

79-#543-# 7643

Assessment Report

on a

Brief Sampling and Magnetometer Test Program

on portions

of the

Rachel Claim (3 units)

Situated on

Qualark (Hillsbar) Creek

17 air kilometres north of Hope

New Westminster Mining Division

N.T.S. 92H/11W

Latitude 49°30'N; Longitude 121°20'W

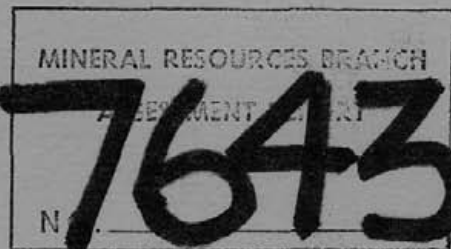
Field Work on November 1 and 2, 1979

by a

Cochrane Consultants Field Crew

on behalf of

Alexander Badovinac



Report by

D. R. Cochrane, P. Eng.
November 27, 1979,
Delta B.C.



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Geotechnical Consulting / Exploration Services

geology
geophysics
geochemistry

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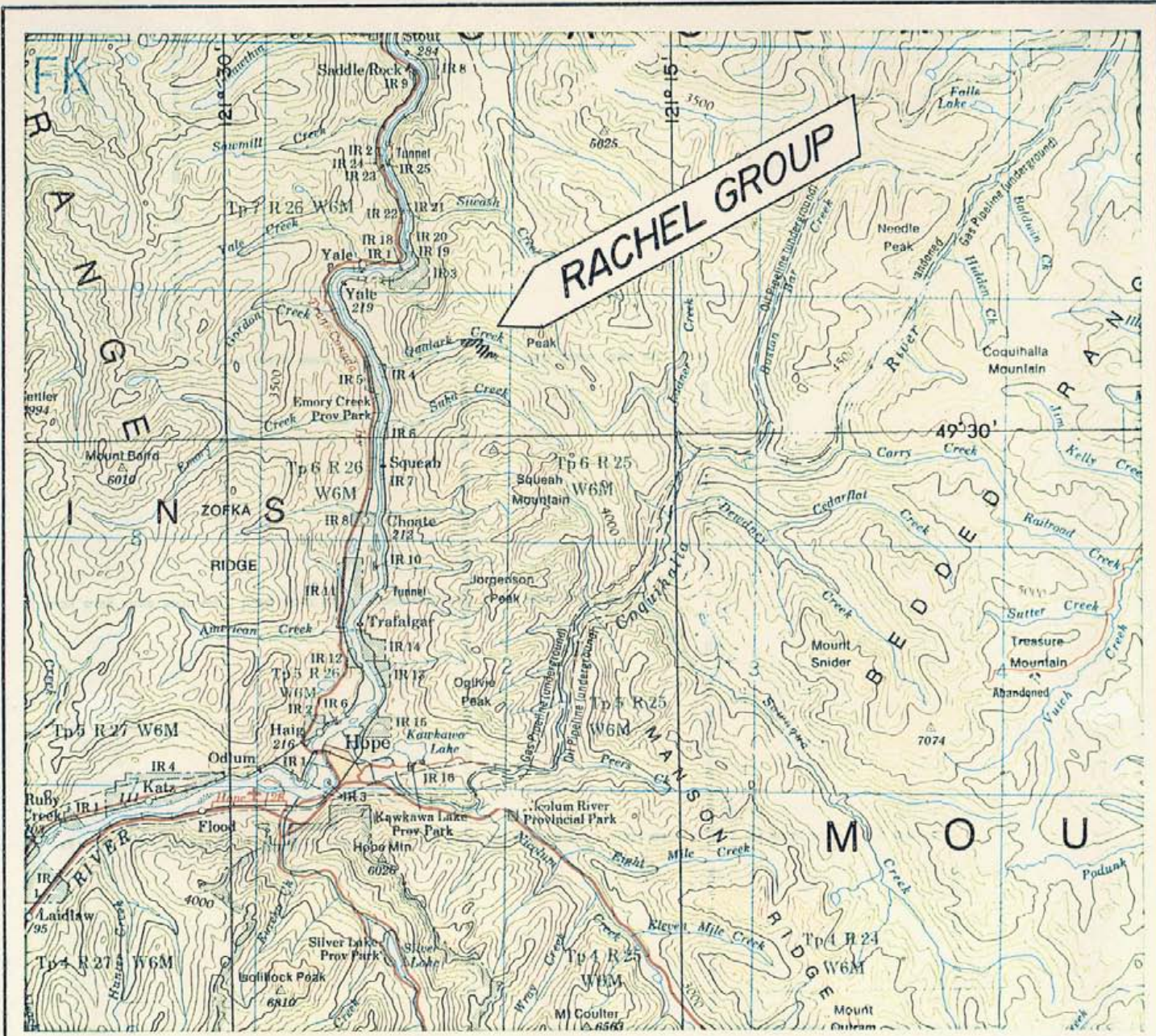


INTRODUCTION

On November 1 and 2, 1979, a three man field crew conducted assessment work on the Rachel (three unit) claim situated on Qualark Creek, some twelve (12) road miles north of Hope in Southern British Columbia. Work consisted of resampling the old Hillsbar adit, and a test line of ground fluxgate magnetometer surveying.

This report describes the work done and results obtained. Assessment work details are summarized in Appendix I at the end of the report.



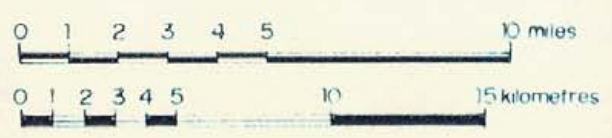


RACHEL GROUP PROJECT

Rachel & Chivonne Claims Quakwaka'wan Area
 New Westminster M. D. N.T.S. 92H/6 & 11W

Figure 1
 Location Map

Scale 1 to 250,000 or 1 inch equals approx 4 miles



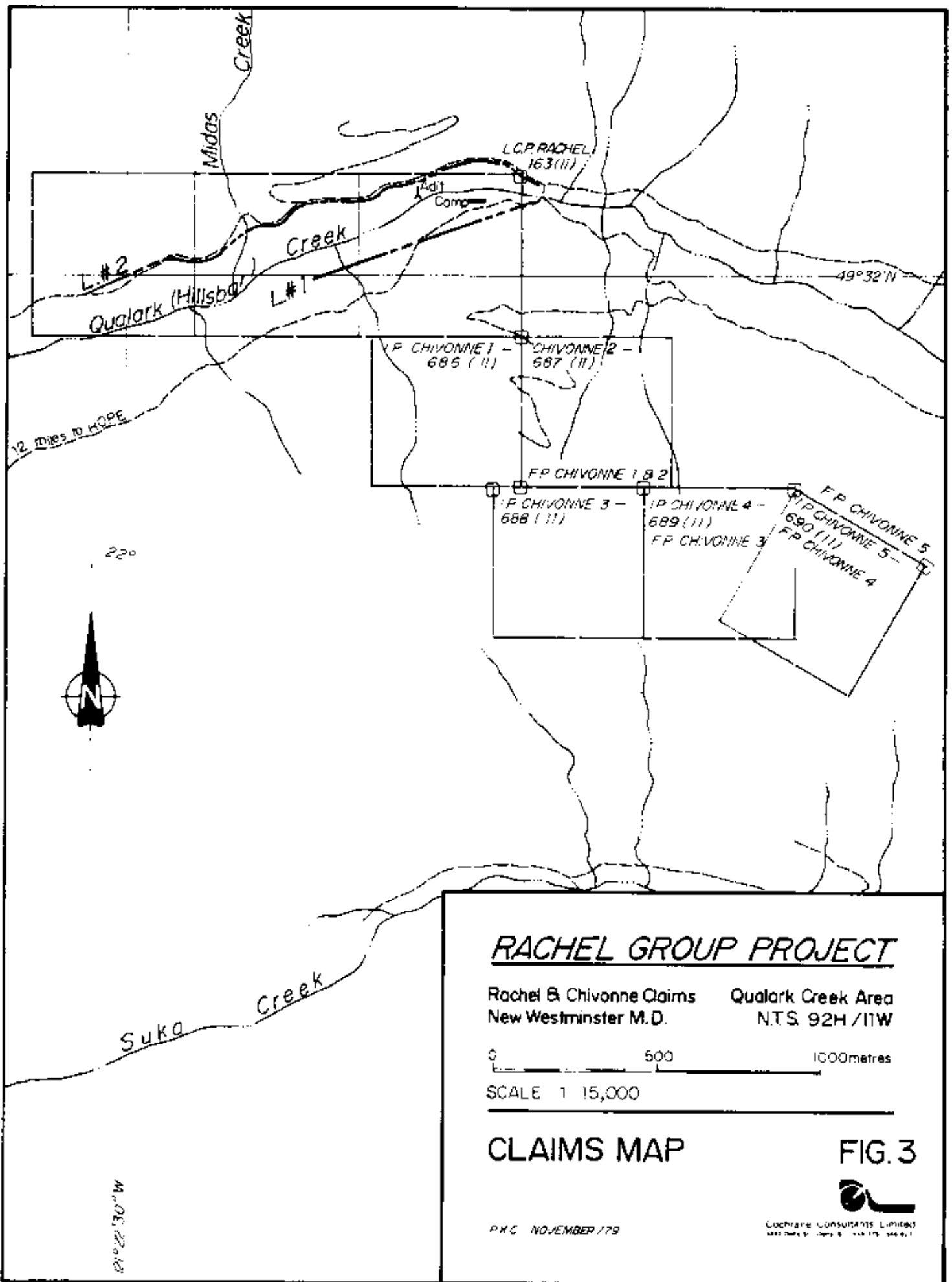
LOCATION AND ACCESS

The Rachel claim is located on Hillsbar (or Qualark) Creek, a westerly flowing tributary of the Fraser River situated eleven (11) air miles (18 air kilometres) due north of the town of Hope and three (3) miles south (4.8 kilometres) of Yale in southern British Columbia. Normal access to the claims is via a logging road which proceeds north from Hope and along the east side of the Fraser River. A branch road extends westerly up Hillsbar Creek, and provides good access to the claims .

Access to the headwaters of the creek can also be made by charter helicopter at a base located in Agassiz.

The latitude is 49°30'N, and longitude 121°20'W.





RACHEL GROUP PROJECT

Rachel & Chivonne Claims
New Westminster M.D.

Qualark Creek Area
N.T.S. 92H/11W

0 500 1000 metres

SCALE 1:15,000

CLAIMS MAP

FIG. 3



P.K.C. NOVEMBER 1979

Cochrane CONSULTANTS Limited
1400 West 10th Street, Vancouver, B.C. V6H 1T7

M.O.E. 22018

CLAIMS INFORMATION

The Rachel claim consists of three units registered in the New Westminster Mining Division of British Columbia. The "Rachel" is a relocation of the original Hillsbar Claims, and was staked on November 4, 1976. The record number is 163, and claims are three (3) units long (1500 metres) (eastwest) by one unit or 500 metres wide (north-south). (See map).

The Rachel claim is owned by Mr. Alexander Badovinac, of Vancouver, B. C.

| Claim Name | No. of Units | Record No. | Anniversary Date | Expiry Date before credits | Date after credits |
|---------------------|--------------|------------|------------------|----------------------------|--------------------|
| <u>RACHEL GROUP</u> | | | | | |
| Rachel | 3 | 163 | November 5 | 1979 | 1980 |
| Chivonne 1 | 1 | 686 | " " | 1980 | 1980 |
| Chivonne 2 | 1 | 687 | " " | 1980 | 1980 |
| Chivonne 3 | 1 | 688 | " " | 1980 | 1980 |
| Chivonne 4 | 1 | 689 | " " | 1980 | 1980 |
| Chivonne 5 | 1 | 690 | " " | 1980 | 1980 |



GENERAL SETTING

The claims are located in the Northern Cascade Mountains and immediately east of the Fraser River in Southern British Columbia. The area is quite rugged and mountainous, with local peaks rising to between 1500 and 2000 metres above sea level. This section of B.C. is a moderately wet climate area and in general, below the 1400 metre level, a dense thick coniferous forest covers the hillsides. Normally outcrops are restricted to creek bottoms and cliff and talus slopes and a glacial mantle of drift covers the vast majority of bedrock.

The claims straddle Qualark Creek and are therefore at low elevations. The old Hillsbar adit is on the north bank of the creek at an elevation of just under 760 metres. The area is being actively logged and most of the Rachel claim has been logged off.



HISTORY

Rumours of gold on the Fraser River apparently started in 1857 and precipitated the Fraser Gold Rush of 1858. Emory Bar and Hillsbar on the Fraser were important producers of placer gold for several decades and production was intermittent until commencement of the first world war. The mother lode of these bars was not actively sought until the late teens. The 1912 Report of the Minister of Mines (pg. 186) describes "considerable placer prospecting on Hillsbar Creek", however, according to Cairnes (1923) it was not until the summer of 1921 that lode gold was found in place on Hillsbar (or Qualark) Creek. Cairnes describes the principal showings in the creek valley as "a series of quartz veins in slates occurring 100 to 200 feet distant from a granodiorite contact".

The veins were reported to pinch and swell from a few inches to up to three feet wide. Cairnes continues "Ore mineralization is, on the whole, very scanty in these quartz veins and is represented chiefly by free gold and arsenopyrite". Cairnes describes a



sample containing no visible gold and assayed by the Mines Branch in Ottawa running 0.13 oz Au/ton. Apparently a 27 foot adit had been driven on the Hillsbar showing at this time. References to the Hillsbar occurrence and "Gold" Mineral Claims Group continues in the Minister of Mines Reports until 1927. The 1927 report describes three adits, the largest of which was 197 feet long. Apparently the underground work had uncovered six well defined veins as opposed to seven located in the Creek bottom. The No. 3 vein is reported as averaging \$20.00 per ton (1927 prices - \$20.67) across 3 feet. Reference is also made to a sample collected across 3 feet running 0.82 oz Au per ton and 0.10 oz Ag per ton. The old workings are now covered by the Rachel claim.

The discovery of the Hillsbar (or Gold Group) lode caused considerable excitement in 1921 and in following years since Hillsbar, on the Fraser River, 3 miles below Yale, was one of the richest bars on the Fraser. It was suspected then that the mother lode had at last been found.



Work on the property and adjacent area, however, probably continued sporadically during the late 20's and early 30's but there is no further reference to the Hillsbar or Gold Group in subsequent Minister of Mines Reports.

It can be assumed that the area had a short lived revival during the readjustment in gold price in 1933 but since then probably very little work has been conducted in the area. The situation has changed somewhat of course, commencing in 1972 and again in 1973 as the gold price has continued to rise from the pegged \$35.00 per ounce standard.

In 1975 Carolin Mines Ltd. optioned the Hillsbar property and conducted geochemical sampling, geological mapping and test pitting. The option was terminated in early 1977, and Mr. A. Badovinac now owns the claims.



FIELD PROCEDURES

The experienced two man field crew (and one helper) deployed an MF-2 ground fluxgate magnetometer for the geophysical test work. A main base station was set up near the LCP of Rachel, and instrument adjusted to the 1000 scale (maximum readability). Several readings were taken 5 minutes apart, and all checked, then a traverse ran on the south side of the creek. At each 25 metre station the reading and time was recorded on standard preprinted "write in the rain" field note forms. At completion of the south traverse the base station was again checked, and subsequently the north line run in the same manner. "Check in's" to the main base station, at not more than one hour intervals, were within 20 gammas, and therefore no diurnal time drift corrections were applied.

From the field notes taken on November 1 and 2, final maps were prepared in the office of Cochrane Consultants Ltd.



RESULTS OBTAINED

The old Hillsbar adit lies very close to the rather gradational contact between the Hozameen ribbon cherts (with minor limestone and greenstones) and the Custer Gneiss. The ground fluxgate magnetometer test was an attempt to determine the total magnetic susceptibility contrast between the Hozameen Series and Custer Gneiss, since this contact is known to be geochemically anomalous with respect to gold. Magnetometer results ranged from a low of -2490 gammas to a high of -595 gammas. The -2490 gamma reading however, was taken beside a large steel logging spar and therefore must be disregarded. Bedrock contrast ranged to a low of -940 gammas, and therefore the overall range is somewhat limited, and is only a total of 345 gammas. There is no significant susceptibility contrast between the two rock types in this particular area, and therefore fluxgate magnetometer surveying has somewhat limited value in delineating the contact.



The field crew collected four rock samples and a geochemical sample from the old Hillsbar adit. The best gold assay was 0.07 oz per ton across 30 cm, (sample 27629); the best silver assay a 0.13 troy ounce per ton, and copper values are all below 0.01%. (See Figure 4)

Further exploration work could be directed southerly onto the Chivonne claims, and along the Hozameen-Custer contact.

Respectfully submitted

A handwritten signature in black ink is written over a circular professional engineer seal. The seal contains the text "PROFESSIONAL ENGINEER" and "BRITISH COLUMBIA" around the perimeter, with "ENGINEER" at the bottom. The signature is a cursive-style name that appears to be "D. R. Cochrane".

D. R. Cochrane, P. Eng.

November 27, 1979

Delta, B. C.



APPENDIX I

ASSESSMENT WORK DETAILS

Personnel and Dates Worked

| | |
|---------------------------|--|
| Instrument Operator, | November 1 and 2, 1979 |
| Prospector, | " 1 and 2, 1979 |
| Helper, | " 1 and 2, 1979 |
| D. R. Cochrane, P. Eng. | October 31, November 27, 1979. |
| Draftspersons and typist, | Various dates throughout project including report preparation. |

COST STATEMENT

| | |
|--|---------------|
| Instrument Operator, 1 1/2 days at \$120/day ...\$ | 180.00 |
| Prospector, 1 1/2 days at \$120/day..... | 180.00 |
| Helper, 1 1/2 days at \$70/day | 105.00 |
| Vehicle, one 4 x 4, one day at \$25/day..... | 25.00 |
| Mileage, 272 km at \$0.15/km | 40.80 |
| Assay Lab Costs, 5 samples at \$10.80/sample ... | 54.00 |
| Accommodation | 38.85 |
| Food | 41.68 |
| Drafting, 33 hrs at \$14.85/hr | 490.05 |
| Typing, collation, binding, | |
| 8 hrs at \$10/hr | 80.00 |
| Reproduction | 60.00 |
| D. R. Cochrane, P. Eng. | |
| 1/2 day at \$250/day | <u>125.00</u> |
| Sub-total | \$ 1,420.38 |

Cont'd...



APPENDIX I (cont'd)

Balance forward\$ 1,420.38

Less: (costs not eligible for assessment
credits)

5 claims staked during project
at \$50/claim \$250.00

Drafting and office time required
for extra claims, 17 hrs
at \$14.85/hr \$252.45 \$ 502.45

Total \$ 917.93

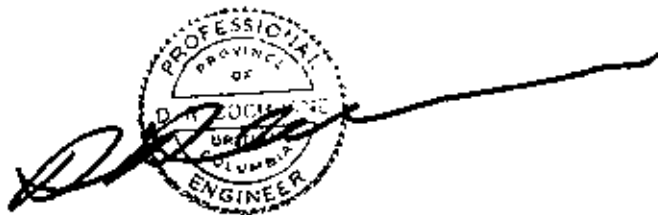


APPENDIX II

CERTIFICATE

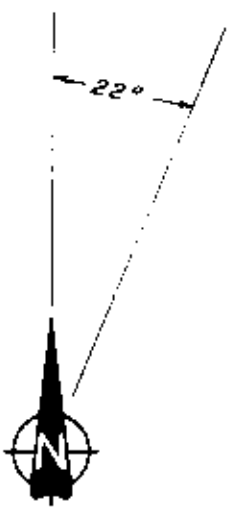
I Donald Robert Cochrane, of the Municipality of Delta, British Columbia, do hereby certify that:

1. I am a consulting geological engineer with an office at 4882 Delta Street, Delta, B. C. V4K 2T8
2. I am a graduate of the University of Toronto (1962) with a degree in Applied Geology (B.A.Sc.) and a graduate of Queen's University (1964) with a degree in Economic Geology (M.Sc., Eng.).
3. I have practiced my profession continuously since graduation while being employed by such companies as Noranda Exploration Co. Ltd., Quebec Cartier Mines, and Meridian Explorations Syndicate. I have been in private independent practice since 1969.
4. I have no interest, either direct or indirect in the properties or securities of the Rachel Group, nor do I expect to acquire any such interest.
5. I am a member in good standing of the Association of Professional Engineers (A.P.E.) of the Province of British Columbia, and also a member of the A.P.E. in the Province of Ontario, Saskatchewan, Alberta, and the Yukon Territories.

A circular professional seal for the Province of British Columbia. The outer ring contains the text "PROFESSIONAL ENGINEER" at the top and "BRITISH COLUMBIA" at the bottom. Inside the ring, it says "PROVINCE OF" at the top and "D. R. COCHRANE" in the center. A handwritten signature is written across the seal.

D. R. Cochrane, P. Eng.
November 27, 1979,
Delta, B. C.





Sample N° 27626
 Au - 25 ppb.
 Ag - 0.2 ppm
 Cu - 17 ppm

Diamond Drill Hole approx. +45°

Slates
 Rusty ooze (sludge?)
 Quartz stringer a few cm wide

Narrow Quartz Vein a few cm wide

STA 4
 Rusty ooze

Workings narrow slightly from here

Sample N° 27627
 Grabs off face
 Au - 0.070 oz/ton
 Ag - 0.04 oz/ton
 Cu - 2.001 oz/ton

Quartz Vein 30 cm wide dips 60° to north, Slates follow

Vein pinches

Quartz contorted (fault?)
 Slates
 Schist
 Gouge

Quartz Vein approx 30 cm wide at face.

STA 2

Sample N° 27629
 Channel across 0.75m
 Au - 0.005 oz/ton
 Ag - 0.06 oz/ton
 Cu - 2.001 oz/ton

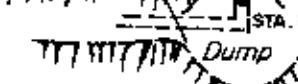
Quartz Vein 15 cm to 45 cm wide, vertical, rusty with black gouge each side

Sample N° 27630
 Grabs from floor below face
 Au - 0.005 oz/ton
 Ag - 0.13 oz/ton
 Cu - 2.001 oz/ton

Wheel barrow track throughout workings

Sample N° 27628
 Grabs from dump
 Au - 0.020 oz/ton
 Ag - 0.02 oz/ton
 Cu - 2.0.01 oz/ton

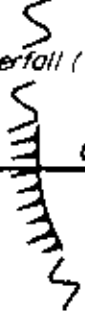
Slates almost vertical, east-west



FAULT ?

Waterfall (FAULT ?)

QUALARK (HILLSBAR) CREEK



Pink felsite good cleavage with several quartz veins approx. 10 cm wide and 1m apart striking north-south

RACHEL GROUP PROJECT

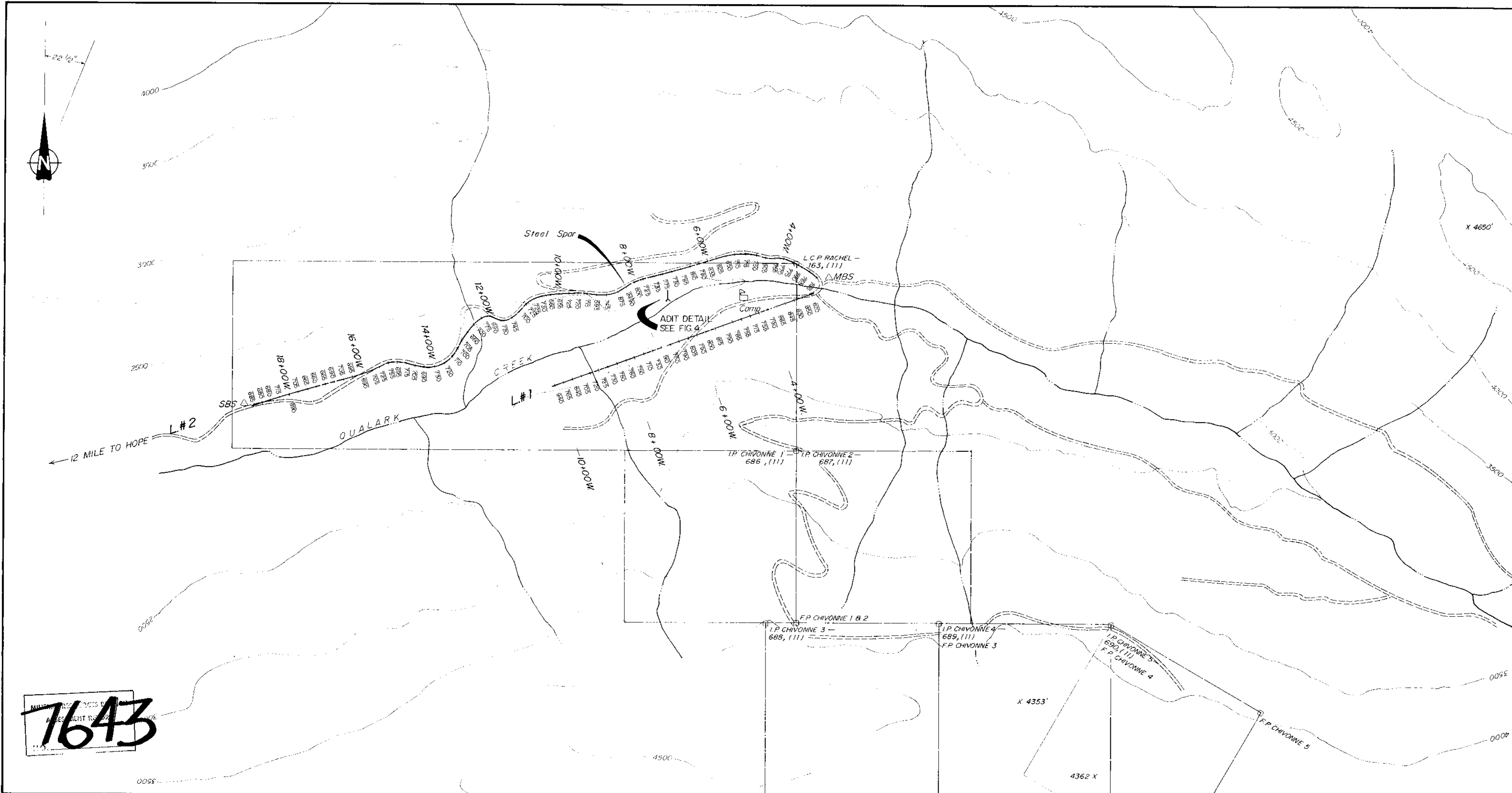
Rachel & Chivonne Claims Qualark Cr. Area
 New Westminster M. D. N.T.S. 92H/11W



**HILLSBAR ADIT SKETCH
 PRELIMINARY GEOLOGY &
 ASSAY PLAN**

FIG. 4

MINERAL RESOURCES BRANCH
 7643
 NO.



7643

RACHEL GROUP PROJECT

Rachel & Chivonne Claims Qualark Cr. Area
 New Westminster M.D. N.T.S.92H/11 W.

SCALE 1:5,000

To accompany a report by D.R. COCHRANE, P.Eng., on the RACHEL GROUP dated November 27, 1979

MAGNETOMETER DATA FIG. 3



Cochrane Consultants Limited
 4882 Delta St., Delta, B.C. V4K 2T9 346-9221