

LOG NO: <i>May 21/91</i> RD.
ACTION:
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1990 Geological Report
on the
JOJO Property (Gem 1 & 2 Groups) in the
Cariboo Mining District

A Geological/Geochemical Study of Precious Metals in the
Pyritic Graphitic Black Phyllites
of the Quesnel Terrane

*93G 1E
53° 01'
122° 02'*

Researched, written and edited by:

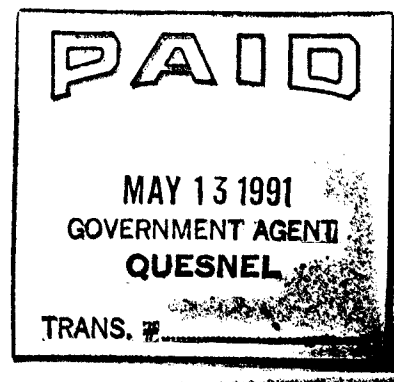
Stephen P. Kocsis
Mining and Geological Consultant
Quesnel, B.C.
May 4, 1991

For:

Donald C. Carter
Carverson Mining Company
Calgary, Alberta

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

21,296



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ACCESS AND PROPERTY

Access to the property can be attained by travelling east for 40 km from Quesnel along Highway 26. Here a gravel road can be followed down into the Lightning Creek valley in a southerly direction for approximately 2.5 km to reach the excavation site on the property (Fig.4)

The property consists of the following claims that are focused on the confluence of the Swift River, Cottonwood River and Lightning Creek (Fig.2).

<u>GEM 1</u>	<u>Record Number</u>	<u>No. of Units</u>	<u>Expire Date</u>
JOJO 101	7679	20	May 23
JOJO 102	7680	9	May 23
JOJO 103	7721	12	June 24
<u>GEM 2</u>			
JOJO 104	7722	15	June 24
JOJO 105	7723	16	June 24
JOJO 106	7727	20	June 26
JOJO 107	7728	<u>20</u>	June 26
	Total	112	

INTRODUCTION

This report covers part of the 1990 exploration program performed on the JOJO property located three kilometers southeast of Cottonwood, part of the Cariboo Mining District, British Columbia. The property consists of 112 mineral claim units centred on a prominent placer gold producer stream, Lightning Creek.

The primary target is a black pyritic phyllite that appears to be a "bed-form" structure situated within a formation of dark grey slate. The rocks belong to the Quesnel Terrane which encompasses an assemblage of lower and middle Cenozoic Island arc-related rocks. The black phyllite was excavated, sampled and subjected to a variety of geochemical analyses to establish the values of sulphide-gold and free gold concentrations. The bedrock geology was mapped within the vicinity of the excavation (Pit 1) for 2 km along Lightning Creek.

Gold concentrations have been found in black pyritic phyllites at other localities near Cottonwood. Analyses of black phyllites from Pit 1 should also reflect the gold potential for other occurrences of this rock type on the property. One other occurrence is known at this time in a location 350 m east of Pit 1.

Physical Setting and Regional Bedrock Geology

The JOJO Mineral Property lies within the Cariboo Mining District. The Cariboo Mining District is centred around three historic mining communities of Wells, Barkerville and Stanley. The principal placer gold producing valleys in the district have been Lightning and Williams Creeks (Figs. 1).

The property lies on part of an undulating plateau with elevation reaching 1020 m a.s.l. where narrow, often deeply-cut canyon-like valleys such as Lightning Creek, contain many tens of meters of Quaternary sediments (overburden). Bedrock outcrop is obscured in much of the area. Elevations above 1700 m a.s.l. in other areas and along some section of Lightning Creek are drift-free as a result of late glacial mass wasting. Mass wasting processes along Lightning Creek appear to have been most intense on the south facing valley side and here a "sketchy" map of the bedrock on the property can be made. Quaternary sequences are preferentially preserved along the valley floor and on north facing bedrock benches such as the thick sequence of glacial lodgement till south of Pit 1 (Fig. 4).

The Cariboo district lies in an area of complex bedrock geology consisting of allochthonous terranes separated by moderately to steeply east dipping thrust faults that trend northwest/southeast. Four terranes have been recognized in the district, each with an overlapping relationship as a result of dextral accretion of crustal blocks along the western margin of North America (Price et al., 1981; Jones et al., 1983). From west to east, Struik (1985, 1986) identified Quesnel, Slide Mountain, Barkerville and Cariboo Terranes (Q, SM, B and C in figure 1) separated by the Eureka, Pundata and Pleasant Valley thrust faults. All rocks in the four terranes were deposited in an ocean. The property lies entirely within the Quesnel Terrane (Fig. 1) which is composed of middle and upper Cenozoic rocks.

The area of interest, the Quesnel Terrane, consists of rocks that were emplaced in a Triassic Island arc environment which is marked by the abundance of volcanic flow and fine grained volcanoclastics (dark grey slates) rocks. The targets on the property are pyritic black phyllites, beds found within the slate unit.

The Eureka Thrust, located east of the property, forms the boundary between the Barkerville and Quesnel Terranes. In places it is marked by sheared ultramafic rocks and serpentinite, a lowermost unit of the Quesnel Terrane. In other places the two terranes appear to have a stratigraphic relationship showing a continuity from the sedimentary predominant rocks of the Barkerville Terrane to the predominating volcanic rocks of the Quesnel Terrane.

Economic Geology in the Quesnel Terrane

Placer gold is found in economic concentration within Pleistocene sediments overlying black phyllites of the Quesnel Terrane at Alice Creek, Mary Creek, Lightning Creek and Fontain Creek (fig.1). Although the precise relationship between the black phyllites and placer gold has not been established, there has been some analytical work done by local miners. Lode gold has been identified in pyritic sections of the black phyllite near the confluence of Mary and Norton Creeks (Toop, T., pers. comm., 1989) and near Alice Creek (Schmidt, R., pers. comm., 1989).

At Fontain Creek, about 2 km upstream from its mouth, economic values of placer gold were confined to Pleistocene sediments directly above and adjacent the black phyllite bedrock of the Quesnel Terrane (Romano, D., pers. comm., 1989).

There is a good relationship between the black phyllites and placer gold along Lightning Creek within the Quesnel Terrane and the west-most part of the Barkerville Terrane (ie. Wingdam, Slade Pit at the mouth of Mostique Creek and isolated areas on the JOJO Property).

Concentrations of copper, gold and lead have been identified in black phyllites and volcanoclastic rock of the Quesnel Terrane near the Quesnel River southeast and Eureka Mountain. Recent development on the Dome "QR" property near the Quesnel River southeast shows open-pit potential on a large volume low grade copper/gold deposit. The "QR" deposit consists of a mineralized zone of intense propylitization adjacent an alkalic stock.

Further southeast the Cariboo-Bell alkalic porphyry copper deposit measures 116 million tonnes with grades of 0.41 per cent copper and 0.025 grams per tonne gold. Other alkalic stocks (commonly monzonite-syenite) at Morehead Creek, Morehead Lake and the Bullion Pit have propylitic alteration haloes that contain potential economic copper/gold values (Bailey, D.G., 1988).

Gabriel Resource have found anomalous gold values in diamond drill cores in the Quesnel Terrane northwest of the JOJO Property.

The Black Phyllite in Pit 1 and the Local Bedrock Geology

The bedrock was mapped on the northeastern portion of the property in order to establish a relationship between pyritic black phyllites excavated in Pit 1 and black phyllites in surrounding rocks.

Pit 1 exposes a 12 m wide section of pyritic black phyllite. About 22 m of this rock is excavated along strike that trends in a northwesterly direction or approximately 340°.

The phyllite is black, very graphitic (containing up to 5.25% total carbon and 7.70% graphite carbon) and contains a substantial amount of very fine grained pyrite. Total sulphur measurements are as high as 2.27% (see geochemical analyses).

The black phyllite appear to be in sheet-like structures or large pod-like structures occurring within formations of dark grey slate and is usually found near the contact of the Quesnel and Barkerville Terranes. The particular formation of dark grey slate, in which the black phyllite of Pit 1 occupies, measures 450 m wide (Fig. 4). Another bed of black argillite, occupying the slate formation, is seen 350 m east of Pit 1 but its parameters are unknown at this time.

The slates mapped near Pit 1 are microgranular, probably volcanoclastic and volcanic flow rocks. The pyritic black phyllite appear to be sediments deposited from a marine suspension in a basinal brine generated by substrate volcanic/hydrothermal venting. This model suggests a primary mineralizing mechanism that occurred at the time of deposition sometime during the Triassic (see Discussion). Others suggest that the black argillite are rocks that have been mineralized by fault related hydrothermal processes during the Cretaceous. Further petrological and chemical analyses could delineate the exact nature of this target.

The dark grey slates are bounded by felsic volcanic flows to the east and mafic intrusiveness to the west. The felsic volcanics are aphanitic and occur in alternating beds commonly 2 m thick or greater. A coarse-grained felsic intrusive is mapped on the north side of Lightning Creek. The mafic rocks to the west are gabbroic in composition containing coarse-grained dark minerals and up to 20% hornblende phenocrysts.

Another formation of dark grey slate, grading to a phyllite, is mapped to the east that partly entails Slade Pit (a placer gold hydraulic pit at the mouth of Mostique Creek). Parts of the formation contain graphitic sections that are apparently not fault related, hence black phyllites in the area were probably enriched with minerals during the period of deposition. Beds of laminar felsic flows were mapped in Slade Pit but were a minor component.

Sampling and Geochemical Analyses

Five 50 lb samples were collected from Pit 1 (Fig. 5 & 6). The samples consist of chips taken along vertical lengths across the west and east faces of the pit. The samples were chipped from vertical lines that cross the strike of rocks at right angles to maximize a representation of the rocks.

Samples 11-89 LIGHTNING P1-1 to 11-89 LIGHTNING P1-4 consists of black phyllite. Sample 11-89 LIGHTNING P1-5 represents the slate, seen in figure 5, an orange colored bed of slightly chloritized rock that cuts into the black phyllite.

From each sample 250 g was sent to Quanta Trace Laboratory for an element scan and a precious metals Fire assay package. Two kilograms from each sample was delivered to Nesmont Resources for a comparison analyses. The remaining sample was sent to Coastech Research. Coastech measured gold values by combining samples P1-1 to P1-4, totalling 120 kg, and subjected the material to a leach assay cyanide scoping test and a portion of sample P1-5 was analyzed by a conventional metallics fire assay. For further details on the geochemical method see Appendix 1.

Geochemical Results

Nesmont Precious Metals Corporation

Values of Au/Ag from the black phyllite (2 kg samples 11-89 Lightning P1-1 to P1-4) were 0.144/0.09, 0.035/0.24, 0.004/0.01 and 0.006/0.17 ounces per ton. Sample P1-5 is from the slate formation that exhibits a low amounts of Au/Ag, values of 0.004/0.04 ounces per ton.

Sample P1-3 represents the upper 1 m on the west face of Pit 1. Surficial leaching of gold at this horizon, by weathering processes, may have been a contributing factor to low Au values, 0.004 ounces per ton.

The most significant values occur in samples P1-1 (0.144 oz/ton Au) and P1-2 (0.035 oz/ton Au). Each sample represents an approximate three meter length across the west face of the pit (Fig. 6).

Sample P1-4, taken from the lower portion of the east face directly adjacent the slate formation (Fig. 6), contains a low Au value (0.006 oz/ton).

Platinum values fall below the detection limit of 0.002 ounces/ton. Total carbon, graphite carbon and total sulphur percentages are given in assay 11939. Graphite carbon values in samples P1-1 to P1-4 range from 2.71% to 7.7%. Sample P1-5 represents a volcanic flow (slate) horizon within the mass of black phyllite and the low graphite carbon measurement (0.26%) was expected.

Coastech Research Incorporated

The leach assay of the combined black phyllite samples (120 kg), 11-89 Lightning P1-1 to P1-4, produced 0.028 oz/ton Au or 0.968 grams per metric ton. Ninety-eight (98%) percent of the gold remained in the final residue indicating a severe gold-carbon preganating.

Three assay results of gold by metallics on the slate formation (sample P1-5, Fig. 5) averaged 0.010 oz/ton (0.387 g/mton).

Quanta Trace Laboratory Inc.

The smallest sample portion (250 g each) was analyzed by Quanta Trace for precious metals and element scan. Values of 5-10 ppb Au, 30 ppb Pt and 20 ppb Pd were the highest readings in the precious metals category. The size of the sample used by this laboratory may be a contributing factor regarding the low values of precious metals when comparing results with the other two laboratories.

Discussion

Measurements of gold values in the black phyllite varied accordingly to each of the three laboratories used. The Coastech value of 0.028 oz/ton Au is probably the most representative figure which was obtained by a cyanide-leach assay of a 120 kg sample. Nesmonts assays from 2 kg samples are 0.144, 0.035, 0.004 and 0.006 oz/ton Au. These values average 0.047 oz/ton Au.

The Quanta Trace analyses from 250 gram samples indicate very low gold values (5-10 ppb Au). These values suggest that the gold in the black phyllite is dispersed in an unusual pattern. The gold is not evenly distributed in the rock and it appears that 250 gram samples are too small to reflect the values found by the other laboratories. Quanta trace determined trace values of other precious metals as high as 30 ppb Pt and 20 ppb Pd. Nesmont was unable to detect Pt values above their 0.002 ounces per ton detection limit.

The abundance of carbon and the occurrence of precious metals in the black phyllite highly resembles a chelate-structured¹ organic sediment. This type of sediment forms on a marine substrate, under certain oxidizing/reducing conditions, when water temperatures are abnormally high usually during periods of submarine volcanic/hydrothermal venting. This condition is usually associated with large populations of bacteria that are actively generating organo-metallic complexes that accumulate on the marine substrate. This mechanism could account for the background and anomalous values of precious metals.

¹. Chelate-structure. A chemical structure where a metallic ion becomes attached between two atom within a single organic molecule forming an organo-metallic compound

Recommendation

There is a good indication that average gold values in the black phyllite at Pit 1 lie between 0.028 and 0.047 ounces per ton. These values are near economic values if an open pit mining method is used. Gold extraction costs for a viable heap-leaching process should be studied.

Coastech has already determined that the abundance of carbon in the black phyllite locks up much of the gold into the final residue. This problem could be resolved by separating the carbon from the milled portion of the phyllite by a gravity method only if the gold is not locked in primary chelate-structures (see Discussion).

A feasibility study dealing with the cost and method of gold extraction from the black phyllite should be carried through. This should consist of a large sample (10 - 100 tons). The sample should be milled and processed through a gravity system to remove much of the carbonaceous material. The remaining sample (concentrate) can then be sent to Nesmont or Coastech to be processed through a cyanide leach for precious metals extraction.

A large portion (200 kg) of the carbon-rich fraction, after gravity separation, should also be subject to a cyanide leach assay. A comparison of results (gold in concentrates and gold in organics) will determine the quantity of precious metals locked up in primary chelated-structures within the black phyllite. If much of the precious metals are in organo-metallic complexes, the gravity method may be of no use.

Further investigation should be directed towards a study of graphite potential within the black phyllite. Samples P1-1 to P1-4 represent the mass of graphitic black phyllite in Pit 1. Graphite carbon values in the 4 samples average 5.08%.

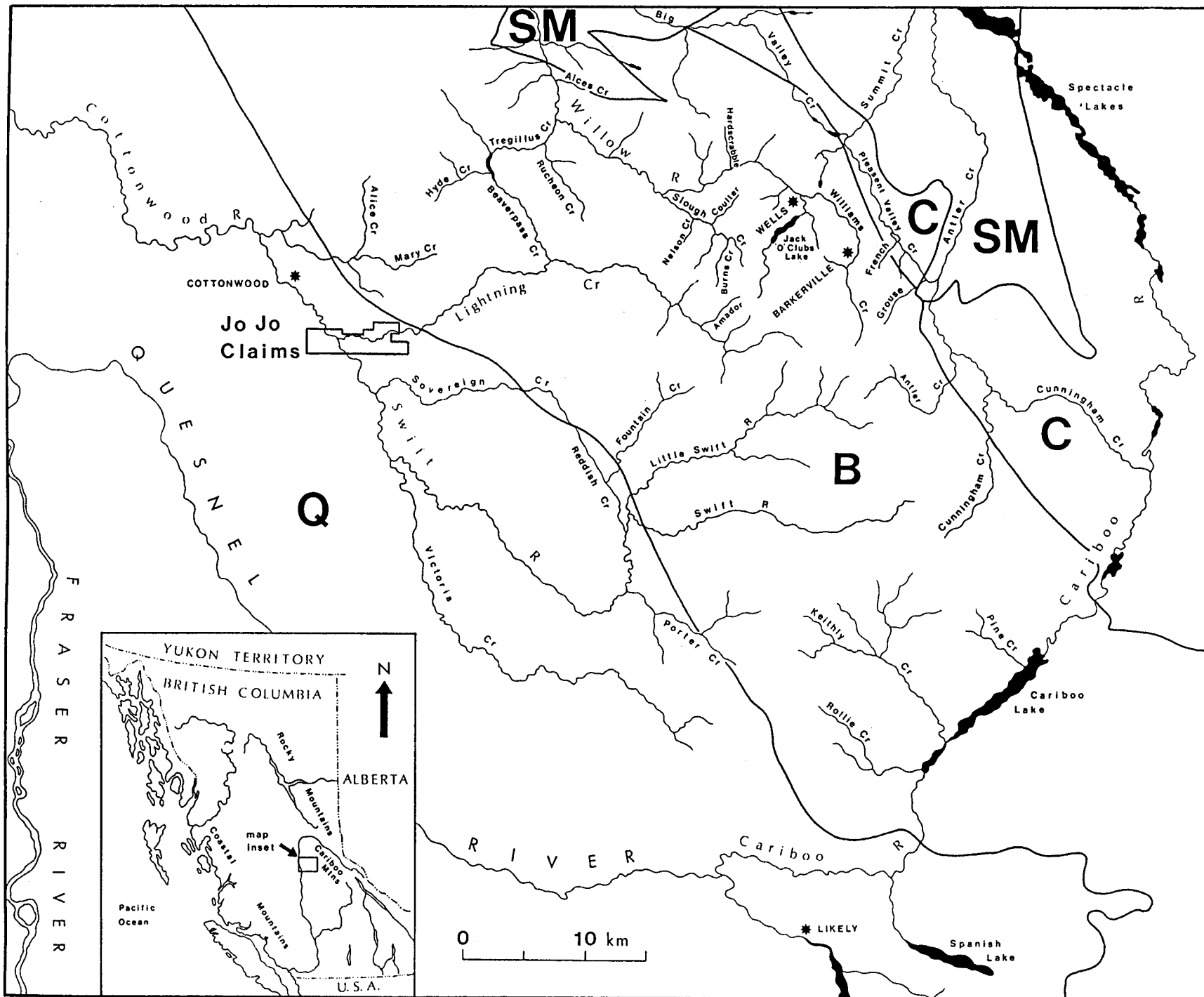


Figure 1

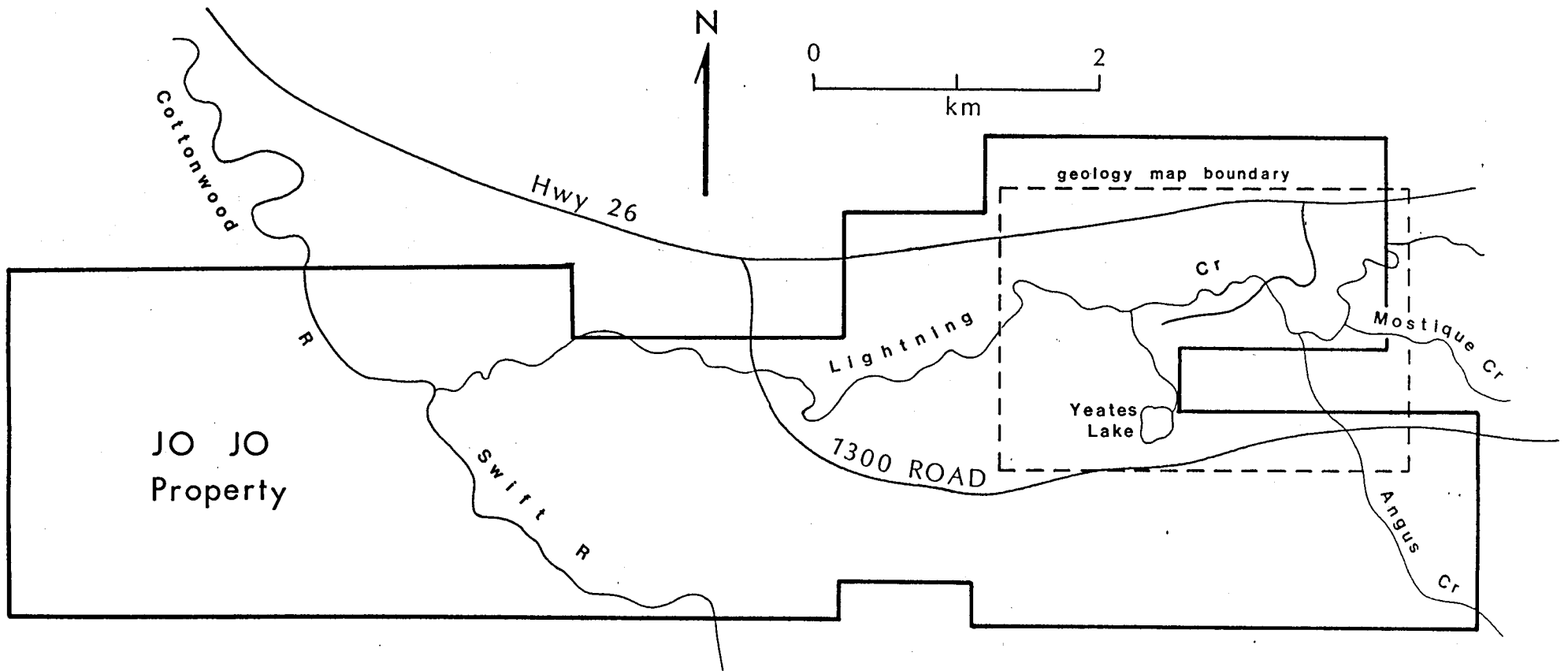
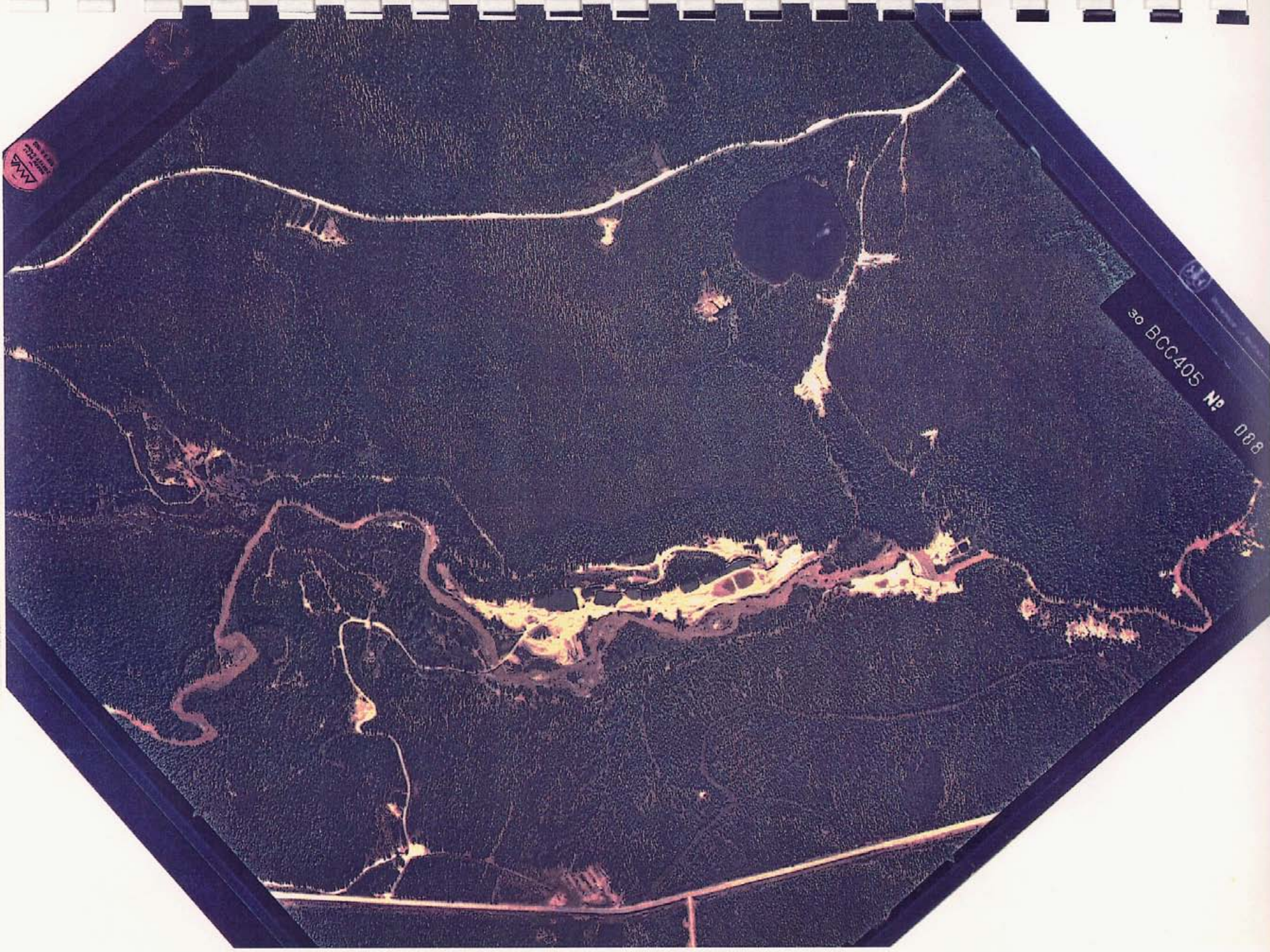


Figure 2



AVIA
1972

30 BCC405 № 008

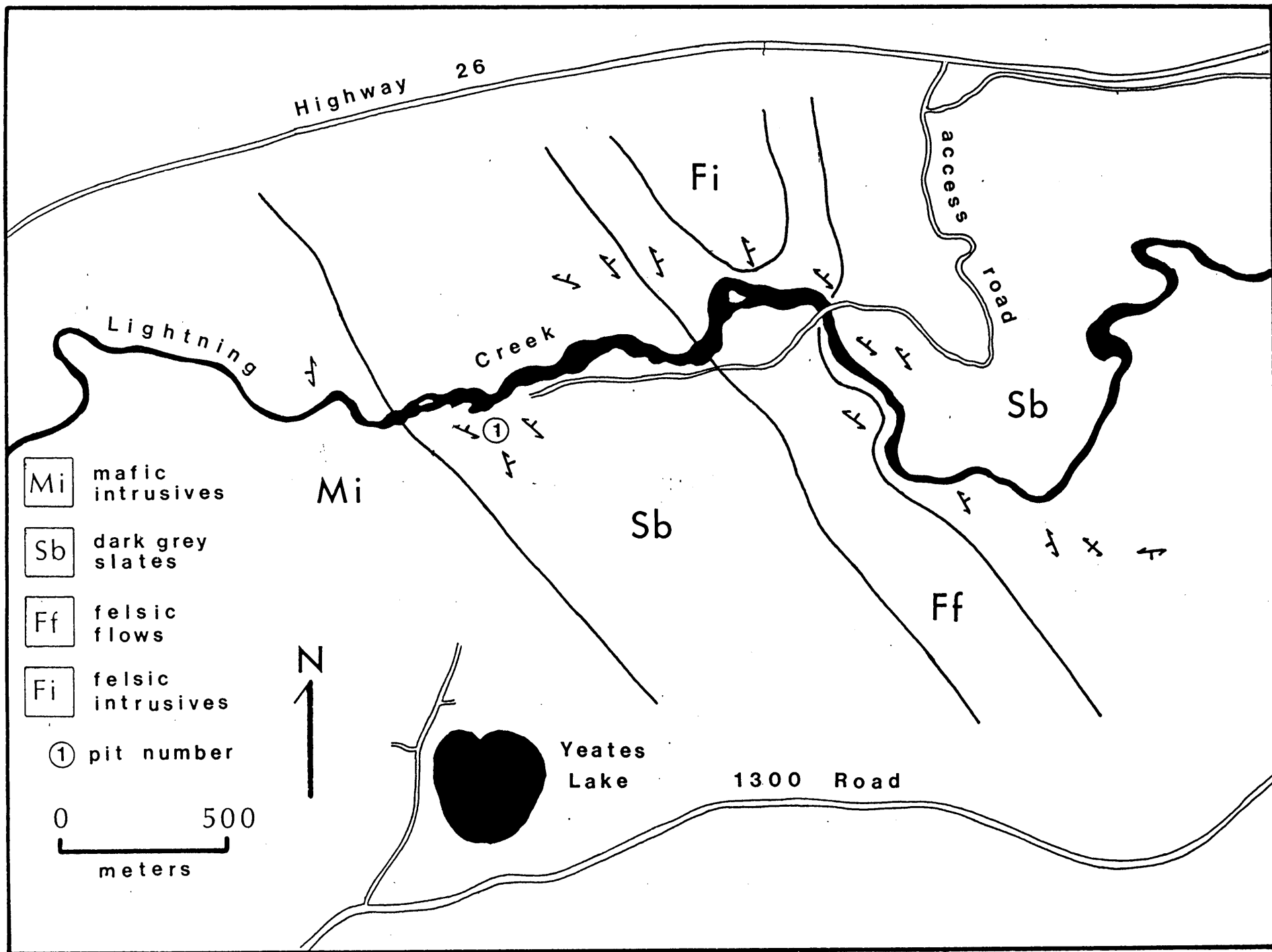
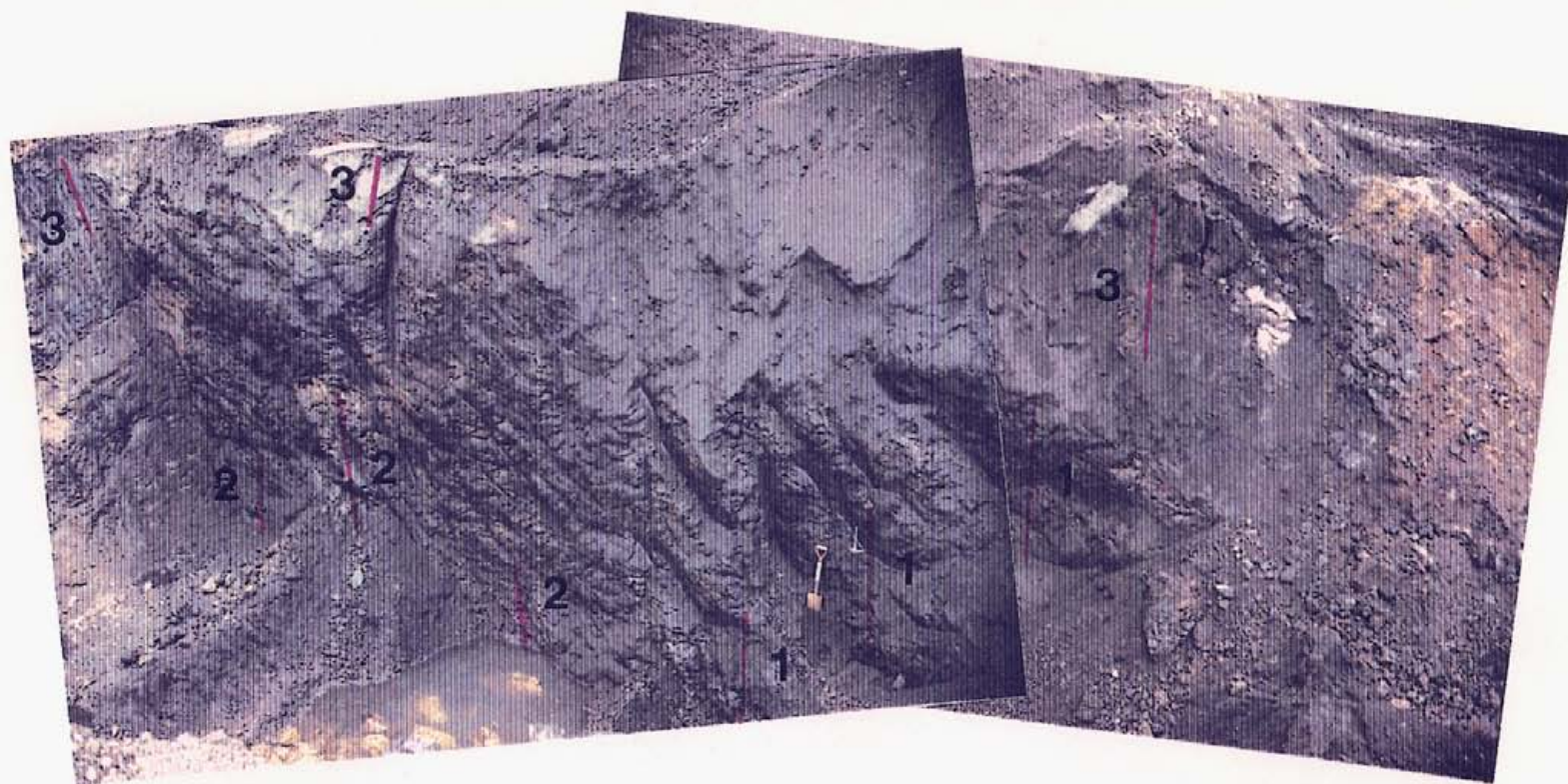


Figure 4



Pit 1 (west face)

samples

- ① P1-1
- ② P1-2
- ③ P1-3

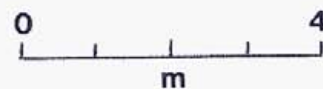


Figure 5



Pit 1 (east face)

samples

④ P1-4

⑤ P1-5

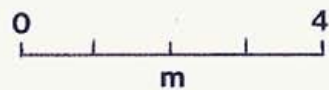


Figure 6

Appendix 2

References

- Bailey, D.G., 1988. Geology of the Central Quesnel Belt, Hydraulic, South-Central British Columbia (93A/12). B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Field work, 1987, Paper 1988-1.
- Jones, D.L., Howill, D.G., Coney, P.H. and Monger, J.W.H., 1983. Recognition, Character and analyses of Tectonostratigraphic Terraces, western North America, In: Accretionary Tectonics in the Circum-Pacific Regions. M. Hasimoto and S. Uyeda (Editors), Tokyo, Terra, pp. 21-35
- Price, R.A., Monger, J.W.H. and Muller, J.E., 1981. Cordilleran Cross-Section -- Calgary to Victoria. In: R.L. Thompson and D.G. Cook (Editors), Field Guides to Geology and Mineral Deposits, Geological Association of Canada, Calgary, Alta., pp. 261 - 334.
- Struik, L.C., 1986. Imbricated Terranes of the Cariboo Gold Belt with Correlations and implications for Tectonics in south-eastern British Columbia. Can. J. Earth Science, 23: 1047 - 1061.

Appendix 3

Cost Statement

Geologist for 10 days fieldwork and report preparation at \$350 per day	\$ 3500
Room and board for 10 days at \$60 per day	\$ 600
4 x 4 pick up truck for 10 days at \$40/day	\$ 400
Drafting of maps	\$ 300
Secretarial work and stationary costs	\$ 300

Geochemical Analyses Expense**Date**

Coastech Research Inc.	\$ 850	Dec. 1989
Nesmont Precious Metals Corporation	\$ 300	Dec. 1989
Quanta Trace Laboratory Ltd.	\$ 500	Dec. 1989
Shipping and Receiving (Fax)	\$ 150	
Nesmont Precious Metals Corporation	\$ 500	Feb. 1990

Mechanical Work (excavating Pit 1)
See statement submitted by the property operator/owner, Don Carter.

Total	\$ <u>7,400</u>
Dec. 1989 and Feb. 1990 analyses expenses not applicable to 1990 assessment costs	<u>- 2150</u>
Exploration and development total cost	\$5,250

Cost applicable to 1990 exploration and development work transportation/travel expenses 20% x \$5,250	\$ <u>1,050</u>
Cost applicable to 1990 assessment statement	\$ 6,300

Appendix 4

Qualifications of the Author

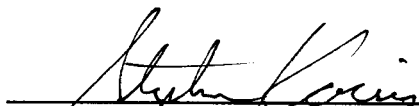
I, Stephen P. Kocsis, studied the Earth Sciences at the University of Waterloo and received a B.Sc. degree.

I have six years of experience as a Petroleum Exploration Geologist in areas throughout the Western Canadian Sedimentary Basin.

I have been actively involved in mineral exploration programs in British Columbia, primarily in the Cariboo District, for the past seven years. During 1987 and 1988 I was employed by the University of Toronto through which I worked on an intense study of glacial geology and placer gold deposits in British Columbia. This work resulted in the publication of five geological papers of which I was co-author.

Since May of 1989 I have been self-employed full-time as a Mining and Geological Consultant with an office located in Quesnel, British Columbia.

I carried out the geological work and sampling described in this report which I have written.



Stephen P. Kocsis
301-776 Vaughan Street
Quesnel, B.C. V2J 2T5
Phone: (604) 992-9570

May 4, 1991

Kocsis, Stephen

TEST : 2148-501

SAMPLE : Cyanidation Results from test 2149-500

Test Objectives: Cyanide Scoping Test

I) METALLURGICAL BALANCE

PRODUCT	WT (Kg)	ASSAY (g/t)		DISTRIBN (%)	
		Au	Ag	Au	Ag
48 hr soln.	120.0	0.010	NA	2.0	NA
Final Residue	61.5	0.948	NA	98.0	NA
CALC HEAD		0.968	NA	100.0	NA
ASSAY HEAD		0.068		0	

II) TEST CONDITIONS

SAMPLE (time, h)	pH	[NaCN] (g/L)	CONSUMPTION (CUM.)	
			NaCN (kg/t)	CaO (kg/t)
0.0	11.0	1.00	0.00	0.00
2.0	10.9	0.95	0.10	0.56
8.0	10.4	0.90	0.45	0.00
27.0	10.6	0.80	1.02	0.38
48.0	10.7	1.10	0.43	0.16

Conditions maintained throughout leach:

Solids : 37 %

COASTECH ANALYTICAL SERVICES LABORATORY

To: COASTECH RESEARCH INC.

Date: December 1, 1989

Invoice No. C12A014

Order No. 92149

Project No. 92149

Attention: Jeff

CERTIFICATE OF ASSAY

I HEREBY CERTIFY the following results of assays.

SAMPLE	Au	Au*						
	g/MT	g/MT						
K 2356	10.676							
K 2357 - A	0.375	<u>0.387</u>	<i>Sample 1-5</i>					
K 2357 - B	0.275							
K 2357 - C	0.465							

* K 2357 Au by metallics

Registered Assayer, Province of British Columbia



NESMONT
PRECIOUS METALS
CORPORATION

SEND REMITTANCE TO:

7333 River Road
Ladner, B.C. Canada V4G 1B1
PLANT: 604-946-2266
FACSIMILE: 604-946-3981
SALES OFFICE: 604-683-8943

NAME Mr. Steve Kocsis B.Sc.
301 - 776 Vaughan Street
Quesnel, B.C.
VOK 2R0

DATE December 1, 1989

CONTROL NO. 11939

DESCRIPTION	UNIT PRICE	AMOUNT
5 Control Gold Assays	\$ 25.00	\$ 125.00
5 Control Silver Assays	25.00	<u>125.00</u>
Total Balance Due:		\$ <u>250.00</u>

All invoices are due and payable upon receipt.
Any unpaid balance will be billed at the rate of 2%
per month - 24% per annum.

RECEIVED BY

SALESPERSON FCB	CUST. NO. SKOCSI	CUSTOMER P.O. PLANT	FST	PST
--------------------	---------------------	------------------------	-----	-----

CONTRACT No 15424



NESMONT
PRECIOUS METALS
CORPORATION

To:

Mr. Steve Kocsis B.Sc.

301 - 776 Vaughan Street

Quesnel, B.C.

VOK 2R0

Attention:

Date: December 1, 1989

Control No. 11939

Certificate of Assay

We Hereby Certify that the following are the results of assays made by us upon submitted Ore samples.

Sample Identification	GOLD	SILVER	GOLD	SILVER				
	Ounces Per Ton	Ounces Per Ton	Percent	Percent				
11 - 89 Lightning PL 1	0.144	0.09						
11 - 89 Lightning PL 2	0.035	0.24						
11 - 89 Lightning PL 3	0.004	0.01						
11 - 89 Lightning PL 4	0.006	0.17						
11 - 89 Lightning PL 5	0.004	0.04						

Note: Pulps retained one month.

Rejects retained two weeks.

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NESMONT PRECIOUS METALS CORPORATION

Steve Kocsis

Certified Provincial Assayer



NESMONT
PRECIOUS METALS
CORPORATION

To:

Mr. Steve P. Kocsis, B.Sc.

301 - 776 Vaughan Street

Quesnel, B.C.

VOK 2R0

Attention:

Date: February 17, 1990

Control No. 11939

Certificate of Assay

that the following are the results of assays made by us upon submitted Ore Samples samples.


Sample Identification	GOLD	SILVER	GOLD	SILVER	Platinum oz/ton	Total	Graphite	Total
	Ounces Per Ton	Ounces Per Ton	Percent	Percent		Carbon %	Carbon %	Sulphur %
11 - 89 Lightning PL 1					L 0.002	5.25	5.17	1.92
11 - 89 Lightning PL 2					L 0.002	3.39	2.71	2.27
11 - 89 Lightning PL 3					L 0.002	4.90	4.74	0.005
11 - 89 Lightning PL 4					L 0.002	7.90	7.70	1.20
11 - 89 Lightning PL 5					L 0.002	2.72	0.26	0.05
L = Less Than								

Note: Pulps retained one month.

Rejects retained two weeks.

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NESMONT PRECIOUS METALS CORPORATION


Certified Provincial Assayer

quanta trace laboratories inc.

#401-3700 Gilmore Way, Burnaby, B.C., V5B 4M1 Tel:(604)438-5226 Fax:436-0565

To: Mr. S. P. Kozis

W/D: 12873 Page 2

Sample type		Rock	Rock	Rock	Rock	Rock
Identification		P1-1	P1-2	P1-3	P1-4	P1-5
Lab Reference #		12873-001	12873-002	12873-003	12873-004	12873-005
Analyzed by Plasma Emission Spectroscopy (ICAP)						
Method used		TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
Trace Elements						
Antimony * Sb		2.6	2.6	2.2	2.5	0.2
Arsenic * As		50.	60.	50.	80.	6.5
Beryllium Be		1.8	0.9	0.8	1.4	0.9
Bismuth * Bi		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Boron B		14.	6.	8.	12.	< 1.
Cadmium Cd		15.9	27.7	6.9	17.1	24.1
Chromium Cr		280.	304.	275.	236.	1340
Cobalt Co		8.	16.	4.	10.	55.
Copper Cu		444.	180.	178.	122.	168.
Lead Pb		19.	22.	36.	30.	19.
Molybdenum Mo		29.	13.	88.	37.	10.
Nickel Ni		99.	116.	154.	91.	315.
Selenium * Se		3.5	3.0	6.6	5.5	1.5
Thorium Th		< 10.	< 10.	< 10.	< 10.	< 10.
Uranium U		< 30.	< 30.	< 30.	< 30.	< 30.
Vanadium V		856.	698.	1780.	794.	332.
Zinc Zn		561.	695.	830.	840.	860.
Precious Metals						
Gold AA Au		0.005	0.005	0.010	0.005	0.005
Gold FA Au		0.02	0.02	0.03	0.02	0.01
Palladium FA Pd		0.02	0.02	0.02	0.02	0.02
Platinum FA Pt		0.02	0.02	0.03	0.03	0.03
Rhodium FA Rh		< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Silver AA Ag		4.4	4.2	2.4	4.6	0.3
Results in		ppm	ppm	ppm	ppm	ppm
Majors as Oxides						
Silicon % SiO2		67.0	63.0	64.9	64.0	53.4
Aluminum % Al2O3		7.30	8.99	9.91	7.34	8.46
Iron % Fe2O3		5.92	7.54	2.77	6.78	7.12
Calcium % CaO		0.38	0.77	0.58	0.34	5.92
Magnesium % MgO		0.94	1.40	0.98	0.88	6.22
Sodium % Na2O		0.50	0.63	0.75	0.70	0.06
Potassium % K2O		1.89	2.30	2.24	1.69	1.46
Barium % BaO		0.11	0.15	0.14	0.093	0.11
Manganese % MnO		0.023	0.047	0.004	0.016	0.24
Phosphorus % P2O5		0.91	0.57	0.61	0.75	0.81
Strontium % SrO		0.009	0.005	0.007	0.007	0.045
Titanium % TiO2		0.39	0.52	0.56	0.40	0.41
Zirconium % ZrO2		0.011	0.009	0.011	0.010	0.002
Loss on Ignition		9.36	8.50	10.98	10.99	12.58
Total Oxides %		94.7	94.4	94.6	94.0	96.8
Total Carbon %C		4.61	3.61	4.34	6.49	2.83
Total Sulfur %S		3.85	5.33	0.02	3.93	0.07

W/D