

<p>MINERAL RESOURCES BRANCH ASSESSMENT REPORT</p> <p>6742</p> <p>NO. _____</p>
--

Diamond Drill Report

(on completion of DDH 77-1 to 77-4 inc.)

on the

TOLMAN LAKE PROPERTY

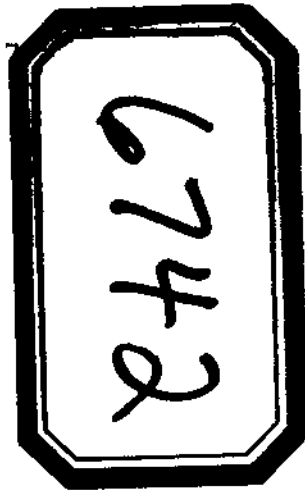
Tolman Lake: Nicola M.D.

Sunshine and 19 Km. north of  
Lo Claims : Lower Nicola  
50° 121° S  
NTS 92 I E.2

Report by: L. Sookochoff, P.Eng.  
Consulting Geologist  
Pan-American Consultants Ltd.  
2602-1055 West Georgia Street  
Vancouver, B.C.

For: Ruskin Developments Ltd.

Work Done: November 29, 1977 - December 14, 1977



## TABLE OF CONTENTS

### PART A

SUMMARY -----	i
CONCLUSIONS -----	iii
RECOMMENDATIONS -----	iv

### PART B

INTRODUCTION -----	1.
PROPERTY -----	1.
OWNERSHIP -----	2.
LOCATION -----	2.
ACCESS -----	3.
TOPOGRAPHY -----	3.
WATER -----	3.
CLIMATE -----	3.
POWER -----	3.
TRANSPORTATION -----	4.
SUPPLIES -----	4.
HISTORY -----	4.
GENERAL GEOLOGY -----	5.
LOCAL GEOLOGY -----	6.
MINERALIZATION -----	6.
DIAMOND DRILLING -----	8.
ORE RESERVES -----	14.
POTENTIAL ORE RESERVES -----	14.
EXPLORATION AND DEVELOPMENT PROGRAM -----	15.
ESTIMATED COST OF EXPLORATION AND DEVELOPMENT PROGRAM -----	15.
CERTIFICATE -----	16.

### ILLUSTRATIONS

- |                 |                         |
|-----------------|-------------------------|
| 1. LOCATION MAP | 3. UNDERGROUND GEOLOGY  |
| 2. CLAIM MAP    | 4. DRILL HOLE LOCATIONS |

Geological Report

on the

TOLMAN LAKE PROPERTY

Nicola Mining Division

for

RUSKIN DEVELOPMENTS LTD. (N.P.L.)

---

Part "A"

SUMMARY

The Tolman Lake property consists of 16 contiguously located mineral claims enclosed by two claims of 40 units situated approximately 29 kilometers by road north of Merritt, British Columbia, Nicola Mining Division, south-central British Columbia.

The logistics involved in all phases of exploration, development and production are excellent.

The property was explored from 1965 to 1972 and the work consisted of stripping, trenching, diamond drilling, and the driving of a 325 meter adit. Three zones of silver-lead-zinc copper mineralization were discovered.

A VLF-EM and geochemical survey carried out in November 1976 indicated the property to contain many encouraging lead, zinc and copper anomalies. The VLF-EM survey suggest the property to be well saturated with fault and shear zones.

The property is underlain by Nicola volcanics which in one shear zone have been sheared and brecciated along a strike length of some 2,000 meters. The shear strikes at  $045^{\circ}$  and dips to the northwest. The sulphides present in the zone are sphalerite, galena, chalcopyrite and pyrite. The breccia is cemented with calcite and quartz.

## CONCLUSIONS

1. The 1977 drilling program substantiated the mineralization in zone No. 3. A weakening of mineralization at the 50 meter vertical extension along the eastern portion of the zone was also determined.
2. Drill holes 77-3 and 77-4 could possibly have intersected a lower grade section along the zone. A lower intersection may be proposed in the future to test the zone at the 100 meter level.
3. The mineralized zone is indicated to plunge to the west where testing is proposed in a follow-up program.
4. The zone is also open to the east and west where the structure has been indicated in the VLF-EM survey.
5. Other zones on the property similarly expressed as zone No. 3, have been located by the VLF-EM and geochemical surveys.

RECOMMENDATIONS

It is recommended that Phase II of the writers recommendations as stated in a report dated July 9, 1976 on the Tolman Lake property be initiated. 650 meters of NQ drilling is recommended to further test and delineate the extensions on Zone No. 3.

In addition detailed geological mapping should be carried out over known VLF-EM and/or geochemical anomalous zones. A future diamond drill program would test prime correlative anomalous zones as determined from information to date and acquired geological information.

It is also recommended that Ruskin Developments Ltd. allocate the sum of \$51,000.00 to initiate and execute the recommended program on the Tolman Lake property.

Respectfully submitted



Laurence Sookchoff, P.Eng.  
Consulting Geologist

March 16, 1978  
Vancouver, B.C.

Geological Report

on the

TOLMAN LAKE PROPERTY

Nicola Mining Division

British Columbia

for

RUSKIN DEVELOPMENTS LTD. (NPL)

---

Part "B"

INTRODUCTION

The following report is a summary of the work completed on the Tolman Lake property prior to the current drill program as well as to relate the results of the program to date.

PROPERTY

The property consists of 16 contiguous mineral claims and two claims of 40 units held by location. They are as follows:

<u>NAME OF CLAIM</u>	<u>RECORD NO.</u>	<u>RENTAL</u>	<u>WORK EXPIRY DATE</u>
Sunshine 3-8	22361-66	June 1/77	June 1/79
Sunshine 1,2,9,10	22367-70	June 4/77	June 4/79
Sunshine 11-16 incl Lo # 6,7	22431 to 22436 20917, 20918	June 19/77 June 19/77	June 19/78 June 19/78
Hilda # 1 (20 units)	198	Nov 30/77	Nov 30/78
Hilda # 2 (20 units)	199	Nov 30/77	Nov 30/78

The claims cover silver-lead-zinc-copper mineralization concentrated in breccia shear zones within Nicola volcanics.

#### OWNERSHIP

The property is owned by Highland Lode Mines Ltd. (NPL) and is held under option by Ruskin Developments Ltd. (NPL) of Vancouver, British Columbia.

LOCATION (50° - 121°S)

The claims are located on the western flank of Swakum Mountain some 29 kilometers north of Merritt, in the Nicola Mining Division, south-central British Columbia.



## ACCESS

3.

Access to the property is via the paved and gravelled Mamit Lake Road north from Lower Nicola. A dirt road, passable by car, leads east to the property at a point some 19 kilometers north of Lower Nicola.

## TOPOGRAPHY

The claim group covers an area of moderate relief with elevations varying from 1,300 to 1,650 meters above sea level. The peak of Swakum Mountain, six km. east, is at an elevation of 1,850 meters.

## WATER

Tolman Lake and numerous creeks located within the property have sufficient water for all phases of exploration, development and domestic use.

## CLIMATE

The area experiences relatively cool winters with moderate snowfall whereas the summer months are generally hot.

## POWER

Diesel electric power would be required for the initial phases of development and hydroelectric power would be available if future requirements warrant same.

### TRANSPORTATION

Rail services are available in Merritt and Kamloops. Good daily truck transportation would also be available.

### SUPPLIES

Most supplies would be available from Merritt or Kamloops. Locally unobtainable goods could be purchased from Vancouver.

### HISTORY

In 1965 and 1966, Vastlode Mining Co. carried out exploration which consisted of stripping, trenching and diamond drilling. Very limited magnetometer work was done. Three zones of silver-lead-zinc-copper mineralization were revealed in a brecciated shear zone some 2,000 meters in length.

In 1967, Highland Lode Mines concentrated their exploration activities on the central zone. The work was comprised of additional stripping, trenching and 900 meters of diamond drilling in 16 holes. On the basis of the drilling results, an adit was driven for 325 meters, of which 130 meters was drifted along the mineralized zone. In November, 1976, Geotronics Surveys Ltd. of Vancouver performed VLF-EM and soil sample surveys over a portion of the property.

Mr. Mark in his report on the results of the VLF-EM and soil geochemistry surveys revealed excellent correlation between the VLF-EM and the lead-zinc anomalies. Additional

shear zones were also located. The copper anomalies, as well as correlate with the lead-zinc anomalies, but in a much more intermittent fashion.

The anomaly which contains mineralized zones 2 and 3 is of interest as it apparently confirms that the zones are along one shear zone.

The lead-zinc and VLF-EM anomalies are continuous and show a strike length of 2,750 meters.

A preliminary reconnaissance geological survey was also carried out in conjunction with the VLF and soil geochem surveys. Rock outcrops were noted and examined along the grid lines of the survey. The general information obtained would be utilized for locating areas of concentrated mapping.

#### GENERAL GEOLOGY

The regional geology as shown on the Geological Survey of Canada Map 886A Nicola, reveals that the area is underlain by rocks of the Nicola Group which consists of Greenstone, andesite, basalt, agglomerate, breccia, tuff with minor argillite, limestone and conglomerate. The Guichon Batholith lies five km. to the west and the Nicola Batholith, nine km. to the east. The Batholiths are comprised of granite, granodiorite, gabbro and related igneous phases. Other unmapped intrusives occur within the Nicola group. One occurs around Rey Lake some six km. northeast of the property.

## LOCAL GEOLOGY

The property, although not yet completely geologically mapped, appears to be entirely underlain by Nicola rocks. A strong brecciated shear zone striking at  $045^{\circ}$  and dipping steeply to the northwest has been delineated over a length of some 2,000 meters. The zone contains three known occurrences of silver, lead, zinc and copper mineralization. The sulphides occur as sphalerite, galena, chalcopyrite and pyrite in breccia.

The mineralized breccia has been cemented with calcite and quartz.

## MINERALIZATION

### Zone # 3 (Adit Zone)

The mineralization is confined to brecciated and bleached andesite with calcite and quartz forming the matrix. The breccia fragments consist of sphalerite, galena, chalcopyrite and altered andesite. Numerous stringers containing sphalerite and galena also occur.

The hanging-wall of the zone consists of bleached andesite often containing abundant fine-grained white pyrite which grades into numerous quartz and calcite stringers carrying sphalerite and galena. A gouge section occurs adjacent to the main brecciated zone and contains minor values.

The brecciated section increases in sulphide content towards the footwall and attains widths of over 6.5 meters. The higher grade sections grade into highly silicified andesite of the footwall which contains numerous quartz and calcite stringers. The silicified andesite grades rapidly into relatively unaltered andesite.

Post mineral faulting cuts the zone at various angles but there is no significant displacement.

The zone has been tested with diamond drilling and by underground drifting and crosscutting for a length of some 165 meters and to a depth of 50 meters.

A chip sample cut by the writer along 50 meters of the drift assayed 0.12 oz Ag/ton; 1.04% Pb; 4.60% Zn, and 0.20% Cu. A three meter sample cut from the right wall near where the drift is presently caved, assayed 0.22 oz Ag/ton; 1.24% Pb; 13.20% Zn, and 0.49% Cu.

A composite of selected samples taken from both walls and the back of the drift assayed 0.24 oz Ag/ton; 1.68% Pb; 12.00% Zn, and 0.25% Cu. The length of the zone tested was 50 meters.

#### Zone # 2

Zone # 2 is located approximately 650 meters northeast of Zone # 3 on the same shear structure and appears to have the same geological characteristics. Previous drilling in 1965-66 and surface indications suggest a well mineralized zone up to 8 meters in width which has been exposed along strike for approximately 50 meters. The drilling suggest a comparable grade to that of Zone # 3.

Zone # 1

Zone # 1 is situated 650 meters southwest of Zone # 3 on the same shear. The zone is exposed by old trenching and some "packsack" drilling was done for which there are no records available. Lead and zinc mineralization has been exposed but the dimensions of the deposit is still unknown.

DIAMOND DRILLING - No. 3 ZONE (1967)

Records pertaining to the drilling of eleven diamond drill holes have been reported on by J.P. Elwell, P.Eng. in 1967. The results are as follows:

D.D.H. # 1

Location	Main Trench
Azimuth:	315 <sup>o</sup>
Dip:	-47 <sup>o</sup>
Depth:	110'
Intersection:	0-25' = 25'
Assay:	0.33% Cu; 2.83% Zn with minor Pb values
Intersection:	14-25' = 9.0'
Assay:	0.55% Cu; 3.65% Zn

D.D.H. # 2

Location: 440 feet N.E. of Trench  
 Azimuth:  $135^{\circ}$   
 Dip:  $-60^{\circ}$   
 Depth: 108'  
 Intersection: 72' - 79' = 7.0' at 0.25 oz Ag/ton; 1.87% Pb;  
 1.65% Zn; 0.20% Cu.  
 79' - 83' = 4.0' at 0.15% Pb; 0.09% Zn; 0.05% Cu  
 83' - 87' = 4.0' at 0.20 oz Ag/ton; 1.80% Pb;  
 3.35% Zn; 0.15% Cu  
 87' - 93' = 6.0' at 0.25 oz Ag/ton; tr Pb;  
 1.30% Zn; 0.10% Cu  
 93' - 95' = 2.0' at 0.15 oz Ag/ton; Tr Pb; 0.27% Zn  
 Tr Cu  
 95' - 101 = 6.0' at 2.00 oz Ag/ton; 13.47% Pb;  
 21.30% Zn; 1.00% Cu

D.D.H. # 3

Location: Same site as D.D.H. # 2  
 Azimuth:  $135^{\circ}$   
 Dip:  $-75^{\circ}$   
 Depth: 127'  
 Intersection: 104-112' = 8.0'  
 Assay: 0.35 oz Ag/ton; 2.25% Pb;  
 11.25% Zn; 0.42% Cu.

## Remarks:

Minor values were encountered from 91' to 104'. Poor core recovery was experienced.

D.D.H. # 4

Location: 80' SE of D.D.H. # 2 and # 3  
 Azimuth 135°  
 Dip: -60°  
 Depth: 141'  
 Intersection: 68' - 78' = 10.0' at 0.64 oz Ag/ton;  
 0.92% Pb; 2.68% Zn; 0.41% Cu  
 91' - 100.5' = 9.5' at 0.45 oz  
 Ag/ton; 2.50% Pb; 1.70% Zn; 0.27% Cu  
 100.5 - 105' = 4.5' at 0.15  
 oz Ag/ton; 0.25% Pb; 1.30% Zn,  
 0.15% Cu.

D.D.H. # 5

Location: Same as D.D.H. # 4  
 Azimuth: 135°  
 Dip: -80°  
 Depth: 127'  
 Intersection: 84-90' = 6.0' at 0.45 oz Ag/ton;  
 0.08% Pb; 1.30% Zn; 0.10% Cu  
 120' - 127' = 7.0' at 0.05 oz  
 Ag/ton; tr Pb; 1.40% Zn, 0.05% Cu

Remarks: Minor values were encountered from 80' to 127' but core recovery was very poor.

D.D.H. # 6

Location: 110' southwest of D.D.H. # 4 and 5  
 Azimuth: 135°  
 Dip: -60°  
 Depth: 133'  
 Intersection: 78' - 82' = 4.0' at 0.55 oz Ag/ton;  
 0.10% Pb; 1.25% Zn; 0.10% Cu.

Remarks: Mineralization was encountered from 72' to 82'. Core recovery below 82 feet in the hole was extremely poor and some galena and chalcopyrite was noted in the core fragments.



D.D.H. # 7

Location: Same as D.D.H. # 6  
 Azimuth:  $-135^{\circ}$   
 Dip:  $-80^{\circ}$   
 Depth: 143'  
 Intersection: 90 - 112' = 22.0' at 1.15 oz Ag/ton;  
 2.70% Pb; 8.07% Zn; 0.22% Cu.  
 112' - 122' = 10.0' at Minor Values  
 122' - 132' = 10.0' at 0.06 oz Ag/ton;  
 Tr Pb; 7.90% Zn; 0.28% Cu.

D.D.H. # 8

Location 145' S.W. of D.D.H. # 6 and 7  
 Azimuth:  $-135^{\circ}$   
 Dip:  $-60^{\circ}$   
 Depth: 193'  
 Intersections: 122' - 130' = 8.0' at 0.23 oz Ag/ton;  
 1.70% Pb; 1.85% Zn; 0.13% Cu  
 1.26' - 130' = 4.0' at 0.25 oz Ag/ton;  
 3.10% Pb; 2.20% Zn; 0.15% Cu.

D.D.H. # 9

Location Same as D.D.H. # 8  
 Azimuth:  $135^{\circ}$   
 Dip:  $-80^{\circ}$   
 Depth: 162'  
 Intersection: 117-120' = 3.0' at 2.45 oz Ag/ton;  
 2.55% Pb; 4.55% Zn; 0.10% Cu  
 126-129 = 3.0' at 0.60 oz Ag/ton  
 5.35% Pb; 7.23% Zn; 0.15% Cu  
 133-137' = 4.0' at 0.20 oz Ag/ton;  
 1.90% Pb; tr Zn; 0.20% Cu  
 1.38-145' = 7.0' at 0.05 oz Ag/ton;  
 0.60% Pb; 3.10% Zn; 0.20% Cu.

Remarks: Sections between the above sections were not assayed resulting in incomplete information on the intersection of the zone at this time. Mineralization was noted in the unassayed sections.

D.D.H. # 10

Location: 100' south of D.D.H. # 8 and 9  
 Azimuth: 200°  
 Dip: -70°  
 Depth: 123'  
 Intersection: Assaying of the zone was done but the results are not available

D.D.H. # 11

Location: same as D.D.H. # 10  
 Dip: -90°  
 Depth: 160'  
 Intersection: 72-82' = 10.0' at 1.90 oz Ag/ton;  
 0.50% Pb; 2.15% Zn; 0.10% Cu  
 82-90' = 8.0' at 0.35 oz Ag/ton; Tr Pb;  
 0.10% Zn; 0.05% Cu.  
 90-95 = 5.0' at 0.10 oz Ag/ton; Tr Pb;  
 4.55% Zn; 0.15% Cu.  
 95-100' = 5.0' at Tr Ag Tr Pb; 1.50% Zn  
 0.10% Cu.

The current diamond drill program of 690 feet comprised of four NQ holes was completed, two of which were drilled to check previously drilled holes D.D.H. 2 and 3 which were drilled in 1967.

The results and data on these four holes are as follows:

D.D.H. 77-1

Location: Same as D.H. 2 and 3  
(440 feet N.E. of trench)

Azimuth:  $130^{\circ}$

Dip:  $-65\frac{1}{2}^{\circ}$

Depth: 110'

Intersection:  $92.5 - 107 = 14.5'$

Assay: .24 oz Ag/ton; 2.02% Pb; 5.62% Zn;  
.35% Cu; .034% Cd.

D.D.H. 77-2

Location: Same as D.H. 6 and 7  
(200' S.W. of D.D.H. 77-1)

Azimuth:  $130^{\circ}$

Dip:  $-80^{\circ}$

Depth: 149'

Intersection:  $101 - 113 = 12'$

Assay: .18 oz Ag/ton; 3.17% Pb; 8.16% Zn;  
.36% Cu; .045% Cd.

D.D.H. 77-3

Location: 125' N. of D.D.H. 77-2

Azimuth:  $130^{\circ}$

Dip:  $-70^{\circ}$

Depth: 230'

Intersection:  $174' - 190.6' = 15.6'$

Assay: .10 oz Ag/ton; .39% Pb; 1.32% Zn; .03% Cu

including 5.0' - .08 oz Ag/ton; .38% Pb; 1.68% Zn  
.07% Cu

and 3.6' - .16 oz Ag/ton; .82% Pb; 2.80% Zn;  
.02% Cu

D.D.H. 77-4

Location: 130' N.E. of D.D.H. 77-1  
 Azimuth: 130°  
 Dip: -70°  
 Depth: 201'  
 Intersection: 158 - 163 = 5.0' (2.9)  
 Assay: .10 oz Ag/ton; .18% Pb; .36% Zn;  
 .01% Cu.

ORE RESERVES

Drill indicated reserves of 285,000 tons on zone No. 3 were estimated by J.P. Elwell, P.Eng. (1971) to a vertical depth of 50 meters below surface. The arithmetic average grade of the zone as stated by Elwell was 0.36 oz Ag/ton; 1.69% Pb; 4.80% Zn and 0.18% Cu.

Zone No. 2 estimated tonnage was estimated at 50,000 to 60,000 tons to a depth of 30 meters, a width of eight meters and a length of 50 meters.

45,359 T      54,430 T

Some well mineralized exposures occur on zone No. 1, however the dimensions of the zone have not been determined.

POTENTIAL ORE RESERVES

The shear zone and related mineralized breccia of zone No. 3 is open along strike. Although limited to some extent to depth, as disclosed by the recent drilling along the eastern portion of the zone, the zone requires testing at depth along the western portion.

Potential reserves could also be developed along zones 1 and 2 where known zones of mineralization occur, however require delineation by drilling.

EXPLORATION AND DEVELOPMENT PROGRAM

The exploration and development program should primarily be based on the completion of testing and delineation of the No. 3 zone along strike and at depth. The vertical extension of the western portion of the zone would be tested for a possible plunge of the mineralized zone in this direction. The eastern and western extensions of the zone should also be tested at approximately the 30 meter depth.

Detailed geological mapping is also recommended and to be primarily carried out on the geochemical and VLF-EM anomalous zones.

ESTIMATED COST OF EXPLORATION AND DEVELOPMENT PROGRAM

Diamond drilling (NQ core) - 650 meters @ \$60 / meter (all inclusive)	\$39,000.00
Geological mapping	3,000.00
Engineering and Supervision	4,000.00
Contingencies	<u>5,000.00</u>
Total	<u><u>\$51,000.00</u></u>

It is estimated that the drilling could take two months to complete.

Respectfully submitted



March 16, 1978  
Vancouver, B.C.

Laurence Sookochoff, P.Eng.  
Consulting Geologist

## CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist with the firm of Pan- American Consultants Ltd. of 2602 - 1055 West Georgia Street, Vancouver, B.C.

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
2. I have been practising in my profession for the past twelve years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. The information obtained for this report was obtained from an examination of the Tolman Lake Property on June 3, 1976, from published reports and pertinent government publications. Additional information was obtained from Mr. Mark's geochemical and E.M. report dated November 27, 1976.
5. I have no direct or indirect interest whatsoever in the property described herein nor in the securities of Ruskin Developments Ltd. (NPL) and do not expect to receive any interest therein.

DATED at Vancouver, British Columbia, this 16th day of March, 1978.

March 16, 1978  
Vancouver, B.C.

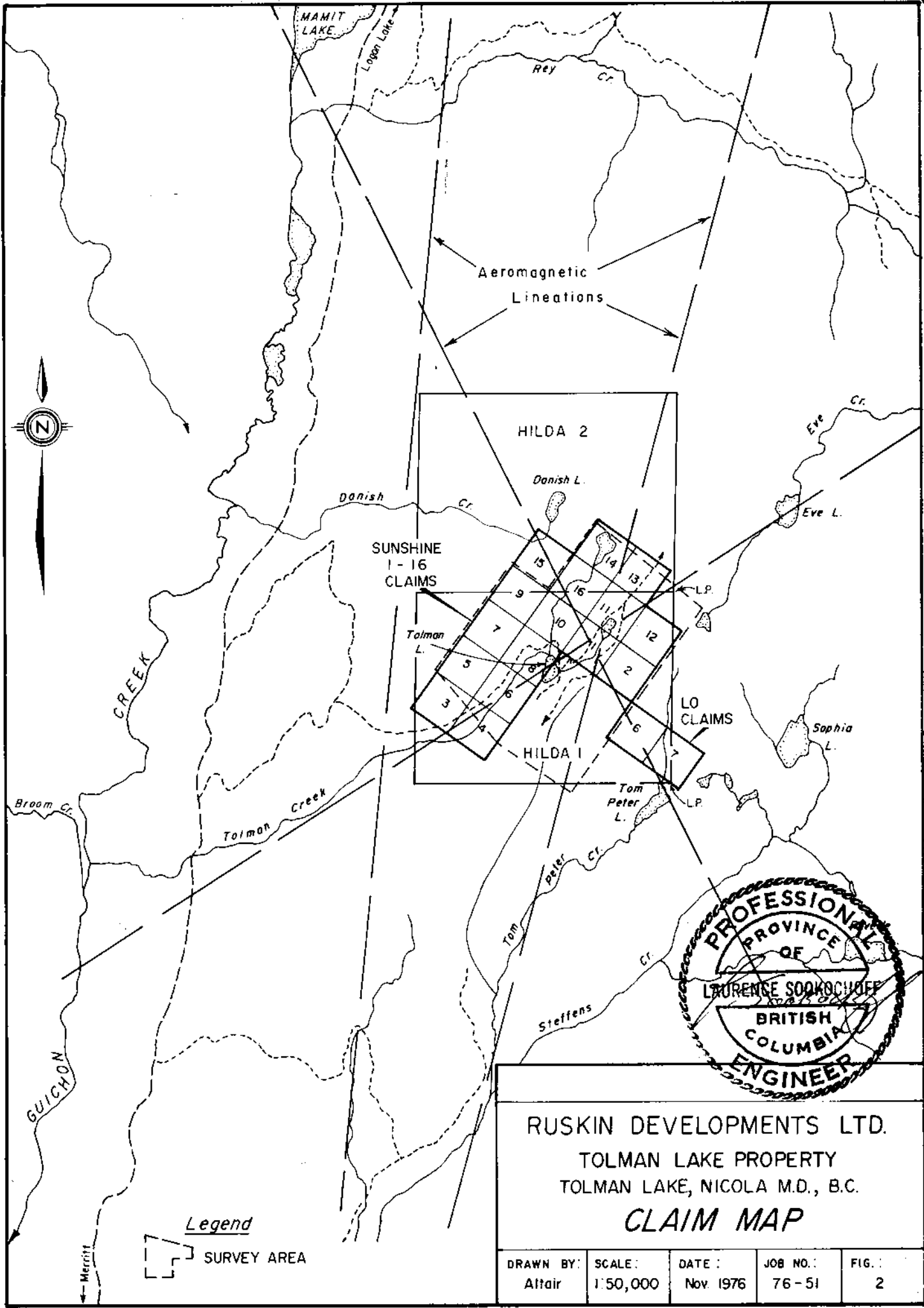




RUSKIN DEVELOPMENTS LTD.  
 TOLMAN LAKE PROPERTY  
 LOCATION MAP

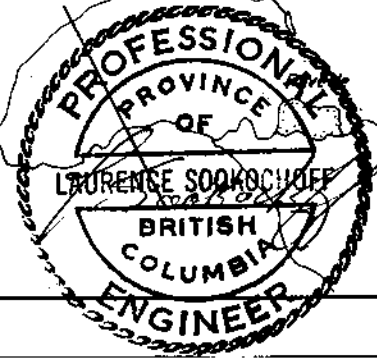
NICOLA M.D., B.C.





Legend

— SURVEY AREA



RUSKIN DEVELOPMENTS LTD.

TOLMAN LAKE PROPERTY  
TOLMAN LAKE, NICOLA M.D., B.C.

**CLAIM MAP**

DRAWN BY: Altair	SCALE: 1:50,000	DATE: Nov. 1976	JOB NO.: 76-51	FIG.: 2
---------------------	--------------------	--------------------	-------------------	------------



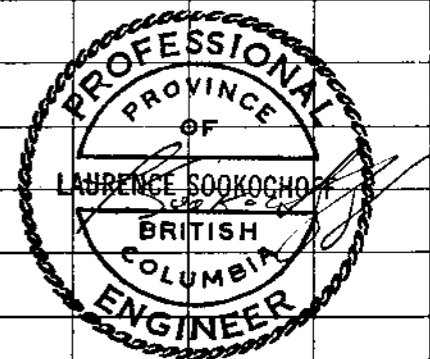
CLAIM NO. *SUNSHINE No. 1*

## DIAMOND DRILL RECORD

PROPERTY *TOLMAN LAKE*HOLE NO. *77-1*LATITUDE ..... ELEVATION ..... BEARING *130°* DEPTH *110'* STARTED *Nov 23, 1977* COMPLETED *DEC. 1, 1977*DEPARTURE ..... SECTION ..... DIP *-65°* DRILLED BY *Covered Drilling* LOGGED BY *L. Sookochoff*

1/2

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAYS			
0-110	Meta-feldspar porphyry - greenish gray; 15-20% euhedral feldspar crystals av. 1/8" in aphanitic variably chloritized matrix. Red hematite + general alteration and along fracture planes increasing to ore zone 0 - 50 hard competent-50+ increasing chloritization Carbonate and qtz.carbonate stringers increasing to ore zone. Stringers @ - to c/a. 43' @ 20°                                  92.5 @ 28° - 35° 50' 1/4" @ 70°                              101 1" @ 31° 64' 1" @ 60° to 84 up to 3/8" @ 30-40° Galena and cpy @ 77'-1" heavy min'n. lt. carb. @ 30° 79' assoc. w/carb. v.l. @ 48° (3/8") 80 + tuffaceous and loc. volcanic breccia - black chards in matrix 84-85 Gougy - mod. to heavy gouge 85-92.5 Mylonite - gougy matrix w/sub rounded frags of qtz. 92.5 shearing @ 25°								



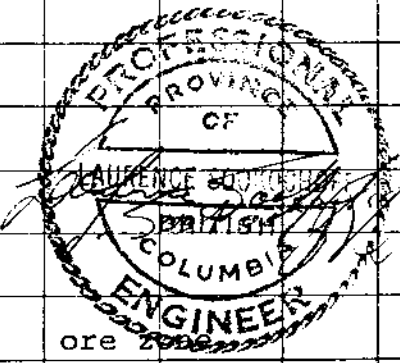
CLAIM NO. \_\_\_\_\_ DIAMOND DRILL RECORD PROPERTY \_\_\_\_\_ HOLE NO. \_\_\_\_\_

LATITUDE \_\_\_\_\_ ELEVATION \_\_\_\_\_ BEARING \_\_\_\_\_ DEPTH \_\_\_\_\_ STARTED \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ SECTION \_\_\_\_\_ DIP \_\_\_\_\_ DRILLED BY \_\_\_\_\_ LOGGED BY \_\_\_\_\_

2/2

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAYS			
	92.5 Foot wall of orezone @ 25°								
	<u>Ore Zone</u> 92.5-107								
	Pseudo breccia and breccia								
	mod. sub angular seriate frags < 1" in local								
	cherty lt. grey matrix or healed w/ qtz. or								
	qtz. carbonate.								
	Min'n 92.5 cpy. gal. sph. blebs associated w/frags.	75K	92.5	96	3.5'				
Recovery	96 sulphide v.l. @ 20°	74K	96	99.5	3.5'				
108-110	78% 99 heavy min'n in v.l. @ 36°								
107-108	42% 100.5-103 Pseudo breccia - limonitic weathering - lt. diss sulph.								
	103-Q carb veins w/heavier blebs sulph @ 28°								
106-107	15% 103-107 Breccia - blebs and patches	73K	99.5	103	3.5'				
103-106	91% cpy. less gal. usually assoc. w frags	72K	103	107	4.0'				
100.5-103	46%								
99-100.5	83%								
97-99	12% 107-110 matrix completely altered to								
	chlorite - pseudo breccia healed w/and								
Remainder	random qtz-carb. Alt'n red hem. mainly								
≈ 100%	along fr. planes @ 40° and increasing reddish color of feldspars to								
	Pyrite absent in ore zone: increasing from 84' to 92.5								
	110' E.O.H.								

WESTERN MINER PRESS LTD.  
STANDARD FORM NO. 502



CLAIM NO. Sunshine No. 1 **DIAMOND DRILL RECORD**

PROPERTY Tolman Lake

HOLE NO. 77-2

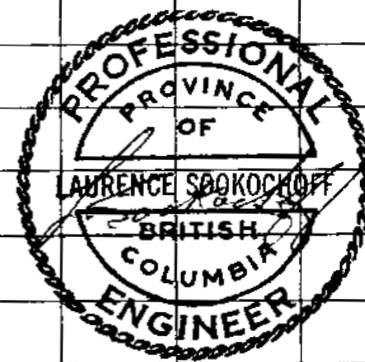
LATITUDE \_\_\_\_\_ ELEVATION \_\_\_\_\_ BEARING 130° DEPTH 149' STARTED Dec. 1/77 COMPLETED Dec. 6/77

DEPARTURE \_\_\_\_\_ SECTION \_\_\_\_\_ DIP -80° DRILLED BY Connors Drilling Ltd LOGGED BY L. Sookochoff

1/3

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAYS			
0-149	Porphyritic andesite flow breccia - indistinct porphyritic andesite fragments < 1" in a variably altered to chlorite-porphyrific andesite - locally tuffaceous - gray to reddish stained euhedral feldspar crystals								
	- rare disseminated pyrite								
	- non flow breccia section 42-83								
	- meta feldspar porphyry								
	32' - 3" qtz. w/hematite @ 35°								
	Red hematite general throughout - weathering to 60'								
	Occasional to moderate Quartz carbonate and quartz veinlets throughout. - More pronounced @:								
	71 3/8" @ 40°								
	78 1/4" @ 45° w/red hem.								
	100 2" carb.-qtz. @ 54°								
	106 3/4" carb. vein @ 28°								
	108.5 1/2" carb. vein @ 22° blebs sulph								
	120 1" carb.								

WESTERN MINER PRESS LTD.  
STANDARD FORM NO. 502



CLAIM NO. ....

## DIAMOND DRILL RECORD

PROPERTY .....

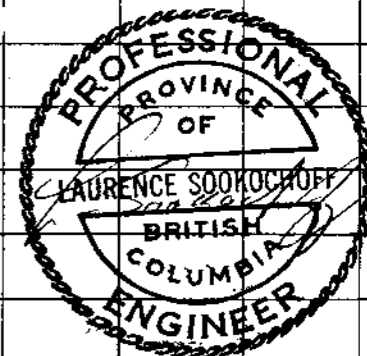
HOLE NO. ....

LATITUDE ..... ELEVATION ..... BEARING ..... DEPTH ..... STARTED ..... COMPLETED .....

DEPARTURE ..... SECTION ..... DIP ..... DRILLED BY ..... LOGGED BY .....

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAYS			
	83-84 mylonite								
	84-95 Gouge w/local sections qtz.								
	92.7-93								
	95-96 Chuty breccia w/local qtz. frags								
	96-98 Broken-gougy								
	98-100 tight breccia healed w/q. carb.								
	Shearing @ 38°								
	Ore Zone 101-134 Breccia w/variable silicified angular frags up to 2"								
	101 Good patchy gal. cpy @ 48°?	369H	101	102.8	1.8'				
Recovery	102 1/2" min. v. 1 @ 65°	368H	102.8	108	5.2'				
93-98 =95%									
98-103 =95%	102.8 massive pods	367H	108	113	5.0'				
103-108	=43% 102.8-107 Mod. to heavy gal. & assoc. cpy	366H	113	120	7.0'				
108-113	=50% Min'n pied. in ang. frags 3/4" to 1/4"	365H	120	123	3.0'				
113-120	=5% 108.5 Carbonate w/blebs sulph.	364H	123	125	2.0'				
120-123	=88% 110 2" moderate blebs gal. w/occ. py.	363H	125	129	5.0'				
123-126	=97%								
126-127	=50% to 113 H. blebs - patches min'n	362H	129	134	5.0'				
127-131	=67%								
131-133	=59% 113-120 4" core								
133-136.6	=60% 120.5 1/4" v.1. @50°								
	121 blebs gal & cpy in breccia frags - seriate to 1/2"								
	121.5 fr. @ 60°								

2/3

WESTERN MINER-PRESS LTD.  
STANDARD FORM NO. 502

CLAIM NO. ....

**DIAMOND DRILL RECORD**

PROPERTY .....

HOLE NO. ....

LATITUDE .....

ELEVATION .....

BEARING .....

DEPTH .....

STARTED .....

COMPLETED .....

DEPARTURE .....

SECTION .....

DIP .....

DRILLED BY .....

LOGGED BY .....

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAYS			
	120-123 hard solid qtz w/pockets pinkish carb. core blebs & lt. diss. sulph.								
	123.5-124 pockets heavy gal. w/cpy.								
	120-126 10-20% frags in qtz. w/occ blebs sulph.								
	127 min'n @ 48°								
	128 1.5" q. vein @ 28°								
	134-142 Monzonitic - med. to f.g. allotriomorphic texture - pinkish - diss. py.								
	142-149 Brecciated meta porph. andesite shekinsides. Qtz. carb. stringers @ 27° 55° to c/a								
	149 E.O.H.								

3/3



CLAIM NO. ....

# DIAMOND DRILL RECORD

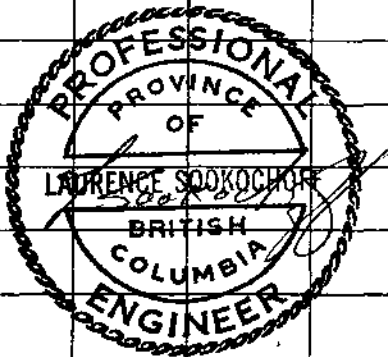
PROPERTY .....

HOLE NO. 1100 .....

LATITUDE ..... ELEVATION ..... BEARING ..... DEPTH ..... STARTED ..... COMPLETED .....

DEPARTURE ..... SECTION ..... DIP ..... DRILLED BY ..... LOGGED BY .....

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAYS		
198-214	Altered, brecciated, sil. blocky, minor dissem. scattered Py minor Pbs, Znz., pods, patches and scattered,							
214-230'	Altered porph. and occ. qtz-calc. str's., very minor scattered Py on fractures							
	End of hole 230'							



CLAIM NO. SUNSHINE No. 1**DIAMOND DRILL RECORD**PROPERTY Tolman Lake,HOLE NO. 77-4

LATITUDE

ELEVATION

BEARING 130°DEPTH 201'STARTED Dec. 11/77COMPLETED Dec. 14/77

DEPARTURE

SECTION

DIP -70°DRILLED BY Connors DrillingLOGGED BY L. Sookchoff, P. Eng.

DEPTH FEET	FORMATION	SAMPLE NO.	FROM (feet)	TO (feet)	WIDTH (feet)	ASSAYS			
						OZ Ag/ton	% Pb	% Zn	% Cu
0-9	Casing								
9-126	Phorph.-andesite, honoq occasional qtz-calc.								
	str's. - 77-80 broken core, gougy 80-81	53621	158	163	5.0	.10	.18	.36	.01
	buff colour from 86-91, broken sections	53618	163	175	12.0	.06	.02	.02	.01
		536 A	175	185	10.0	.04	.02	.02	.01
		53620	185	195	10.0	.06	.02	.30	.01
126-153.5	Porph. andesite, increasing number of qtz-calc str's broken core, minor hematite, few str's Py								
153.5-163	Breccia zone, silicified, very minor sulphides								
163-197	Gouge, breccia, minor Py, Pbs, Zns. in splashes, pods and dissemem 163-177 lost core 4' 177-183 - lost 1½' 183-195 - lost 1'								
197-201	Altered andesite End of hole 201'								

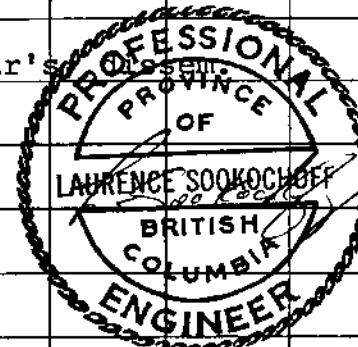


CLAIM NO. *SUNSHINE No. 1*

## DIAMOND DRILL RECORD

PROPERTY *Tolman Lake*HOLE NO. *77-3*LATITUDE ..... ELEVATION ..... BEARING *130°* DEPTH *230'* STARTED *Dec. 7/77* COMPLETED *Dec. 11/77*DEPARTURE ..... SECTION ..... DIP *-70°* DRILLED BY *Connors Drilling* LOGGED BY *L. SOOKOCHOFF P. ENG.*

DEPTH FEET	FORMATION	SAMPLE NO.	FROM (feet)	TO (feet)	WIDTH (feet)	OZ ASSAYS			
						Ag/ton	% Pb	% Zn	% Cu
0-7	Casing								
7-170	Porphyritic andesite, hematite staining, rusty blocky broken sections, occasional qtz-calc stringer								
	Mineralization Py on slips, fault gouge and slickensides @ 64-64½,								
	1" qtz stringer	53611	170	174	4.0	.06	.02	.02	.01
	@ 83.5	53612	174	179	5.0	.08	.38	1.68	.07
	103-113 broken core, minor gouge, Py on slips	53613	179	181	2.0	.06	.22	.54	.03
	occasional qtz-calc. stringers, hematite	53614	181	185	4.0	.10	.28	.54	.01
	on frac's.	53615	185	187	2.0	.06	.02	.08	.01
	113-170 Porph. andesite as above, - slight bleaching	53616	187	190.6	3.6	.16	.82	2.80	.02
	from 168-169.5	53617	190.6	193	2.4	.10	.12	.60	.01
		53622	196	203	7.0	.08	.02	.26	.04
169.5-198	start of mineralized zone at 169.5 - brecciated mylonatized, qtz str's. - broken epidotized to minor dissem. sulph.								
	173.5								
173.5-181	becoming silicious at 173.5, pebbly broken core, with Pbs, Zns. in pods, patches, str's								
	lost core 4½'								
181-198.0	fragmental, gougy with Pbs, Zns, pods, patches and str's and qtz-calc.-sil., chlorite - end of zone @ 198'								

WESTERN MINER. PRESS LTD.  
STANDARD FORM NO. 502



A G R E E M E N T

This A G R E E M E N T made this 8th day of November 1977.

BETWEEN: RUSKIN DEVELOPMENTS LIMITED  
1075 Melville Street  
Vancouver, B.C.

(hereinafter referred to as the "COMPANY")

AND: CONNORS DRILLING  
#205 - 1201 West Pender Street  
Vancouver, B.C. V6E 2V2

(hereinafter referred to as the "CONTRACTOR")

WHEREAS the COMPANY hereby requests that the CONTRACTOR carry out certain surface diamond drilling and other services, on the COMPANY'S property near Merritt, B.C.

AND WHEREAS the CONTRACTOR hereby agrees to perform said diamond drilling and other services requested, under the terms and conditions hereinafter contained.

1. SCOPE OF WORK

*RJK*  
*500*  
*s.e.p.* The work is to consist of series of drill holes, drilled at locations specified by the COMPANY. A total minimum footage of ~~1000~~ 500 feet shall be drilled, but total footage may be extended beyond that amount, by mutual consent. Holes shall be drilled with NQ tools producing 1 7/8 inch diameter core, as far as is reasonably practical. Depth of holes shall be around 150 feet.

2. COMMENCEMENT AND EXECUTION OF WORK

Work shall be commenced: on or about November 14, but at the discretion of the COMPANY. This work will proceed with one shift per day, five days a week, or as near that schedule as can be maintained.

3. THE CONTRACTOR HEREBY COVENANTS AND AGREES:

- a) To provide all of the required drilling machinery and associated tools including, but not limited to: one truck mounted drill rig capable of drilling NQ to 500 feet, pumps, rods, casing, fuel, oil, grease, diamond set items, etc.

- b) That drilling crews will follow good drilling practice and shall use due care and diligence as shall enable them to recover as high a percentage of core as the nature of the ground being drilled shall permit. All cores shall be delivered to the COMPANY, in boxes provided by the COMPANY at the drill sites.
- c) That it shall be responsible for, and will pay promptly all costs and charges, incurred by itself for labor, machinery, tools, and supplies used in completing the work hereunder so that no lien or other such charge relative to the CONTRACTOR, may be registered against the COMPANY or the property. The CONTRACTOR shall be responsible for the payment of all assessments for Workers' Compensation, Holiday Pay, Canada Pension, Unemployment Insurance, Sales Tax, or other such applicable charges relative to its own labor and supplies purchased.
- d) The CONTRACTOR shall, at all times enforce strict discipline and maintain good order among its employees and shall not retain on the work any unfit person or anyone not skilled in the work assigned to him. Any employee who is objectionable or unsatisfactory to the COMPANY shall be removed and replaced by an employee satisfactory to the COMPANY.
- e) The CONTRACTOR shall keep his drill sites free from waste and rubbish, and at the completion of his work he shall leave the area and all drill sites as clean as possible.
- f) The CONTRACTOR or its personnel shall not divulge any information concerning drilling results, or permit access to, or examination of the drill core by any person not specifically authorized by the COMPANY.

4. THE COMPANY HEREBY AGREES

- a) Should cavities, loose or caving ground or excessive water flows be encountered in a hole so that further drilling in that hole is deemed impracticable, that hole may by mutual consent, be abandoned, and the CONTRACTOR be paid at rates so specified herein for all footage completed in that hole. However, should the COMPANY request that further work be carried out in that hole beyond this point, then the CONTRACTOR shall continue work in the hole but such continuing work shall be at FIELD COST rates.
- b) That it will provide access roads to as near all drill sites as is practical, and prepare drill sites suitable for set up.
- 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.

5. THE COMPANY HEREBY AGREES to pay the CONTRACTOR for footage drilled and other services performed as follows:
- a) Mobilization and demobilization: for equipment and crew from CONTRACTOR'S base of operations to project site, and return upon job completion for the CONTRACTOR'S account.
  - b) Drilling: NQ size  
0 to 500 feet at \$15.00 a foot.
  - c) Overburden penetration and setting casing: from 0 to 50 feet at FIELD COST if the cost of penetration exceeds \$15.00 a foot.
  - d) Reaming hole: at FIELD COST.
  - e) Casing of hole, if required: at FIELD COST.
  - f) Dip-testing, or delay time, or other time during which the CONTRACTOR'S crews are performing services, for the COMPANY not otherwise covered herein: at FIELD COST.
  - g) Cementing of drill holes, and redrilling of cemented section of hole: at FIELD COST.
  - h) Water supply: CONTRACTOR will provide 1,000 feet of waterline with pump capable of 300 foot lift, if necessary. Installation and removal of waterline will be considered as part of moving time. (See below)
  - i) Moving of drill and equipment, including tearing down and setting up, installation and removal of waterlines: the first four shift hours per move will be for the CONTRACTOR'S account, beyond four hours per move at FIELD COST.
  - j) Drilling mud and additives if required: will be provided by the CONTRACTOR, at cost plus 15% for freight and handling.
  - k) Mud mixing time, if drilling is interrupted: at FIELD COST.
  - l) Truck rental: CONTRACTOR will provide a service vehicle for its crew at no cost to the COMPANY.
  - m) Tractor rental: the cost of tractor rental, for preparing roads and drill sites will be for the COMPANY'S account.
  - n) Core boxes: CONTRACTOR will provide core boxes, if requested, for \$4.50 a box, lids at \$1.25 each.
  - o) Camp: room and board for CONTRACTOR'S crew will be for the CONTRACTOR'S account.

- p) Travel or walking time: in excess of one hour per man per day, will be for the COMPANY'S account at FIELD COST labor rate.
- q) Standby: on the COMPANY'S behalf, will be at FIELD COST.
- r) FIELD COSTS, where applicable, shall be: FIELD COST labor at \$16.00 per man hour. Drill and equipment rental at \$12.00 per shift hour, and the cost of tools and supplies lost or consumed on the FIELD COST portion of the work, at cost plus 15%.

6. INSURANCE AND GENERAL

- a) The CONTRACTOR, at its own cost, shall maintain insurance to the following limits; Liability and Property Damage \$2,000,000.00, Automobile Insurance coverage \$1,000,000.00.
- b) The CONTRACTOR shall not be held liable for any loss or damage suffered by reason of any cause beyond its active control such as riots, strikes, lockouts, Acts of God, or failure of transportation.
- c) Under the foregoing terms and conditions the CONTRACTOR does not guarantee to drill any hole to any specified depth. The CONTRACTOR will however, expend every reasonable effort to complete all holes to the satisfaction of the COMPANY.
- d) The CONTRACTOR shall invoice the COMPANY semi-monthly for footage drilled and other services performed. Such invoices shall be due and payable within 5 days of the invoice date.
- e) Before operations commence, the COMPANY will deposit with the CONTRACTOR the sum of ~~\$15,000.00~~ <sup>\$10,000.00</sup>, to ensure payment of CONTRACTOR'S final invoices. *R. Singh 2.R.2.*

IN WITNESS WHEREOF the COMPANY and the CONTRACTOR set their hands this \_\_\_\_\_ day of \_\_\_\_\_ 19 \_\_\_\_\_ .

RUSKIN DEVELOPMENTS LIMITED

*Shankar Singh*  
\_\_\_\_\_

CONNORS DRILLING

*Di. Mgr.*  
\_\_\_\_\_



205 - 1201 WEST PENDER STREET, VANCOUVER, B.C. CANADA V6E 2V2  
AREA CODE 604/683 - 2222

Job 22-807

RUSKIN DEVELOPMENT LIMITED  
#420, 890 West Pender Street  
Vancouver, B. C.  
V6C 1J9

INVOICE NO: 8219  
DATE: February 24, 1978

SURFACE DIAMOND DRILLING  
MERRITT, B. C.  
FEBRUARY 24, 1978

CORE SPLITTER RENTAL

Jan. 1 - Mar./78	2 month @ 25.00	50.00
------------------	-----------------	-------

177.0

8219

Job 22-807

Ruskin Development Limited  
 #420, 890 West Pender Street  
 Vancouver, B.C.  
 V6C 1J9

INVOICE NO: 8197  
 DATE: February 8, 1978

SURFACE DIAMOND DRILLING  
MERRITT, B. C.  
JANUARY 31, 1978

Jan. 30/78	Plowing snow (copy attached)	390.00	
	Hauling cat to job and back	84.00	
		<u>474.00</u>	
	Plus 15%	<u>71.10</u>	545.10
<u>CORE BOXES</u>			
12	NQ Core boxes @ 4.50	54.00	
	7% tax	<u>3.78</u>	
			<u>57.78</u>
			602.88

Job 22-807

Ruskin Development Limited  
 #420 - 890 West Pender Street  
 Vancouver, B. C. V6C 1J9

INVOICE NO: 8128  
 DATE: January 5, 1977

SURFACE DIAMOND DRILLING  
MERRITT, B. C.  
DECEMBER 16, 1977

FOOTAGE FEE

D.D. Hole #77-4    183 - 201'    18' @ 15.00    270.00

FIELD COST WORK

<u>DATE</u>	<u>MAN HRS.</u>	<u>DRILL HRS.</u>	<u>REMARKS</u>
Dec. 16/77	6	3	Mudding up hole

Total man hours	6 @ 16.00	96.00	
Total drill hours	3 @ 12.00	<u>36.00</u>	132.00

MUD SUPPLIES CONSUMED

5 - 50# bags Quick Gel Mud	@ 3.40	17.00	
5 - 2# bags Quick Trol Mud	@ 6.05	<u>30.25</u>	
		47.25	
7% tax		<u>3.31</u>	
		50.56	
Plus 15%		<u>7.58</u>	<u>58.14</u>
			<u>460.14</u>



205 - 1201 WEST PENDER STREET, VANCOUVER, B.C. CANADA V6E 2V2  
AREA CODE 604/683 - 2222

Job 22-807

Ruskin Development Limited  
#420, 890 West Pender Street  
Vancouver, B.C.  
V6C 1J9

INVOICE NO:  
DATE:

8115  
December 21, 1977

SURFACE DIAMOND DRILLING  
MERRITT, B. C.  
DECEMBER 12 - 15, 1977

FOOTAGE FEE

D.D. Hole #77-4 0 - 183' 183' @ 15.00 2,745.00

FIELD COST WORK

Dece. 15/77 6 man plowing snow & clear next  
drill site @ 16.00 96.00

CORE BOXES SUPPLIED

20 NQ Core boxes @ 4.50 90.00  
7% tax 6.30 96.30

HAULING TRACTOR TO JOB

Nov. 29/77 Hauling charges 85.00  
3,022.30

8115





205 - 1201 WEST PENDER STREET, VANCOUVER, B.C. CANADA V6E 2V2  
AREA CODE 604/683 - 2222

Job 22-807

RUSKIN DEVELOPMENT LIMITED  
#420 - 890 West Pender Street  
VANCOUVER, B.C.  
V6C 1J9

INVOICE NO: 8107  
DATE: December 14, 1977

SURFACE DIAMOND DRILLING  
MERRITT, B.C.  
DECEMBER 1, - 11, 1977

FOOTAGE FEE

D.D. Hole #	77-1	60 - 110'	50'	
	-2	0 - 149'	149'	
	-3	0 - 230'	230'	
			<u>429'</u>	@ 15.00
				6,435.00

FIELD COST WORK

<u>DATE</u>	<u>MAN HRS.</u>	<u>DRILL HRS.</u>	<u>REMARKS</u>
Dec. 6/77	12	6	Move to hole #3
7	4	-0-	Plow snow
	<u>16</u>	<u>6</u>	
Credit 1-move	-8	-4	
	<u>8</u>	<u>2</u>	

Total man hours	8 @ 16.00	128.00	
Total drill hours	2 @ 12.00	<u>24.00</u>	152.00

MUD SUPPLIES CONSUMED

10 - 50# bags Quick Gel mud @ 3.40	34.00	
36 - 2# " " Trol " @ 6.05	<u>217.80</u>	
	251.80	
7% tax	<u>17.63</u>	
	269.43	
Plus 15%	<u>40.41</u>	309.84
		<u>6,896.84</u>

Job 22-807

RUSKIN DEVELOPMENT LIMITED  
 1075 Melville Street  
 Vancouver, B.C.

INVOICE NO: 8067  
 DATE: December 7, 1977

SURFACE DIAMOND DRILLING  
MERRITT, B.C.  
NOVEMBER 29 - 30, 1977

FOOTAGE FEE

D.D. Hole # 77-1 0' - 60' 600@ 15.00 900.00

FIELD COST WORK

Nov. 29/77 6 man hours plowing snow @ 16.00 96.00

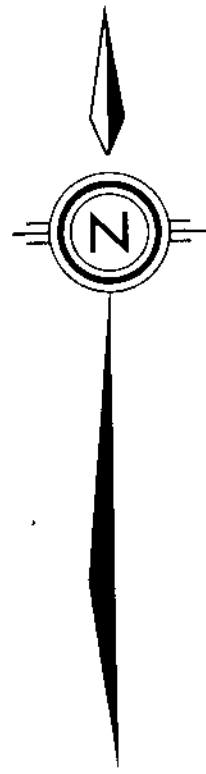
CORE BOXES SUPPLIED

16 NQ Core Boxes @ 4.50 72.00  
 7% tax 5.04 77.04

CORE SPLITTER RENTAL

Dec. 1, 1977 Jan. 1/78 1-month 25.00  
 1,098.04

8067

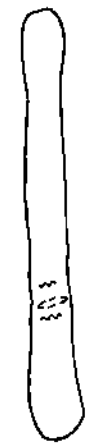
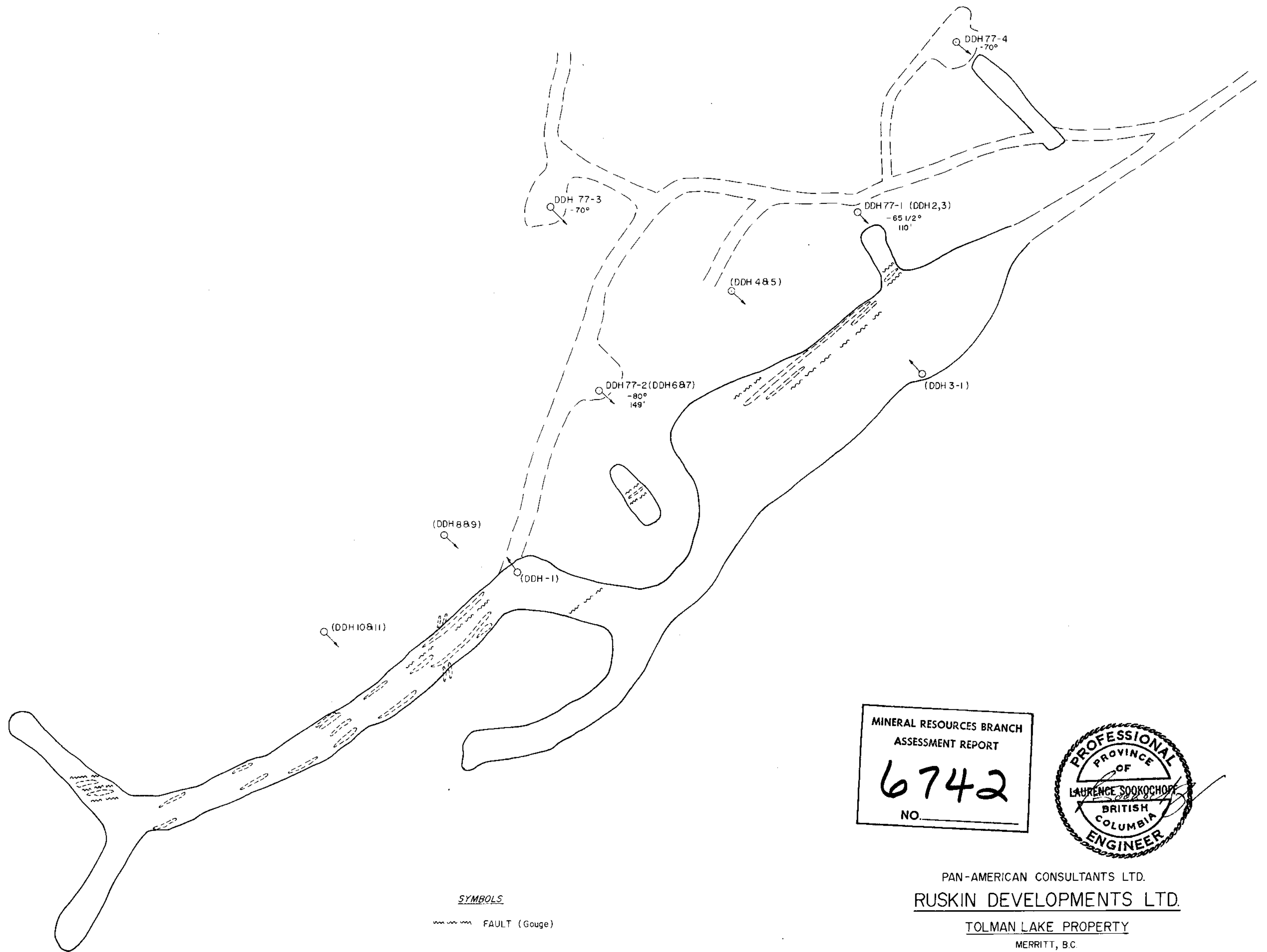
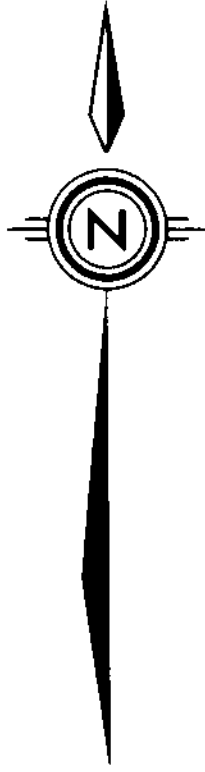


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**6742**  
NO. \_\_\_\_\_



RUSKIN DEVELOPMENTS LTD.  
TOLMAN LAKE PROPERTY  
**CLAIM MAP**

NICOLA M.D., B.C.  
SCALE  
0 500 1000 FEET  
JULY, 1976



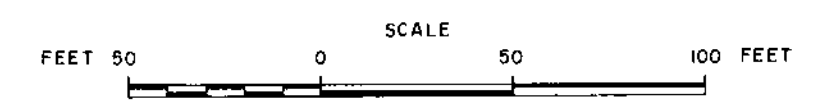
- SYMBOLS**
- FAULT (Gouge)
  - EXPOSED MINERALIZED QUARTZ
  - OUTLINE OF STRIPPED AREA
  - ROAD

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**6742**  
NO. \_\_\_\_\_



PAN-AMERICAN CONSULTANTS LTD.  
**RUSKIN DEVELOPMENTS LTD.**  
TOLMAN LAKE PROPERTY  
MERRITT, B.C.

**SURFACE PLAN**  
SHOWING  
**DRILL HOLE LOCATIONS - ZONE 3**



After A. D. TIDSBURY, P. Eng.

DEC. 1977