82-#667 -#10856.

ASSESSMENT REPORT OF THE

GEOLOGICAL AND GEOCHEMICAL

SURVEY ON THE HB GROUP B AND C CLAIMS

BP MINERALS LIMITED

NANAIMO MINING DIVISION
127°58' West Longtiude, 50°40' North Latitude
NTS 92L/12W, 102I/9E

THE HB GROUP B AND C CLAIMS (65 Units) ARE
WHOLLY OWNED BY BP MINERALS LIMITED

R.H. Wong
Geologist
BP Minerals Limited

Date Submitted: September 1982

BPVR 82-4

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1) SUMMARY

Work completed on the HB Group B and C claims by BP Minerals Limited during the period July 3, 1981 to May 17, 1982 includes geologic mapping at a scale of 1:20,000, geochemical sampling and completion of 16 deep overburden drill holes.

Although results of initial work this year failed to provide any encouragement, the geologic environment appears to be favourable with respect to disseminated gold mineralization. Additional mapping and sampling is recommended.

A total of $6,500 has been applied as assessment on the claims, thereby maintaining their good standing until June 22, 1983.

2) INTRODUCTION

This report details work done by BP Minerals Limited on the HB Group B and C claims during the period July 3, 1981 to May 17, 1982. A programme of geologic mapping, and geochemical sampling was conducted over the claim area. In addition, 16 deep overburden drill holes were completed along roads on the property.

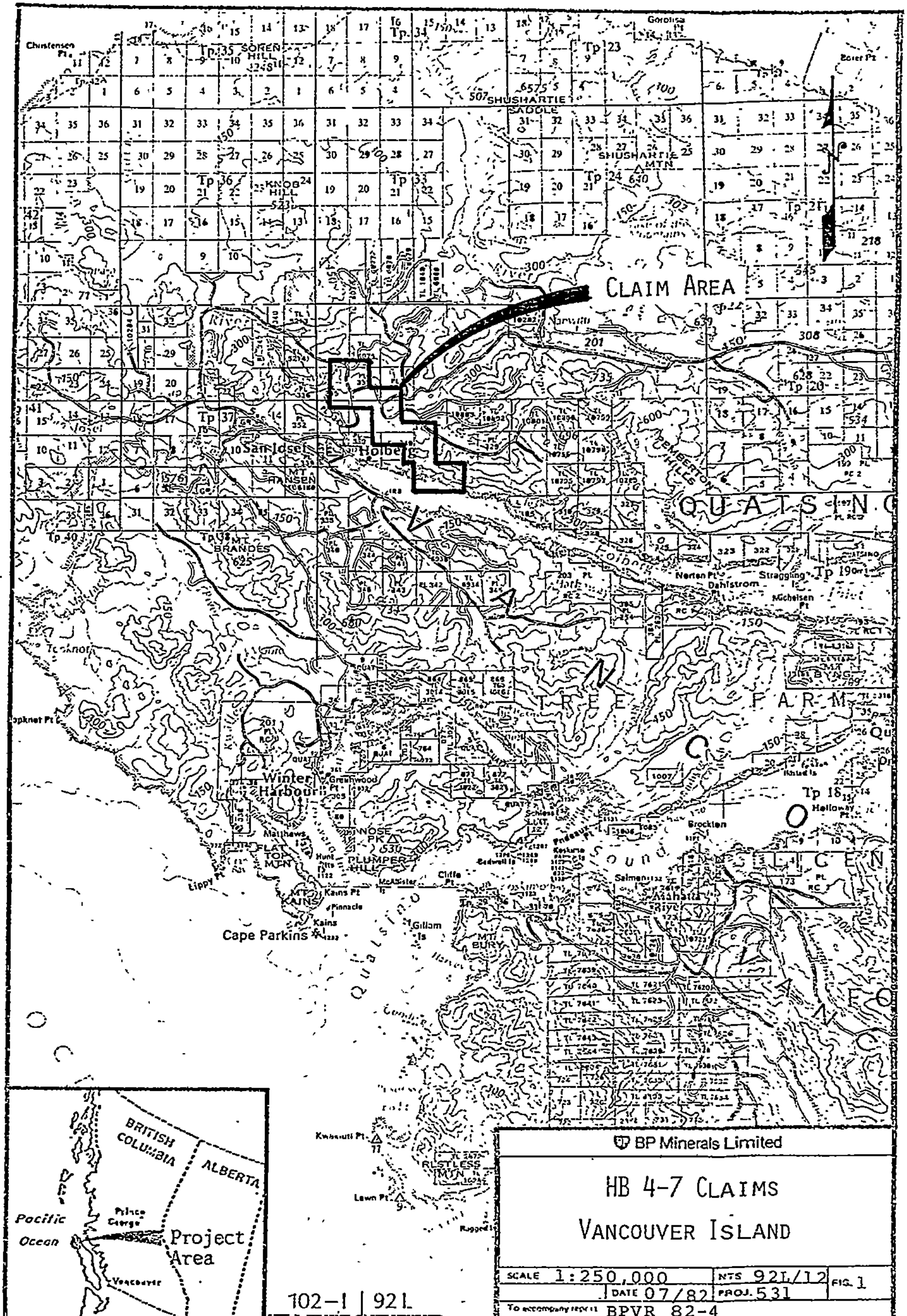
The programme explored for disseminated gold mineralization in favourable reactive host horizon, the Parson Bay Formation.

3) LOCATION AND ACCESS

The claims are centred at 127°58' west longitude and 50°40' north latitude within the Nanaimo Mining Division. The property is accessible via the main Holberg-Port Hardy logging road and is situated 2km east of Holberg. A series of branch logging roads, both active and inactive, provide further access.

4) TOPOGRAPHY

Except for the southeast corner of the property, which slopes steeply downward to the north shore of Holberg Inlet, the majority of the property is located on relatively


CLAIM AREA
Holberg
San Josef
Winter Harbour
Cape Parkins
QUATSINO
VANCOUVER
TREE FARM
LICENCE
Quatsino Sound
Pacific Ocean
BRITISH COLUMBIA
ALBERTA
Prince George
Project Area
Vancouver
102-I | 92L
BP Minerals Limited
HB 4-7 CLAIMS
VANCOUVER ISLAND
SCALE 1:250,000
NTS 92L/12
FIG. 1
DATE 07/82
PROJ. 531
To accompany report BPVR 82-4

flat-lying ground with little outcrop exposure. Much of the claim area is covered by juvenile-spaced forest, making off-road traversing next to impossible.

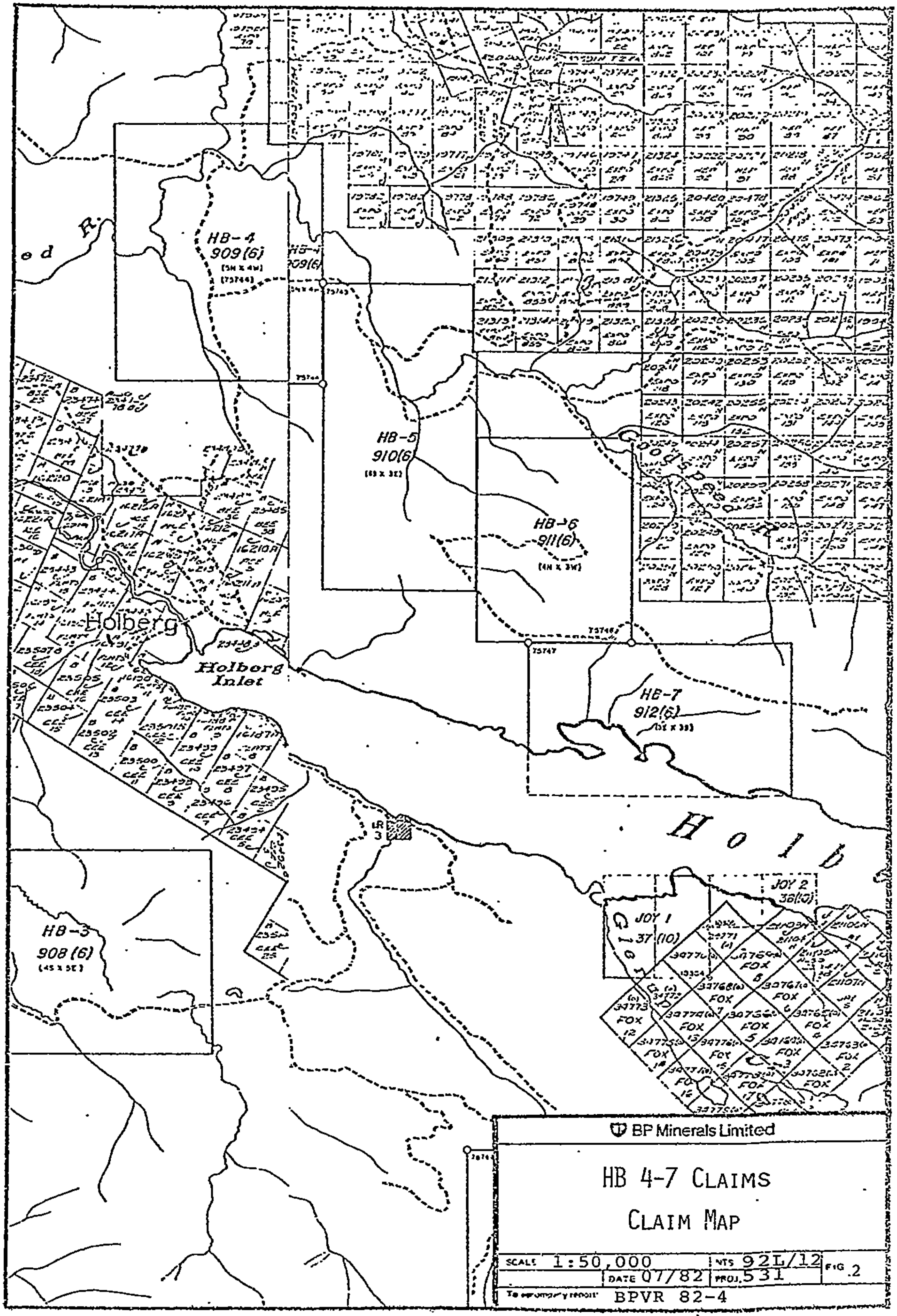
5) CLAIM STATUS

The HB 4 to 6 claims, comprising 65 units, were staked June 13 and June 16, 1981 and are wholly-owned by BP Minerals Limited. All work detailed in this report was performed and/or paid for by BP Minerals Limited. The claims were grouped according to the Minerals Act and a summary of the claims is as follows:

CLAIM NAME	RECORD NUMBER	DATE STAKED	DATE RECORDED	NO. OF UNITS	APPLIED ASSESSMENT	NEW EXPIRY DATE	
HB 4	909	6/13/81	6/22/81	20	$3,800	6/22/83	HB Group B
HB 5	910	6/16/81	6/22/81	18			
HB 6	911	6/13/81	6/22/81	12	$2,700	6/22/83	HB Group C
HB 7	912	6/16/81	6/22/81	15			

6) GRID CONTROL AND TOPOGRAPHIC BASE

Topographic control for the geological and geochemical surveys consisted of a 1:20,000 map enlarged from the 1:50,000 topographic sheet for 92L/12. Ground surveys were conducted mainly along roads and the Goodspeed River.


HB-4
909(6)
HB-5
910(6)
HB-6
911(6)
HB-7
912(6)
HB-3
908 (6)
Holberg
Holberg Inlet
JOY 1
37 (10)
JOY 2
38(10)
BP Minerals Limited
HB 4-7 CLAIMS
CLAIM MAP
SCALE 1:50,000
NTS 92L/12
FIG. 2
DATE 07/82
PROJ. 531
BPVR 82-4

7) REGIONAL GEOLOGY

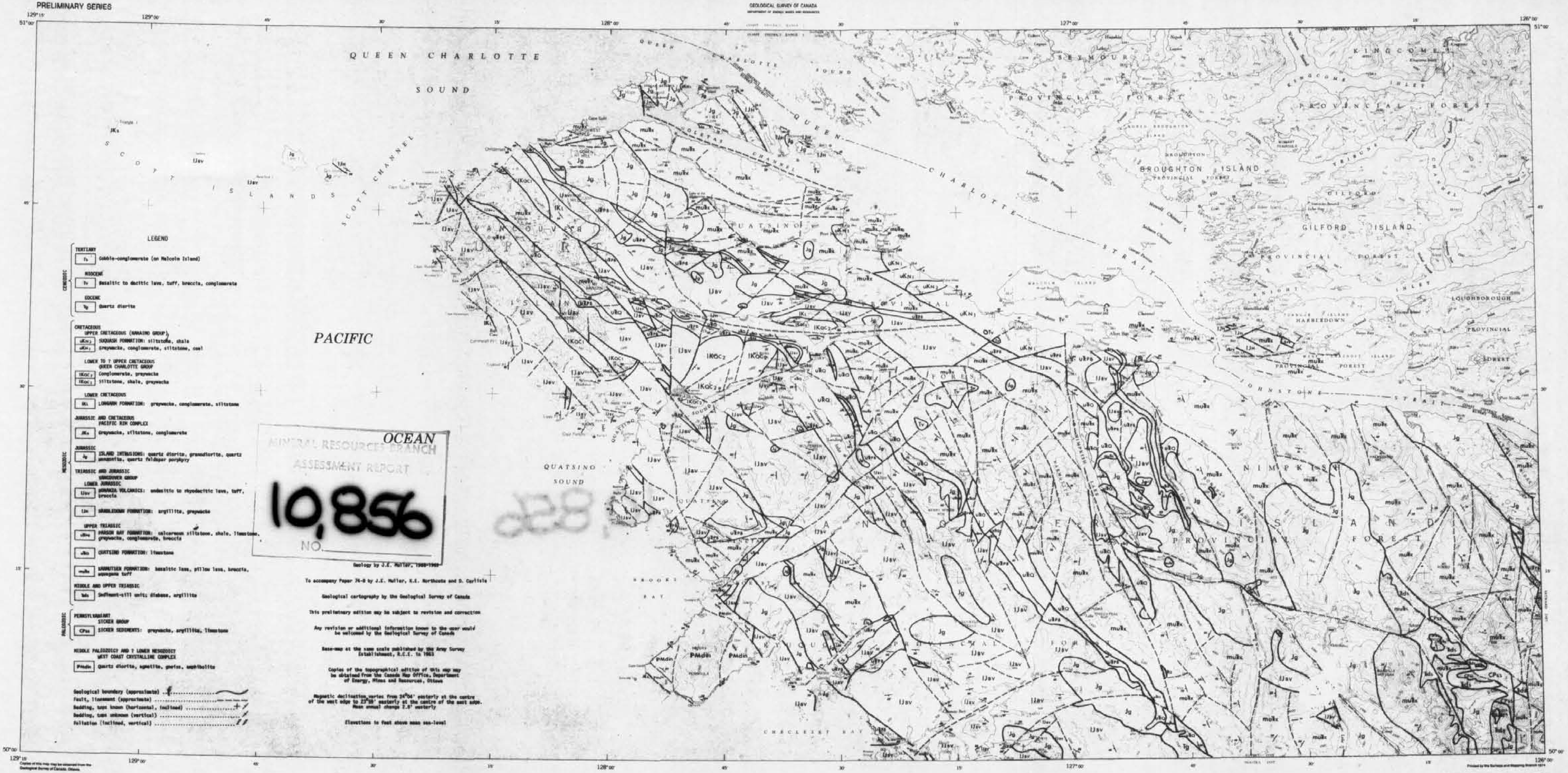
A) General Geology

Regional geology of Northern Vancouver Island is contained in Geological Survey of Canada Map 4-1974 (Alert Bay-Cape Scott, 1:250,000) by J.E. Muller (1968-69) and is discussed in Paper 74-8 by Muller, Northcote and Carlisle (1974).

Northern Vancouver Island is underlain predominantly by a Middle Triassic to Lower Jurassic volcanic-sedimentary sequence known as the Vancouver Group. This complex overlies Pennsylvanian carbonate-clastic sediments of the Sicker Group and older gneissic rocks of the Westcoast Gneiss Complex. All have been intruded by mesozonal and epizonal plutons of Early to Middle Jurassic age (Island Intrusions). Erosion of the entire sequence is followed by deposition on the west of a clastic wedge of Lower Cretaceous sediments, on the east by a wedge of Upper Cretaceous sediments, and again on the west by a wedge of Tertiary sediments. Minor plutonism occurred in the early Tertiary, and local volcanism occurred in late Tertiary time. The region is dissected by steep faults with dominant northwest trends which divide and subdivide the crust into numerous tilted blocks.

PRELIMINARY SERIES

GEOLOGICAL SURVEY OF CANADA



MAP 4 - 1974

PAPER 74-8

GEOLOGY

ALERT BAY - CAPE SCOTT

BRITISH COLUMBIA

Scale 1:250,000

FIG. 3

PROJECT 531, JUNE 1982

PERIOD		STAGES	GROUP OR FORMATION	MAP UNIT	LITHOLOGY	THICKNESS (Feet)
TERTIARY		Miocene?	Tertiary Volcanics, Sediments	Tv Ts	Basaltic to dacitic lava, tuff, breccia; conglomerate conglomerate	1,000
		Not in contact; disconformable?				
		Eocene?	Tertiary Intrusions	Tg	Quartzdiorite	
		Intrusive contact in Alberni map-area				
CRETACEOUS	UPPER	Maestrichtian? Campanian	Nanaimo Group (incl. Suquash Fm.)	uKN	Greywacke, siltstone, shale conglomerate, coal	400
		Disconformable contact?				
		Cenomanian Albian	Queen Charlotte Group	lKQC	Greywacke, conglomerate, siltstone, shale, coal	1,000-3,500
		Disconformable contact				
	LOWER	Barremian Hauterivian Valanginian	Longarm Formation	lKL	Greywacke, conglomerate, siltstone	200-1,300
		Equal age but diverse tectonic setting				
			Pacific Rim Sequence	JKs	Argillite, greywacke? conglomerate	
JURASSIC	MIDDLE	Unconformable contact				
			Island Intrusions	Jg	Quartz diorite, granodiorite, quartz monzonite, quartz-feldspar porphyry	
		Intrusive contact				
	LOWER	Pliensbachian Sinemurian	Vancouver Group (gradational contacts within group)			
			Bonanza Volcanics Harbledown Fm.	lJBV JH	Andesitic to rhyodacitic lava, tuff, breccia; greywacke, argillite, tuff	1,000-18,500
TRIASSIC	UPPER	Norian	Parson Bay Fm.	uTrPB	Calcareous siltstone, shale, greywacke, conglomerate, breccia	* 1,000-2,000
			Quatsino Fm.	uTrQ	Limestone	100-2,500
		Karnian	Karmutsen Fm. includes in upper part Intervolcanic Limestone	muTrK uTrQ2	Basaltic lava, pillow lava, breccia Limestone	10,000-20,000
	Mid.	Ladinian	Sediment - sill unit		Diabase, argillite	2,500
			Disconformable or unconformable contact			
PENNSYLVANIAN?			Sicker Group	Ps	Limestone, siltstone	700
			Migmatic contact?			
		pre-Cretaceous	Westcoast Complex	PMdin	Quartz diorite, agmatite, amphibolite, gneiss	

TABLE I. Table of Formations (from Muller, et al, 1974).

Table 1 is the table of formations which correlates with the regional geologic map (Figure 3, in pocket).

The Vancouver Group includes calcareous siltstones of the Parson Bay Formation. These rocks, which locally contain quantities of carbonaceous material and pyrite, are thought to be favourable hosts for disseminated gold mineralization. A brief description of the Vancouver Group is therefore included.

The Vancouver Group is by far the most extensive unit of the Alert Bay-Cape Scott map-area. These rocks range in age from Middle Triassic to Lower Jurassic and have been divided into a basal sediment-sill unit, the Karmutsen, Quatsino, Parson Bay and Harbledown Formations, and the Bonanza Volcanics (Figure 4).

i) Sediment Sill Unit

The lowermost unit consists of a minor amount of thin-bedded black shales and siltstones occurring between numerous basaltic sills. The siliceous metasediments are Triassic in age while the basaltic dykes appear to be related to the Karmutsen Formation, dated as Late Triassic.

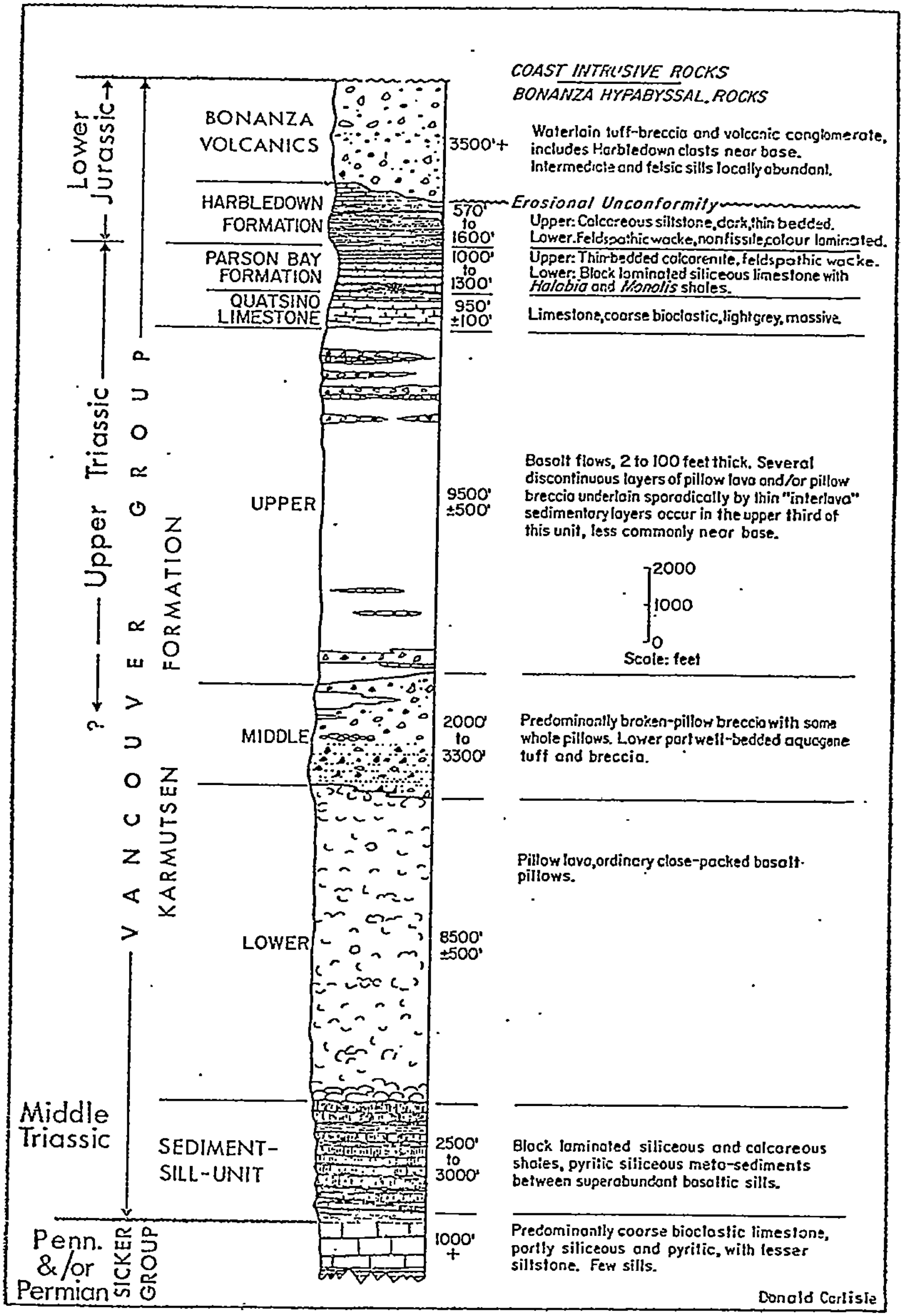


FIGURE 4. Stratigraphic chart for the Vancouver Group (from Muller, et al, 1974).

ii) Karmutsen Formation

The Karmutsen Formation forms the largest part of the Vancouver Group. Maximum thickness is considered to be approximately 19,000 feet. The stratigraphic succession within the Karmutsen Formation has been subdivided into three divisions; a lower one of pillow lavas, a middle one of pillow breccias and aquagene tuffs, and an upper one of layered flows. It has been hypothesized that the Karmutsen Volcanics were extruded in a rift-related inter-arc basin during late Triassic time.

iii) Quatsino Formation

The Quatsino Formation is exposed in three approximately linear belts in the Alert Bay-Cape Scott map-area. Due to the relatively recessive nature of the calcareous rocks, they generally underlie low-land areas.

The Quatsino Formation consists of a lower section of thick-bedded to massive limestone, and an upper section of medium to thin-bedded limestone. The upper section of Quatsino Formation is interlaminated with black calcareous siltstone. The contact between Quatsino limestone and overlying Parson Bay Formation is gradational and indicated by the appearance of laminae and layers of black calcareous shale between limestone beds.

Upwards, the shale intercalations increase in thickness while limestone beds become thinner. The contact is most logically placed where black shale and arenite first predominate over pure, light grey carbonate.

iv) Parson Bay Formation

The Parson Bay Formation was introduced as a map unit by Muller et a (1974) and defined as a group of Upper Triassic clastic carbonate sediments which overlie the Quatsino Formation. This division included a group of predominantly volcano-sedimentary upper Triassic units defined by Jeletzky (1976), which immediately underlie the basal Jurassic volcanics associated with the Bonanza Formation. In many areas the inclusion of these units within the Parson Bay Formation presents little problems, but locally they may reach a considerable thickness. This is particularly apparent around Quatsino Sound where a thick section of waterlain tuffs and tuff breccias, the Hecate Cove Formation (Jeletzky, 1976), are exposed. A similar situation exists at the top of Lippy Creek north of Port Alice. In both cases the development of this unit appears to have occurred at the expense of the typical black calcareous siltstones.

Muller, et al (1974) presented a number of sections of Parson Bay Formation in northern Vancouver

Island. These sections (Figure 5) display some of the variations in lithology and thickness between the west and east coast. Field work indicates considerably more variation than suggested by Muller, et al (1974). In very general terms, the lithological variations may be summarized as follows:

Beaver Cove (East Coast):

The Parson Bay Formation may be divided into two units. The lower unit consists of thickly-bedded calcareous siltstones which pass gradationally downwards into massive and bedded Quatsino limestone. The upper unit contains thinly-bedded weakly calcareous siltstones and siliceous cherty beds. The latter unit contains large amounts of pyrite. The total thickness is approximately 250 metres.

Alice Lake (Central Region):

This section is dominated by uniform well-bedded calcareous siltstone with a thickness probably in excess of 400 metres. Minor beds of calcareous tuffaceous sediments are present throughout the upper part of the section.

The Holberg Area (Northwest Region):

The thickness of Parson Bay Formation is very variable in this area, from 30 metres to in excess of

200 metres. Where the formation is thin, it is dominated by calcareous waterlain tuffaceous sediments. Calcareous siltstones become more prominent in the thicker sections.

West Coast:

Deformation and faulting hinders the development of a stratigraphy for the Parson Bay Formation on the west coast. An extensive thickness of well-bedded black calcareous siltstone does, however, appear to be present in most areas.

v) Harbledown Formation

The Harbledown Formation, which conformably overlies the Parson Bay Formation, consists of a Lower Jurassic argillite-greywacke sequence. It is most easily distinguished from the Parson Bay Formation by its noncalcareous nature.

iv) Bonanza Volcanics

Bonanza Volcanics represent renewed arc-type volcanism in the Early Jurassic. The lithology of the Bonanza Volcanics is varied and heterogeneous. Lavas range in composition from basaltic andesite to rhyodacite and are interbedded with tuffs, breccias and clastic sedimentary units.

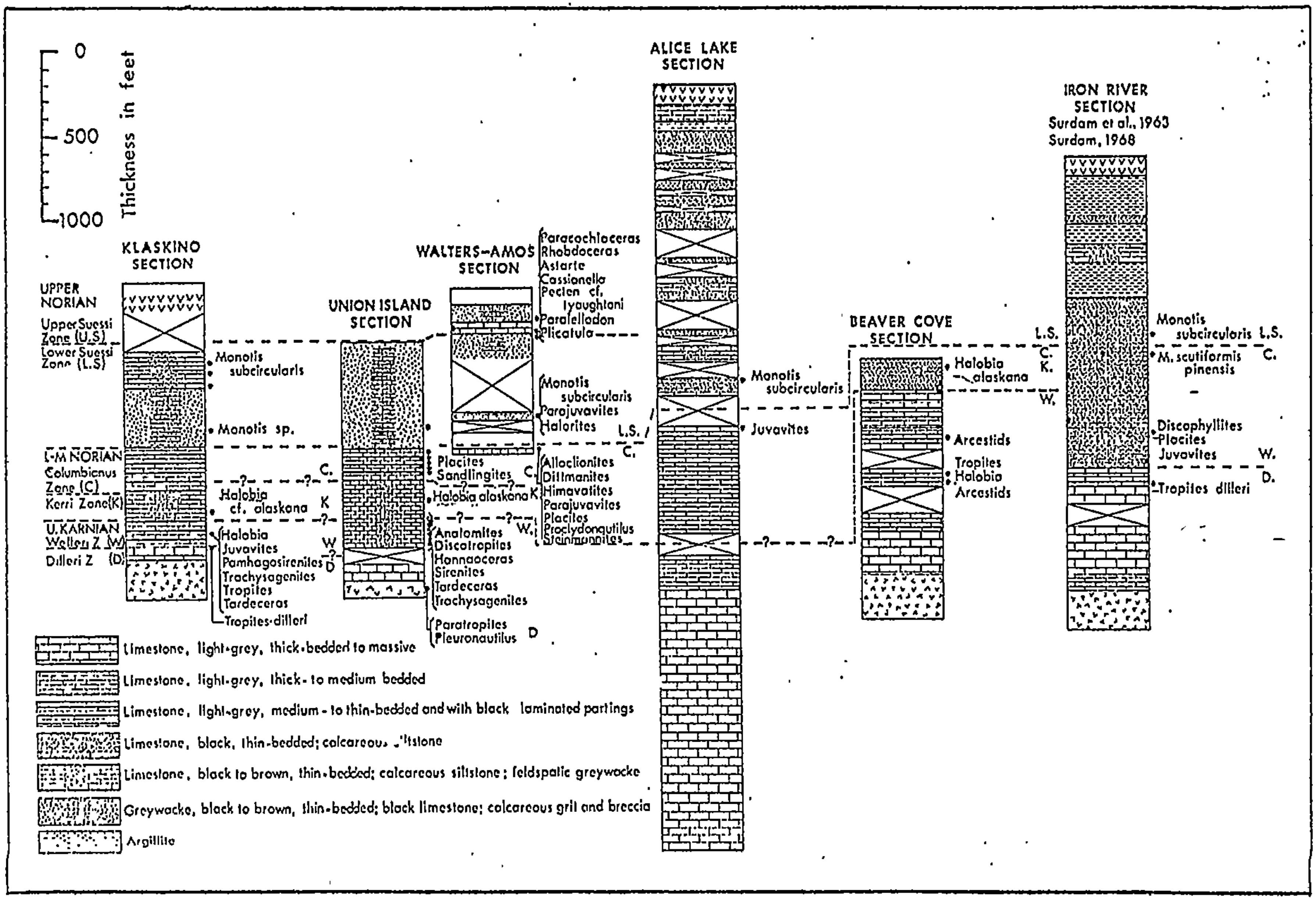


FIGURE 5. Sections of Parson Bay and Quatsino Formations (from Muller, et al, 1974).

8) PROPERTY GEOLOGY

An extensive thickness of well-bedded black calcareous siltstones of the Parson Bay Formation crop out throughout the property flanked both to the northeast and southwest by Bonanza volcanics. Although the fault structure shown by Muller et al (1979) was not located, the Parson Bay Formation is extensively disrupted in this area and fault structures are probably present. Evidence for the important Holberg fault in Holberg Inlet is provided by the total random disruption and faulting of the Parson Bay Formation which is exposed along the shoreline. In addition, a massive mafic to intermediate dyke of a probable Tertiary age cuts the Parson Bay Formation in this area. In general, the Parson Bay Formation on this property is a highly calcareous, locally foetid, black, bedded siltstone with beds on the order of 10-50 cm thick. The intersection of important fault structures with this lithology makes this property geologically interesting.

9) GEOCHEMISTRY

A) Introduction

A total of 17 stream sediment samples, and 23 rock chip samples were collected in the claim area (Figure 7). In addition, 16 overburden drill holes were completed.

Poor outcrop exposure limited the location of the rock chip samples to roadcuts and rare quarries. Generally, the overburden was approximately 1-3 metres thick. Most of the tributaries of the Goodspeed River were stream sediment sampled in the claim area.

Sixteen deep overburden drill holes were completed in the claim area using a 2-man-operated, semi-portable drill system called the Marlow Prospector-pac. The system is driven by a 10 horsepower Briggs and Stratton water-cooled engine which provides pressure for a connected hydraulic power pack. The hydraulics are used to drive a hand-held percussion-type hammering device which pounds the steel drill rods into the ground. A flow-through sampler bit retrieves a "core" sample approximately 20 cm long and 2 cm in diameter. Ideally, this will consist of a basal till or C-horizon overburden sample plus a few chips of the underlying bedrock.

Total weight of the system is over 300 pounds, therefore, the location of drill sites was limited to a large degree by road accessibility.

All samples were placed in numbered, wet-strength, 8 by 24 cm Kraft paper envelopes and air dried at room temperature.

Samples were submitted to Acme Analytical Laboratories in Vancouver for ICP (Inductively Coupled Plasma) analysis for the following 29 elements at a cost of $5.50/sample:

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

Acme also completed geochemical assay for Au and Hg at an additional cost of $5.25/sample.

Additional charges for each soil, stream and lake sediment sample included $1.00 for pH analysis, $.40 for sample preparation, and $.25 for storage or reject fractions. For rock chips, $2.25 was charged for sample preparation.

Total cost of each soil, stream and lake sediment sample was $15.40, while total cost for each rock chip sample was $17.25. These costs included an estimated cost of $3.00 per sample to cover data processing (i.e. sample plotting, etc.).

B) Analytical Procedure

The methods of analyses performed by Acme Analytical Laboratories are as follows:

SAMPLE PREPARATION

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

2. Rock samples are pulverized to -100 mesh.

Geochemical Analysis of Au

10.0 - 30.0 gram samples are subjected to Fire assay preconcentration techniques to produce silver beads. The silver beads are dissolved and Au is determined in the solution by Atomic Absorption.

Geochemical Analysis of Hg

Digestion

A .50 gram sample is digested with aqua regia and diluted with 20% HCL.

Determination

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

Multi Element Analysis by ICP

Digestion of Sample

0.5 gram samples are digested with hot aqua regia for one hour and the sample is diluted to 10 ml. The diluted sample is aspirated into a chamber where it is heated to 5,000 to 10,000 K in an argon plasma generated inductively by a radio frequency generator. The temperature is high enough to cause elements to emit light which is measured.

The ICP method has an extended dynamic range usually over many orders of magnitude of concentration. Interferences by other elements are electronically eliminated.

Interpretation of Results

Standard M-1 is a certified geochem standard used to monitor the results. M-1 has the following analysis.

1.	Mo :	in ppm	M1	2.	ppm
2.	Cu :	in ppm	M1	28.	ppm
3.	Pb :	in ppm	M1	38.	ppm
4.	Zn :	in ppm	M1	180.	ppm
5.	Ag :	in ppm	M1	0.3	ppm
6.	Ni :	in ppm	M1	32.	ppm
7.	Co :	in ppm	M1	12.	ppm
8.	Mn :	in ppm	M1	800.	ppm
9.	Fe :	in %	M1	2.5	ppm
10.	As :	in ppm	M1	8.	ppm
11.	U :	in ppm	M1	3.	ppm
12.	IS :	Internal Standard.			
13.	Th :	in ppm	M1	3.	ppm
14.	IS :	Internal Standard			
15.	Cd :	in ppm	M1	2.	ppm
16.	Sb :	in ppm	M1	3.	ppm
17.	Bi :	in ppm	M1	2.	ppm
18.	V :	in ppm	M1	54.	ppm
19.	Ca :	in %	M1	0.62	%
20.	P :	in %	M1	0.11	%
21.	La :	in ppm	M1	8.	ppm
22.	In :	in ppm	M1	2.	ppm
23.	Mg :	in %	M1	0.67	%
24.	Ba :	in %	M1	0.023	%
25.	Ti :	in %	M1	0.07	%
26.	B :	in ppm	M1	12.	ppm
27.	Al :	in %	M1	1.9	%
28.	IS :	Internal Standard.			
29.	IS :	Internal Standard.			
30.	W :	in ppm	M1	1.	ppm

Notes:

1. Zinc over 5,000 ppm interferes in W channel.
2. Iron over 1.% interferes on In and Sb channel.

Monitoring of Results

If analysis of standard M-1 is different than the certification, then compensate (add or subtract) samples appropriately.

Standardization:

Complete set of USGS standards, Canadian Certified Reference Materials and 72 specpure metals from Johnson Matthey.

C) Results

Analyses of rock, stream and overburden drill samples failed to yield interesting results. Anomalies were not apparent in any of the eight elements of principal interest (gold, arsenic, antimony, mercury, copper, lead, zinc and silver).

The overburden drilling indicates that bedrock in the area is overlain by a relatively thin (less than 5m) cover of till. A summary of the drilling is as follows:

Hole Number	Sample Number	Depth (m)	Material Sampled
19	705019	2.5	C-horizon plus calcareous siltstone bedrock chips.
20	705020	3.0	Same.
21	705021	3.0	C-horizon with probable bedrock chips.
22	705022	11.5	Same.
23	705023	2.0	Same.
24	705024	3.0	C-horizon or till.
25	705025	3.2	Same.
26	705026	3.0	C-horizon plus bedrock chips.
27	705027	3.2	Same.
28	705028	3.0	C-horizon plus probable volcanic bedrock chips.
29	705029	5.5	C-horizon plus calcareous bedrock chips.
30	705030	2.1	Same.
31	705031	1.4	Till
32	705032	4.0	C-horizon plus probable calcareous becrock chips.
33	705033	4.0	Same.
34	705034	5.5	Same.

10) CONCLUSIONS AND RECOMMENDATIONS

Although the results of work this year failed to provide any geochemical encouragement, the geological environment remains a highly suitable one. In that a large portion of the area remains unsampled, additional mapping and sampling are recommended.

References

Jeletzky, J.A. (1976): Mesozoic and Tertiary Rocks of Quatsino Sound, Vancouver Island; Geological Survey of Canada, Bulletin 242.

Muller, J.E., Northcote, K.E., and Carlisle, D. (1974): Geology and Mineral Deposits of Alert Bay-Cape Scott Map-Area, British Columbia; Geological Survey of Canada, Paper 74-8.

APPENDIX I

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Russell H. Wong of 890 West Pender Street - Suite 700, Vancouver, in the Province of British Columbia, Do Hereby State:

1. The I am a graduate of the University of British Columbia, Vancouver, B.C., where I obtained a B.Sc in Geology in 1975.

2. That I am currently completing an M.Sc. degree in Geology at the University of British Columbia, Vancouver, B.C.

3. That I have been active in mineral exploration since 1973.

4. That I am a member in good standing of the North-west Mining Association.

5. That I have practised my profession continuously as a staff geologist for BP Minerals Limited, since 1979.

Russell H Wong

September, 1982
Vancouver, B.C.

Russell H. Wong
BP Geologist

APPENDIX II

STATEMENT OF COSTS

Statement of Costs

A) 1. BP LABOUR:

J. Thompson	Project Geologist July 3,4,5,15 (1/2 day)	
	3 1/2 days @ $120/day	$420
M. Flanagan	Geologist July 3,4,5,15	
	4 days @ $110/day	$440
D. McClymont	Assistant July 3,4,5	
	3 days @ $75/day	$225
M. Renning	Assistant July 3,4,5	
	3 days @ $60/day	$180
R. Wong	Project Geologist May 16,17	
	2 days @ $200/day	$400
W. Bleaney	Geologist May 16,17	
	2 days @ $105/day	$210

2. GEOCHEMICAL ANALYSIS

17 soil/stream/lake sediment samples @ $15.40/sample.	
(29 element ICP analysis, geochemical assay for Au and Hg, pH determination, sample preparation and storage, data processing).	$261.80
23 rock chip samples @ $16.00/sample	
(29 element ICP analysis, geochemical assay for Au and Hg, sample preparation and storage data processing).	$368

3. <u>DRAFTING/REPRODUCTION/TYPING:</u> $150

4. <u>SUPPORT COSTS:</u>

18 man-days of Food and Accommodation @ $40/man day	$720
5 days of truck rentals: (Redhawk - 2 Four Wheel Drive Jimmys) @ $75/day (including fuel for two vehicles).	$375
Miscellaneous consumable equipment and supplies (topofil, flagging, sample bags).	$150
SUB TOTAL:	$3899.80

B) Overburden Drill Costs:

Deep overburden drilling was conducted on five separate claim groups in the area. In total, 41 holes were completed at an overall cost of $7,536.12. The figure to be applied for assessment purposes therefore equals $183.80 per drill hole. This does not include an additional $12.50 for geochemical analysis of the drill sample.

On the property, sixteen holes were completed for a total drill-related credit of $3,140.80.

1. Transportation:

Ferry	$37
Truck rental (13 days)	$529.66
Gas	$126.18

2. Labour from Alex J. Turpin Company Limited
   2 men from May 8-21 @ $160/day — $4,480

3. Accommodation:

   28 man-days @ $40/day — $1,120

4. Parts:

3 drill rods @ $45 each	$135
4 drill bits @ $210 each	$840
Oil and spare parts	$44.28
SUB TOTAL:	$7,536.12

41 holes drilled in total:

cost per hole = $\frac{\$7,536.12}{41}$ = $183.80

Plus analytical cost of $12.50/hole.

16 holes drilled on the HB Group B claims for a total value of: 16x($183.80+$12.50) = $3,140.80

C) Summary of Assessment Credits to be Applied:

Non-drill Costs	$3899.80
Drill Costs	$3140.80
TOTAL ASSESSMENT	$7040.60

($6500 to be applied).

APPENDIX III

ANALYTICAL RESULTS

SAMPLE TYPE LEGEND: 10 stream sediment, 30 lake sediment - lake centre, 32 lake sediment - near shore, 50 soil sample, 81 rock sample, 90 special sample.

Sample Type	Sample No.	Mo	Cu	Pb	Zn	Ni	U	Mn	Fe%	Ag	Co	Au*	As	Hg*	Sb	W	Th	Cd	Bi
10	636087	4	31	9	152	37	6	1627	4.3	.4	25	5	4	65	1	0	0	3	0
10	636088	7	43	4	209	61	6	2031	3.9	.7	17	5	5	110	1	0	0	4	1
10	636090	5	42	13	92	17	4	611	6.7	.6	17	10	13	25	2	1	0	4	0
10	636093	3	35	6	103	22	6	1641	4.0	.3	21	10	5	50	0	0	0	2	0
10	636094	3	39	5	99	35	5	598	4.3	.4	17	5	6	40	0	0	0	2	1
10	636095	4	25	7	147	24	12	1602	3.8	.4	18	5	5	70	1	0	0	3	1
10	636096	4	50	9	156	69	3	1491	4.5	.4	29	5	14	75	0	0	0	5	2
10	638089	5	40	10	124	92	3	1110	4.7	.5	28	5	1	65	2	0	0	3	0
10	638090	8	55	4	207	66	2	621	3.9	.6	20	5	9	100	1	0	0	4	1
10	638091	6	58	8	194	56	3	478	3.4	.4	19	5	10	110	1	0	0	3	0
10	638092	6	41	6	163	35	4	330	3.3	.2	13	5	8	65	0	0	0	3	0
10	638093	5	49	9	143	49	6	506	3.8	.4	17	5	6	55	0	0	0	3	1
81	631084	10	11	2	15	28	11	57	.3	.1	2	5	23	700	1	2	0	0	5
81	631085	14	49	1	180	46	2	179	3.5	1.0	8	5	16	130	1	0	0	3	0
81	631086	1	35	2	56	7	3	998	4.3	.7	17	5	8	15	1	1	0	4	2
81	631087	5	47	4	135	28	8	304	2.8	.7	11	5	14	60	0	0	1	3	2
81	631088	10	48	3	170	42	5	279	4.4	1.4	7	5	22	135	0	1	0	4	1
81	631089	5	12	1	69	15	3	218	1.9	.0	4	5	4	5	0	0	0	1	0
81	631090	18	29	2	63	18	11	348	6.2	1.3	4	5	49	40	2	1	0	6	1
81	631091	5	37	2	111	38	10	298	1.4	.8	6	5	10	5	0	0	0	2	3
81	631092	1	51	2	129	32	7	404	4.1	1.0	11	5	10	80	0	1	0	5	3
81	631093	5	29	2	142	23	15	665	1.5	.5	4	5	11	30	0	1	0	5	4
81	631094	1	57	2	91	38	7	396	3.4	.8	19	5	13	100	0	2	0	3	3
81	631095	2	23	2	55	19	8	436	1.7	.5	6	5	5	35	0	1	0	2	3
81	631096	1	40	4	89	15	6	350	3.4	.5	10	5	10	20	0	0	0	3	2
81	631135	3	35	2	82	30	6	256	1.7	.4	8	5	11	80	0	0	0	2	3
81	634059	3	20	1	19	10	0	85	2.2	.3	5	5	6	40	0	0	0	1	0
81	636091	3	30	2	97	26	10	307	1.2	.9	5	5	7	50	0	1	0	3	4
81	636092	3	44	1	104	35	8	418	1.8	.5	11	5	8	30	0	0	0	2	3
10	638094	6	65	9	115	27	3	540	4.3	.3	16	5	10	20	0	1	0	3	1

* Goochem Assay

	V	Ba	Al%	Fe%	Mg%	Ca%	Ti	P	Mn	La	In	B	Cr	Nb	Au
636087	105	222	2.02	4.3	.72	.46	.04	.08	1627	9	0	6		3	0
636088	98	321	1.45	3.9	.28	.78	.01	.11	2031	10	1	10		3	0
636090	239	0	1.91	6.7	.92	.66	.28	.06	611	11	0	2		4	0
636093	95	137	1.52	4.0	.39	.50	.04	.08	1641	7	0	4		3	0
636094	99	256	1.95	4.3	1.01	.59	.12	.12	598	8	0	4		3	0
636095	98	450	2.29	3.8	.67	.59	.04	.09	1602	8	0	4		3	0
636096	153	78	2.46	4.5	1.19	1.04	.26	.09	1491	9	0	8		4	0
638089	98	172	2.21	4.7	1.05	.64	.00	.11	1110	11	0	3		4	0
638090	116	208	1.59	3.9	.67	.78	.02	.16	621	12	0	4		3	0
638091	109	125	1.40	3.4	.49	.65	.01	.16	478	11	0	3		3	0
638092	130	413	1.24	3.3	.74	.39	.10	.11	330	7	1	7		2	0
638093	114	322	1.79	3.8	1.04	.67	.07	.12	506	8	0	4		3	0

	V	Ba	Al%	Fe%	Mg%	Ca%	Ti	P	Mn	La	In	B	Cr	Nb	Au
631084	29	19	.05	.3	.15	24.52	.00	.05	57	2	1	3	7	12	0
631085	34	166	.43	3.5	.12	.43	.00	.07	179	7	0	4	25	2	0
631086	80	87	1.70	4.3	1.05	5.60	.00	.08	998	12	0	4	8	6	0
631087	36	84	.35	2.8	.48	6.55	.00	.08	304	9	1	4	19	6	0
631088	37	51	.24	4.4	.79	5.03	.00	.03	279	6	0	4	29	5	0
631089	43	431	.59	1.9	.35	.83	.00	.02	218	3	1	4	11	2	0
631090	45	43	.35	6.2	.32	8.18	.00	.16	348	6	0	4	23	8	0
631091	38	73	.16	1.4	.62	10.20	.00	.04	298	5	0	7	21	7	0
631092	74	116	1.15	4.1	.98	9.39	.00	.05	404	7	1	8	40	8	0
631093	67	68	.21	1.5	.46	13.62	.00	.09	665	8	1	5	23	8	0
631094	96	159	1.09	3.4	1.34	8.13	.00	.20	396	8	1	4	38	7	0
631095	25	207	.70	1.7	.60	12.06	.00	.17	436	7	2	5	16	8	0
631096	92	136	.90	3.4	1.07	3.27	.10	.09	350	10	0	5	29	5	0
631135	35	65	.53	1.7	.50	10.18	.00	.08	250	8	1	7	13	7	0
634059	30	30	.25	2.2	.03	1.82	.00	.01	85	1	0	3	9	2	0
636091	43	222	.21	1.2	1.24	12.14	.00	.05	307	4	1	3		8	0
636092	44	74	.55	1.8	.48	.14	.00	0.	418	6	1	3		5	0
638094	144	96	1.77	4.3	.84	.63	.17	.09	540	9	0	4		3	0

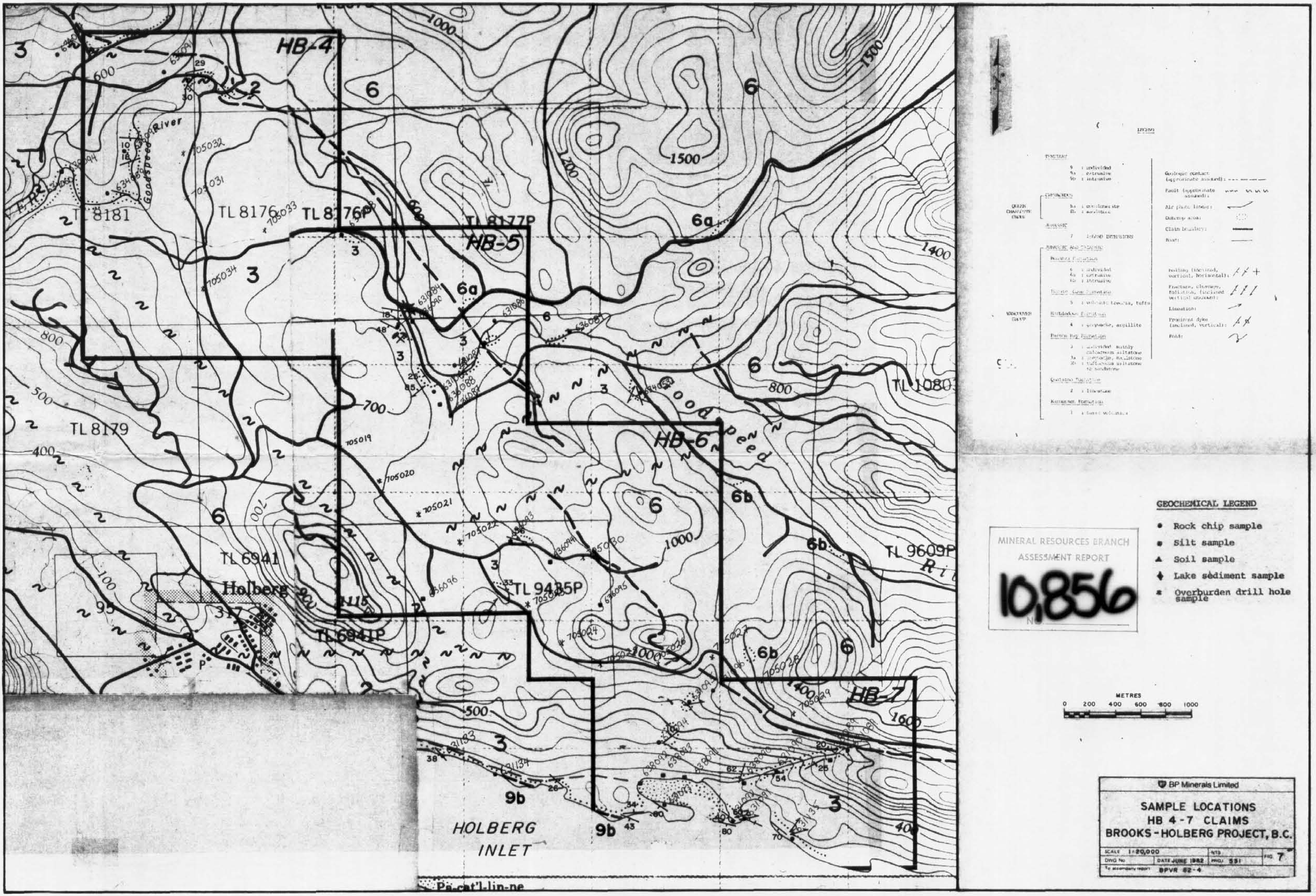
SAMPLE TYPE LEGEND: 10 stream sediment, 30 lake sediment - lake centre, 32 lake sediment - near shore, 50 soil sample, 81 rock sample, 90 special sample.

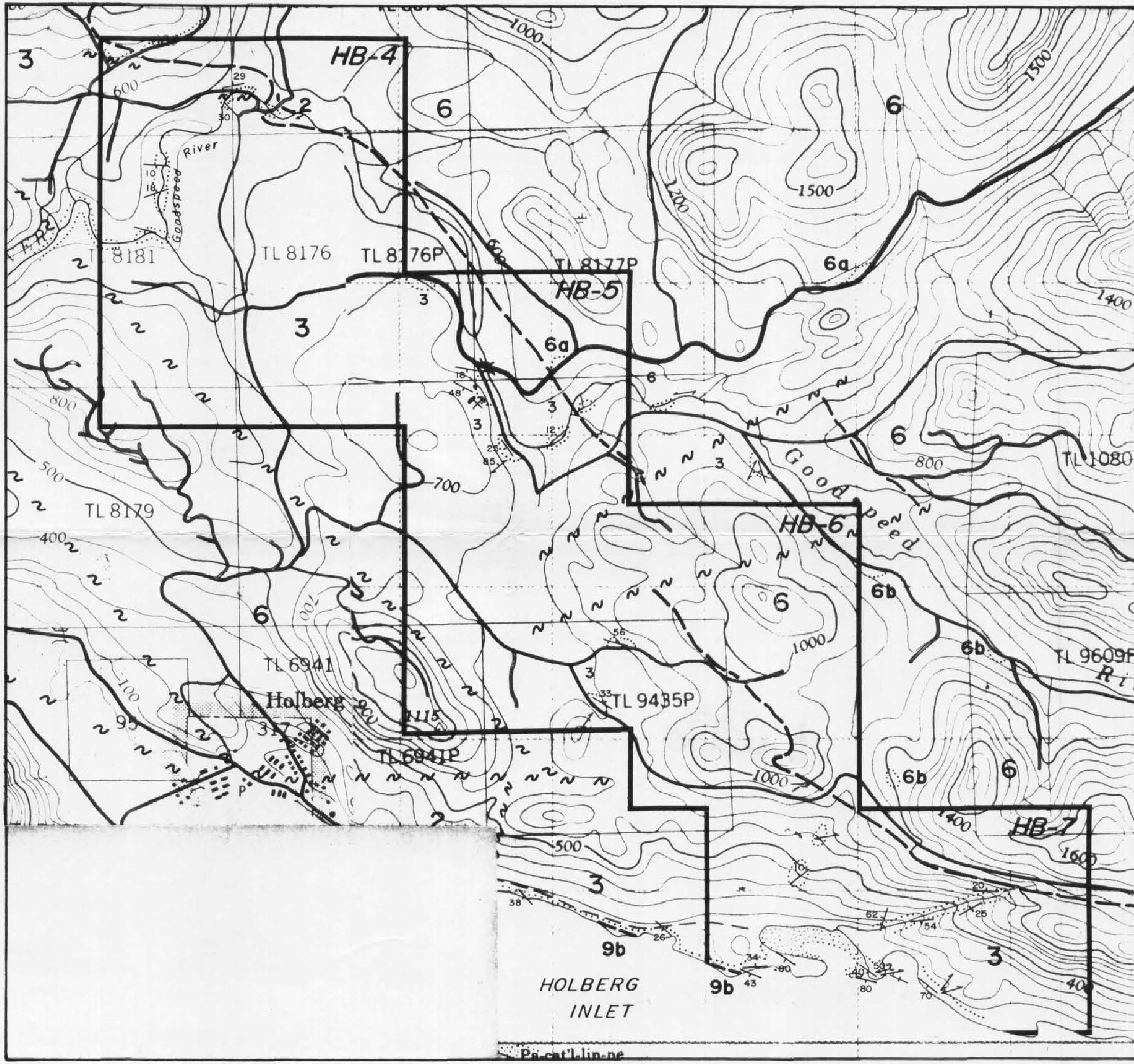
Sample Type	Sample No.	Mo	Cu	Pb	Zn	Ni	U	Mn	Fe%	Ag	Co	Au*	As	Hg*	Sb	W	Th	Cd	Bi
81	634057	2	53	2	83	30	7	658	2.4	.7	18	5	10	20	0	1	0	3	4
81	634058	2	30	1	84	16	5	223	2.9	.4	6	5	3	15	1	0	0	1	0
81	634059	3	20	1	19	10	0	85	2.2	.3	5	5	6	40	0	0	0	1	0
81	634060	30	27	2	321	59	7	102	.6	.4	2	5	31	105	2	1	0	6	4
81	636091	3	30	2	97	26	10	307	1.2	.9	5	5	7	50	0	1	0	3	4

* Geochem Assay

Au and Hg measured in ppb.

Sample No.	V	Ba	Al%	Fe%	Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb	Au
634057	40	93	.46	2.4	.47	10.85	.00	.14	658	7	1	3	23	7	0
634058	112	379	.91	2.9	.63	.16	.00	.04	223	5	0	2	33	2	0
634059	30	30	.25	2.2	.03	1.82	.00	.01	85	1	0	3	9	2	0
634060	142	30	.08	.6	.07	20.90	.00	.01	102	4	1	2	43	11	0
636091	43	222	.21	1.2	1.24	12.14	.00	.05	307	4	1	3		8	0


HB-4
HB-5
HB-6
HB-7
TL 8181
TL 8176
TL 8176P
TL 8177P
TL 8179
TL 6941
TL 6941P
TL 9485P
TL 9609P
TL 1080
Goodspeed River
Holberg
HOLBERG INLET
Pa-cat'l-lin-ne
Geologic contact (approximate assumed):
Fault (approximate assumed):
Air photo linear:
Outcrop area:
Claim boundary:
Road:
Bedding (inclined, vertical, horizontal):
Fracture, cleavage, foliation, (inclined vertical unknown):
Lineation:
Prominent dyke (inclined, vertical):
Fold:
Queen Charlotte Group
Jurassic
Jurassic and Triassic
Vancouver Group
Bonanza Formation
6 : undivided
6a : extrusive
6b : intrusive
5 : volcanic breccia, tuffs
4 : greywacke, argillite
Parson Bay Formation
2 : limestone
GEOCHEMICAL LEGEND
Rock chip sample
Silt sample
Soil sample
Lake sediment sample
Overburden drill hole sample
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,856
METRES
0 200 400 600 800 1000
BP Minerals Limited
SAMPLE LOCATIONS
HB 4-7 CLAIMS
BROOKS-HOLBERG PROJECT, B.C.
SCALE 1:20,000
DATE JUNE 1982
PROJ 551
FIG 7
BPVR 82-4



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 10,856

METRES
0 200 400 600 800 1000

BP Minerals Limited

GEOLOGY
HB 4-7 CLAIMS
BROOKS-HOLBERG PROJECT, B.C.

SCALE 1/20,000		NTS	FIG. 6.
DWG No	DATE JUNE 1982	PROJ. 531	
To accompany report	BPVR 82-4		