GEOLOGY AND GEOCHEMISTRY REPORT WILLY'S FIRST, CEASAR, NOT ALL THERE and WILLY'S TUTU MINERAL CLAIMS (Bridge #2 Group) SKEENA MINING DIVISION

NTS103 F/8W

LATITUDE 53° 21'N LONGITUDE 132° 20'W

DATES OF WORK: July 22, 1982 to May 26, 1983

OWNER

Gordon G. Richards

OPERATOR

JMT Services Corp.

WRITTEN BY James S. Christie, Ph.D.

August 31, 1983

GEOLOGICAL BRANCH ASSESSMENT REPORT

11,219

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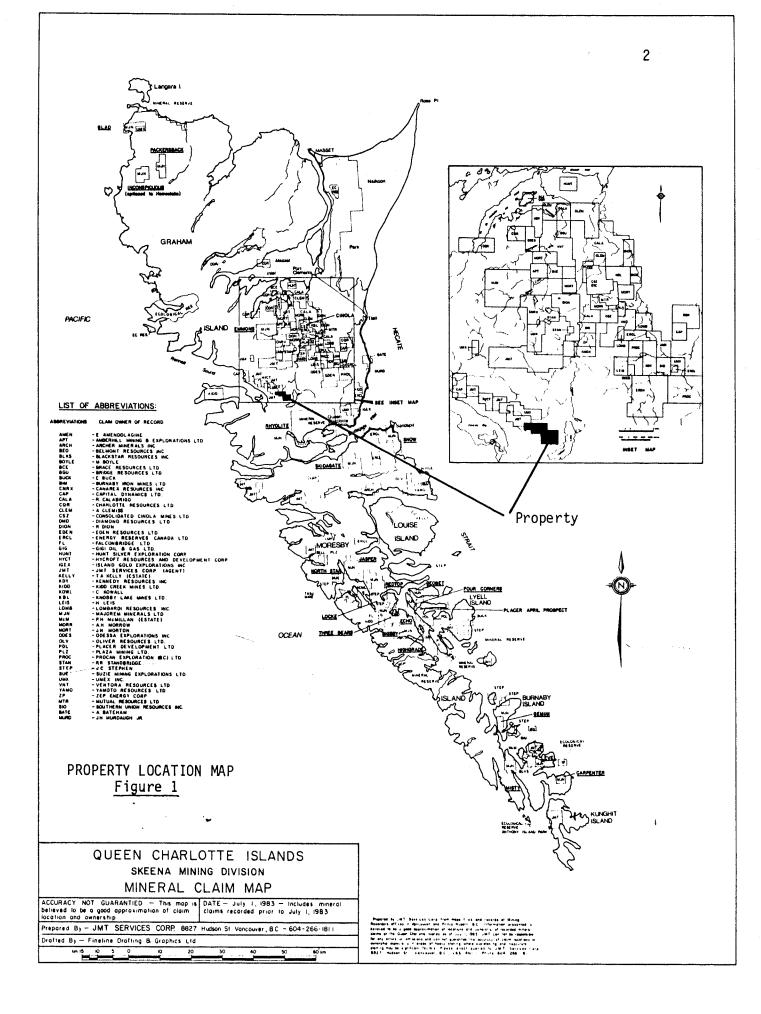
INTRODUCTION

The claims cover an extension of a west north-west trending mineralized belt that has been traced for over 15 km from Gospel Point on Rennell Sound through Courte Sb-Au Prospect on Upper Riley Creek, to the southeast corner of NOT ALL THERE claim. Reconnaissance soil and silt samples were collected in a systematic manner to provide a basis for evaluation of the area. Gold-arsenic geochem analyses were done on these samples (22 silts and 11 soils) and on 5 rock chip samples collected during the programme. Gold values obtained were all low, but anomalous arsenic values exceeding 30 ppm were obtained in a number of silts and have indicated an area of the WILLY'S TUTU claim which will require more detailed sampling.

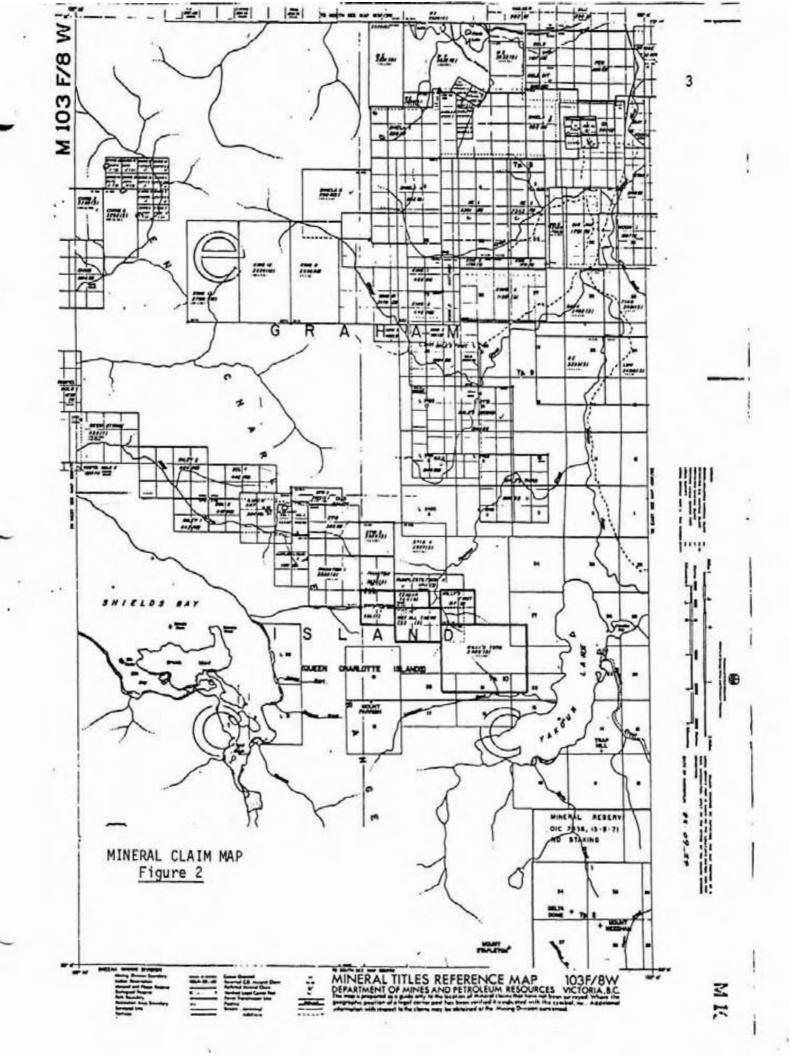
LOCATION AND ACCESS

The property is located on a hill south of the upper drainage of Phantom Creek northwest of Yakoun Lake, Graham Island, Queen Charlotte Islands.

The northwest part of the property is readily accessible from private logging roads connecting Queen charlotte City and Rennell Sound. These roads are open to the general public after working hours and on weekends or by special arrangement. The anomalous zone described below occurs in the west central part of the claim about 1 to 1.5 miles southwest of the road. Traversing from the road is the most practical means of access for further evaluation.



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TOPOGRAPHY AND VEGETATION

Elevations on the claim group range from 900 feet above sea level along the upper drainage of Phantom Creek to 2200 feet on the hill to the southeast. Valley bottoms and ridge top are covered in mixed cypress-pine swamps and mature hemlock-spruce forest. Hill slopes are heavily timbered with hemlock-spruce-cedar. Dverdurben is relatively thin, generally less than 5 metres except in the valley bottom where depths of as much as 30 metres are estimated. Outcrop is moderately abundant on the ridges and sparse on the valley floor, occurring only along some sections of the larger creeks. Nearly continuous exposure of bedrock exists in the numerous smaller creeks draining the hill slopes up to an elevation of about 2000 feet.

MINERAL CLAIMS

The property consists of the 4 claims listed below:

| CLAIM NAME | UNITS | RECORD NO. | | | |
|---------------|-------|------------|--|--|--|
| CEASAR | 2 | 764 (9) | | | |
| NOT ALL THERE | 8 | 763 (9) | | | |
| WILLY'S FIRST | 4 | 617 (6) | | | |
| WILLY'S TUTU | 20 | 3486 (5) | | | |

General The geology is very much as described by Sutherland-Brown in B.C. Dept. of Mines Bulletin #54. Rocks of the Yakoun Formation of Jurassic age outcrop on the hill between the headwaters of Riley and Phantom Creeks. They are divisible into three mappable units. The lowermost unit is mixed argillite, argillaceous tuff with minor andesite and occurs in the southwestern and western parts of the survey. Above this unit is a distinctive looking light to medium grey wispy bedded tuff. The third unit lies above this marker unit and is like the first except that it contains more volcanic detritus and much carbonaceous materials including trunks of trees up to 2 ft. in diameter.

South of the headwaters of Phantom Creek rocks of the Longarm Formation of Cretaceous age outcrop down to the road or possibly as far as the east flowing tributary to Phantom Creek. They are calcareous siltstones and sandstones recognized in a few outcrops by the characteristic fossil Inoceramus.

The 2200 foot high hill on the WILLY'S TUTU claim is underlain by porphyritic andesite of the Tertiary Masset Formation and by Longarm Formation sediments. Thin bedded limy argillites of the Triassic Kunga Formation occur on the southwest corner of the claim.

Small quartz feldspar porphyry and rhyolite dykes, not all mapped, occur in association with the alteration zones northwest of the WILLY'S TUTU claim.

- 1. Structure Two faults have been mapped projecting onto the claim that are roughly parallel to the major Riley Fault System. The Longarm Formation is probably in contact with the Yakoun Formation along a major east-west or west northwest trending fault. The alteration pattern in this area also appears to be affected by such a fault that may be a control of mineralization. Bedding attitudes are steep, have a general northwest trend but change to a more northerly attitude in the Longarm Formation.
- 2. Alteration and Mineralization A clay-carbonate-silica alteration zone with accompanying disseminated and fracture pyrite occurs just northwest of the claim. The zone contains a few quartz feldspar porphyry dykes. It occurs in a tuffaceous sedimentary package but also occurs in calcareous silstone of the Longarm Formation. This zone has local tourmalinization and contains pronounced zones of silicification. Carbonate has been destroyed in the silica zones. This alteration zone is 100 to 200 metres wide and 2000 metres long. The zone appears to weaken or die out to the east; but on the basis of geochem response, it could be offset to the southwest.

GEOCHEMISTRY

General The geochemical sampling described in this report was undertaken to evaluate an area that had not been previously sampled or explored. Reconnaissance traverses were run to obtain good silt coverage

of the claim and soil coverage in some areas where streams do not occur. The sample locations are shown on Figure 3. Rock chips were taken where appropriate from outcrops showing signs of mineralization or alteration. In total, 11 soil, 22 silt and 5 rock chip samples were collected and analyzed for gold and arsenic. Soil samples were collected using rock hammers and scoops from the B Horizon where possible, from depths of 1 cm to 20 cm. Stream sediments were collected from active creek beds using stainless steel scoops. Rock chip samples were made from 3 to 10 rock chips, small enough to fit into standard gusset kraft sample bags. Gold and arsenic geochemical analyses were done on the minus 80 mesh fraction by Chemex Labs Ltd., 212 Brooksbank Avenue, North Vancouver, B.C., using the following procedures:

GOLD Neutron Activation Analysis

ARSENIC Atomic Absorption

Gold Gold values obtained in the survey are all less than 5 ppb Au. Some values of less than 10 to less than 50 ppb are reported for some samples which contained insufficient minus 80 mesh material for a conventional analysis. Such samples are from steep rocky slopes where soil development is poor.

Arsenic Values obtained in the survey shown on Figure 3 ranged from 3 to 160 ppm As, and averaged about 25 ppm. Nine samples with arsenic contents exceeding 30 ppm As are anomalous, but only sample R341 - 160 ppm As is strongly anomalous. The anomalous values occur mainly in silts in the southwest part of the property.

CONCLUSIONS AND RECOMMENDATIONS

The current reconnaissance sampling programme on WILLY'S TUTU claim has yielded very low gold values and low arsenic values, except in streams draining the southwest corner of the claim. Based on a few outcrops mapped, this area appears to be underlain by sediments of the Longarm and Kunga Formations. A programme of reconnaissance soil sampling and mapping should be planned to evaluate this area of anomalous arsenic geochemistry.

Respectfully submitted,

J.S. Christie, Ph.D.

JSC:mh

COST STATEMENT

1982-83 PROGRAMME

WILLY'S FIRST - WILLY'S TUTU CLAIMS

| Geologists | | | | | | | | |
|---|-------------|------------|----------|-----|-------|--------|-------|----------------|
| J.S. Christi | e July 22, | 1/2-24 (| 1982) 1- | 1/2 | days | 0 | \$225 | \$ 337.50 |
| G.G. Richard | s Sept 29, | Oct 2 (1 | 982) 2 | | days | 0 | \$225 | 450.00 |
| Disbursement | <u>s</u> | | | | | | | |
| Chemex Labs | | | | | | | | 353.90 |
| Truck Rental | - 3 days 0 | \$50 | | | | | | 150.00 |
| Motel and me | als | | | | | | | 120.00 |
| Technical supplies: sample bags, flagging, etc. | | | | | | 30.00 | | |
| Report, including map preparation, drafting, typing | | | | | | 700.00 | | |
| Airfares - 2 | One way- Sa | andspit-Va | ancouver | | | | | 275.00 |
| | | | | 1 | [otal | | | \$ 2,416.40 |

STATEMENT OF QUALIFICATIONS

I, James S. Christie of Vancouver, British Columbia do hereby certify that,

- I am a Professional Geologist residing at 3921 West 31st.
 Avenue, Vancouver, B.C., V6S 1Y4
- I am a graduate of the University of British Columbia
 B. Sc., Honours Geology 1965; Ph.D. Geology 1973
- I have practised my profession as a mining exploration geologist, continuously since 1965.
- 4. I am a Fellow of the Geological Association of Canada.
- 5. I am a Member of the Geological Society of America.
- This report is based on my personal knowledge of the district, and mapping of the geology at the property

James S. Christie, Ph.D.

