

MES



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**MEMO TO:** E.T. Kimura  
File N.T.S 93-O-3

**FROM:** M.B. Gareau

**DATE:** 25 February 1989

**SUBJECT:** Father Mark Claims, Central British Columbia

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### Introduction

The Father Mark claims were brought to Placer Dome's attention by Mr. Gordon Richards, President of Ruanco Enterprises Ltd. of Richmond British Columbia. The property is an early stage exploration play for gold that is based on follow-up of anomalous arsenic values from the government regional stream sediment geochemical surveys.

Placer Dome Inc. in 1987 provided analysis for some of the initial follow-up stream, soil and rock samples that were collected by Ruanco. Results from these analyses prompted Ruanco to carry out additional work and to stake claims in the area.

### Land

Ruanco has staked six claims, called the Father Mark claims, for an approximate total of 120 units. These claims partly enclose two pre-existing claims of 40 units that are held by an unknown individual. A Hughes-Lang company, Ezekiel, holds a block of ground a short distance south of the Father Mark claims.

### Ownership

Ruanco Enterprises Ltd.  
5700 Forsythe Cres.  
Richmond, B.C., V7C 2C3  
(604) 270-6862

President G. Richards

### Location and Access

The property lies 125 km north of Prince George. It is in N.T.S. 93-O-3 and is at the south end of Williston Lake on the west side of the Pack River. Access from Prince George is north via Highway # 97 to a logging road that lies just north of Tudyah Lake and 2.0 km south of the Parsnip River. The claims are approximately 12 to 13 km due west of Highway # 97 from this junction and are accessible by travelling westward along the logging road and turning south immediately after crossing the bridge over the Pack River.

## **Proposed Target**

Gold is the primary commodity of interest. The general exploration model that Gordon Richards is following is arsenic stream sediment anomalies associated with aeromagnetic anomalies. The expectation is to find gold mineralization associated with magnetic intrusive stocks similar in setting to the QR deposit and more recently possibly analogous to the Mount Milligan deposit.

## **Geological Setting**

The claims cover two-thirds of a buried intrusive body that is interpreted from regional aeromag data (Ref. Geophysics Paper 1563, Tudyah Lake, N.T.S. 93-O-3). R. Cannon suggests that the intrusive is shallowly buried and possibly a satellite of a larger northwest trending body that lies a few kilometers to the west. The larger parent intrusive has a similar magnetic signature; it is exposed at the north end and has been mapped as an early Tertiary calc-alkalic intrusion (GSC Map 1424A, Parsnip River, N.T.S. 93).

Government mapping and prospecting by Ruanco has not identified exposures of the interpreted intrusive stock that underlies the Father Mark claims; the lack of exposures supports R. Cannon's interpretation of a buried body. A single small rhyolite dyke was found in outcrop at the south end of the claims and provides evidence of intrusive igneous activity.

Prospecting by Ruanco located a scattering of small outcrops over most of the property. Argillite and limestone occur in the eastern claims while andesite tuffs predominate to the west. The contact between the two units appears to run north-south or northeast-southwest; it is not exposed but is presumably an unconformity. According to government mapping the sediments are Cambro-Ordovician and the volcanics are Mississippian Slide Mountain Group.

Ruanco has found silicification in the form of quartz veinlets in both the limestone and argillite; this alteration appears to be confined to a zone that is proximal and parallel to the sediment-volcanic unconformity. Quartz-iron carbonate vein material was found at two locations in float. Both sites are located in depressions. Richards suggests that they are related to a postulated fault zone that would run northwest-southeast through the area and cross-cut the volcanic-sediment contact.

No significant sulphide mineralization was found on the Father Mark claims.

Handspecimen of the silicified limestone and argillite that were provided for examination contained remobilized calcite as vein material along with the veinlets of quartz.

## **Previous Work**

There is no previously recorded exploration activity in the immediate claim area.

Ruanco have completed an initial program of prospecting and reconnaissance silt, soil and rock sampling on the Father Mark claims. Silt sampling provides the best encouragement for the property; several samples contained detectable gold ranging from 30 to 360 ppb. The highest silt is actually located about two kilometers south of the claims in unstaked ground. Gold results for soils and rocks are low and not encouraging. The only significant value in rocks, 1300 ppb gold, came from the initial investigation of the area. The location of this sample could not be found during this past season's prospecting and additional rock samples from the area returned only background values for gold. The geochemical results for other elements is not particularly revealing.

The closest exploration activity is by Ezekiel Exploration on their G. North property. Ezekiel have been working on the property since the early 1980's. Work to date includes air and ground geophysics, surface sampling and geology. Their exploration play consists of searching for the lode source of the historical "placer" gold deposits of the McDougall River area. Ezekiel's ground is in a generally similar package of rocks to that underlying the Father Mark property. Early assessment reports on Ezekiel's claims report minor occurrences of gold associated with calcite veins and sheared pyritic siltstone outcrops. Gold values ranged from below detection to 2.5 ppm. VLF-EM conductors occur along strike from the auriferous samples.

More recent assessment reports are not immediately available from our microfiche files, however the synopsis of work to 1987 indicates that Ezekiel has not yet identified a target that warrents drilling.

## Conclusions

1. Stream silt samples indicate the presence of gold in and around the Father Mark claims.
2. The low gold results in soils and rocks is discouraging and provides no information on the style of mineralization that might be giving rise to the silt anomalies.
3. The calc-alkalic intrusive suite in the area is not considered to be as prospective for a gold or copper-gold porphyry deposit as the alkalic intrusions of the QR and Mount Milligan gold deposits. However it must be kept in mind that the composition of the buried intrusion under the Father Mark claims is not known.
4. Iron sulphides are a characteristic feature of both the QR and Mount Milligan hydrothermal mineral systems. Sulphides appear to be absent on the Father Mark property.
5. An exploration program for gold mineralization that might be more closely associated with the postulated buried intrusion would require early high-risk drilling targeted on geophysical data alone.

## Recommendations

I recommend that our firm does not acquire the Father Mark property at this time. If the property is still available this field season and when our field crews are in the area, then an on-site investigation should be undertaken to confirm Ruanco's silt gold anomalies with stream sediment bulk samples and to examine the property geology.

A handwritten signature in black ink, reading "M.B. Gareau". The signature is written in a cursive style with a long, sweeping tail on the final letter.

M.B. Gareau