90-668 # 8636

REPORT ON RECONNAISSANCE GEOLOGICAL MAPPING AND SAMPLING

MARINER II CLAIM GROUP

SPANISH MOUNTAIN AREA

CARIBOO MINING DIVISION, B.C.

LOCATION: 121,28' W 52,36' N

OWNER: M.B. NEILSON

AUTHOR: N.L. TRIBE, P.ENG. #//330

DATE: 30 NOV 1979

9398

REPORT ON RECONNAISSANCE GEOLOGICAL MAPPING AND SAMPLING, MARINER II CLAIM GROUP SPANISH MOUNTAIN AREA CARIBOO MINING DIVISION, B.C.

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF ILLUSTRATIONS

LIST OF PHOTOGRAPHS

REPORT ON RECONNAISSANCE GEOLOGICAL MAPPING AND SAMPLING, MARINER II CLAIM GROUP SPANISH MOUNTAIN AREA CARIBOO MINING DIVISION, B.C.

INTRODUCTION

The purpose of this report is to investigate the potential for lode deposits on the Mariner II Claim Group on Spanish Mountain, near Likely, B.C., to provide some understanding of the geology, and to accurately sample any veins which might be exposed.

LOCATION AND ACCESS

The Mariner II Claim Group consists of four claims each of 25 hectares located on the north slope of Spanish Mountain and south of Spanish Lake about 8 km. east of Likely, B.C. with the Peso Claim Group lying to the south and the east of the Mariner II Group.

Photo copies of the Department of Mines Location Map are included in Figure 1. Copies of the filing affidavits are included as Appendix I.

Access to the property is by Highway No. 1 to Cache Creek, thence by Highway 97 north through Williams Lake to McLeese Lake, thence east 74 km. by the Likely Road, on all-weather gravel road to Likely, B.C. From Likely head east toward Kiethley Creek; at about 1 km. past the Esso Service Station, turn right on the Spanish Lake road, which is called "Road 1300" by the Forest Service. This is all-weather gravel road used by the logging companies as haul roads. Proceed 7 km. to the km. 1307 marker. About 50 meters past this marker turn right up the hill and into the centre of the Mariner II Claim Group. Four-wheel drive vehicles will be required past this point.

This is also a logging haul road which proceeds south through the Mariner II claims and onto the Peso Group. This road provides access to trenches which have exposed most of the veins.

Photo 1. Access road through Mariner II Claims.

The Mariner II Claim Group can be traversed fairly easily on foot from this logging road. The forest cover was removed by clear cut logging methods and the skidders provided fairly clear pathways which tend to be very steep and although now somewhat grown in with alder are still passable. The skidders also cut into the banks a little on sidehills unearthing some of the bedrock and providing a better look at the geology.

On the Peso Claims above the Mariner II Group the forest is uncut, fully mature black spruce and western hemlock forest with dense undergrowth of alder, buck brush, devils club and other West Coast Marine climate vegetation. This dense cover is a result of the north slope setting of the claims as

the south slopes in the Quesnel Lake area are quite friendly and easily traversed. Outcrops are not abundant in the forest or at least difficult to find and then only the very resistant rocks such as the quartz veins and the resistant intrusive rocks persist. Care must be taken in interpreting the geology that this phenomena does not lead to an emphasis on these rock types at the expense of the softer ones.

PREVIOUS WORK

These showings were probably first discovered at the time of the Cariboo Gold Rush or shortly after. The gold prospectors of that era are known to have been very thorough and left their mark on most of the gold showings throughout the Cariboo and elsewhere. The earliest information to hand is contained in a letter by Roland E. Legg addressed to the N.A. Timmins Corporation and dated July 12, 1938. In this letter (included as Appendix II) Mr. Legg refers to several veins and values ranging from 0.23 oz. Au/ton to 5.60 oz. Au/ton. Mr. Legg refers to a crew of eight men, open cuts and at least one adit. Mr. Legg's sketch map is included as Figure 2 and was used as key to searching out some of the important veins in this area.

A brief search of the area indicated at least four periods of activity on the property. The first, probably around 1880, which consisted of building the cabin (Photo 2) and digging of some of the test pits.

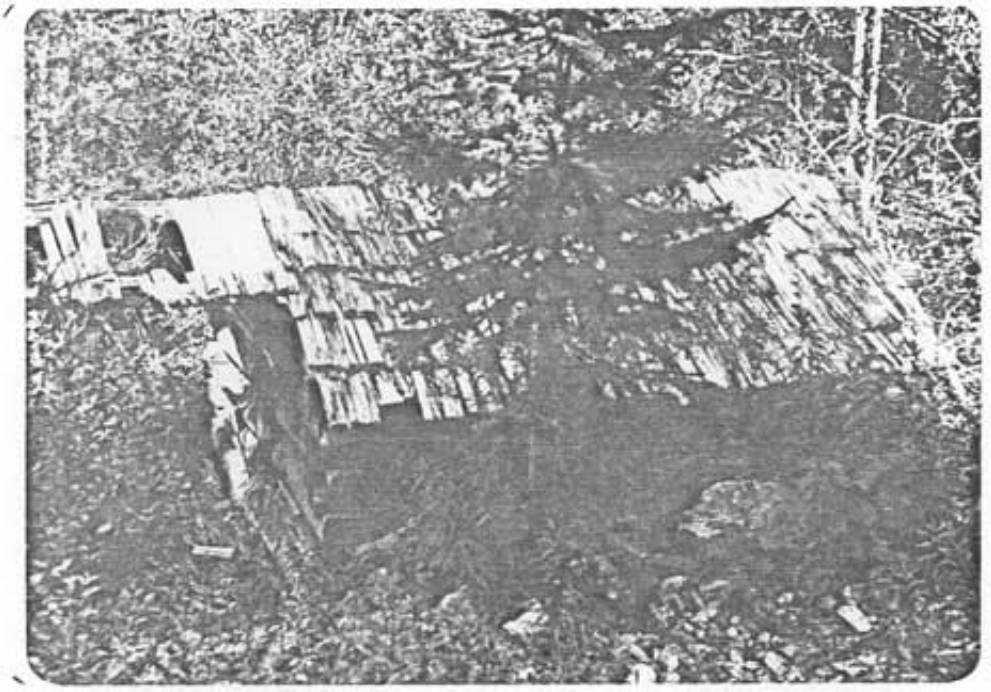


Photo 2. Log cabin, Mariner II Claims.

The second period, around 1938, is described in Mr. Legg's letter which consisted of extensive trenching by hand and the driving of the adit.

A surge of interest in gold about 10 years ago prompted the bulldozer trenching in which at least 13 trenches were dug to expose numerous quartz veins. It would appear that this was followed up with at least five diamond drill holes. A log cabin and core storage shed were discovered about 2 km. west by bush track and it is thought probable that this core was from the Mariner II Claims. (Photo 3 and 4).

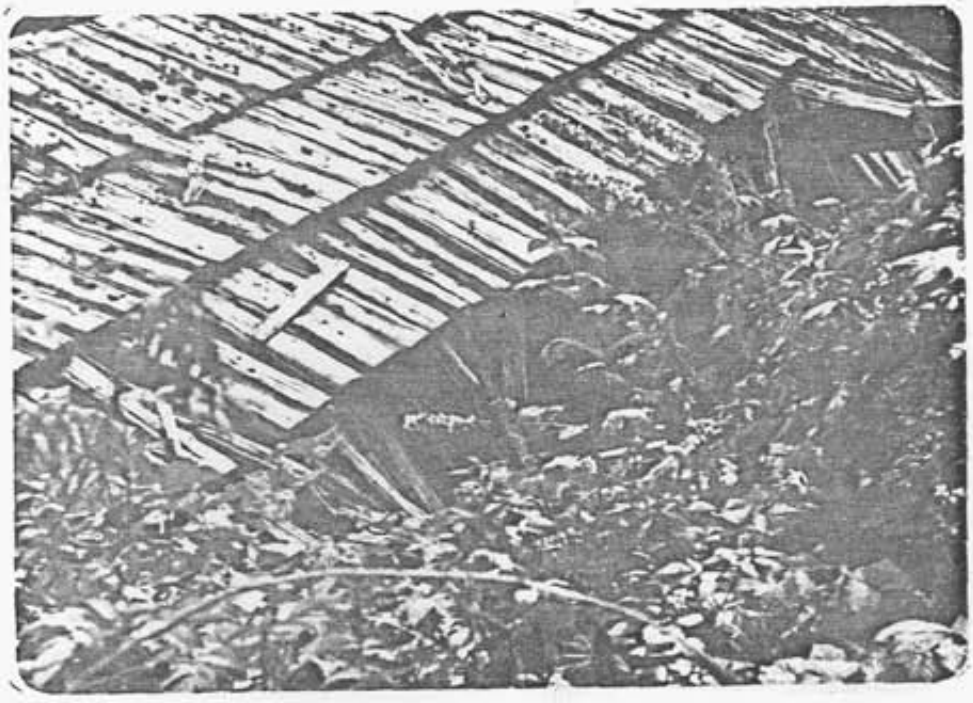


Photo 3. Log cabin 2 km. west of Mariner II Claims.

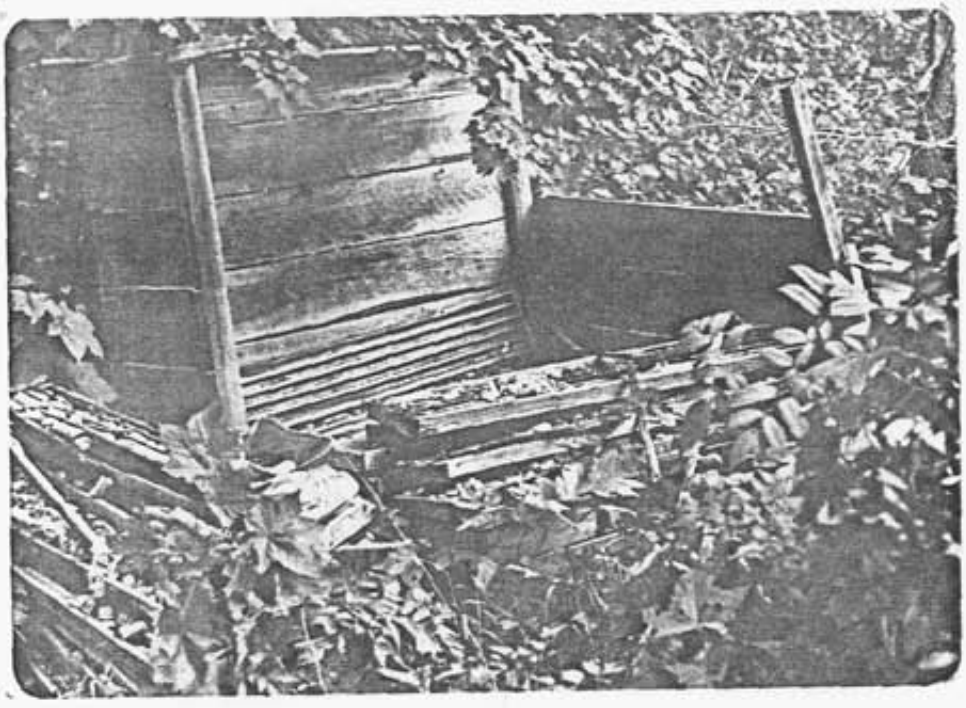


Photo 4. Core storage shed 2 km. west of Mariner II.

The most recent work in the summer of 1979 was with the use of a backhoe to expose some of the veins. Many of the old pits from Legg's report were dug out, presumably tested, then backfilled with this backhoe.

SURVEY METHODS

The survey control used in this survey was mainly pace and compass. Spot checks with chain were made to provide a control on pacing. One loop on the northwest was closed with an accuracy of 1:700.

The sampling methods were changed from sample to sample to suit the conditions. Whenever possible channel samples were taken. If veins were too massive to channel well, chip samples were taken. In some instances only grab type samples were taken where exposures were poor and indications only were needed.

GEOLOGY

The regional geology taken from the government's Quesnel Lake Map Sheet by R.B. Campbell and published in 1978 is discussed briefly in C.W. Ball's "Preliminary Geological Report, Spanish Lake Area, Cariboo Mining Division, B.C." March 1979 included as Appendix III and is shown as a sketch in Figure 1.

No argument is taken with the argillites to the north as these are widespread and easily recognized. It is felt that

they are often limey and may vary in graininess to greywacke and that this is worthy of note.

The transition zone is made up of a progressively more grainy to volcanic rock as one passes toward the south. Some greywackes, arkoses then trachytes were noted toward the center of the transition zone. It is felt that this represents a period of volcanism in the development of this "transition zone". Into this zone is intruded the fine grained copper bearing nepheline syenite. The third rock called greenstone was not traversed on the north slope of Spanish Mountain.

Where the syenite can be seen at the Mariner II and Peso Claims it is developed as dykes or as thin sills of only a few centimeters thickness which run in irregular patterns roughly conforming with the strike of the country rock. These small sill-like bodies are usually criss-crossed with a stock work of quartz veins and carry pyrite, traces of galena and often some copper staining. Alteration halos around these sills are many times wider than the sills themselves. These halos start next to the syenite with intense silicifcation then kaolinization and pyrite alteration further from the sills. This same intense kaolinization is noted around most of the quartz veins and is probably what Legg refers to as alaskite. However, in most instances this writer feels that the white aphanitic rock with the brown spots is an intensely kaolin altered argillite country rock in which the carbonate has been recrystalized into a poikiloblasts of siderite or iron dolomite. (Photo 5).

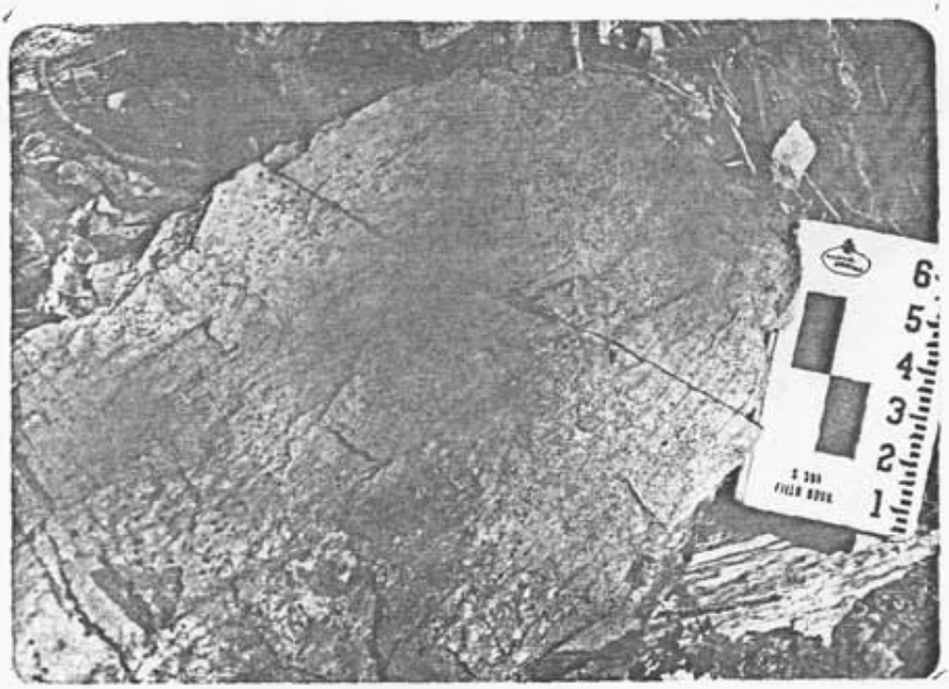


Photo 5. Vein, 1 mm. quartz with 30 cm. alteration halo.

As seen in the photo above, a small (1 mm.) vein of quartz is flanked by 15 cm. of alteration on either side. In larger veins of several meters, this halo encompasses all the host rock between veins overlapping with halos of adjacent veins and thus causing a large zone to present itself as a white aphanitic rock with brown spots. This zone may contain several rock types, argillite, greywacke or trachyte which, at the present level of study, remain as a kaolin carbonate rock and are not distinguishable one from the other. This unit has been termed felsite for field identification for lack of a better term at this time.

MINERALIZATION

The mineralization is separted into three main zones: quartz in felsite, quartz in trachyte and quartz in syenite.

The first zone, the quartz in felsite, which is as speculated above, probably quartz in altered argillite, is nearly all south of the Mariner II Claim Group and is the zone on which the 1938 workers, Legg & Co., did most of their exploration. Most of the veins tested carry .1 - .2 ppm gold. Some gold was panned by this writer from the heavily shear argillites near the strong NW - SE fault. Near this fault one small vein (10 cm.) assayed 39.5 ppm and another (10 cm.) assayed 18.1 ppm. Three more veins with accumulated widths of .90 meters average about 4.5 ppm.

The second zone, the quartz in trachyte zone is the zone most heavily trenched by the bulldozer prospectors and the zone that the drilling was concentrated on. This zone is characterized by very large flat-lying veins of quartz. These veins are in excess of 2 meters in places and are complex, splitting and often carry some carbonate and/or pyrite. They are characterized also by fine-grained felsite rock on the hanging-wall and a flow breccia trachyte with large pyrites (up to 2 cm.) on the foot wall. All veins except one in this zone assayed less than 1 ppm. One assay in wall rocks assayed 2.1 ppm over 1.5 meters, and one vein assayed 2.4 ppm Au over .35 meters.

The third zone, the quartz in syenite, or the mixed zone as it was mapped, carries complex quartz stock works in and associated with the syenite sills. An abundance of pyrite silica and some copper silicate minerals are usually present. Assays from this zone were very low.

The values of interest taken on this survey seem to favor the heavily sheared areas rather than any particular rock type. The area that is adjacent to SM 25 in which the argillites are heavily sheared and show good colors in the panning tests is an example. However, most of these heavily sheared zones are poorly exposed outcropping very low. The taking of meaningful samples and the usefulness of those collected in the sheared zones is hampered by lack of exposure and caving of trench walls in this soft rock.

A total of eight veins carry values of interest and of these six are as follows:

SM 23	10 cm.	Qtz. in felsite	18.1 ppm Au.
SM 24	10 cm.	Qtz. in argillite	39.5 ppm Au.
SM 26	25 cm.	Qtz. in argillite	4.6 ppm Au.
SM 27	50 cm.	Qtz. in argillite	3.7 ppm Au.
SM 28	15 cm.	Qtz. in andesite	5.6 ppm Au.
SM 62	40 cm.	Qtz. on wallrock and argillite	6.5 ppm Au.

These veins are all associated with or adjacent to the two major strike faults which are suspected of traversing the claims.

Two other samples of interest are SM 50 which was cut across a 35 cm. quartz vein in the trachyte flow rocks and assayed 2.4 ppm Au and SM 43 which was cut in felsite wall rock between two major flat quartz veins and assayed 2.1 ppm Au. (Parts per million ppms in the metric system is grams per tonne).

CONCLUSIONS

From these results the veins would appear to be too scattered and too erratic in values to be of interest.

RECOMMENDATIONS

It is, therefore, recommended that no further work be done on the property.

N. L. Tribe, P. Eng.
#11330

NLT:st

5938 Elm St
Vancouver B.C.
V6N 1A9

Chief Gold Commissioner
Ministry of Mines and Petroleum Resources
Parliament Buildings
Victoria B.C.
V8V 1X4

Dear Sir:

Re: MARINER Mineral Claims
Geological Report '80-#668

The above-noted report has been amended as you requested,and is submitted for your approval; the amendments are as follows:

-claim boundaries/posts have beendrawn in on figures 2, 4 north, and 4 south,

-metric bar scales have been drawn on all maps,

-pattern coding has been superimposed on maps to facilitate reproduction on microfilm,

-the author, Mr N.L.Tribe is a graduate Geologist, and a member of theAssociation of Professional Engineers of British Columbia. His P.Eng number(11330) has been added to the Report

I trust the above changes will satisfy your requirements, and thank you for your patience in this matter with an am amateur.

Yours very truly,

Murray B. Neilson

3940

MINISTRY OF ENERGY, MINES
AND PETROLEUM RESOURCES

APR 21 1981

MINERAL TITLES FILE ROOM

'81

REFERRED TO		DATE	INITIALS
C.G.C.	✓	Apr 22	R.R.
D.C.G.C.			
G.C.			
E.M.C.			
M.T.O.R.			
P.L.C.R.			
C.O.A.L.			
D.W.			
FILE			
FILE			

5438 Elm Street
Vancouver, B.C.
V6N 1A1

R. Rutherford
Chief Gold Commissioner
Parliament Buildings
Victoria, B.C.
V8V 1X4

February 16th, 1981

1772

Dear Sir:

Re: Mariner Mineral Claim
Geological Report "80-#668
your letter dated February 5th, 1981

Enclosed please find the referenced report with all maps redone in a manner we hope is acceptable.

With regard to the detailed cost statement, Mr. Ed Schultz of Schultz International Ltd., through whom I obtained the report, died suddenly in 1980 and his records have been returned to the U.S.A. Mr. Schultz and Mr. Kutney of Cosico Mines Ltd. undertook to have the report produced in exchange for $5,000.00 which they owed me. I calculated that $1,000.00 of this was absorbed in administrative costs and am therfore enclosing a Statutory Declaration as to the $4,000.00 cost of the report to me.

I trust that this will prove satisfactory.

Yours very truly

M.B. NEILSON

/tth

(1981)

REFERRED TO		DATE	INITIALS
C.G.C.	✓	Feb19	
D.C.G.C.			
G.C.	AN		
F.M.C.			
M.T.D.R.			
P.L.C.R.			
C.O.A.'s			
		Feb19	
FILE NO.			
FILING CLERK			

APPENDIX I

FILING AFFIDAVITS FOR MINERAL CLAIMS

931/776 d ... 257

107818Z Quesnel 13 September

Cariboo

Affidavit for Mineral Claim

MURRAY B. NEILSON AGENT FOR
5938 ELM ST. VANCOUVER
152278 VALID SUBSISTING F.M.C. NO.

MAKE OATH AND SAY: I COMMENCED LOCATING THE MARINER II MINERAL

ON THE 10TH DAY OF SEPTEMBER 76 AT 9:00 AM AND COMPLETED THE LOCATION
11TH SEPTEMBER 76 AT 8:00 PM CONSISTING OF
2 UNITS S AND 2 UNIT LENGTHS E AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATION
336T8 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS REQUIRED UNDER THE REGULATIONS

IDENTIFICATION POST(S) NOT PLACED WERE

[✓] THE LEGAL CORNER POST
[ ] THE WITNESS POST FOR THE LEGAL CORNER POST
IS SITUATED

TEN METRES SOUTH OF THE SPANISH LAKE ROAD, APPOXIMATE TWO KM EAST OF THE LIKELY ROAD, AND TEN METRES EAST OF TH WEST EDGE OF THE NEWLY LOGGED AREA SOUTH OF SPANISH LAKE. 1450 M BEARING 290° T FROM N.W. CORNER OF L 1208

BEARING AND DISTANCE TO TRUE POSITION OF LEGAL CORNER POST FROM THE WITNESS POST °
BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST °

AND REGULATIONS PERTAINING TO THE STAKING
THE MINING RECORDER OF THE LOCATION

obtained this information from Mining Recorder's office Vanc. BC on Nov 7/78

M.B. Neilson
SIGNATURE

10:11 ...

NO B/S TO Allen P. Himmelman ...
Nov. 16, 1976

Form of 23331-3.35-7

CENTRAL RECORDS

Record of Mineral Claim
FORM G

93A11W

RECORD NO 487

1165502 RECORDED AT Quesnel B.C. THIS 21 DAY OF September 1977

CARIBOO Cariboo

Affidavit for Mineral Claim

ROBERT E MICKLE AGENT FOR

5412 MANSON AVE POWELL RIVER BC Phone (604) 483-3610

VALID SUBSISTING F.M.C. NO. 150073 VALID SUBSISTING F.M.C. NO.

MAKE OATH AND SAY:- I COMMENCED LOCATING THE PESO MINERAL CLAIM

ON THE 25 DAY OF AUG 1977 AT 8 AM AND COMPLETED THE LOCATION

ON THE 26 DAY OF AUG 1977 AT 5.30 Pm CONSISTING OF

3 UNIT LENGTHS S AND 3 UNIT LENGTHS W AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATION

WITH TAG NO 15303 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS REQUIRED UNDER THE REGULATIONS

IDENTIFICATION POSTS NOT PLACED WERE —

CHECK APPLICABLE SQUARE

- [x] THE LEGAL CORNER POST
- [ ] THE WITNESS POST FOR THE LEGAL CORNER POST

IS SITUATED APP. 800 METERS NORTH OF THE NORTH END OF SPANISH LAKE + 25 METERS NORTH OF LOT 1208 + APP 7 MILES EASTERLY FROM LIKELY LINES BLAZED + RIBBONED TOPO MAP SPANISH LAKE 93A/11 ALSO APP 200 M NORTH OF CONFLUENCE OF SPANISH RIVER + LAKE

BEARING AND DISTANCE TO TRUE POSITION OF LEGAL CORNER POST FROM THE WITNESS POST ____°____.

BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST ____°____.

I HAVE COMPLIED WITH ALL THE TERMS OF THE MINERAL ACT AND REGULATIONS PERTAINING TO THE STAKING OF MINERAL CLAIMS AND HAVE ATTACHED A PLAN, ACCEPTABLE TO THE MINING RECORDER, OF THE LOCATION.

SWORN AND SUBSCRIBED TO AT NEW WEST.R

21 DAY OF SEPTEBER 1977 BEFORE ME

R.E. Mickle
SIGNATURE

THIS AFFIDAVIT MAY BE TAKEN BY A PERSON EMPOWERED TO TAKE AFFIDAVITS BY THE EVIDENCE ACT OF BRITISH COLUMBIA.

SUB-MINING RECORDER
RECEIVED
M.R. # 116550 $ 400 CC
VANCOUVER, B.C.
MR OR SMR STAMP

NO. OF UNITS 9

REC. ITEMS		MINING RECEIPT AND DATE RECORDED	TYPE OF WORK	YEAR OF EXPIRY	CREDIT WORK UNITS	RENTAL	TRANSFERS, BILLS OF SALE, ASSIGNMENTS, CONVEYANCES
-6033		172156 July 26.78	P	1980			

93A/11W

Record of Mineral Claim

RECORDING NO. 924

1239292 RECORDED AT Quesnel ON THIS 12th DAY OF December 1978

DO NOT WRITE IN THIS SPACE

Gold Commissioner

Cariboo

Affidavit of Mineral Claim

I, CLIVE W. BALL AGENT FOR

3191 West 36th Avenue
Vancouver B.C. V6N 2R6

VALID SUBSISTING F.M.C. NO. 168634

VALID SUBSISTING F.M.C. NO.

MAKE OATH AND SAY: I COMMENCED LOCATING THE RON MINERAL CLAIM

ON THE 17th DAY OF November 1978 AT 8.15 am AND COMPLETED THE LOCATION

ON THE 18th DAY OF November 1978 AT 1.00 PM CONSISTING OF

2 UNIT LENGTHS N AND 6 UNIT LENGTHS W AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATION

METAL TAGS NO. 16215 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS REQUIRED UNDER THE REGULATIONS

IDENTIFICATION POSTS NOT PLACED WERE 1N OW 2N1W 2N2W and Corner Post 2NOW

APPLICABLE SQUARE

[x] THE LEGAL CORNER POST

[ ] THE WITNESS POST FOR THE LEGAL CORNER POST

IS SITUATED 300 metres a bearing of 300 degrees from the West end of Spanish Lake or more especially 20 metres on a bearing 220 degrees from the British Columbia Forest Service Cabin which is located 35 metres upstream from the wing dam on the Spanish River

BEARING AND DISTANCE TO TRUE POSITION OF LEGAL CORNER POST FROM THE WITNESS POST

BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST

I HAVE COMPLIED WITH ALL THE TERMS OF THE MINERAL ACT AND REGULATIONS PERTAINING TO THE STAKING OF MINERAL CLAIMS AND HAVE ATTACHED A PLAN, ACCEPTABLE TO THE MINING RECORDER, OF THE LOCATION

SWORN AND SUBSCRIBED TO AT

DAY OF 19 BEFORE ME

[signature] SIGNATURE

THIS AFFIDAVIT MAY BE TAKEN BY A PERSON EMPOWERED TO TAKE AFFIDAVITS BY THE EVIDENCE ACT OF BRITISH COLUMBIA

SUB-RECORDER
DEC 13 1978
1239295 60.00
MR OR SMR STAMP

UNITS 12

NUMBERS	C/L IN $	MINING RECEIPT AND DATE RECORDED	TYPE OF WORK	YEAR OF EXPIRY	CREDIT WORK UNITS	CREDIT RENTAL IN $	TRANSFERS (B.S.'S, ASSIGNMENTS, CONVEYANCES)

OWNER

APPENDIX II

LETTER TO N.A. TIMMINS CORPORATION,

JULY 12, 1938. R.E. LEGG

July 12th, 1938.

The N. A. Timmins Corporation,
1010 - Canada Cement Building,
Montreal, Que.

Dear Sirs:-

Re: Mariner Group - Cariboo District.

I am submitting herewith a report on my examination of the Mariner group of mineral claims, situated on Spanish Mountain in the Cariboo District and which we have under option.

In company with L. H. Hinton I arrived on this property on June 21st. We proceeded to make a transit survey of all the vein exposures on the claims and by June 25th we had a map completed. We then arranged for a crew of eight men, under direction of Frank Breeze, to start work at once in opening up by stripping and surface rock work what we thought were the most promising places. The necessary tools and supplies were sent in for this purpose. Hinton and I then left to make our examination of Rafferty's property on Blackhorn Mountain. On July 4th we returned to the Mariner property to inspect the work done and take any samples. I then left Hinton in charge of this work and returned to Vancouver. The crew go to work in a truck which lands them within a mile from where we are working. This arrangement has saved the expense of erecting camp buildings until such time as we feel that a camp is warranted, and furthermore, later on we may be in a better position to know the best location for such buildings.

Our survey confirmed Dr. Dolmage's map with regard to the number and location of veins. We did not attempt to check his sampling results because, as we have already told you, the property is not to be judged by the surface values. We have to find out if commercial values exist below the oxidized and leached out zone, and our open cut work is being directed to this end.

I am enclosing herewith a sketch plan showing the approximate location of the claims. This will give you an idea of the excellent working facilities available. About three quarters of a mile of road work will bring one right to the main showings. The veins can be worked to depths of from 600 to 1000 feet by surface tunnels, and as the hillside is fairly steep, these tunnels would not be long in relation to the depth obtained. The sketch plan is an enlargement of an aerial survey map. Hinton is now surveying the claims and is also making an accurate topographical map covering the immediate showings we are working on. This map will tell us the best place to drive a preliminary tunnel should our surface work prove encouraging.

On June 25th our crew started work on the surface cuts. We chose as likely places the veins at Stations 55, 65 and 126 which are shown on Dr. Dolmage's map, a copy of which you have. By July 4th we had not got below the oxidized zone with our open cuts, but nevertheless we are giving you a brief description of the work done.

At Station 55 the surface showing, before we did any work, was rather peculiar. We were not sure what had happened, but our open cut clarified the picture. A section through this open cut is attached hereto. This work did not get below the oxidized zone, but we thought we would take a few test samples:

Number	Width	Oz. Au/ton	Remarks
1.	21"	.68	Rusty quartz showing many vugs. Was formerly well mineralized. No visible gold.
2.		5.60	Sample of heavily oxidized material which was probably originally solid sulphides. This sample taken from numerous places along flat lying vein. Panning test did not show gold, but it was probably too fine to see.
3.	8"	.28	Narrow quartz vein dipping steeply. Sample very very slightly mineralized. Trace of galena noticed.
4.	7"	.32	Narrow quartz vein dipping steeply. Sample was barren quartz except that one piece showed a little fine pyrite.

The work on this cut showed that the flat lying vein was at one time very well mineralized, and much more so than we had anticipated from the look of the surface showing. We consider this an encouraging feature and expect that it will apply elsewhere. We do not plan any further work at this cut.

At Station 65 (see Dolmage plan) we started an open cut on the large "A" vein. At July 4th the cut was still in the oxidized zone, but the quartz was rusty and the mineralization

all leached out. At one time this vein was fairly well mineralized. The width is at least 6 feet at this point. Work is to be contined until the fresh ore is exposed.

Another cut is to be started at Station 67.

At Station 126 a large trench was made to try and open up what Dolmage refers to as a large shear zone. At a depth of 17 feet we had not found solid rock, and from the information obtained in this work, we believe the very large amount of broken up quartz has slipped down the hillside from somewhere else.

Rock exposures on the Mariner group are very infrequent. There would not be over 1% of the surface exposed. In the immediate vicinity of the known veins the depth of overburden is not great, but on going down the hillside, the overburden increases. It is only reasonable to suppose that many other quartz veins exist on this property. The owners had put down 55 pits and 43 had found quartz veins. Of the remaining twelve, several had not reached bed rock. You can thus see why I feel there must exist many other veins. This condition is characteristic of the Cariboo district. In the Cariboo Gold Quartz property, there are over 300 known veins, and yet only a small part of their acreage is explored. On adjoining claims we saw a number of veins, and if our open cut work proves successful, then we can negotiate for these claims so as to have more ground under control.

I am encouraged by the limited amount of work done to date. A report from Hinton is expected in a day or so covering the second week's work.

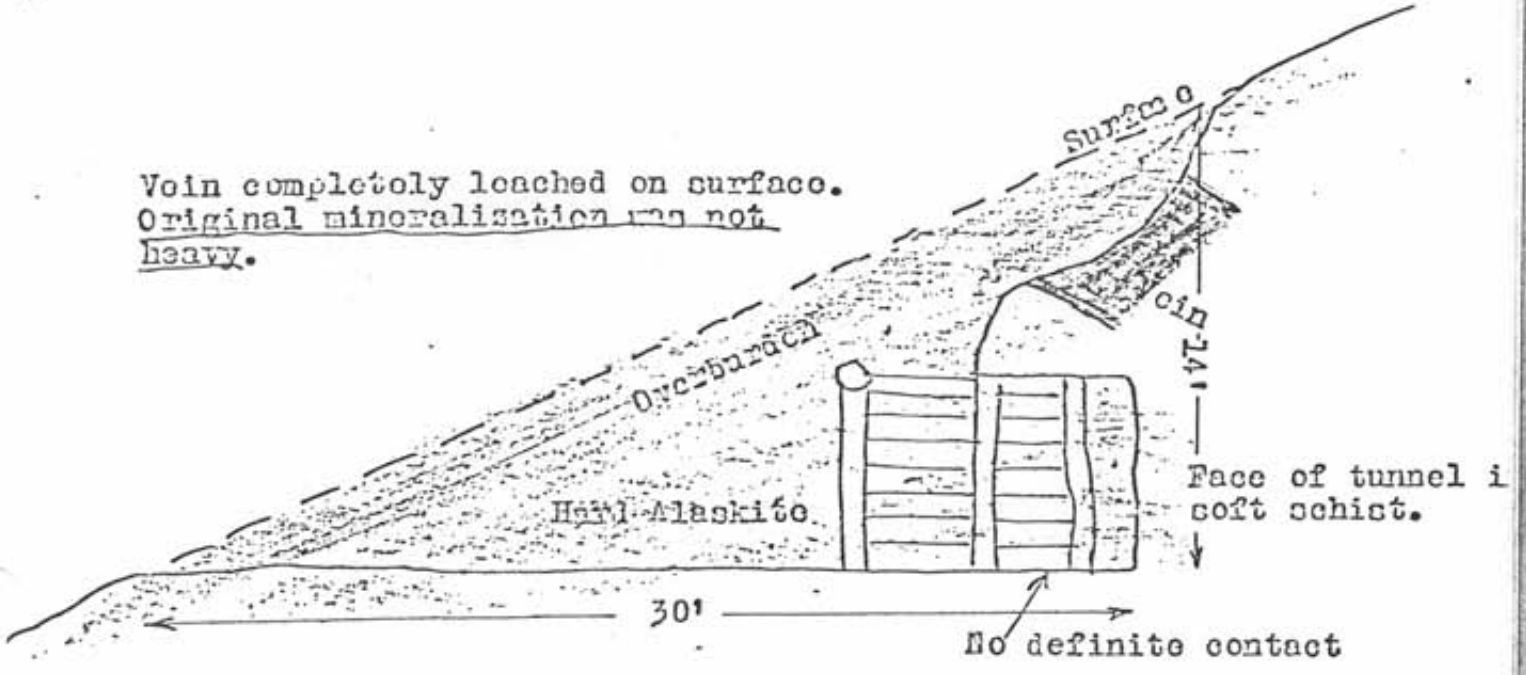
I have not had a formal agreement drawn up covering our option. I told Mr. Fraser I would like to wait two or three weeks before deciding on this expense, and in the meantime we are fully protected by his letter of June 17th, a copy of which I sent you. As called for in our agreement, I have already given Mr. Fraser a month's notice in advance that we would be making the cash payment of $1000.00 on August 1st, 1938.

Yours very truly,

R. E. Legg.

REL:F.
Encl.

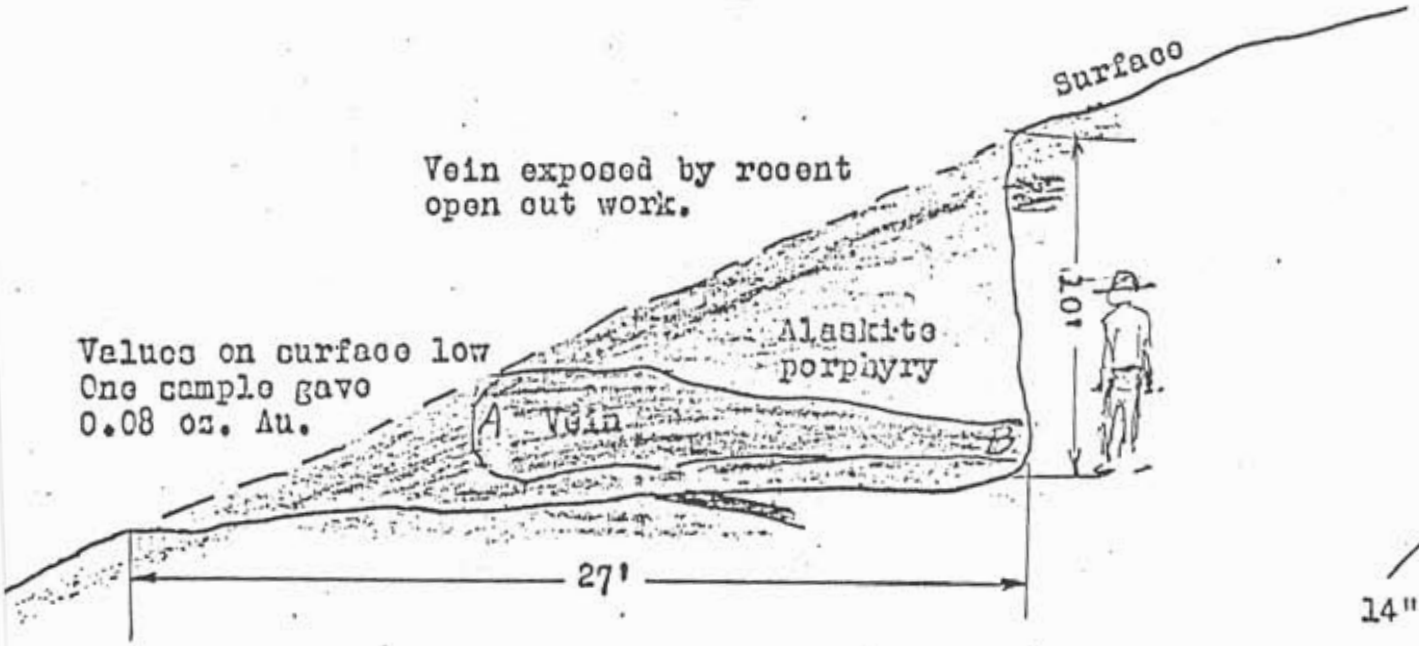
MARINER GROUP, SPANISH MOUNTAIN NEAR LILLEY, B.C.



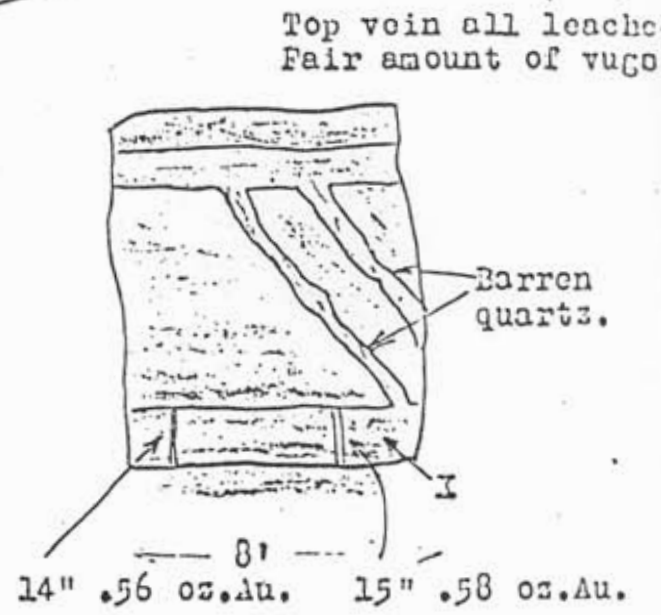
Longitudinal Section Through Open Cut on Vein at Station 67 (SEE MAP BY DR. DOLMAGE DATED JUNE 7. 1938).

At August 8th, 1938 the face of the tunnel was not advanced far enough to cut any downward continuation of the vein. Open cut work was stopped and tunnelling commenced because the sides of the open cut kept sluffing in. The cut is 14' wide in places

MARINER GROUP, SPANISH MOUNTAIN NEAR LIKELY, B.C.



Longitudinal Section Through Open Cut on Vein near Station 71 (see Map by Dr. Dolmage dated June 7, 1938.

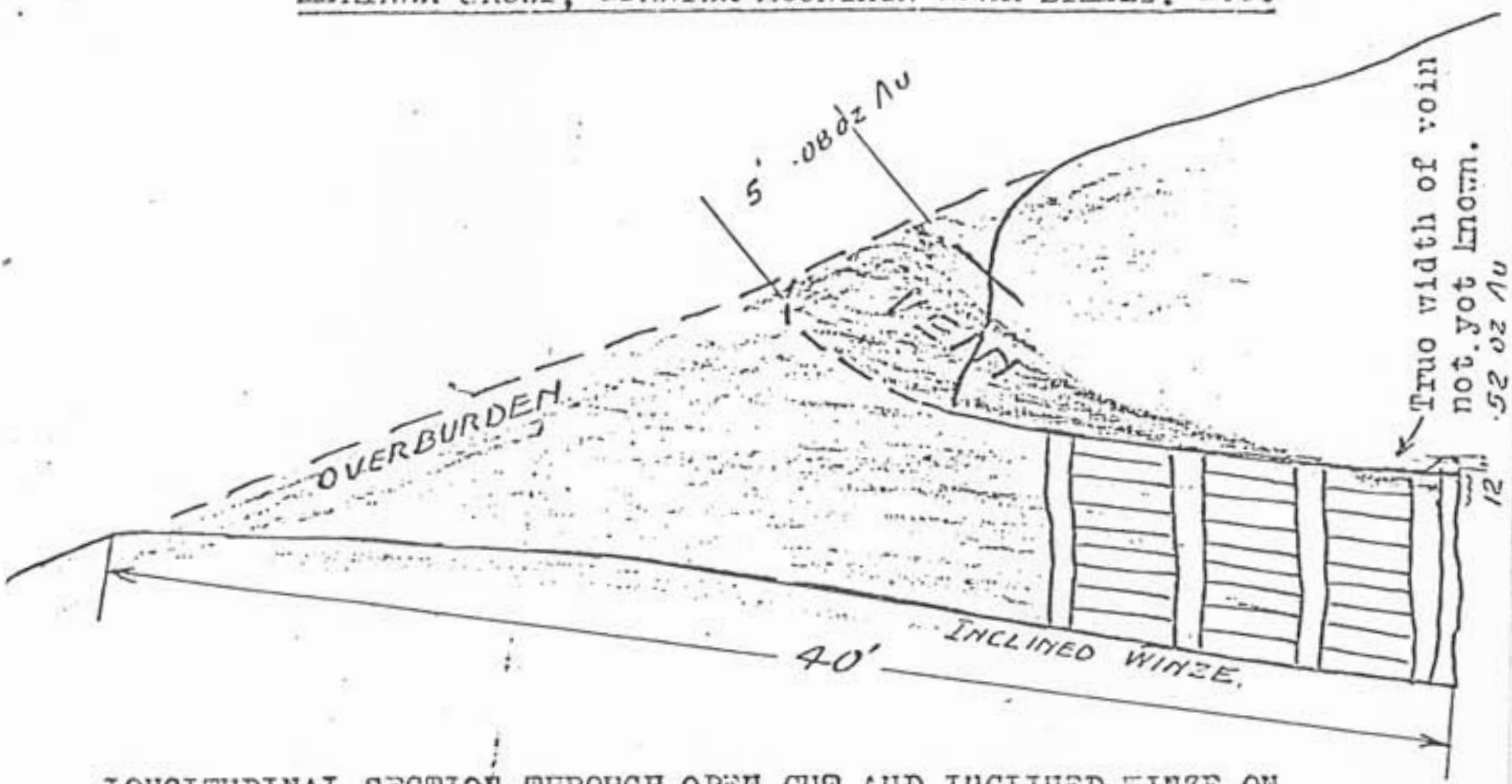


Front View Face of Open Cut.

Vein (A-B) is completely leached all along open cut. It shows very little evidence of mineralization along the side of the open cut, but where it begins to narrow towards the face of the cut, the mineralization was stronger. The quartz is all rusty and stained. Several pieces of quartz showing visible gold were found. The gold always occurs in a more or less loose condition in the vugs. A panfull of quartz and oxidized material was taken from the point marked X (see above) and on panning this gave a big string of colors.

No work has been done on the top flat-lying vein shown in the above sketch. Its presence was not known until this open cut work was done. Overburden lies immediately above this vein.

MARINER GROUP, SPANISH MOUNTAIN NEAR LIELY, B.C.



LONGITUDINAL SECTION THROUGH OPEN CUT AND INCLINED WINZE ON VEIN AT STATION 65 (SEE MAP BY DR.DOLMAGE DATED JUNE 11.1938).

At the surface the vein had an apparent dip of around 45 degrees. As the open cut was put in it flattened gradually to 30 degrees, and in the last 12' of winze it shows a dip of 12 degrees.

On the surface the vein has a width of 6'. At the face of the inclined winze there is 12" of quartz showing and a sample across this width assayed .52 oz. gold. The true width of the vein at this point is not known for sure, but at August 8th a small pop shot in the roof had shown schist to lie above the quartz. The vein may narrow down or else have split up.

The mineralization at the bottom of the winze has all been leached out. Judging from the amount of vugs left in the quartz the mineralizati was not heavy. The quartz is rusty and stained. A panning test on a sample from the face showed a number of fine colors.

At the surface both the footwall and hangingwall consists of the intrusive Alaskite porphyry, but at the bottom of the winze the footwall is a soft schist. The Alaskite appears to merge gradually into a schist and there is no well defined contact.

Legend.

Quartz.
Alaskite porphyry.
Schist

APPENDIX III

PRELIMINARY GEOLOGICAL REPORT, SPANISH LAKE AREA, CARIBOO MINING DIVISION, B.C. CLIVE W. BALL.

PRELIMINARY GEOLOGICAL REPORT

SPANISH LAKE AREA

CARIBOO MINING DIVISION, B.C.

Vancouver, B.C.
March 14, 1979.

Clive W. Ball, P. Eng.
Consulting Geologist

REGIONAL GEOLOGY

Early geological reports deal principally with the Barkerville and Quesnel River Districts as for example Geol. Survey Summary Reports by B.R. McKay 1918 and G.S.C. Memoirs 149 and 181 by W.L. Uglow and G. Hanson respectively.

Later reports around 1922 and 1932 deal almost exclusively with descriptions of gold placer properties. Published Bulletins by the B.C. Department of Mines have been closely studied but do not throw any light on the geology of the area under considerations.

The most valuable reference is the Quesnel Lake map sheet with geology by R.B. Campbell, 1959 - 1963 and 1979. This map was published in 1978 and the writer has consulted with Dr. Campbell regarding the salient features of the geology.

It is important to bear in mind that field traverses were widely spaced - access was difficult at times and time spent on the map sheet was not of sufficient duration as to provide great detail. The map is on a scale of 1:125,000 or approximately 2 miles to 1 inch.

The writer has selected an area 30 miles by 30 miles square in order to delineate the regional geology as mapped by R.B. Campbell (See Figure 1).

Predominant rock units are of Triassic age with some sediments and intrusions of upper Triassic and Turassic age.

Argillites, greenstones, sandstones, conglomerates, phyllites and cherts are very common in addition to some relatively unaltered volcanic flows and sediments and breccias of andesitic and basaltic composition.

Possibly the most interesting units are the intrusive rocks which include syenite, monzonite and diorite.

Small nepheline syenite intrusives are mineralized with copper and have been mapped on Viewland Mountain, Shiko Lake, south of Kwun Lake, Cariboo Bell (Mount Polley) and Gibbons Creek. It is noted that a belt of such intrusions trend north-west to south-east following the grain of the sedimentary and volcanic rocks. It would appear that the intrusives follow a major N.W. trending series of strong faults.

Prevailing dips of the sediments are to the north-east at moderate angles with some reversals indicating some degree of folding along north-west axes.

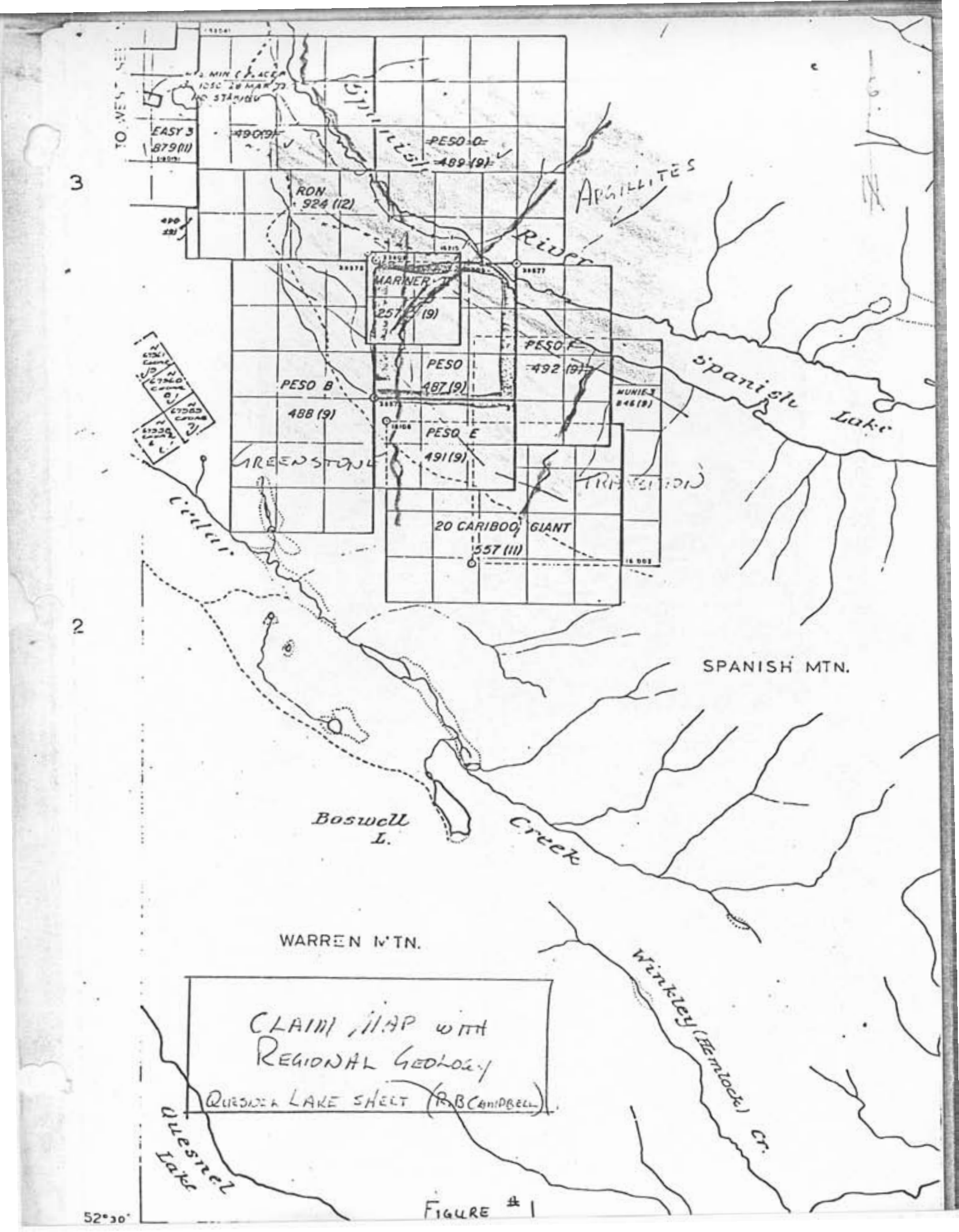
Dr. Campbell has mapped a series of north-south, north-east and east-west faults in the Likely area and these offset the rock formations quite pronouncedly.

The Mariner II claims and the western portion of the Ron claim groups are traversed by a transition zone intermediate between the black slaty argillite around Spanish Lake and the fine grained greenstones on Spanish Mountain. Mr. R.E. Legg has suggested that intrusive igneous rock probably alaskite occurs on the Mariner II claims.

Respectfully submitted,

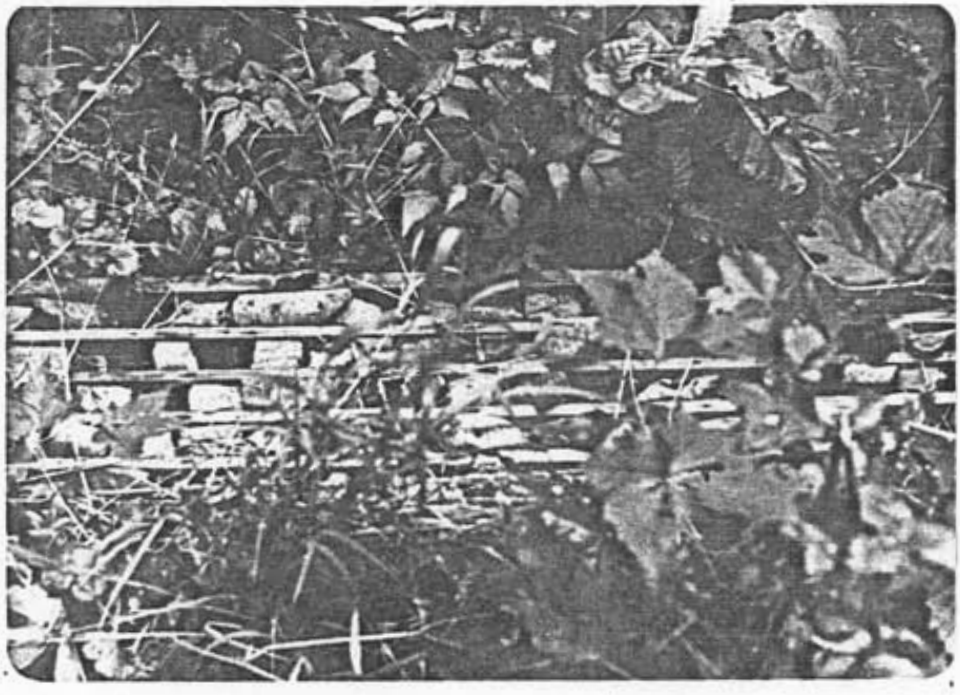
Vancouver, B.C.
March 14, 1979

Clive W. Ball, P. Eng.
Consulting Geologist.



CLAIM MAP WITH
REGIONAL GEOLOGY
QUESNEL LAKE SHEET (R.B. CAMPBELL)

FIGURE #1



Core left in bush near Mariner II claims

NO ROCK OUTCROPS BETWEEN STATIONS 1 AND 8.
PANNING TESTS ON SURFACE MATERIAL SHOWED GOLD
SHALLOW PITS EXPOSED GOLD-BEARING QUARTZ VEINS
OVERBURDEN RELATIVELY SHALLOW (2 TO 6 FEET) BETWEEN 1 AND 8.

1 C
PANS GOLD
2
OVERBURDEN
3 NO OUTCROPS 4
4 SMALL PITS
C ALL PAN GOLD
5 C NO QUARTZ SHOWING
PIT-NO VEIN
PIT
6
PIT-MUCH QUARTZ
NO SOLID ROCK
7
PIT-SHOWS VISIBLE GOLD
ALL SLATE PANS HEAVY COLOURS
PIT
VISIBLE GOLD IN QUARTZ VEIN
$ 12.00 IN GOLD (AT $35.00 PER OZ.) PANNED FROM FINES FROM THIS PIT
9
8
PIT-NO BEDROCK
PIT-PANS WELL
6" VEIN VISIBLE GOLD
9
PIT-VISIBLE GOLD
10
VISIBLE GOLD
11
12
OVERBURDEN
13
34
35
14
SURVEY TIE-IN
14
ALDER BRUSH
33
15
PIT-BROKEN QUARTZ PANS WELL
WELL MINERALIZED AT BOTTOM OF PIT
NO OTHER WORK DONE NEAR THIS SHOWING
31
32
FLAT LYING VEIN
MINERALIZED PYRITE
29
30
16
17
WEST BOUNDARY
27
TRAIL
26
CLAIM POSTS AT END OF TRAIL
25
24
MANY SPECIMENS ON DUMP SHOW FREE GOLD
18
2 S Post
Mariner II
ALL OVERBURDEN BETWEEN STATIONS 22 AND 27
SOUTH BOUNDARY
SMALL DUMP PANS WELL
23
TRAIL
22
19
CABIN
PIT-50 PIECES SHOW VISIBLE GOLD
20
21
N

SURVEY OF MARINER II CLAIMS

BY

R.E. LEGG M.E.

IN 1938, WHEN SURVEY MADE, CLAIMS COVERED IN DENSE FOREST.

MINERAL DEPOSITS BRANCH
ASSESSMENT REPORT
8636
RO

C COLOURS
QUARTZ
ALASKITE PORPHYRY
SCHIST

SCALE 1 INCH = 100 FEET

0 100 200 300 m

FREE GOLD SEEN
HIGH GRADE SPECIMENS
SEVERAL NARROW VEINS FREE GOLD SHOWING
QUARTZ MUCH NO WORK DONE
VEIN SHOWS VISIBLE GOLD

FIGURE #2

RON GROUP

SPANISH RIVER

SM 63 30 cm channel .08 ppm Au

SM 64 chip sample in stockwork .02 ppm Au

SM65 20 cm channel 2 veins .02 ppm Au

MARINER II GROUP

SPANISH LAKE

ROAD 1300

SM 6 30 cm channel 1 mm Qtz. .02 ppm Au

SM 7 grab sample .10 ppm Au

SM 8 grab sample .02 ppm Au

PESO GROUP

PESO B GROUP

PESO E GROUP

N

LEGEND

- Argillite
- Andesite
- Syenite
- Felsite
- Trachite
- Quartz
- Fault
- Contact
- Road

0 200 400 600 800 1000 m

N. TRIBE & ASSOCIATES LTD.
for
SCHOLZ INTERNATIONL MINING INC.

MARINER II & PESO & RON CLAIMS
GEOLOGY & CLAIM MAP

MAPPED BY NLT	DATE SEP 1979
DRAWN BY NLT	File No. 3
SCALE 1:10,000	

NORTH BOUNDARY

LEGAL CORNER POST
MARINER II

WEST
BOUNDARY

SPANISH LAKE ROAD

SM 68 7cm channel
.07 ppm Au

SM 67 several irregular veinlets 15cm channel
.03 ppm Au

SM 62 20cm flat vein + 20cm H.W. slates channel
.65 ppm Au

SM 52 1.5m channel .04 ppm Au
SM 53 1.5m channel .05 ppm Au
SM 54 1.5 m channel .03 ppm Au

SM 58 Syenite plus Qtz vein chip .06 ppm Au

SM 56 20cm Qtz plus wallrock channel .02 ppm Au

SM 57 15cm channel
.03 ppm Au

SM 59 30cm Qtz channel .02 ppm Au

SM61 2m ⊥ to the fault channel
.10 ppm Au

SM 60 chip sample of various veins
.02 ppm Au

SM 58 grabsample Cu Syenite & veins .02 ppm Au

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8636

LEGEND
- Argillite
- Andesite
- Greywacke
- Syenite
- Felsite
- Trachyte
- Quartz
- Trench
- Outcrop
- Contact
- Fault

0 m — 500 m

N. TRIBE & ASSOCIATES LTD.
for
SCHOLZ INTERNATIONAL MINING INC.
MARINER II CLAIM GROUP
GEOLOGY MAP

MAPPED BY NLT	DATE SEP 1974
DRAWN BY NLT	Fig No. 4 Nov 74
SCALE 1:1000	

FP Blixt P1, P2
FP Blixt 21, 22

SM 36 50 cm channel flatvein .03 ppm Au

SM 47 2.0m channel .24 ppm Au
SM 48 30 cm channel .07 ppm Au
SM50 35 cm channel 2.4 ppm Au
SM 51 100 cm channel in massive carbonate & quartz .14 ppm Au
SM 44 vein 1.3 m channel .93 ppm Au
SM 43 intervein country rock 1.5m channel 2.1 ppm Au

SM 40 top third of flat vein 1.5 m channel .37 ppm Au
SM 41 center third 1.5 m channel .14 ppm Au
SM 42 bottom third 1.5 m channel .03 ppm Au
SM 39 20 cm channel .27 ppm Au

SM 38 flat vein 55 cm channel .03 ppm Au

SM 37 140 cm channel .14 ppm Au

dd drill holes

SM46 vein partially exposed > 50cm .03 ppm Au

SM 31 10.0m channel No Assay
SM 32 2.0m channel .53 ppm Au
SM 33 60 cm channel .63 ppm Au
ANDESITE
SYENITE
ANDESITE
50 m
TRENCH WALL LOOKING NORTH

WEST CLAIM BOUNDARY MARINER II

SM 25 25cm channel .12 ppm Au

SM 34 25 cm channel .10 ppm Au

SM 35 35cm channel .03 ppm Au
gold in pannings

SM 24 10cm channel 39.5 ppm Au

SM 27 50cm channel 3.7 ppm Au

SM26 15 cm channel 5.4 ppm Au

SM 26 25cm channel 4.6 ppm Au
dd drill hole

Claim Post
JUAN A
3S 0E

30m
ARGILLITE
FELSITE
SM 21 62 cm channel .04 ppm Au
SM 20 35 cm channel .05 ppm Au
SM 19 8 cm channel .12 ppm Au
SM 18 15 cm channel .05 ppm Au
SM 17 32 cm channel .03 ppm Au
TRENCH WALL LOOKING SOUTH

SM 23 10 cm channel .81 ppm Au
preferred strike

SM 22 45 cm channel .26 ppm Au

SM 29 15 cm channel .37 ppm Au

SM 30 grab sample .20 ppm Au

Adit
dd drill hole
Pit

SM 12 6.0m chip Quartz .02 ppm Au

SM 11 15 cm channel .02 ppm Au

SM 9 1.6m channel .39 ppm Au

SM 10 5 cm channel .01 ppm Au
caved

2 S Post
MARINER II

SOUTH CLAIM BOUNDARY MARINER II

SM13 50cm channel .39 ppm Au
SM14 15 cm channel .03 ppm Au
SM 15 grab .51 ppm Au
SM16 2.5 m channel .10 ppm Au
SYENITE
FELSITE
20m
TRENCH WALL LOOKING SOUTH

SM 3 grab sample .13 ppm Au
all these pits backfilled
log cabin

SM 4 60cm chip sample .13 ppm Au

SM 1 60 cm channel .01 ppm Au
SM 2 95 cm channel .04 ppm Au
FELSITE
2 m
TRENCH FACE LOOKING SOUTH

SM 5 1.9m channel .15 ppm Au

0m 100 200 300 m

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 8636

LEGEND
- Argillite
- Andesite
- Greywacke
- Syenite
- Felsite
- Trachyte
- Quartz
- Trench
- Outcrop
- Contact
- Fault
- Creek

N. TRIBE & ASSOCIATES LTD.
for
SCHOLZ INTERNATIONAL MINING INC.
MARINER II CLAIM GROUP
GEOLOGY MAP

MAPPED BY NLT	DATE Sept 1979
DRAWN BY NLT	Fig # 4 Sketch
SCALE 1:1000	