

UTAH MINES LTD.
ISLAND COPPER MINE
P.O. BOX 370
PORT HARDY, B.C. V0N 2P0
TELEPHONE (604) 949-6326

July 30, 1980

Ministry of Energy, Mines & Petroleum Resources,
Douglas Building,
Government Street,
Victoria, B. C.
V8V 1X4

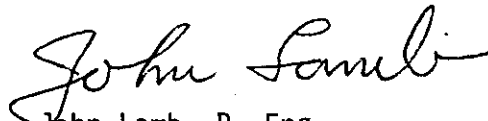
Dear Sirs:

Re: Assessment Report -
East Group of Mineral Claims

The accompanying report, in duplicate, is being submitted in compliance with regulations governing assessment work under the Mineral Act, revised to January 1st, 1978.

Credit is requested for diamond drilling performed between July 5th and July 13th, 1980.

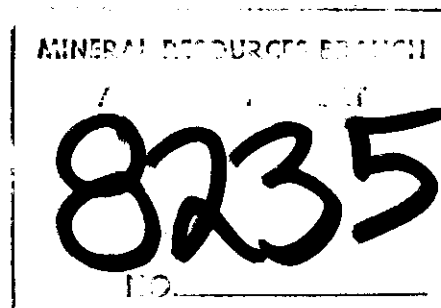
Yours truly,



John Lamb, P. Eng.,
Project Geologist.

JL/ps

Attachments



REPORT ON DIAMOND DRILLING SUBMITTED FOR
ASSESSMENT WORK ON THE EAST GROUP OF
MINERAL CLAIMS

Latitude 50^o 37' N
Longitude 127^o 21' W

Mining Division	-	Nanaimo
N.T.S. Location	-	Map 92 ^L /11 1:50000
Detailed Location	-	About 15.4 kilometers straight southeast of Port Hardy on Section 25, Township 4.
Owner	-	Utah Mines Ltd.
Operator	-	Utah Mines Ltd.
Author	-	John Lamb, P. Eng.
Date Submitted	-	July 30, 1980

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MAPS:

- (1) Claim Map Showing Location of Drill Hole
- (2) Index Map - Sheet 92^L/11 N.T.S.

APPENDICES:

- (1) Copy of Drilling Contract
- (2) Copy of Drill Hole Logs

OBJECTIVE:

The hole, located specifically on Mineral Claim E-42, is near the northeastern corner of Utah's Island Copper claim holdings. The chief objective was for condemnation purposes, in an area considered unfavourable for mineral occurrence. There is some outcrop within 1 km. of the hole, which explains its second objective, to obtain positive information about the bedrock geology in the area.

WORK PERFORMED:

1. One hole was diamond drilled between the 5th and 13th of July 1980. Core size was NQ.
2. Located on E-42 MC (#32469), the hole is at the far end of a branch logging road, off Rayonier R-900 road, north of the Rupert Mainline road and about 1½ km. northeast of the new Ministry of Transport Loran C Tower.

3. Hole particulars are:

<u>Hole</u>	<u>Inclination</u>	<u>Length</u>	<u>Collar Elev.</u>	<u>Collar Co-ordinates</u>
R-12	-90°	256.6M	97.54M	10345N 54448E

The co-ordinate position is based on the system in use at the Island Copper Mine.

4. Drill core logs are attached to this report. Logging was done by J. Lamb, P. Eng., B.A.Sc, M.A.Sc, University of British Columbia, who is on the mine staff. The core is stored at the mine site.
5. An itemized cost statement is included in the report.
6. A copy of the drilling contract, under which the work was done is included. It is between Utah Mines Ltd. and Connors Drilling Ltd.
7. Both an index map (1:50000 NTS) and a detailed claim map (1:12000), form part of the report and show the location of the drill hole and the East Group.

STATEMENT OF COSTS
FOR THE
EAST GROUP OF CLAIMS

CONTRACTOR'S CHARGESOverburden -

113 feet @ field Cost \$ 3,550.00

Rock -

109 - 500 @ \$17.95 7,018.45
500 - 842 @ \$19.35 6,617.70

Field Costs -

Setting up, reaming, water lines, etc.
62 man hours @ \$23.00 1,426.00
31 drill hours @ \$25.00 775.00

Extra Charges -

Mobilization Cost @ 8% of total charges
for contract 640.00
Supplies consumed & materials left in hole 1,007.35

UTAH COSTS

1. Core House Labour	450.00
2. Geological Supervision	1,120.00
3. Company Overhead @ 25% of Labour, plus supervision	392.00
4. Core Boxes - 41 @ \$4.25	174.25
5. Room & Board, 4 men for 9 days at \$18.00/day	648.00
6. Preparation of Report	450.00
7. Survey of Hole	500.00
8. Vehicle Operation 180 mi @ 30¢/mi	54.00
	<hr/>
	\$24,822.75
	<hr/>

Total Footage Drilled - 842 Feet

Cost Per Foot Drilled - \$29.48

RESULTS:

Beneath an overburden cover of 33.2 meters, the hole entered limey striped argillite of the Parson Bay formation, passing into the Quatsino limestone at 145 meters and finally into the Karmutsen volcanic group at 251.3 meters, where it finally bottomed at 256.6 meters. A short stretch of pyritic mineralization with minor chalcopyrite was intersected at 252 meters, close to the Quatsino-Karmutsen contact.

CONCLUSION:

From the information provided by a few local rock outcrops, previous diamond drilling and easterly projections of geological formations from the mine area, it was anticipated the hole would be in Karmutsen group rocks only. The fact that the Karmutsen was not encountered until 251 meters below the collar suggests a sharp drop in the formation within a short distance. At present we expect a northwesterly trending fault crosses the area, causing a downward displacement of the northeast side. There is little evidence on surface of the existence of such a fault.

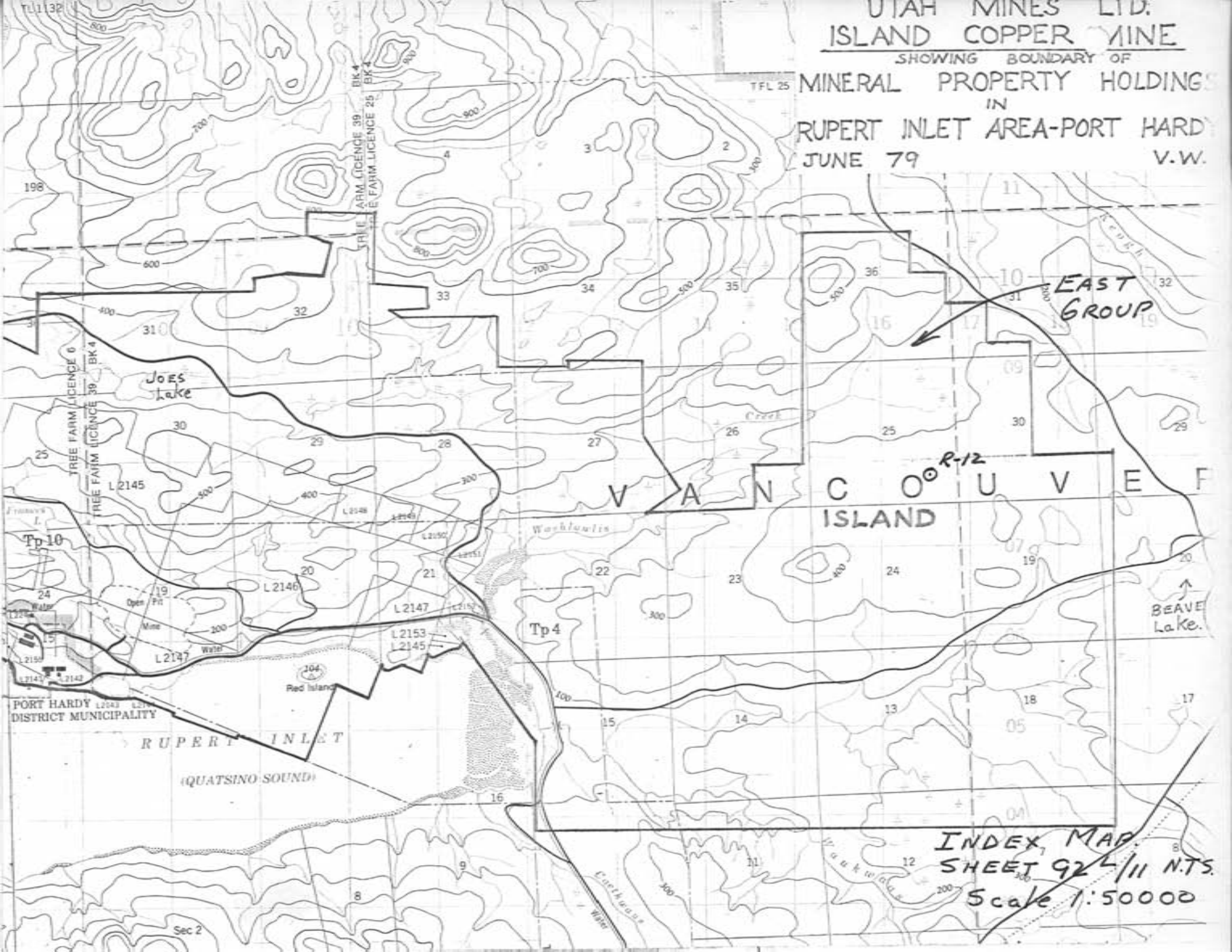


J. Lamb, P. Eng.

JL/ps

UTAH MINES LTD.
ISLAND COPPER MINE

SHOWING BOUNDARY OF
MINERAL PROPERTY HOLDINGS
IN
RUPERT INLET AREA-PORT HARDY
JUNE 79
V.W.



EAST GROUP

VAN COUVE ISLAND

INDEX MAP
SHEET 92/11 N.T.S.
Scale 1:50000

PORT HARDY DISTRICT MUNICIPALITY
RUPERT INLET
(QUATSINO SOUND)

Sec 2

Appendix 1



Connors Drilling

Division of
Bow Valley Resource Services Ltd

Box 1657, Merritt, B.C. V0K 2B0

May 5, 1980

Utah Mines Ltd.,
Box 370,
Port Hardy,
B.C.,
VON 2P0

*Addendum to
Contract following
J.L*

Attention: John Lamb
Island Copper Mine

Dear John;

This is further to the discussion with you and our Mr. Wayne Beaupre ...

- 1) NQ3 core drilling will be charged at 0.60 per foot more than the NQ prices, retro-active from the start of the 1980 drilling program.
- 2) Connors Drilling will supply a 25R drill mounted on a truck for your drilling where there will be long moves. These holes will be NQ size and drilled at minus 90 degrees.
- 3) Mob for the truck mount, from Connors base of operations to Island Copper will be a lump sum of \$2,000.00
- 4) De-mob from Island Copper to Connors base of operations will be a lump sum of \$2,000.00

Yours truly,

R Griffiths
R. Griffiths
Regional Manager

Accepted

R Griffiths

Connors Drilling

Accepted

John Lamb

Island Copper Mine

c/c
Bob Hindson
Frank Tagami
Joe Benard

RTG/mg



Connors Drilling

Division of
Bow Valley Resource Services Ltd.

Suite 205 - 1201 West Pender Street, Vancouver, B.C. V6E 2V2 • (604) 683-2222

*Signed Contract
attached
J.L*

February 12, 1980

Utah Mines Ltd.
Island Copper Mine
P.O. Box 370
Port Hardy, B.C.
V0N 2P0

Attention: Mr. John Lamb

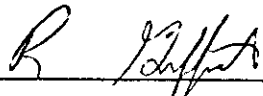
Dear John:

Please find enclosed three copies of our bid for your drilling job near Port Hardy, B.C.

If you have any questions, don't hesitate to phone myself or Joe Benard at 683-2222.

Yours truly,

CONNORS DRILLING



R. Griffiths
Division Manager

RTG/tvb

Enclosures

cc: F. Tagami
R. Hindson
J. Benard



Connors Drilling

Division of
Bow Valley Resource Services Ltd.

Suite 205 - 1201 West Pender Street, Vancouver, B.C. V6E 2V2 • (604) 683-2222

MEMORANDUM OF AGREEMENT made this 11th day of February 1980.

BETWEEN: UTAH MINES LTD.
Island Copper Mine
P.O. Box 370
Port Hardy, B.C.
V0N 2P0

(hereinafter referred to as the "COMPANY")

AND: CONNORS DRILLING
Division of Bow Valley Resource Services Ltd.
205 - 1201 West Pender Street
Vancouver, B.C.
V6E 2V2

(hereinafter referred to as the "CONTRACTOR")

The CONTRACTOR agrees to perform diamond drilling on the lands of the COMPANY situated near Port Hardy, B.C. on the following terms and conditions, on 15 days acceptance.

SPECIFICATIONS:

The CONTRACTOR agrees to sink by piping or to bore by diamond drilling ninety-two hundred (9,200) linear feet. And the COMPANY guarantees to the CONTRACTOR a minimum footage of ninety-two hundred (9,200) linear feet in approximately eleven (11) holes with a maximum length or depth of twenty-two hundred (2,200) feet at an angle no flatter than minus forty-five (-45) degrees from the horizontal.

It is agreed that the core from the holes shall be approximately 1 7/8 inches in diameter known as NQ in the trade, and that said core shall be kept in boxes provided by the COMPANY.

COMMENCEMENT AND EXECUTION OF WORK:

Work shall be commenced on or around March 1, 1980 with two crews working ten hour shifts, seven days per week or as near that schedule as can be maintained.

Cont'd

PRICES:

a) Mobilization

From the CONTRACTOR'S base of operations to the truck off-loading point, for equipment and crew, at a lump sum of \$2,000.00.

b) Demobilization

From the truck loading point to the CONTRACTOR'S base of operations, for equipment and crew, at a lump sum of \$1,500.00.

c) For Drilling in Bedrock

		<u>NQ Size</u>	
<u>From</u>	<u>To</u>		<u>Price/Foot</u>
0'	500'		\$17.95
501'	1,000'		\$19.35
1,001'	1,500'		\$20.90
1,501'	2,000'		\$22.60
2,001'	2,500'		\$24.40

d) Overburden

For piping and/or drilling in overburden at an angle no flatter than -45 degrees from the horizontal: from 0 to 50 feet at \$19.35 per foot.

If the depth of overburden exceeds 50 feet, and the cost exceeds the quoted price per foot, then the price for penetrating overburden for that hole will be at COST.

Prices do not include the COST of calcium chloride, drilling mud and/or drilling mud additives. If required, these will be invoiced to the COMPANY at COST.

The COMPANY will pay at COST for all materials left in holes, or will pay at COST for recovering such material.

e) Cementing and Reaming

It is agreed that if a hole required cementing, wedging, reaming, etc., to allow drilling to proceed, the COMPANY will pay the CONTRACTOR at COST.

f) Cost

Any reference to COST in this Agreement shall be interpreted as follows:

All labour provided by the CONTRACTOR up to 10 hours per man per day (70 hours per man per week), will be at the all-inclusive rate of \$23.00 per man hour.

Cont'd

All material, supplies or services provided by the CONTRACTOR will be charged for at their COST, plus transportation, sales tax and a nominal 15% for accounting, et cetera.

Where applicable such as in piping, reaming, cementing, wedging and testing, machine time will be charged at the rate of \$25.00 per hour, including fuel and oil.

g) Moves

It is agreed that the COMPANY will pay at COST for all moving between holes, over 20 man hours per move.

If the CONTRACTOR is required to move back on an old hole for any purpose, the COMPANY will pay the CONTRACTOR at COST for moving to and cleaning out the old hole.

The COMPANY will pay the CONTRACTOR at COST for moving on a hole when there is less than 500 feet of core drilling in that hole.

Moving shall be interpreted to include tearing down, dismantling machinery, moving, securing timber, transportation, site preparation, setting up and laying and dismantling waterlines.

h) Walking Time or Travelling Time

The COMPANY will pay for all travelling time over one-half hour per man per shift, at the rate of \$20.00 per man hour.

i) Water

The COMPANY agrees to pay at COST of supplying and maintaining water supply lines from an adequate source to the drill site when such distance exceeds 3,000 feet or lifts of 150 feet in the non-freezing season and 1,500 feet or lifts of 150 feet in the freezing season.

j) Delays

It is agreed that at the same time the COMPANY notifies the CONTRACTOR to cease drilling on a hole, the COMPANY will also inform the CONTRACTOR of the site of the new hole to be drilled. Should the COMPANY fail to locate sites or for any cause which is responsible for the delay of the operation of the drill, the COMPANY agrees to pay the CONTRACTOR at "standby rate" for the period that the operation of the drill has been delayed by such failure.

k) Standby

Standard rate will be \$70.00 per shift hour.

When the COMPANY requests equipment remain on location, the standby rental rate, non-operated will be as follows; drill including drilling equipment at \$3,000 per month, plus the cost of demobilizing and mobilizing drill crew.

Cont'd

1) Tests

The CONTRACTOR will furnish a clinometer, test tubes and hydro-fluoric acid and make tests for vertical angle only as required by the COMPANY for a charge of \$85.00 per test. Tropari tests will be made at COST.

m) Core Orientation Surveys

Core orientation surveys, if taken, at \$90.00 per shift hour, ~~plus \$7.00 per foot for the footage drilled while taking the surveys.~~ *qf.*

n) Core Boxes

The CONTRACTOR will supply, if requested, core boxes at COST, plus 15%.

o) Board and Lodging

The COMPANY will supply room and board for the CONTRACTOR'S crews at no cost to the CONTRACTOR.

p) Payments

Invoices will be rendered twice monthly, covering the preceding half month, and will be due and payable in full, in Canadian funds, within 30 days of issue. Interest will be charged on past due accounts at the rate of 18% per annum after 30 days of issue.

q) Machinery and Equipment

The CONTRACTOR will supply one unitized 44 drill complete with mud sloop, rod sloop, rods, core barrels, grease, diamond items, tools, etc.

q) Transportation

The CONTRACTOR will supply a 4x4 truck for it's crews use at no cost to the COMPANY. The COMPANY will supply a tractor to move the CONTRACTOR'S drill at no cost to the CONTRACTOR.

GENERAL:

- a) It is agreed that the CONTRACTOR shall pipe and drill on the site selected by the COMPANY'S Representative and will deliver at the drill site only to such person as the COMPANY may designate all cores taken from the holes drilled.
- b) The CONTRACTOR does not guarantee the direction of the hole beyond the collar.

Cont'd

- c) The COMPANY shall provide, at no COST to the CONTRACTOR, all rights of way of ingress and egress to all lands that may be required to enable the CONTRACTOR to carry out the work as specified. The CONTRACTOR shall be permitted to cut and fell any timber on the COMPANY'S property as may be required in the course of the work hereunder, and the COMPANY shall indemnify and save harmless the CONTRACTOR from any assessment for stumpage or other charges of every kind and nature.
- d) Upon completion of the work herein contracted to be performed the CONTRACTOR shall have the right to remove within a reasonable length of time all temporary buildings and other fixtures including trade fixtures, machinery, equipment and appliances placed upon such lands.
- e) It is agreed that, should a cavity or loose and caving material be encountered at a depth which would prevent successful drilling, the CONTRACTOR does not guarantee to drill or sink a hole to any specified depth, but will drill or sink as is practical under existing overburden and rock conditions and the COMPANY will pay for every foot sunk and drilled.
- f) The CONTRACTOR agrees to carry and pay for all proper Workmen's Compensation to cover injuries to all employed by the CONTRACTOR on the property of the COMPANY.
- g) All COST resulting from the enforcement of government regulations or legislation concerning land use or pollution control measures which may be applied to the work will be borne by the COMPANY.
- h) This Agreement and any dispute arising hereunder shall be interpreted and determined in accordance with the laws of the Province of British Columbia.
- i) The CONTRACTOR shall not be held responsible for any delays in carrying out the obligations of this Agreement resulting from Acts of God, strikes, fires, casualties, or other causes beyond the CONTRACTOR'S control.
- j) All Government sales taxes and social benefits in force at time of signing this Contract are included in the quoted prices. All COST increases due to legislated tax or benefit increases which arise after signing of the Contract, will be chargeable to the COMPANY.

Cont'd

k) This Contract will not be binding upon the COMPANY until approved in writing by an officer thereof at its Head Office.

IN WITNESS WHEREOF the parties hereto have hereunder set their hands this _____ day of _____ 19 .

Signed and Delivered in the presence of:

UTAH MINES LTD.

Witness

Per

J. Adams

Title

V.P. & Mine Manager

CONNORS DRILLING, Division of
Bow Valley Resource Services Ltd.

Witness

Per

R. Moffatt

Title



Connors Drilling

Division of
Bow Valley Resource Services Ltd

Box 1657, Merritt, B.C. V0K 2B0

February 29, 1980

Utah Mines Ltd.,
Island Copper Mine,
Box 370,
Port Hardy,
B.C.,
V0N 2P0

Attention: Mr. John Lamb.

Dear John;

This is in regard to our telephone conversation on core orientation surveys.

It is my understanding that there will be no coring while taking core orientation surveys.

The Company will supply all special equipment to take the surveys.

Connors Drilling will supply the labour and drilling equipment needed at \$90.00 per shift hour.

Trusting this meets with your approval;

Yours truly,

R. Griffiths
Regional Manager

c/c
Joe Benard
Frank Tagami
Bob Hindson

RTG/mg

HOLE NO. R-12

PROJECT:

PAGE NO: 12 OF 13.

CASING 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
760					760 - 824.5 (231.6 - 251.3 m) Dark even gray mass. lms. w. minor calc vlt's. & irreg streaks Occ. frac shows small crystalline calcite coatings Traces of gils in some fracs.								
770													
780													
790													
800					thin beddy @ 45° to core - bkg @ 45°								
810													

HOLE NO: *R-12*

CASING COLLAR ELEV.:

COORDINATES:

INCLINATION:

N.

E.

BEARING:

PROJECT:

DATE STARTED:

DATE FINISHED:

TOTAL DEPTH:

PAGE NO: *13* OF *13*

REF. TO CLAIM CORNER:

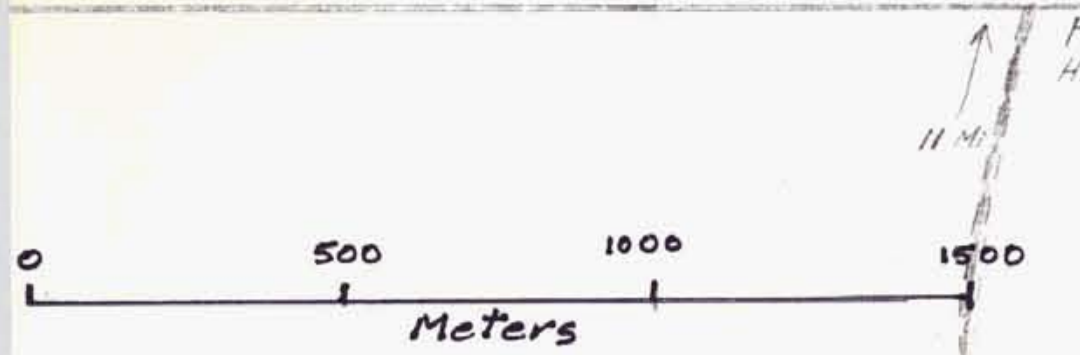
SCALE:

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
<i>820</i>					<i>760 - 824.5</i>								
					<i>See P 12</i>								
<i>830</i>					<i>824.5 - 842 (251.3 - 256.6 m)</i>								
					<i>Tan for first 2' changing to dk green volcanic rock. Streaked w. calc vlt. Last 5ft. slightly porphyritic & med. grained.</i>								
					<i>From 832 - 833 siliceous & well mineralized w. py & minor cpy.</i>								
<i>840</i>					<i>842 FT. (256.6 m)</i>								
					<i>END OF HOLE</i>								
<i>850</i>													

Note - At (251.3 m) the rock changes from Quatsino to Karmutsen formations

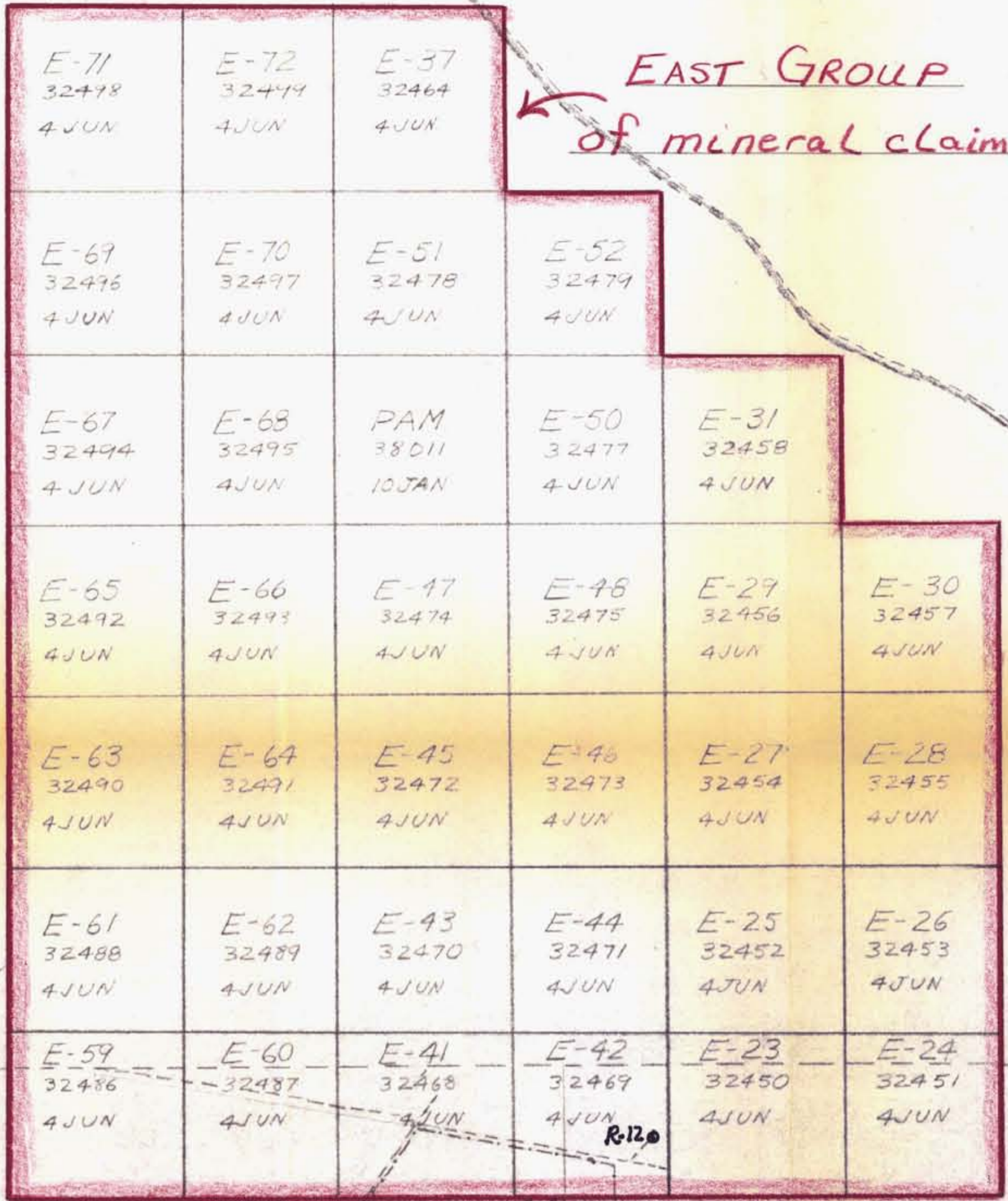
J.L



SCALE 1:12000
(1" = 1000')

NOTE: THE CLAIMS LISTED BELOW WILL BE ALLOWED TO LAPSE ON THEIR EXPIRY DATES. TITLE TO MINERALS WILL THEN PASS TO THE OVERLYING MGS CLAIMS, RUBY, SUN AND STAR

CODE LETTER ON MAP	NAME	RECORD NO.	EXPIRY DATE
(A) →	SPAM 18FR	23899	7 MAR 83
(B) →	KEN 16	23881	7 MAR 84
(C) →	KEN 15	23880	7 MAR 84
(D) →	SPAM 19FR	23900	7 MAR 83
(E) →	RUPERT 20	1935B	1 MAY 81



Island Highway

MARS (16 units) #256 29 JUN.
LORAN C TOWER *
VENUS (16 units) #257 29 JUN.

WASHLAWLIS HILL

KIDNEY LAKE

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8235
NO.

PORT McNEILL 14 Mi

BEAVER LAKE

RUPERT MAIN ROAD

UTAH MINES LTD.
PORT HARDY

- To accompany assessment report on EAST GROUP by J. Lamb.
- Location of drill hole R-12. **Aug 1980**
JULY