds, replace them. Note also that there are 8 batteries in the instrument and they cannot be individually checked by the test button. If the batteries have been in the unit for a long time it is possible that one is dead or very weak but that the total voltage indicated by the test button is near normal. It is cheap insurance to instal new batteries before starting a big survey.
- (c) If unit still fails to operate check that battery connectors are tight, then check wiring of battery connectors for breaks or damage.

VLF-EM OPERATING INSTRUCTIONS

The equipment is operated in the usual way as follows:

- 1. With the instrument held horizontal in front of you, turn around until a null appears on the field strength meter. You should now be facing the station.
- 2. With the receiver still facing the station, lift it to the vertical position and rotate it slightly in the vertical plane to your right or left until the best null appears on the field strength meter. 'Record the angle on the inclinometer at which the null appears. This is the DIP ANGLE (Positive or negative).
- 3. Return the instrument to the horizontal plane and turn around until the field strength meter is at its maximum reading. Set this maximum reading at 100 on the meter and record the reading on the gain control dial. This is the Field Strength Reading.
- 4. Repeat stops 1, 2 and 3 at each station.
- 5. To test the batteries turn the power switch on and push the test button. The field strength meter should read above the red mark. Battery life is approximately 200 hours and if the instrument is turned off between readings, the batteries should last for an entire season.

NOTE: An alternative way of measuring field strength is as follows:

Proceed as in step 3, setting the meter to 100. Now push the field strength button (marked FS) and the meter will read 50. (If it doesn't, adjust the gain control slightly). Leave the Gain Control setting where it is and take comparative Field Strength readings at each station by pressing the Field Strength button and recording the meter reading, which will vary from its Base Station Reading as you pass over conductive zones.

OPERATING INSTRUCTIONS SABRE VLF-EM RECEIVER

INTRODUCTION:

The VLF-EM method utilizes electromagnet field transmitted from radio stations in the 15-25 K Hz range. The signals are propagated with the magnetic component of the field being horizontal in undisturbed areas.

conductivity contrasts in the earth create
secondary fields, producing a vertical component and changes in
the field strength or amplitude. These conductive areas may
be located, and to a degree, evaluated by measuring the various
parameters of this electromagnetic field.

The Sabre VLF-EM receiver is tuned to receive any 4 transmitter stations: usually C-Cutler Maine, S-Seattle, H-Hawaii and P-Panama.

The station used in the survey should be selected so; that the direction of the signal is roughly perpendicular to the direction of the grid lines which, in turn, should be laid out perpendicular to the regional strike.

MEASUREMENTS:

The Sabre VLF-EM receiver can be used to measure the following characteristics of the VLF field.

- (a) Tilt angle of resultant field;
- (b) Field strength of (a) horizontal component of field
 (b) vertical component of field

Field Procedure

The following procedure should be followed to measure the dip angle of null and the field strength of the horizontal component of the VLF field.

Initial Field Strength Adjustment

Adjust the gain control to provide a suitable relative field strength measurement, as follows:-

- (a) hold receiver in horizontal position (meter faces horizontal) and rotate in a horizontal plane until a null is indicated on the F.S. meter; rotate 90° in this horizontal plane (F.S. meter reads maximum)
- (b) adjust fain control so that the F.S. meter reads 100
- (c) record gain control setting (000 to 999). Glose guard over gain control and do not readjust unless a major field strength occurs.

The above procedure should be carried out at the beginning of each day's survey and checked during the day.

Dip Angle Measurement Procedure

- 1. Hold receiver in horizontal position and rotate in the horizontal plane until a null is observed. This aligns receiver in the field and the operator should be facing southerly or easterly depending on transmitter location.
- 2. Bring receiver up to the vertical position (meter faces vertical) and rotate the receiver in the vertical plane perpendicular to the transmitter direction until a null or minimum reading is observed on the field strength meter.
- 3. Hold the receiver in this field strength null position and read the inclinometer in degrees. Record this dip angle of null along with sign (+ or -).

Horizontal Field Strength Measurement Procedure

- 1. Return receiver to the horizontal position.
- 2. Reestablish null bearing in horizontal plane.
- 3. Rotate receiver 90° in the horizontal plane.
- 4. Depress-damp push button switch and observe field strength meter reading for sufficient time to obtain an average F.S. meter reading. (depressed damp switch slows needle action and reduces meter reading by half. The reading will normally range around 50).
 - 5. Record F.S. reading.

Filtering Technoque For VLF-EM Dip Angle Data

The standard profile method of presenting dip angle data may be difficult to interpret. A filtering technique, described by D.C. Fraser 1969 (Geophysics, V.34 No. 6,P. 958-967) enables the data to be presented on a plan map with conductive areas defined by contours.

The following explains the calculation:-

Line	Station	Null.		Filter
8 N	O E	+ 3 -> +3	+4= +7~	
	1 E	+ 4<= +4	+4= +8	+7-(+10)= -3
	2 E	4 1		+8-(+13)= -5
	3 E	+ 6		+10-(+16)= -6
	4 E	+ 7	+16	. ~8
	5 E	+ 9	+21	-12
	6 E	+ 12	+ 28	+3
	7 E	+ 16	+18	+30
	8 E	+ 2	- 2	+32.
	9 E	- 4	-14_	+14
;	11 E	- 6	-16 -1= -7	-14-(-7)= -7
	12 E	- 1	•	

Fig. 1 is an example of a field sheet showing null angle reading, filtered reading and relative field strength. Fig. 2 shows the field sheet with filter card overlaid. The small window in the side of the card shows the four readings used to calculate the filtered reading, and an arrow showing that the filter reading is to be plotted between station 8E and 9E as indicated in fig. 1. The card is moved down the field sheet, one reading at a time as a guide while carrying out the filtering procedure. Throughout the survey care must be taken to ensure that the filtered data has the correct sign. The positive values only are plotted and contoured while for negative values, only the negative sign is plotted.

Crone suggests in instructions for the Radem VLF-EM, the use of N-S or E-W notation instead of (+ or -) signs, however for filtering a sign must be substituted.

The following convention may be used to ensure the correct sign of filtered data and provide a consistent crossover pattern when studying the profiled null angle data.

- 1. When taking a reading, always face southerly, on east-west lines, and always face easterly on north-south lines.
- 2. Record data on field sheets (top to bottom) as follows: on N-S lines record from south to north
 - : on E-W lines record from west to east
- 3. Plot and profile dip angle data on plan maps facing map north or map west.

The above convention will provide correct data regardless of the property location relative to the transmitter being used.

J.T. WALKER
MAY 17, 1974

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	2.5	+4	3	30	-
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	1.5	+7	6	57-	
	55	+9		52	
	63	+/2	-=-12	5 2	
	75	+16	-3	:60	
	8 8	+ 2	-1-32	65	17
	1.6	- 4	-+11	6.7-	XONES
-	10 E	-/2	7	50	
	11:5	- 6	15	48	
	126	- /		4%	
	145	+ 2	- 6	470	
	15 7	24	-=/	52	
	1:E	- 4/	76.	50	
	17:		113		Y OVER
	185	0	-/	55	
	10	+1		2.5	
	205	-/		-	
					the season we see sections

* Fig. 1 Example of Field Sheet

	Grin - 024 VLF-EM SURVEY				
	PROPERTY GARES TRANS SCOTTLE PAGE /. C LATOR INSTR. Source DATE MAY 4/74				
			Filter	J=. S.	
			3	50	
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(+18) - (-14)	= +32		-14-	118	
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		Section 1000			•

Fig. 2 Field Sheet with Filter Card Overlayed

STATEMENT OF COSTS

Assaying	\$1, 804 . 05
Labour	2,775.00
Room and Board	780.00
Drafting and supplies	500.00
E.M. Rental	60.00
Transportation, Truck Rental, etc.	743.00
Total	6,662.34

Employees:

- S. Novak
- A. Lawrence
- Y. Nadeau
- E. Bulatovitch
- R. Durance

The above data supplied by Strato Geological Ltd., Vancouver, B.C.

Engineer's Report

1,087.92

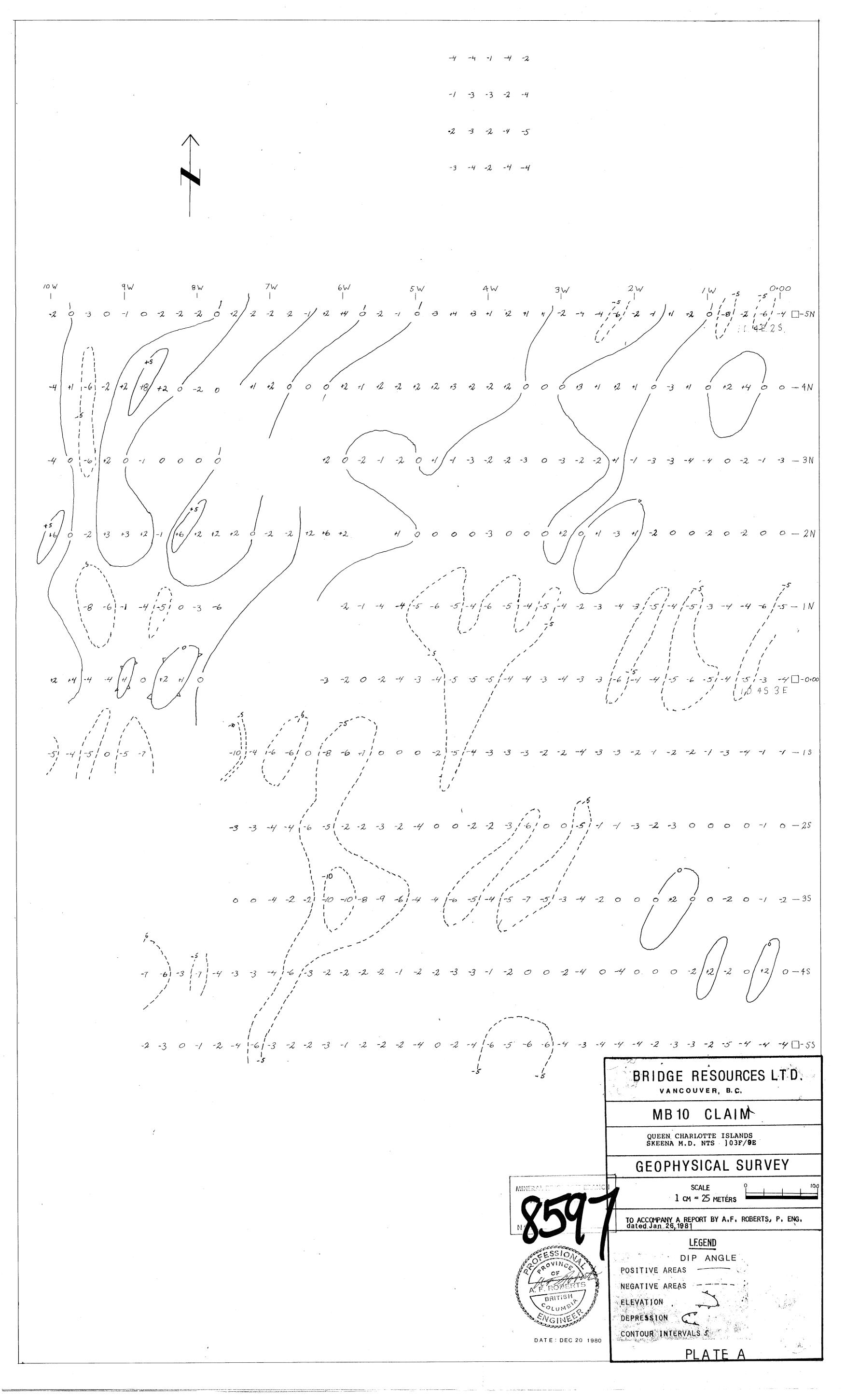
Total

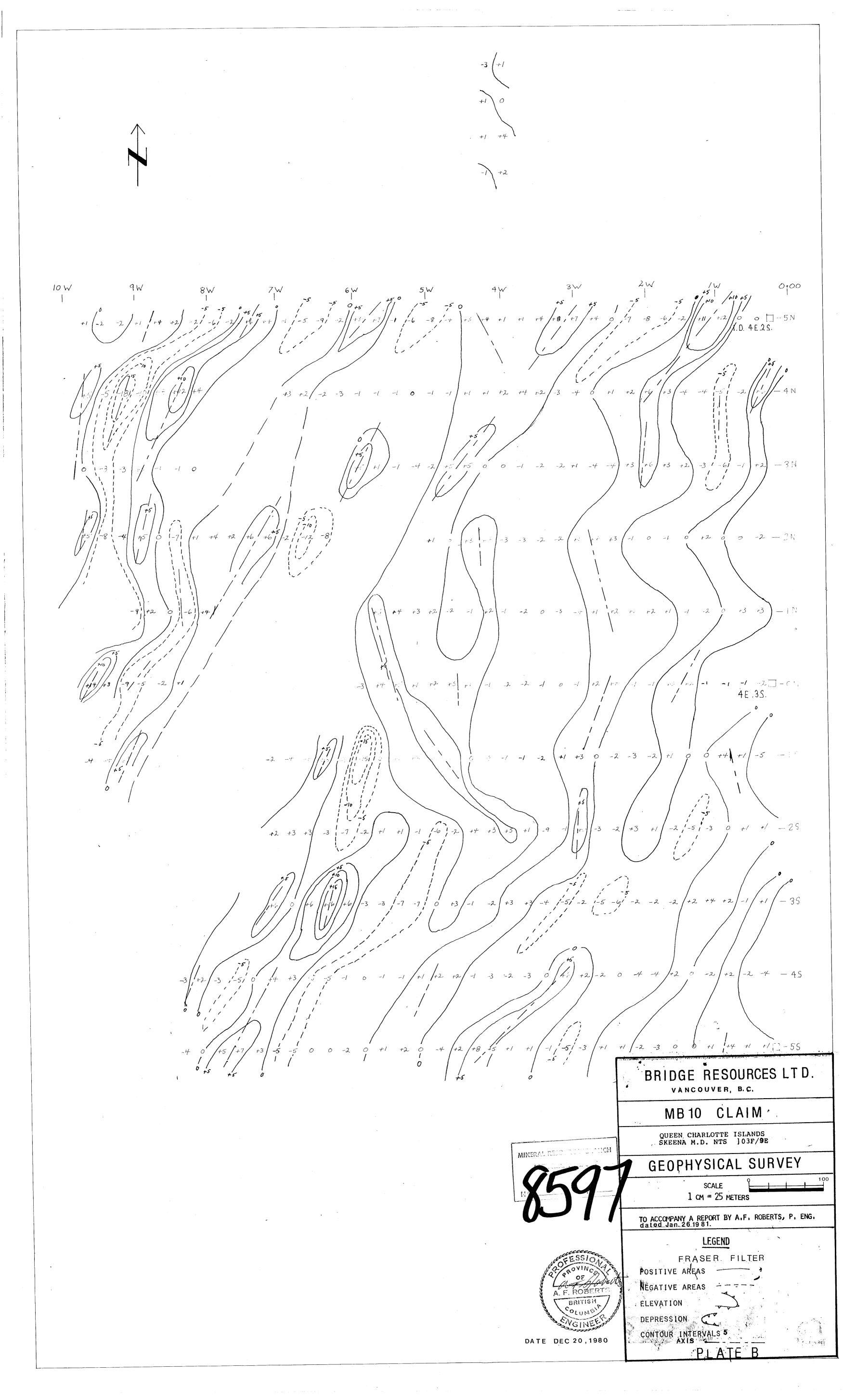
\$7,750.26

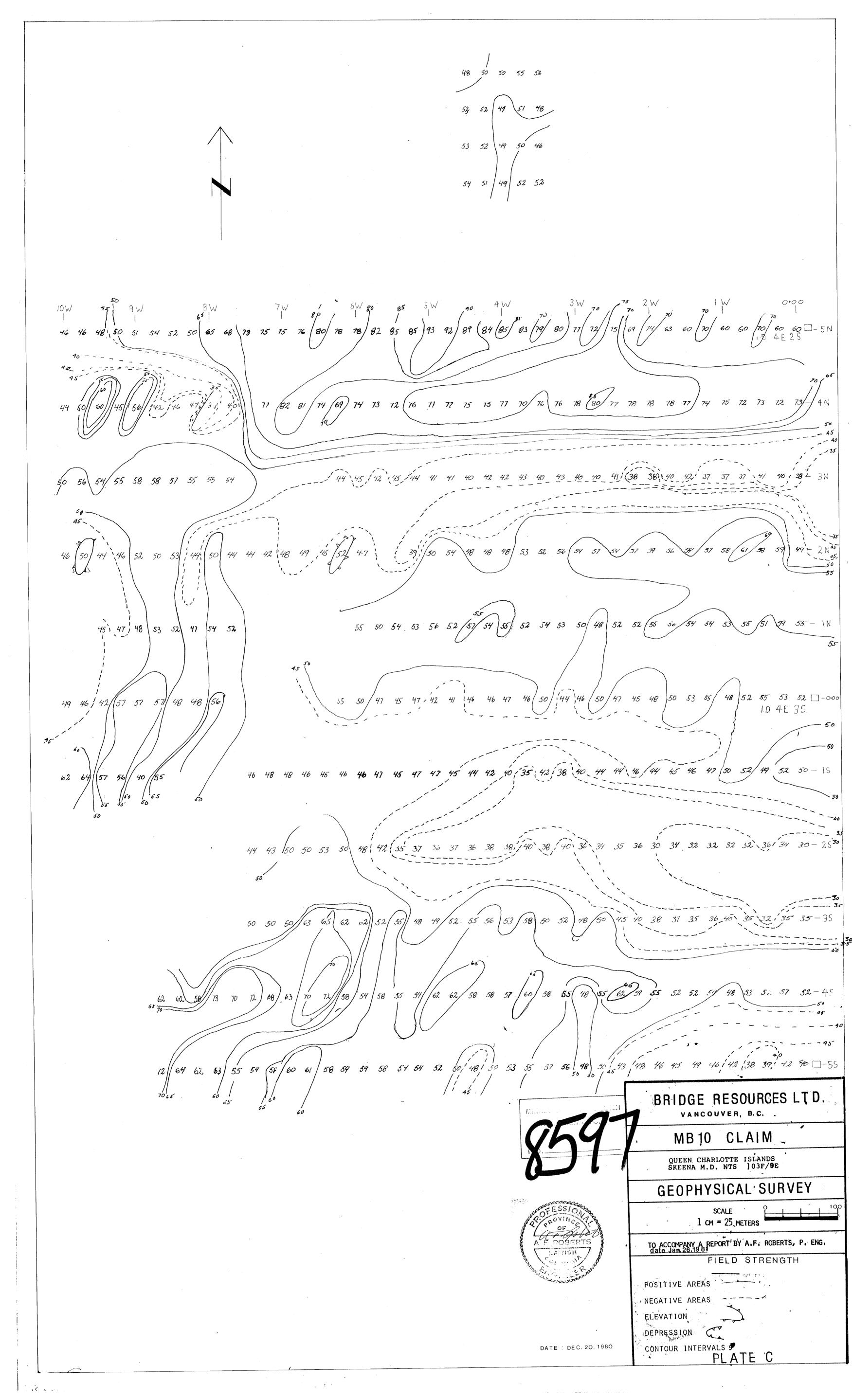
A.F. Roberts, P. Eng., January 26, 1981

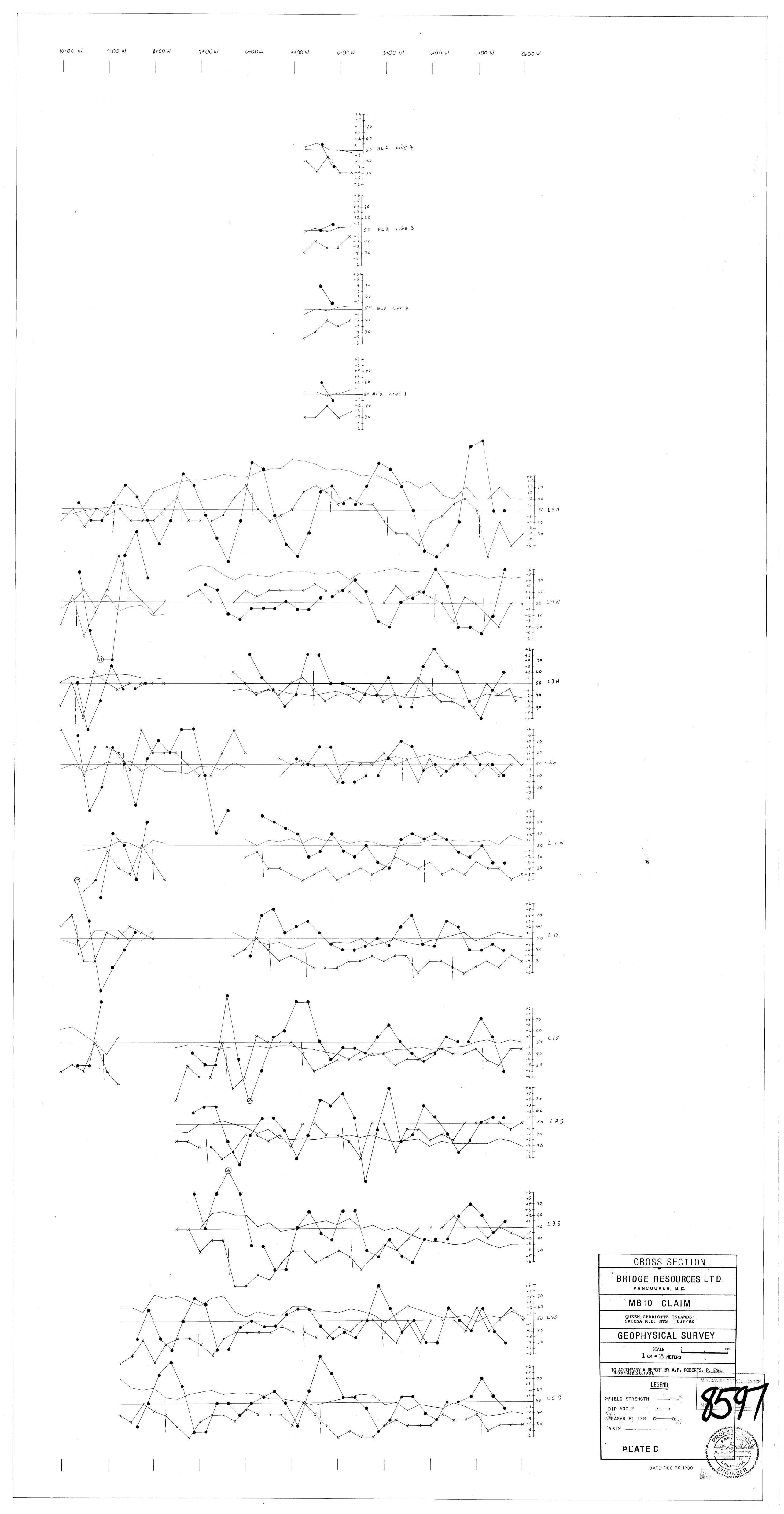
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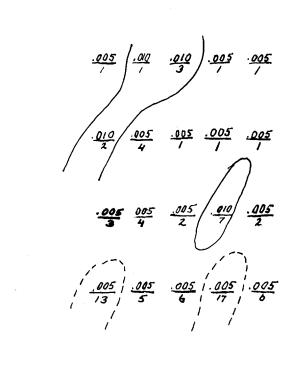


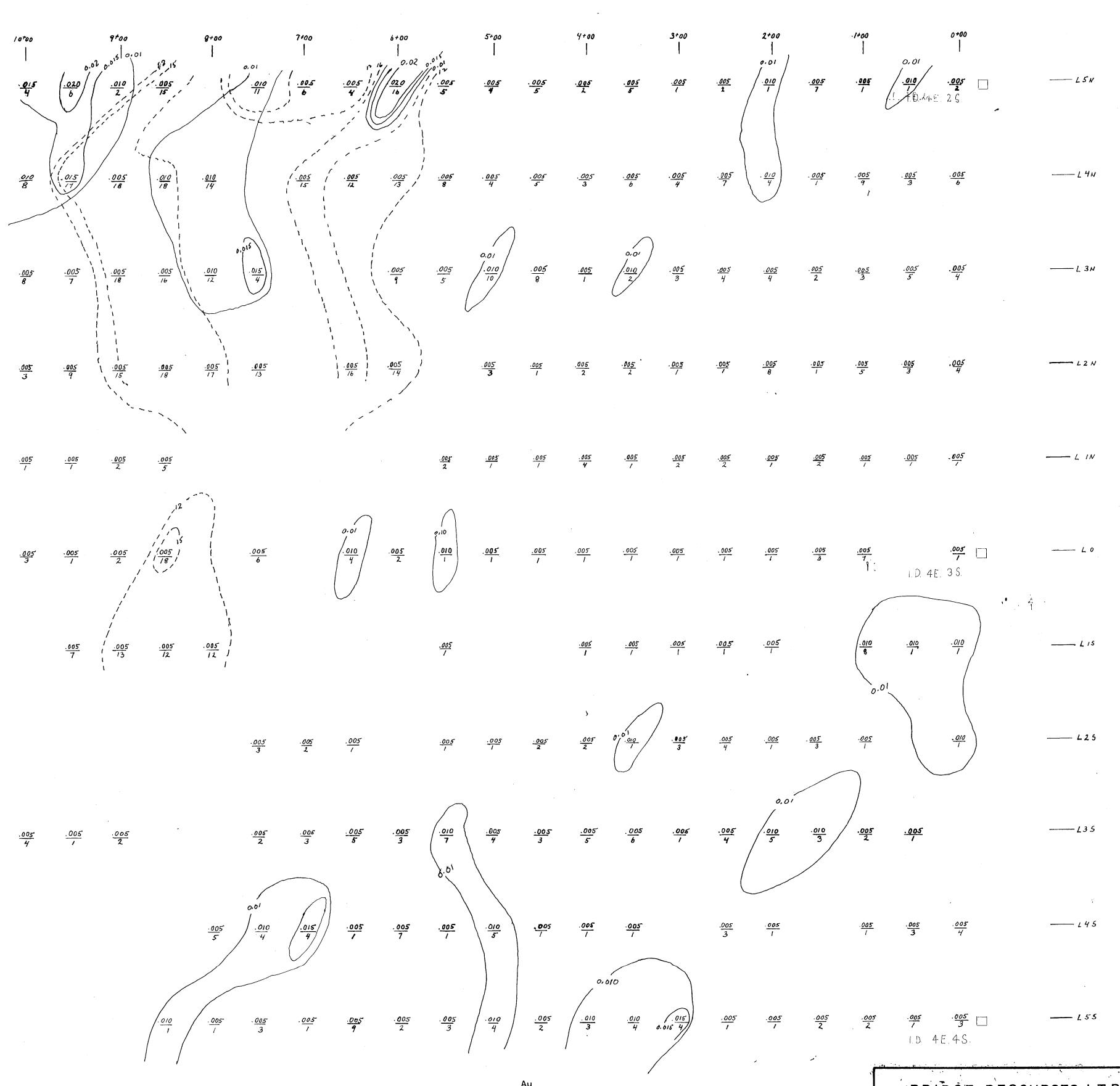












BRIDGE RESOURCES LT D.

MB 10 CLAIM

QUEEN CHARLOTTE ISLANDS SKEENA M.D. NTS]03F/9E

GEOCHEMISTRY SURVEY

SMAENT DE COMMENT DE C

ALILLIAL RESOURCES BRANCH

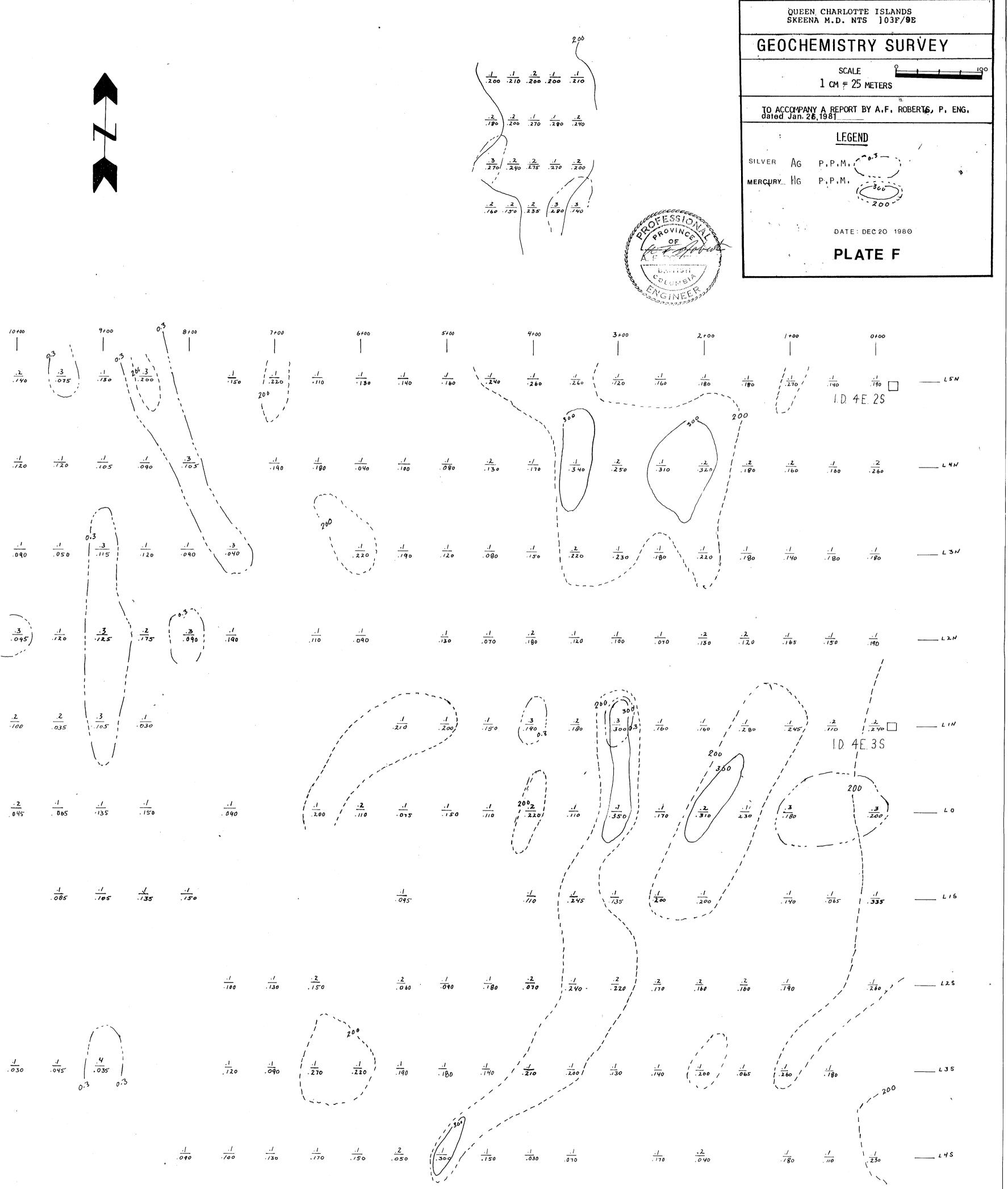
SCALE SCALE 1 CM = 25 METERS

TO ACCOMPANY A REPORT BY A.F. ROBERTS, P. ENG.

LEGEND

ARSENIC AS P.P.M.

PLATE E



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BRIDGE RESOURCES LTD.

VANCOUVER, B.C.

MB 10 CLAIM