

5617

GEOCHEMICAL AND GEOPHYSICAL
ORIENTATION SURVEYS

on the

NORM (#1 to #4) CLAIMS

Situated on
SPIDER PEAK

#5617

11.8 (19 km) air miles

NNE of HOPE

New Westminster M.D.

British Columbia

N.T.S. 92H-11/c 92H/11W

Latitude 49°32'N Longitude 121°18'W

CLAIM - NORM

on behalf of

MR. N. ASCROFT

of

VANCOUVER, B.C.

92H/11W

NORM

Report by:

D. R. Cochrane, P. Eng.

August 15, 1975

Delta, B.C.



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Geotechnical Consulting / Exploration Services

geology
geophysics
geochemistry

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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5617 MAP

PART A

A-1 PREAMBLE

On July 25, 1975, the author conducted reconnaissance type prospecting, and on July 27, 28, and 29, Messers. G. and K. Elliott conducted geochemical (soil) and geophysical (magnetometer) orientation surveys on the four Norm claims, situated on Spider Peak and approximately 12 air miles (19 km) NNW of the town of Hope in southern British Columbia. The work was conducted on behalf of Mr. E. N. Ascroft of Vancouver, British Columbia.

This report describes the procedures used and the results obtained. A cost breakdown of the orientation work and certificates of personnel is appended in order to comply with application for assessment work credit regulations.

A-2 SUMMARY AND CONCLUSIONS

1. Mr. Eric N. Ascroft owns the Norm #1 to #4 located mineral claims situated in the New Westminster Mining Division, and lying immediately north of Carolin Mines Ladner Creek Property.

2. The claims lie within the Coquihalla Gold belt, whose axis is a narrow, northerly trending complex of volcanics, basic intrusives and serpentine, which is bounded on the east by the Hozameen Fault.

3. Between 1916 and 1943, five properties in the Coquihalla gold belt produced ore totaling 3102 tons and containing 3912 ounces of gold. The old Georgia #2 on Spider Peak, shipped two (2) tons of ore to the Tacoma Smelter in 1925, and 37 ounces of gold was recovered. (B.C. Dept. of Mines Records). Carolin Mines on the Idaho Zone, a few miles south of Spider Peak has reported outlining 3½ million tons (geologically inferred and diamond drill indicated) grading 0.114 ounces Au per ton. (Northern Miner, July 24, 1975).



4. Recent reconnaissance and orientation work on the Norm claims on Spider Peak includes geochemical soil sampling, a short magnetometer survey and reconnaissance prospecting.

5. The Norm Claims straddle a serpentine band and a basic extrusive/intrusive complex which includes altered metamorphic rocks such as a carbonate quartz maroposite (?) rock, talc and various hybrids. The carbonate rock is prominent on Spider Peak and is cut by a network of quartz-carbonate stringers which have the appearance of a spider's web and hence the name of the peak.

6. Diurnally corrected fluxgate, vertical field magnetometer results are presented in figure 3. Values range from a low of -15 gammas to a high of 6220 gammas. Two families of magnetometer values are present and are believed to represent two different bedrock sequences.

7. Ground magnetometer work, coupled with reconnaissance mapping is believed to be an excellent guide to lithology and structure. Additional magnetometer work is recommended.

8. Geochemical soil samples, selected from the upper "B" soil horizon, were analyzed for their content in gold by Min-En Labs of Vancouver. Gold content of the soil ranges from a low of .01 parts per million (p.p.m.), to a high of 3.30 p.p.m.

9. Two of the 33 samples are designated as anomalous, and these lie immediately east of a relatively narrow northerly trending magnetic ridge which may represent magnetic response to a band of serpentine.

10. Additional magnetometer, soil sampling and prospecting is recommended.

Respectfully submitted,



D. R. Cochrane, P. Eng.

August 15, 1975

Delta, B.C.



PART B: SETTING

B-1 LOCATION AND ACCESS

The Norm claims lie some 12 air miles (19 km) north-north east of the town of Hope in Southern British Columbia. Access via logging roads is available from Hope, east on the Kawkawa Lake road, across the Coquihalla Bridge then left onto an access road which circles the west side of Kawkawa Lake. The road then proceeds northerly past Squeah on the C.N.R. line, over Suka Creek to Qualark (Hillsbar) Creek. The most easterly point on the Qualark Creek logging road is at an elevation of 3200 feet, and access from this point is on foot, north and northeasterly to an elevation of 4500 feet (a distance of 3000 feet) to the first Norm claim post. Total road mileage is just under 20 miles. The claims lie on the south-west flank of Spider Peak, and the location line runs approximately west.

A helicopter base is situated in Hope and facile access may also be gained by helicopter. The NTS code for the area is 92H-11-c; the latitude is 49°32'N and longitude 121°18'N.

B-2 CLAIMS AND OWNERSHIP

The approximate position of the NORM #1 to #4 (inclusive) claims are shown on B.C. Department of Mines 92H/11 (West).

The four located Norm claims are owned by Mr. E. N. Ascroft, of 1878 west 37th Avenue, Vancouver, British Columbia and were recorded on the 16th of August, 1974.

The record numbers as follows:

<u>Claim Names</u>	<u>Record Numbers</u>
Norm #1	29448
Norm #2	29449
Norm #3	29450
Norm #4	29451



B-3 GENERAL SETTING

The Norm claims lie in the northern most section of the Cascade Range, a rugged upland surface which locally, rises steeply from the Fraser Canyon to elevations in excess of 6000 feet above sea level. The summit on Spider Peak is just over 5200 feet. The Norm claims lie in the divide between a fork of Siwash Creek (draining northerly) and the headwaters of Qualark Creek, (draining westerly). Both creeks are tributaries of the Fraser River. The area is well forested with Douglas Fir, Red and White Cedar, Hemlock, Spruce and Pine.

The claims straddle a narrow basic intrusive/extrusive complex, with associated serpentine, talc, and carbonate-quartz-maraposite (?) rocks. To the east of this north trending complex is the Jurassic Ladner Group, (slate, greywacke), and to the west, the Paleozoic Hozameen Group (volcanics, limestone, chert).

A series of gold occurrences lie along this belt, which is collectively known as the Coquihalla Gold Belt. The gold occurrences are of several varieties including:

(a) quartz vein type: (Siwash deposits, Pipestem Mine and Emancipation Mine);

(b) talc-fault gouge type: Spider Peak (Georgia #2), and Aurum Mine;

and (c) replacement type deposits: Idaho Zone of Carolin Mines.

B-4 HISTORY

Placer gold was first discovered in quantity on the Fraser River near Yale in 1858. Prior to this date the crown colony was sparsely settled and largely ignored by the remainder of Canada, and the great Fraser "Rush" did much to settle and develop southern British Columbia. Emory Bar and Hill's Bar on



the Fraser situated a few miles due west of Spider Peak were important producers of placer gold for several decades and production although continuous at first became more and more intermittent until commencement of the first world war, at which time placering virtually ceased. The "mother lode" of these bars was not actively sought until the late teens. The 1912 Report of the Minister of Mines (p. 186) describes "considerable placer prospecting on Hills Bar (Qualark) 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. Meanwhile lode deposits were also found in Ladner Creek, Siwash Creek and the Coquihalla River. There was sporadic production from at least five (5) of these Coquihalla Gold Belt deposits and total production between 1916 and 1943 was 3912 ounces of gold from 3102 tons of ore mined. The old Georgia #2 claim on Spider Peak shipped two tons of ore to Tacoma in 1925 and 37 ounces of gold was recovered. (B.C. Dept. of Mines Records). In 1928, the Aurum Mine was discovered and reports describe "spectacular specimens of free gold". This lead to another rush, at which time most of the Coquihalla Belt was staked and prospected, and certain deposits developed. Activity declined steadily thereafter; the Pipestem (Home Gold) ceased production in 1937, the Emancipation in 1941, and the last reported shipment from the Aurum Mine was in 1942. Activity remained at a low ebb until 1972 when the price of gold increased and Carolin Mines optioned a block of claims covering the old Aurum, Home Gold (Pipestem) and Idaho claims. Exploration activity in the area has continued at a moderate pace to date but has been dampened somewhat by Provincial Mining Taxation. Carolin Mines has recently reported a total of 3½ million tons in the Idaho Zone, grading 0.114 ounces of gold per ton. The Idaho lies a few miles South-east of Spider Peak.



PART C PROCEDURES

C-1 MAGNETOMETER FIELD AND DATA PROCESSING PROCEDURES

^{SCINTREX}
A ~~McPhar~~ model MF-2 vertical field fluxgate magnetometer was used on the Norm claims for orientation information. The main base station was located at the initial post of the Norm #1 and #2 claims, and this point is 0+00 on the base line. The base line was flagged and chained for a distance of 2100 feet, along the location line, and in a direction slightly north of due west. Several cross lines were flagged and chained at right angles to the base line as shown in figure #2 and #3.

The magnetic value of each of the two hundred foot stations along the base line was established by "leap frogging", and correcting for any drift encountered. The cross lines were surveyed by "looping" from the established value on the base line back to another established value on the base line. The magnetometer drift corrections were completed by Mr. G. Elliott, and all values are relative to an arbitrary zero (0) value set at 0+00 on the base line.

C-2 GEOCHEMICAL FIELD AND ANALYTICAL PROCEDURES

Upper "B" soil horizon samples were collected at intervals along the orientation grid. The samples, collected at depths ranging from about 2 to 8 inches, were placed in standard kraft paper bags, numbered with the grid coordinates. These samples were sent to Min-En Labs in North Vancouver for analysis. Samples were oven dried (at 95°) screened to -80 mesh and a 5 or 10 gram sample is pretreated by digestion in HNO₃ and perchloric acid. After pretreatment, a further digestion is made with aqua regia. HCl is added to a suitable volume and then analyzed by atomic adsorption means for the amount of gold present.



PART D RESULTS

D-1 MAGNETOMETER RESULTS

The vertical field fluxgate magnetometer results ranged from a low of $\overline{15}$ to a high of 6220 gammas relative to an arbitrary "zero" at 0+00 on the base line. The values were divided into 100 gamma intervals, and a frequency analysis shows a multimodal distribution with a primary mode in the 300 to 400 gamma range (representing 13% of the total of 76 readings) and a secondary mode in the 900 to 1000 gamma range (8% of the total population).

The frequency distribution indicates that at least two families of magnetic values are present, the first family in the 0 to 700 gamma range, and a second family above the 700 gamma level. This is believed to be due to the presence of two rock types underlying the N_{orm} claims. The "high" magnetic family extends northerly across the claims in a relatively narrow band a few hundred feet wide. This high magnetic ridge is most probably due to a band of serpentine which extends for a considerable distance along the Coquihalla Gold Belt.

D-2 GEOCHEMICAL SOIL SAMPLING RESULTS

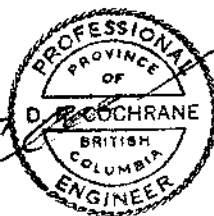
A total of thirty-three (33) upper B horizon soil samples were collected and analyzed for their content in gold. Values ranged from a low of 0.01 to a high of 3.30 parts per million (p.p.m.). The arithmetic mean of thirty-two (32) samples (excluding the one high value) is 0.03 p.p.m. The results are shown in figure 3 and are grouped at the .03 (arithmetic mean) and plus 0.10 p.p.m. level. The geochemical results thus divided represent families designated as follows:

<u>Class</u>	<u>Description</u>
below 0.03	below average
0.03 to 0.10	above average
above 0.10	anomalous



The section of most geochemical interest is line 8 W on which all but one sample is above average and the two "anomalous" values are located. (see figure 3). This area is immediately east of the high magnetic ridge. Additional geochemical soil sampling and prospecting is recommended in this area.

Respectfully submitted,

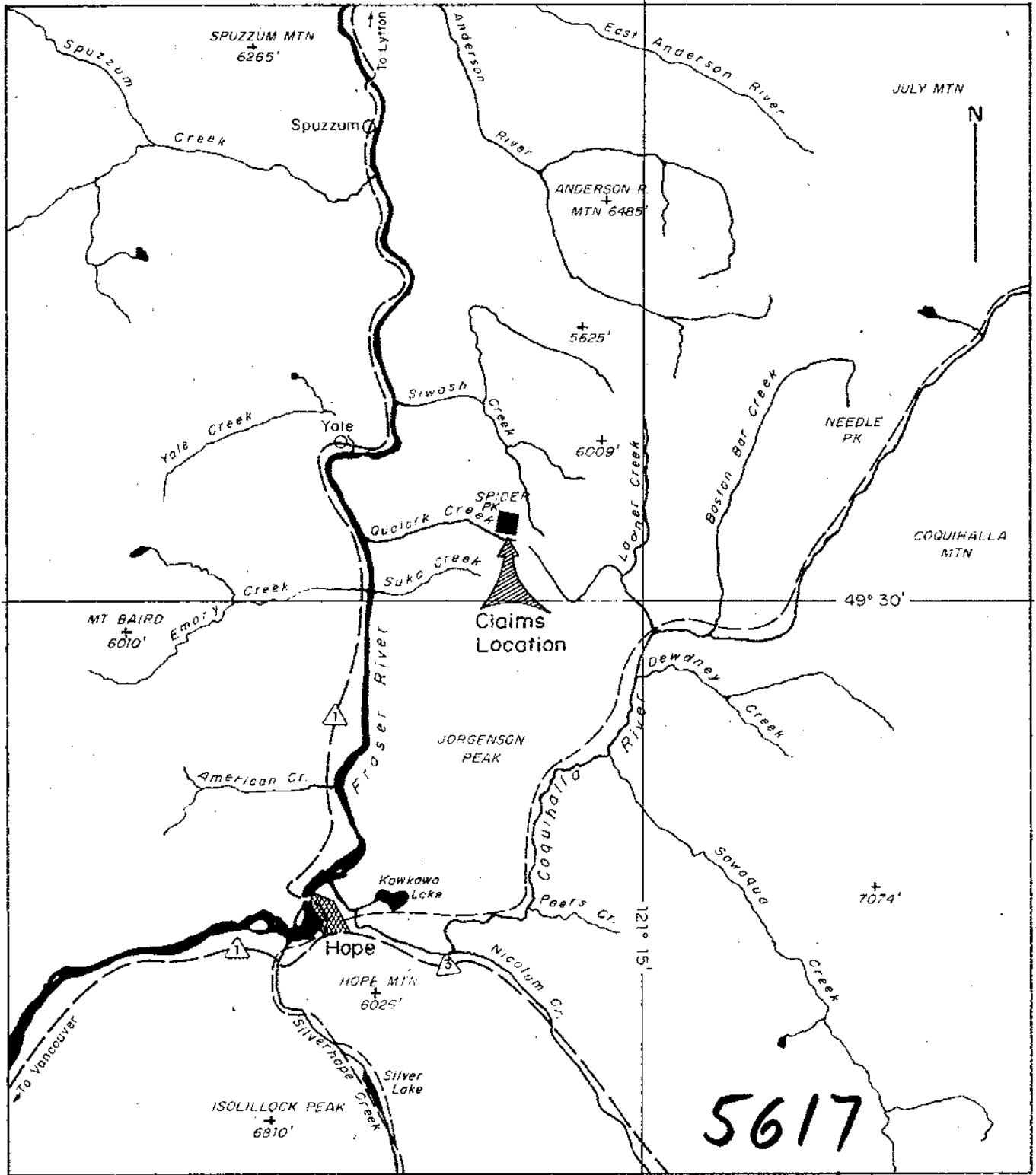


D. R. Cochrane, P. Eng.

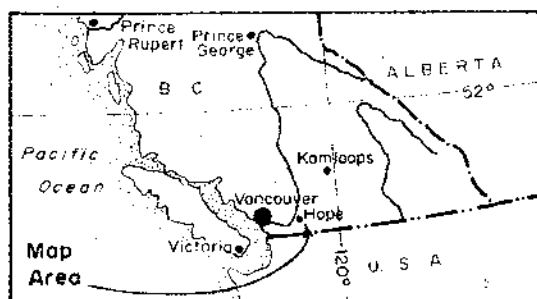
August 15, 1975

Delta, B.C.





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Map 1

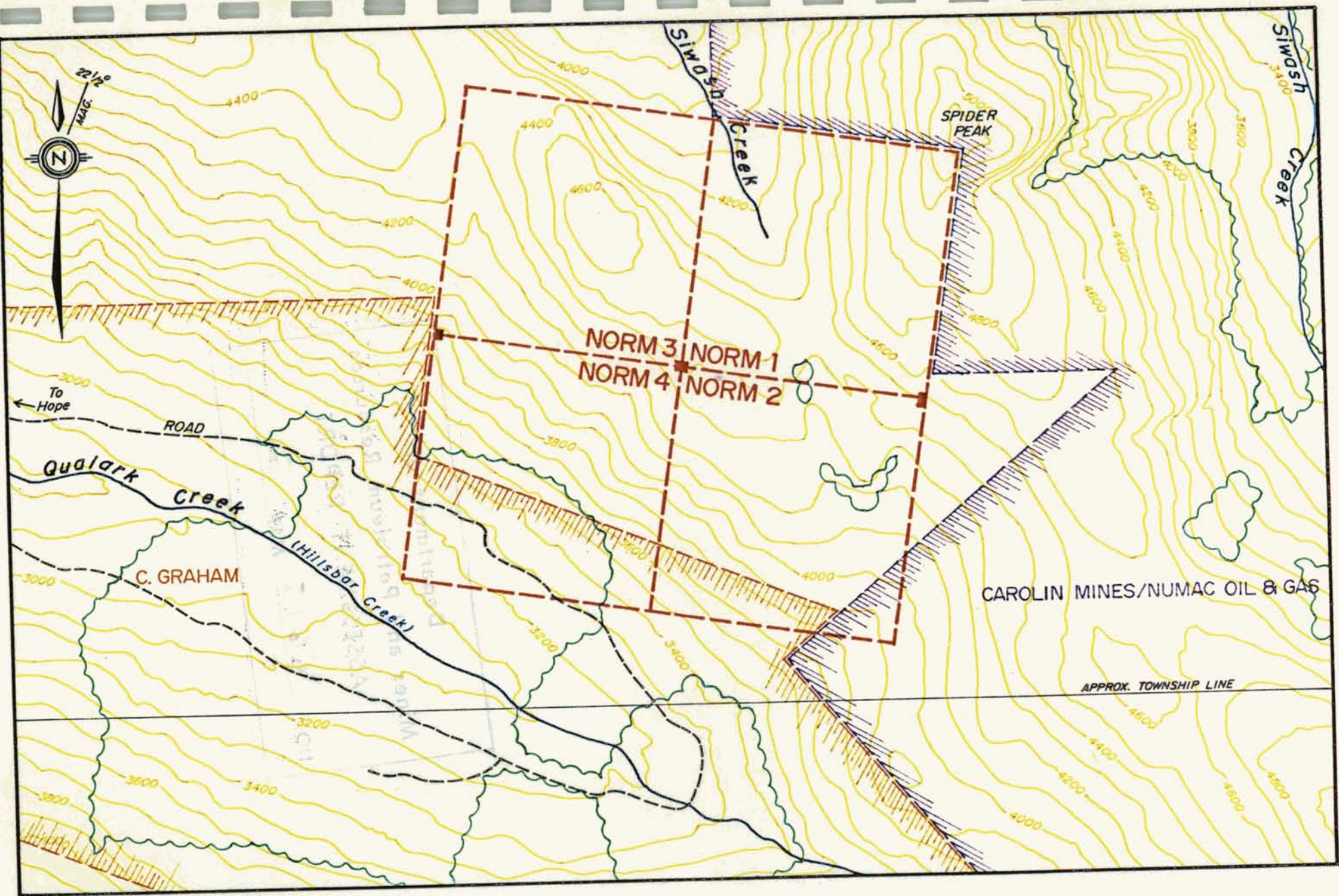


LOCATION MAP Fig. 1

NORM CLAIMS

Qualark Creek / Spider Peak Area
New Westminster Mining Division, B.C.

Coastal Geomatics Limited N.T.S. 92 H/71 west half Scale 1:250,000



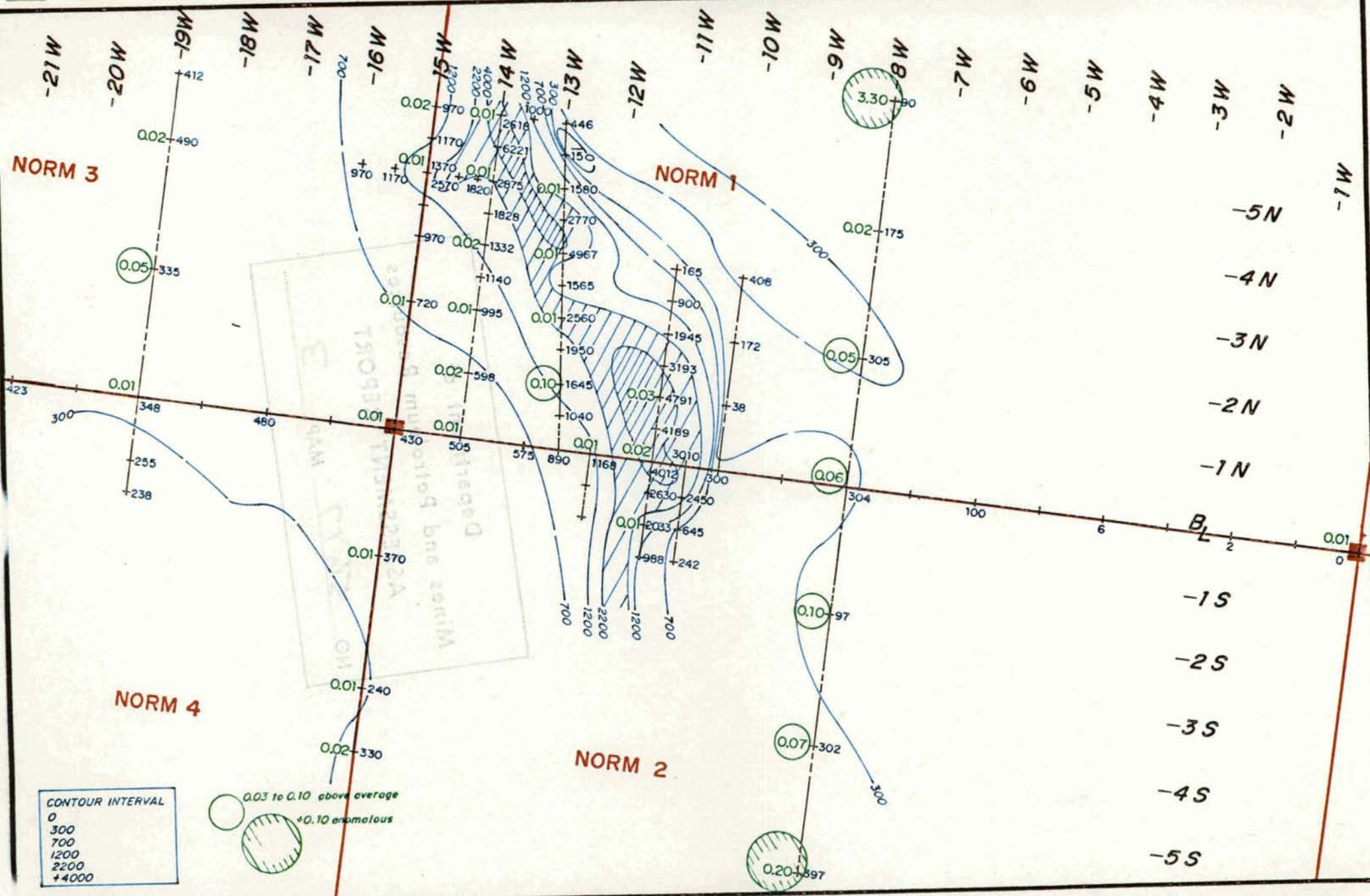
5617 Norm Claims
 Map 2 Qualark Creek / Spider Peak Area
 New Westminster Mining Division
 British Columbia

TOPO & CLAIMS MAP

Fig. 2

Map Area N.T.S. 92H/11W. Contour Interval 100 feet.
 Scale: 1" = 800'

Cochrane Consultants Ltd. Aug/75.
 Indicates logged off or clearing.



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MAP 3

Norm Claims
Qualark Creek / Spider Peak Area
New Westminster Mining Division
British Columbia

MAGNETOMETER & GEOCHEMICAL RESULTS

Map Area N.T.S. 92H/11W
Geochemical Values: Au p.p.m.
Scale 1" = 200'

Cochrane Consultants Ltd.
Magnetometer values: gammas
Aug/75

0 100 200 400 FEET

Fig. 3

APPENDIX I

COST BREAKDOWN

By contract between Cochrane Consultants and Mr. N. Ascroft,
for geophysical and geochemical orientation work on the Norm
Claims.

(a) Field work: Messers. G. and K. Elliott July 27, 28, 29, 1975	
(i) 6 man days @ \$75 per man day	\$ 450.00
(ii) Expenses (truck, Toyota 4x4 & food)	31.95
(b) Drafting (B. A. Cochrane) August, 1975 18 hours @ \$7.35 per hour	132.30
(c) Geochem analysis (Min-En Labs) 33 samples @ \$3.60/ sample	118.80
(d) D. R. Cochrane, P. Eng. Report preparation Aug. 15, 1 day @ \$150/day	150.00
	<hr/>
Total	\$ 883.05
	<hr/> <hr/>



APPENDIX II - CERTIFICATES

D. R. Cochrane, P.Eng. B.A.Sc. University of Toronto '62 ; M.Sc. (Eng.)
Queen's University '64. Member in good standing
Association of Professional Engineers of British
Columbia.

B. A. Cochrane, drafting and data reduction, Diploma, Ontario
College of Arts '67.

G. Elliot, B.A. University of British Columbia - field operator
with Cochrane Consultants since 1967.

K. Elliot, High school student - field helper.



APPENDIX III

SPECIFICATIONS

Specifications of Fluxgate Magnetometer Model MF-2

	RANGES	SENSITIVITY
Standard:	Plus or minus	
	1,000 gammas f.s.c.	20 gammas/div.
	3,000 gammas f.s.c.	50 gammas/div.
	10,000 gammas f.s.c.	200 gammas/div.
	30,000 gammas f.s.c.	500 gammas/div.
	100,000 gammas f.s.c.	2000 gammas/div.
Meter:	Taut-band suspension	
	100 gamma scale 2.1" long	- 50 div.
	300 gamma scale 1.9" long	- 60 div.
Accuracy:	1000 to 10,000 gamma ranges \pm 0.5% of full scale.	
Operating Temperature:	-40°C to +40°C -40°F to +100°F	
Temperature Coefficient:	Less than 1 gamma per °C (1/2 gamma/°F)	
Noise Level:	Less than 1 gamma \pm .	
Bucking Adjustments: (Latitude)	-20,000 to +20,000 gamma. 9 steps of 10,000 gammas plus fine control of 0 - 10,000 gammas by ten turn potentiometer. Reversible for southern hemisphere.	
Recording Output:	Optional.	
Electrical Response:	D.C. to 0.3 cps (3db down) on 100 gamma range with meter in circuit. D.C. to 20 cps with meter network shorted for recording purposes.	
Connector:	Cannon K02-16-10B for plug Cannon K01-16-10-1E and cover K06-16-3/8.	
Batteries:	Internal 3 x 1.5V-1.25 Ah. Sealed Lead Acid rechargeable Centralab GC 6101; recharge time 8 hr.	
Consumption:	60 milliamperes - GC6101 batteries are rated for 16 hour continuous use.	
Dimensions:	6 1/4" x 2 3/4" x 10" Instrument. 161 mm x 71 mm x 254 mm	
Weights:	5 lb. 8 oz. - 2.5 kg.	

APPENDIX IV

Bibliography:

- CAIRNES, C.E., (1924), Coquihalla Area, B.C., G.S.C. Mem. 139
- CAIRNES, C.E. (1929), The Serpentine Belt of Coquihalla Region,
Yale District, B.C., G.S.C. Sum. Rep.
1929-A
- (a) B.C. Dept. of Mines, Index #3, Table 1, Recorded Lode Metal
Production
- (b) B.C. Minister of Mines Reports, 1936, F35
- COCHRANE, GRIFFITH, and MONTGOMERY, Report on the Idaho/Aurum
Pipestem Project for Carolin Mines
(Assessment Report), January 10, 1974
- COCHRANE, D.R. Report on the Carolin Mines, Coquihalla
Property, July 3, 1973.
- COCHRANE & GRIFFITH Report on the Diamond Drilling and Assaying,
Idaho Zone (Private Report) Feb. 1, 1974
(Includes drill logs and sections).

