

PROPERTY FILE

926158-07

012563

5033

LOGS OF DIAMOND DRILL
HOLES

M-1

M-2

M-3

M-4

HOLE NO. M-1
 BASING COLLAR ELEV.: 225

GROUND ELEV.:

COORDINATES: N. E.

INCLINATION: -90° BEARING:

PROJECT: Maud B Mainline

DATE STARTED: 15 June 1974

DATE FINISHED: 19 June 1974

TOTAL DEPTH: 503'

PAGE NO: 1 OF 1

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: PMK

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.	ESTI-MATED
0							0-11 Overburden					B2	0		
10							11-168 Trachyandesite ? - Hornblende Andesite med grey-green, med grained, fair fract. density. Quite shattered. chloritic, crystals of black hornblende, and pyroxenes, numerous - small, up to 5mm. Some white qtz frags ~ 1 to 2mm. Fine calc. veinlets at intervals, sometimes becoming more abundant. mang. dendrites Fine manganese dendrites, often in qtz vns. or pods. Non or weakly magnetic				89		11		
20													20		
30													30		<0.10
40													40		N/S
50													50		N/S
60													60		<0.10

HOLE NO. M-1

PROJECT:

PAGE NO: 2 OF 9

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF TO CLAIM CORNER:

COORDINATES:

N:

E:

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY: PMK

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTI-MATED		
							<p>qtz 3cm 11-168 calc vns x qtz vn. mang.</p> <p>↓</p> <p>60'- qtz vn w some calc vnlets x qtz. more calc vns; many mang. dendrites</p> <p>↓</p> <p>75-83 qtz vns. at intervals, w. abundant mang.; some calc vnlets.</p> <p>↓</p> <p>soft green chlor.</p> <p>↓</p> <p>shattered</p>										
													60		N/S		
													70		N/S		
													80		N/S		
											92				<0.10		
													90		N/S		
													100		N/S		
													110		N/S		
															<0.10		
											87		120				

HOLE NO. *M-1*
 GASSING COLLAR ELEV.:
 COORDINATES:
 INCLINATION:

GROUND ELEV.:
 N. E.
 BEARING:

PROJECT:
 DATE STARTED:
 DATE FINISHED:
 TOTAL DEPTH:

PAGE NO: *5* OF *4*
 REF TO CLAIM CORNER:
 SCALE:
 LOGGED BY: *PMK*

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY SAMP. INT.	ESTI-MATED
20							<p>calc vug. 11-168 calc-qt: many v. w slip. (post-ur) Trachyandesite cont'd - see previous pages</p>						120		n/s.
30										92			130		n/s.
40							<p>some calc-qt vugs w or staining - later mang. deposition lamination</p>						140		20 10
50													150		n/s.
60							<p>alt. calc-qt v. n.p.</p>						160		n/s.
70							<p>168-225 Trachyandesite same as above. med grey-green, fine gr'd, fair fract density. hornblende, few pyroxene xstals < 5mm. dispersed through core</p>						170		
80													180		

HOLE NO. M-1

PROJECT:

PAGE NO. 2 OF 1

BARING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF TO CLAIM CONNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY: PMK

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP INT.	ESTI-MATED
80							168-225 Trachyandesite cont'd from previous page.						80		
75							Few white calc veins crossing through core. Occas lamm. int.						190		
							Minor amts dissen py calc veining Weakly or non-magnetic						200		Sampled
							crumbly zone minor gouge						210		Not
							veins of fragm'l limestone in trachyandesite						220		
							sharp contact 225-483 Quartzite Limestone						230		
							med grey - some whiter zones. fine dark veinlets forming network, cracked appearance through core. parts look brecciated + "re-lined". Darker frags w white frags in brecciated core. Dark carbonaceous						240		

HOLE NO. 11-1

PROJECT:

PAGE NO: 5 OF 7

ASSIGN COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY: PMK

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTI-MATED	
70							225-483 Quartzine Limestone cont'd from previous page ex- calc. mat. giving dark gray coloration. occas pod of disse. sulphides-py.						240			
75							uns dark carbon w white calc						250			
75													260		Sample lost	
75													270			
75													280		Not	
75							sandy carb. vms. some white calc						290			
75							large 1-2 dark black frags.						300			

HOLE NO. M-1

PROJECT:

PAGE NO: 2 OF 4

ASSING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY: PMK

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTI-MATED
20							225-483 Quatsino Limestone cont'd - see previous 2 pages.								
10							runny-mudgy								
30							black-sooty carbon zone								
40							brecciated appearance white-grey-black frags but then blended w/ other calc. stuff	348- vuggy black lime							
350															
31															

Not Sampled

HOLE NO. M-1

PROJECT:

PAGE NO. 7 OF 9

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY: PMK

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP INT.	ESTI-MATED
360							225-483 Quatsino Limestone cont'd - see previous pages.								
370							brass colored apparent black-carbonaceous brass colored								
390							smooth, pale grey venat in fine c, some sulphide slipped 2 black frags. 1/2"								
400							black carbonaceous apparent fine carbonaceous								
420															
440															
460															

Not Sampled

HOLE NO. M 2

PROJECT:

PAGE NO: 2 of 10

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY: PMK

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTI-MATED	
90							thin clay beds to 25' to core	43-175	Quartzite Limestone							
100																
110							mic. calc vnlts lamin through grey some calc frags. w clay bed									
120							light grey grdmass w calc specks calc carbonaceous vnlts, mainly									
130							many calc vns.									
140							bedded w 45° to core latter beds of intergr.									
150							1 m to 14-20' lighter grey ls w calc specks fine grained									

72

MOLE NO. *M 2*

PROJECT:

PAGE NO: *6* OF *10*

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY: *PMK*

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTI-MATED	
330							<p><i>small frags - water calc. in Ls < 4 oxi together</i></p> <p><i>257-340 Quatsino limestone</i></p> <p><i>311-340 coarse calc. veinlets through core</i></p>									
340							<p><i>340-351 Quatsino Ls w. volc frags embedded</i></p> <p><i>Med gray-tan, fine gr'd, low fract density calc + black C veinlets. Ls. grdmass speckled w small < 1/8" volc frags.</i></p>									
350							<p><i>351-415 Volcanic Sill - Trachybasalt</i></p> <p><i>Med to dark gray-green, coarse gr'd, fair fract density</i></p> <p><i>Numerous black hornblende xtals and white fspar phenos embedded through core. Fine white calc + black ls. veinlets crossing through core.</i></p> <p><i>Some epidote alt blotches.</i></p> <p><i>Minor hematite veining, some w calc.</i></p>									
360																
370																
380																
390																

92

320

HOLE NO. **M3**

PROJECT:

PAGE NO: **2** OF

GASBANK COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTI-MATED	
60							53 - 149 Karmutsen Volcanics Dark grey green, med gr'd, low fract density. Small dark mafic mins, some green alt'd chloritic frags + white spars. in dark gr'd mass Fine calc inlets. Non-magnetic From 95' + epid vns + frags. occur. From 106 - 133 Minor amt's of hematite in vns + matrix fused through gr'd mass. calc frags - rounded, clusters. alt'd strongly zone quite chloritic green alt? epid + calc vns. matrix vns, clusters. epid frags, many spots									
70											88					
80																
90															<.2	
100																
110																
120																

0.35
.001

HOLE NO. M3
 COLLAR ELEV.:
 COORDINATES:
 INCLINATION: 90°

GROUND ELEV.:
 N. E.
 BEARING:

PROJECT:
 DATE STARTED:
 DATE FINISHED:
 TOTAL DEPTH:

PAGE NO: 7 OF
 REF. TO CLAIM CORNER:
 SCALE:
 LOGGED BY: J.P.F.

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTI-MATED
150							<p>LIGHT SAND. MASSES WITH MIN. MASSES, ...</p>								
170							<p><u>STRUCTURE</u>: N/S LAMINATE - ...</p>								
200							<p><u>ALTERATION</u>: LOCAL INTENSIVE ...</p>								
210							<p>149-181 <u>SPHAL</u> - Mg, ...</p>								
220							<p><u>CALCINIC TEXTURE</u></p>								
230							<p>181-215 <u>AMYGNOLYTIC</u> ...</p>								

INTERF. ...

OUT 1.0M ...

MOLE NO. 173

PROJECT:

PAGE NO: 5 OF

SHAFT COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE:

INCLINATION: 90°

BEARING:

TOTAL DEPTH:

LOGGED BY: J.A.F.

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTI-MATED	
215-220							Mg RICH PEGMATITE CONTAINING DIOPHASE IN CONTACT WITH RHYOLITE - PEGMATITE - PEGMATITE - PEGMATITE - PEGMATITE BASALT - PEGMATITE - PEGMATITE - PEGMATITE - PEGMATITE WITH HEM @ 24"									
220-225							<u>BASALT</u> - Mg RICH BROWN - HEM - FB S MASS - <u>SARONITE</u> - PEGMATITE -									
225-230							<u>APPROXIMATELY</u> - PEGMATITE - PEGMATITE SIMILAR TO PEGMATITE SECTION - MINOR HEM & MINOR HEM OF MAGNETITE IN EPIDOTIC LAINE LOCK.									
230-257							<u>BASALT</u> - Mg, DARK GRAY - BROWN S MASS, GREEN FEW SCATTERED CALCS (MAGNETITE) THROUGHOUT. MINOR HEM WITH SOME GR & AT 253' & 257' SIMILAR TO PEGMATITE SECTION									
257-312							<u>APPROXIMATELY</u> - PEGMATITE - PEGMATITE COARSE GRAINED PEGMATITE - DARK GRAY - BROWN CAUSING GRAY BROWN GRAY, Si & PEGMATITE HED. EPIDOTE EPIDOTE + OLIG - 2 MINOR MINOR (QZ PLURAL TO OLIG) AND SUGGESTIVE FRAGS. OF HEM (CONCENTRATION OF MINOR) LOCAL INTENSE SPINELLITE OF HEM (750-200 WITH HEM; 270-272 WITH SILICA + HEM; 300-312) LOW FRACTURE ZONING THROUGHOUT									
312-315							<u>DIORITE (?)</u> - Mg BLACK CALCINATION MAPLE SPOTS TO 2MM, 1000 X M - OF GRANITE - PEGMATITE FELS HED. OF PEGMATITE - PEGMATITE - PEGMATITE PEGMATITE - PEGMATITE - PEGMATITE - PEGMATITE PEGMATITE - PEGMATITE - PEGMATITE - PEGMATITE									

TRANSITION OF
TYPE TO ROCK

HOLE NO. 113

PROJECT:

PAGE NO. 63 OF

SSRING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION: 30°

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.	ESTI-MATED			
315-316							<p>315-314 <u>Amphibolite</u> - <u>epidote</u> - <u>chlorite</u> Amphibolite composed of 40% of amphibole - mainly calcic hornblende, with epidote, chlorite, quartz, and calcite. Epidote is the most abundant mineral in the matrix. Calcite is present in small amounts in the matrix and along fractures.</p>											
316-320							<p>341-355 <u>Amphibolite</u> <u>blast</u> Dark grey-brown massive amphibolite composed of epidote, hornblende, quartz, and calcite. Amphibolite is composed of quartz-epidote, calcite-epidote, hornblende, and quartz. The hornblende is present in small amounts generally in low to medium concentrations. Scattered hornblende and quartz fractures occur along and up to 1 cm in thickness. At low to medium angles.</p>											

OVER

HOLE NO. *M-4*

PROJECT:

PAGE NO: *3* OF *12*

COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.	ESTI-MATED	
120							<p>DESCRIPTIVE GEOLOGY</p> <p><i>92-171 See p 2</i> <i>limey striped argillite</i></p>			<i>120</i>						
130							<p><i>beddy @ 40</i></p>									
140											<i>92</i>					
150																
160																
170							<p><i>beddy @ 60°</i></p>									
180							<p><i>171-236 - Black t.b. argillite, quite limey w thin interbeds gray limey chert some white calc stringers. Beddy @ 45° to core.</i></p>			<i>171</i>		<i>85</i>				

HOLE NO. *M-4*

PROJECT:

PAGE NO: *6* OF *12*

BARING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY: *J.L.*

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT	ESTIMATED
300							DESCRIPTIVE GEOLOGY								
310							<i>278-450</i>								
320															
330															
340															
350															

278-450 See p 5

91

Foreword:

This report is being submitted in compliance with Regulations Governing Assessment Work under the Mineral Act - September 1973.

Four claim groupings are covered and the two forms, "B" and "I" for each of the four, accompany this report.

The diamond drilling upon which the assessment is claimed was performed between June 15 and June 30 1974.

MINERAL ASSESSMENT REPORT

NO. 5033

#1 Index map

#2 Drill hole locations

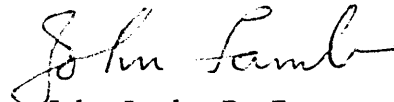
SUMMARY OF WORK

1. Four vertical holes were drilled over a length of two miles along the MacMillan Bloedel mainline haul road, Port Hardy division. The area in question is about 10 miles south of Port Hardy.
2. Size of core produced was BQ.
3. The core is all in safe storage at the Island Copper Mine, of Utah Mines Ltd.
4. Drill hole logs are included with the report. The core was logged by the people listed below, with a statement of their qualifications:
 - a) John Lamb, P. Eng - project geologist
B.A. Sc, M.A. Sc. - geological engineering
University of B.C.
 - b) P.M. Kaiway, E.I.J.- junior geologist
B.A.Sc. - geological engineering
University of B.C.
5. The pertinent data on each hole drilled is:

<u>Hole</u>	<u>Collar Elevation</u>	<u>Inclination</u>	<u>Length</u>
M-1	225'	vertical	508 ft.
M-2	230'	"	608 ft.
M-3	300'	"	401 ft.
M-4	150'	"	703 ft.

The locations of the holes are shown with reference to the appropriate mineral claims, on the map accompanying this report (scale 1 in. = 1000 ft.)

6. A key map is included, showing where the detailed claim map lies with reference to the local area.
7. An itemized statement of cost is also included with this report.


John Lamb, P. Eng.

STATEMENT OF COSTS

FOR

Diamond drilling on the Ken, Bee, Eff
and Car Groups of Mineral Claims

A. Charges by Drilling Contractor
(Connors Drilling Ltd.)

Drilling	\$21,309.54
extra charges	101.00
sub total	<u>21,410.54</u>

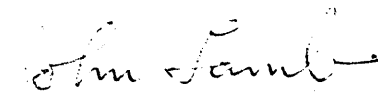
B. Utah Mines Ltd. - Costs

a) geologists for four weeks	1,300.00
labourer for four weeks	700.00
b) core trays and covers	345.00
c) site preparation	925.00
d) room and board, drill crew, 5 men at \$8.40 per man per day for 18 days	756.00
e) equipment mobilization from and to Vancouver	953.00
f) supplies and freight	150.00
g) truck operation at 25¢ per mile (300 miles)	75.00
h) Company overhead at 25% of labour charges	500.00
sub total	<u>5,704.00</u>

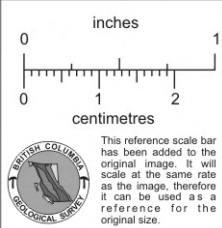
Grand total \$27,114.54

Footage drilled - 2220 feet

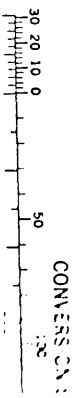
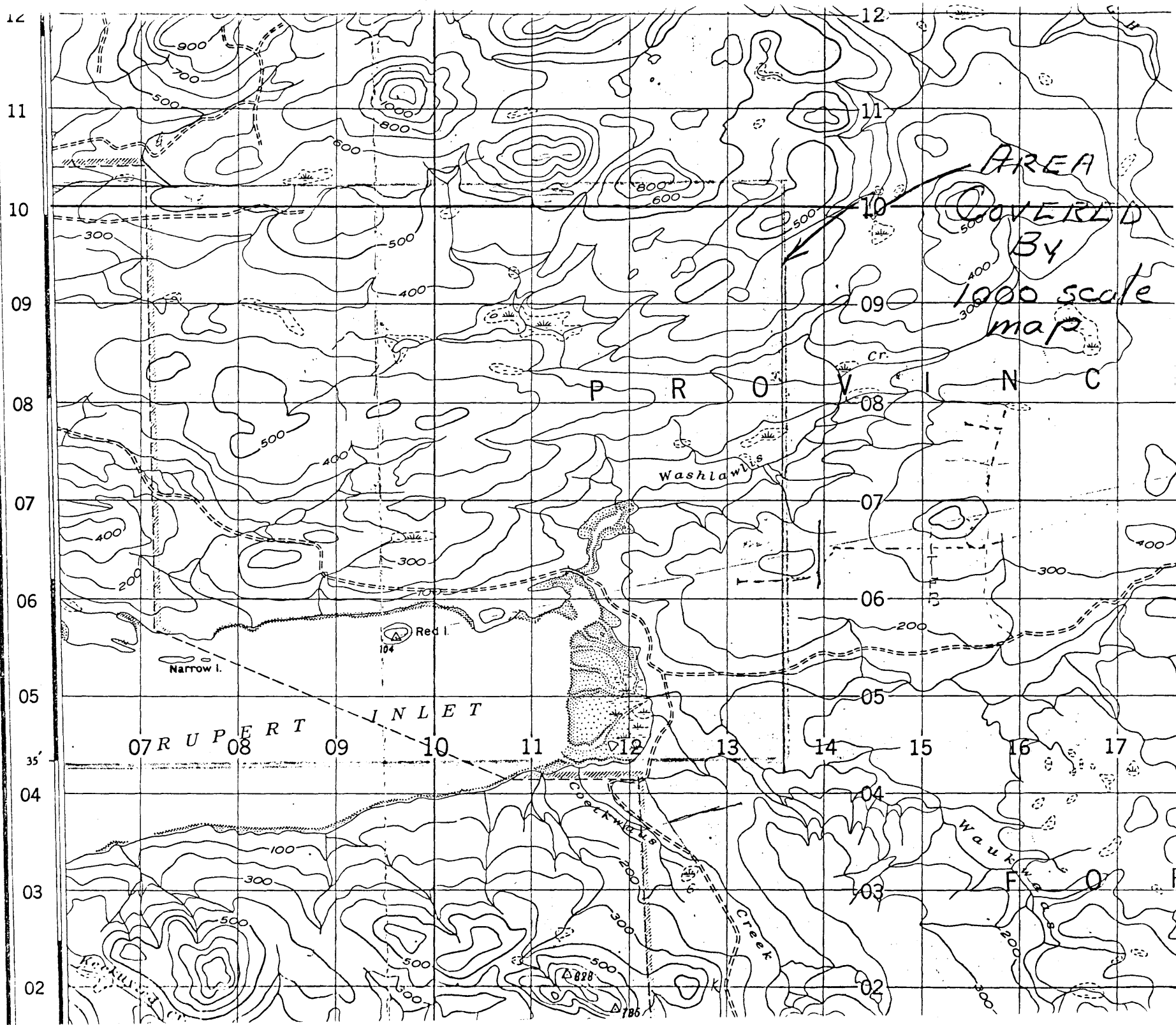
cost per foot drilled = $\frac{27114.54}{2220} = \12.21



John Lamb, P. Eng.



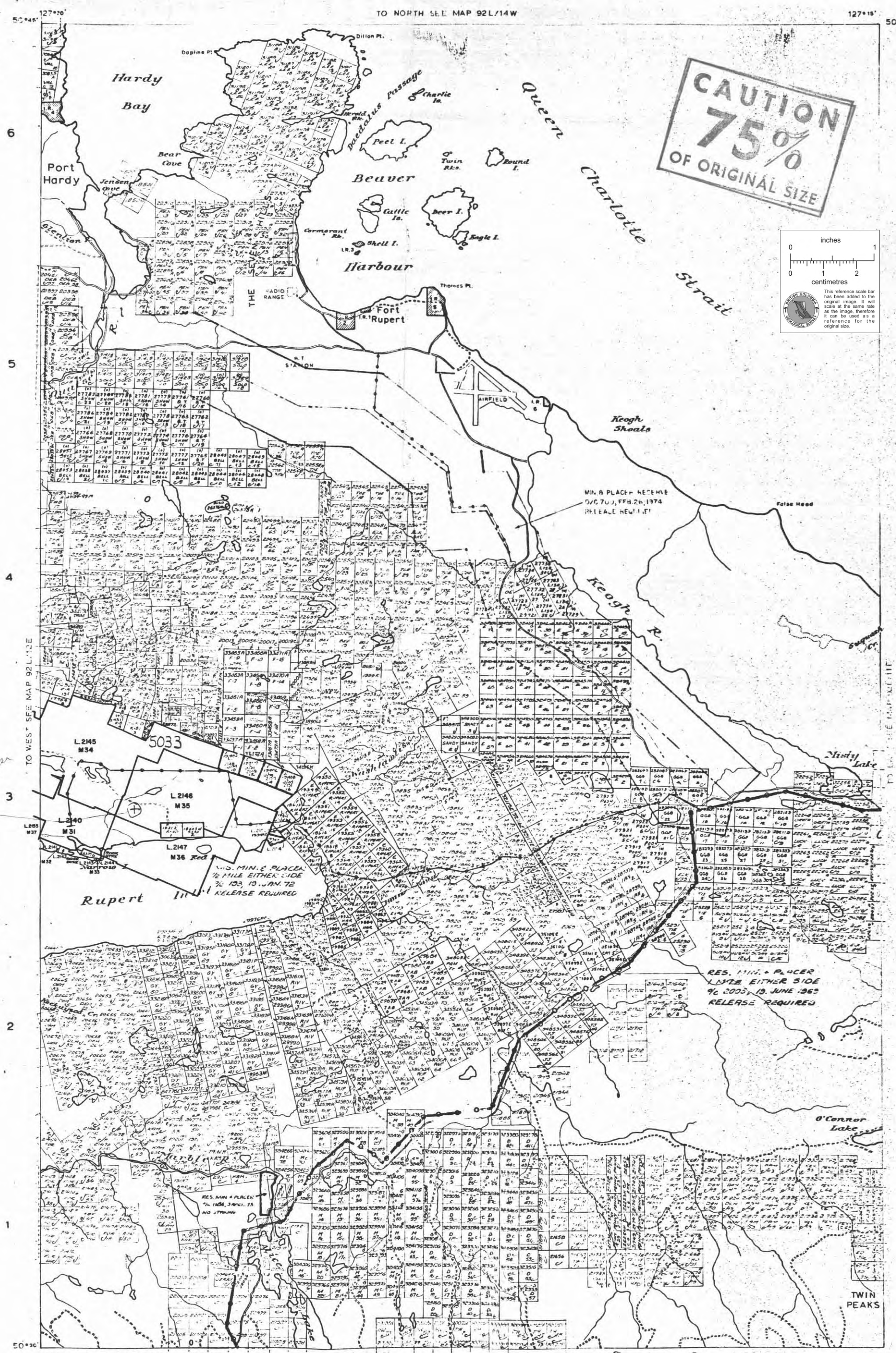
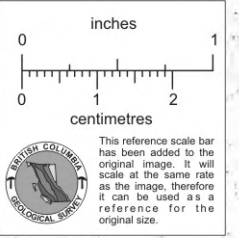
INDEX
MAP
INLET
42 1/2 W
Scale
1
50000



MAP SHOWING LOCATION OF
DRILL HOLES

1" - 1000'

CAUTION
75%
OF ORIGINAL SIZE



Island Lepper

TO WEST SEE MAP 92L/12E

6
5
4
3
2
1

127°30' NANAIMO MINING DIVISION

DEPARTMENT OF MINES AND PETROLEUM RESOURCES
VICTORIA, B.C.
MINERAL CLAIM MAP 92L/11W(M)

Copied - August 1974

For up-to-date information on claims in any area you should apply to the Mining Recorder for the Mining Division concerned

This map is prepared to serve as a guide to the positions of located mineral claims and Placer Mining Leases only. Unsurveyed claims and leases are omitted from locators' sketches and are not guaranteed. Letters C & G indicate claim is Crown-Granted. Symbol & indicates claim has forfeited.



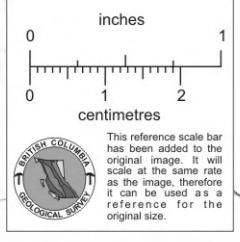
KEN GP.
 BEE GP.
 EFF GP.
 CAR GP.

TP. 6



Department of
 Mines and Geology Resources
 ACTIVITY REPORT
 NO. 5033 MAP #2

CAUTION
75%
 OF ORIGINAL SIZE



Scale
 1 IN = 1000 ft.

UTAH MINES LTD
 NANAIMO MD. - PORT HARDY
 showing locations of diamond drill
 holes M10, M20, M30, M40

To accompany
 assessment report
 by J. Lamb July 1974