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GEOCHEMICAL AND GEOLOGICAL  
REPORT ON NORM 1-4 MINERAL  
CLAIMS, SIWASH CREEK, B.C.

NEW WESTMINSTER MINING DIVISION  
(NTS 92H/11; Lat.  $49^{\circ}32'N$ ,  
Long.  $121^{\circ}18'W$ )

**NORM**

owned by:

Mr. E. N. Ascroft  
Vancouver, B.C.

**92H/11W**

by:

J. H. Montgomery  
D. F. Symonds

September 30, 1976.

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
No. 6000



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## GEOLOGICAL AND GEOCHEMICAL REPORT ON NORM 1-4 MINERAL CLAIMS

### 1.0 INTRODUCTION:

This report contains all of the results of a preliminary geochemical and geological survey on the Norm 1-4 mineral claims located about 19 km. northeast of Hope, B.C. The work was done during the period of August 1 to August 3, 1976 by the authors.

### 2.0 LOCATION AND ACCESS:

The Norm 1-4 mineral claims are located approximately 12 miles (19 km.) northeast of Hope, B.C. at an elevation of 4500 feet. The claims straddle the divide between Siwash Creek to the north and Qualark (Hillsbar) Creek to the south.

Access is either by helicopter from Hope or by logging road. The logging road starts on the east side of Coquihalla Bridge, turns left past Kawkawa Lake and proceeds northerly along the east side of the Fraser River to Qualark Creek. The road then follows Qualark Creek up to its end at an elevation of 3200 feet. Total road mileage is about 20 miles (32 km.). The claims lie about 3000 feet north of this point on the southwest flank of Spider Peak.

### 3.0 CLAIMS AND OWNERSHIP:

The following information was obtained from the Mining Recorder's office in Vancouver and from the owner of the claims, Mr. E. N. Ascroft. The claims are shown on figure 2.

Claim Name	Record Number	Date of Recording
Norm #1	29448	August 16, 1974
Norm #2	29449	August 16, 1974
Norm #3	29450	August 16, 1974
Norm #4	29451	August 16, 1974

A part of the location lines and claim posts were observed in the field and the claims appear to have been staked in accordance with mining regulations.

### 4.0 GEOLOGY:

#### 4.1 Regional Geology:

The regional geology of the area has been mapped by C. E. Cairnes and others (G.S.C. Map 737A, 1942). The area of interest is underlain mainly by Unit 8, the Ladner Group (chiefly slate, greywacke, schist, grit, conglomerate) and Unit 23, chiefly serpentine. Cairnes delineates Unit 8 as Upper Jurassic or (?) Lower Cretaceous and the age of Unit 23 as Jurassic (?) and later.

Both units conform to the regional northwesterly structural trend. Several gold occurrences have been reported along this

serpentine belt. The most notable is that of Carolin Mines' Idaho Zone, a possible replacement deposit near Ladner Creek.

#### 4.2 Local Geology:

The geology of part of the Norm 1-4 claims was mapped and is shown in Figure 3.

Three main rock types are evident: a black slate, an intermediate volcanic unit and an ultramafic unit (serpentine). Cleavage in the slates strike approximately north and dip steeply towards the east at 85 degrees. The intermediate volcanic unit is composed of a light-coloured aphanite which has undergone considerable silicification, carbonatization and pyritization. The serpentine is a typical dark green serpentine with many subparallel slip planes.

The contact between the slate and intermediate volcanic rock units is northerly, while the intrusive contact is northwesterly as shown in figure 3.

#### 4.3 Mineralization:

Mineralization occurs only in the intermediate volcanic unit. It consists entirely of pyrite disseminated throughout the rock and of gold as indicated by the geochemical soil analyses. Silicification in the form of many small quartz stringers and some carbonatization has also occurred.

#### 5.0 GEOCHEMICAL SURVEY:

##### 5.1 Field Procedure:

Upper "B" soil horizon samples were collected at nominal 25 meter intervals on a control grid established on the area under consideration. The samples, collected at depths ranging from 2 to 8 inches were placed in standard kraft envelopes, numbered with the grid coordinates. These samples were sent to Min-En Labs in North Vancouver, for analysis.

##### 5.2 Laboratory Procedure:

The samples were oven dried (at  $95^{\circ}$ ), screened to -80 mesh and a 5 to 10 gram portion of the sample was pretreated by digestion in  $\text{HNO}_3$  and perchloric acid. After pretreatment a further digestion was made with aqua regia.  $\text{HCl}$  was added to a suitable volume and then the treated portion of the sample was analyzed using the atomic absorption technique to determine the amount of gold present.

##### 5.3 Results:

The purpose of the follow-up survey was to investigate an anomalous (3000 ppb) gold value detected in the soil by a previous survey (see report by D. R. Cochrane, P.Eng., dated August 15, 1975). A total of 38 upper "B" horizon soil samples were collected and analyzed for their gold content. Values ranged from a low of 5 ppb

to a high of 2600 ppb(see Figure 4). The arithmetic mean of the 38 samples was 306 ppb. It can be seen that the geochemical results fall into the following families by observing the arithmetic histogram(Figure 5):

<u>Class</u>	<u>Description</u>
below 300 ppb.	below average
300 ppb to 1500 ppb.	above average(anomalous)
over 1500 ppb.	highly anomalous


A total of 6 samples fell in the classes "anomalous" and "highly anomalous". The area of most interest is a belt extending from 0E-8N, 0E-7N to 1W-4N, 2W-4N. A total of 5 of the anomalous samples are located in this belt(see Figure 4).

#### 6.0 CONCLUSIONS AND RECOMMENDATIONS:

A series of anomalous gold values(900-2600 ppb Au) were detected over a distance of 150 meters. The series is open at both ends.

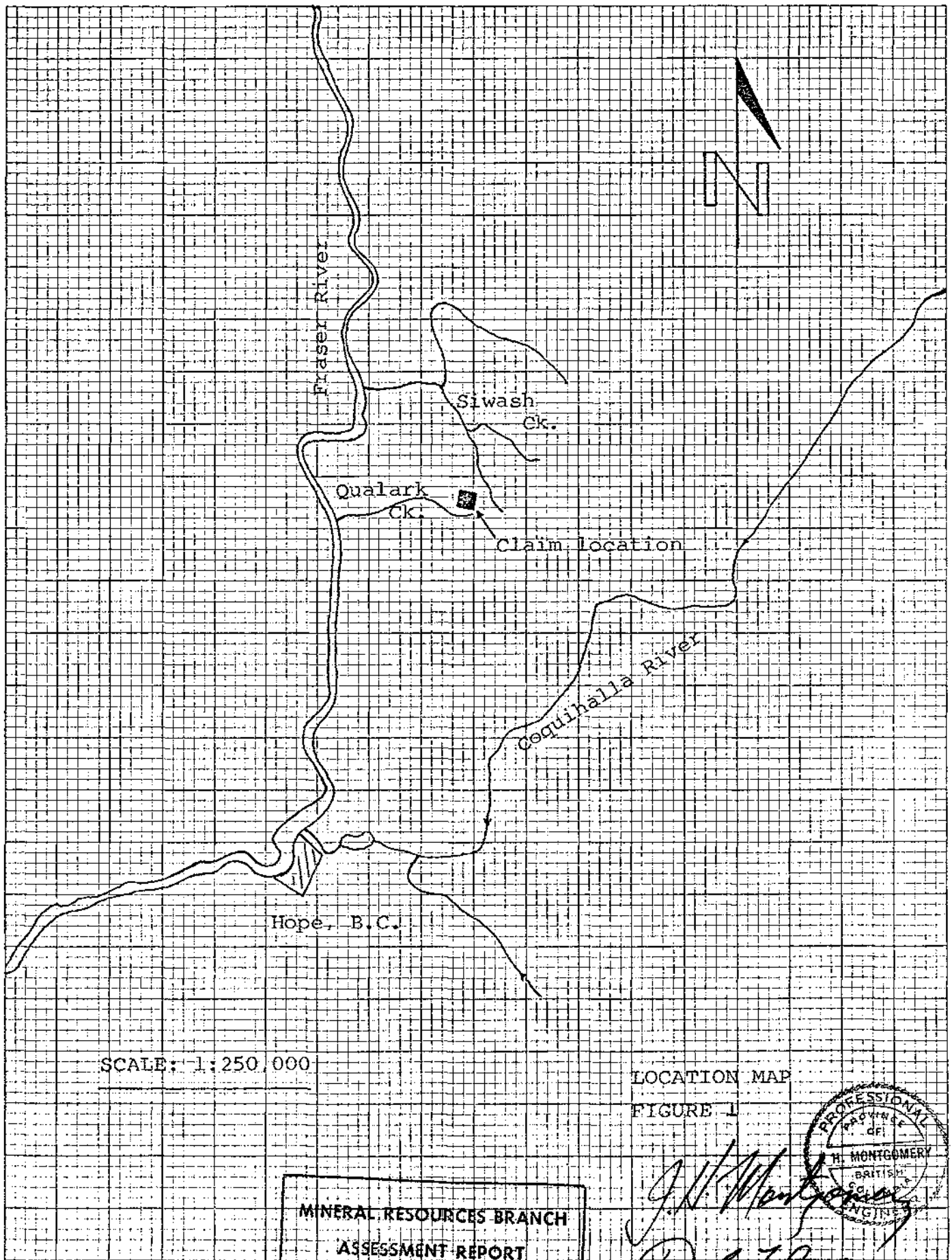
Additional geochemical soil sampling is recommended along the northern and western margins of the present grid to determine the extent of the anomaly.

*J. H. Montgomerie*  
*D. G. Floyd*



4C 1610

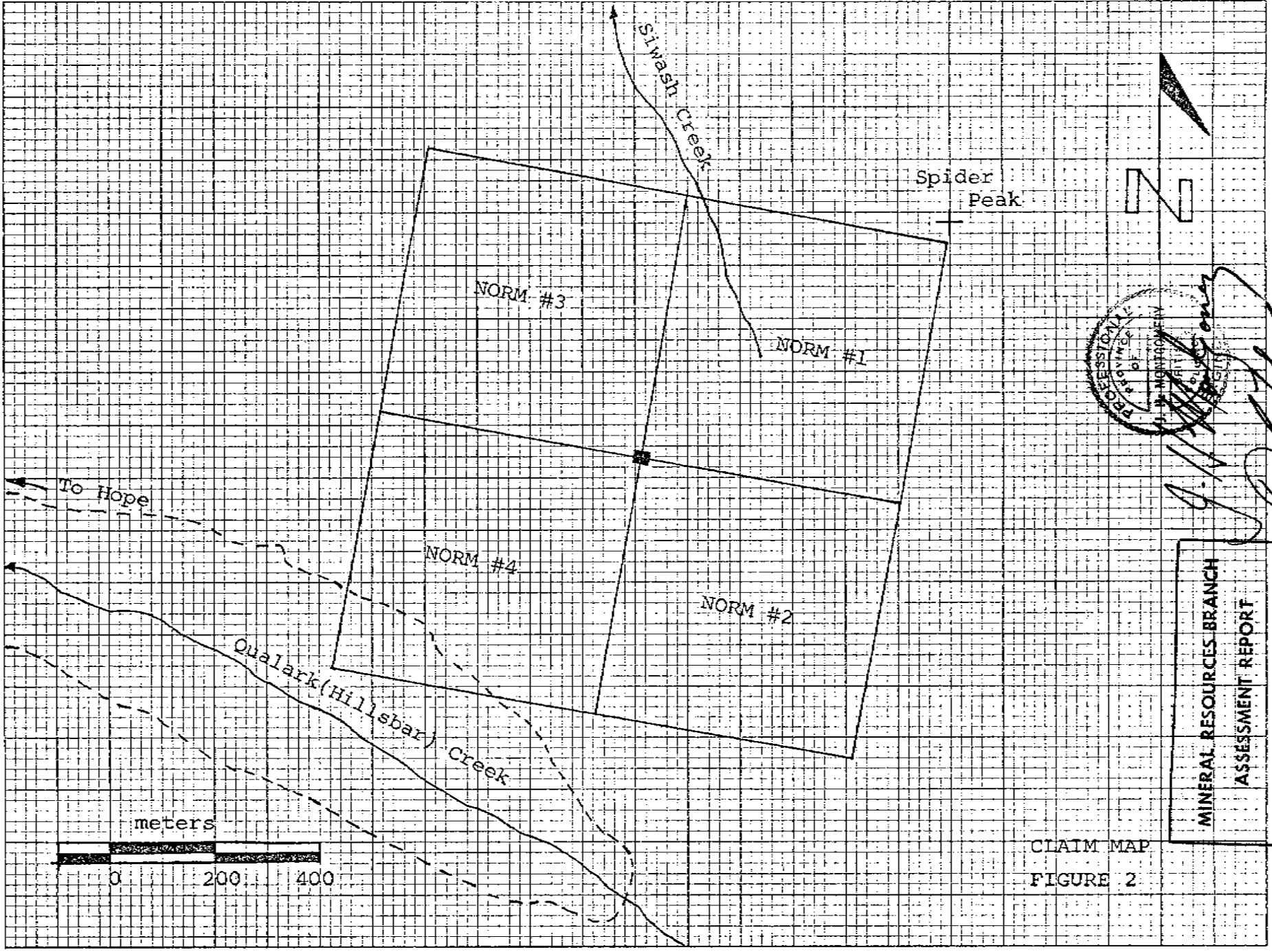
5 X 5 TO THE CENTIMETER 18 X 24 CM.  
KEUFFEL & ESSER CO. MADE IN U.S.A.



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*J. H. Montgomery*  
*R. J. [Signature]*

PROFESSIONAL  
ENGINEER  
H. MONTGOMERY  
BRITISH  
COLUMBIA

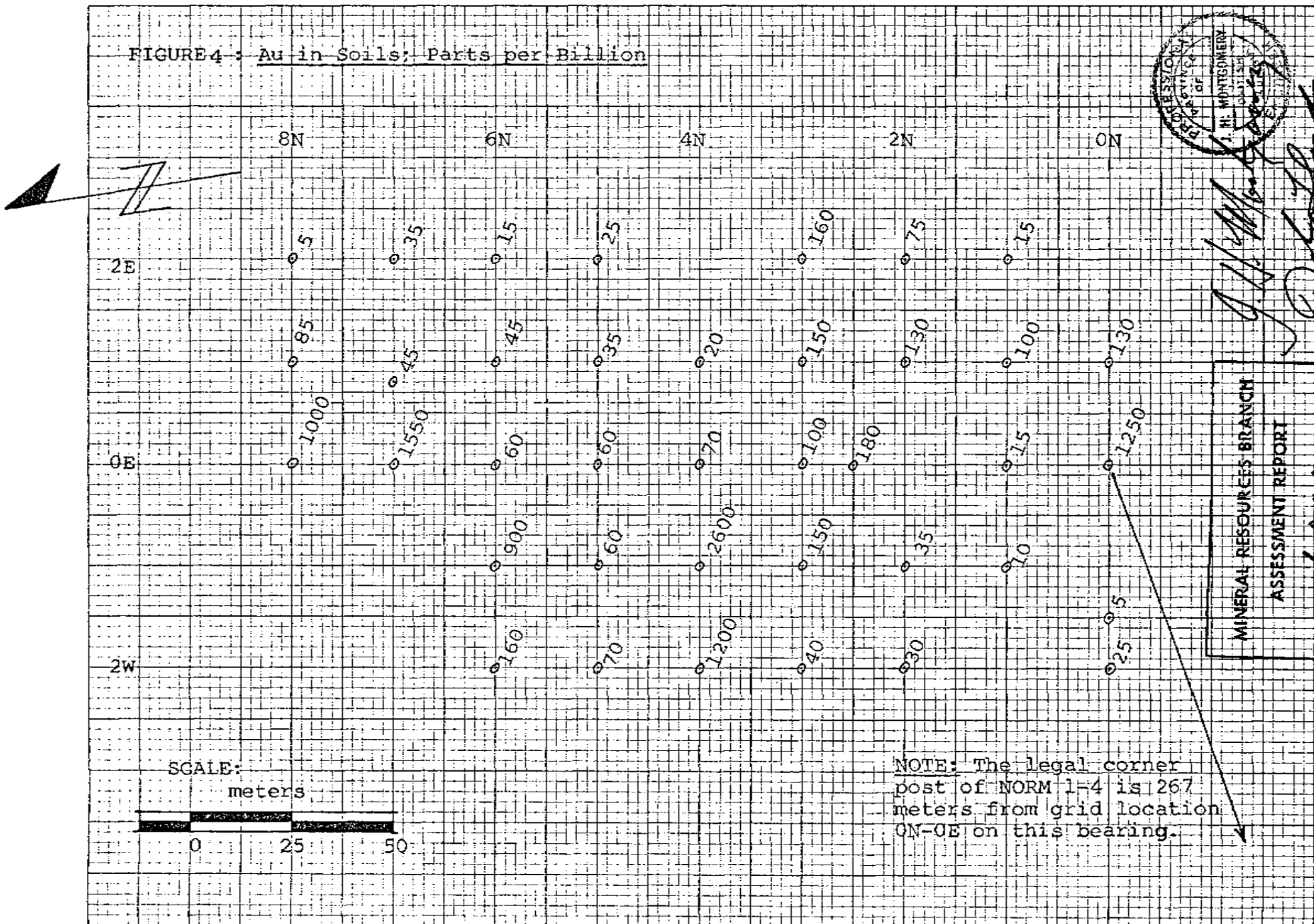


*J. A. [Signature]*  
*[Signature]*

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CLAIM MAP  
 FIGURE 2

FIGURE 4: Au in Soils; Parts per Billion



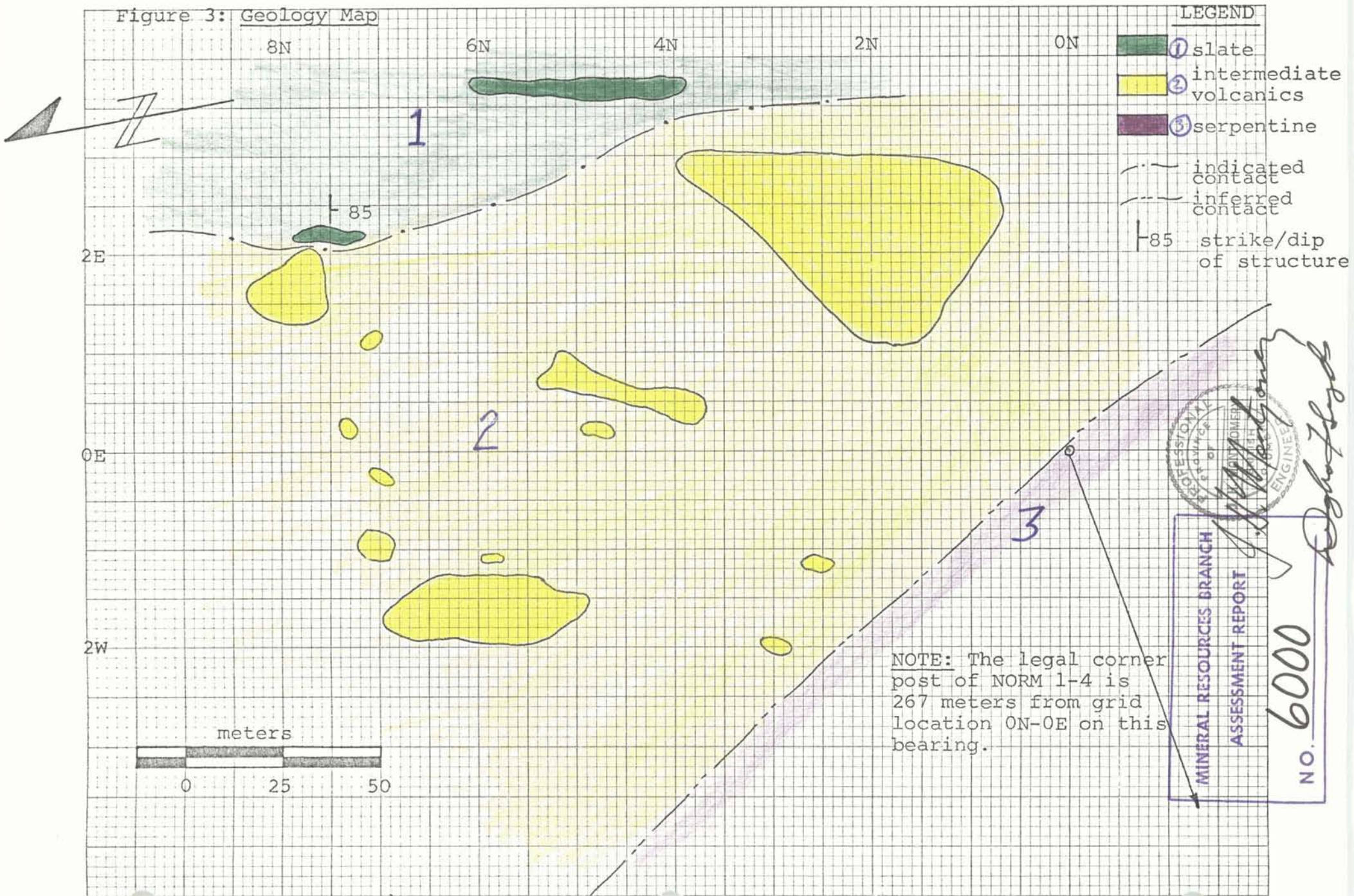
*J. H. Moore*  
*[Signature]*

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NOTE: The legal corner post of NORM 1-4 is 267 meters from grid location 0N-0E on this bearing.

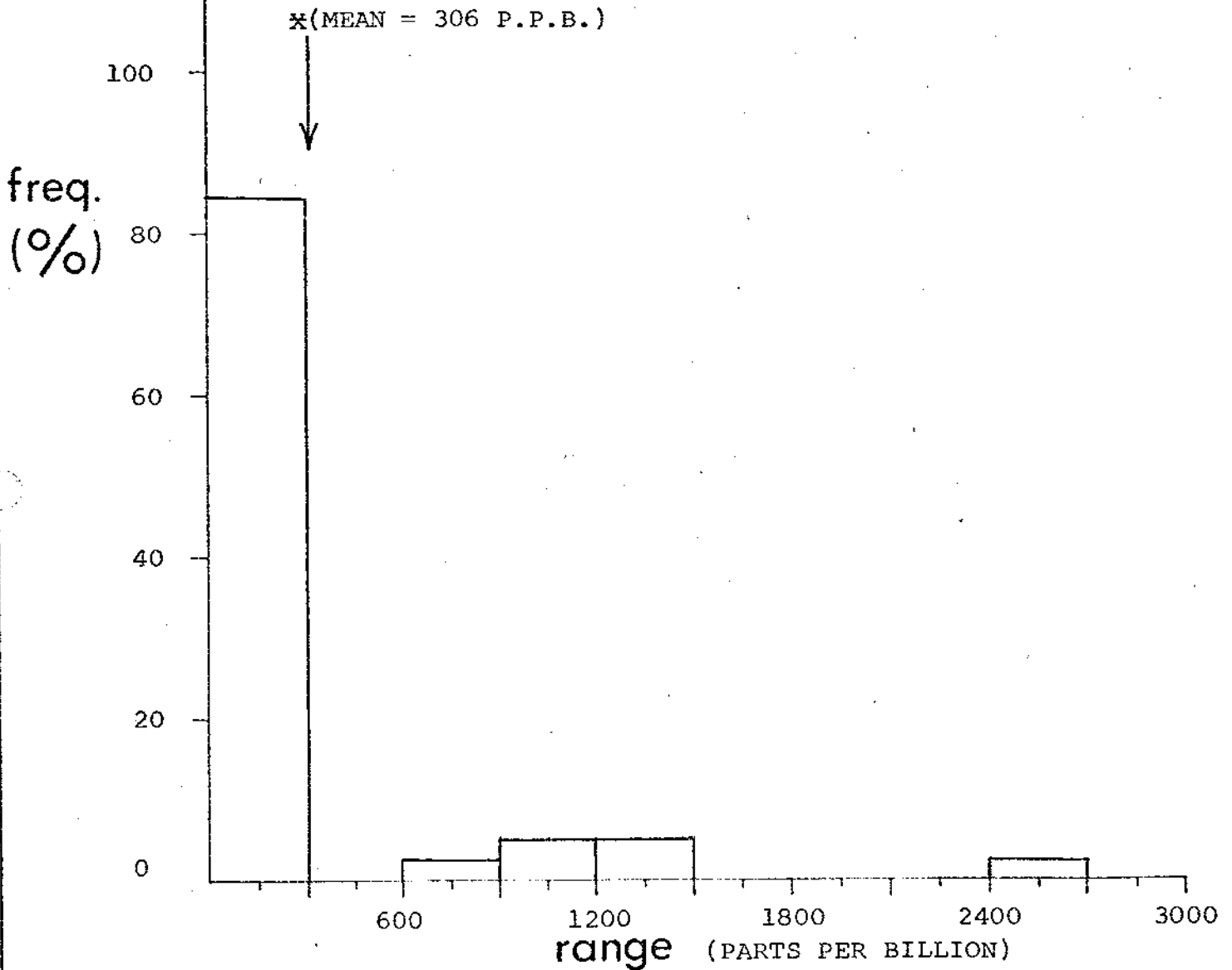


Figure 3: Geology Map



# Frequency Distribution

NUMBER OF SAMPLES = 38  
STANDARD DEVIATION = 552 P.P.B.



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*J. H. Montgomery*  
*Robert F. Lytle*



NORM CLAIMS		
ARITHMETIC HISTOGRAM : AU		
SPIDER PEAK AREA		
24/09/76		Fig. 5

APPENDIX I: COST BREAKDOWN

A. Personnel:

6 days @ \$150.00 \$900.00

B. Transportation:

a) Mileage - 250 miles @ \$.20 \$50.00

b) Gasoline - \$20.00

C. Field Expenses:

a) Accomodation - \$26.00

b) Meals- \$25.00

D. Laboratory Analyses:

39 samples @ \$5.00 \$195.00

TOTAL ----- \$1216.00

APPENDIX II: PERSONNEL

J. H. MONTGOMERY, P.Eng.- member of the Association of Professional Engineers of B. C.

D. F. SYMONDS, B.Sc.(1972) - graduate geologist

APPENDIX III: ANALYTICAL CERTIFICATES



COMPAN

Montgomery &amp; Assoc.

## GEOCHEMICAL ANALYSIS DATA SHEET

FILE No. 2793

PROJECT No.:

MIN - EN Laboratories Ltd.

DATE: Aug. 13,

ATTENTION: Mr. Montgomery

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

1976.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
0.0												1250				
0.1N												15				
.3N												100				
.4N												70				
.5N												60				
.6N												60				
.7N												1550				
.8N												1000				
2N+12												180				
0+20E7N												45				
0N2W												25				
.1W												5				
0N1E												130				
1N1E												100				
1N2E												15				
2N2W												30				
.1W												35				
.1E												130				
2N2E												75				
3N2W												40				
4N1E												20				
5N2W												70				
.1W												60				
.1E												35				
5N2E												25				
6N2W												160				
.1W												900				
.1E												45				
6N2E												15				
1W4N												2600				

CERTIFIED BY

*[Signature]*