

85-1125-14393

FILMED



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)	TOTAL COST
XXXXXX DRILLING	\$15,891.30

AUTHOR(S) G.A. CLARKE SIGNATURE(S) *[Signature]*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED NOV. 22, 1985 YEAR OF WORK 1985

PROPERTY NAME(S) ~~XXXXXXXXXX~~ EXPO (CAR, TAR)

COMMODITIES PRESENT ~~XXXXXXXXXX~~ Cu

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN 92L-273

MINING DIVISION NANAIMO NTS 92L/11 W

LATITUDE ~~XXXXXX~~ 50° 35.5' LONGITUDE ~~XXXXXX~~ 127° 23'

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

MOON (16 units), SUN (20 units), Mary (16 units), Star (15 units), Lamb (3 units), RUPERT 1 (Lot 2152), RUPERT 2-5 (4 units total), RUPERT 6 FR. (1 unit), RUPERT 11-13 (3 units total), RUPERT 7 (1 unit), RUPERT 15 (1 unit), RUPERT 16 (1 unit), JIM 10 (Lot 2148), JIM 12 (Lot 2149), JIM 14 (Lot 2150), JIM 16 (Lot 2151), EXPO 29-32 (4 units total), EXPO 51 (1 unit), EXPO 1 FR. (1 unit), EXPO 53-56 (4 units total), SPAN 26 FR. (1 unit), CAR 12 (1 unit)

OWNER(S) (1) UTAH MINES LTD. (2) GORDON MILBOURNE

MAILING ADDRESS BOX 370 PORT HARDY, B.C., VON 2P0. C/O LADNER DOWNS 260 - 200 W. GEORGIA, VANCOUVER, B.C.

OPERATOR(S) (that is, Company paying for the work) (1) UTAH MINES LTD. (2) **GEOLOGICAL BRANCH ASSESSMENT REPORT**

MAILING ADDRESS AS ABOVE **14,393**

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude): The area is underlain by the Upper Triassic to Lower Jurassic volcanic and sedimentary succession of the Parson Bay and Bonanza Formations. Intruding this some hundreds of feet south of the hole is the mid Jurassic granodioritic "Rupert" Stock. Hydrothermal and/or metasomatic alterations associated with the intrusion are minimal in this area. The drill hole encountered argillites, siltstones and tuffs of the Parson Bay Formation.

REFERENCES TO PREVIOUS WORK Geological and geochemical reports filed by Utah.

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground
Photo
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic
Electromagnetic
Induced Polarization
Radiometric
Seismic
Other
Airborne			
GEOCHEMICAL (number of samples analysed for)			
Soil
Silt
Rock
Other
DRILLING (total metres; number of holes, size)			
Core <u>DIAD</u>	169.5 m; 1 Hole; NQ	RUPERT 4	\$15,891.30
Non-core
RELATED TECHNICAL			
Sampling/assaying <u>SAMP.</u>	9; Cu, Mo, Fe	RUPERT 4	
Petrographic
Mineralogic
Metallurgic
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)
Topographic (scale, area)
Photogrammetric (scale, area)
Line/grid (kilometres)
Road, local access (kilometres)
Trench (metres)
Underground (metres)
Balance - nil			TOTAL COST \$15,891.30

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report) 15,891.30	1/ Statement of qualifications needs signature 2/ Claim statistics summary (a) name, record number, record date, lot number, units 3/ 9 Assays - Results? Lab technique? 4) Regional/property geology discussion?
Value of work approved 15,891.30	.....	.....	.....
Value claimed (from statement) 20,600.00	UTAH MINES LTD.	.....	.....
Value credited to PAC account 4700.70	.....	4700.70	.....
Value debited to PAC account 4700.70	.....	.....	.....
Accepted <u>GO</u> Date <u>May 31/86</u>	Rept. No. <u>85-1125-K393</u>	Information Class <u>(3)</u>

Victoria

NTS (circled)

85-1125-1439



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) XXXXXXXXXX DRILLING	TOTAL COST \$15,891.30
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AUTHOR(S) G.A. CLARKE SIGNATURE(S) *G.A. Clarke*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED NOV. 22, 1985 YEAR OF WORK 1985

PROPERTY NAME(S) ~~XXXXXXXXXX~~ EXPO (CAR, TAR)

COMMODITIES PRESENT ~~XXXXXXXXXX~~ Cu

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN 92L-273

MINING DIVISION NANAIMO NTS 92L / 11 W

LATITUDE ~~XXXXXXXXXX~~ 50° 36.2' LONGITUDE ~~XXXXXXXXXX~~ 127° 24.5'

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property (Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)):

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 RUPERT 1 (Lot 2152), RUPERT 2-5 (4 units total), RUPERT 6 FR. (1 unit), RUPERT 11-13 (3 units total), RUPERT 7 (1 unit), RUPERT 15 (1 unit), RUPERT 16 (1 unit), JIM 10 (Lot 2140),
 JIM 12 (Lot 2144), JIM 14 (Lot 2150), JIM 16 (Lot 2151), EXPO 29-32 (4 units total),
 OWNER(S) EXPO 51 (1 unit), EXPO 1 FR. (1 unit), EXPO 53-56 (4 units total), SPAN 28 FA (1 unit), CAR 12 (1 unit)

(1) UTAH MINES LTD. (2) GORDON MILBOURNE

MAILING ADDRESS
 BOX 370
 PORT HARDY, B.C., VON 2P0.
 C/O LADNER DOWNS
 260 - 200 W. GEORGIA, VANCOUVER, B.C.

OPERATOR(S) (that is, Company paying for the work)
(1) UTAH MINES LTD. (2)

MAILING ADDRESS
AS ABOVE

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

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The drill hole encountered argillites, siltstones and tuffs of the Parson Bay Formation.

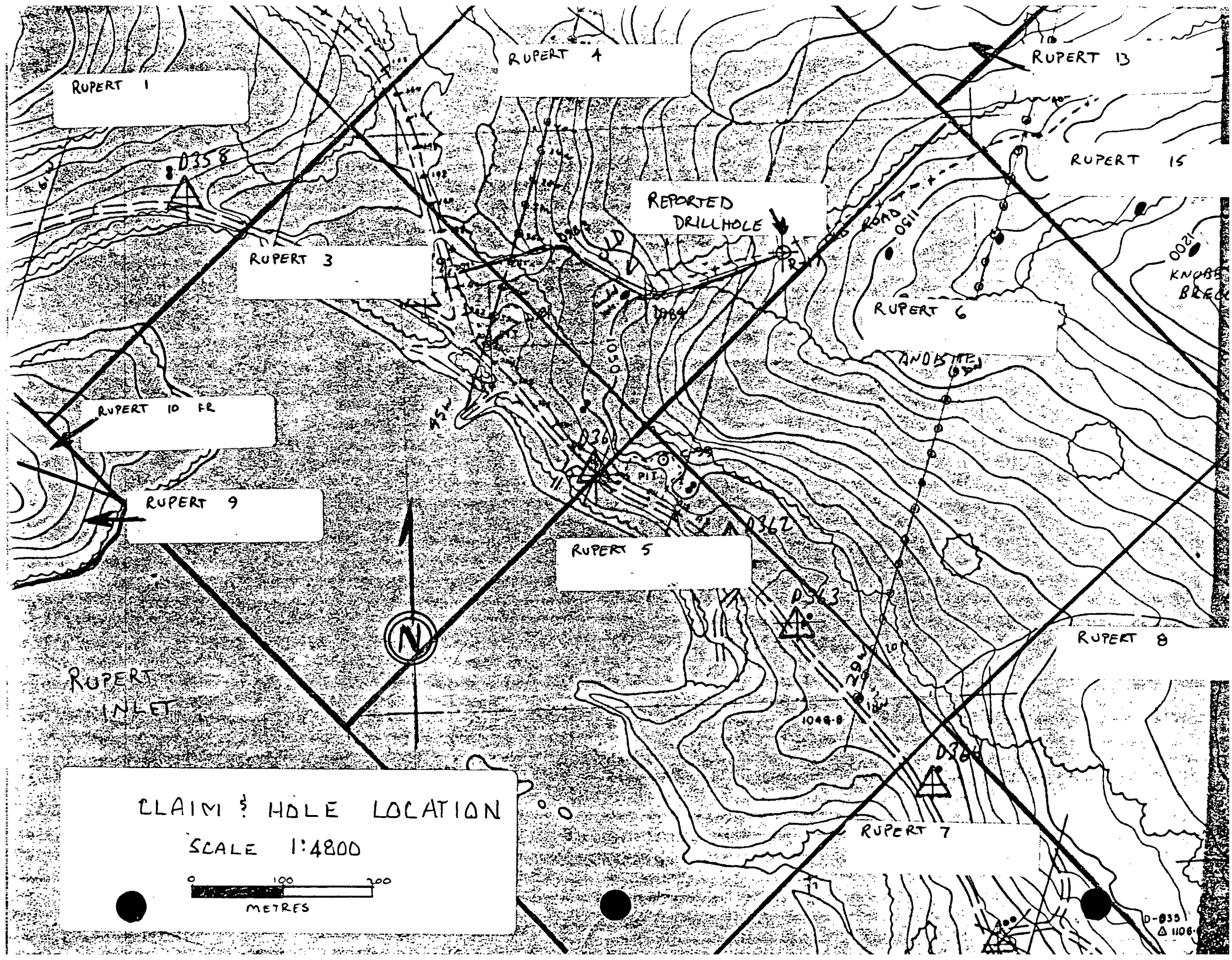
REFERENCES TO PREVIOUS WORK ~~Geological and geochemical reports filed by Utah.~~
A.R. 2638, 2659, 6270

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground			
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core	<u>DIAD</u> 169.5 m; 1 Hole; NQ	RUPERT 4	\$15,891.30
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RELATED TECHNICAL			
Sampling/assaying	<u>SAMP.</u> 9; Cu, Mo, Fe	RUPERT 4	
Petrographic			
Mineralogic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)			
Balance - nil			
			TOTAL COST \$15,891.30

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report) 15,891.30				1/ Statement of qualifications needs signature 2/ Claim statistics summary (w) name, record number, record date, lot number, unit 3/ 9 Assays - Results? Lab technique? 4) Regional/property geology discussion
Value of work approved 15,891.30	UTAH MINES LTD.			
Value claimed (from statement) 20,600.00				
Value credited to PAC account 4708.70		4708.70		
Value debited to PAC account				
Accepted GO Date May 24/86	Rept. No. 85-1125-14313			Information Class 3

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RUPERT 1

RUPERT 4

RUPERT 13

D358

RUPERT 3

REPORTED
DRILLHOLE

RUPERT 15

RUPERT 6

1200
KNOB
BRECK

RUPERT 10 FR

ANDSITE

RUPERT 9

RUPERT 5



RUPERT
INLET

RUPERT 8

CLAIM & HOLE LOCATION
SCALE 1:4800



RUPERT 7

D-935
Δ 1106

Introduction

Between September 26 and September 29, 1986, diamond drill hole R17 was drilled to 169.5 m (546 ft.) on the Rupert 4 claim. This formed part of a drilling program carried out to search for a near surface porphyry copper-molybdenum deposit.

Property Description

The Central 86 Group consists of 98 claims/units adjoining the east end of the Island Copper Mineral Leases.

Physiography

The area is characterized by low relief adjacent to tide-water with a maximum relief of 80 meters. Washlawlis Creek cuts across the northern part of the group and Waukwaas Creek cuts the southern portion. The east end of Rupert Inlet underlies the Rupert 3,5 and 7 claims.

Access

Access is via paved road from Port Hardy, 10 km. north, and by logging main-lines suitable for two wheel drive vehicles.

Previous Work

Recent work by Utah has included mapping, VLF, Mag, IP and geochem surveys.

Objective

The objective of the drilling was to intersect inferred contacts of the intrusive "Rupert" Stock and any associated mineralization.

Work Performed

The hole was drilled as follows:

		<u>Mine</u>	<u>Grid</u>	<u>Co-ordinates</u>	<u>Elevation</u>	<u>Length</u>
<u>Hole</u>	<u>Claim</u>	<u>Easting</u>		<u>Northing</u>	(M. ASL)	
R17	Rupert 4	39239.3		5556.0	41.7	169.5 M.

The drill core was logged, photographed and measured for recovery, RQD (percent core greater than 2, 4 and 8 inches in length). The core was split and sampled in 10 foot intervals, with one sample per 40 feet of core drilled. Samples were assayed for copper, molybdenum and iron at the Island Copper assay lab. The core is stored in racks at the mine site.

The core was logged by G.A. Clarke, staff geologist at Utah Mines Ltd., Island Copper Mine.

Results

The first 20 ft. (6.1 m) was triconed away as overburden. The remainder of the hole was entirely within the Parson Bay formation with very minor intrusives possibly present as noted in the log for 378-382 and 544-556 feet (115.2 - 116.4 m) and (165.8 - 169.5 m). From 20 - 134 ft. (6.1 - 40.8 m) the lithology consists of inter-mixed argillites/siltstones and tuffs. Argillites are bedded with alternating black and white (or light grey) beds, to about 2-3 mm thickness. Tuff bands vary to 3 ft. thickness, occasionally greater and are generally non-limy light-med grey green, often with black gilsonite stained matrix. From 138 - 142 ft. (40.8 - 43.3 m) is a fault zone. Below this, from 142 - 338 ft. (43.3 - 103.0 m) is a coarse crystal lapilli tuff, med-dark green with clasts to 2 cm making up 90 - 95% of rock. Most (80%) clasts contain sub-hedral to euhedral hornblende crystals or crystal fragments to 5 mm or more. Remaining 20% of clasts are fine grained, generally black and appear to be argillites from the Parson Bay section. Matrix is white calcite. From 338 - 544 ft. (103.0 - 165.8 m) is a similar sequence of Parson Bay banded argillites and tuffs as was noted 20 - 138 above. From 544 - 556 ft. (165.8 - 169.5 m) is a very fine grained rock, possibly porphyry, with 5 - 10% quartz phenos to 5 mm. This rock is strongly sericite and chlorite altered.

Discussion

As a result of this hole, the inferred boundaries of the Rupert Stock and the Parson Bay/Bonanza Formation contact have had to be adjusted. This latter adjustment may reduce the potential for porphyry copper deposits in the area since the known occurrences in the area are not found in Parson Bay rocks. The assay results tend to confirm this observation.

Conclusions

The drilling has served to revise geologic and stratigraphic boundaries and greatly reduces the Rupert Stock contact for potential for near surface porphyry deposits.

STATEMENT OF COSTSCONTRACTOR COSTS1) Tonto Diamond Drilling

Overburden -

20' @ 16.25 \$ 325.00

Rock -

480' @ 16.25 7,800.00
56' @ 17.00 952.00 8,752.00

Field Costs -

1/4 @ 60/hr. 15.00
19 @ 50/hr. 950.00
10 @ 25/hr. 250.00 1,215.00

Other Charges -

Casings and Shoes 650.74
Mob. Demob 88.39
Supplies & Freight 552.32
other 26.65 1,318.10

Total Drilling: \$11,610.10

2) Public Freightways 455.00

3) Port Hardy Bulldozing 1,523.00Total Contractor Costs: \$13,588.10

UTAH COSTS

Supervision and Core Logging	\$800.00
Core House Labour	400.00
Overhead (25% of Supervision & labour)	300.00
Core Boxes 30 @ \$4.84 each	145.20
Core Storage 536' @ \$0.50/ft.	268.00
Assays 9 @ \$10.	90.00
Reporting	<u>300.00</u>

TOTAL UTAH COSTS:- \$2,303.20

TOTAL COST:-- \$15,891.30

Unit Cost for 556 ft. : \$28.58/ft.

for 169.5 m : \$93.77/m.

STATEMENT OF QUALIFICATIONS

G.A. Clarke - Geologist for Utah Mines Ltd., Port Hardy, B.C.

Completed B.Sc. (honors), Geophysics at University of Manitoba, in 1976; employed by Hudson Bay Oil and Gas, and Saskatchewan Dept. of Mineral Resources during the 1975 and 1976 summer field seasons as geophysical assistant; September, 1976 to February, 1977, Inco Limited, as a geologist in Thompson, Manitoba; Lloyd Geophysics, February, 1977 to May, 1979, as a geophysicist; Utah Mines Ltd., from October, 1979 to present, as geologist/geophysicists, presently under supervision of John A. Fleming.

UTAH MINES LTD., VANCOUVER B.C.
ISLAND COPPER: EXPLORATION

DRILLHOLE/TRVERSE :HEADER

PROJECT IDEN : ISLAND START DATE : 86/ 2/ 7 COMPLETION DATE : 85/ 5/27 GEOLOGGED BY : SAC + JAF
 COLLAR NORTHING: COLLAR EASTING : COLLAR ELEVATION: GRID AZIMUTH :
 TOTAL LENGTH : 0.00 CORE/HOLE SIZE : MACHINE TYPE : CONTRACTOR : TONTO

K E Y	F - I N T E R V A L - L (UNITS = FT) B F R O M - T O	CORE RECDV- ERY (FT,1)	%	TYPI- M ROCK I X TYPE	QAL FYING TH	TEX- MIN TX	BRAIN CHARACS F C % S R S D DIP F	FRAC- TURE # TK	STRUCTUR-1 T ID	ALTERATION H H H H H ANY A A A A A A MINS A A A MIN	MINS H H H H H H H H H H A A A A A A A A A A	ORE-TYPE H H H ANY A A A A A A A A A A	SUMMARY								
														1	2	QMI	1	2	F	F	C	P	AZK	RT	QZ	BI	CY	CB	MG	XX	ZZ	PY	CP	GL	YY
K E Y	F L	ROCK QUAL	FOR MEM	EN V	RT Q	TH LC	QAL 3	TEX- 3	BRAIN 4	FRAC- D N H /	STRUCTUR-2 T ID	ALTERATION A A A A A A A A A A	MINS A A A A A A A A A A	ORE-TYPE A A A A A A A A A A							

S U M M A R Y R E M A R K S

ROCK CODES U24-27	% SCALE	ALTERATION AND ORE MINERALS	FACIES U77-79
OVER OVERBURDEN	? POSS	QZ QUARTZ	0 FRESH
STKP STIKUP	/ PRDB	CY CLAY	1 CHL-EPI
CASN CASING NO CORE	0 0.0%	DU DUMORTIERITE	2 CHL-MAG
MISN CORE MISSING	. 0.01%	KF K-FELDSPAR	3 BIO-CHL
FAUL FAULT GOUGE	- 0.03%	BI BIOTITE	4 MAG-QTZ
SAND SAND (TECTONIC)	(0.1%	BX BRECCIA FRAG	5 PYROPHYLLITE
ISGD ISL GRANODIORITE	+ 0.3%	PP PYROPHYLLITE	6 SERICITE
INBX INTRUSIVE BRECCIA	) 1.0%	CL CHLORITE	7 SER-CHL
BVAL ANDESITE ?	+ 2.5%	CB CARBONATE	8 K-SPAR
QTZV QUARTZ VEIN	= 5.0%	EP EPIDOTE	9 SILICIC
BVAG BON. AGGLOMERATE	1 10%	MG MAGNETITE	
PPFX FELDSPAR PORPH	2 20%	HE HEMATITE	MINERAL ZONE
BVAT ANDESITE TUFF	3 30%	FL FLUORITE	L 77-79
BVAF ANDESITE FLOW	4 40%	PY PYRITE	0 NEGLIGIBLE
BVAB BRECCIA	5 50%	PR PYRHOTITE	<0.5%
ISDR ISLAND DIORITE	6 60%	CP CHALCOPYRITE	1 PY
BVAN ANDESITE UNDIFF	7 70%	MO MOLYBDENITE	2 PY>CP
KMBA KARMUTSEN BASALT	8 80%	EN ENARGITE ?	3 PY>CP,MO
PPQF QUARTZ FELS POR	9 90%	CV COVELITE	4 PY+MO CP
KMLS KARMUTSEN LST.	X 100%	CC CHALCOHITE	5 PY+CP+CC+BO
BRIX BRECCIA ZONE		FX FELDSPAR	+CV+/-MO
CLAY CLAY ZONE		VF VOLC FRAG	6 PY+BO+CC+CV
ISGD ISL QTZ DIORITE		GI GILSONITE	+/-MO
CONG CONGLOMERATE		AK ANKERITE	7
MATR MATRIX DESCR.		X1 BRN SER ?	8 MO
PBLS PARSON BAY LST.		X2 SAUSSERITE ?	
PBSD PB. SEDIMENTS		X3 WH ZEOLITE ?	
PBTf P.B. TUFFS		X4 GYPSUM ?	
PBVS P.B. SEDS/TUFFS		X5 BRN CHL ?	
PPAN ANDESITE PORPH.		X6 BRN BIO ?	
PPHB HORNBLENDE POR.			
QALS QUATSING LST.			
SKAR SKARN ALT'D			
ARGL ARGILLITE			
TFXL CRYSTAL TUFF			

UTAH MINES LTD., VANCOUVER B.C.
ISLAND COPPER: EXPLORATION

DRILLHOLE/TRVERSE : HEADER (CONTINUED)

S U M M A R Y R E M A R K S

TUFF UNDIFFERENTIATED TUFF
TFLP LAPILLI TUFF
AN/L ANDESITE SILL
PPXX PORPHYRY, GENERAL
% MIX IS AMOUNT OF NEST
IN PGI, 6 SCALE, %

1 SCALE

KEY FLAGS (2-4)	X EXTREME	3 WEAK
	9 V STR-EX	2 V WK-WK
KTOX TOP OF OXIDE ZONE	8 STR-V STR	1 VERY WEAK
KBOX BOTTOM OF OXIDE	7 STRONG	0 NONE
	6 MOD-STR	* RETURN TO BLANK
	5 MODERATE	
	4 WK-MOD	

H-SCALE HOW OF ALTERATION MINERALS

X MASSIVE	1 MINOR MICROVNS+ SCTD.XT
9 PERVASIVE	0 BARREN
8 DISS, PATCHES>VNS,SEL,ENV	D DISSEMINATIONS
7 DISS, PATCHES=VNS,SEL,ENV	V VEINS
6 DISS, PATCHES<VNS,SEL,ENV	E ENVELOPES
5 VNS +/OR ABUNDANT ENV	S SELVAGES
4 VNS+/ OR OCCASIONAL ENV	P PERVASIVE
3 VNS = SPOTS+PATCHES	Q PATCHES
2 MICROVEINS + VEINS	C COATINGS
	K STOCKWORK
	U COATING VUGS
	* RETURN TO BLANK

STRUCTURE IDS	STRUCTURE THICKNESS	COLOR	
VB VEIN QUARTZ	1-SCALE	LIGHTNESS	HUE
VP VEIN PYRITE	0 < 1 MM	L28	L29
VY VEIN PYROPH	1 1-3 MM	9 PALEST	W WHITE
VC VEIN CLAY	2 3-6 MM	8 PALE	A GREY
VA VEIN QTZ PY	3 6-10 MM	7 LIGHT	U BROWN
VH VEIN QTZ MO	4 1-3 CM	6 MED-LIGHT	T TAN
F/ FAULT	5 3-6 CM	5 MEDIUM	G GREEN
C/ CONTACT	6 6-12 CM	4 MED-DARK	R RED
SH SHEAR	7 12-30 CM	3 DARK	O ORANGE
SW STOCKWORK	8 30-60 CM	2 VERY DARK	N BLACK
BN BANDING	9 60-100 CM	1 DARKEST	B BLUE
VH CPY VN	X >1 M	\$ ISH	P PURPLE
VL CALC VN		M MOTTLED	L LIME
BD BEDDING			\$ ISH
VB VEIN CARB			
BR BRECCIATED			
V/ VEIN			
<< MICROVN'D			
VF MAG VN			
VZ VEOLITE VN			

U,L 49-50

U,L 48

TYPIFYING MINERALS FRACTURE I.D.

UTAH MINES LTD., VANCOUVER B.C.
ISLAND COPPER: EXPLORATION

DRILLHOLE/TRVERSE : HEADER (CONTINUED)

S U M M A R Y R E M A R K S

	TM1U28-29 QM1U32-33	F-SCALE
	TM2U30-31 QM2L32-33	U-45-PYRITE
TEXTURES	TM3L28-29	U-46-QUARTZ
TX1(U35-36)		L-46-DRY FRAC
TX2(L35-36)	QZ QUARTZ	
PP PORPHYRITIC	QX QTZ PHENOS	FRACTURE COUNT
P/ VAGUE PORPH	QF QTZ FRASS	(U,L 44,46)
EQ EQUIGRANULAR	FX FELDSPAR	F-SCALE
FR FRAGMENTAL	BI BIOTITE	1<1/FT
CT CATACLASTIC	HB HORNBLende	2 1/FT
V6 VUGGY	PX PYROXENE	3 2-3/FT
BR BRECCIATED	MB MAGNETITE	4 4-6/FT
B/ VAGUE BRECCIA	RF ROCK FRAGMENT	5 7-10/FT
KR CRACKLED	VF VOLC FRAGMENT	6 11-18/FT
SH SHEARED	IF INTRUS FRAG	7 19-25/FT
GG GOUGED	V6 OPEN SPACE	8 25-50/FT
BD BEDDED	PF PY FRAG	9 >50/FT
CM CHILLED MARGIN	GG FLT GOUGE	X EXTREME
BN BANDED	GA GARNET	
SW STOCKWORK	MX MAFIC PHENOS	
	AK ANKERITE	
	BR BRECCIA	
	EP EPIDOTE	
	MD MUDSTONE	
REMARK HEADERS		
RALT	REMARK, ALTERATION	
RCOL	REMARK, COLOUR	
RCON	REMARK, CONTACT	
RFRC	REMARK, FRACTURE	
RCMP	REMARK, COMPOSITION	
RLTH	REMARK, LITHOLOGY	
RDCG	REMARK, CHANGE OF CORE SIZE	
RMIN	REMARK, MINERAL (NON-SULPHIDE)	
RMNZ	REMARK, MINERALIZATION	
RSAM	REMARK, SAMPLE	
RSTR	REMARK, STRUCTURE	
RTXT	REMARK, TEXTURE	
RVEN	REMARK, VEIN	
RXRD	REMARK, X-RAY DIFFRACTION	
RSUM	REMARK, SUMMARY	
RPHO	REMARK, PHOTO	
STHN	REMARK, THIN SECTION	

UTAH MINES LTD., VANCOUVER B.C.
 S000 000 55600 0.00-90.00

DRILLHOLE/TRVERSE : R-017 (CONTINUED)

K E Y	INTERVAL - (UNITS = FT)		CORE RECOVERY (FT.1)	Z M ROCK TYPE	TYPI- QAL TM TM	TEX- MIN MAT	GRAIN TX TX	FRAC- CHARACS F C % M	STRUCTUR-1 T ID	ALTERATION H H H H H ANY	MINS A A A A A MINS	ORE-TYPE H H H ANY	MINS A A A MIN	SUMMARY
	FROM	TO												
N L	172.5	187.5			3 FAUL	GG BR	MX1 SH KR	2 M 7 D	N 1 SW			K6	HB	D)
R ALT	176.0	192.0			PB	GA	FR	2 2 2 C	2			K5	Q4	
R ALT	176.0	192.0			Y-GN EPI STM AS SW & PATCHES. ALSO BLEACHES HBL PSEUDO'S TO LT Y.									
N L	176.0	192.0			X TFLP	RF	MX1 PP	CT 2 M 7 D	N			C3	HB	D)
R ALT	176.0	192.0			PB	GA	FR	2 2 2 C	2			Q6	Q4 22	
N L	194.0	213.0			X PPHB	MX HB	PP	2 K 1 K	N				HB	
R LTH	213.0	276.5						2 5 2 D	1	1 VC	70	Q3	23	Q4 D)
R LTH	213.0	276.5			80-90% OF CLASTS SHOW COARSE HB PORPH. REMAINDER 50/50 SPLIT BK FG LINEY PBSD & LT-GN FG AND TUFF.									
R MIN	223.0	223.5			TARRY BK BITUMEN Oozing OUT OF CAVITY IN RK - LIKE MOLASSES.									
R STR	244.5	247.0			HEALED SHR C/W CHL ALTN, GILS FF & SPOTTY BLUISH HARD (H7) MIN. (CORDIERITE?)									
R CON	246.0	246.1			SHARP ALT'N CCT IN FLT ZONE - GILS & CORDIERITE/EPI & CHL.									
N L	246.0	276.3			X TFLP	RF	MX1 PP	CT 2 M 7 D	N			C3	HB	D)
R MIN	265.1	266.0			PB	GA	FR	2 2 2 C	2			Q5	Q4	
					RED HEM' C STM IN CALC/EPI FF.									
P L	276.5	280.0			FAUL	RF EP	GG SH BR		P 2 SH	45		K7	61	D)
R LTH	276.9	280.0			Y6	6I			7			96	Q7 C2 6	
					FAULT ZONE C/W ABUND EPI ALT'D RF.									
P L	280.0	316.5			TFLP	RF	CT FR		P 1 VC	45		C5	61	Q)
R LTH	280.0	316.5			PB	AN	46					C3		
R LTH	280.0	316.5			SOME FRAGS (30%) HAVE ALT'D PHENOS C/F 156-276.5.									
R MIN	280.0	316.5			MORE HLY CHL'D.									
R LTH	280.0	316.5			MATRIX IS CALC CMNT.									
R LTH	280.0	316.5			TUFF C/W 50% LT GN FG AND FRAGS, 30% HB PORPH FRAGS, 20% LIMY BK FG PBSD FRAGS. MATRIX=CALC. OCC PY BLEB C FRAG'L LOOK									
N L	280.0	316.5			1 MATR	CA	CT FR		N 1 VC	45		K9	C5	61 Q)
					PB	AN	46					C3		
P L	316.5	338.2			PBTF	RF	EP CT	FR 2 M 7 D	P			Q2	HB	D*
R LTH	316.5	338.2			PB	FR	LG	2 3 1 C	2			P5	P8 Q1 Q2	
R ALT	316.5	338.2			POLYMICT LAP TUFF C/W PBSD, FG AND PORPH FRAGS.									
R ALT	316.5	338.2			STR PERV EPI ALT'N, MOD CHL, TOTALLY BLEACHED, SOFT. VMINDR HEM.									
P L	338.2	485.0			PBSD	MD CA	BD	2 2 2 2	P 1 BD	70		23	6R	C)
N L	338.2	346.0			PB	LS						C2		
R ALT	338.2	346.0			X PBSD	MD CA	BD	2 2 2 2	N 1 BD	70		23	6R 61 C)	
N L	340.5	341.5			PB	LS						Q6	C2 Q2	
					X PBTF	RF	EP CT	FR 2 M 7 D	N			Q2	HB	D*

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DRILLHOLE/TRVERSE : R-017 (CONTINUED)

K E Y	- I N T E R V A L - (UNITS = FT)		CORE RECOV- ERY (FT.1)	X M I X T Y P E	T Y P I - Q U A L I T Y	Q U A L I T Y	T E X T U R E S	G R A I N F R A C T U R E	S T R U C T U R - 1	A L T E R A T I O N	M I N S	O R E - T Y P E	M I N S	S U M M A R Y
	F R O M	T O												
L			ROCK	FOR EN RT	TM QM2 TX TX S R S O	DIP F			T ID STK DIP	KF MU CL EP HE ID ID PR MD SL ID				
R LTH	347.0	350.0	QUAL	MEM V Q LC-3	3 4 0 N H / SML I				2 AZM RT	H H H H H H H H H H				
N	347.0	350.0	DESIG	AGE	COL	R D P C			STRUCTUR-2	A A A A A A A A A A				
L				PB	FR LG		2 3 1 C	2			P5 PB Q1 Q2			
R LTH	347.0	350.0		ABT 3 THIN LT	GY TUFF BANDFS TO 3".									
N	347.0	350.0		1 PBTf RF	CT FR 2 3 6 3			N						
L				AN 6A			C							
R MIN	348.0	348.0		GOOD CPY XTALS	IN FRAC.									
R TXT	350.0	441.0		BANDS SEDS C/W WELL	RDD ELLIP'L LIMY PEPPLS TO 1/2".									
N	350.0	441.0		= PBSO MD CA	BD 2 J 4 K			N 1 BD	70		23	6R	C)	
L				PB	LS		5 9 5 C						C2	
R	378.0	382.0		AND SILL (?)	LT GN C/W.									
N	378.0	382.0		X AN/L MX HB	PP 2 J 1 K			N					6I	
L				PP 66 FX				3				P4	82	
R LTH	396.0	397.0		ALT'D F LAP TUFF	C/W CHL ALT'N, BLEACHING OF CLASTS,									
R LTH	396.0	397.0		BK LIMY MATR.										
N	396.0	397.0		X PBTf MD CA	BD 2 N 4 N			N 1 BD	70		23	6R	C)	
L				PB	LS AG		2 3 3 0						C2	
R LTH	438.0	460.0		Vf6 TUFF?	LT GN.									
N	438.0	460.0		X PBVS	AH KR 3 3 2 3			N				26	6I	
L				76	VV								C2	
N	440.5	445.5		X FAUL MD CA	BR 66 2 2 2 2			N 1 BD	70			K6	6I	C)
L				PB	LS		KR						85	
R COL	445.5	485.0		INCREASE IN LT GN	BANDS FROM 50/50 B/W TO 20/30 LT GN/BK.									
N	445.5	485.0		X FAUL MD CA	BD 2 2 2 2			N 1 BD	70 P2			24	6R	C)
L				PB	LS NG								C2	
P	485.0	501.0		PBTf RF	KR BR			P			P4	Q3 V3		D+
L				T6								Q6		
R ALT	485.0	501.0		PATCHY SOFT TAN	PYROPH (?) ALT'N.									
R MIN	485.0	501.0		OCC TARRY GILS	(MOLASSES).									
R MIN	492.0	500.0		OCC BLUISH QZ	AS AGATE IN FF.									
P	501.0	544.0		PBSD	BD VV 2 2 2 2			P 1 BD	65 P5			V3		D+
L				NG								Q2 Q3		
R COL	501.0	522.0		GENERALLY LT GY-GN	C/W THIN BK BDS.									
R LTH	501.0	522.0		INTRMT TUFF BANDS	NON-LIMY, SLCS LT GY-GN.									
N	501.0	544.0		2 TUFF RF	CT BD 2 3 B J			N 1 BD	65 P6					
L				PB	8A		0							
R LTH	502.0	504.0		PORPH'C FLOW HLY	SER/SIL ALT'D PHENDS TO 3 MM GONE TO SER +/-OR									
R ALT	502.0	504.0		BRN CHL/BIO. MATRIX	LT GY, SER ALT'D.									
N	502.0	504.0		X PPXX MS				N			P5			D=
L												P6 Q5		
R CON	514.0	514.0		ANG UNCONFORMITY	BETW ARGL BEDS - PIP/LITH SAME ON BOTH SIDES									
R CON	514.0	514.0		OF CCT, BUT ROTATED	ABT 60 DEGREES AROUND AXIS.									
R LTH	522.0	529.0		LT GY VOLC SEDS,	AS 501-522.									
N	522.0	529.0		X PBTf	UH EQ 2 3 B J			N					6I	

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DRILLHOLE/TRVERSE : R-017 (CONTINUED) .

S U M M A R Y R E M A R K S

80CC GRAPHITE ON BEDDING PLANES. LT/MED GRN ASH-LAP TUFF
RUNS TO 3 FT MAKE UP ABT 10% OF SECTION.
FLT @ 440-445. ANGULAR UNCONFORMITY TO BEDDING AT 514.
ANDESITE SILL(?) 378-382

544-556

SERICITIC FINE GRAINED PORPHYRY(?). 5-10% OF ROCK IS PHENO
TO 5MM, MOSTLY QZ. CHL ALT'N OF MAFICS IS STR. MINOR GILS

ROCK QUALITY DESIGNATION (R.Q.D.) 14393

HOLE #: R-17

DATE: OCT. 3/85

LOGGED BY: B.D.S.

FOOTAGES (FT)		INTERVAL		CORE	%	CUMUL. LENGTH OF PIECES (INCHES)			R. Q. D.			# OF	FRAC.
FROM	TO	INCHES	CUM. INCHES	REC. (IN)	RECT	>2"	>4"	>8"	2'	4'	8'	FRACT.?	INTENSITY
0	26	312	312	84	27	65	65	51	21	21	16		
26	36	120	432	120	100	112	101	54	93	84	45		
36	46	120	652	120	100	114	109	77	95	91	64		
46	56	120	772	116	97	111	96	59	92.5	80	49		
56	66	120	892	120	100	118	114.5	69	98	95	57.5		
66	76	120	1012	112	93	111	95	76	92.5	79	63		
76	86	120	1132	120	100	110	103.5	40	92	86	33		
86	93	84	1216	84	100	66	56	20	78.5	67	24		
93	97	48	1264	48	100	28	15	0	58	31	0		
97	100	36	1300	36	100	20	17	0	55.5	47	0		
100	103	36	1336	36	100	22	9	0	61	25	0		
103	108	60	1420	60	100	38	22	0	63	37	0		
108	115.5	90	1516	87	97	53	22	0	59	24	0		
115.5	120.5	60	1716	60	100	46	20	9	77	33	15		
120.5	126	66	1642	64	97	54	42	13	82	64	20		
126	128.5	30	1672	50	100	15	65	0	50	22	0		
128.5	136	90	1762	85	94	60	56	16	67	62	18		
136	146	120	1882	116	97	102	78	44	85	65	37		
146	156	120	2002	108	90	100	89	58	83	74	48		
156	166	120	2122	120	100	102	97	62	85	81	52.5		
166	176	120	2242	120	100	101	86	50	84	72	42		
176	186	120	2362	119	99	115	109	65	96	91	54		
186	196	120	2482	120	100	120	120	89	100	100	74		
196	206	120	2602	120	100	118.5	118.5	98	99	99	82		
206	216	120	2722	120	100	120	118	96	100	98	80		
216	225	108	2830	92	86	90	97.5	58.5	83	90	49		
225	235	120	2950	110	92	110	110	80	100	100	67		
235	245	120	3070	117	97.5	117	112	71	110	93	59		
245	255	120	3190	120	100	104	90	37	87	75	31		
255	265	120	3310	120	100	114	106	39	95	88	32.5		
265	275	120	3430	120	100	120	120	82	110	100	68		
275	285	120	3550	120	100	112	95	54	93	79	45		
285	295	120	3670	120	100	112	108	75	98	90	62.5		
295	305	120	3790	120	100	90	74	20	75	62	17		
305	312	84	3874	84	100	65	38	20	77	33	24		

ROCK QUALITY DESIGNATION (R.Q.D.)

HOLE #: R-17

DATE: 10/2/65

LOGGED BY: RDN

FOOTAGES (FT)		INTERVAL		CORE	%	CUMUL. LENGTH OF PIECES (INCHES)			R. Q. D.			# OF	FRAC.
FROM	TO	INCHES	CUM. INCHES	REC. Ø (IN)	REC. %	≥ 2"	≥ 4"	≥ 8"	2"	4"	8"	FRACT. S	INTENSITY
312	322	120	3994	111	92.5	102	91	62	86	76	52		
322	332	120	4114	120	100	120	110	150	100	92	83		
332	336	48	4162	41	85	41	34	12	25	71	27		
336	346	120	4282	120	100	115	92	52	96	71	42.5		
346	356	120	4402	120	100	93	46	23	69	38	19		
356	366	120	4522	120	100	98	72	17	20	65	11		
366	376	120	4642	118	98	91	21	53	76	59	41		
376	386	120	4762	120	100	85	69	28	71	57.5	23		
386	396	120	4882	117	97.5	108	92	23	96	72.5	19		
396	401	60	4942	51	85	45	38	12	70	63	30		
401	406	60	5002	60	100	60	54	54	100	90	90		
406	416	120	5122	112	93	97	73	27	21	61	22.5		
416	426	120	5242	119	99	101	91	42	94	76	35		
426	436	120	5362	120	100	100	68	20	23	57	17		
436	441	60	5422	60	100	17	10	0	28	14	0		
441	446	60	5482	50	83	42	33	0	70	55	0		
446	456	120	5602	114	95	92	82	11	21	69	9		
456	466	120	5722	118	98	63	42	16	98	25	13		
466	476	120	5842	120	100	106	75	12	28	125	10		
476	485	108	5950	108	100	63	34	0	58	25	0		
485	489	48	5998	45	94	32	20	0	62	42	0		
489	496	84		84	100	73	59	11	87	70	13		
496	506	120		120	100	90	71	13	75	66	11		
506	516	120		120	100	115	90	36	96	75	30		
516	526	120		120	100	108	92	48	90	77	40		
526	529	36		36	100	34	32	16	94	89	44		
529	536	84		82	98	80	71	28	95	85	33		
536	546	120		120	100	110	97	48	92	81	40		
546	556	120		115	96	107	99	43	89	82.5	36		
END OF HOLE													

MAGNETIC SUSCEPTIBILITY

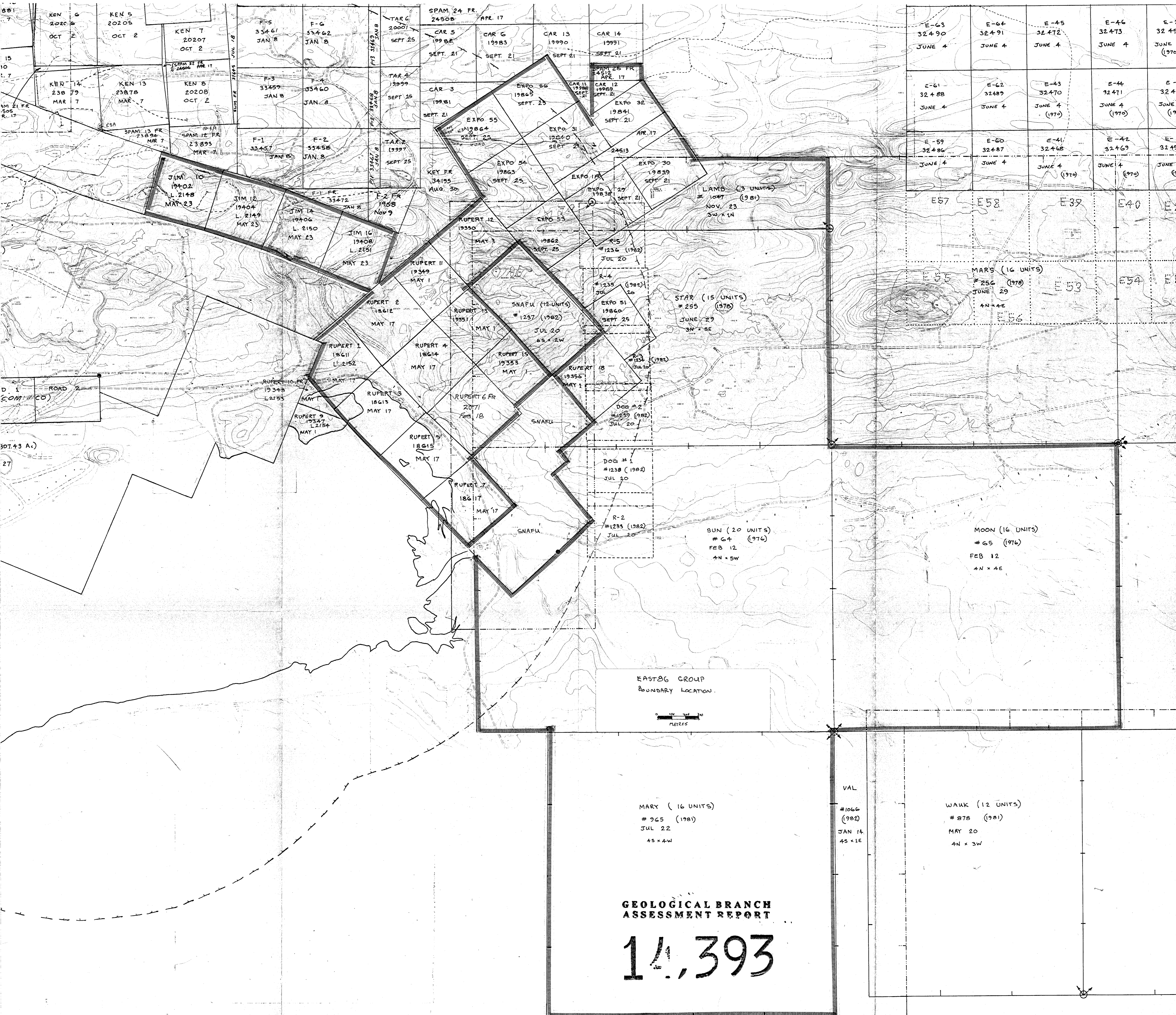
HOLE: R-17

INTERVAL START	+ 2'	+ 4'	+ 6'	+ 8'	INTERVAL AVERAGE
0	N/A				(CGS UNITS)
10	.2	.2	.2	.2	0.2
20	.2	.1	.15	.1	.14
30	.1	.1	.13	.13	.12
40	.1	.1	.1	.13	.11
50	.17	.1	.13	.06	.12
60	.06	.1	.06	.1	.08
70	*.1	*.2	*.1	*.2	.15
80	.166	.166	.166	.13	.16
90	.53	.166	.166	.166	.26
100	.13	.166	.13	.1	.13
110	*.1	*.23	*.1	*.1	.13
120	.13	.166	.13	.13	.14
130	.13	.1	.1	.1	.11
140	*.1	*.1	*.166	*.06	.11
150	.1	.1	.1	0.0	.08
160	.1	.13	.06	0.0	.05
170	0.0	*.03	0.0	0.0	.01
180	*.0.0	*.0.0	*.1	*.13	.06
190	.06	.06	.06	.13	.06
200	.03	.1	.1	.06	.07
210	0	0	0	0	0
220	*.0	*.02	*.0	*.0	.01
230	0	0	0	0	0
240	.06	.06	0	0	.03
250	0	0	.03	0	.01
260	*.0	*.0	*.0	*.0	0
270	0	0	0	0	0
280	0	0	0	0	0
290	0	0	.03	0	.01
300	*.0	*.0	*.0	*.0	0
310	0	0	0	0	0
320	0	0	0	0	0
330	.1	.1	.1	.06	.09
340	*.05	*.03	*.1	*.16	.06
350	.03	.06	.03	.03	.04
360	0	0	0	0	0

MAGNETIC SUSCEPTIBILITY

HOLE: R-17

INTERVAL START	+ 2'	+ 4'	+ 6'	+ 8'	INTERVAL AVERAGE (CGS UNITS)
300	0	0	0	0	0
320	*.03	*0	*.1	*0	.01
340	0	0	0	0	0
360	0	0	0	0	0
380	0	0	0	.1	.03
400	*0	*.2	*0	*0	.05
420	0	0	0	0	0
440	.03	.03	.03	0	.02
460	0	.06	.03	.10	.05
480	*.1	*.06	*0	*0	.04
500	0.0	.16	.1	.1	.09
520	0.0	.07	.1	.1	.07
540	.1	.13	.13	.1	.12
560	0.0	.1	.07	.03	.05
580	.1	.1	0.0	.1	.08
600	.1	.1	.13	.1	.11
620	.03	.17	.17	.1	.12
640	1	.07	.07	.1	.07
660	.07	.1	.1		.09
680	END OF HOLE				
700					
720					
740					
760					
780					
800					
820					
840					
860					
880					
900					



E-63 32490 JUNE 4	E-64 32491 JUNE 4	E-65 32472 JUNE 4	E-66 32473 JUNE 4	E-27 32454 JUNE 4 (1970)
E-61 32488 JUNE 4	E-62 32489 JUNE 4	E-63 32470 JUNE 4 (1970)	E-64 32471 JUNE 4 (1970)	E-2 32455 JUNE 4 (1970)
E-59 32486 JUNE 4	E-60 32487 JUNE 4	E-61 32468 JUNE 4 (1970)	E-62 32469 JUNE 4 (1970)	E-2 32450 JUNE 4 (1970)

E57	E58	E59	E60	E61
MARS (16 UNITS) # 256 (1970) JUNE 29 4N x 4E				

STAR (15 UNITS) # 265 (1970) JUNE 29 3W x 5E				
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SUN (20 UNITS) # 64 (1976) FEB 12 4N x 5W				
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MOON (16 UNITS) # 65 (1976) FEB 12 4N x 4E				
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MARY (16 UNITS) # 965 (1981) JUL 22 4S x 4W				
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VAL # 1066 (1982) JAN 14 4S x 1E				
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WAWK (12 UNITS) # 878 (1981) MAY 20 4N x 3W				
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EAST86 GROUP
BOUNDARY LOCATION.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,393