

MAP No.

105 D 2

ASSESSMENT REPORT
N. M. E. A. P.
CONFIDENTIAL
OPEN FILE



TYPE OF
WORK:

GEOLOGY

REPORT FILED UNDER	PREMIER MINING CORPORATION LTD.	DOCUMENT NO. 091744
DATE PERFORMED	1971	DATE FILED: JULY 30, 1971
LOCATION - LAT.	60°04'N	AREA: WINDY ARM
LONG.	134°32'W	
CLAIM NO.	LULU 1-16 Y21107-Y21110	
	Y26217-Y26228	
VALUE \$		
WORK DONE BY	M.P. PHILLIPS (ARCHER, CATHRO)	
WORK DONE FOR	PREMIER MINING CORPORATION LTD.	
REMARKS	<p>This report describes the old showings on the Rams Horn Property described by Cairnes. The veins were sampled and assayed for Au, Ag, Cu, and Ni. Veins consist of fossiliferous, <u>aphanitic</u> altered volcanic rock with 5% pyrrhotite. Irregular lenses of quartz with galena, chalcopyrite and arsenopyrite are seen within this. The veins <u>pinch</u> out at depth.</p>	

#2 LULU

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AND ASSOCIATES LTD.
CONSULTING GEOLOGICAL ENGINEERS

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GEOLOGICAL MAPPING AND SAMPLING

RAMS HORN PROPERTY

Lulu 1-4; Y21107-Y21110
Lulu 5-16; Y26217-Y26228
105-D-2 (Carcross)
Whitehorse Mining District

PREMIER MINING CORPORATION LTD.

July 28 - 30, 1971

M.P. Phillips

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1 in = 8 miles
- Figure 2 - Map showing Geological Plan - Rams Horn Property
1 in = 400 feet
- Figure 3 - Plan showing No. 1 Adit
1 in = 10 feet
- Figure 4 - Plan showing Trenches A and B
1 in = 10 feet
- Figure 5 - Section showing Trench C
- Figure 6 - Plan and Section showing No. 2 Adit
1 in = 10 feet
- Figure 7 - Section showing No. 3 Adit
1 in = 10 feet

SUMMARY

The Lulu claims cover the old Rams Horn vein which was explored by three short adits and one trench before 1908.

Mineralization consists of:

(1) narrow, erratic lenses of quartz with arsenopyrite, pyrite, pyrrhotite and minor chalcopyrite and galena and

(2) pyrite and pyrrhotite in the altered volcanics at the intersection of well developed north-south, east-west cleavage sets.

INTRODUCTION

During the period July 28-30, 1971, geological mapping and sampling was conducted in the vicinity of old workings in the northwest facing cirque on the Lulu claim group by geologist M.P. Phillips.

LOCATION AND ACCESSIBILITY

(Figure 1)

The Lulu claim group is situated on the British Columbia - Yukon Territory border, about 55 miles southeast of Whitehorse, and two miles east of Windy Arm of Tagish Lake.

Access to the property is by helicopter. The Venus Mine on the west side of Windy Arm is the nearest road point.

HISTORY

The Lulu claims cover an old showing known as the Rams Horn which was prospected by trenches and adits before 1908.

The workings were briefly described that year by Dr. D.D. Cairnes in GSC Publication No. 982, now part of Memoir 284, page 255. There is no record or evidence of subsequent work.

GEOLOGY

Above the 3500 ft contour outcrop is not common and generally consists of local felsenmeer. Glacial boulders up to one foot in diameter of white Tertiary feldspar porphyry and Cretaceous granodiorite are occasionally present. Below the 3500 ft contour, glacial float of Taku Group(?), altered volcanics, Cretaceous granodiorite and Tertiary feldspar porphyry is common.

The claim group is underlain by a metamorphosed volcanic rock which has been mapped by the GSC in Memoir 312 as the Pennsylvanian(?) and Permian Taku Group. The main rock type is a massive dark green, aphanite to fine grained andesite with minor irregular lenses and bands of fine to medium grained diorite which texturally appear to have been a brecciated volcanic flow. Narrow irregular bands of serpentinite up to 0.5 ft wide are occasionally present.

A stockwork of 1 to 2 mm feldspar veining with some carbonate

is often present in the volcanics. The predominate cleavage direction is north-south but a weaker east-west set is also present. Dips are variable but generally steep.

Fine disseminated pyrrhotite and pyrite is commonly present up to 1/2%. Up to 3% with minor chalcopyrite occurs at the junction of intersecting cleavage planes and fracture. The pyrite and pyrrhotite on the fractures has oxidized at surface to produce a brown gossan. In some cases the cleavages plane swing in direction producing tension fractures with pyrite and pyrrhotite mineralization, but these areas seldom exceed 20 ft in diameter.

OLD WORKINGS
(Figures 2-7)

Figures 2-7 show the detailed geological mapping and sampling of the adits, trenches and cuts in the cirque.

The No's. 1, 2 and 3 adits and Trench C appear to have been located on mineralized parts of the same vein structure, which strikes between N40°E and N85°E and dips from 25° to 60° northwest.

The vein-fault consists of a fissile, aphanitic, fine grained altered volcanic rock up to 2.0 ft wide containing disseminated pyrite and pyrrhotite. Within this fault zone, irregular lenses up to 0.4 ft wide of vuggy quartz occur which contain arsenopyrite, pyrrhotite, pyrite, minor galena and

traces chalcopyrite. Brown jarosite, limonite and orange scorodite is common as well. In the old workings, it is quite evident that the vein pinches out along strike and dip to a knife-like plane. The hangingwall and footwall of the vein is a flaggy, cleaved, altered, aphanitic to fine grained volcanic except in the No. 3 adit where the rock is a fine to medium grained diorite.

Trenches A and B were dug on pyrite and pyrrhotite mineralization at the junction of two sets of cleavage directions.

Silver is the only significant mineral but the grade and irregular nature of the vein indicate the potential for a underground mining operation is poor.

All samples were assayed for copper, nickle, silver and gold. Values varied from 0.1 to 0.3% copper, trace to 0.12% nickle, trace to 4.56 oz/ton silver and trace to 0.64 oz/ton gold.

Respectfully submitted,
ARCHER, CATHRO & ASSOCIATES LTD.

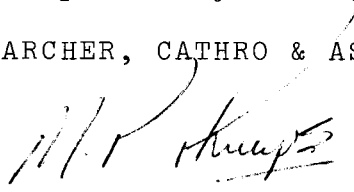

M.P. Phillips

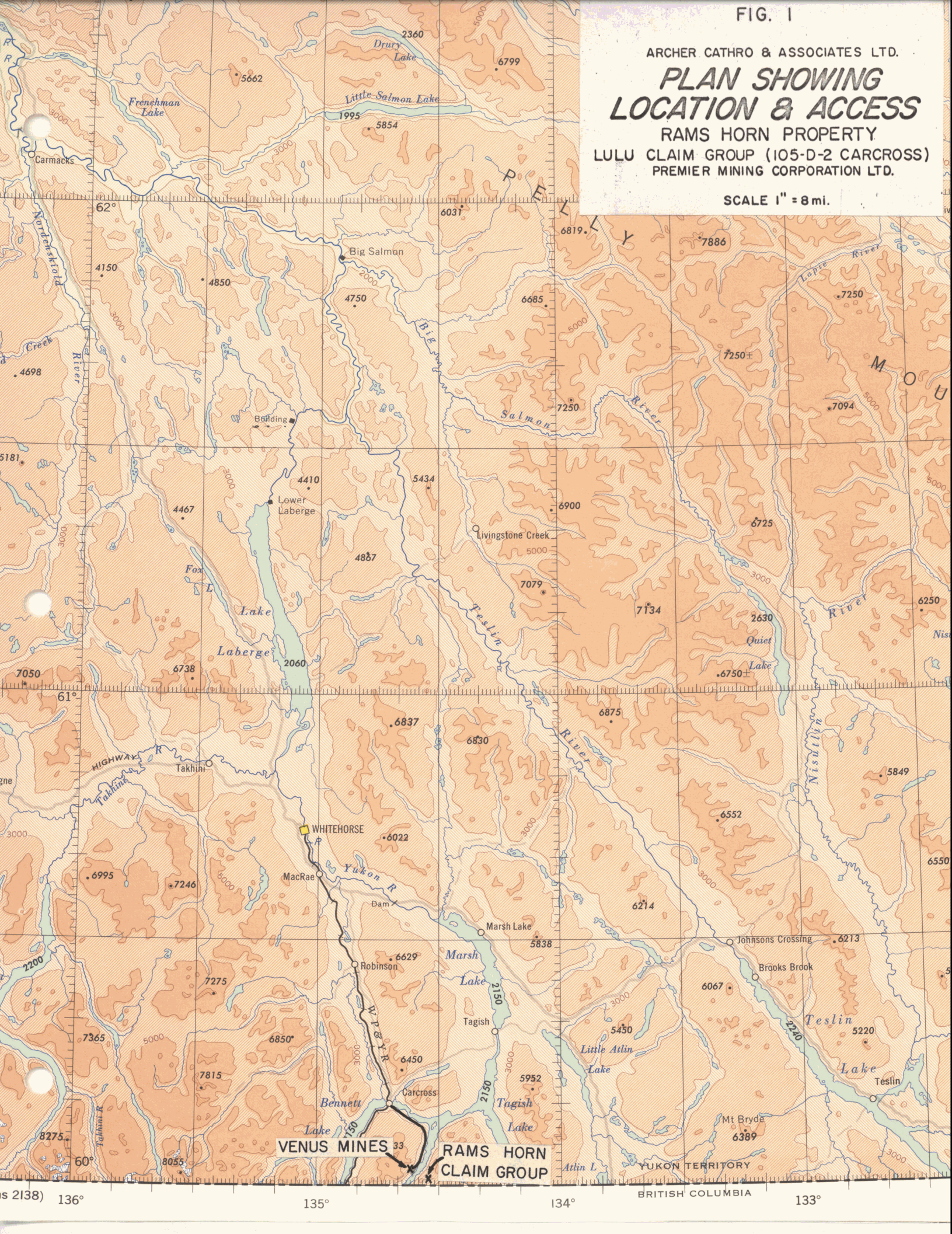
FIG. 1

ARCHER CATHRO & ASSOCIATES LTD.

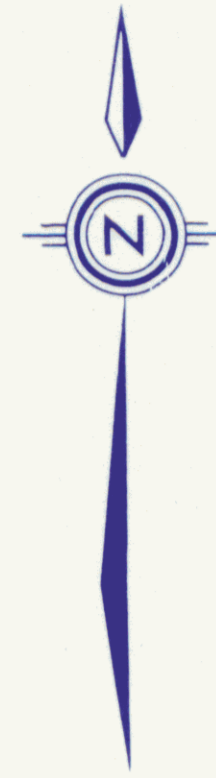
PLAN SHOWING LOCATION & ACCESS

RAMS HORN PROPERTY
LULU CLAIM GROUP (105-D-2 CARCROSS)
PREMIER MINING CORPORATION LTD.

SCALE 1" = 8 mi.



VENUS MINES 33
RAMS HORN CLAIM GROUP

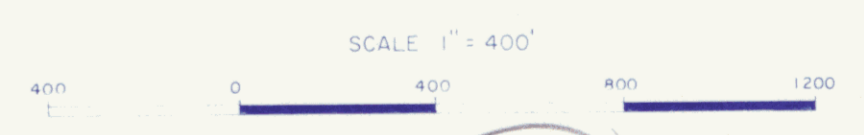


LEGEND

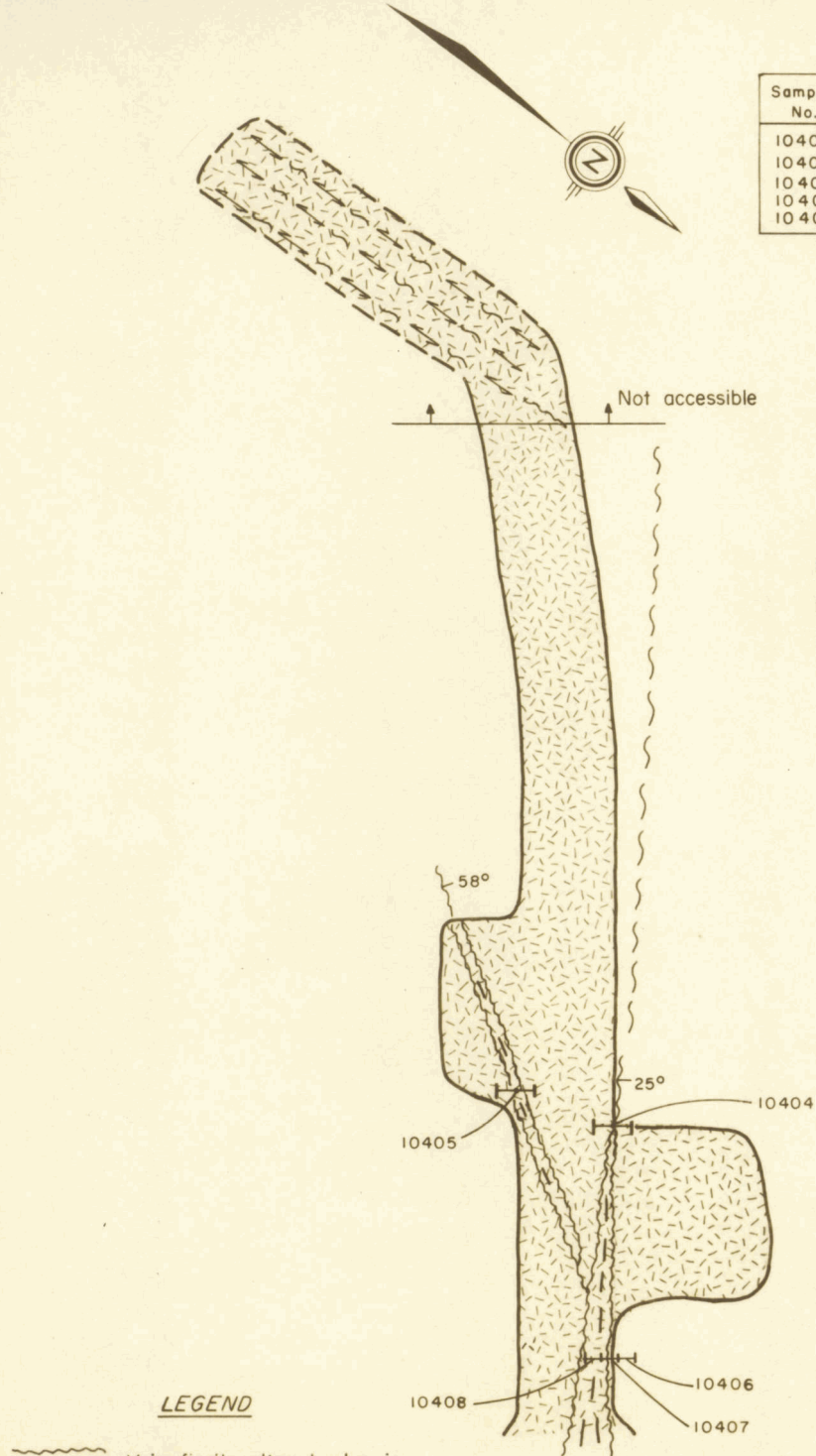
- Traverse
- Cliffs
Top
Bottom
- Base of scree below cliffs
- Contour - Assumed boundary beacon - 5000 ft
- Claim post
- Stream; stream with waterfalls
- Trench or cut
- Adit
- Cleavage with dip and density per ft
- Cleavage - strong limonite staining and sulfides
- X White feldspar porphyry float
- + Coast range granodiorite float
- QZF Limonite stained quartz float
- Base of outcrop and local felsic group
Altered volcanics - Taku group?
- CONTROL - Tape & Compass - Pace & Compass



FIG. 2
ARCHER, CATHRO & ASSOCIATES LTD.
MAP SHOWING GEOLOGICAL PLAN
RAMS HORN PROPERTY
LULU CLAIM GROUP (105-D-2 CARCROSS)
PREMIER MINING CORPORATION LTD.



Sample No.	Width	Cu.%	Ni.%	Ag oz/ton	Au oz/ton
10404	0.5	.06	TR	.10	.02
10405	0.4	.04	.01	.18	.02
10406	1.5	.03	TR	TR	TR
10407	1.0	.03	.01	.74	.02
10408	1.0	.08	.01	4.56	.08



REMARKS

10406 HW
 10407 VEIN
 10408 VEIN

LEGEND





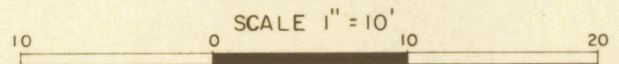
-  Vein-fissile altered volcanics with quartz & sulfides.
-  Chip sample
-  Quartz and feldspar veining along cleavage
-  Fractured & cleaved altered volcanics

FIG. 3

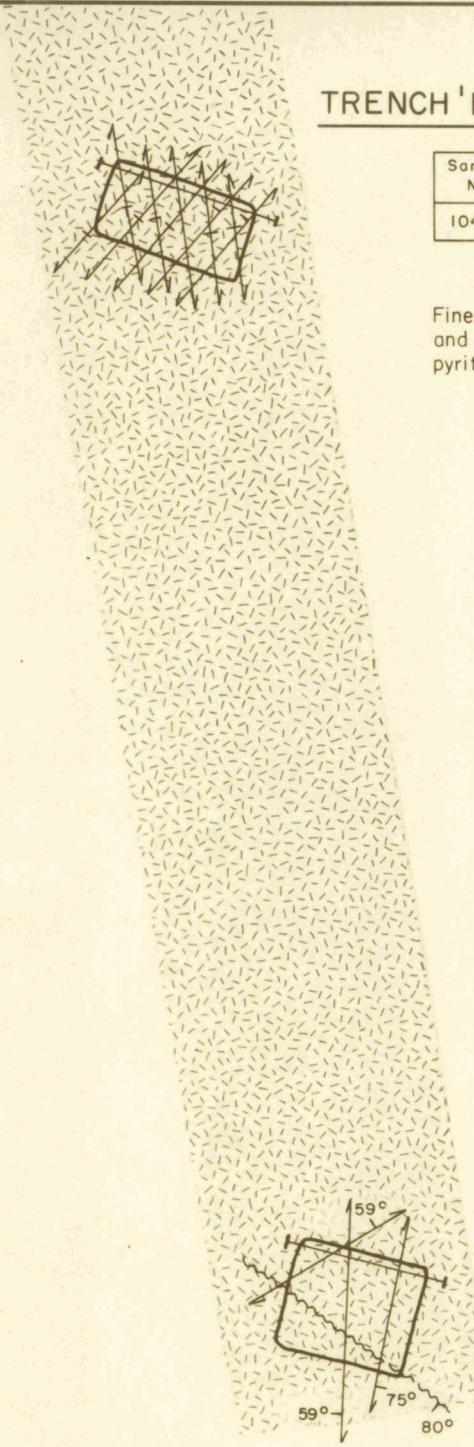
ARCHER CATHRO & ASSOCIATES LTD.
PLAN SHOWING
No. 1 ADIT
 RAMS HORN PROPERTY
 LULU CLAIM GROUP (105-D-2 CARCROSS)
 PREMIER MINING CORPORATION LTD.



TRENCH 'B' - 2 ft deep

Sample No.	Length	Cu.%	Ni.%	Ag. oz/ton	Au. oz/ton
10410	6.0	.30	.12	.02	.005

Fine grained altered volcanics with moderate fracturing and cleavage. Red brown limonite on fractures and 1-2% pyrite and pyrrotite.



TRENCH 'A' - 3ft deep

Sample No.	Length	Cu.%	Ni.%	Ag. oz/ton	Au. oz/ton
10409	6.0	.07	.03	.08	.005

Fine grained altered volcanics with intense fracturing and cleavage. Red brown limonite on fractures and 1-3% pyrite and pyrrotite.

LEGEND

—|—| Chip sample

—|—| Cleavage-strike & dip


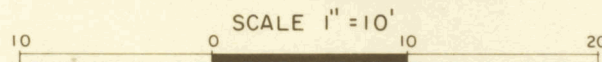
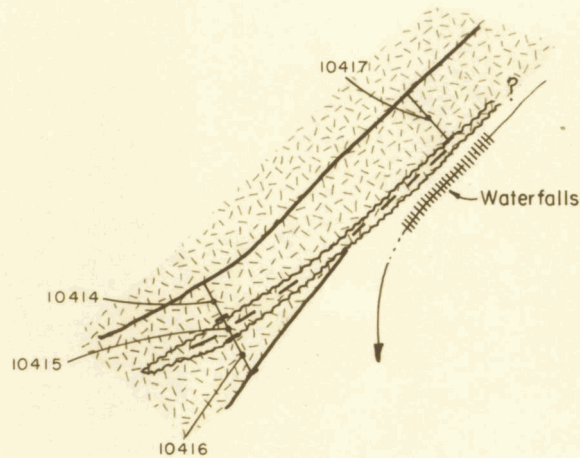
 Fractured & cleaved altered volcanics

FIG. 4

ARCHER CATHRO & ASSOCIATES LTD.
PLAN SHOWING
'TRENCHES A & B'
 RAMS HORN PROPERTY
 LULU CLAIM GROUP (105-D-2 CARCROSS)
 PREMIER MINING CORPORATION LTD.



Sample No.	Width	Cu. %	Ni. %	Ag. oz/ton	Au. oz/ton
10414	2.0	.04	.01	.04	TR
10415	1.0	.09	.01	.20	.04
10416	2.0	.04	TR	.04	TR
10417	3.0	.04	TR	.04	TR



REMARKS

- 10414 HW-Flaggy cleaved volcanic, fractured & disseminated pyrrhotite & pyrite 3-5%
- 10415 Vein-strong red brown limonite in fissile altered volcanics with lenses of quartz with moderate to strong pyrrhotite & pyrite
- 10416 FW-As HW.
- 10417 HW-Flaggy cleaved altered volcanics, red brown limonite staining-low-fractured & disseminated pyrrhotite & pyrite 2-4%
Vein-not accessible for sampling.

LEGEND




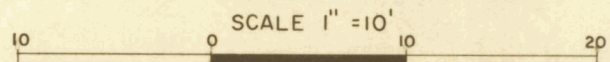
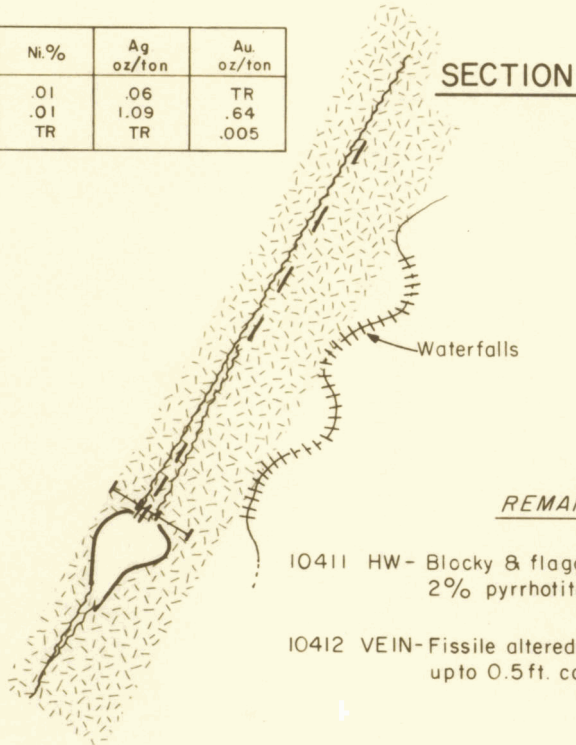
-  Vein-fissile altered volcanics
-  Chip sample
-  Fractured & cleaved altered volcanics

FIG. 5

ARCHER CATHRO & ASSOCIATES LTD.
SECTION SHOWING 'TRENCH C'
 (CUT INTO CLIFF)
LOOKING N 85° E
 RAMS HORN PROPERTY
 LULU CLAIM GROUP (105-D-2 CARCROSS)
 PREMIER MINING CORPORATION LTD.



Sample No.	Width	Cu %	Ni %	Ag oz/ton	Au. oz/ton
10411	2.0	.03	.01	.06	TR
10412	1.0	.01	.01	1.09	.64
10413	2.0	.04	TR	TR	.005

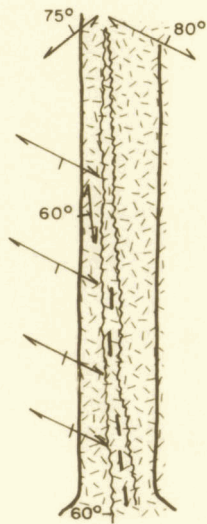


REMARKS

- 10411 HW - Blocky & flaggy altered volcanics upto 2% pyrrhotite & pyrite.
- 10412 VEIN - Fissile altered volcanic with quartz lenses upto 0.5 ft. containing sulfides
- 10413 FW - As HW

PLAN

ADIT VEIN - Strong iron staining with irregular up to 0.4ft. lenses quartz vein appear to pinch out at end on cleavage.

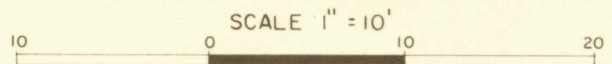


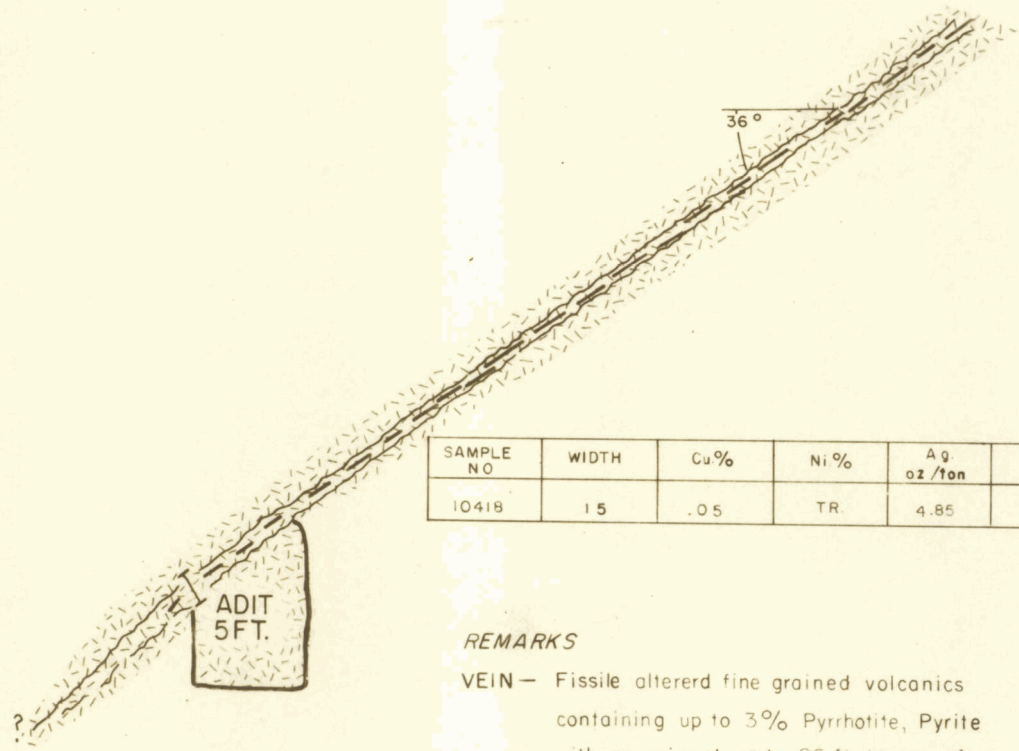
LEGEND

- Vein - fissile altered volcanics
- Chip sample
- Fractured & cleaved altered volcanics.
- Cleavage - strike & dip

FIG. 6

ARCHER CATHRO & ASSOCIATES LTD.
PLAN & SECTION SHOWING
No. 2 ADIT
 RAMS HORN PROPERTY
 LULU CLAIM GROUP (105-D-2 CARCROSS)
 PREMIER MINING CORPORATION LTD.





SAMPLE NO	WIDTH	Cu%	Ni%	Ag oz/ton	Au oz/ton
10418	15	.05	TR	4.85	.05

REMARKS

VEIN — Fissile altered fine grained volcanics containing up to 3% Pyrrhotite, Pyrite with occasional up to .02 ft. lenses of Quartz, strong orange staining, Quartz lenses not common up dip.

HW & FW — Medium grained, flaggy & block altered volcanic.

LEGEND




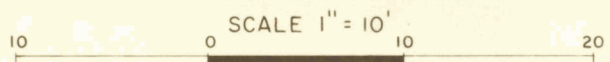
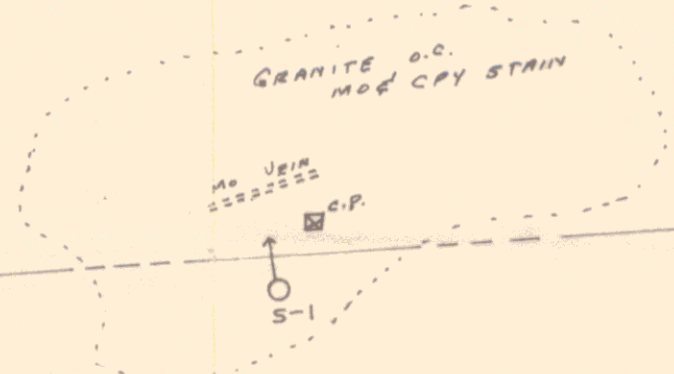
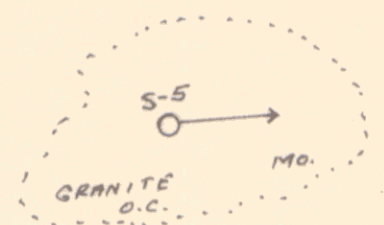
-  VEIN-QUARTZ LENSES
-  CHIP SAMPLE
-  FRACTURED & CLEAVED ALTERED VOLCANICS

FIG. 7

ARCHER CATHRO & ASSOCIATES LTD.
SECTION SHOWING No.3 ADIT
LOOKING N 40° E
 RAMS HORN PROPERTY
 LULU CLAIM GROUP (105-D-2 CARCROSS)
 PREMIER MINING CORPORATION LTD.



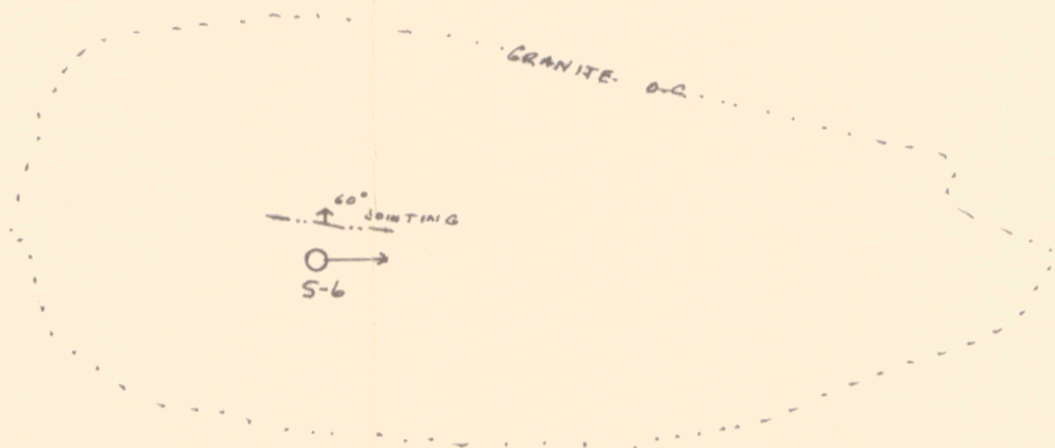
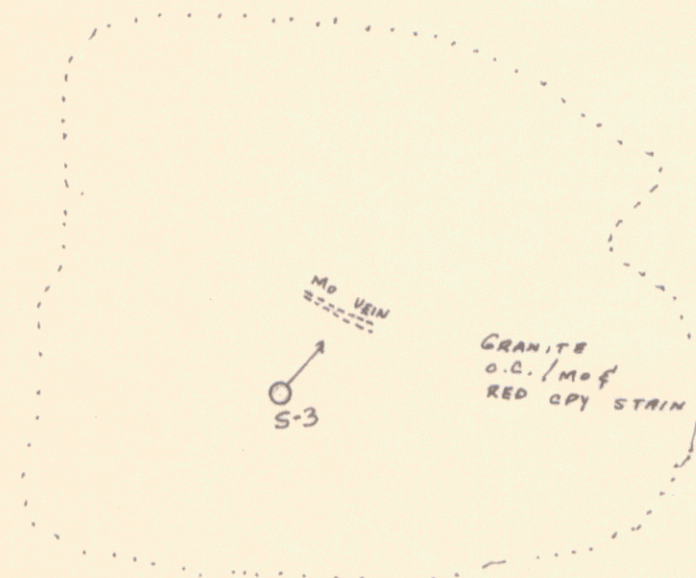
DRY CREEK BED
 POSSIBLE FAULT ZONE



SLASHED CLAIM LINE

TO STRIKER CREEK & TRAIL

MC STRIK NO. 4
 49641
 105-D-1



STRIK # 4 49641
 105-D-1

D.D.H. No.	DEPTH	DIP
1	84'	45° N
2	18'	45° N.W.
2A	78'	50° N.W.
3	80'	45° N.E.
4	77'	45° N
5	90'	45° E
6	68'	45° E

YUKON & B.C. ASBESTOS
 WHITEHORSE Y. T.
 DIAMOND DRILL HOLE LOCATION PLAN

DR BY- R.G.H.	APP'D BY-	REVISIONS
DATE - OCT-3-66	SCALE - 1" = 30'	
REF. NO.-	DWG. NO.-	