

84-1091-13075

GEOLOGICAL AND GEOCHEMICAL
ASSESSMENT REPORT ON THE
BANK 14 AND BANK 25 CLAIMS
SKEENA MINING DIVISION

NTS 103-G-8/E

53°22'N 130°04'W

October, 1984

D. B. Petersen

Owner: D. K. Bragg, D. B. Petersen
Operator: Paramount Resources Inc.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,075

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1. Introduction

This report describes the field work that was done on the BANK 14 and BANK 25 claims from 17th September to 3rd October, 1984.

H. Bryan, P. Jones and R. Konst completed the first phase exploration programme of the claim that included line flagging, reconnaissance soil geochemistry and mapping and prospecting on the west side of the claim and a reduced programme of prospecting, soil sampling of gullies, and heavy mineral stream sampling on the east side of the claim.

Overall supervision of the field work was carried out by H. Bryan.

2. Location and Access

The BANK 14 and BANK 25 claims are located approximately 100km south of Prince Rupert, B. C. at approximate geographic co-ordinates $53^{\circ}22'N$, $130^{\circ}04'W$. NTS is 103-G-8/E. See Fig. 1, "Location Map".

Access is either by float plane from Prince Rupert or Sandspit to Waller Lake or by helicopter to numerous landing spots on the claims.

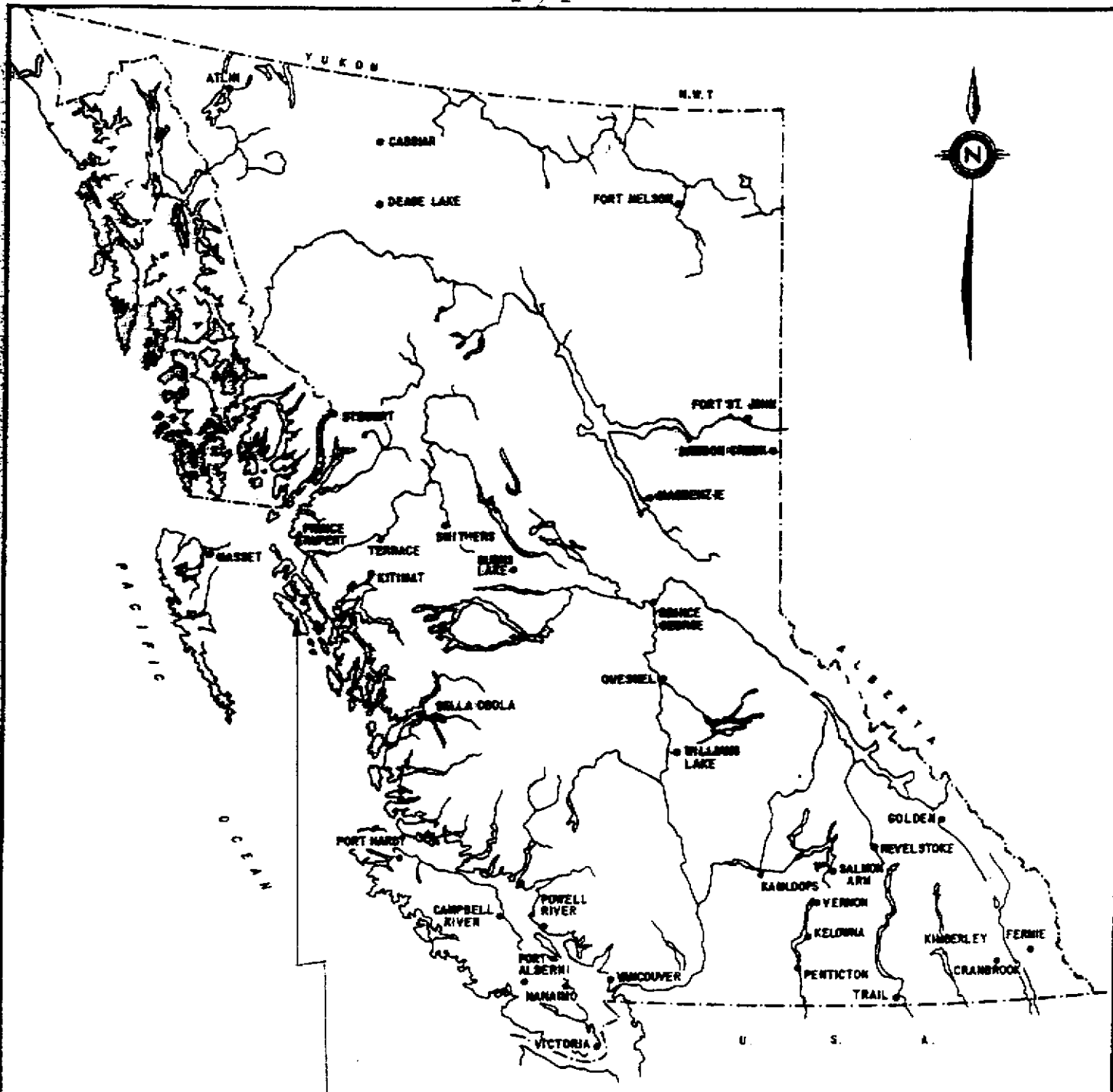
3. Topography and Vegetation

Elevations on the BANK 14 and BANK 25 claims vary from sea level to 300m a.s.l. One large hill is present on the property.

Vegetation consists of sparse conifers with short scrub undergrowth in some areas, and dense conifer growth in others.

4. Regional Geology

According to Jackson (1976), Banks Island lies within the Coast Crystalline Complex, a northwest trending, structurally controlled belt of rocks that extends with interruptions for 6,000km from the Aleutian Peninsula in the northwest to the Baja California peninsula in the southeast (Roddick, 1966).



BANK 14, BANK 25 Claims

SP Peterson

FIGURE 1

PARAMOUNT RESOURCES INC.
BANK 14, BANK 25 Claims
LOCATION MAP
<p>KILOMETRES</p> <p>0 100 200 300 400</p> <p>1:8,000,000</p>

4. Regional Geology (Cont'd)

The rocks comprising this belt vary in age from Cambrian through Tertiary and consist essentially of plutonic rocks of the Triassic and Cretaceous Eras enclosing remnants of older volcanic and sedimentary rocks.

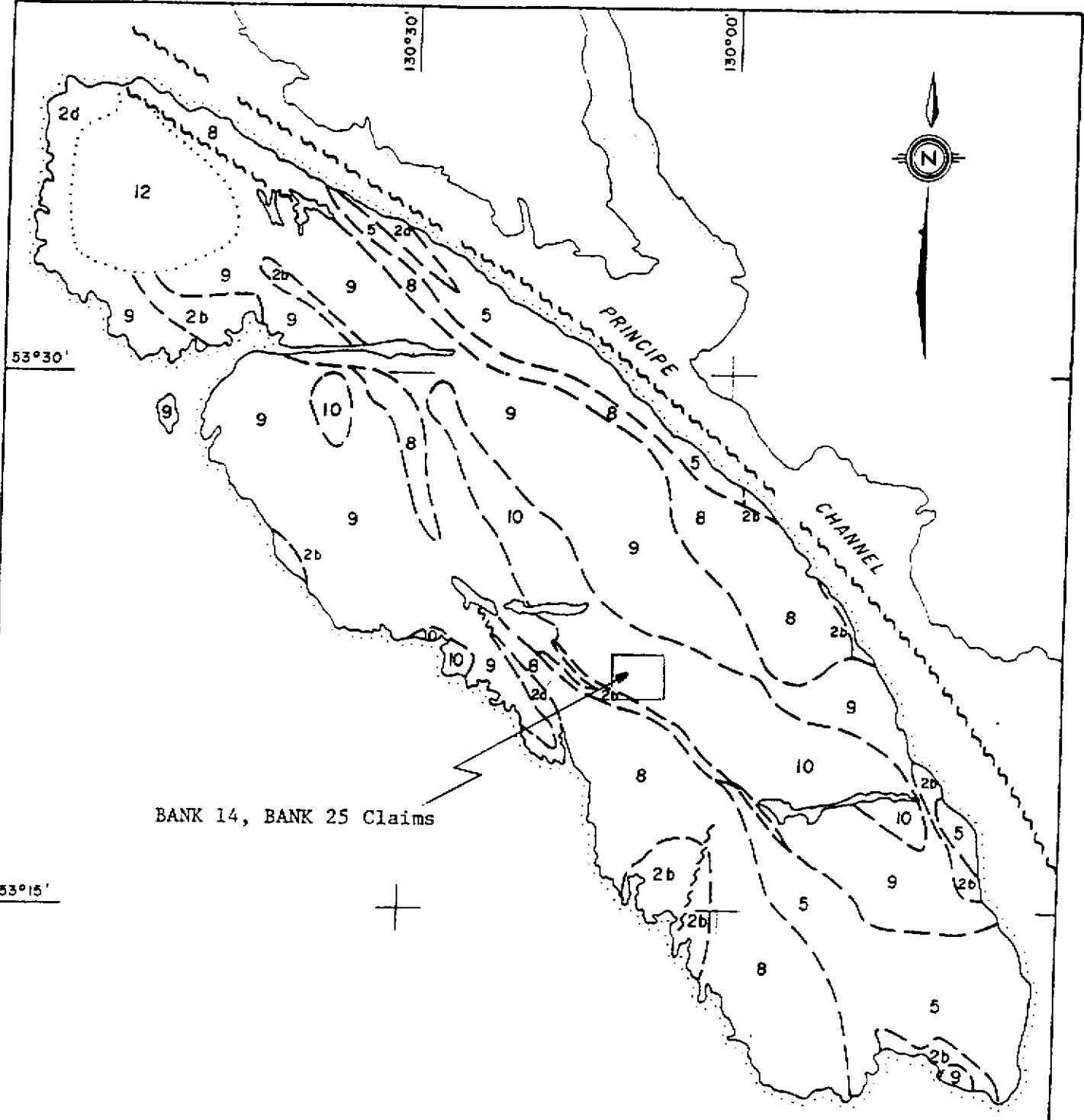
Economically the complex is important, hosting a variety of mineral producers such as the vein type Dolly Varden silver deposit, the Britannia Beach and Anyox copper-zinc deposits which various authors have described as being of volcanogenic origin, the porphyry type Alice Arm and Quartz Hill molybdenum deposits, the Bralorne-Pioneer gold district and numerous other mineral deposits of varying sizes and commodities.

5. Local Geology

As is typical of the Coast Crystalline Complex, Banks Island is characterized by two narrow belts of northwesterly striking metasedimentary and metavolcanic rocks that are surrounded by a mass of younger granitic rocks. See Fig. 2, "Banks Island Geology". These rocks display a northwesterly elongation parallel with the regional trend. Airphoto studies by Tate Blanchet (1983) have shown the degree of faulting and fracturing on the island to be extreme.

According to McLaren (1983), eleven separate gold deposits and occurrences have been found to the present time in the central part of the island. These are of two main types - bulk tonnage, and high-grade replacement deposits. Precious metal mineralization consists of native gold and silver in roughly equal amounts. Sphalerite, galena, chalcopyrite, molybdenite and pyrite may also be present.

All the known deposits are controlled by well developed faults and fracture systems in both the metasedimentary and the intrusive rocks,

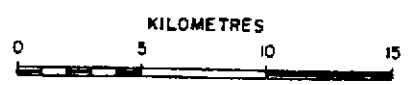


BANK 14, BANK 25 Claims

ROCK TYPES

- 12 ALLUVIUM
- 10 QUARTZ MONZONITE, GRANITE
- 9 GRANODIORITE
- 8 QUARTZ DIORITE
- 5 GNEISSIC DIORITE - MIGMATITE COMPLEX
- 2d CRYSTALLINE LIMESTONE
- 2b MICACEOUS QUARTZITE, SKARN, SCHIST

FIGURE 2
BANKS ISLAND
GEOLOGY



1:300,000

5. Local Geology (cont'd)

particularly in what is known as the "Kim" granite, a centrally located phase within the quartz monzonite core that is characterized by an unusually high density of fractures and hosts the bulk tonnage deposits. These appear to be controlled by faults and shears and to consist of a tabular shaped system of mineralized quartz veins and associated stockwork. The largest of the known deposits, the Kim zone, covers an area of approximately 400m by 20m.

6. History

In October, 1983, the BANK 14 claim was staked to the east of the Yellow Giant and to the north of the Koor claim to cover what was considered to be favourable ground. The BANK 25 claim was staked in September, 1984 to cover open ground between the BANK 14 and the YELLOW GIANT 8 claim.

There is no prior record of work on the BANK 14 or BANK 25 claims.

7. Work Done in 1984

H. Bryan, Geologist, P. Jones, Prospector/Sampler, and R. Konst, Geologist/Sampler spent a total of 46 man-days on the property, line flagging, geochemical soil sampling, prospecting, geological mapping and heavy mineral sampling from 17th September to 3rd October, 1984.

1. Line Flagging

One man-day was spent flagging 1,680m of east-west baseline from 0E to 1680E.

North-south grid lines were flagged at a nominal 200m separation with sample spacing of 25m along the lines.

7. Work Done in 1984 (cont'd)

2. Geological Mapping

Prospecting was conducted along the grids during the course of the geochemical soil sampling. Where alteration, mineralization and quartz veining indicated geological interest, H. Bryan (8 man-days) conducted follow-up detailed mapping and rock sampling along and between the lines.

The results of the mapping are shown on Fig. 3, "Geology".

3. Geochemical Soil Sampling

H. Bryan, R. Konst and P. Jones spent 31 man-days taking a total of 695 soil samples along the lines. Where outcrop exposure was more than 50%, the sample spacing was reduced.

As the B horizon is very poorly developed or is completely lacking, sampling consisted of taking a 50-50 mix of the A and C horizons and placing this in a brown Kraft paper bag marked with the co-ordinates of the station. Samples were sent to Vancouver to Acme Analytical Labs where they were dried at 60°C and sieved to -80 mesh. 10.0gm of the residue was ignited overnight at 600°C, digested with hot dilute aqua regia and the clear solution obtained extracted with Methyl Isobutyl Ketone. Au is determined in the MIBK extract by atomic absorption using background correction to 5ppb detection limit.

The results are shown plotted on Fig. 4, "ppb Au".

Heavy mineral sampling consisted of wet-screening to -10 mesh approximately 25kg of sandy material from the active part of the creek bed and panning this to an approximate ½kg concentrate. This was placed in a numbered plastic bag and sent to Acme Analytical Labs in Vancouver. There, the magnetite was removed by magnetic separation and the residue placed in

7. Work Done in 1984 (cont'd)

3. Geochemical Soil Sampling (cont'd)

bromoathne (sp gr 2.96). The sink product was crushed to -100 mesh and analyzed for Au using the atomic absorption method that was described above.

The results are shown plotted on Fig. 4, "ppb Au".

4. Reduced Programme

Six man-days were spent on a reduced exploration programme east of Waller Lake. This consisted of prospecting, geochemical soil sampling of gullies and heavy mineral sampling of suitable creeks. On the BANK 25 claim, the shoreline offered excellent outcrop exposure and was prospected along its length.

8. Results of Work Done in 1984

1. Geological Mapping

The mapping has shown that the property is underlain by granodiorite surrounding a core of quartz monzonite.

The granodiorite (unit 9) is massive in nature, grey in colour, and coarse grained. Its composition is approximately 15% quartz, 60% felspar, 10% hornblende, and 5% biotite. Generally, it is unmineralized.

The quartz monzonite is usually fresh, medium grained, light grey in colour, and is composed of quartz (35%), felspar (50%), biotite (10%), and hornblende (2%). Normally, it weathers positively and forms a large hill in the northwestern part of the property. It supports sparse vegetation.

Three northwesterly striking swarms of quartz veinlets that cut quartz monzonite are present in the western part of the property. The swarms are average 8m in width and can be traced for some 75m along strike. Typically,

8. Results of Work Done in 1984 (cont'd)

1. Geological Mapping (cont'd)

they consist of several parallel and sub-parallel quartz veinlets spaced approximately $\frac{1}{2}$ m apart. The veinlets are rarely more than 3cm wide and are surrounded by fresh quartz monzonite. Sericite enveloping is virtually absent around the veinlets.

The rock chip sampling may be summarized as follows:

<u>Sample No.</u>	<u>Type</u>	<u>Length</u>	<u>Rock Type</u>	<u>Remarks</u>
010E 1335N	float		QM	Py
600E 680N	float		QM	Py, Cpy
000E 1400N	float		GD	Ser, Qtz vn, Py
000E 1710N	float		QM	Py
370E 70N	chip	0.5	GD	Qtz vn, Py
1190E 1075N	chip	0.5	QM	Qtz vns
1190E 920N	chip	0.5	QM	Qtz vns
1425E 800N	chip	1.0	QM	Qtz vns
1400E 948N	chip	1.0	QM	Qtz vns
975E 1950N	chip	0.5	QM	Qtz vns
800E 1230N	chip	1.0	QM	Qtz vns
800E 1100N	chip	0.5	QM	Qtz vns
1000E 1120N	chip	0.5	QM	Qtz vns
1000E 1030N	chip	0.5	QM	Qtz vns

Qtz - Quartz Py - Pyrite
 QM - Quartz Monzonite Cpy - Chalcopyrite
 GD - Granodiorite Ser - Sericite
 Vn - Vein

8. Results of Work Done in 1984 (cont'd)

1. Geological Mapping (cont'd)

The results are plotted on Fig. 4. They show that the veins are virtually unmineralized.

2. Geochemical Soil Sampling

The results of the soil sampling show that the background level of the area is very low, 5ppb. One area of mild interest is evident at 300E 1,100N. Although the values are low, between 10 and 35ppb, the continuity over 4 lines (700m) is encouraging. Two other 2-line highs characterized by values in the 10 to 25ppb range are present at 100E 1,500N and 1,500E 1,100N. Several single station highs are present that, at the present time, do not indicate any trend.

The heavy mineral and soil sampling that was done in the reduced programme in the eastern part of the claim proved negative.

9. Conclusions

It is concluded that:

1. the results of the mapping, soil geochemistry and rock sampling have indicated a weak but persistent geochemical high centered at 300E 1,100N.
2. two other weak highs of much shorter strike length are present.
3. the reduced programme on the eastern portion of the claim has failed to reveal any areas of interest.

10. Recommendations

It is recommended that:

1. a three-phase follow-up programme be conducted on the area of geochemical interest.

10. Recommendations (cont'd)

This would consist of:

1. detailed soil geochemistry and geological mapping on a 100m x 10m grid.
2. geophysics (magnetometry, I.P.) over anomalous areas.
3. trenching, detailed mapping and rock sampling over anomalous areas.

This is expected to cost:

Phase I (300 samples) \$6,000

4. depending on these results, further work on the two minor anomalies and a comprehensive programme east of Waller Lake may be warranted.

11. Statement of Costs

The following costs were incurred in the programme:

Personnel

H. Bryan, Geologist	17-22, 24, 26 Sept. - 3 October	15 days @ \$156	\$ 2,340	
R. Konst, Geologist/ Sampler	17-22, 24, 26 Sept. - 3 October	15 days @ \$97.50	1,462	
P. Jones, Prospector	17-22, 24 Sept. - 3 Oct.	16 days @ \$110.50	1,768	
D. Petersen, Supervision	26 Sept.	1 day @ \$275	<u>275</u>	\$ 5,845

Field Costs

Assaying and Freight	\$ 3,975	
Travel and Transport	803	
Groceries	654	
Supplies	<u>80</u>	\$ 5,512

11. Statement of Costs (cont'd)

Reporting

H. Bryan	1 day @ \$156	\$	156	
D. Petersen	4 days @ \$275		1,100	
S. Wheat, typing	4 hours @ \$15		60	
Drafting and Printing			<u>600</u>	<u>\$ 1,916</u>
				<u>\$13,275</u>

12. Title

The following are the particulars of the claims:

<u>Name of Claim</u>	<u>Owner</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Date of Record</u>
BANK 14	D.K. Bragg	4197	20	28 October, 1983
BANK 25	D.B. Petersen	4664	5	12 October, 1984

D.B. Petersen

13. References

- Harris, J.F., Tate Blanchet, P.H., Lloyd, J., McClaren, M., McDougall, J.J.,
1983, Geological Report - Yellow Giant Project; Trader Resource
Corporation Pre-Feasibility Study.
- Jackson, E.V., 1976, Generalized Geological Map of the Canadian Cordillera;
Porphyry Deposits of the Canadian Cordillera; C.I.M.M. Spec. Vol. 15.
- Roddick, J.A., 1966, Coast Crystalline Belt of British Columbia; Tectonic
History and Mineral Deposits of the Western Cordillera; C.I.M. Spec. Vol. 8.
- Roddick, J.A., 1970, Douglas Channel-Hecate Strait Map-Area, British Columbia;
G.S.C. Paper 70-41.

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA:
To Wit:

In the Matter of the geological and geochemical surveys conducted on the BANK 14 and BANK 25 Claims.

I, David B. Petersen

of Daiwan Engineering Ltd., #1010 - 409 Granville Street, Vancouver, B. C. V6C 1W9

in the Province of British Columbia, do solemnly declare that the following costs were incurred:

PERSONNEL

H. Bryan, Geologist	15 days @ \$156.00	\$ 2,340	
R. Konst, Sampler	15 days @ \$ 97.50	1,462	
P. Jones, Prospector	16 days @ \$110.50	1,768	
D. Petersen, Supervision	1 day @ \$275.00	<u>275</u>	\$ 5,845

FIELD COSTS

Assaying and Freight	\$ 3,975	
Travel and Transport	803	
Groceries	654	
Supplies	<u>80</u>	\$ 5,512

REPORTING

H. Bryan	1 day @ \$156.00	\$ 156	
D. Petersen	4 days @ \$275.00	1,100	
S. Wheat, typing	4 hours @ \$15	60	
Drafting and Printing		<u>602</u>	\$ 1,918

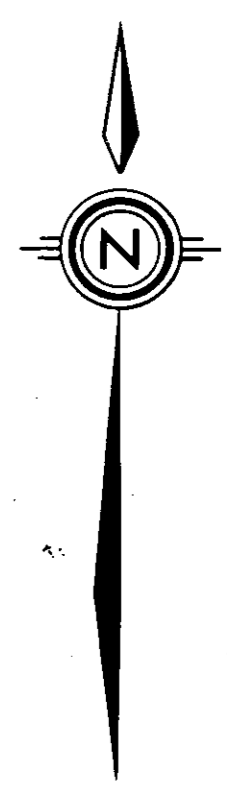
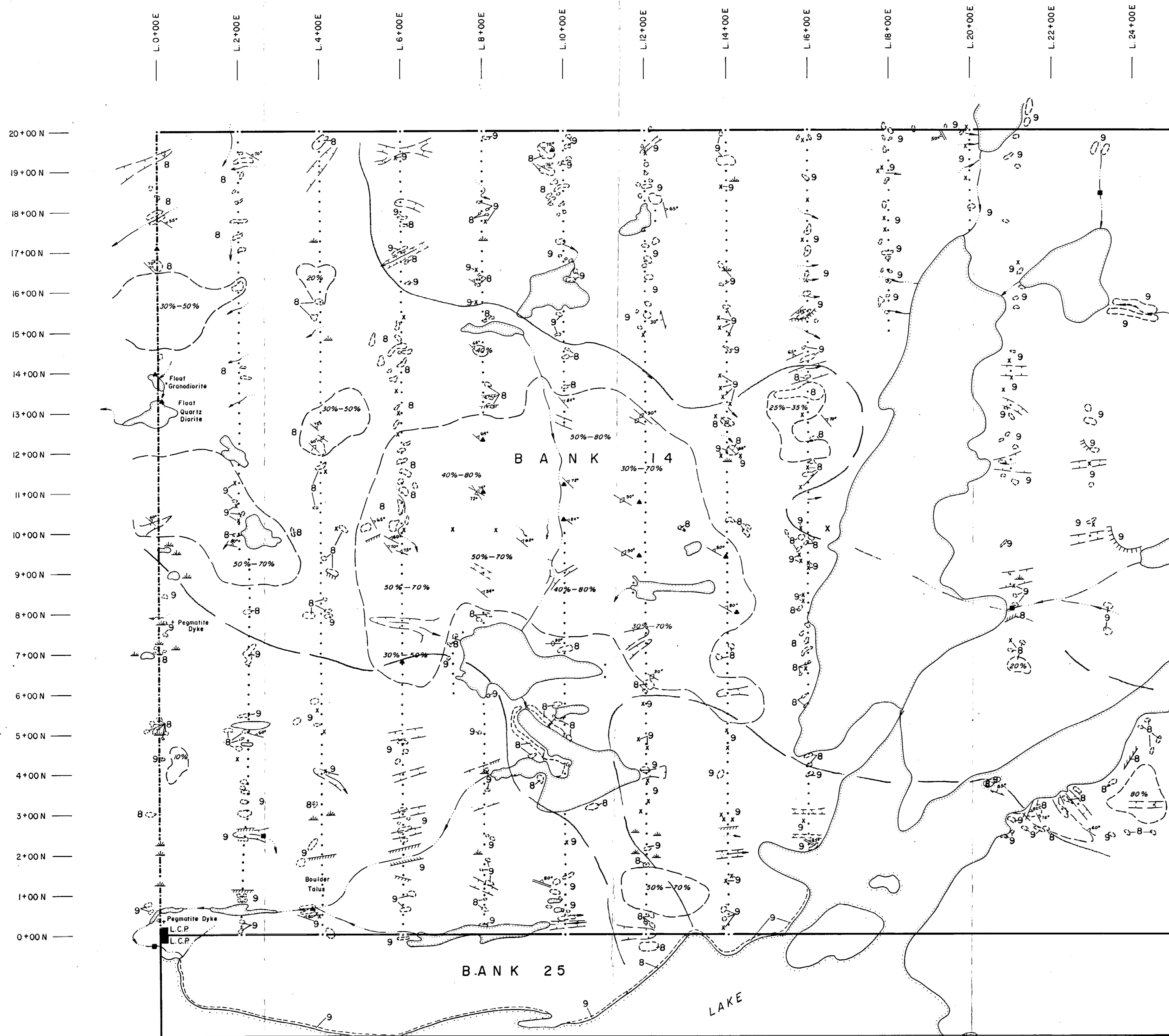
\$ 13,275

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 2nd
day of November 1984, A.D. } D.B. Petersen

Ed Day (CMA)
A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.

D.B. Petersen



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13,075

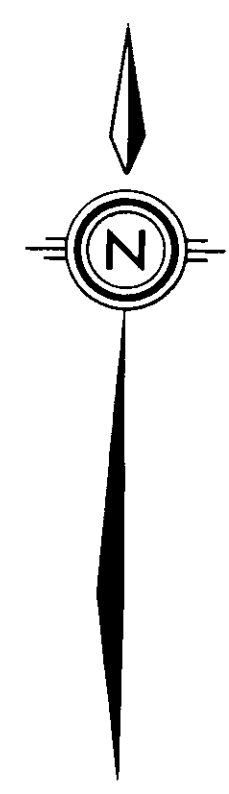
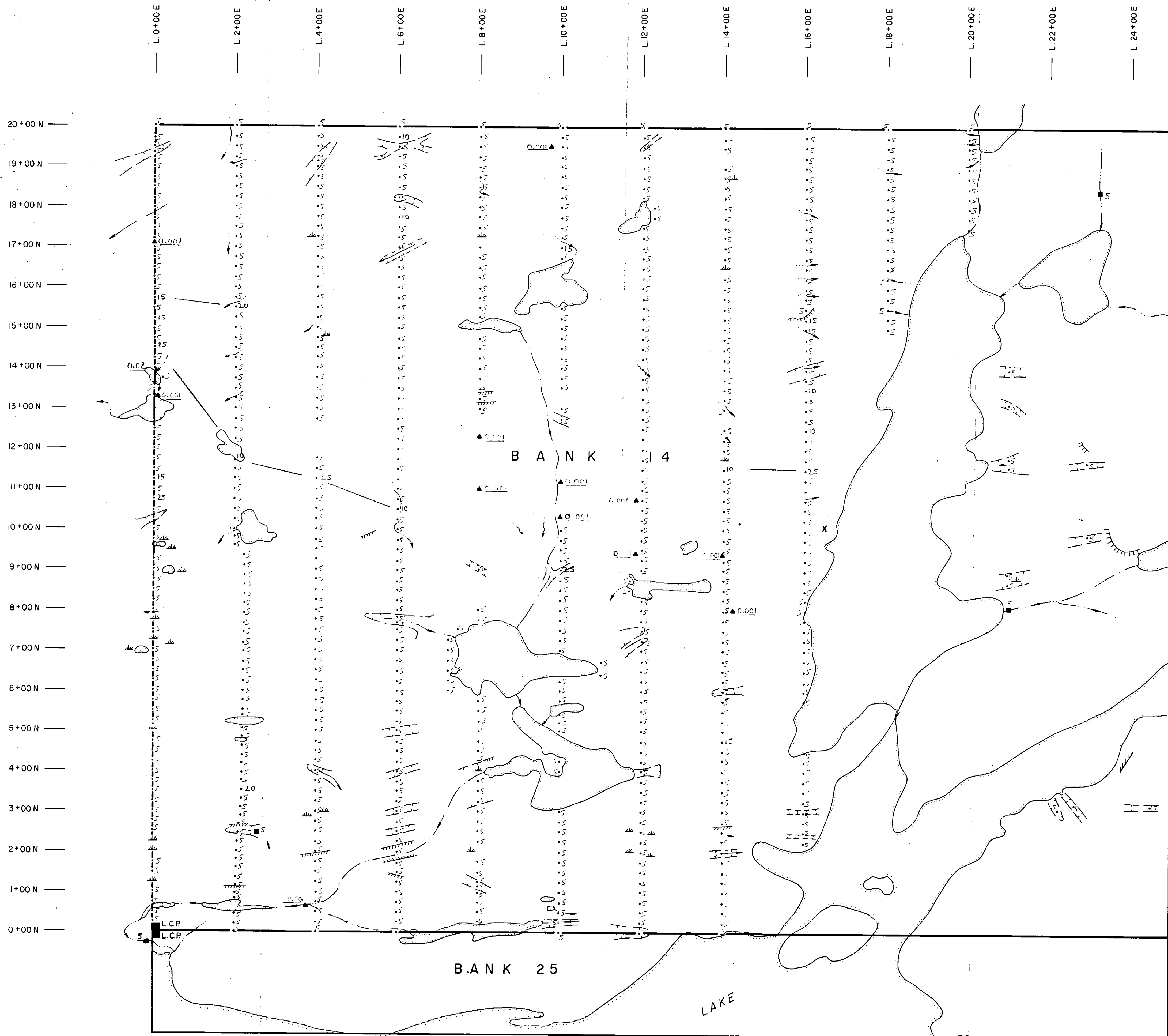
LEGEND

- Creek
- Gully or Depression
- Swamp
- Lake/Pond
- Cliff
- Soil Sample Location
- Rock Sample Location
- Heavy Mineral Sample Location
- Outcrop, Small Outcrop
- LCP Location
- Camp Location
- Claim Boundary
- Fracture (Vertical, Inclined)
- Vein (Vertical, Inclined)
- Pegmatite Dyke
- Area of Greater Bedrock Exposure Showing Percentages
- Quartz Monzonite
- Granodiorite

FIGURE 3

DAIWAN ENGINEERING LTD.	
PARAMOUNT RESOURCES INC.	
BANK 14, BANK 25 CLAIMS	
GEOLOGY	
Metres 0 100 200 300 400 500	Scale: 1:5,000
Date: October 1984	

Robertson



LEGEND

- Creek
- Gully or Depression
- Swamp
- Lake/Pond
- Cliff
- Soil Sample Location
- Rock Sample Location
- Heavy Mineral Sample Location
- Outcrop
- LCP Location
- Camp Location
- Claim Boundary

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FIGURE 4

DAIWAN ENGINEERING LTD.	
PARAMOUNT RESOURCES INC.	
BANK 14, BANK 25 CLAIMS	
PPB AU	
Metres 0 100 200 300 400 500	
Date: October 1984	Scale: 1:5,000

AD/Ther