

84-#128-12064  
3

GEOLOGICAL AND GEOCHEMICAL REPORT

on the

RIBBON 1 MINERAL CLAIM 363(5)

SLOCAN MINING DIVISION

NTS 83K/3W

Lat 50°04'

Long 117°24'

for

TRANS WEST MINERALS LTD.

Owner and Operator

by

JAY D. MURPHY, P. ENG.

Consulting Geological Engineer

1984-01-20

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,064**

## TABLE OF CONTENTS

	<u>Page No.</u>
INTRODUCTION	1
SUMMARY AND CONCLUSIONS	2
RECOMMENDATIONS	3
FIELD PROCEDURES	4
GEOLOGY	5
DISCUSSION OF RESULTS	9
ECONOMIC CONSIDERATIONS	10
STATEMENT OF COSTS	11
STATEMENT OF QUALIFICATIONS	13
BIBLIOGRAPHY	14

## LIST OF ILLUSTRATIONS

PLATE NO. 1	Location Plan	2
PLATE NO. 2	Composite Plan	3
PLATE NO. 3	Geology	4
PLATE NO. 4	Soil & Rock Sample Locations	9
PLATE NO. 5	Molybdenum Soil Geochemistry	10
PLATE NO. 6	Silver Soil Geochemistry	10
PLATE NO. 7	Copper Soil Geochemistry	10
PLATE NO. 8	Metal Content of Ribbon Rocks Compared to Crustal Averages	10

## ADDENDA

APPENDIX NO. 1	Sample and assay data	15
APPENDIX NO. 2	Assay data	16
APPENDIX NO. 3	Rock geochemistry analytical results in ppm	17
APPENDIX NO. 4	Certificate of assay K-5579	18
APPENDIX NO. 5	Geochemical lab report G-799	19-22
APPENDIX NO. 6	Geochemical lab report G-805	23

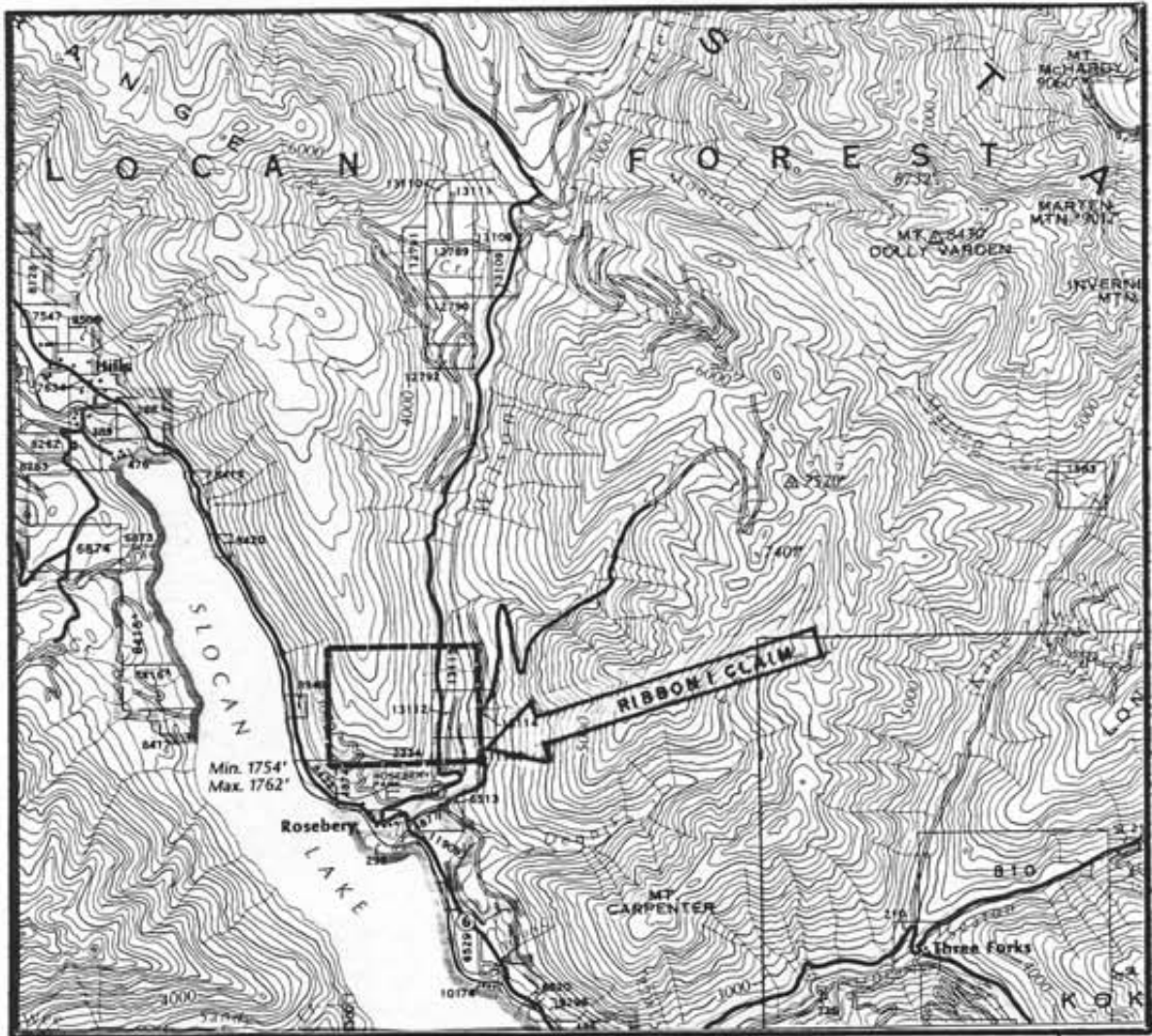
## INTRODUCTION

The Ribbon No. 1 mineral claim contains 20 units in a rectangular block four units north-south by five units east-west. The property is situated on the west side of Wilson Creek valley, the southwest claim corner being about one kilometer northwest of the village of Rosebery (Plate No. 1). Closest accommodations are at New Denver. Access from here to the area of interest is via Highway No. 6, north a distance of 5.3 km to Rosebery, then 3.2 km east and north on a good active logging road along Wilson Creek. From this point a new logging road branches west, then switches back sharply south for approximately 800 m as illustrated by Plate No. 2. Physiographically, the subject area is situated in the Nakusp Range of the Selkirk Mountains. Relief is strong within the claim and elevations vary from 610 m near Wilson Creek to over 1200 m on the ridge crest in the northwest corner. From this ridge the ground falls away steeply west towards Slocan Lake at elevation 535 m.

Structurally the claim area is located in the southern portion of the Omenica tectonic belt, and geologically is underlain by Slocan Series (Triassic) sediments intruded by a number of small monzonitic stocks, small plugs and dikes of diorite and at least one body of intrusive breccia east of Wilson Creek. The claim is well forested but bush is open and undergrowth minimal. The central portion of the claim was logged in 1982 between the approximate elevations of 1,050 and 1,200 m. Active logging is currently continuing in the same general area.

The recent work history of the Ribbon property is summarized as follows;

- 1970-1971 - United Bata Resources optioned the ground from Peter Leontowicz of Hills, B.C. Initial reconnaissance geochemical sampling was followed by line cutting, detailed soil sampling for copper and molybdenum, magnetometer and induced polarization surveys and limited geological mapping. Five anomalous areas were outlined designated A to E as illustrated by Plate No. 2. Anomalies A and C show anomalous molybdenum values in soil coincident with anomalous I.P. response and consequently received priority in recommendation for follow up work. Diamond drilling was recommended but never carried out. The ground subsequently lapsed and was restaked by Leontowicz as the Ribbon 1 claim.
- 1976 - Trans West Minerals Ltd. of Burnaby, B.C. purchased the Ribbon 1 claim.
- 1978- A drill access road about 850 m long was built early in the summer to permit percussion drilling. Anomalies A and C were subsequently drill tested. Two vertical percussion drill holes, each 91.4 m deep, were completed in each of these two anomalies. No ore grade intersections were obtained. Details of this work are covered by an assessment report by the writer dated 1978-10-20.



Min. 1754'  
Max. 1762'

Rosebery  
LAKE

RIBBONI CLAIM

MT CARPENTER

Three Forks



KILOMETRES

PLATE NO. I

117° 15'

TRANS-WEST MINERALS LTD		
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RIBBONI MINERAL CLAIM 363 (5)		
<b>LOCATION PLAN</b>		
J.D.M.	1:125000	84-01-16

50°

- 1980 - A new logging road was built utilizing part of the old drill access road to harvest merchantable timber in the northwest portion of the Ribbon claim (Plates No. 2 and 3). Some reconnaissance mapping, surface prospecting and sampling was done along the new road cut. Results are illustrated by Plate No. 2.
- 1982 - Three bulldozer trenches were cut to investigate conductive axes within I.P. anomalies B and D (Plate No. 2). Iron sulphides were exposed but no significant economic mineralization was found. Details of this work are found in an assessment report by the writer dated 1982-07-15.
- 1983 - Geological mapping and limited soil and rock geochemistry was carried out, the results of which constitute the subject of this report.

The purpose of geological work described herein was to map the Ribbon claim on a scale of 1:5000. This essentially involved extending geological mapping done by Amax mainly on the east side of Wilson Creek. A copy of the Amax base map compiled from orthophotos was obtained to provide control.

Primary objectives of geological mapping on the Ribbon claim were (a) to correlate claim geology with Amax mapping to provide a comprehensive overview of local geology and (b) to delineate specific areas of molybdenum and silver mineralization exposed along the new north-south trending logging road between the lower and upper switchbacks (Plate No. 3).

The objective of soil geochemistry was to determine the size and potential of the silver zone represented by mineralized quartz veins exposed near the lower switchback. Distribution of copper-molybdenum mineralization was a secondary objective.

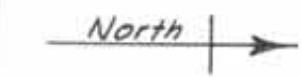
Geochemical sampling of rocks along the new logging road was to determine which of the rock units, if any, contained anomalous amounts of copper, molybdenum, silver or tungsten, relative to the norm for crustal rocks. Results are shown on Plate No. 8.

#### SUMMARY AND CONCLUSIONS

Considering the five original anomalous targets outlined by United Bata Resources, anomalies B and D have been eliminated from further interest by bulldozer trenching to bedrock. Anomaly E is not considered worthy of additional work due to the relative weakness and small size of the molybdenum geochemical anomaly.

In the area of anomalies A and C three zones of economic interest remain. In order of priority these are:

- (a) disseminated and quartz stockwork type molybdenite mineralization associated with porphyritic biotite quartz monzonite of Unit 6.
- (b) silver bearing mineralization (probably arquerite) associated with quartz veins and dioritic rocks of Unit 4 near the lower switchback.
- (c) molybdenite and sphalerite mineralization in late stringers associated with Ribbon breccia (Unit 9) at the upper switchback.



Note: Geology, topography & culture from Versatile Mining Services drawing 202-71-3, government topographic map 82K/5W and Forestry Service maps.

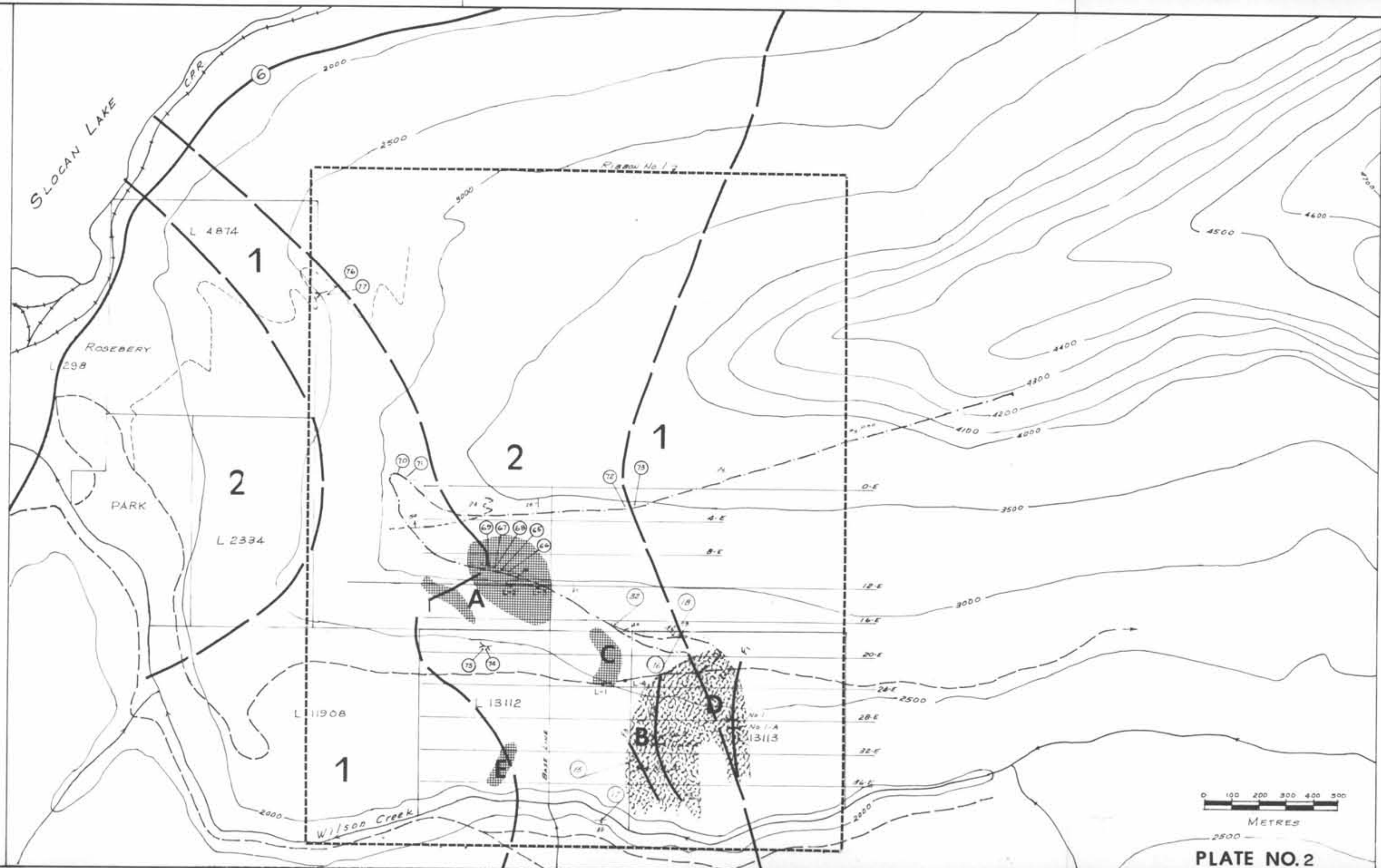


PLATE NO.2

LEGEND 12064

- 1 Slocan Sediments
- 2 Granitic Intrusive
- A Geochemical Anomaly (Mo)
- D Definite I.P. Anomaly & Conductive Axis

**SYMBOLS**

- Trench
- Adit
- L-1 Percussion Drill Hole
- 6 Main Highway
- Secondary road - established - approximate
- Trail
- 76 Sample location & Number

**ASSAY DATA**

SAMPLE	Au(ppm)	Mo(ppm)	Au(oz/t)	Mo(%)
65	5	20		
66	<5	10		
67	<5	140		
68	<5	32		
69	<5	28		
70	<5	Tr		
71	13	83		
72	<5	26		
73	<5	26		
74	<5	683		
75	<5	355		
76	-	-	Tr	.003
77	-	-	Tr	.028



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RIBBON MINERAL CLAIM 363(6)

**COMPOSITE PLAN**

J.D.M. 1/12000 1980-10-10

REVISED 84-01-16



Molybdenum content in Unit 6 as determined by surface sampling varies from trace to .192% (Appendices 1 and 2). Four percussion drill holes (L-1 to L-4) in this rock type averaged only .008, .003, .001 and .001% Mo respectively, each over a total hole depth of 91.4 m. Much of the better molybdenite mineralization in Unit 6 is associated with steep to moderate dipping quartz veins and stringers that vertical drill holes would not evaluate accurately and most likely would miss altogether. Horizontal holes would give more accurate assay data. Molybdenum mineralization appears fairly pervasive throughout Unit 6 so the possibilities are good for developing a large tonnage. It remains to determine the approximate grade of mineralization and decide whether the zone has ore making potential. Diamond drilling is warranted to obtain this information.

The possibilities of developing significant silver ore near the lower switchback are not considered good. Soil geochemistry failed to delineate any areas of anomalous silver (Plate No. 6). Rock chemistry (Plate No. 8) indicates above average silver content in Unit 2 quartzite in this area, which is considered a positive factor. This, together with a definite silver bearing vein structure visible on surface, is considered sufficient encouragement for limited diamond drilling. Risks are high but so are the potential rewards.

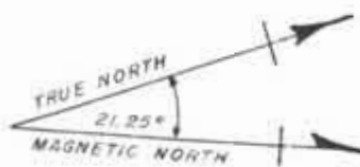
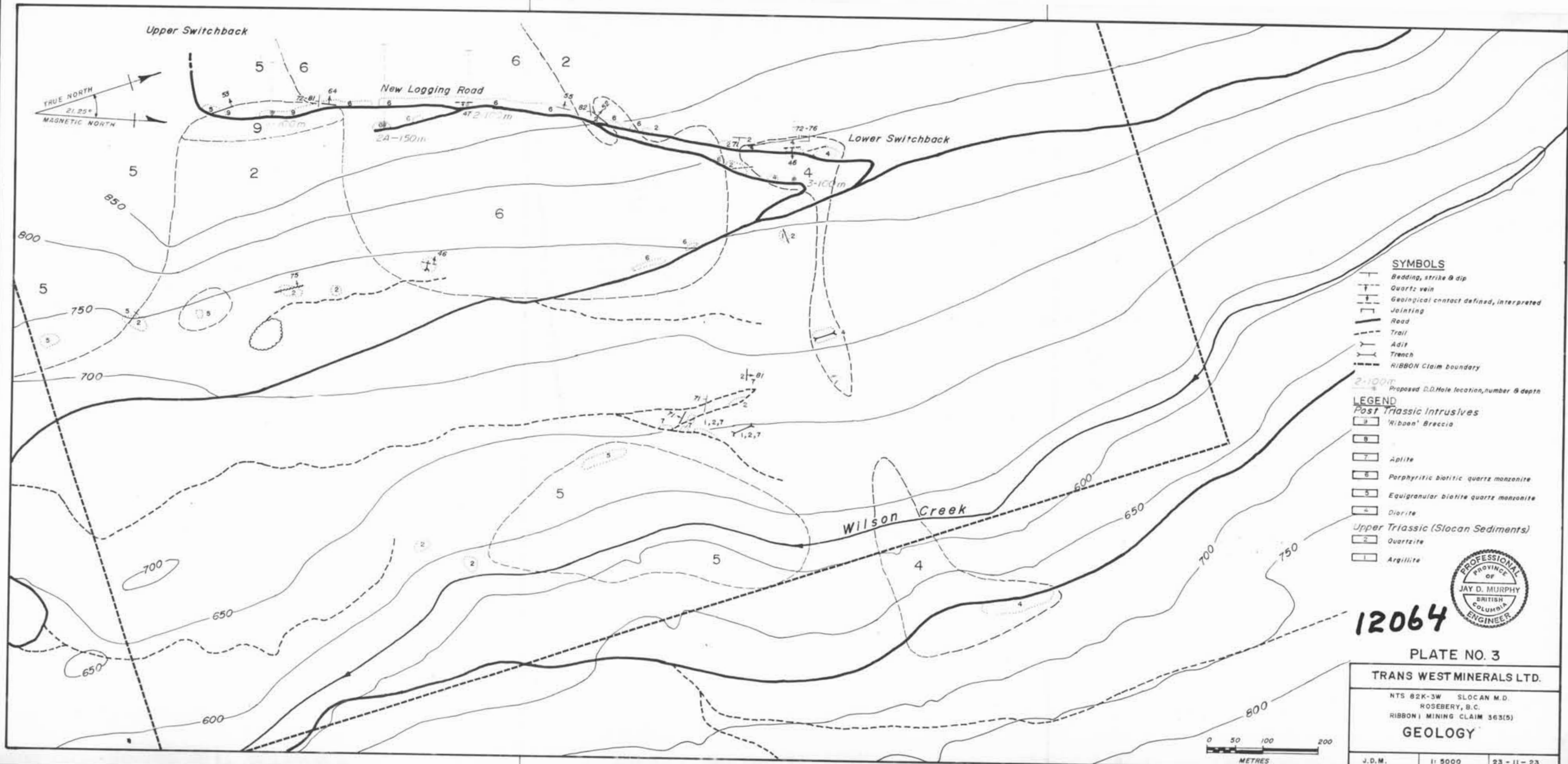
The Ribbon Breccia (Unit 9) at the upper switchback is considered favourable for hosting important molybdenum mineralization. Zinc mineralization does not appear significant but cannot be discounted at this stage. Little is known about the size or grade of Unit 9 so the economic potential is open to speculation. A large body of similar material east of Wilson Creek is reportedly host to molybdenum mineralization. The only drill hole put down by Amax was in this breccia unit. Verbal reports indicate mineralization was encountered but assayed below ore grade. Limited diamond drilling is considered warranted to test Unit 9 on the Ribbon claim.

#### RECOMMENDATIONS

The drilling programme recommended should be initiated soon as weather permits to ensure that drilling from the main haulage road can be completed before logging operations begin. This could save at least 50 m of extra drilling. Another advantage is that runoff at this time should provide an ample and convenient water supply for drilling purposes.

Three flat holes, each 100 m deep are recommended as shown on Plate No. 3. Holes should be drilled in the same sequence as numbered.

It is imperative that hole number one be completed before logging operations begin. Hole 2 or 2A would then be drilled depending on whether logging had begun. Hole 3 can be completed any time without hampering log hauling. Some flexibility is required in the proposed drill programme. Certain holes may be stopped short or continued



- SYMBOLS**
- Bedding, strike & dip
  - Quartz vein
  - Geological contact defined, interpreted
  - Jointing
  - Road
  - Trail
  - Adit
  - Trench
  - RIBBON Claim boundary
  - Proposed D.D. Hole location, number & depth

- LEGEND**
- Post Triassic Intrusives*
- 'Ribbon' Breccia
  - Aplite
  - Porphyritic biotitic quartz monzonite
  - Equigranular biotite quartz monzonite
  - Diorite
- Upper Triassic (Slocan Sediments)*
- Quartzite
  - Argillite



12064

PLATE NO. 3

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RIBBON MINING CLAIM 363(5)

**GEOLOGY**





beyond projected depths depending on results. The following cost estimates are therefore subject to change;

Drilling Cost Estimate

350 m contract BQ core drilling @ \$65/m	\$22750.00
Mobilization & demobilization from Kamloops	1500.00
Assaying	500.00
Engineering & Field Supervision	3000.00
Food & Lodging	250.00
Transportation	450.00
Sub total	<u>\$28450.00</u>
15% contingencies	4267.00
TOTAL	<u>\$32717.00</u>
Say	<u>\$33000.00</u>

FIELD PROCEDURES

In early spring a geochemical orientation survey was done on the Rosebery property involving 11 sample sites in two lines across an area of known molybdenum mineralization. Work was done by Dr. Ray Lett, Consulting Geochemist with Barringer Magenta Ltd. Results were interpreted to indicate that B-Zone soil sampling would be effective in locating molybdenum mineralization. It was recommended that soil samples be taken on grid lines 100' (30m) apart and analysed for total Cu and Mo. This was done later in the summer but because silver mineralization had been proven in the area of interest, all samples were tested for silver as well.

Geological work included outcrop mapping on 1:5000 scale using a mylar print of orthophotos, with metric contours superimposed, as a base map. Hip chain and compass were used for secondary control. The new logging road post dated the orthophotos so it was necessary to survey and plot this feature first to provide a base for subsequent geological work.

In preparation for geochemical soil sampling a small grid was established over the area of interest using compass and hip chain for control. The start point was established by measuring down the old base line to locate cross line 16-E, then measuring north along this line a distance of 150 m. This point was designated Line A, station 11+50-N, the northing being relative to an arbitrary value 1000-N assigned to the old baseline. Five grid lines (A to F) were run on a north-south orientation, each line 500 m long with a flagged station every 50 m. Line spacing was nominally 25 m but compassing errors caused some deviation, being most pronounced on lines B and D. A soil sample was subsequently taken from the normally well defined B horizon at each station. A mattock was used for this purpose. Samples were placed in pre numbered Kraft paper bags and delivered to Kamloops Research and Assay Laboratory, Kamloops.

For rock geochemical sampling, work was begun at the upper switchback of the new logging road. The first sample site was designated 0+00 chainage and subsequent stations, taken as close as possible to 50 m

intervals down the road, were numbered according to the distance from Station 0+00. These distances were used as prefix numbers to designate each sample, followed by a suffix number corresponding to the geological unit the sample was taken from. For example, sample number 650-6 indicates this rock sample was collected from Unit 6 (porphyritic biotite-quartz monzonite) at a distance of 650 m from Station 0+00. Rock samples were also collected and stored in Kraft paper bags for transport to the assay office.

## GEOLOGY

The Ribbon claim area is underlain by predominantly argillaceous and arenaceous rocks of the Upper Triassic age Slocan Group. These sedimentary rocks have been intruded by a number of small, felsic to intermediate plugs of post Triassic age. Some of these intrusive bodies are mineralized or have produced sulphide mineralization in the enclosing sediments. There appears to be a genetic relationship between diorite and silver mineralization and between quartz-monzonite and molybdenum mineralization.

Following is a description of the main rock types found in the claim area. Nomenclature has been adopted to correspond in general with that used by Amax in their work on adjacent ground.

### Unit 1 - Argillite

This rock type has a wide local distribution in the area East of Wilson Creek. Outcrops in the Ribbon claim are small, relatively scarce and occupy topographically lower areas of heavy overburden between the access road and Wilson Creek.

Argillite is normally dark grey to black in colour on both fresh and weathered surfaces. This unit exhibits flaggy to massive bedding and is normally soft and frequently graphitic. A hard siliceous variety is also common. This unit appears to strike approximately east-west and dip steeply south. Stratigraphic relationship with the overlying quartzite of Unit 2 is unknown, but assumed to be conformable. No estimate of thickness can be given for Unit 1.

### Unit 1 - Quartzite

This unit also has a wide distribution east of Wilson Creek, but on the Ribbon claim is restricted to small exposures along the new logging road, in the trench area west of Wilson Creek and along the bottom of the steep, east facing slope west of the main access road. Quartzite is light rusty brown to greenish on weathered surfaces, and on fresh surfaces is predominantly buff coloured with lesser medium grey and mauve phases. Bedding is massive. A well defined, closely spaced joint pattern frequently develops polygonal, fist size blocks, giving the surface a rough "blocky" aspect. The buff coloured variety appears to consist mainly of quartz and feldspar, the grey variety quartz with calcareous matrix. Mauve coloured quartzite is very fine grained and may be siliceous argillite. Very fine grained iron sulphides are commonly disseminated throughout this rock type to less than 1% and is responsible for rusty weathering.

Quartzite in the Ribbon claim appears to strike east-west and dip steeply north or south. East of Wilson Creek the quartzite-argillite contact varies from north-south to east west in strike, but no dips are indicated. East of Wilson Creek sedimentary bedding varies from nearly east-west to north south but favours the latter orientation with corresponding low dips to the east.

No estimates were made regarding thickness of the quartzite unit.

#### Unit 4 Diorite

Diorite is limited in distribution to a small plug roughly 150 m by 250 m on the east side of Wilson Creek and some small exposures in trenches and road cuts on the Ribbon claim.

Texture is medium grained holocrystalline hypidiomorphic with medium to occasionally coarse grained plagioclase laths in a matrix of medium grained hornblende and/or a mixture of fine grained hornblende-plagioclase crystals. Plagioclase is subhedral to euhedral, ferromagnesian minerals anhedral. Diorite has a speckled appearance due to prominent light coloured plagioclase feldspar in a dark background of ferromagnesian minerals.

Estimated composition is as follows;

Plagioclase	45%
Hornblende	50%
Quartz	1-2%
Pyrite	0-1%

Pyrite is common as finely disseminated grains and blebs. There is extensive propylitic alteration with abundant carbonate, chlorite and minor pyrite. This mineral assemblage reacts strongly to dilute HCL. Feldspars in near surface specimens are partly kaolinised.

#### Unit 5 Equigranular Biotite-Quartz Monzonite

This unit occurs as a small plug in Wilson Creek having dimensions of 200 x 500 m elongated in a north-south direction (Plate No. 3). A larger intrusive about 300m east (off map) is approximately 800 x 1300 m with the long axis oriented east-west. On the Ribbon claim a fairly large exposure occurs at the upper switchback of the new logging road but only a small portion lies within the mapped area. Colour on weathered surface is light grey to rusty brown (oxidised biotite) and light grey to grey buff on fresh surfaces.

Texture is medium grained holocrystalline hypidiomorphic, consisting of medium to fine quartz and biotite and medium grained feldspar. The occasional coarse quartz crystal is also present. Biotite frequently occurs as euhedral hexagonal crystals together with subhedral to anhedral quartz and predominantly subhedral feldspar.

Estimated composition is as follows;

Plagioclase and orthoclase	80%
Quartz	15%
Biotite	5%

Diagnostic features are the low ferromagnesian content consisting almost exclusively of euhedral to subhedral biotite crystals, and the presence of the occasional coarse quartz crystal.

One variety on the west side of Wilson Creek is similar to the foregoing description except the ferromagnesians consist of chloritic hornblende which, together with abundant secondary carbonate and disseminated pyrite, indicate propylitic alteration.

A second variety at the upper switchback on the new logging road appears compositionally identical to the type description above except the ferromagnesians are mainly hornblende with only minor biotite. Finer grain size in specimens collected here may be due to chilling along the contact with adjacent sediments. Abundant fragments of dark, argillic country rock are found enclosed by quartz-monzonite along the contact at this locality.

#### Unit 6 Porphyritic Biotite-Quartz Monzonite

This rock type is well exposed for over 500 m along the new logging road between sedimentary and dioritic rocks at the lower switchback and Ribbon breccia near the upper switchback. The same rock type was mapped east of Wilson Creek as a narrow, sinuous intrusive body approximately 1.0 km east-west by 100 - 200 m wide, enclosed by quartzite. Colour on weathered surface is rusty brown, fresh surface light grey to grey buff.

Texture is porphyritic with coarse grey plagioclase phenocrysts to 2 cm in a matrix of medium to fine grained feldspar, clear quartz, biotite, hornblende and frequently pyrite. All crystals are anhedral to subhedral.

Estimated composition is as follows:

Feldspar (mainly plagioclase)	65-70%
Quartz	20%
Biotite	5%
Sericite	2-3%
Pyrite and Pyrrhotite	1-2%

This rock type has a fresh, unaltered appearance except for kaolinisation of feldspar due to weathering. Sericite appears associated with sulphide mineralization and is considered a secondary product of hydrothermal action.

Pyrite is a common mineral, frequently as fine to medium grained cubes that have a dark brown, dull coating due to near surface oxidation. Pyrrhotite is less abundant as fine, brownish-red anhedral grains and streaks. Molybdenite shows wide distribution in this rock type, commonly as medium to fine grained subhedral platelets and disseminations, stringers and veins. Fine flecks of disseminated chalcopyrite are rarely found. Most, if not all the potentially important molybdenum mineralization is in close spatial relationship to this rock type.

Unit 6 has a generally nondescript aspect but the abundance of prominent quartz and the presence of cubic pyrite and other sulphides are fairly diagnostic characteristics. Coarse phenocrysts are frequently present but in many cases may be absent or difficult to find. An unusual characteristic of this rock is the presence of irregular blebs or fragments 3-4 cm in size, usually well mineralized with iron sulphides and molybdenite. These blebs have a blue grey colour that contrasts with the enclosing monzonite and may exhibit a rim of brownish red oxidation affecting both quartz and feldspar in the enclosing rock.

The genesis of these mineralized blebs is open to speculation but, if found in sufficient concentration, could have important economic significance.

#### Unit 7 Aplite

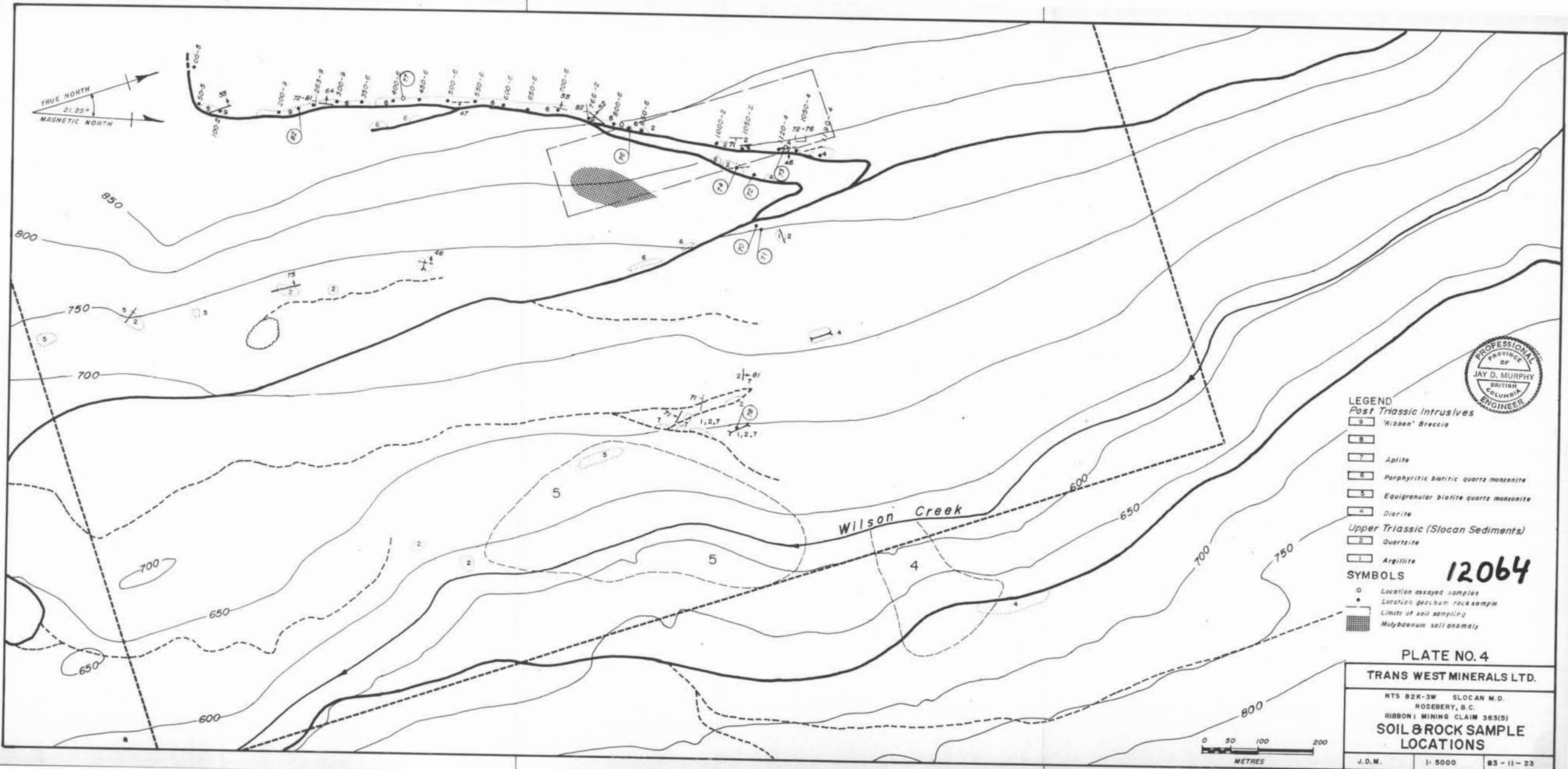
Aplite has limited distribution, probably restricted to the contact zones of units 5 and 6 from which this fine grained phase is considered to have been derived. Colour is brownish red on weathered surfaces, buff on fresh surfaces. Similarity in colour and grain size makes this unit difficult to distinguish from quartzite when intrusive characteristics are not apparent.

Aplite occurs as small, dike like bodies. Associated iron sulphide mineralization is common.

#### Unit 9 Ribbon Breccia

Distribution of this unit in the Ribbon claim is confined to about 40 m of intermittent exposure near the upper switchback on the new logging road. Continuity of Ribbon breccia to the west appears limited by both units 5 and 6 which strike northwest and north respectively, and dip west at moderate angles. East of Wilson Creek extensive areas of intrusive breccia were outlined by Amax. The Ribbon breccia may be related to this material but is distinctly different in appearance. Ribbon breccia is dark brown to mottled light and dark brown on weathered surfaces and mottled greenish grey to grey buff on fresh surfaces. This cataclastic unit has a heterogeneous composition consisting of a variable intermixture of felsic igneous material and dark sedimentary fragments ranging in size from 1-10 centimetres and larger. Most exposures exhibit crude banding with a rough alignment of long axes. Igneous fragments include normal, medium grained Unit 6, buff aplitic phases of the same or similar unit and fine grained, grey buff feldspathic stringers that are broken, discontinuous and possibly folded. Sedimentary material is mainly dark green silicified argillite. There may also be some buff coloured quartzite that is difficult to distinguish from aplitic phases. Minor pyrite to the extent of less than 1% is distributed throughout most of Unit 9. One hand specimen contains a 3 mm stringer of clear quartz with flakes of molybdenite along both walls. All three hand specimens collected contain a brownish red to black mineral, tentatively identified as sphalerite, occurring as minute stringers.





- LEGEND**
- Post Triassic Intrusives*
- 9 'Ribbon' Breccia
  - 8 Aplite
  - 7 Aplite
  - 6 Porphyritic biotitic quartz monzonite
  - 5 Equigranular biotite quartz monzonite
  - 4 Diorite
- Upper Triassic (Slocan Sediments)*
- 2 Quartzite
  - 1 Argillite
- SYMBOLS**
- Location assayed samples
  - Location geochem rock sample
  - - - Limits of soil sampling
  - ▨ Molybdenum soil anomaly

**12064**

**PLATE NO. 4**

**TRANS WEST MINERALS LTD.**

NTS 82K-3W SLOCAN M.O.  
ROSEBERY, B.C.

RIBBON I MINING CLAIM 363(5)  
**SOIL & ROCK SAMPLE  
LOCATIONS**

J.D.M. 1:5000 83-11-23



less than 1 mm wide, irregular patches and impregnations in partly replaced argillite fragments and as fine grained disseminations. Several stringers appear folded and others cut late fractures roughly perpendicular to the long axes of fragments.

The genesis of this unit is speculative but appears to be the result of intrusion of argillic sediments by Unit 6 followed by late stage mineralization.

## DISCUSSION OF RESULTS

### (a) Geology

Mapping by Amax in 1979 concentrated on the area east of Wilson Creek but was extended into the Ribbon claim in less detail. This work outlined a number of discrete intrusive stocks and dikes ranging in composition from diorite to quartz monzonite. Current work on the Ribbon claim has added some detail to the distribution of these intrusives west of Wilson Creek while concentrating on the economic aspects. Potentially important information resulting from this work are as follows;

- (1) Definite silver mineralization, probably arguerite, was found in a quartz vein close to a small diorite intrusive near the lower switchback of the new logging road. Verbal reports of arguerite mineralization in this area were made by Peter Leontowicz some time ago and a low silver assay was obtained from bedrock sample 18 (Appendix No. 1), but the nature and attitude of the silver bearing structure had not previously been defined.
- (2) A definite relationship was found between widespread molybdenum mineralization and Unit 6, porphyritic biotite-quartz monzonite.
- (3) A breccia unit containing both molybdenum and zinc mineralization was recognized for the first time on the Ribbon group.
- (4) Mineralized veins were found to have a definite north-south trend in the areas of interest, although dips were not clearly defined. This information will be particularly important in spotting drill holes.

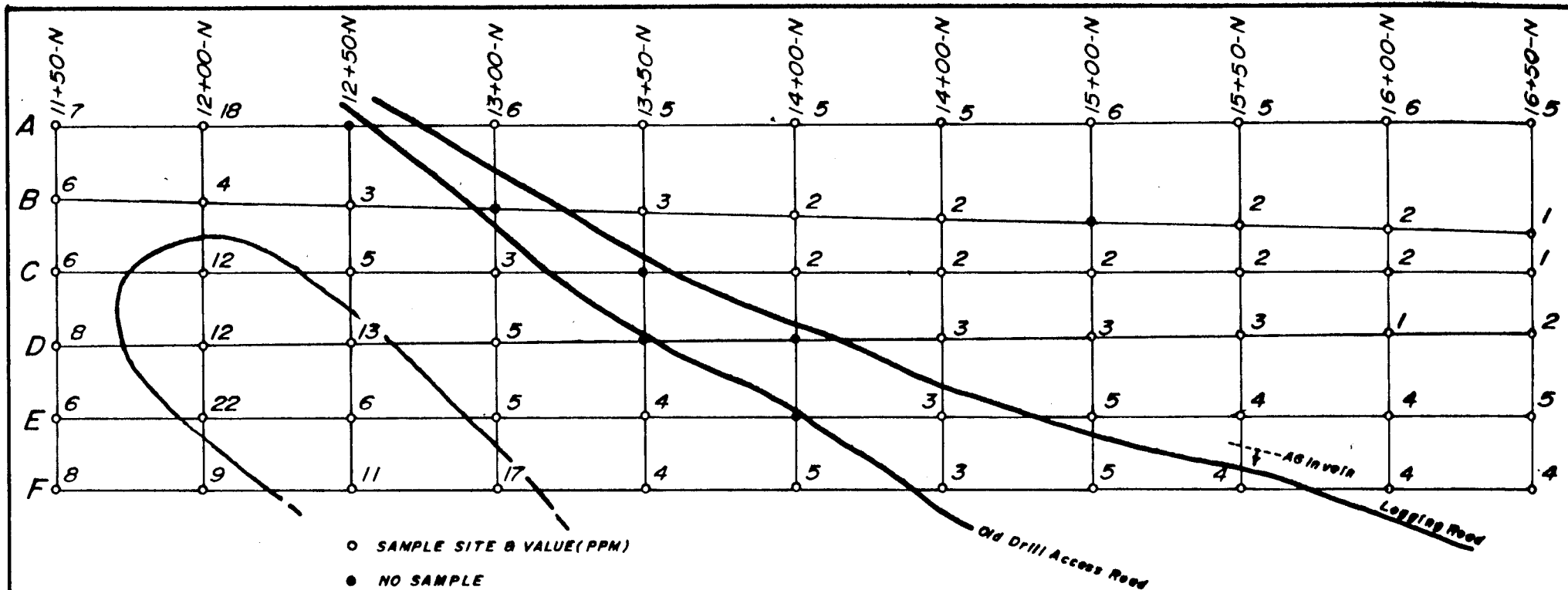
### (b) Soil Chemistry

Soil sampling results were not successful in defining anomalous silver in the area of known silver mineralization in bedrock (Plate No. 6). No anomalous copper values were obtained (Plate No. 7). A small, weak molybdenum anomaly was outlined corresponding with anomaly C defined by previous work. (Plates 2, 4 and 6).

### (c) Rock Geochemistry

Results are illustrated by Plate No. 8 and indicate;

- (1) No significant tungsten or copper values occur in the various units sampled.
- (2) A concentration of high molybdenum values occur near both contacts of Unit 6.
- (3) Silver values exceed normal background for all rock types tested. There appears to be a correlation between anomalous silver and diorite, high molybdenum values and the contact zone of Unit 5.



### GEOCHEMICAL PARAMETERS

	Cu(ppm)	Ag (ppm)	Mo(ppm)
Mean	25.6	.6	5.4
Standard Deviation	24.8	.3	4.1
Threshold	75	1.2	13.6
Anomalous 3 <sup>rd</sup> order	76 - 100	1.3 - 1.5	13.7 - 17.7
" 2 <sup>nd</sup> "		1.4 - 1.8	17.8 - 21.8
" 1 <sup>st</sup> "		over 1.8	over 21.8

0  
50  
METRES

North  
Astronomic

PLATE NO. 5

TRANS WEST MINERALS LTD.

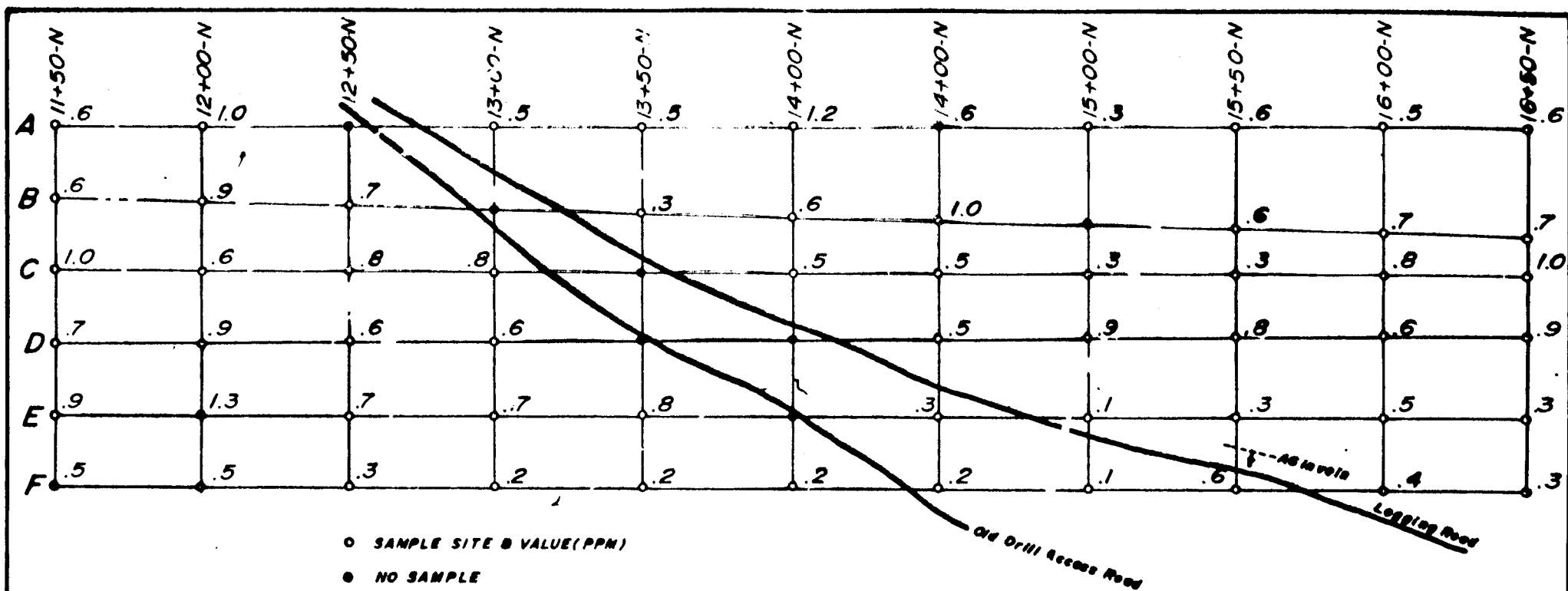
NTS 82K-3W SLOCAN M.D.  
ROSEBERRY, B.C.

MOLYBDENUM  
SOIL GEOCHEMISTRY

J.D.M

112000

84-01-14



### GEOCHEMICAL PARAMETERS

	Cu(ppm)	Ag (ppm)	Mo(ppm)
Mean	25.6	.6	5.4
Standard Deviation	24.8	.3	4.1
Threshold	75	1.2	13.6
Anomalous 3 <sup>rd</sup> order	76 - 100	1.3 - 1.5	13.7 - 17.7
" 2 <sup>nd</sup> "		1.4 - 1.8	17.8 - 21.8
" 1 <sup>st</sup> "		over 1.8	over 21.8

0  
50  
METRES

PLATE NO. 6



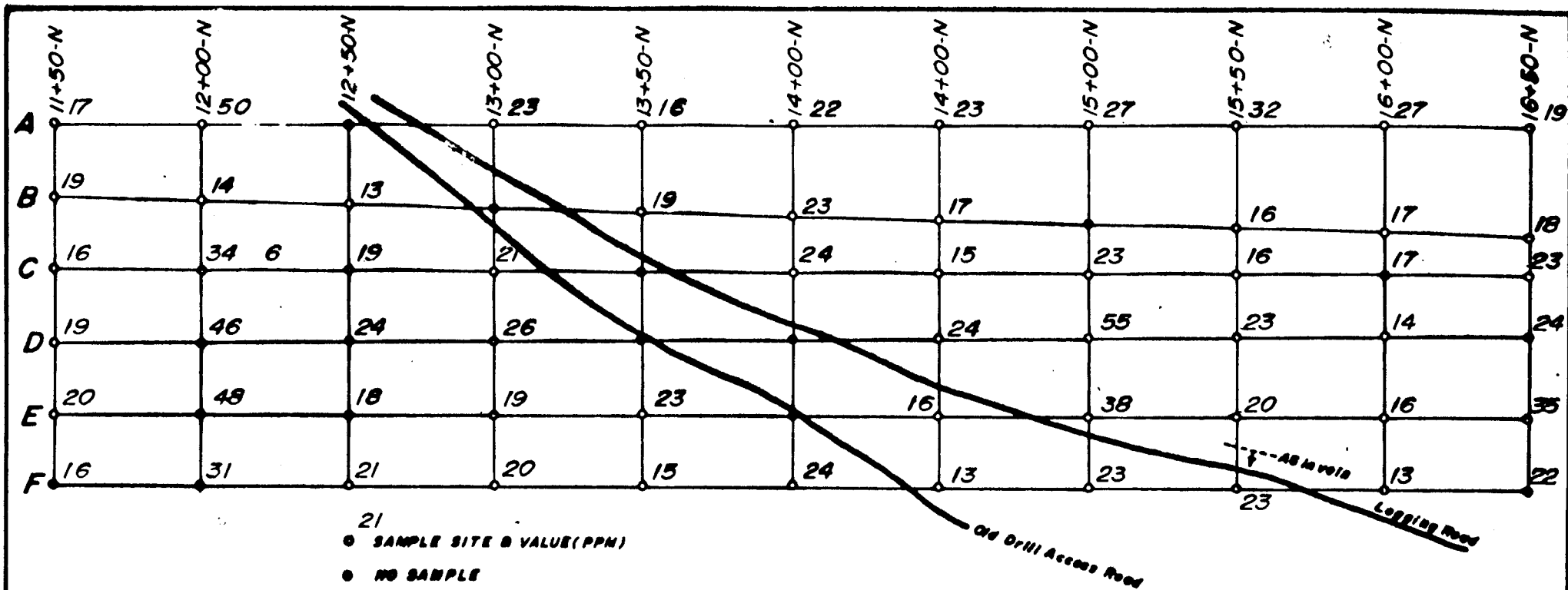
J.D.M. 1:2000 84-01-14

**TRANS WEST MINERALS LTD.**

NTS 82K-3W SLOCAN B.C.  
ROSEBERT, B.C.

**SILVER**

**SOIL GEOCHEMISTRY**



### GEOCHEMICAL PARAMETERS

	Cu(ppm)	Ag (ppm)	Mo(ppm)
Mean	25.6	.6	5.4
Standard Deviation	24.8	.3	4.1
Threshold	75	1.2	13.6
Anomalous 3rd order	76 - 100	1.3 - 1.5	13.7 - 17.7
" 2nd "		1.4 - 1.8	17.8 - 21.8
" 1st "		over 1.8	over 21.8

0  
50  
METRES



PLATE NO. 7

TRANS WEST MINERALS LTD.

NTS BRK-SW SLOCAN B.C.  
ROSEBERRY, B.C.

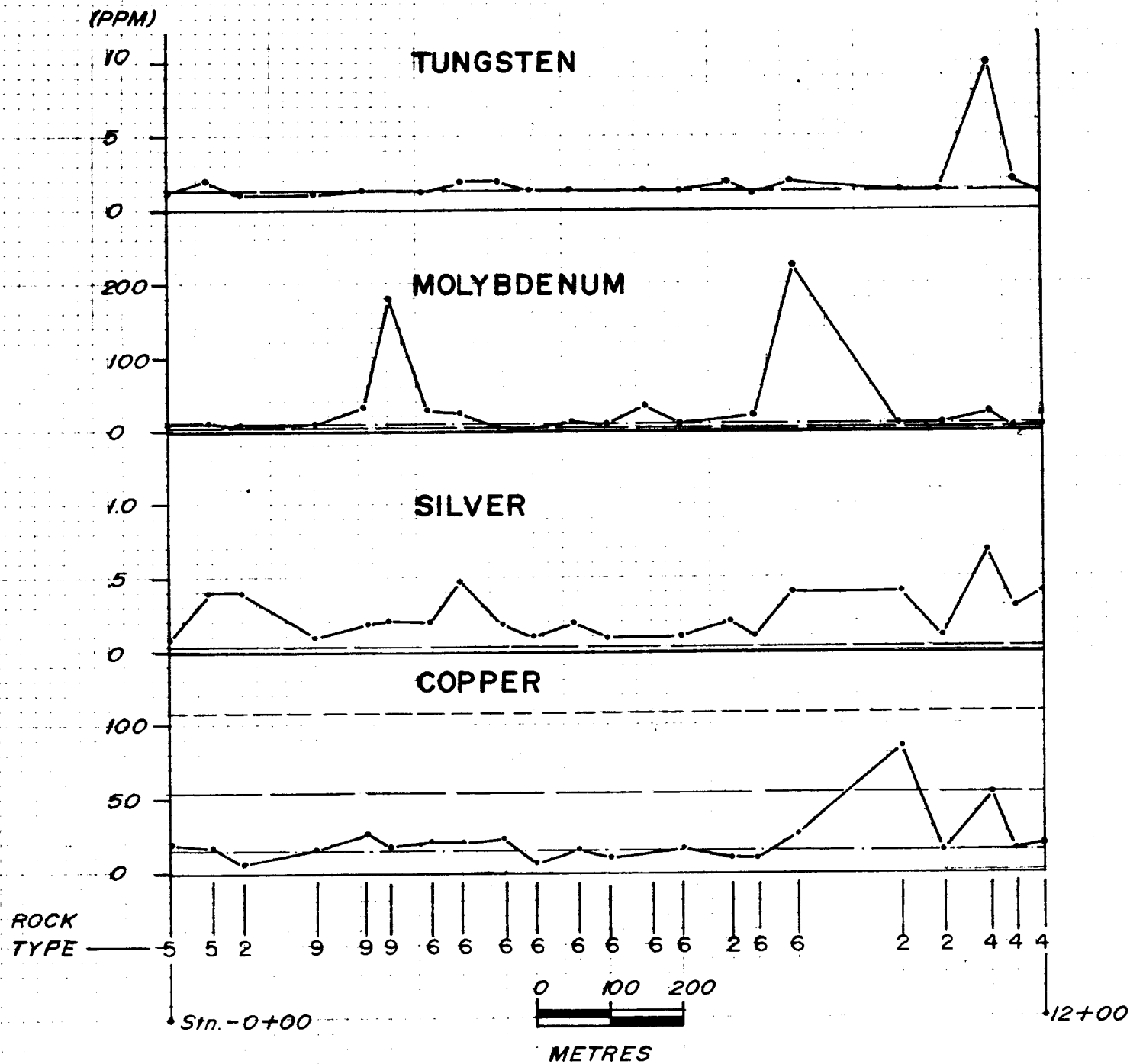
COPPER  
SOIL GEOCHEMISTRY

J.D.M.

1:2000

84-01-14





———— Crustal average  
 - - - - Granite average  
 - · - · Diabase average

**PLATE NO.8**

TRANS WEST MINERALS LTD.		
METAL CONTENT OF RIBBON ROCKS COMPARED TO CRUSTAL AVERAGES		
J.D.M	84-01-15	

ECONOMIC CONSIDERATIONS

The original concept of geology in the Ribbon claim area (Plate No. 2) was a narrow homogeneous apophysis of the Nelson Batholith cutting Slocan sediments. Recent work (Plate No. 3) shows that intrusive rocks consist of several small, discrete bodies of variable composition. This current interpretation of claim geology is considered more favourable for porphyry type mineralization than the original concept.

The Ribbon claim is well located with respect to an established cultural infrastructure including roads, rail transport, hydro power and supply centres, including New Denver and Nakusp. The property has an abundant water supply in Wilson Creek and timber is plentiful.

In early summer a small stream diverted through a culvert just north of the lower switchback was found to have a measured flow of approximately 50 litres per minute, sufficient to supply one diamond drill.

STATEMENT OF COSTS

The following costs were incurred on the Ribbon 1 mineral claim, record number 363(5). Geochemical orientation by R. Lett, Ph. D., was carried out on 1983-04-24 with the assistance of the writer. The subsequent fieldwork and report preparation was done by Jay D. Murphy, P. Eng.

Geological and geochemical fieldwork was completed during the period 1983-06-07 to 28. Preliminary report preparation was done between 1983-06-07 and 83-08-29. Final report preparation was completed between 1983-07-04 and 1984-01-22.

CONSULTING AND FIELDWORK

0.5 days geochem. orientation (Lett) @ \$400/day	\$ 200.00	
15% surcharge	30.00	
1.5 days geochem orientation (Murphy) @\$250/day	375.00	
8 days geological mapping & sampling @\$250/day	2000.00	
2 days geochemical survey @ \$250/day	500.00	
1.5 days travel @ \$250/day	375.00	
Total Consulting & field work	<u>\$3480.00</u>	\$3480.00

TRANSPORTATION

50% of \$719 air fare Toronto-Kamloops return (Lett)	\$ 359.50	
15% surcharge	53.92	
50% of \$28.50 for taxis plus 15% (Lett)	16.39	
500 miles personal vehicle Kamloops-New Denver return @ \$.20/mile	100.00	
13 days 4x4 rental @ \$25/day	325.00	
692 miles Kamloops-New Denver return plus local mileage @ \$.25/mile	173.00	
Total Transportation	<u>\$1027.81</u>	\$1027.81

FOOD AND LODGING

Motel New Denver 83-04-24 plus 15% (Lett)	\$ 31.69	
Motel New Denver 83-04-24 (Murphy)	27.56	
13 days @ \$22/day (tent camp)	286.00	
4 meals New Denver & Rosebery	22.85	
Total Food & Lodging	<u>\$ 368.10</u>	\$ 368.10

ASSAYING - BARRINGER MAGENTA LTD.

4 rock sample preparations @ \$4.10	\$ 16.40	
1 nitric-hydrochloric acid digestion @ \$1.35	1.35	
1 silver analysis @ \$.95	.95	
1 gold analysis @ \$5.50	5.50	
1 zinc analysis @ \$.95	.95	
38 iron molybdenum analysis @ \$1.90	72.20	
Sub Total	<u>\$ 97.35</u>	
15% surcharge	14.60	
Total Assaying - Barringer Magenta Ltd.	<u>\$ 111.95</u>	\$ 111.95

cont'd

ASSAYING - KAMLOOPS RESEARCH & ASSAY LABORATORIES LTD.

59 soil sample preparations @ \$.70	\$	41.30	
29 rock sample preparations @ \$2.75		79.75	
87 copper analyses @ \$1.90		165.30	
86 silver analyses @ \$.90		77.40	
82 molybdenum analyses @ \$ .90		73.80	
1 molybdenum analysis @ \$1.90		1.90	
22 tungsten analyses @ \$4.25		93.50	
2 zinc analyses @ \$.90		1.80	
5 gold analyses @ \$6.00		30.00	
1 gold and silver assay @ \$12.50		12.50	
2 copper assays @ \$6.50		13.00	
2 molybdenum assays @ \$7.00		14.00	
Sub Total	\$	694.89	
15% surcharge		90.64	
Total Assaying K.R.A.L.Ltd.	\$	806.84	\$ 806.84

MISCELLANEOUS

Long distance telephone calls	\$	9.25	
Film positive of base maps plus 15%		127.53	
Total Miscellaneous	\$	136.78	\$ 136.78

PRELIMINARY REPORT PREPARATION

4 days drafting and reporting @ \$250/day	\$	1000.00	
Typing, blueprinting and photocopying		120.20	
Total Preliminary Report Preparation	\$	1120.20	\$1120.20

FINAL REPORT PREPARATION

9.5 days drafting and reporting @ \$250/day	\$	2375.00	
18 pages typing @ \$5.00		90.00	
100 letter size photocopies @ \$.20		20.00	
20 legal size photocopies @ \$.25		5.00	
12 blueprints		3.92	
Total Final Report Preparation	\$	2493.92	\$2493.92

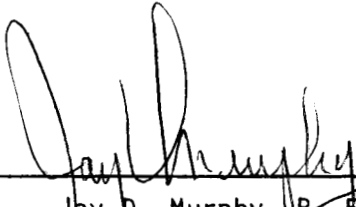
TOTAL COSTS

\$9545.60

STATEMENT OF QUALIFICATIONS

I, Jay D. Murphy, hereby certify:

1. That I am a Consulting Geological Engineer, resident at 1335 Todd Road, Kamloops, B.C.
2. That I am a graduate from the University of Manitoba (1954) with a B. Sc. in Geological Engineering.
3. That I have practiced my profession continuously since graduation.
4. That I am a member of the Association of Professional Engineers of British Columbia and Ontario.
5. That the information contained in this report is based on a personal examination of the subject property.
6. That I have no financial interest in the subject property.

  
\_\_\_\_\_  
Jay D. Murphy, P. Eng.





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- CAIRNES, C.E. Slocan Mining Company,  
G.S.C. Memoir 173, 1934
- KERR, John A. Geochemical Report on the  
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United Bata Resources (N.P.L.)  
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November, 1971.
- MURPHY, Jay D. Percussion Drilling Report  
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Trans West Minerals Ltd.  
October 1978
- MURPHY, Jay D. Trenching Report on the Ribbon  
No. 1 Claim for Trans West  
Minerals Ltd.  
July 1982

APPENDIX NO. 1

Sample and assay data

See PLATE NO. 2 for locations

<u>Sample No.</u>	<u>Width(m)</u>	<u>Assay</u>					
		<u>Au gm/t</u>	<u>Ag gm/t</u>	<u>Pb(%)</u>	<u>Cu(%)</u>	<u>Mo(%)</u>	<u>W(%)</u>
15	1.2	.03	2.06	--	.01	.003	--
16	grab	.10	3.08	--	.01	.002	--
17	0.5	.07	70.97	.26	--	1.001	.03
18	grab	.03	13.37	--	.01	.006	--
32	grab	--	--	--	--	.192	--

Remarks

- 15 - good sulphides in road cut, qtz str.
- 16 - white qtz. str. in aplite near W contact with diorite
- 17 - white qtz. with galena and pyrite E side Wilson Creek
- 18 - 5 cm. rusty qtz. 46 m W of diorite contact
- 32 - good  $MoS_2$  in qtz.

APPENDIX NO. 2

Assay data

See PLATE NO. 4

<u>Sample No.</u>	<u>GOLD</u>	<u>SILVER</u>	<u>COPPER</u>		<u>MOLYBDENUM</u>		<u>ZINC</u>
	<u>gm/t</u>	<u>gm/t</u>	<u>%</u>	<u>ppm</u>	<u>%</u>	<u>ppm</u>	<u>ppm</u>
70	L5	.2	-	29	-	-	-
71	L5	.4	-	52	-	-	-
72	L5	.5	-	96	-	-	30
73	.03	188.9	-	-	-	-	-
74	L5	.3	-	-	-	-	-
75	-	-	1.01	-	.005	-	-
76	-	-	-	13	-	26	-
77	-	-	.01	-	.036	-	-
78	L5	.6	-	73	-	15	-
82	-	-	-	-	-	34	154

APPENDIX NO. 3

Rock geochemistry analytical results in ppm.

See PLATE NO. 4

<u>SAMPLE NO.</u>	<u>COPPER</u>	<u>SILVER</u>	<u>MOLYBDENUM</u>	<u>TUNGSTEN</u>
00-5	21	.1	9	L2
50-5	18	.4	4	2
100-2	9	.4	7	L2
200-9	16	.1	12	L2
263-9	24	.2	36	L2
300-9	18	.2	182	L2
350-6	20	.2	31	L2
400-6	20	.5	25	2
450-6	23	.2	11	2
500-6	7	.1	5	L2
550-6	16	.2	8	L2
600-6	10	.1	7	L2
660-6	11	.1	33	L2
700-6	11	.1	13	L2
766-2	9	.2	23	2
800-6	10	.1	22	L2
850-6	25	.4	228	2
1000-2	87	.4	7	L2
1050-2	12	.1	6	L2
1120-4	52	.7	24	10
1150-4	13	.3	4	2
1190-4	17	.4	5	L2



Member  
Canadian Testing  
Association

# KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS, B.C.  
V2C 5P5

PHONE: (604) 372-2784 — TELEX: 048-8320

## CERTIFICATE OF ASSAY

**B.C. LICENSED ASSAYERS  
GEOCHEMICAL ANALYSTS  
METALLURGISTS**

TO Mr. J. Murphy  
1355 Todd Rd.,  
Kamloops, B.C. V2L 2B4

Certificate No. K 5579  
Date July 5, 1983

**I hereby certify** that the following are the results of assays made by us upon the herein described \_\_\_\_\_ samples

Kral No.	Marked	Au	Ag	Pb	Zn	Cu	Mo		
		ozs/ton	ozs/ton	per cent	percent	percent	percent		
<del>1</del>	<del>068</del>	<del>.052 *</del>	<del>.03</del>	<del>-</del>	<del>.52</del>	<del>.02</del>	<del>-</del>		
<del>2</del>	<del>069</del>	<del>.093 *</del>	<del>.26</del>	<del>-</del>	<del>1.95</del>	<del>.24</del>	<del>-</del>		
3	073	L.001	5.51	-	-	-	-		
4	075	-	-	-	-	L.01	.005		
5	077 ✓	-	-	-	-	.01	.036		
<del>6</del>	<del>079</del>	<del>.004</del>	<del>1.75</del>	<del>6.24</del>	<del>14.7</del>				
<del>7</del>	<del>080</del>	<del>L.001</del>	<del>.03</del>	<del>.03</del>	<del>.17</del>				
<del>8</del>	<del>081</del>	<del>.001</del>	<del>.38</del>	<del>.44</del>	<del>3.43</del>				
		per cent weight	Au ozs/ton	Combined Au					
	* 068 -100	99.984	.043						
	068 +100	0.016	60.554	.052					
	* 069 -100	99.990	.064						
	069 +100	0.010	305.10	.093					

**NOTE:**  
Rejects retained three weeks.  
Pulps retained three months  
unless otherwise arranged.

  
Registered Assayer, Province of British Columbia

- 18 -

APPENDIX NO. 4



**KAMLOOPS  
RESEARCH & ASSAY  
LABORATORY LTD.**

912 LAVAL CRESCENT — KAMLOOPS, B.C.  
V2C 5P5  
PHONE: (604) 372-2784 — TELEX: 048-8320

**GEOCHEMICAL LAB REPORT**

Mr. J. Murphy  
1335 Todd Rd.,  
Kamloops, B.C.  
V2L 2B4

DATE July 5, 1983

ANALYST \_\_\_\_\_

FILE NO. G 799

FILE NO. \_\_\_\_\_

KRAL NO.	IDENTIFICATION	ppm Cu	ppm Ag	ppm Mo	ppm W				
1	00- <del>5</del> 5	21	.1	9	L2				
2	50- <del>5</del> 5	18	.4	4	2				
3	100-2	9	.4	7	L2				
4	200- <del>109</del>	16	.1	12	L2				
5	263- <del>109</del> 9	24	.2	36	L2				
6	300- <del>109</del> 9	18	.2	182	L2				
7	350-6	20	.2	31	L2				
8	400-6	20	.5	25	2				
9	450-6	23	.2	11	2				
10	500-6	7	.1	5	L2				
11	550-6	16	.2	8	L2				
12	600-6	10	.1	7	L2				
13	650-6	11	.1	33	L2				
14	700-6	17	.1	13	L2				
15	766-2	9	.2	23	2				
16	800-6	10	.1	22	L2				
17	850-6	25	.4	228	2				
18	1000-2	87	.4	7	L2				
19	1050-2	12	.1	6	L2				
20	1120- <del>4</del> 4	52	.7	24	10				
21	1150- <del>4</del> 4	13	.3	4	2				
	1190- <del>4</del> 4	17	.4	5	L2				
	A 1150	17	.6	7	-				
	1200	50	1.0	18	-				
	1300	23	.5	6	-				
	1350	16	.5	5	-				
	1400	22	1.2	5	-				
	1450	23	.6	5	-				
	1500	27	.3	6	-				
	1550	32	.6	5	-				

**GEOCHEMICAL LAB REPORT**

FILE NO. G 799

PAGE 2

KRAL NO.	IDENTIFICATION	ppm Cu	ppm Ag	ppm Mo	KRAL NO.	IDENTIFICATION			
31	A 1600	27	.5	6					
32	1650	19	.6	5					
33	B 1150	19	.6	6					
34	1200	14	.9	4					
35	1250	13	.7	3					
36	1300	no sample							
37	1350	19	.3	3					
38	1400	23	.6	2					
39	1450	17	1.0	2					
40	1500	no sample							
41	1550	16	.6	2					
42	1600	17	.7	2					
43	1650	18	.7	1					
44	C 1150	16	1.0	6					
45	1200	34	.6	12					
46	1250	19	.8	5					
47	1300	21	.8	3					
48	1350	no sample							
49	1400	24	.5	2					
50	1450	15	.5	2					
51	1500	23	.3	2					
	1550	16	.3	2					
	1600	17	.8	2					
	1650	23	1.0	1					
	D 1150	19	.7	8					
	1200	46	.9	12					
	1250	24	.6	13					
	1300	26	.6	5					
	1350	no sample							
	1400	no sample							





