### ASSESSMENT REPORT

on

PHYSICAL/GEOCHEMICAL WORK ON THE FOLLOWING CLAIM

BLASTER .... 2899(5)

located

5.7km NORTH OF MOUTH OF KENNEDY RIVER, VANCOUVER ISLAND BRITISH COLUMBIA

FILMED

ALBERNI MINING DIVISION

Lat.49°11' Long. 125°25'

NTS 92F/3W

Project Period: May 4-10, 1986

on behalf of

Kelly Gourley New Westminster, B.C.

Report by:

Kelly Gourley, Prospector 310, 1115 - 4th Avenue.c New Westminster, B.C. V5M 1T6

Date: August 4, 1987

GEOLOGICAL BRANCH ASSESSMENT REPORT

MINISTRY OF ENERGY, MINES
AND PETROLEUM RESOURCES

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SUBJECT

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VANCOUVER, B.C.

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### 1. INTRODUCTION

### A. PROPERTY, LOCATION, ACCESS AND PHYSIOGRAPHY

The property is located 5.7 north of the mouth of Kennedy river, where it enters Kennedy Lake (Map 92F/3W) in the Alberni mining division. Access is presently obtained by travelling westward along Highway 4 (Alberni-Tofino) from Port Alberni 57km. A boat is required to cross Kennedy river to the west bank at which point it is necessary to traverse 1 to 1.5km DUE WEST TO REACH THE PROPERTY (choosing the path of least resistance). In the near future MacMillan Bloedel plans to put a logging access road on the west side of the river, which should run in a north-southerly direction and border the property.

The property ranges in elevation from 120m at lowest to 960m at highest. The lower elevations vegetation consists of large cedar, heavy underbrush (Salal) with few alders on drainage systems. This gives rise to hemlock and spruce on steeper slopes with lessening underbrush, and eventually gives way to scrub pine and yellow cedar(gnarled) with little underbrush. Where no soil deposition is present there generally exists a layer of moss varying from a few inches to over a foot deep in spots. The best rock exposures occur along the fault (creek) or at the higher elevation where underbrush and deposition is limited.

### **B.** STATUS OF PROPERTY

The Blaster claim consists of 20 units and is owned by Kelly Gourley of 310, 1115 - 4th Avenue, New Westminster, B.C., V5M 1T6. The record number is 2899, and date of recording, May 9, 1986. Claim location is shown on Fig.III after government NTS Map 92F/3W.

### C. HISTORY

There is little history of work being done in this location and it is described in Fig.5, Report of Minister of Mines 1923 pg. A246, and 1913 pg. K279, under Blue Bird Group pg. A246 and Olympic and Titanic headings in pg. K279. They state that there was a sample taken over a width of 20 feet that claimed to have yielded \$20 in gold (Titanic showing), and a sample taken in the creek (fault) said to be .06 oz/ton of Au (Blue Bird) showing.

The showing and structure on which the work was performed is believed to be the Blue Bird, as the location and assay results would indicate. (See Appendix III.) The Titanic showing has not yet been rediscovered to the author's knowledge.

### D. REFERENCES

- 1. J.E. Muller, (1963-1967, studies): Regional Map and Geology (with fault systems). See Fig. IV.
- 2. Annual Reports, Minister Mines, B.C.: 1913 pg. K279; 1923 pg. A246.
- 3. Groves, W.D., P.Eng., Ph.D (1985): Examination of "bear Group" Property Gold-Quartz-Sulphide veins, Kennedy River Area, for First Coast Minerals Corporation.

### E. SUMMARY OF WORK DONE

A small prospecting/drilling-blasting program was effected essentially to locate the Titanic mineral occurrence (Fig. 5) and prove the original assays of 1913. This, however, did not happen and what resulted was the relocating of the "Blue Bird" showing and work being carried out on that resulting in three small blast-trenches which, when assayed, resulted in higher values than previously discovered. The work was carried out over a six day period (May 4-

10, 1986) with one follow-up (inspection) day by Dr. W.D. Groves, P.Eng. on May 15, 1986. There were nine rock chip samples taken in the three trenches (3 per trench), one sample of the vein and one of each of the wall rocks on either side of the vein. As well as the trenching, three traverses took place which failed to locate the "Titanic" mineral occurrence.

### 2. TECHNICAL DATA AND INTERPRETATION

### A. REGIONAL GEOLOGY

The following capsule description of the geology of the region of the Blaster claim has been excerpted from a private report (Ref.3) by W.D. Groves, P.Eng., Ph.D.:

"Regional geology of the area involves a thick basal platform of Vancouver Group Karmutsen submarine metabasalts, with off-ridge lime lenses (the Quatsino Limestone) and associated Parson's Bay argillites (tuffaceous/limey-/siliceous argillites) topped and/or disrupted by "pyroclastic" stage Bonanza felsic fragmental volcanics now present as remnants. The platform is regionally cut by N70°W and N20°E/steep faulting, folded along N70°W (regional and N20E Kennedy river valley) axes, and intruded by coeval and postarch-Mesozoic, and post docking Tertiary stocks, veins, etc."

The geological formations are Upper Triassic and older in age, giving rise to the Karmutsen Formation of basalts and pillow breccia with massive basalt flows, these formations are intersected frequently by series of faults which tend to dissect them at a N70°W and N20°E angles cutting (continuing south eastward) across the Kennedy river valley. The majority of the faults contain at least some mineralization and quite frequently quartz lenses.

#### B. PROPERTY GEOLOGY

The Blaster mineral claim is contained in the Karmutsen Formation and is cut about midpoint by a large fault (canoe creek fault) which runs almost east-west to about the centre of the property, which it then curves and runs about N70 W

to the boundary (westernmost) of the claim (see Fig. 1). At the point where the direction of the fault changes, it is intersected by a cross-fault of about 1.5km in length which intersects the main "bear" fault near the southwest corner of the Blaster claim. The fault (Canoe creek), where it exists on the property, has been examined for approximately 1.2km westward from the eastern boundary of the claim and contains mineralization throughout that portion.

### C. CONCLUSIONS

The trenching/sampling/traversing that was done, although it failed to locate the "Titanic" mineral occurrence, proved successful as the Au values obtained were much higher than those reported in 1923. The highest the author obtained was .16 oz/ton Au and .06 oz/ton, whereas in 1923 it was reported to have been .06 and .03 oz/ton for that particular showing. As well as expanding on the present gold-bearing system it is recommended to also prospect more thoroughly for the "Titanic" occurrence through a drainage-silt sampling program, or a more detailed soil and silt samping grid, as well as a geophysical survey using a VLF instrument in locating further vein systems.

Respectfully submitted,

Kully Nounly

Kelly Gourley

Prospector

# E. Geological Comment

On Sunday, May 15, 1986, the author met Mr. Kelly Gourley at his camp on the west bank of the Kennedy River at the mouth of Titanic Creek, and was guided over his newly cut trail up Titanic Creek, in part along ledges and crossing logs in the bottom of the canyon, up to the Bluebird showings, which he had re-blasted. Showings consisted of quartz (carbonate) sulphide lenses up to a foot wide in an E-W shear in the Karmutsen, followed by the creek canyon. During the same time, other prospecting activities in search of the Titanic quartz vein reported in old Ministry of Mines reports were discussed. Samples taken by Mr. Gourley under the author's supervision were taken for assay. The initial splits were unfortunately lost, and the reference samples later put in for assay, as per results quoted in his report.

MPG. Aug 4/87.

# APPENDIX I WORK COST STATEMENT - BLASTER CLAIM

# FIELD PERSONNEL

Kelly Gourley, Prospector @ \$150/day Larry Wallace, Assistant @ \$100/day Dr. W.D. Groves, P.Eng. @ \$350/day		
FIELD ACTIVITY		
May 4, 1986		
K. Gourley, 1 day Camp preparation, creek access reconnaissance	150.00	
L. Wallace, 1 day Camp preparation, trail marking for creek access	100.00	250.00
May 5, 1986		
<pre>K. Gourley, 1 day Located qtz vein in fault (trench #1 location)</pre>	150.00	
L. Wallace, 1 day Located easier access route and packed drill bits to trench #1 location	100.00	250.00
May 6, 1986		
K. Gourley, 3 days Drill, blasted three trenches in quartz showing along fault and sampled	450.00	
L. Wallace, 3 days Assist K. Gourley and mapped trench locations	300.00	750.00
May 9 and 10, 1986		
K. Gourley, 2 days Two traverses to try and locate original titanic showing, packed drill out	300.00	
L. Wallace, 2 days Assisted K. Gourley and pack drill bits and gas out	200.00	500.00

# May 15, 1986

Dr. W.G. Groves, P.Eng., 1 day Visited trench location and sampled and described structures	350.00	
K. Gourley, 1 day Showed Dr. Groves locations and assisted samplings	150.00	500.00
Meals @ \$20/man-day, 2 men 6 days 2 days vehicle @ \$50/day	240.00	
plus \$40 fuel, \$52 ferry	192.00	
Drill (Cobra) rentals @ \$25/day x 6 Camp supplies and rentals @ \$30/day x 6 (flagging, fuel, tents, etc.)	150.00 180.00	762.00
9 rock chip samples fire assay (Au)		
prep 9 x 3.00 assay 9 x 6.75	27.00 60.75	87.75
TOTAL PROGRAM EXPENSES		\$3,099.75

# APPENDIX II

#### **CERTIFICATE**

- I, Kelly S.A. Gourley, do hereby certify that:
- 1. I am a prospector (FML 296504 Gourk) with a residence at 310 1115 4th Avenue, New Westminster, B.C.
- 2. I have worked as a prospector and mineral exploration worker for the past four years.
- 3. I spent a week on the Blaster claim, Rec. No. 2899(5) on NTS 92F/3W for the purpose of confirming the values on the Bluebird showing in the E-W creek canyon (Canoe Creek) and prospecting for the Titanic vein reported in old Ministry of Mines reports, without yet locating it.
- 4. I am the original staker of the Blaster claim.

Respectfully submitteds

Kelly S.A. Gourley,

4 August 1987

### CERTIFICATE

- I, William D. Groves, do hereby certify that:
- 1. I, William D.Groves, am a Consulting Engineer (geological) with an office at 200-675 West Hastings Street, Vancouver, British Columbia, V6B 4Z1.
- I am a graduate of the University of British Columbia (B.A.Sc. in Geological Engineering, 1960). I am a graduate of the University of Alberta, B.Sc., in Chemical Engineering in 1962, and of the University of British Columbia with a Ph.D. in Chemical Engineering in 1971.
- 3. I am a registered Professional Engineer in the Province of British Columbia.
- 4. I have practised my profession since 1960.
- 5. I visited the Blaster mineral claim property on Sunday, June 15, 1986 and inspected the Bluebird showings in the E-W creek canyon and discussed the property work done by Mr. Kelly Gourley on the property.
- I have not received directly or indirectly, nor do I expect to receive any interest, direct or indirect, in the Blaster claim.

Respectfully submitted,

W.D. Groves, Ph.D., P.Eng.

4 August 1987

# APPENDIX III

## MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments 705 West 15th Street North Vancouver, 3.C. Canada V7M 172

PHGNE: (604) 980-5814 DR (604) 988-4524

TELEX: YIA USA 7801057 UC

## Certificate of GEOCHEM

Company: KELLY GOURLEY

Project:

Attention: KELLY GOURLEY

File:7-931/P1

Date: JULY 29/87

Type: RCCK SEDCHEM

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3-0	206				

Cartified by

MIN-EN CASCRATORIES LTD.

# APPENDIX IV

On the top of the first bench, 1,000 feet above the river, some prospecting-work has been done by open-cuts; the ledge in places showing a width of 2 feet.

The principal development-work consists of a tunnel driven on the ledge at an elevation of 695 feet above Kennedy lake. This tunnel has been driven for 438 feet N. 34° E. (mag.), the ledge varying in width from 15 to 18 inches of kindly-looking mineralized ribbon quartz. A sample taken from the face of this tunnel assayed 1.50 oz. gold to the ton. I was able to pan some free gold from the oxidized ore on the dump.

The sample mentioned above was a fair average sample taken in the face of the tunnel at the time of my visit. It showed no visible free gold, consisting apparently of quartz carrying pyrite, the latter not exceeding 1 per cent. of the ore. The return obtained is, however, above the average value of the ore in the mine.

The ore is amenable to ordinary "free-milling" and cyanide treatment, and could be worked on the spot, more than sufficient water-power being available for all purposes. The mine is not large enough to stand expensive company management, but there is no reason why it should not have a successful future if worked economically as a small enterprise.

Bear Group. The Bear group of mineral claims is situated at an elevation of 500 feet above Kennedy lake, and half a mile west from Elk river and three miles and a half from its mouth. The group, which consists of three claims, Black Bear, Cinnamon Bear, and Grizzly Bear, is owned by W. Wilson, Jno. Irving, and Spidal.

The principal development-work has been done on the Cinnamon Bear claim, a tunnel being driven 246 feet on a strong quartz ledge 3 to 4 feet wide; strike S. 60° W. (mag.) dipping 45 to 50 degrees to the north-west. The gangue is quartz, feldspar, and calcite, and the mineralization pyrite and arsenopyrite. The best ore is said to be 1 foot wide on the footwall. The diorite foot-wall and porphyry hanging-wall can be traced on the surface for 400 feet. The hanging-wall is soft, decomposed vein-matter, in which the tunnel has been driven. The tunnel is in an unsafe condition, the soft material in the hanging-wall having "winded" and several falls taken place. An average sample of the ore assayed 0.10 oz. gold.

The Ruth mineral claim is situated about 1,800 feet south-east from the Bear group at an elevation above. Kennedy lake of 600 feet, and shows a quartz vein 18 inches to 2 feet in width, exposed for about 100 feet on the surface; a small diabase dyke accompanies the ledge on the foot-wall; the hanging-wall is porphyry. Limestone occurs from 6 to 10 feet to the eastward of the ledge; no development-work has been done. Strike N. 30° E. (mag.); dip 75 degrees to the south-east. The gangue is quartz and the mineralization pyrite and chalcopyrite. An average sample assayed: Gold, trace; silver, 2.8 oz.; copper, 1.9 per cent.

The Olympic and Titanic mineral claims are situated half a mile west from Elk river and four miles from Kennedy lake, at an elevation of from 350 to 450 feet. A quartz ledge shows up in these claims, having a strike N. 73° E. and dipping to the north-west. No development-work has been done; the outcrop shows a little pyrite and chalcopyrite. The claims are intersected by a creek running in a deep canyon, and, owing to high water, it was not possible to visit the other outcroppings of this ledge. From an exposure farther up the creek a sample over a width of 20 feet is said to have yielded \$20 in gold. A sample taken on the Olympic claim assayed 0.03 oz. a ton in gold-

All the claims visited were situated at comparatively low elevations within easy reach of Elk river, and, as far as could be ascertained, very little prospecting has been done, and no claims located higher up the mountains, which rise on both sides of Elk river to a height of 3,000 to 4,000 feet.

REPORT OF THE MINISTER OF MINES 1913 page K279

Anthony Watson. Kenyon constructed an arrastra, the ruins of which can be seen to-day, about 300 feet vertically above the main Kennedy River trail and about 1,500 feet easterly from the main trail, and started work on a quartz vein 4 feet wide, with strike of N. 20° E. (mag.) and dip vertical. After operating the arrastra for some months on the James Grant it was found that the proportion of the ore which was free-milling was too small to give satisfactory returns from treatment in the arrastra.

The workings from which the ore was taken and milled in the arrastra were a deep open-cut and shallow shaft on the vein known as the cross-lead. A sample taken from an open-cut where this quartz vein is 4 feet wide, and from the face of the cut about S feet deep, assayed: Gold 1.30 oz.; silver, 0.70 oz. to the ton; copper, 1.6 per cent.

There is a considerable flow of water in the creek, the bed of which is a series of precipitons falls and sampling the vein is quite a difficult proposition, so much so that I was only able to obtain two samples, one of which, across 18 inches, assayed: Gold, 0.34 oz.; silver, 1.2 oz. to the ton; copper, trace. The second sample, taken from the same fissure 2 feet wide and about 150 feet farther up the creek and nearly 100 feet higher elevation, assayed: Gold, 0.30 oz.; silver, 0.2 oz. to the ton; copper, trace.

This group contains the Blue Bird and Blue Jay, the former being owned Blue Bird Group, by Miss Winifred Dixon and the latter by William Spittal, both of Tonzo.

The group is located about 5 miles up Kennedy river from the mouth and on the west side.

Orc-deposits.—The ore-deposits on the Blue Bird group occur as lenticular veins in a wide shear-zone which in places is upwards of 40 feet wide. The main vein in the shear-zone where exposed on the Blue Bird can be traced on to the adjoining Blue Jay, occurring between schistese walls dipping vertically, conformable with the shearing-planes in the zone.

The vein is principally quartz and the mineralization consists of chalcopyrite and iron pyrite, with some arsenopyrite. A sample taken from an open-cut in a steep bank of an unnamed creek assayed: Gold, 0.06 oz.; silver, 1 oz. to the ton; copper, 0.7 per cent. Another sample, taken from apparently the same schistose shear-zone and possibly from the same quartz vein as the first-mentioned sample was taken, but from a point about 1,200 feet farther up the creek, assayed: Gold, 0.30 oz.; silver, 0.1 oz. to the ton; copper, trace.

William Spittal, who has done all the work on the claims, has also built a cabin on a besca near the river.

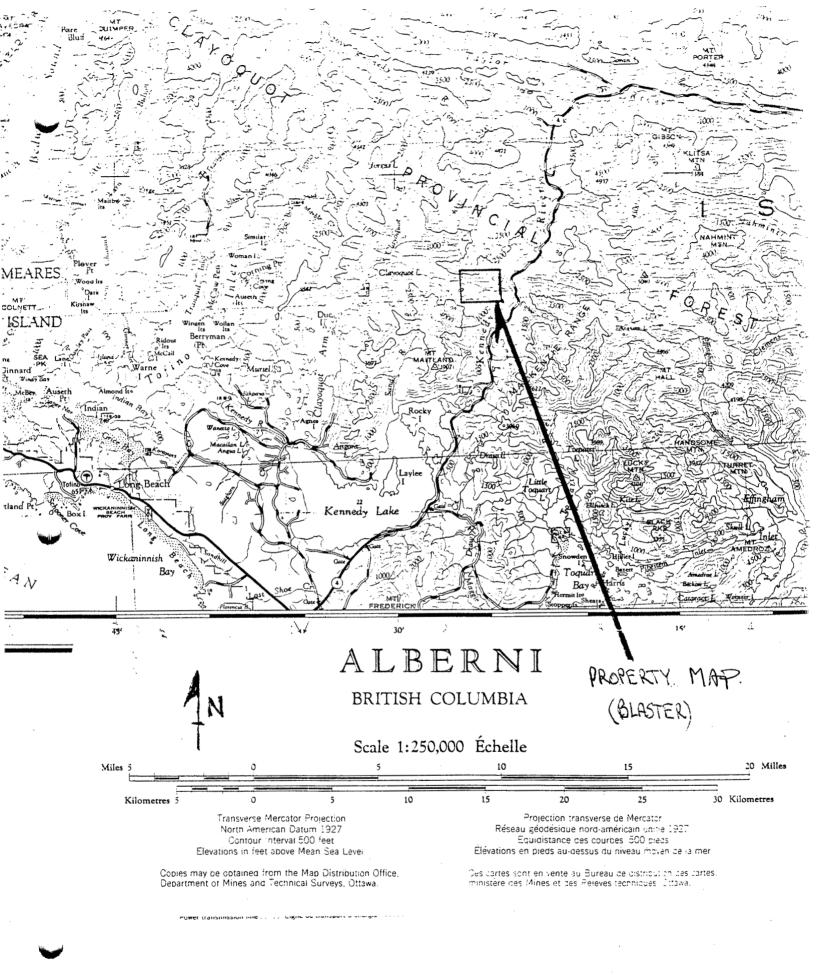
While samples can be taken from the quartz veins in the vicinity of the Kennedy river carrying fair values, it is a serious question whether under the present conditions ore that carries values averaging less than \$10 a ton "run of mine" can be mined and treated successfully.

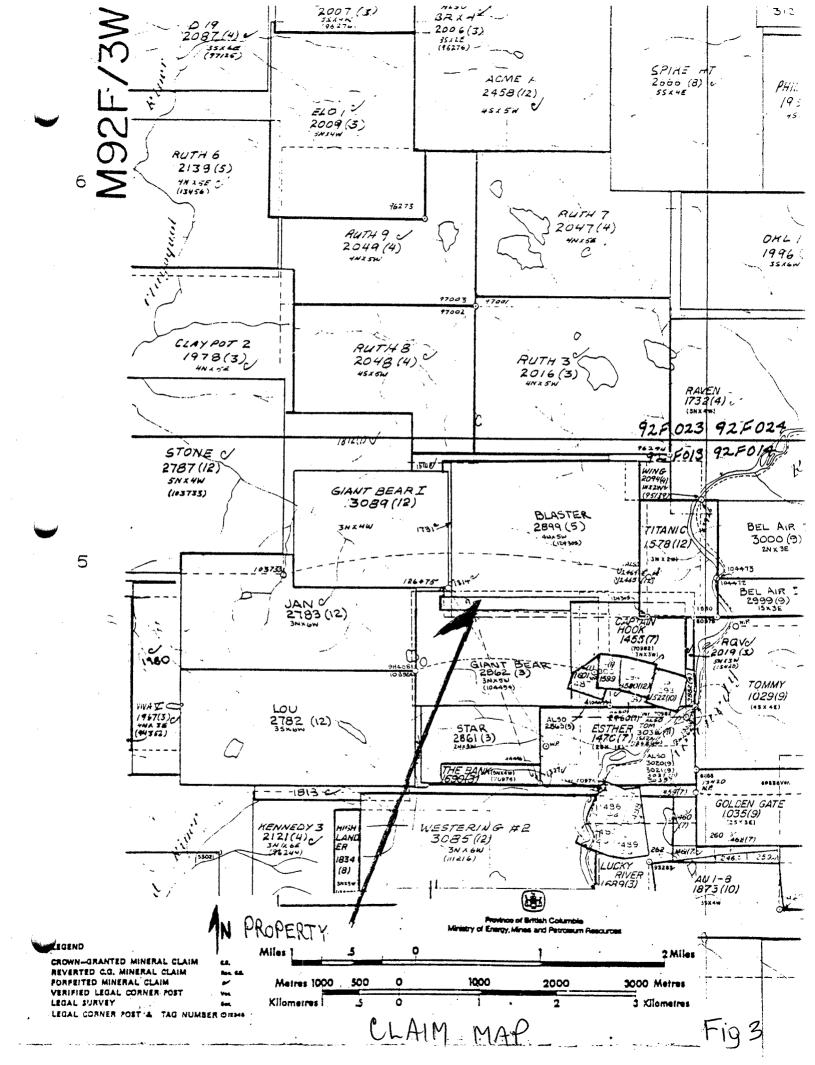
North-westerly from the Kennedy River section there is practically nothing known by white men of the interior of the island for a distance of approximately 100 miles, or to the vicinity of the streams and lakes that flow into Quatsino sound; the average width of this unexplored area is approximately 20 miles. This region may be described as very mountainous, some of the peaks as viewed from either coast having elevations 6,000 feet and over.

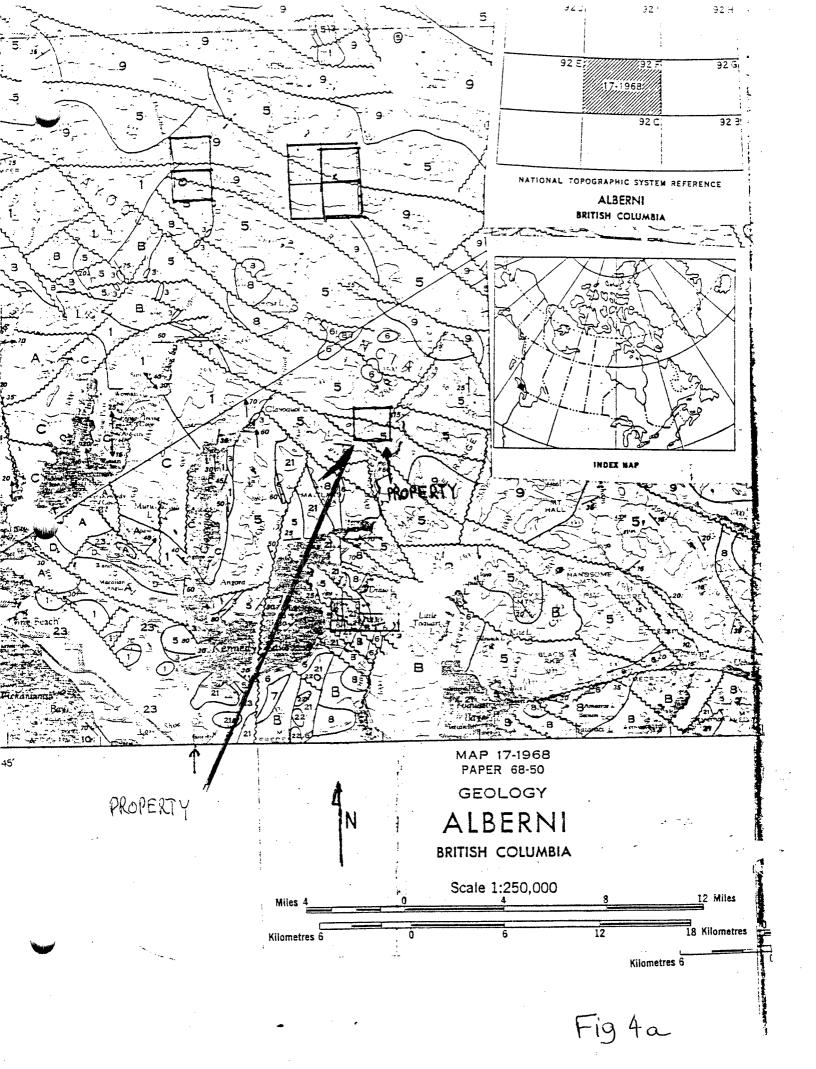
Quite a large area of this unexplored section is included within the boundaries of the Clayoquot Mining Division, and the western fringe has been prospected to some extent at and near the headwaters of the Clayoquot river, which empties into the Clayoquot arm of Kennedy lake; Tofino creek, which empties into the head of Tofino inlet; Tranquil creek, which empties into Tranquil arm of Tofino inlet; Bedwell river, which empties into Bedwell sound; Sidney inlet; Hesquoit lake; Gold river, which empties into Muchalat arm of Nootka sound; Tahsis river, which empties into the head of Zeballos arm, Nootka sound; Tahsish river, which empties into Tahsish arm of Kyuquot sound; and Kokshittle river, which empties into the head of Kokshittle arm of Kyuquot sound. The prospecting in these sections has not been very thorough, except at Sidney inlet, where the Tidewater Copper Company, Limited, has been operating the Indian Chief mine, and the head of Tahsis canal, where William Poole has been prospecting and developing the Star of the West group of mineral claims.

There has been no detailed geological survey of the area just referred to, but the west coast line north-westerly from the Alberni canal was examined during 1917, 1918, 1919, and 1920 by Victor Dolmage, of the Geological Survey, but his examinations only included the vicinity of

REPORT OF THE MINISTER OF MINES 1923 page A246







## LEGEND

1	QUATERNARY PLESTOCENE AND RECENT
1	23 Glacial and alluvial deposits
Κ,	TERTIARY
1	22 Rhyolitic, to dacitic tuff, breccia, ignumbrite
-	Hornblende quartz diorite, leucoquartz monzonite, porphyritic daeite, breccia
į	CRETACEOUS OR TERTIARY
!	20 Sandstone, conglomerate
	CRETACEOUS AND (?) TERTIARY UPPER CRETACEOUS AND (?) TERTIARY NANAIMO GROUP (11-19)
j	9 GABRIOLA FORMATION: sandstone, congiomerate, state
i	UPPER CRETACEOUS
	18 SPRAY FORMATION: siltstone, shale, fine sandstone
	17 GEOFFREY FORMATION: conglomerate, sandstone
	15 NORTHUMBERLAND FORMATION: siltstone, shale, fine sandstone
	15 DE COURCY FORMATION: conglomerate, sandstone
	14 CEDAR DISTRICT FORMATION: shale, siltstope, line sandstone
	13 EXTENSION-PROTECTION FORMATION: sandstone, conglomerate, shale, coal
	12 HASLAM FORMATION: shale, stiltstone, fine sandstone
	COMOX FORMATION: sandstone, congiomerate, shale, coal: 11a is BENSON MEMBER: mainly coarse congiomerate
2000	UPPER JURASSIC AND/OR LOWER CRETACEOUS  Tofino Area Greywacke Unit' Greywacke, argillite, conglomerate
3	JURASSIC MUDDLE TO UPPER JURASSIC
	9 ISLAND INTRUSIONS: biotite-hornblende granodiorite, quartz diorite
	TRIASSIC AND JURASSIC  "LOWER JURASSIC(?)  VANCOUVER GROUP (5-6)  BONANZA SUBGROUP (7, 8)  VOLCANIC DIVISION: andesitic to latitic breccia. tuff and lava: minor greywacke, argilite and silistone
	UPPER TRIASSIC AND LOWER JURASSIC 7 SEDIMENTARY DIVISION: limestone and arguilite, thin bedded, silty

	UPPER TRIASSIC
,	QUATSING FORMATION: Itmestone, mainly massive to thick bedded,
:	minor thin nedded limestone
:	UPPER TRIASSIC AND OLDER
İ	KARMUTSEN FORMATION: pillow-ozsait and pillow-oreceiz, massive
1	basait flows; minor tulf volcanic preceix. Jasperoid tulf, breecia and
i	conglomerate at base
•	TRIASSIC OR PERMIAN
ţ	
i	4 Gabbro, peridotite, diabase
1	
1	PENNSYLVANIAN, PERMIAN AND OLDER LOWER PERMIAN
:	SICKER GROUP (1-3)
1	
:	3 BUTTLE LAKE FORMATION: immestone, chert
}	V-0.1
۲,	MIDDLE PENNSYLVANIAN
į	1 2 Argillite, greywacke, conglomerate; minor limestone, tuff
ì	
1	PENNSYLVANIAN AND OLDER
i	Volcanic breccia, tuff, argillite; greenstone, greenschist; dykes and
ţ	sills of andesite-porphyry
	'WESTCOAST CRYSTALLINE COMPLEX' (A-D)
	'BASIC ROCKS'
	D Gabbro, peridotite
	'TOFING INLET PLUTON'
	C Hornbiende-biotite quartz diorite, granodiorite
	'WESTCOAST DIORITES'
	Hybrid hornblende diorite, quartz diorite, agmatite; includes masses of
	B hornfelsic volcanic rocks
	'WESTCOAST GNEES COMPLEX'
	A Hornblende-plagiociase gness, amphibolite, hornfels
	Geological boundary (approximate)
	Bedding (inclined, vertical, overturned)
	Schistosity, folistion (inclined)
	Schistosity, foliation and minor fold axes (inclined, vertical,
	arrow indicates plunge)
	*
	Lineation (axes of minor folds)
	Fault (approximate); lineament

Geology by J. E. Mulier, 1963-1967 Includes contributions by W. G. Jeffery, D. J. T. Carson

To accompany GSC Paper 68-50 by J.E. Muller

This preliminary edition may be subject to revision and correction

Fig 4 b.

