

PROPERTY FILE 920045

886335

Tom Saunders

ORCAN MINERAL ASSOCIATES LTD.
CONSULTING ENGINEERS

SUITE 1417 - 409 GRANVILLE STREET
VANCOUVER, CANADA V6C 1T2
TELEPHONE (604) 662-3722

Lord River Gold Mines Ltd.

Report
on the
PELLAIRE GOLD PROPERTY
Taseko Lake Area
British Columbia

1 March, 1987

C. Raymond Saunders, P.Eng.

Vancouver, Canada

Table of Contents

	<u>Page</u>
SUMMARY	1
INTRODUCTION	2
Location	2
Property	3
History	3
References	4
GEOLOGICAL SETTING	—
Regional Geology	5
Property Geology	6
MINERALIZATION	
Vein Characteristics	7
Reserves and Potential	8
CONCLUSIONS	9
Recommendations	9
Estimated Costs	10
CERTIFICATE	11
APPENDIX - ASSAY CERTIFICATE	

List of Illustrations

		<u>Following Page</u>
Figure 1	Location Map	4
Figure 2	Claim Map	4
Figure 3	Regional Geology	6
Figure 4	Property Geology	6
Figure 5	Adits & Vein: Potential Ore Shoots	8
Figure 6	Section A - A ¹	8

SUMMARY

The Pellaire property of Lord River Gold Mines Ltd., encompassing an area of approximately 1,260 hectares (3,100 acres) is located within the eastern margins of the rugged Coast Mountain Ranges some 200 kilometres north of Vancouver. It has been explored intermittently since 1937, with the most recent work in 1981.

The property overlies a contact between granitic rocks of the Coast Plutonic Complex to the south and a belt of structurally disturbed Cretaceous and younger sedimentary, volcanic and intrusive units to the north. On the property, and more specifically in the general area of the mineral occurrences, the setting is simple; granodiorite to the south in contact with greenstones (metamorphosed volcanics and related sediments) to the north. Gold-bearing quartz veins, three of which are prominent, lie within a nose of the granodiorite that protrudes northerly into the greenstones.

The quartz veins occur in fractures which cross the granodiorite nose and are obviously related in some fashion to the contact. There is reason to believe that similar, parallel fractures, hosting gold-bearing quartz veins, should be present below the known vein-fractures. Sampling of surface exposures and veins exposed in several adits (comprising about 3,000 feet of underground workings) produced a reserve of 34,000 tons at 0.67 oz Au/ton and 2.34 oz Ag/ton, equivalent to approximately 135 tons per vertical foot. The partially explored veins are situated at the top of a steep sided ridge which rises more than 2,000 feet above the adjacent valley floor. If more veins are present down along the contact, the total potential reserve to the valley bottom could be in the order of 300,000 tons or more.

A program of diamond drilling exploration is proposed to test the favourable contact area at depth, and to obtain more information on the continuity of the known veins. The estimated cost of this program is \$420,000.

INTRODUCTION

The purpose of this report is to describe the current status and understanding of the Pellaire Gold Property, and to lay out a proposal for further exploration. The report is based on available government and company reports, maps and data, and on an examination of the property made by the writer on 23 October, 1986, in the company of Mr. Robert Quartermaine, a director of Lord River Gold Mines Ltd.

Location

The Pellaire property is located in southwestern British Columbia approximately 200 kilometres north of Vancouver and 250 kilometres by road southwest from Williams Lake (Figure 1). Coordinates are 51°05' North and 123°35' West; NTS area 92 0/4. The 65 kilometres of road immediately north of the property has not been maintained in recent years and, consequently, requires some grading and culvert installations. This section of road crosses the Tchaikazan River, which must be forded, a procedure that can only be done before and after spring freshet. An airstrip suitable for small aircraft (up to Twin Otter size) is located in the valley bottom below the mineralized area that is to be explored. It, too, requires rehabilitation but the savings in mobilization and service costs should more than offset the cost of making it serviceable.

The property lies within the eastern margins of the Coast Mountains (Pacific Ranges) in typically rugged topography of high relief. Elevations on the property range from 5,500 feet (1,675 m) in Falls River valley to 8,900 feet (2,710 m) on local peaks. The mineralized area, commonly referred to as the 'mine' area in earlier reports because it contains several adits, lies near the nose of a northerly trending ridge, the crest of which is at approximately 7,600 feet elevation.

Falls River valley is heavily wooded with evergreen trees below elevations of 6,000 to 6,500 feet. Alpine glaciers are plentiful in the general area and are the source of all streams including Falls River. Water for drilling operations can be obtained from about 600 feet below the ridge crest from two sources, one (less permanent) nearby and the other about three kilometres to the south.

Property

The Pellaire property comprises four two-post claims and three metric claims which encompass an area of approximately 1,260 hectares (3,100 acres). Locations are shown on Figure 2; claim data are listed below.

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Anniversary Date</u>
Hi 1-4	10278-10281	4 (equiv.)	3 May
Lord 1	360	20	19 July
Lord 2	361	20	19 July
Lord 3	1598	12	6, October

History

The gold-bearing quartz outcrops were discovered in 1936 by prospectors A. Pelletier and A.J. Aellaire, from whence the name 'Pellaire' property. In the summer of 1937, the district engineer for the British Columbia Department of Mines carried out a detailed examination of the mineral showings and took a number of samples, some of which returned high values in gold (up to 17.1 oz Au/ton). Hi Do Gold Mines, Ltd. was formed in December 1937 to develop the property. No underground work was done by this company, but between 1937 and 1940 an unsuccessful attempt was made to treat surface vein material in a small concentrator.

ORIGINAL
MINFILE
NAME

In 1944, the property was acquired by Quebec Gold Mining Corporation who, in conjunction with Noranda Mines, Ltd., formed Pellaire Mines Ltd. In 1945, Pellaire Mines completed 1,453 feet of diamond drilling that was relatively unsuccessful in recovering vein material. During 1946 and 1947, they drove adits on four veins, (numbers 1, 3, 4 and 5). The first reserve calculation was done at this time.

No further exploration was done until 1973 when Silver Standard Mines Ltd., in association with Lord River Gold Mines, began work on the property. They repaired roads, conducted geological and reconnaissance geochemical surveys, did extensive bulldozer stripping, cleaned out old portals, and check-sampled the veins.

In September, 1979, Silver Standard Mines Ltd. conducted a program of surface

ORCAN MINERAL ASSOCIATES LTD.

sampling, reconnaissance mapping and claim checking. During the summer of 1980 the access road was completed, an airstrip built, and local access roads to the adits constructed.

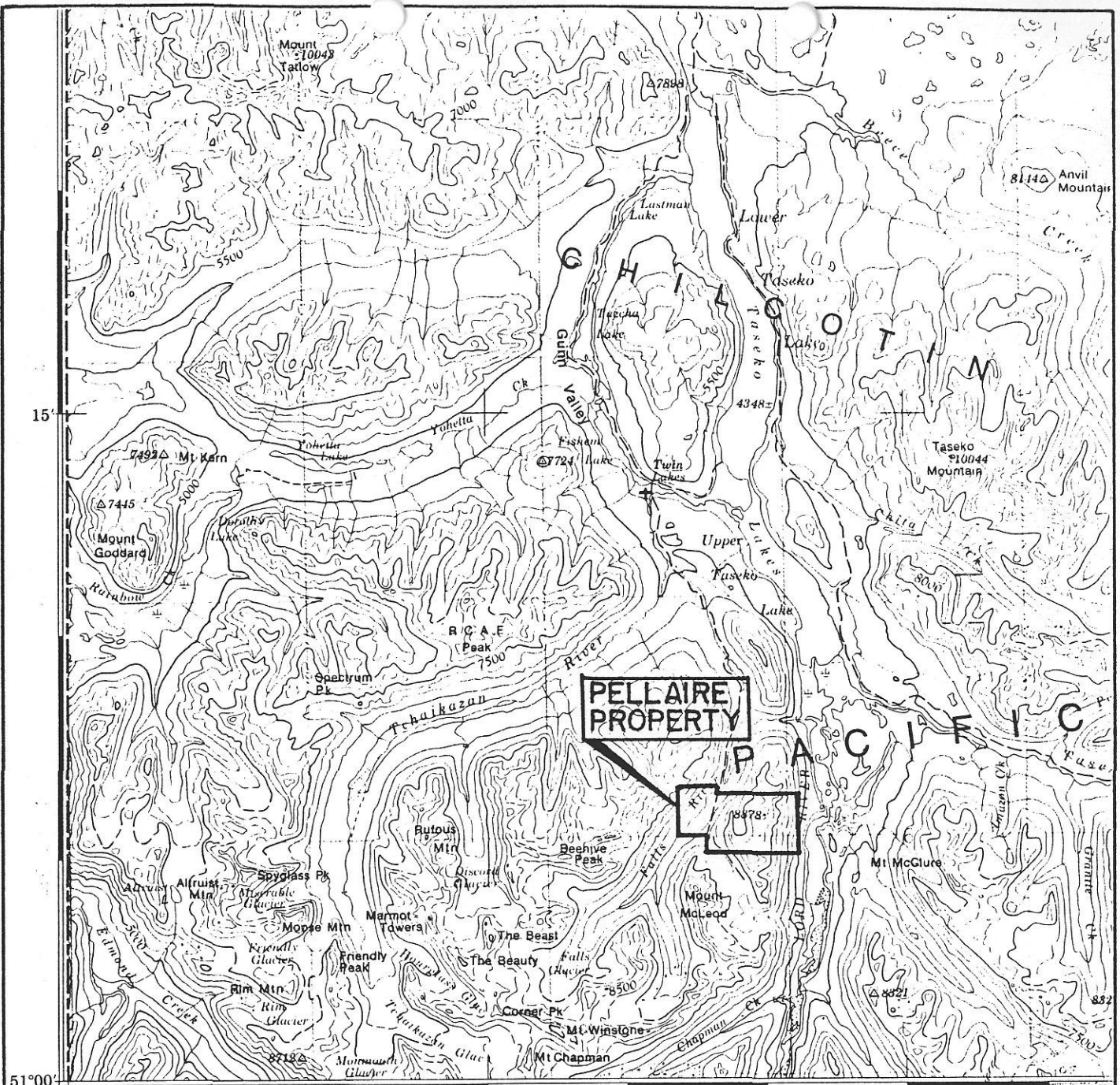
Much of the 1981 summer season was spent trying to rehabilitate the No. 3 adit for access to the No. 3 and No. 4 veins. Late in the summer, a new adit was collared on the east (opposite) side of the mountain. It was advanced 200 feet when work was stopped; the face was approximately 60 feet from the projection of the No. 4 vein.

No work has been done on the Pellaire property since 1981. Total adit length is in the order of 3,000 feet.

References

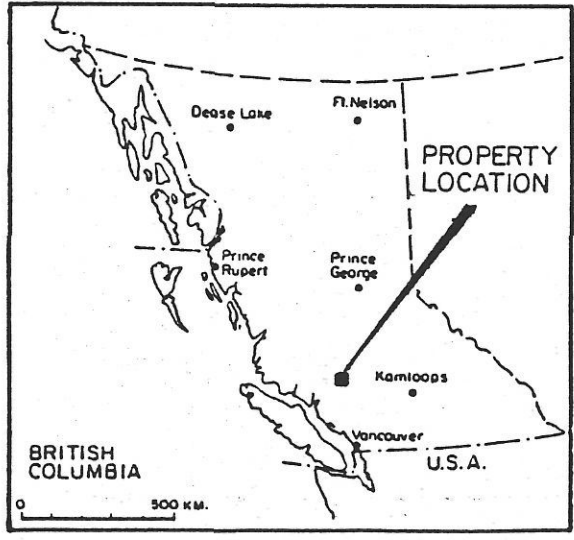
Following is a list of the main reference material used in the compilation of this report.

1. Hemsworth, F.J., Pellaire Gold Mine, 28 November, 1972; Exploration proposal.
2. Hemsworth, F.J., Lord River Gold Mines, 30 March, 1974; Geological report with exploration proposal.
3. Phendler, R.W., Pellaire Gold Property, 9 December, 1980; Geological report with exploration proposal, for Lord River Gold Mines Ltd.
4. Phendler, R.W., Pellaire Gold Property, 27 June, 1984; Geological report with exploration proposal, for Lord River Gold Mines Ltd.
5. Roddick, J.A., J.E. Muller & A.V. Okulitch, Fraser River, 1979; Geological Map 1386 A, G.S.C.
6. Skerl, A.C., The Geology of the Pellaire Gold Mine, 9 September, 1947.
7. Skerl, A.C., Detailed Reserve Calculations, 1947.
8. Tipper, H.W., Taseko Lakes, British Columbia, 1963; Geological Map 29-1963, G.S.C.
9. British Columbia Minister of Mines Bulletins for 1937, 1945, 1946 and 1947.
10. Exploration Proposal for the 1987 Operating Year on the Lord River Joint Venture Property, 29 October, 1986; detailed proposal by Consolidated Silver Standard Mines Limited.



51°00' 124°00' 45'

e.h. Anderson



ORCAN MINERAL ASSOCIATES LTD. CONSULTANTS
VANCOUVER, CANADA

LORD RIVER GOLD MINES LTD.
VANCOUVER, CANADA

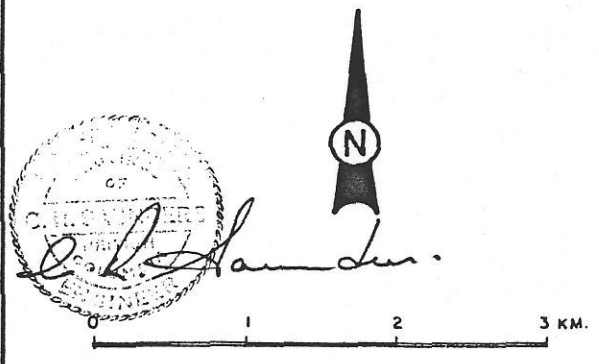
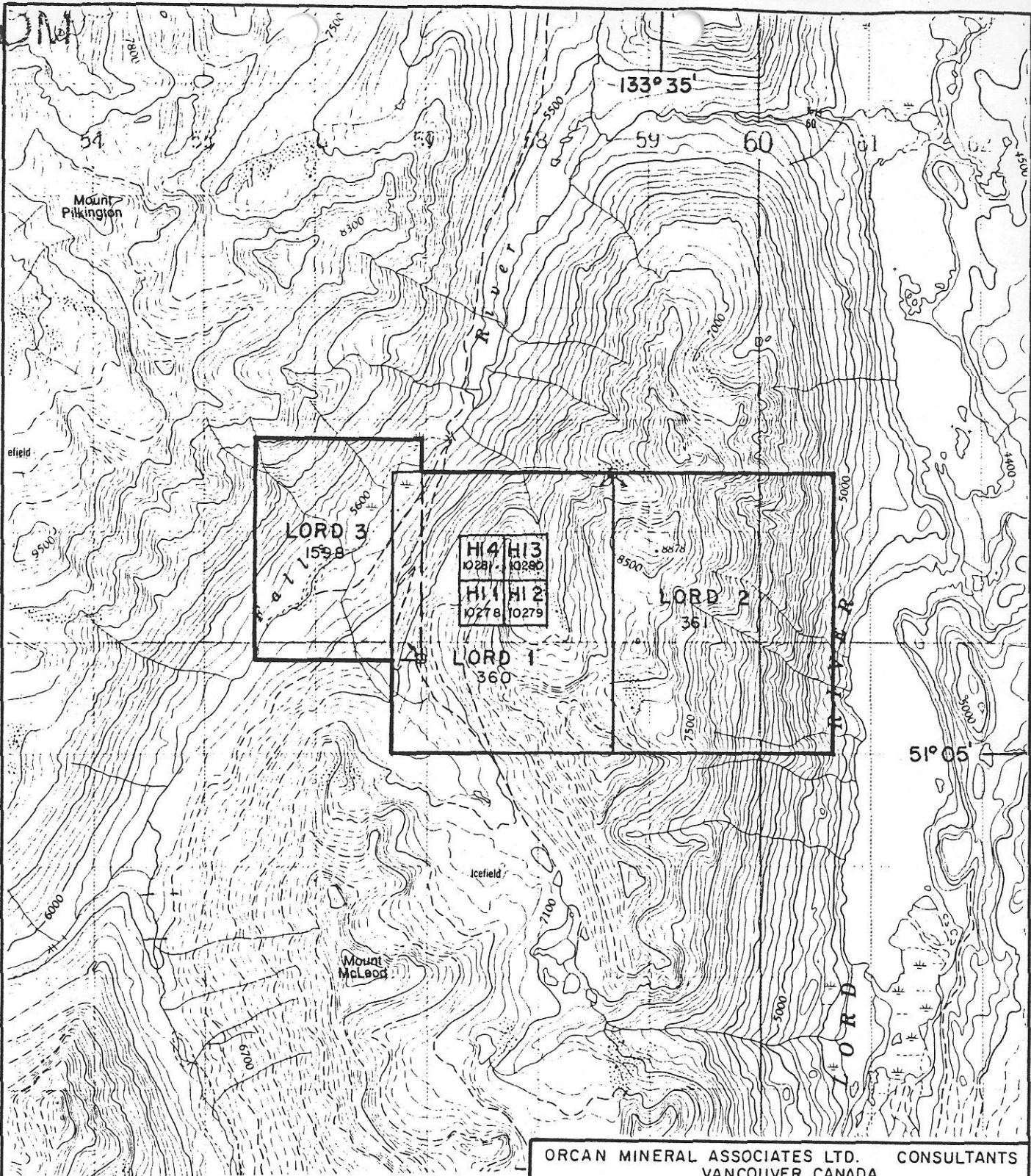
PELLAIRE PROPERTY

LOCATION MAP

TASEKO LAKES, B.C.

SCALE 1:250,000 MARCH 1987 FIG. 1

New
(1998)
Northwest
Copper
prop.



ORCAN MINERAL ASSOCIATES LTD. CONSULTANTS
VANCOUVER, CANADA

LORD RIVER GOLD MINES LTD.
VANCOUVER, CANADA

PELLAIRE PROPERTY

CLAIM MAP

TASEKO LAKES, B.C.

SCALE 1:50,000 MARCH 1987 FIG. 2

GEOLOGICAL SETTING

Regional Geology

The Pellaire property overlies a faulted (?) contact between granitic rocks of the Coast Plutonic Complex to the south and a belt of structurally disturbed Cretaceous and younger sedimentary, volcanic and intrusive units to the north (Figure 3).

The oldest rocks in the area are Lower Cretaceous shales and greywackes that are conformably overlain by Lower and Upper (?) Cretaceous pyroclastic rocks. Both of these units are in contact with the Coast Plutonic intrusives in the vicinity of the Pellaire deposit, where they form a west-northwest trending belt about 30 kilometres in width.

The Upper Cretaceous Coast Plutonic rocks, comprising granites, granodiorites, diorites and related units, form a large mass in the southern part of the region. They host the gold-bearing veins at the contact with the older volcanics and (metamorphosed) sedimentary rocks.

Younger, only slightly deformed volcanics of Upper Cretaceous or possibly Early Tertiary age lie unconformably on the older sedimentary and volcanic units. They are primarily composed of massive andesite and basalt with minor related pyroclastics, greywacke and shale.

Young, probably Tertiary age intrusives form irregular stocks and dykes that have intruded the older units within the structurally disturbed Cretaceous belt. In composition, these intrusives range from felsites and feldspar porphyries to granites and diorites.

The youngest rocks in the region are Tertiary plateau basalts that occupy much of the lower lying ground north of the disturbed belt.

Structure is complex, particularly within the 30 kilometre wide belt of older sedimentary and volcanic units. Both normal and thrust faults are present; several steep, southwest dipping thrust faults have been traced for several miles and are believed to be related to the Fraser River fault system.

Several mineral deposits and occurrences are situated near the contact of the Coast Plutonic belt, some within the intrusive rocks and others in the adjacent volcanic units.

Property Geology

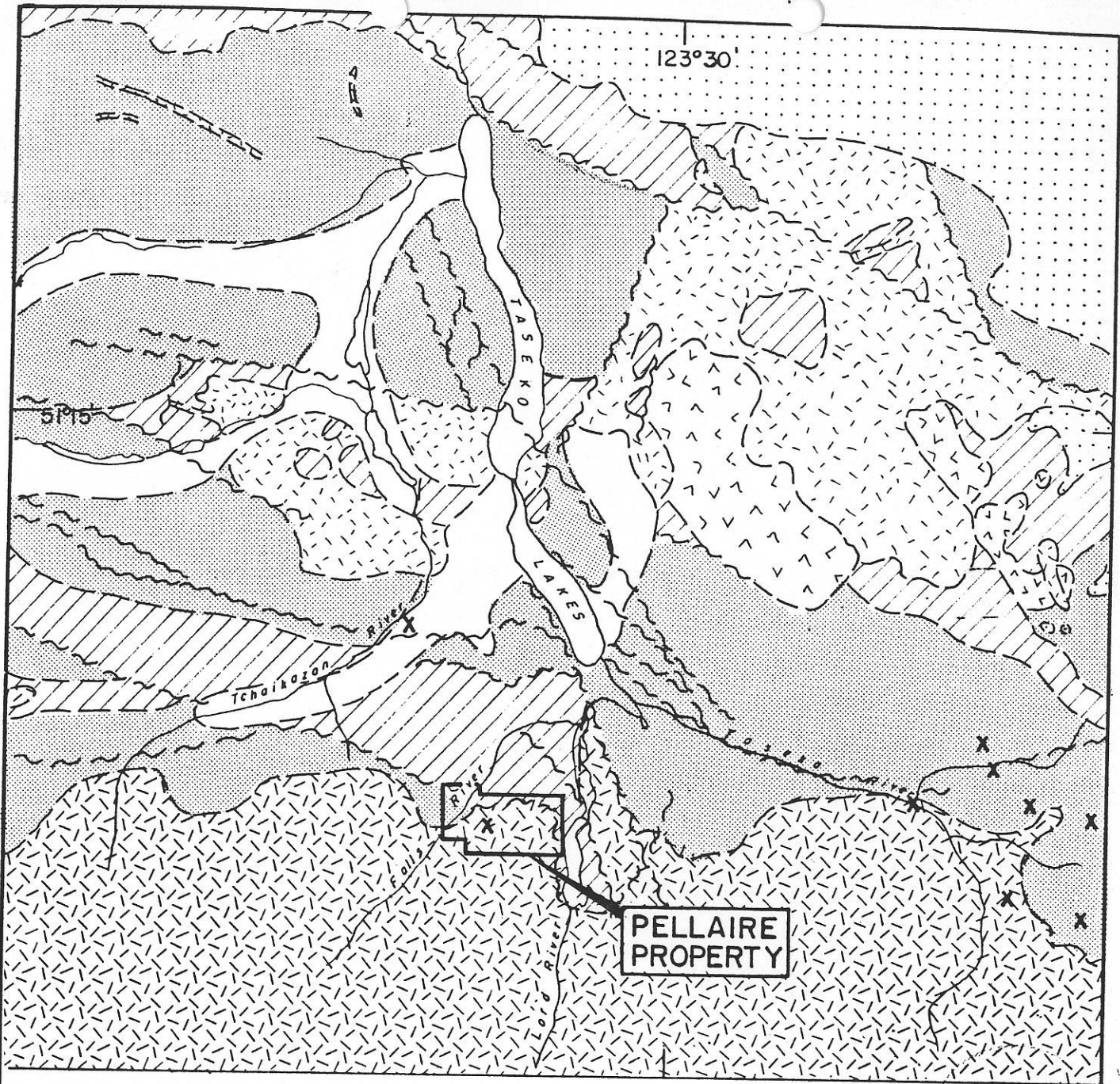
Portions of the Pellaire property were geologically mapped by Skerl (1947) (Figure 4). The setting is relatively simple; andesites, possibly of tuffaceous origin in part, and agglomerates in the north are in contact with granodiorite of the Coast Plutonic Complex to the south. The gold-bearing quartz veins are associated with this contact.

The andesites and agglomerates, commonly referred to as greenstone, form a southeasterly trending embayment into the granodiorite, thereby localizing the mineralized area in a northerly intruding tongue of granodiorite. The andesites and agglomerates are a highly metamorphosed mixture of mica schist, siliceous hornfels, purple slates, altered volcanics and minor siltstones. At the contact, in the vicinity of the mineralized zone, they are hard, competent rocks.

The granodiorite is medium to coarse grained and contains biotite and hornblende.

Northerly trending andesitic dykes (a few are basaltic and others felsic) up to ten metres in width occur within the granodiorite. They are considered to be post-mineralization.

Gold and (low) silver values occur within quartz veins that, in the area of greatest known concentration, strike northeast-southwest and dip moderately northwest. These veins are localized in a small protrusion of the granodiorite and, consequently, extend diagonally from the eastern to the western contact of the host unit. (For the most part, the veins have not been explored to the 'greenstone' contact.) Other veins occur elsewhere within the granodiorite, but they have received little exploration to date; they do indicate a more widespread presence of gold mineralization.



QUATERNARY

Unconsolidated sediments, lakes

TERTIARY

Olivine basalt, andesite, related tuffs, breccias

UPPER CRETACEOUS OR TERTIARY

Intermediate to acidic intrusives

Andesite & basalt, related pyroclastic rocks

UPPER CRETACEOUS

Coast plutonic units; granite, granodiorite, diorite

LOWER & UPPER CRETACEOUS

Andesitic pyroclastic rocks; minor interbedded shale, conglomerate

Interbedded shale & greywacke; minor conglomerate, limestone

Fault - known, assumed

X Mineral deposit

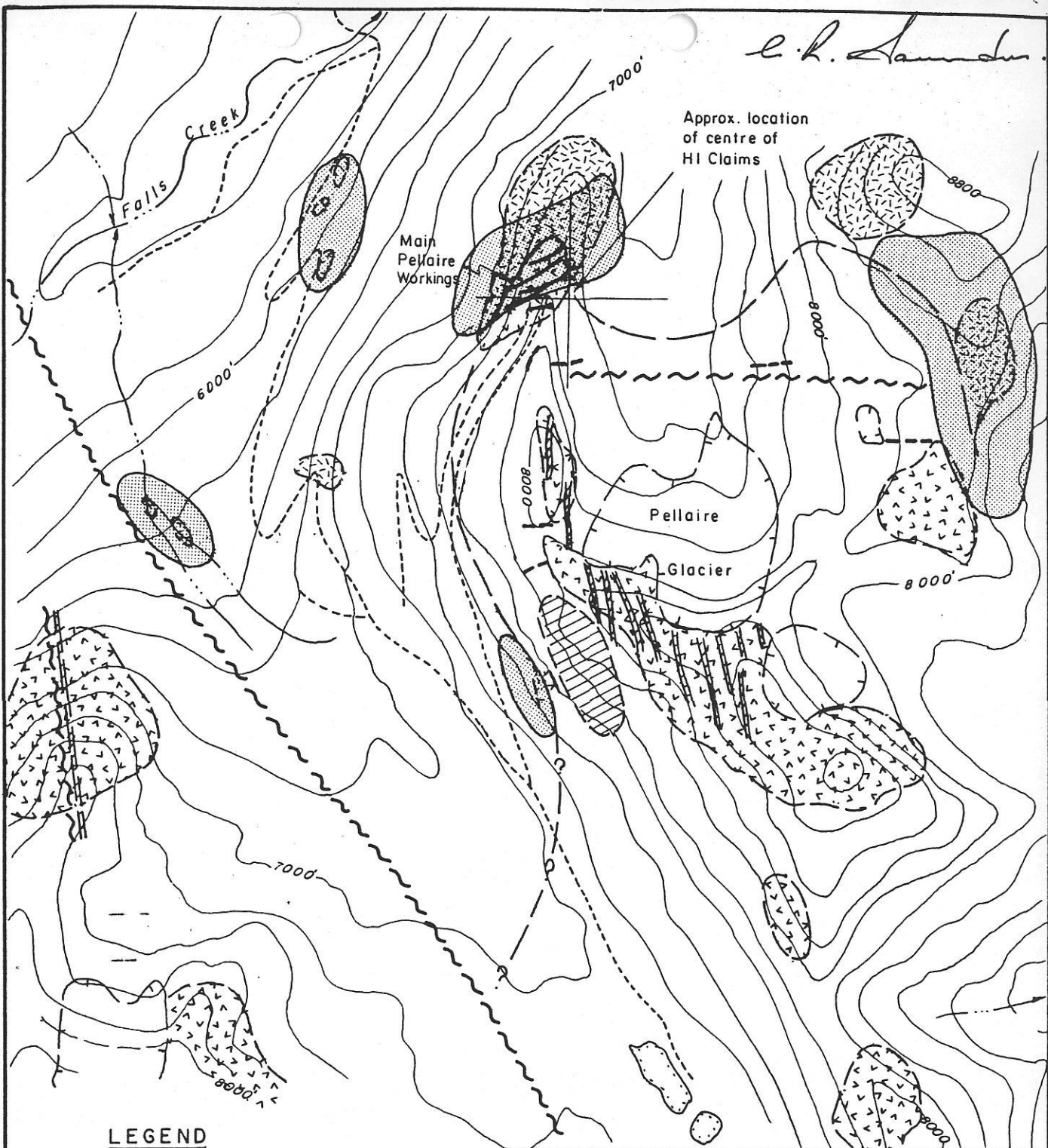


0 5 10 KM










C. R. Saunders

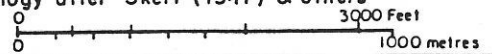
ORCAN MINERAL ASSOCIATES LTD. CONSULTANTS	
VANCOUVER, CANADA	
LORD RIVER GOLD MINES LTD.	
VANCOUVER, CANADA	
PELLAIRE PROPERTY	
REGIONAL GEOLOGY	
TASEKA LAKES, B.C.	
SCALE 1:253,440	MARCH 1987
FIG. 3	

e. h. Saunders



LEGEND

-  Dykes ; andesite, basalt felsite
 -  Granodiorite
 -  Andesite agglomerate
 -  Vein
 -  Gossanous area
 -  Fault
 -  Area of rock exposures
 -  Contours at 200' interval
 -  Road
- Geology after Skerl (1947) & others



CHONG

ORCAN MINERAL ASSOCIATES LTD. CONSULTANTS VANCOUVER, CANADA	
LORD RIVER GOLD MINES LTD. VANCOUVER, CANADA	
<u>PELLAIRE PROPERTY</u>	
<h1>PROPERTY GEOLOGY</h1>	
TASEKO LAKES , B.C.	
SCALE 1:20,000	MARCH 1987
FIG. 4	

MINERALIZATION

Vein Characteristics

At least five veins that exhibit some continuity and that have returned significant gold assays have been identified on the Pellaire property. Three, numbers 3, 4 and 5, have been partially explored by adits of several hundred feet individual length (Figure 5). Number 1 Vein also has been explored by adit, but for only a short distance. Number 2 Vein may have been drifted (P Adit), but no data or maps are available.

All of the veins, and more particularly the three main veins, are located within the nose of the granodiorite that protrudes into the greenstone (metamorphics). This lateral extent is limited by a combination of topography (the crest of a steep-sided ridge) and the shape of the hosting intrusive (Figures 4, 5). All current evidence indicates that the veins occur primarily in the granodiorite. A lack of detailed geological mapping casts some doubt on this statement, although it is apparent that the granodiorite is the preferred host rock.

The fractures which contain the veins may have been formed in the granodiorite by tension related to possible fault movement on the granodiorite-greenstone contact. If so, then some related fracturing could have taken place in the greenstone, thereby providing a larger area of potential vein formation. As well, the fractures could be cooling cracks occurring mostly in the granodiorite. Whatever their origin, there is reason to believe that similar fractures, and veins, should be present near the contact below the known veins (Figure 6).

The gold-bearing quartz veins show abundant limonite staining and occasional malachite. Some galena has been observed, as have rare amounts of visible gold. The presence of high gold values and the general absence of visible gold suggest the presence of gold tellurides, an assumption confirmed by laboratory studies. The veins are fractured, somewhat sinuous and have gouge along their margins. The fracturing and gouge suggest post-mineralization shearing. Average vein width in the mineralized areas is about five feet.

ORCAN MINERAL ASSOCIATES LTD.

Reserves and Potential

The veins have been thoroughly sampled in the adits and, to a lesser degree, in surface exposures. Individual gold assays of several ounces per ton are not uncommon in mineralized sections. By example, of four samples taken on No. 4 Vein during the October, 1987 examination, two returned low values in gold (one contained 4.99 oz Ag/ton), a third assayed 1.0 oz Au/ton and the fourth, 15.9 oz Au/ton (the assay certificate is appended).

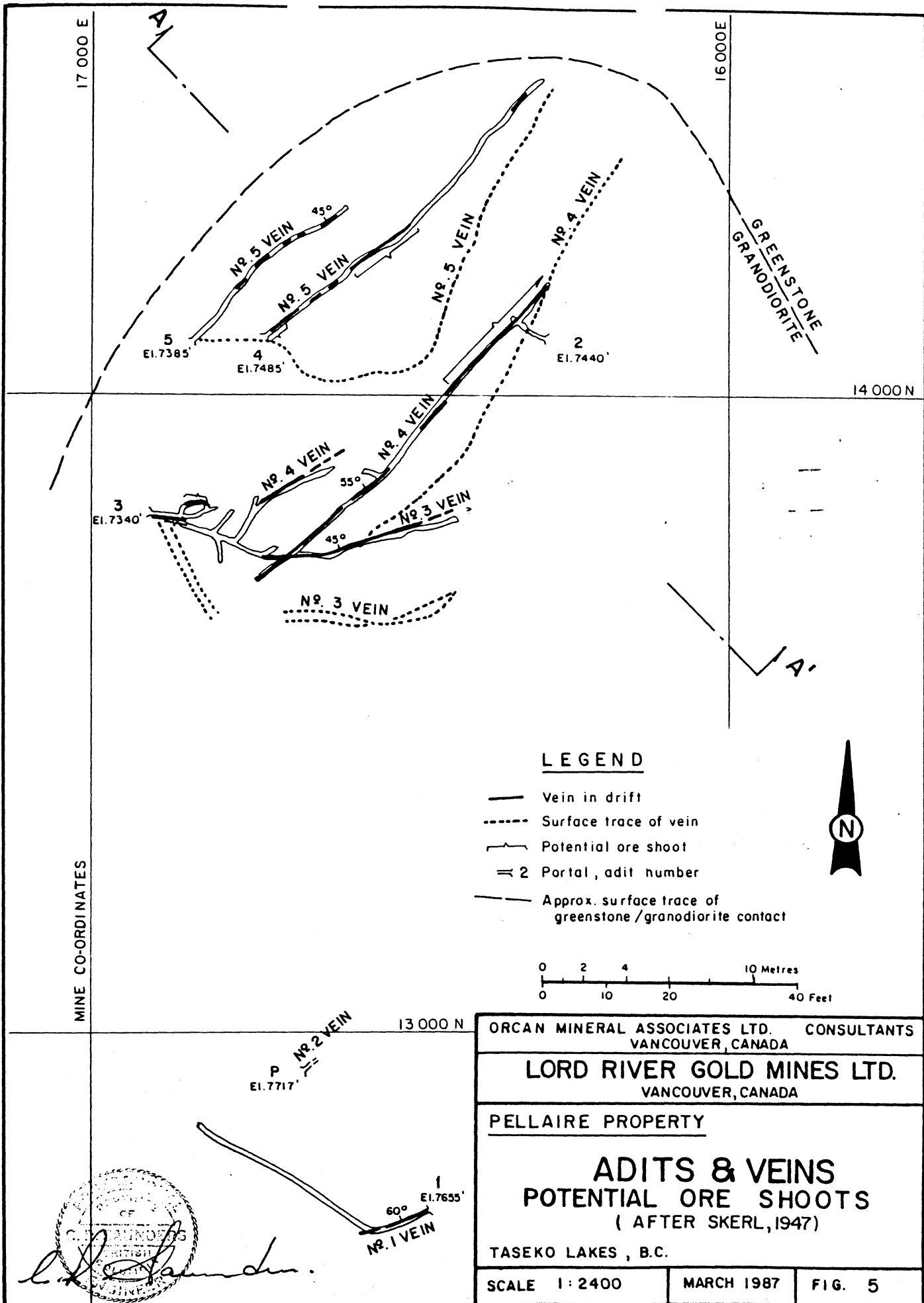
Reserves were calculated by Skerl in 1947 using parameters applicable to that time. His results follow; the locations of the 'ore' shoots in the adits are shown on Figure 5.

Probable 34,000 tons @ 0.67 oz Au/ton, 2.34 oz Ag/ton

Possible 40,000 tons @ a similar grade

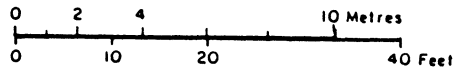
Parameters more suitable to current mining practices, equipment and productivity would result in a slightly lower grade and higher tonnage.

Some concept of the deposit potential can be determined from these figures. The Probable reserves occur above 7,300 foot elevation and within a vertical interval averaging about 250 feet. The tons-per-vertical-foot, for the probable reserves only, are approximately 135. Projecting this figure to the valley floor at 5,500 foot elevation adds a further 245,000 tons. Considering the increasing length of contact with depth (the ridge widens downward), the considerable length of contact on the property that has not been explored, and the occurrence of other showings away from the main zones, a minimum potential in the order of 300,000 tons at a grade in excess of 0.50 oz Au/ton is a reasonable expectation.



LEGEND

- Vein in drift
- - - Surface trace of vein
- ~ Potential ore shoot
- = 2 Portal, adit number
- - - Approx. surface trace of greenstone/granodiorite contact



ORCAN MINERAL ASSOCIATES LTD. CONSULTANTS
VANCOUVER, CANADA

LORD RIVER GOLD MINES LTD.
VANCOUVER, CANADA

PELLAIRE PROPERTY

ADITS & VEINS
POTENTIAL ORE SHOOTS
(AFTER SKERL, 1947)

TASEKO LAKES, B.C.

SCALE 1:2400

MARCH 1987

FIG. 5

A

A'

PROPOSED DIAMOND DRILL HOLES (diagramatic)

EI. 7600'

EI. 7000'

EI. 6000'

Valley bottom at EI. 5500'

1500'

GRANODIORITE
GREENSTONE

NP. 5 VEIN

4 ADIT

5 ADIT

NP. 4 VEIN

2 ADIT

NP. 3 VEIN

OTHER

VEINS

e.h. Saunders

ORCAN MINERAL ASSOCIATES LTD. CONSULTANTS
VANCOUVER, CANADA

LORD RIVER GOLD MINES LTD.
VANCOUVER, CANADA

PELLAIRE PROPERTY

SECTION A-A'

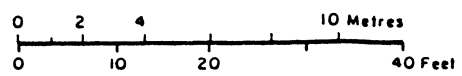
LOOKING NORTHEAST

TASEKO LAKES, B.C.

SCALE 1:2400

MARCH 1987

FIG. 6



CONCLUSIONS

The Pellaire property contains significant gold mineralization in multiple quartz veins in a setting favourable for the occurrence of more veins of a similar nature. The main area of known mineralization on the property has a reserve potential of the order of 300,000 tons or more at a grade in excess of 0.50 oz Au/ton (and minor silver values). Thus, it is concluded that the property merits exploration to test this potential and to test other gold occurrences and geologically favourable areas elsewhere on the property.

Recommendations

It is recommended that several holes be drilled to determine the lateral and down-dip continuity of the known veins, thereby providing a better measure of the local mineral potential and to provide guidance for future drifting. About 3,000 feet in seven or eight holes should be sufficient at this time. The potential for deeper, new veins should be tested by at least two long diamond drill holes located adjacent to the granodiorite-greenstone contact (Figure 6). Final hole lengths can be determined by monitoring the area while drilling is in progress, but it appears that about 3,000 feet of drilling will be required.

Detailed geological mapping of the granodiorite-greenstone contact and of other areas of interest is necessary for a better understanding of the veins and mineral controls. Careful prospecting, particularly of the contact area, should be undertaken as well. Any new discoveries, and some of the previously located mineral occurrences, can be exposed for mapping and sampling by bulldozer trenching.

The access road for the 65 kilometres north of the property will have to be rehabilitated and graded. Local access roads from Falls Creek valley up to the main exploration area also will require improvement and local rebuilding. The airstrip in the valley can be made serviceable to facilitate the use of fixed-wing aircraft from Squamish, thus obviating the more costly service and supply by truck and helicopter (from the Tchaikazan River) from Williams Lake.