

7723

GEOPHYSICAL, GEOCHEMICAL AND PROSPECTING  
REPORT ON THE JANET, JANET I,  
BIRDIE LOAD, GOLDEN WOLFE, GOLD,  
AZLIN, TANIS, PETER ROCK, LONE EAGLE,  
QUARTZ CREEK, LUKE, MARK, JOHN,  
ECLIPSE, ANNA, STANDARD AGNES, PIONEER,  
OYSTER, EVENING STAR, PETRA, ANGUS, CAROL, LINDA MINERAL CLAIMS  
AND REVERTED CROWN GRANTS

FORT STEELE MINING DIVISION

NTS: 82F/8E,9E

LATITUDE: 49°30'N

LONGITUDE: 116°04'W

on behalf of

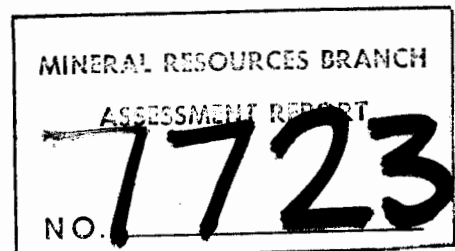
GALLANT GOLD MINES LIMITED

BY

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MONTGOMERY CONSULTANTS LTD.

January 15, 1980



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## 1.0 INTRODUCTION

This report has been written on behalf of Gallant Gold Mines Limited, of #706-675 West Hastings Street, Vancouver, B.C. on the Perry Creek Gold Prospects, near Cranbrook, B.C. The report is based on field work carried out from October 2 to 30 on the Janet, Janet 1, Birdie Load, Golden Wolfe, Gold, Azlin, Tanis, Peter Rock, Lone Eagle, Quartz Creek, Luke, Mark, John, Eclipse, Anna, Standard, Agnes, Pioneer, Oyster, Evening Star, Petra, Angus, Carol and Linda mineral claims and reverted crown grants situated in the Fort Steele Mining Division.

The report describes geochemical, geophysical and prospecting work carried out in the claim areas, and recommends follow-up work in anomalous areas.

## 2.0 SUMMARY AND CONCLUSIONS

Gallant Gold Mines Limited of #706-675 West Hastings Street holds title to or has under option a total of 26 claims (117 units or equivalent) in the Perry Creek area near Cranbrook, B.C. The property is about 18.0 kilometers west of Cranbrook in the Moyie Range of the Purcell Mountains.

The area is underlain mainly by quartzites of the Creston formation which are cut by Moyie intrusions, major faults and numerous large quartz veins. The quartz veins and adjacent fault gouge and wall rock are, in places, mineralized with gold associated with pyrite, chalcopyrite, galena and sphalerite. Tungsten has also been found in several localities.

During the period of October 2 to 30, 1979, approximately 32 rock samples and 589 soil samples were taken on the property and analysed for gold (417 soil samples were analysed for silver; the rock samples were also analysed for silver and some rock samples were analysed for tungsten). Prospecting was carried out on parts of the property. EM-16 surveys were carried out on four grid areas on the property.

The result of combining the 1979 data with previous data on the property (see Figure 4) was the detection of several anomalous areas which should be further investigated by trenching and additional sampling.

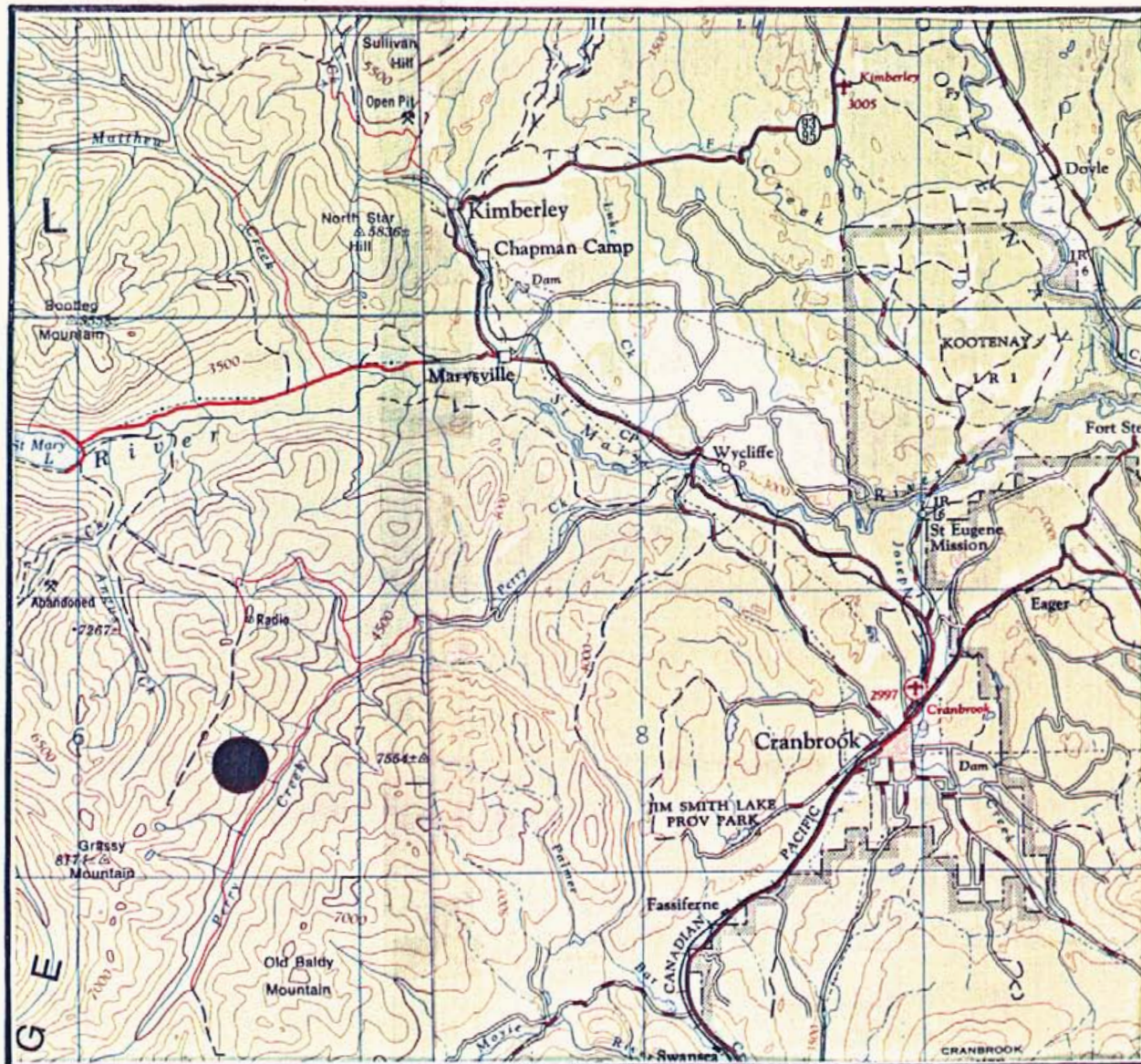
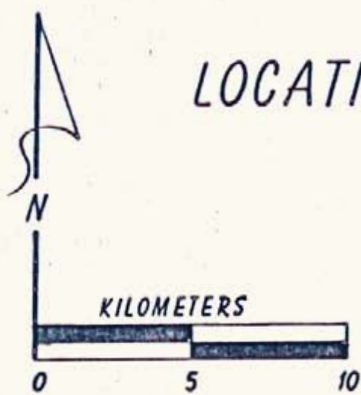


FIGURE 1

LOCATION MAP

PERRY CREEK (CRANBROOK) AREA PROJECT

GALLANT GOLD MINES LIMITED



### 3.0 LOCATION AND ACCESS

The Perry Creek gold prospects are located about 18.0 kilometers south of Kimberly, B.C. and about 18.0 kilometers west of Cranbrook, B.C. (see Figure 1). The claims are situated in the Moyie Range of the Purcell Mountains.

Elevations range from 1,220 meters to 1,980 meters. The country is well-timbered but rises steeply to peaks of about 2,440 meters on either side of Perry Creek.

NTS: 82F/8E,9E

Latitude:  $49^{\circ}30'N$

Longitude:  $116^{\circ}05'W$

Access to the claim area is generally good. A gravel road leaves the highway about 15.0 kilometers northwest of Cranbrook, B.C., and runs westerly along Perry Creek. A number of logging roads and old pack trails provide access to many of the areas of interest along Perry Creek.

#### 4.0 CLAIM INFORMATION

Gallant Gold Mines Limited, of #706-675 West Hastings Street, Vancouver, B.C. holds title to or has under option 26 claims (117 units or equivalent) all located within the Fort Steele Mining Division of British Columbia. Claim information is listed in the following table. (Note that "Claim Expiry Date" is pending acceptance of this report).



<u>CLAIM NAME</u>	<u>UNITS</u>	<u>RECORD NO.</u>	<u>DATE RECORDED</u>	<u>PREVIOUS EXPIRY DATE</u>	<u>EXPIRY DATE</u>
Azlin	(6)	394 (11)	Nov.16/77	Nov.16/79	Nov. 16/80
Gold	(10)	148 (2)	Feb.4/77	Feb.4/80	Feb. 4/81
Birdie Load	(1)	395 (1)	Nov.16/77	Nov.16/80	Nov. 16/80
Janet	(1)	86 (10)	Oct.22/76	Oct.22/79	Oct. 22/80
Janet 1	(4)	87 (10)	Oct.22/76	Oct.22/79	Oct. 22/80
Golden Wolfe	(4)	396 (11)	Nov.16/77	Nov.16/79	Nov. 16/80
Tanis	(4)	149 (2)	Feb. 4/77	Feb. 4/80	Feb. 4/81
Peter Rock	(9)	397 (11)	Nov.16/77	Nov.16/79	Nov. 16/80
Lone Eagle	(1)	97 (11)	Nov. 4/76	Nov. 4/80	Nov. 4/80
Quartz Creek	(1)	98 (11)	Nov. 4/76	Nov. 4/80	Nov. 4/80
John	(4)	138 (11)	Nov.24/76	Nov.24/79	Nov. 24/80
Mark	(6)	136 (11)	Nov.24/76	Nov.24/79	Nov. 24/80
Luke	(9)	137 (11)	Nov.24/76	Nov.24/79	Nov. 24/80
Eclipse	(1)	343 (11)	Nov. 7/77	Nov. 7/79	Nov. 7/80
Anna	(1)	344 (11)	Nov. 7/77	Nov. 7/79	Nov. 7/80
Standard	(1)	345 (11)	Nov. 7/77	Nov. 7/79	Nov. 7/80
Agnes	(1)	346 (11)	Nov. 7/77	Nov. 7/79	Nov. 7/80
Pioneer	(1)	347 (11)	Nov. 7/77	Nov. 7/79	Nov. 7/80
Oyster	(1)	348 (11)	Nov. 7/77	Nov. 7/79	Nov. 7/80
Evening Star	(1)	349 (11)	Nov. 7/77	Nov. 7/79	Nov. 7/80
Petra 9-15	(7)	799(10)-805(10)	Oct.19/79	Oct.19/80	Oct. 19/80
*Angus 100	(6)	707 (7)	July 10/79	July 10/80	July 10/80
Angus 200	(6)	708 (7)	July 10/79	July 10/80	July 10/80
Angus 300	(15)	709 (7)	July 10/79	July 10/80	July 10/81
Carol 1-8	(8)	817(11)-824(11)	Nov. 5/79	Nov. 5/80	Nov. 5/80
Linda 1-8	(8)	809(11)-816(11)	Nov. 5/79	Nov. 5/80	Nov. 5/80

\*Angus 100 (6) apparently overstates previously located claims, so that it's validity is questionable.

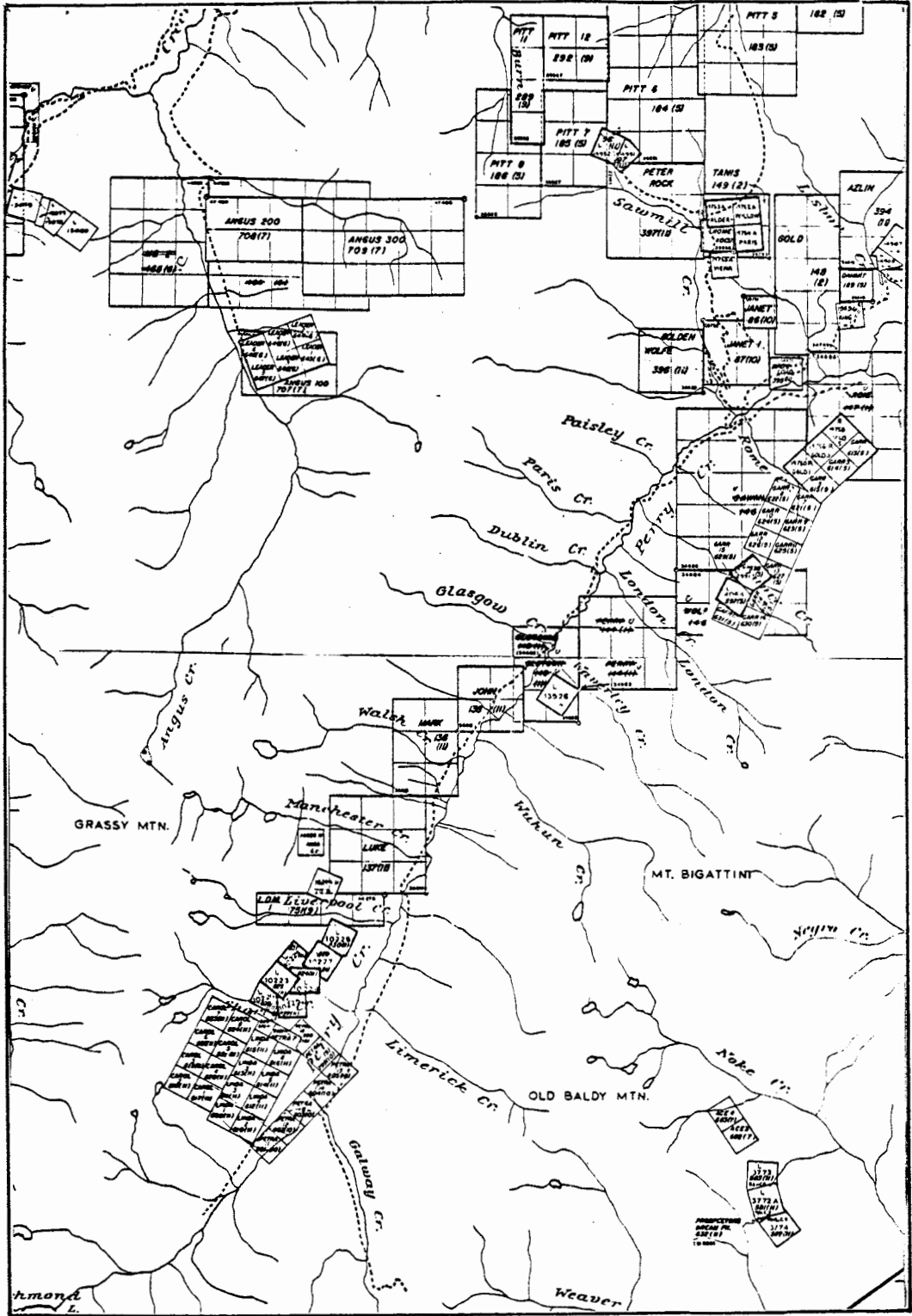
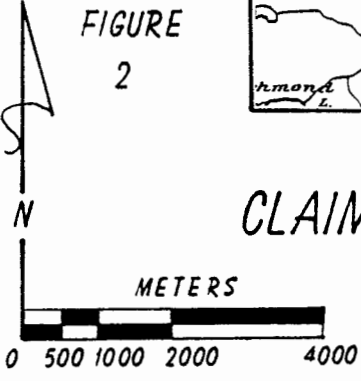


FIGURE  
2



CLAIM MAP PERRY CREEK (CRANBROOK) AREA PROJECT  
GALLANT GOLD MINES LIMITED

MONTGOMERY CONSULTANTS LTD JANUARY 15, 1980.



## 5.0 GEOLOGY

### 5.10 REGIONAL GEOLOGY

The regional geology of part of the claim group has been mapped by G.B. Leech (1952). The relevant portion of this map is reproduced in Figure 3.

The major part of the area is underlain by the Creston formation (Unit 5) and the Kitchener-Siyeh formation (Unit 6). Both formations are of Proterozoic age. The rock units shown in Figure 3 are described by Leech as follows:

- UNIT 1 - Aldridge formation (lower division) - rusty-weathering grey quartzite, siltstone and argillite; grey-weathering massive quartzite; metamorphosed equivalents.
- UNIT 5 - Creston formation - grey and grey-weathering green, grey and purplish argillaceous quartzite.
- UNIT 6 - Kitchener-Siyeh formation - varicoloured argillites and dolomitic argillites, mostly buff and brown-weathering; buff and brown weathering dolomite, commonly sandy.
- UNIT 8 - Moyie Intrusions - meta-diorite and meta-quartz diorite.

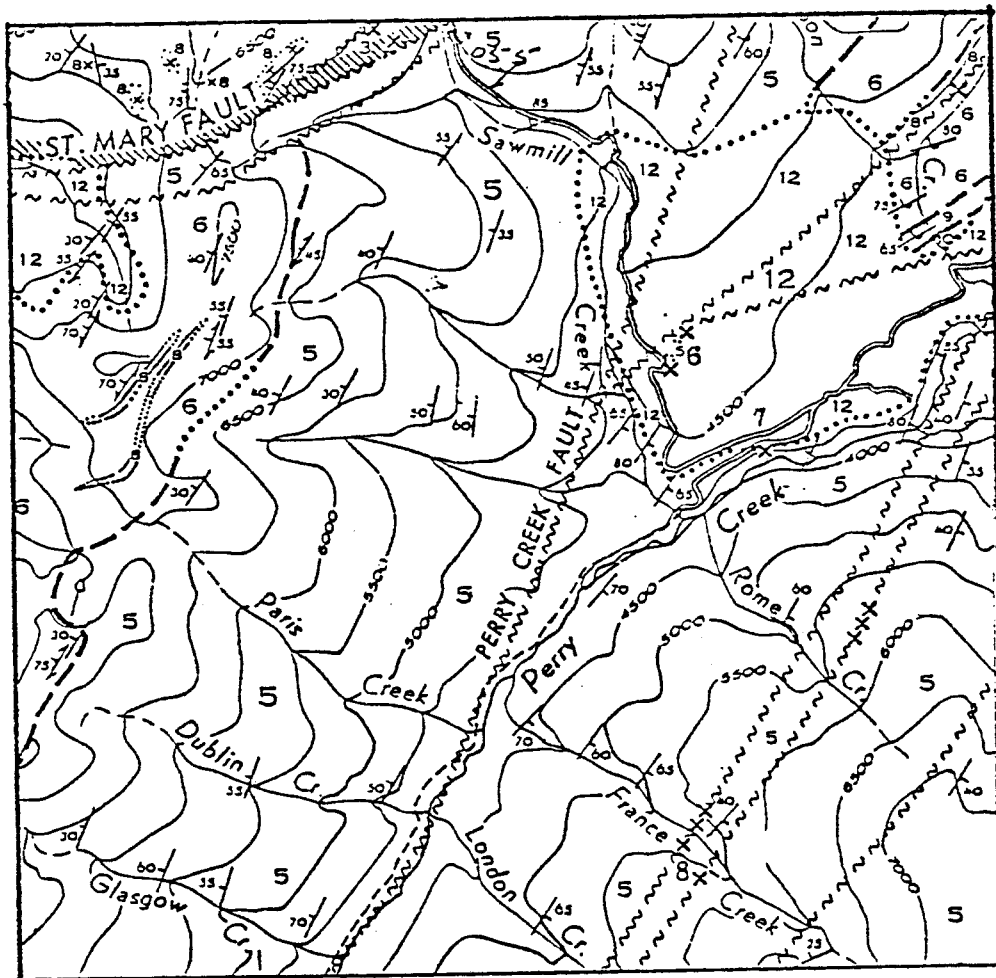


FIGURE 3  
REGIONAL GEOLOGY  
(AFTER LEECH - 1957)  
PERRY CREEK AREA  
METERS



#### 5.20 LOCAL GEOLOGY

Claim areas mapped in 1978 (see figure 4) are characterized by greenish phylonites, altered andesites and quartzites. The quartzites are typically light grey and may be banded or laminated.

The phylonites exhibit schistosity which is more or less concordant with the strike of the Perry Creek fault; the average schistosity being approximately 190/060 W.

Quartz veining with minor pyrite in a green phylonite was observed on the crown grants in the south part of the claim area. Other minor quartz stringers and disseminated pyrite were present in many of the observed outcrops.

## 6.0 SOIL GEOCHEMISTRY

### 6.10 INTRODUCTION AND GLOBAL STATISTICS

A total of approximately 32 rock samples and 589 soil samples were taken on the property between October 2 and 30, 1979. All of the rock samples and 178 of the soil samples were taken by Gallant Gold Mines Limited personnel. The remaining 411 soil samples were taken by personnel from Montgomery Consultants Limited.

The 411 soil samples taken by personnel from Montgomery Consultants Limited were taken on four grid areas. These grid lines were chained and flagged at 30 meter intervals. (see Figures 5,6,7,8 for results; see Figure 4 for grid locations) Results for the 178 soil samples and 32 rock samples taken by Gallant Gold Mines Limited personnel are shown in Figure 4. The soil samples were taken on lines which were chained and flagged every 100 feet, while the rock samples were taken from favourable-looking zones during the course of prospecting traverses.

Statistical calculations were carried out on individual grid areas and on the 178 soil samples taken on lines. To determine an anomalous threshold for

gold and silver values, all of the soil sample results for 1979 were grouped with the sample results for 1978, which meant that statistics were calculated on 900 gold values and 417 silver values. The results of these calculations are shown below:

SILVER		GOLD
417	NUMBER OF SAMPLES (N)	900
0.657 ppm	MEAN ( $\bar{X}$ )	8.996 ppb
0.219 ppm	STANDARD DEVIATION	9.435 ppb

Arithmetic histograms for gold and silver were plotted using appropriate bar intervals (see Figures 13 & 14). Gold values followed a log-normal distribution with an anomalous threshold at about 35 ppb. Silver Values followed a normal distribution, with an anomalous threshold at about 1.5 ppm.

6.20 SOIL GEOCHEMISTRY - LISBON GRID

A total of approximately 90 soil samples were taken on the Lisbon grid and analysed for gold and silver (see Figure 4 for grid location and Figure 5 for geochemical results). Statistical results are shown below:

AREA: LISBON GRID

NUMBER OF SAMPLES (N) 90

	GOLD	SILVER
MEAN ( $\bar{X}$ )	6.667 ppb	0.670 ppm
STANDARD DEVIATION	4.497 ppb	0.141 ppm

None of the gold or silver values in this area appeared to be anomalous (i.e. greater than 1.5 ppm silver or 35 ppb gold).

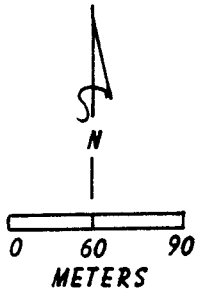
# LISBON GRID

PERRY CREEK (CRANBROOK) AREA PROJECT

## SOIL GEOCHEMISTRY: GOLD & SILVER

FIGURE 5      0.6 SILVER IN SOIL (PPM)  
 • 15 GOLD IN SOIL (PPB)

300 N												
270 N	0.5	0.6	0.6	0.7	0.6	0.4						
	35	5	15	10	10	5						
240 N	0.4	0.4	0.4	0.6	0.4	0.6	0.6	0.4	0.5	0.7		
	10	5	25	5	5	10	10	5	5	5		
210 N	0.5	0.8	0.6	1.0	0.6	0.6	0.7	0.6	0.8	0.6	0.5	
	5	5	5	5	25	10	10	5	25	5	5	
180 N	0.6	0.5	0.8	0.6	0.6	0.8	0.6			0.7	0.6	0.6
	5	5	5	5	10	5	10			5	5	5
150 N	0.6	0.7	0.8	0.9	0.6	0.6	0.7	0.6			0.8	0.6
	25	25	25	25	5	10	25	5			10	5
120 N	0.7	0.8	0.7	0.6	0.6	0.7	0.8	0.6	0.6			0.8
	25	5	25	25	25	15	10	5	5			5
90 N	0.6	0.8	0.6	0.8	0.6	1.0	0.8	0.6	0.8			
	25	10	5	10	5	25	5	5	10			
60 N	0.7	0.7	0.6	0.7	0.7	0.7	0.7					0.6
	10	15	5	15	10	5	10					5
30 N	0.9	0.9	0.8	0.9	0.6			1.1	0.8			0.9
	15	5	25	5	10			5	25			10
00	0.8	0.8	0.7	0.7	0.8	0.6	0.5					0.6
	5	10	5	25	5	5	5					10
	00	30E	60E	90E	120E	150E	180E	210E	240E	270E	300E	



GALLANT GOLD MINES LIMITED

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JANUARY 15, 1980

6.30 SOIL GEOCHEMISTRY - ANGUS GRID

A total of approximately 84 soil samples were taken on the Angus grid and analysed for gold and silver (see Figure 4 for grid location and Figure 6 for geochemical results). Statistical results are shown below:

AREA: ANGUS GRID

NUMBER OF SAMPLES (N) 84

	GOLD	SILVER
MEAN ( $\bar{X}$ )	5.804 ppb	.798 ppm
STANDARD DEVIATION	3.180 ppb	.272 ppm

None of the gold or silver values in this area appeared to be anomalous (i.e. greater than 1.5 ppm silver or 35 ppb gold).



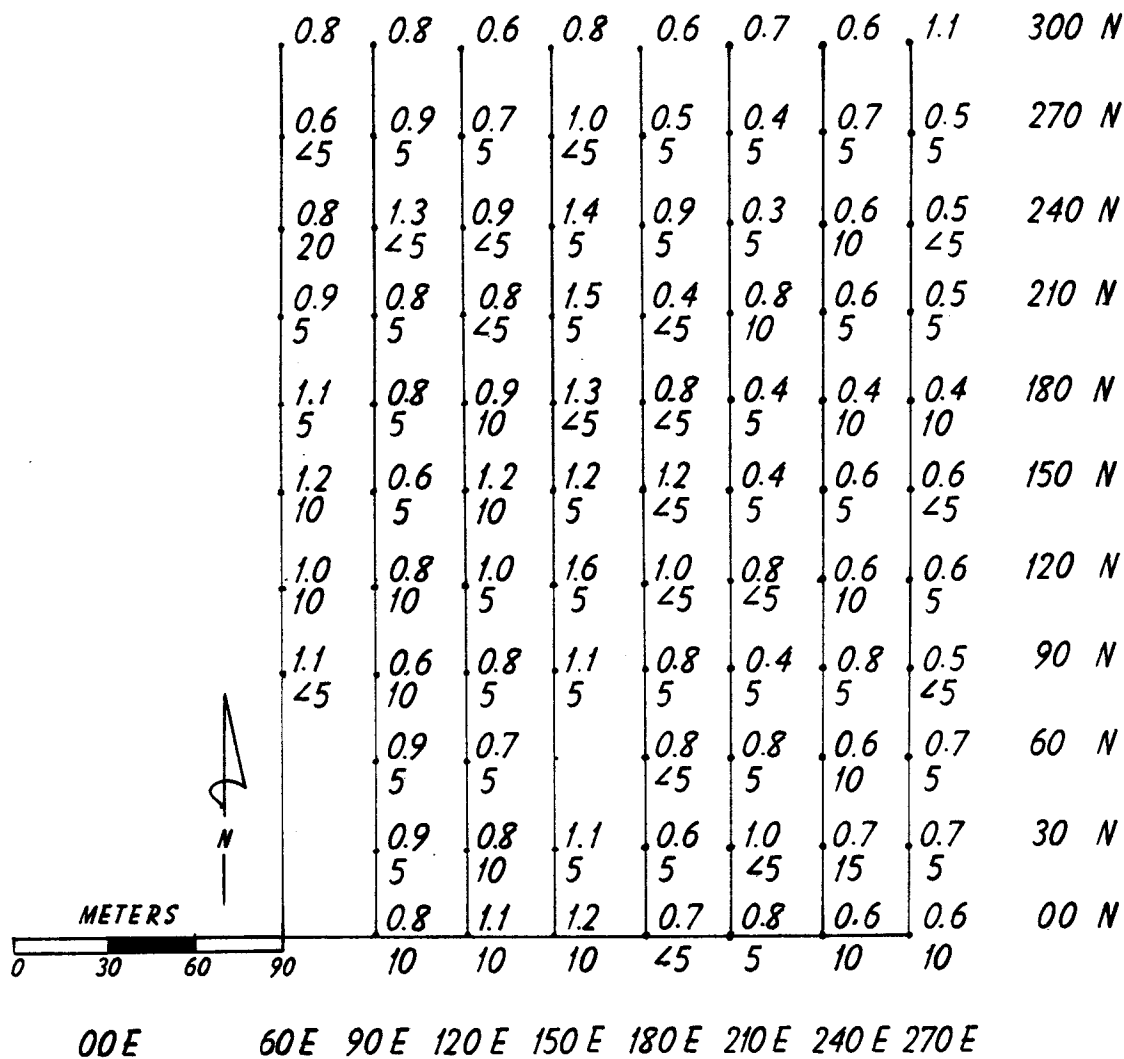
# ANGUS GRID

PERRY CREEK (CRANBROOK) AREA PROJECT

## SOIL GEOCHEMISTRY: SILVER & GOLD

FIGURE 6

• 0.6 SILVER IN SOIL (PPM)  
 15 GOLD IN SOIL (PPB)



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6.40 SOIL GEOCHEMISTRY - SAWMILL GRID

A total of approximately 136 soil samples were taken and analysed for gold and silver (see Figure 4 for grid location and Figure 7 for geochemical results). Statistical results are shown below:

AREA: SAWMILL GRID

NUMBER OF SAMPLES (N) 136

	GOLD	SILVER
MEAN ( $\bar{X}$ )	7.744 ppb	.536 ppm
STANDARD DEVIATION	6.692 ppb	.173 ppm

None of the silver values appeared to be anomalous (i.e. greater than 1.5 ppm) Four of the gold values were greater than 35 ppb. These values were 290, 40, 3450 and 520 ppb.

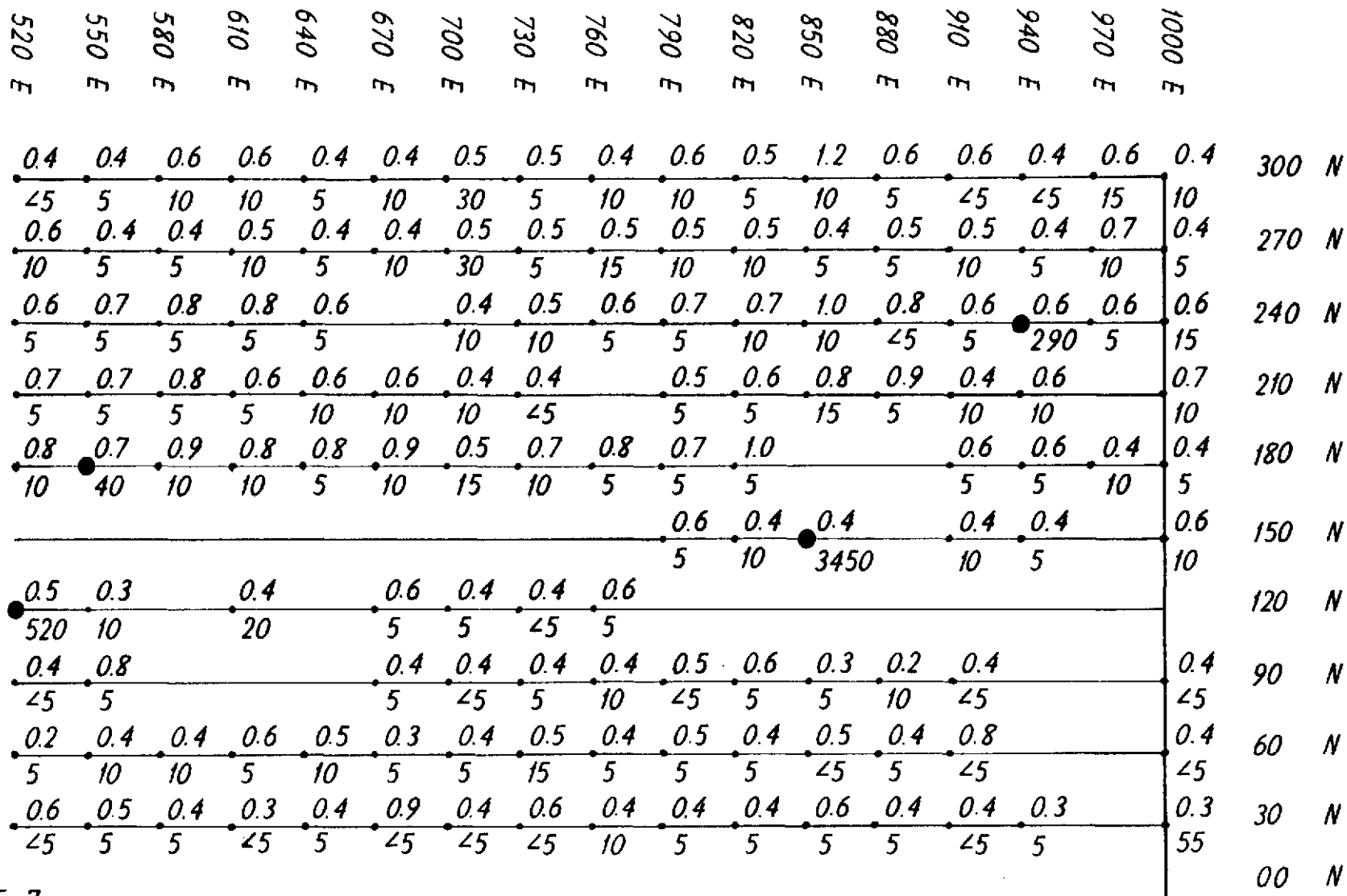


FIGURE 7

# SOIL GEOCHEMISTRY: SILVER & GOLD

PERRY CREEK (CRANBROOK) AREA PROJECT

## GALLANT GOLD MINES LIMITED

# SAWMILL GRID

- 0.6 SILVER IN SOIL (PPM)
- 15 GOLD IN SOIL (PPB)
- ANOMALOUS GOLD IN SOIL ( $\geq 35$  PPB)

MONTGOMERY CONSULTANTS LTD. JANUARY 15, 1980.



6.50 SOIL GEOCHEMISTRY - QUARTZ MOUNTAIN GRID

A total of approximately 107 samples were taken and analysed for gold and silver (see Figure 4 for grid location and Figure 8 for sample results).

Statistical results are shown below:

AREA: QUARTZ MOUNTAIN GRID

NUMBER OF SAMPLES (N) 107

	GOLD	SILVER
MEAN ( $\bar{X}$ )	12.548 ppb	.688 ppm
STANDARD DEVIATION	15.700 ppb	.201 ppm

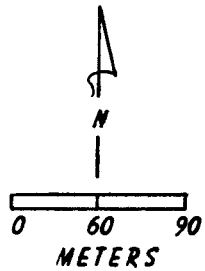
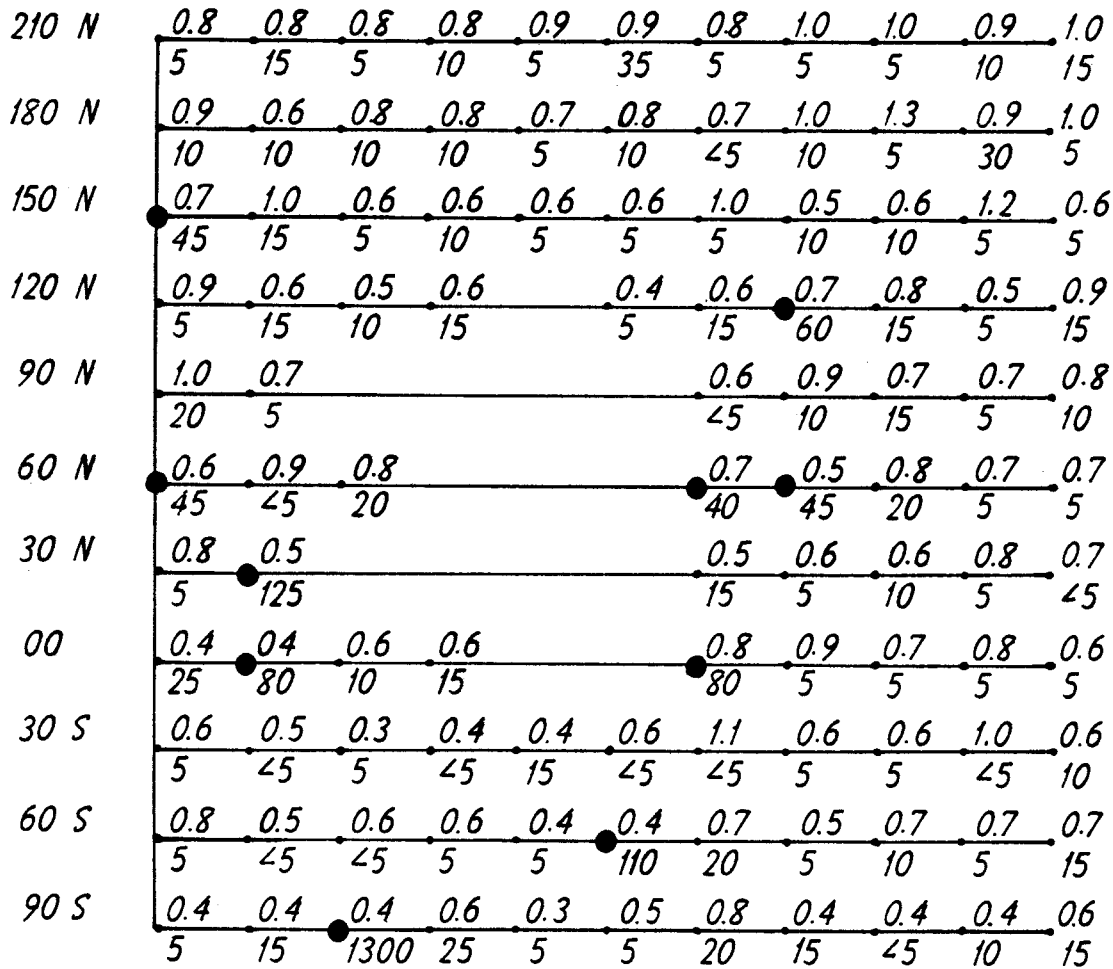
None of the silver values appeared to be anomalous (I.E. greater than 1.5 ppm). Ten of the gold values were greater than 35 ppb. These values were 45, 60, 45, 40, 45, 125, 80, 80, 110, 60, 45, 1300 ppb.

# QUARTZ MOUNTAIN GRID

## PERRY CREEK (CRANBROOK) AREA PROJECT

### SOIL GEOCHEMISTRY : SILVER & GOLD

0.6 SILVER IN SOIL (PPM)      ● ANOMALOUS GOLD IN SOIL (> 35 PPB)  
 15 GOLD IN SOIL (PPB)



00 E    30 E    60 E    90 E    120 E    150 E    180 E    210 E    240 E    270 E    300 E

FIGURE 8

## GALLANT GOLD MINES LIMITED

MONTGOMERY CONSULTANTS LTD

JANUARY 15, 1980

6.60 SOIL GEOCHEMISTRY - MARK, LUKE, & JOHN CLAIM AREAS

A total of approximately 178 soil samples were taken in these areas by personnel from Gallant Gold Mines Ltd. and analysed for gold only. (see Figure 4 for sample results and locations). Statistical results are shown below:

AREA: MARK, LUKE & JOHN CLAIMS

NUMBER OF SAMPLES	178
	GOLD
MEAN ( $\bar{X}$ )	7.697 ppb
STANDARD DEVIATION	6.725 ppb

Six of the gold values were greater than 35 ppb. These values were 300, 60, 120, 40, 40 and 180 ppb.

7.0 PROSPECTING

The area which includes the PETRA, CAROL, LINDA, ECLIPSE, ANNA, STANDARD, AGNES, PIONEER, OYSTER, EVENING STAR, LUKE, MARK AND JOHN CLAIMS was prospected by D. Reinke of Gallant Gold Mines Limited (see Figure 4).

A total of 32 rock samples were taken on the above claims. Results are shown below:

SAMPLE	#	TYPE	DESCRIPTION	Ag oz/ton	Au oz/ton	WO <sub>3</sub> %
3376B	4'	chip	sedimentary rock with pyrite	0.46	0.003	---
3377B	grab		sedimentary rock; slightly rusty	0.01	<0.003	---
3378B	25'	chip; quartz vein	big ledge	0.01	<0.003	---
3379B	10'	chip; quartz vein	upper ledge	0.01	<0.003	---
3380B	grab		lower ledge; quartz & altered wall rock; lower pit	0.01	<0.003	---
3381B	grab		lower ledge; quartz & altered wall rock; upper pit	0.01	<0.003	---
3382B	grab		2 or 3 parallel 5' quartz veins	0.01	<0.003	---
3383B	grab		quartz from shaft dump	0.01	<0.003	---
3384B	grab		"miner's porphyry" from shaft dump	0.14	0.086	---
3385B	grab		"miner's porphyry" from adit dump	0.01	<0.003	---
3386B	grab		quartz from adit dump	0.01	<0.003	---
3387B	grab		quartz from trench	0.01	<0.003	---
3388B	grab		"miner's porphyry" from trench	0.01	<0.003	---
6258B	chip; 1'	quartz vein	small amount of chalcopyrite	0.20	0.010	---
6259B	chip; 3'	quartz vein		0.08	0.005	---
6260B	chip; 3'	quartz vein		0.10	0.003	---
6261B	chip; 1'	quartz vein	in fault zone	0.08	0.003	---
6262B	chip; 2'	quartz vein	in fault zone	0.06	<0.003	---
6263B	1'	chip	north side of quartz vein, at contact with dyke	0.10	0.014	---

SAMPLE	# TYPE	DESCRIPTION	Ag oz/ton	Au oz/ton	WO <sub>3</sub> %
6264B	1' chip	dyke rock at contact with quartz vein	0.10	<0.003	---
6265B	8' chip	dyke rock north of quartz vein	0.02	<0.003	---
6266B	6' chip; quartz vein	north side of 35' quartz vein	0.14	<0.003	0.02
6267B	27' chip; quartz vein	talus, south side of 35' quartz vein	0.08	<0.003	0.02
6268B	7' chip; quartz vein		0.08	<0.003	---
6269B	grab	dyke rock, contact on north side of quartz vein	0.06	<0.003	---
6270B	11' chip; quartz vein		0.08	<0.003	---
6271B	1½' chip	wall rock, west side of vein	0.08	<0.003	---
6272B	grab	large quartz outcrop 40' x 45'	0.06	<0.003	---
6273B	grab	quartz from adit dump	0.04	<0.003	---
6274B	grab	dyke	0.08	<0.003	---
6275B	grab		0.04	<0.003	---

Sample results were uniformly low, both in silver and gold content.

Prospecting in the area mentioned above resulted in the mapping-in of many physical features on the property, such as trenches, adits, shafts, quartz veins etc. (see Figure 4).



## 8.0 EM-16 SURVEYS

### 8.10 INTRODUCTION

EM-16 surveys were carried out on the Lisbon, Angus, Sawmill and Quartz Mountain grid areas. Readings were taken every 30 meters using the Seattle, Washington transmitter. The operator faced south for all of the readings. The data was filtered using the "Fraser Filter" method to give positive crossovers.

### 8.20 EM-16 SURVEY - LISBON GRID

Figure 9 illustrates the filtered EM-16 data for the Lisbon grid. A weak crossover is present in the northeast corner of the grid, with a high of +18. This anomalous area could represent a minor structural feature.

### 8.30 EM-16 SURVEY - ANGUS GRID

Figure 10 illustrates the filtered EM-16 data for the Lisbon grid. A relatively strong crossover cuts the grid from its northeast corner to its southwest corner. This anomalous area could represent a structural feature, such as a contact fault, or shear zone.

# CONTOUR MAP OF FILTERED EM-16 DATA

LISBON GRID

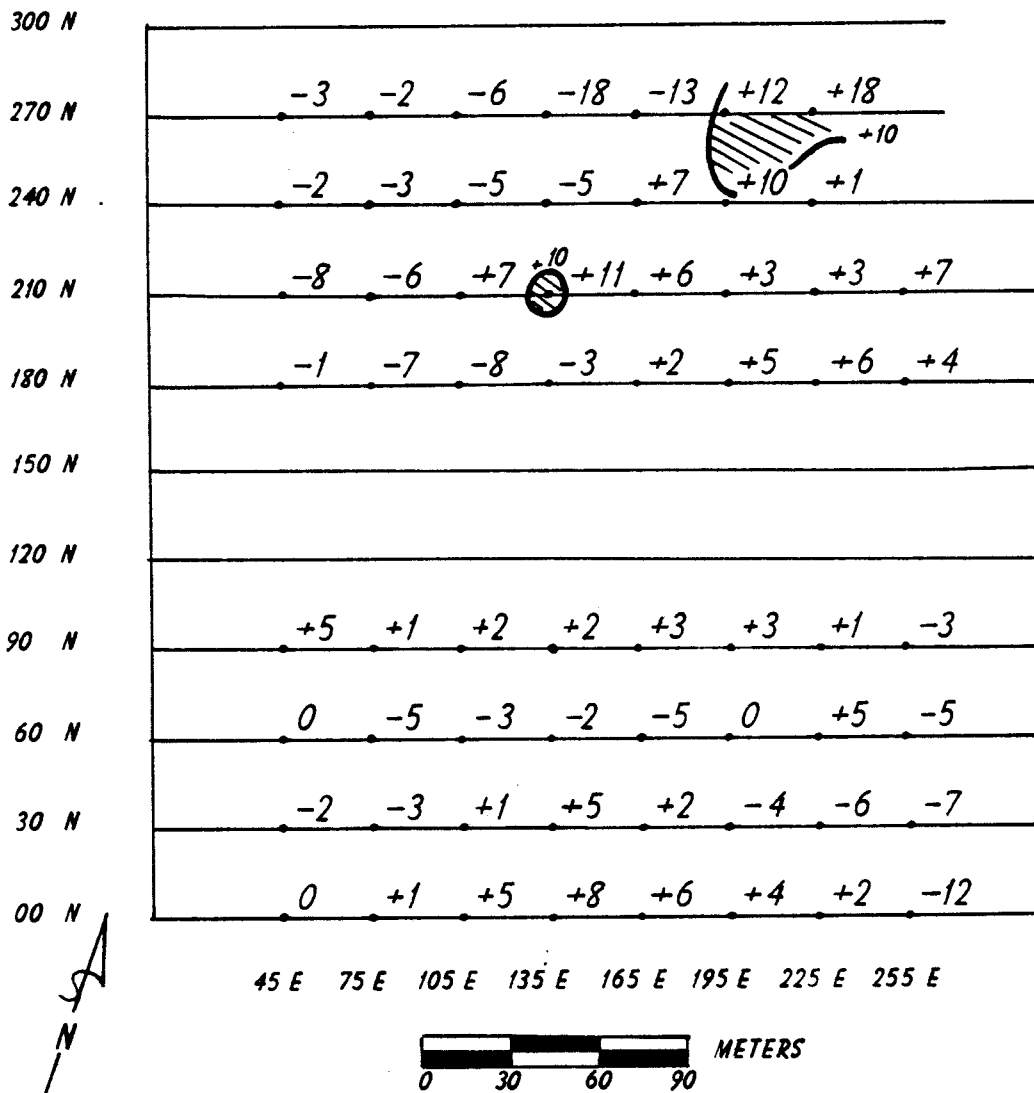
FIGURE 9

## GALLANT GOLD MINES LTD. PERRY CREEK (CRANBROOK) AREA PROJECT

FILTERED EM-16 DATA

+30

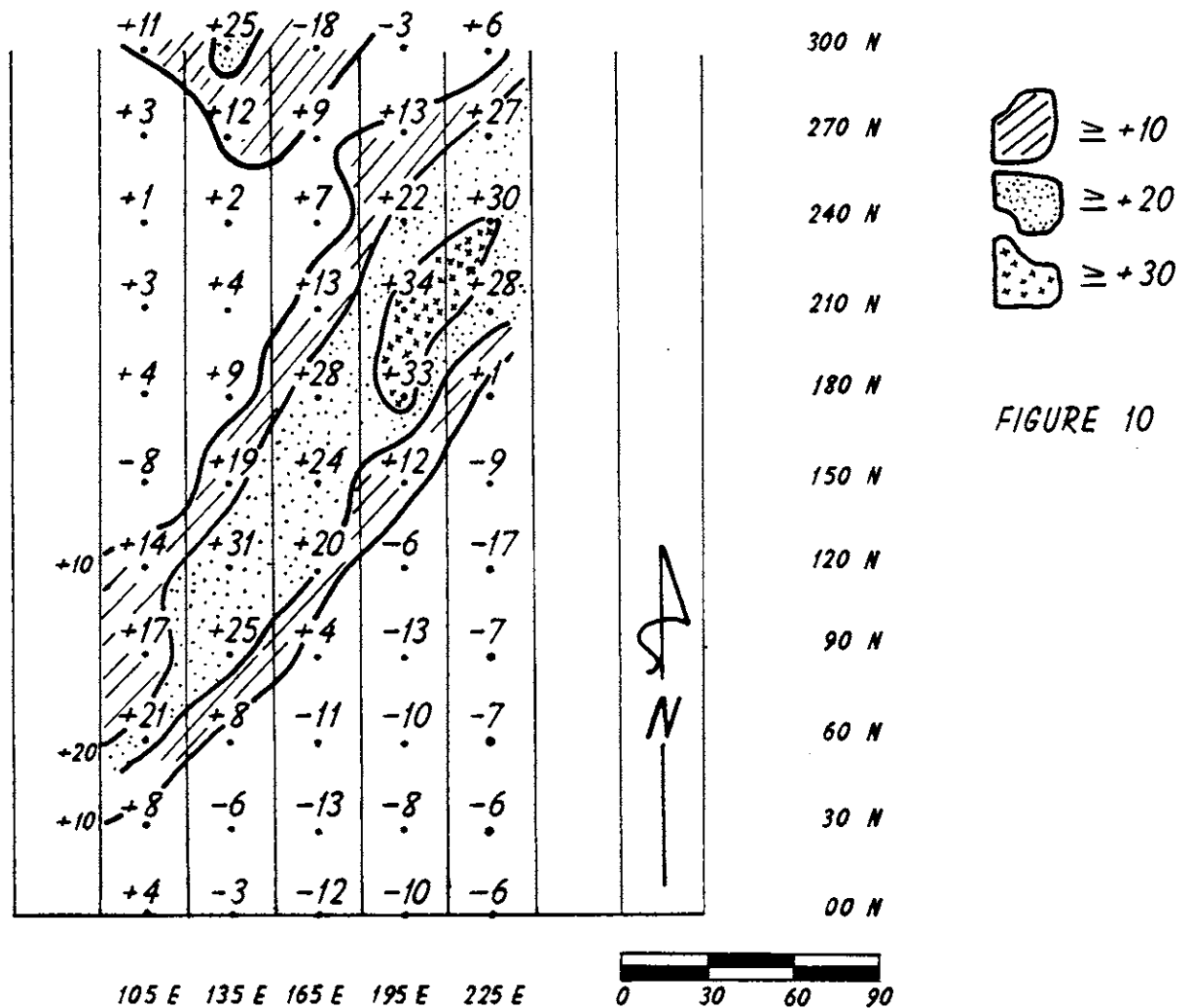
(FRASER FILTER METHOD; FILTERED EAST TO WEST;  
OPERATOR FACES SOUTH; SEATTLE TRANSMITTER)



# CONTOUR MAP OF FILTERED EM-16 DATA

## ANGUS GRID

+30  
 FILTERED EM-16 DATA  
 (FRASER FILTER METHOD; FILTERED EAST TO WEST;  
 OPERATOR FACES SOUTH; SEATTLE TRANSMITTER)



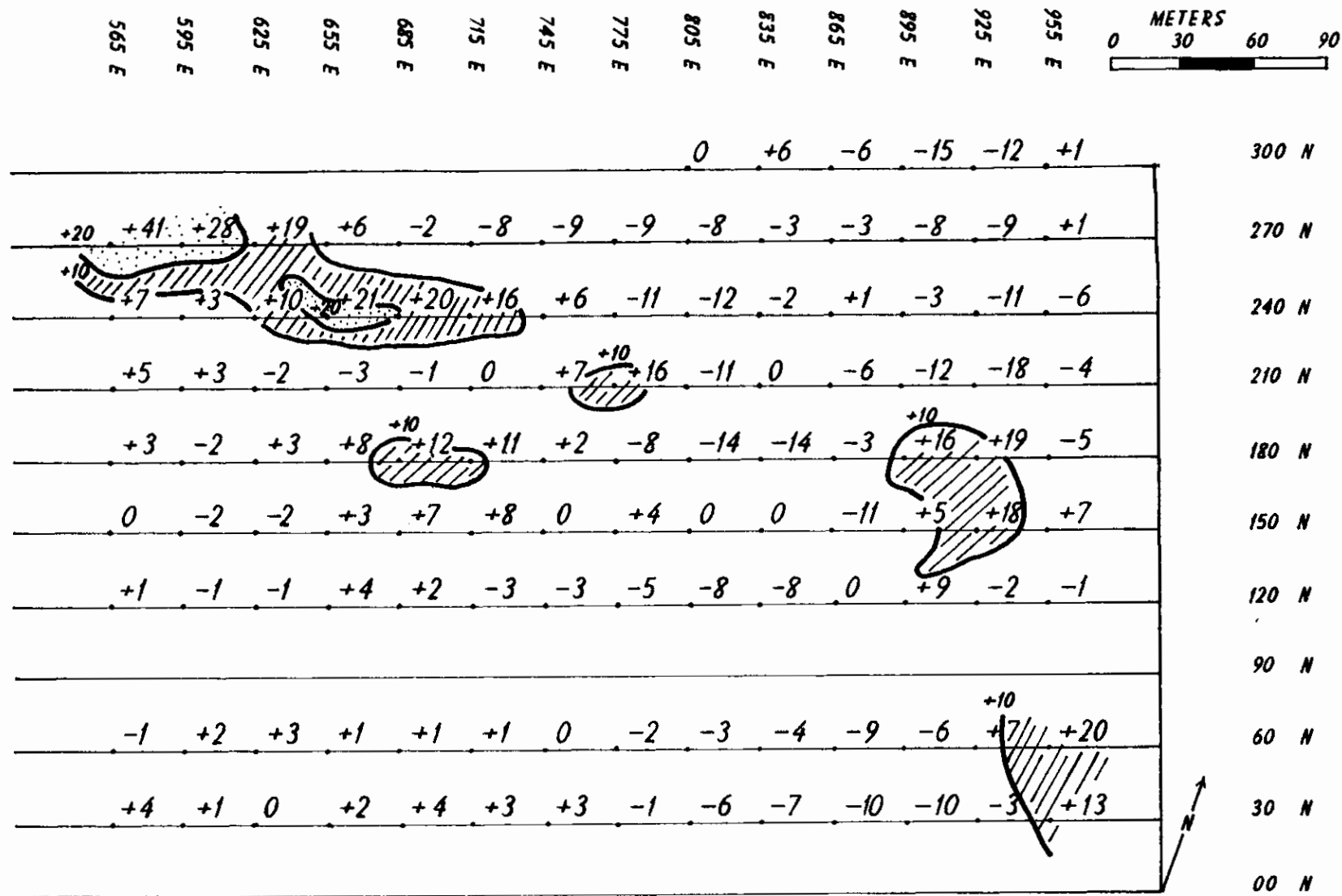
GALLANT GOLD MINES LIMITED  
 PERRY CREEK (CRANBROOK) AREA PROJECT  
 MONTGOMERY CONSULTANTS LIMITED  
 JANUARY 15, 1980

#### 8.40 EM-16 SURVEY - SAWMILL GRID

Figure 11 illustrates the filtered EM-16 data for the Sawmill grid. A moderate crossover is present in the northwest corner of the grid. This anomalous area could represent a structural feature, such as a contact or shear zone.

#### 8.50 EM-16 SURVEY - QUARTZ MOUNTAIN GRID

Figure 12 illustrates the filtered EM-16 data for the Quartz Mountain grid. A broad crossover of moderate strength cuts the survey grid in a north-south direction. This crossover could represent a structural feature such as a contact, fault or shear zone or possibly some conductive body.



CONTOUR MAP OF FILTERED EM-16 DATA SAWMILL GRID FIG. 11

GALLANT GOLD MINES LTD. PERRY CREEK CRANBROOK AREA PROJECT

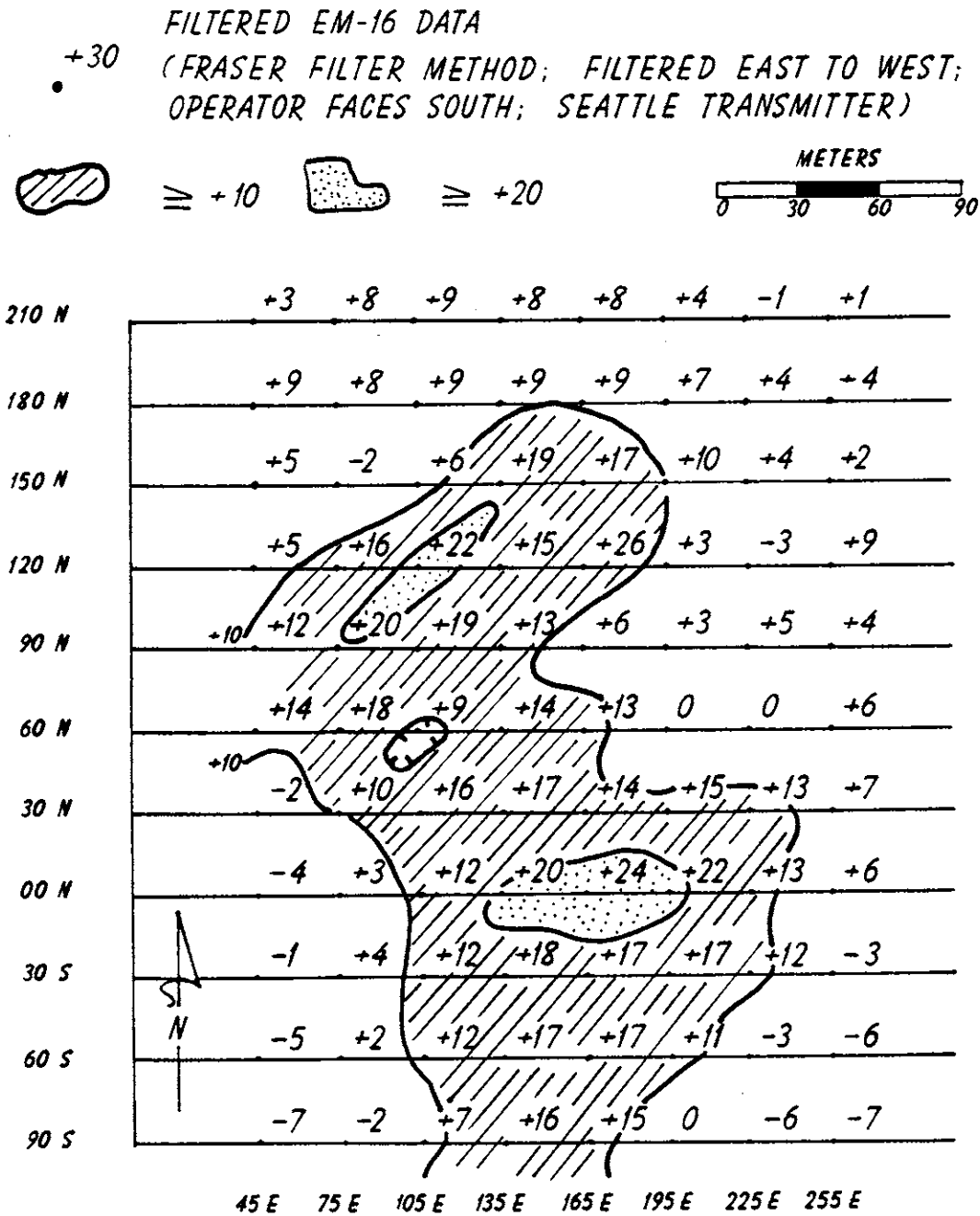
+ 30  
 FILTERED EM-16 DATA  
 FRASER FILTER METHOD; FILTERED EAST TO WEST;  
 OPERATOR FACES SOUTH; SEATTLE TRANSMITTER.

MONTGOMERY CONSULTANTS LTD.

JANUARY 15, 1980

# CONTOUR MAP OF FILTERED EM-16 DATA

## QUARTZ MOUNTAIN GRID



GALLANT GOLD MINES LIMITED      FIGURE 12  
 PERRY CREEK (CRANBROOK) AREA PROJECT

MONTGOMERY CONSULTANTS LIMITED

JANUARY 15, 1980

# ARITHMETIC HISTOGRAM GOLD IN 900 SOILS

FIGURE 13

$n = 900$

$\bar{x} = 8.996$  p.p.b.

$\sigma = 9.435$  p.p.b.

NUMBER OF SAMPLES (n)

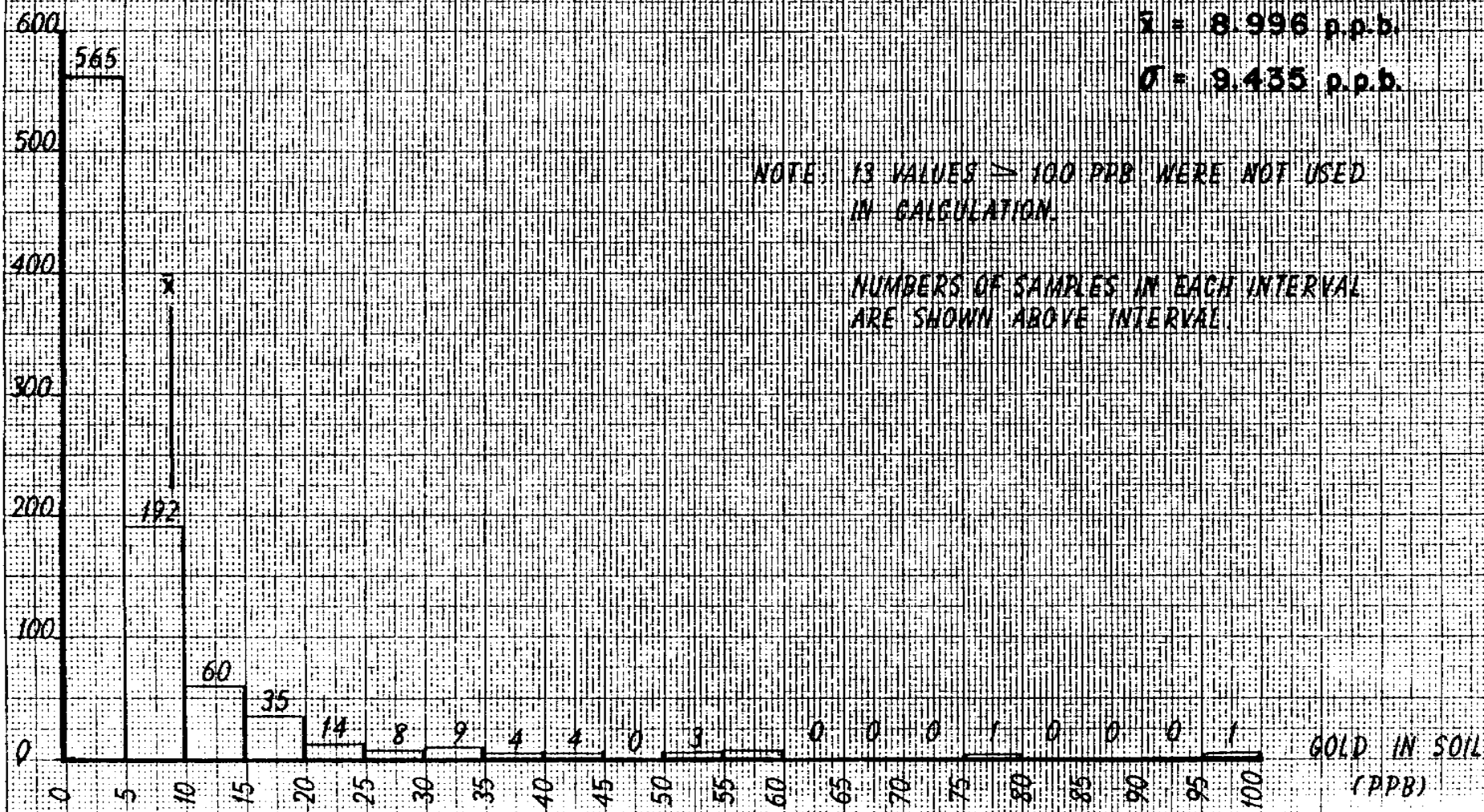
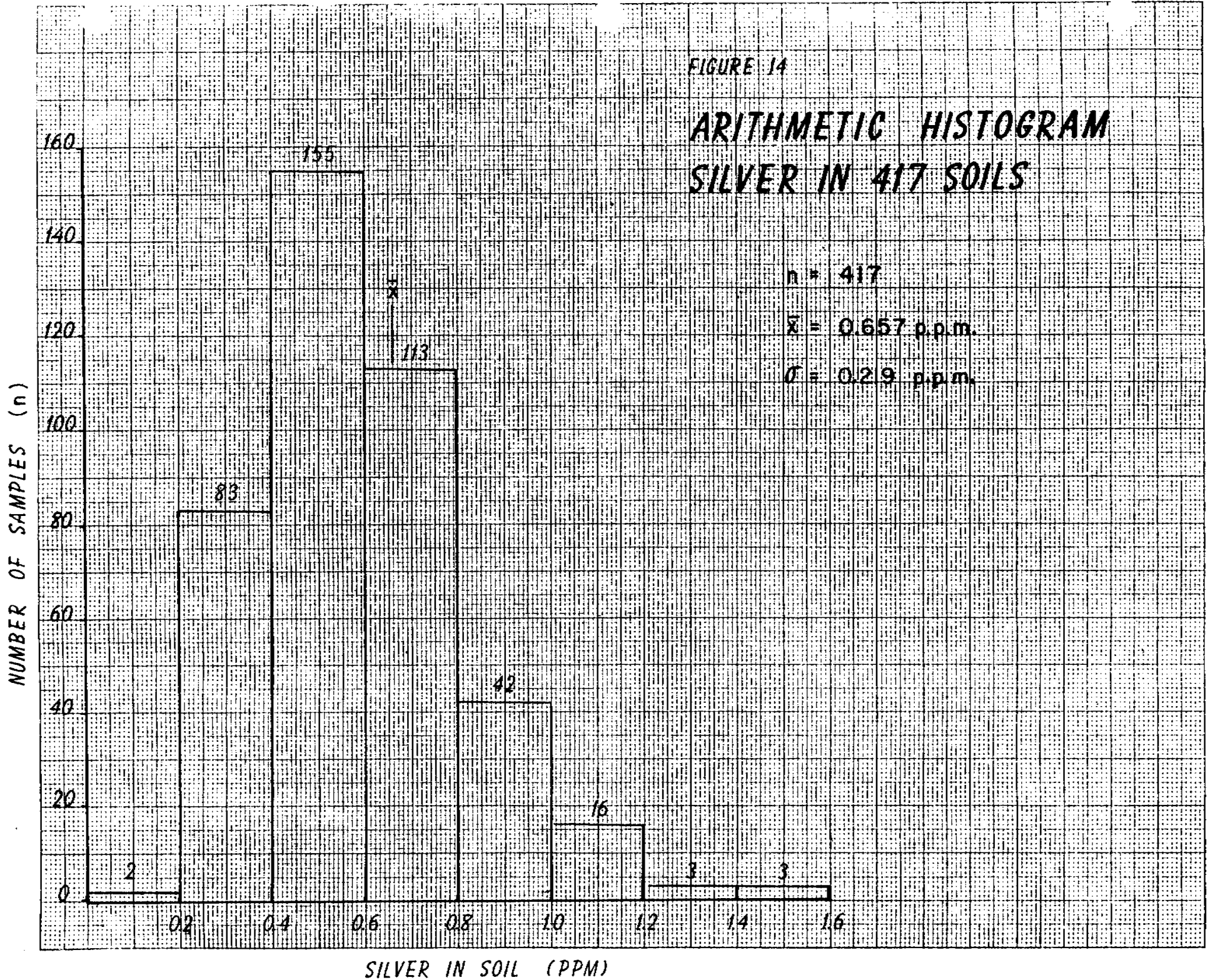




FIGURE 14

# ARITHMETIC HISTOGRAM SILVER IN 417 SOILS



## 9.0 RECOMMENDATIONS

The areas containing anomalous gold in the soil ( $>35$  ppb) should have trenching and further sampling carried out on them. These areas include the Sawmill grid (see Figures 4 and 7) and the Quartz Mountain grid (see Figures 4 and 8).

STATEMENT OF QUALIFICATIONS

I, Douglas F. Symonds, of 3260 Ganymede Drive, Burnaby, British Columbia hereby certify that:

- 1) I am a geologist and a graduate of the University of British Columbia (B.Sc. 1972)
- 2) I have practiced my profession since graduation.
- 3) I have based this report on a knowledge of the property, based on several visits to it, and on field work carried out on the property by crews under the supervision of my partner, J. H. Montgomery (Ph.D., P.Eng.).
- 4) I do not have any interest in Gallant Gold Mines Ltd. nor do I expect to acquire any.



---

Douglas F. Symonds, B.Sc.

Vancouver, British Columbia  
April 16, 1980

10.0 COST STATEMENT

(1) JANET GROUP: (Azlin (6), Gold (10), Birdie

Load (1), Janet (1), Janet 1 (4)

#2074 - October 20/1979 - total of 22 units

Wages: S. Berryman	6 days @ 86.40	\$ 518.40
M. Hebert	6 days @ 72.00	\$ 432.00
	(October 19-21, 24-26)	
FEES: D. Symonds	(January 16-29)	\$ 160.00
DRAFTING: M. Izard	(January 16-29)	\$ 80.00
ROOM AND BOARD		\$ 281.96
TRAVEL EXPENSES		\$ 36.60
TRUCK EXPENSES		\$ 251.20
AIRFARE		\$ 119.09
FIELD EXPENSES		\$ 115.28
EM-16 RENTAL		\$ 160.00
ASSAYING		\$1363.18
MISCELLANEOUS		\$ 43.44
		<hr/>
	TOTAL	\$3561.15

(2) ROCK GROUP: (Tanis (4), Peter Rock (9),  
 Lone Eagle (1), Quartz Creek (1)  
 - grouped October 30/ 1979 - 15 units

Wages: S. Berryman	3 days @ 86.40	\$ 259.20
M. Hebert	3 days @ 72.00	\$ 216.00
	(October 12-14)	
FEES: D. Symonds	(January 16-29)	\$ 160.00
DRAFTING: M. Izard	(January 16-29)	\$ 80.00
ROOM AND BOARD		\$ 140.98
TRAVEL EXPENSES		\$ 18.30
TRUCK EXPENSES		\$ 143.54
AIRFARES		\$ 68.05
FIELD EXPENSES		\$ 57.64
EM-16 RENTAL		\$ 120.00
ASSAYING		\$ 645.40
MISCELLANEOUS		\$ 21.72
		<hr/>
	TOTAL	\$1930.83

(3) LUKE GROUP: (John (4), Mark (6), Luke (9))

#2004 - November 24, 1977 - 19 units

Wages: D. Reinke	10 days @ 105.00	\$1050.00
	(October 5-10, 12-15)	
FEES: D. Symonds (January 16-29)		\$ 160.00
DRAFTING: M. Izard (January 16-29)		\$ 80.00
ROOM AND BOARD		\$ 436.05
TRAVEL EXPENSES		\$ 365.63
FIELD EXPENSES		\$ 217.52
ASSAYING		\$ 542.52
		<hr/>
	TOTAL	\$2851.72

(4) ECLIPSE GROUP: (Eclipse (1), Anna (1),  
 Standard (1), Agnes (1), Pioneer (1), Oyster(1),  
 Evening Star (1)

#2038 - November 7, 1978

Wages:	D. Reinke	6 days @ 105.00	\$ 630.00
		(September 20-25)	
FEES:	D. Symonds	(January 16-29)	\$ 160.00
DRAFTING:	M. Izard	(January 16-29)	\$ 80.00
ROOM AND BOARD			\$ 261.63
TRAVEL EXPENSES			\$ 219.38
FIELD EXPENSES			\$ 130.51
ASSAYING			\$ 325.51
		TOTAL	<u>\$1807.03</u>

(5) PETRA GROUP: (Petra 9-15) (7), Carol 1-8 (8),  
Linda 1-8 (8) - 23 units

Wages: D. Reinke 6 days @ 105.00	\$ 630.00
(September 26 - October 1)	
FEES: D. Symonds (January 16 - 29)	\$ 160.00
DRAFTING: M. Izard (January 16 - 29)	\$ 80.00
ROOM AND BOARD	\$ 261.63
TRAVEL EXPENSES	\$ 219.38
FIELD EXPENSES	\$ 130.51
ASSAYING	\$ 325.51
	<hr/>
TOTAL	\$1807.03



(6) ANGUS GROUP: (Angus 200 (6), Angus 300 (15))

- 21 units

Wages: S. Berryman	2 days @ 86.40	\$ 172.80
M. Hebert	2 days @ 72.00	\$ 144.00
(October 22-23)		
FEES: D. Symonds	(January 16-29)	\$ 160.00
DRAFTING: M. Izard	(January 16-29)	\$ 80.00
ROOM AND BOARD		\$ 93.99
TRAVEL EXPENSES		\$ 12.20
TRUCK EXPENSES		\$ 71.77
AIRFARES		\$ 14.89
FIELD EXPENSES		\$ 38.43
EM-16 RENTAL		\$ 40.00
ASSAYING		\$ 542.86
MISCELLANEOUS		\$ 14.48
TOTAL		<u>\$1385.42</u>

APPENDIX I

COMPAN

Montgomery Consultants

## GEOCHEMICAL ANALYSIS DATA SHEET

No. 9-839

PROJECT No.: Lisbon Grid

MIN - EN Laboratories Ltd.

DATE: Nov. 22,

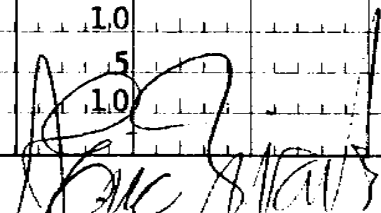
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

1979.

ATTENTION:

Sample Number	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
6 81	10 86	15 95	20 100	25 105	30 110	35 115	40 120	45 125	50 130	55 135	60 140	65 145	70 150	75 155	80 160
L00NBL	0.0E						0.8					5			
	3.0E						0.8					10			
	6.0E						0.7					5			
	9.0E						0.7					<.5			
	12.0E						0.8					5			
	15.0E						0.6					5			
	18.0E						0.5					5			
	21.0E						no sample								
	24.0E						no sample								
	27.0E						0.6					10			
L00N30	0.0E						no sample								
L30NBL	0.0E						0.9					1.5			
	3.0E						0.9					5			
	6.0E						0.8					<.5			
	9.0E						0.9					5			
	12.0E						0.6					10			
	15.0E						no sample								
	18.0E						1.1					5			
	21.0E						0.8					<.5			
	24.0E						no sample								
	27.0E						0.9					10			
L30N30	0.0E						no sample								
L60NBL	0.0E						0.7					10			
	3.0E						0.7					1.5			
	6.0E						0.6					5			
	9.0E						0.7					1.5			
	12.0E						0.7					10			
	15.0E						0.7					5			
	18.0E						0.7					10			
L60N21	0.0E						no sample								

CERTIFIED BY



PROJECT No.: **Lisbon Grid**

MIN - EN Laboratories Ltd.

DATE: **Nov. 22,**

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

**1979.**

ATTENTION:

Sample Number	6 Ag ppm	10 Cu ppm	15 Pb ppm	20 Zn ppm	25 Ni ppm	30 Co ppm	35 Ag ppm	40 Fe ppm	45 Hg ppb	50 As ppm	55 Mn ppm	60 Au ppb	65	70	75	80
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L60N240E								no sample								
270E								0.6					5			
L60N300E								no sample								
L90NBL00E								0.6					<5			
30E								0.8					10			
60E								0.6					5			
90E								0.8					10			
120E								0.6					5			
150E								1.0					<5			
180E								0.8					5			
210E								0.6					5			
240E								0.8					10			
L90N300E								no sample								
L120NBL00E								0.7					<5			
30E								0.8					5			
60E								0.7					<5			
90E								0.6					<5			
120E								0.6					<5			
150E								0.7					1.5			
180E								0.8					1.0			
210E								0.6					5			
240E								0.6					5			
270E								no sample								
L120N300E								0.8					5			
L150NBL00E								0.6					<5			
30E								0.7					<5			
60E								0.8					<5			
90E								0.9					5			
120E								0.6					5			
L150N150E								0.6					10			

ATTENTION:

Sample Number	6 86	10 90	15 95	20 100	25 105	30 110	35 115	40 120	45 125	50 130	55 135	60 140	65 145	70 150	75 155	80 160
	Mg ppm		Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb			
L150N180E								07					45			
210E								06					5			
240E								no sample								
270E								08					10			
L150N300E								06					5	(20 mesh)		
L180NBL00E								06					5			
30E								05					5	(40 mesh)		
60E								08					5			
90E								06					5			
120E								06					10			
150E								08					5			
180E								06					10			
210E								no sample								
240E								07					5			
270E								06					5			
L180N300E								06					5			
L210NBL00E								05					5			
30E								08					5			
60E								06					5			
90E								10					5			
120E								06					45			
150E								06					10			
180E								07					10			
210E								06					5	(40 mesh)		
240E								08					45			
270E								06					5			
L210N300E								05					5	(20 mesh)		
L240NBL00E								04					10			
30E								04					5	(40 mesh)		
L240N60E								04					5			

CERTIFIED BY

*[Handwritten Signature]*



PROJECT No.: Agate

MIN - EN Laboratories Ltd.

DATE: **Nov. 22**

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

ATTENTION:

**1979**

Sample Number	6 81	10 86	15 90	20 95	25 100	30 105	35 110	40 115	45 120	50 125	55 130	60 135	65 140	70 145	75 150	80 155	85 160
		<b>*X</b> ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
L60NBL00N									no sample								
30N									no sample								
60N									no sample								
90N									11				65				
120N									10				10				
150N									12				10				
180N									11				5				
210N									09				5				
240N									08				20				
270N									06				65				
L60E300N									08				5				
L90EBL00N									08				10				
30N									09				5				
60N									09				5				
90N									06				10				
120N									08				10				
150N									06				5				
180N									08				5				
210N									08				5				
240N									13				65				
270N									09				5				
L90E300N									08				5				
L120EBL00N									11				10				
30N									08				10				
60N									07				5				
90N									08				5				
120N									10				5				
150N									12				10				
180N									09				10				
L120E210N									08				65				

CERTIFIED BY

*[Handwritten signature]*





PROJECT No.: **Angus**

MIN - EN Laboratories Ltd.

DATE: **Nov. 22,**

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

**1979.**

ATTENTION:

Sample Number	6 ppm	10 ppm	15 ppm	20 ppm	25 ppm	30 ppm	35 ppm	40 ppm	45 ppm	50 ppb	55 ppm	60 ppm	65 ppb	70	75	80
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L180E								07					4.5			
30N								06					5			
60N								08					4.5			
90N								08					5			
120N								10					4.5			
150N								12					4.5			
180N								08					4.5			
210N								04					4.5			
240N								09					5			
L180E								05					5			
270N																
L180E								06					4.5			
300N																
L210E								08					5			
E																
30N								10					4.5			
60N								08					5			
90N								04					5			
120N								08					4.5			
150N								04					5			
180N								04					5			
210N								08					10			
240N								03					5			
270N								04					5			
L210E								07					5			
300N																
L240E								06					10			
E																
30N								07					15			
60N								06					10			
90N								08					5			
120N								06					10			
150N								06					5			
180N								04					10			
L240E								06					5			
E																
210N																

CERTIFIED BY

*[Handwritten Signature]*



PROJECT No.: **Sawmill Grid**

MIN - EN Laboratories Ltd.

DATE: **Nov. 22, 1979.**

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

ATTENTION:

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	ppm	ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L30N520E								06					< 5			
550E								05					5			
580E								04					5			
610E								03					< 5			
640E								04					5			
670E								09					< 5			
700E								04					5			
730E								06					< 5			
760E								04					10			
790E								04					5			
820E								04					5			
850E								06					5			
880E								04					5			
910E								04					< 5			
940E								03					5			
970E								no sample								
L30NBL1000E								03					55			
L60N520E								02					5			
550E								04					10			
580E								04					10			
610E								06					5			
640E								05					10			
670E								03					5			
700E								04					5			
730E								05					15			
760E								04					5			
790E								05					5			
820E								04					5			
850E								05					< 5			
L60N880E								04					5			

PROJECT No.: **Sawmill Grid**

MIN - EN Laboratories Ltd.

DATE: **Nov. 22,**

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

**1979.**

ATTENTION:

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	ppm	ppm	ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb			
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L60N910E								08					<5			
940E								no sample								
970E								no sample								
L60NBL1000E								04					5			
L120N520E								04					<5			
550E								08					5			
580E								no sample								
610E								no sample								
640E								no sample								
670E								04					5			
700E								04					<5			
730E								04					5			
760E								04					10			
790E								05					<5			
820E								06					5			
850E								03					5			
880E								02					10			
910E								04					<5			
940E								no sample								
970E								no sample								
L120NBL1000E								04					<5			
L150N520E								05					520			
550E								03					10			
580E								no sample								
610E								04					20			
640E								no sample								
670E								06					5			
700E								04					5			
730E								04					<5			
L150N760E								06					5			

CERTIFIED BY

*[Handwritten Signature]*



ATTENTION:

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L180N520E								08					10			
550E								07					40			
580E								09					10			
610E								08					10			
640E								08					5			
670E								09					10			
700E								05					15			
730E								07					10			
760E								08					5			
790E								07					5			
820E								10					5			
850E								no sample								
880E								no sample								
910E								06					5			
940E								06					5			
970E								04					10			
L180N1000E								04					5			
L210N520E								07					5			
550E								07					5			
580E								08					5			
610E								06					5			
640E								06					10			
670E								06					10			
700E								04					10			
730E								04					<5			
760E								no sample								
790E								05					5			
820E								06					5			
850E								08					15			
L210N880E								09					3			

*[Handwritten signature]*

PROJECT No.: **Sawmill Grid**

MIN - EN Laboratories Ltd.

DATE: **Nov. 22,**

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

**1979.**

ATTENTION:

Sample Number	Ng ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L210N910E							04					10				
940E							06					10				
970E							no sample									
L210N1000E							07					10				
L240N520E							06					5				
550E							07					5				
580E							08					5				
610E							08					5				
640E							06					5				
670E							no sample									
700E							04					10				
730E							05					10				
760E							06					5				
790E							07					5				
820E							07					10				
850E							10					10				
880E							08					45				
910E							06					5				
940E							06					290				
970E							06					5				
L240N1000E							06					15				
L270N520E							06					10				
550E							04					5				
580E							04					5				
610E							05					10				
640E							04					5				
670E							04					10				
700E							05					30				
730E							05					5				
L270N760E							05					15				

*[Handwritten Signature]*

PROJECT No.: **Sawmill Grid**

MIN - EN Laboratories Ltd.

DATE: **Nov. 22,**

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

**1979.**

ATTENTION:

Sample Number	6 81	10 86	15 90	20 95	25 100	30 105	35 110	40 115	45 120	50 125	55 130	60 135	65 140	70 145	75 150	80 155	85 160
L270N790E									05								10
820E									05								10
850E									04								5
880E									05								5
910E									05								10
940E									04								5
970E									07								10
L270N1000E									04								5
L300N520E									04								5
550E									04								5
580E									06								10
610E									06								10
640E									04								5
670E									04								10
700E									05								30
730E									05								5
760E									04								10
790E									06								10
820E									05								5
850E									12								10
880E									06								5
910E									06								5
940E									04								5
970E									06								15
L300N1000E									04								10
									:								
									:								
									:								
									:								
									:								

CERTIFIED BY *[Signature]*





PROJECT No.: **Quartz Mtn. Sawmill  
Grids)**

MIN - EN Laboratories Ltd.

DATE: **Nov. 22,  
1979.**

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

ATTENTION:

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L00NBL00E								0.4					2.5			
L00NBL30E								0.4					8.0			
L00NBL60E								0.6					1.0			
L00NBL90E								0.6					1.5			
L00NBL120E								no sample								
L00NBL150E								no sample								
L00NBL180E								0.8					80.0			
L00NBL210E								0.9					5			
L00NBL240E								0.7					5			
L00NBL270E								0.8					5			
L00N300E								0.6					5			
L30NBL00E								0.6					5			
L30NBL30E								0.5					<5			
L30NBL60E								0.3					5			
L30NBL90E								0.4					<5			
L30NBL120E								0.4					1.5			
L30NBL150E								0.6					<5			
L30NBL180E								1.1					<5			
L30NBL210E								0.6					5			
L30NBL240E								0.6					5			
L30NBL270E								1.0					<5			
L30N300E								0.6					1.0			
L60NBL00E								0.8					5			
L60NBL30E								0.5					<5			
L60NBL60E								0.6					<5			
L60NBL90E								0.6					5			
L60NBL120E								0.4					5			
L60NBL150E								0.4					1.0			
L60NBL180E								0.7					2.0			
L60N210E								0.5					5			

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*[Handwritten signature]*

PROJECT No.: **Quartz Mtn Grid**

MIN - EN Laboratories Ltd.

DATE: **Nov. 22, 1979.**

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

ATTENTION:

Sample Number	6 81	10 86	15 90	20 95	25 100	30 105	35 110	40 115	45 120	50 125	55 130	60 135	65 140	70 145	75 150	80 155	80 160
L30NBL00E									0.8								5
30E									0.5								1.25
60E									no sample								
90E									no sample								
120E									no sample								
150E									no sample								
180E									0.5								1.5
210E									0.6								5
240E									0.6								1.0
270E									0.8								5
L30N300E									0.7								4.5
L60NBL00E									0.6								4.5
30E									0.9								4.5
60E									0.8								2.0
90E									no sample								
120E									no sample								
150E									no sample								
180E									0.7								4.0
210E									0.5								4.5
240E									0.8								2.0
270E									0.7								5
L60N300E									0.7								5
L90NBL00E									1.0								2.0
30E									0.7								5
60E									no sample								
90E									no sample								
120E									no sample								
150E									no sample								
180E									0.6								
L90N210E									0.9								

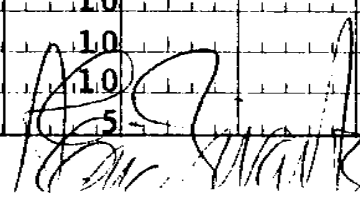
CERTIFIED BY

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ATTENTION:

**1979.**

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
	ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb					
	81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L.90N240E								07					15				
270E								07					5				
L.90N300E								08					10				
L.120NBLOOE								09					5				
30E								06					15				
60E								05					10				
90E								06					15				
120E								no sample									
150E								04					5				
180E								06					15				
210E								07					60				
240E								08					15				
270E								05					5				
L.120N300E								09					15				
L.150NBLOOE								07					45				
30E								10					15				
60E								06					5				
90E								06					10				
120E								06					5				
150E								06					5				
180E								10					5				
210E								05					10				
240E								06					10				
270E								12					5				
L.150N300E								06					5				
L.180NBLOOE								09					10				
30E								06					10				
60E								08					10				
90E								08					10				
L.180N120E								07					5				

CERTIFIED BY 



APPENDIX II



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: ██████████ 984-0221  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Angela Development  
 706 - 675 W. Hastings  
 Vancouver, B.C.

CERTIFICATE NO. 51046  
 INVOICE NO. 33275  
 RECEIVED October 10, 1979  
 ANALYSED October 18, 1979

ATTN:

SAMPLE NO. :	PPB Au
LA - 0	< 10 ✓
LA - 1N	10 ✓
2	< 10 ✓
3	< 10 ✓
4	< 10 ✓
5	< 10 ✓
6	< 10 ✓
7	20 ✓
8	20 ✓
9	< 10 ✓
LA - 10N	10 ✓
LA - 1 S	< 10 ✓
LB - 0	30 ✓
LB - 1 N	< 10 ✓
2	< 10 ✓
3	< 10 ✓
4	< 10 ✓
5	300* ✓
6	< 10 ✓
7	< 10 ✓
8	< 10 ✓
9	< 10 ✓
10	60* ✓
11	< 10 ✓
LB - 12 N	< 10 ✓
LB - 1 S	20 ✓
2	< 10 ✓
3	< 10 ✓
LB - 4 S	20 ✓
LC - 1 S	< 10 ✓
2	< 10 ✓
3	< 10 ✓
4	< 10 ✓
LC - 5 S	< 10 ✓
LD - 0	< 10 ✓
LD - 1 N	10 ✓
2	< 10 ✓
3	10 ✓
4	< 10 ✓
LD - 5 N	10 ✓



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

CERTIFIED BY: *Hart Biddle*



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J2C1  
 TELEPHONE: 984-0221  
 AREA CODE: 604  
 TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 51209

TO: Gallant Gold Mines  
 706 - 675 W. Hastings St.,  
 Vancouver, B.C.

INVOICE NO. 33619

RECEIVED October 22, 1979

ATTN:

ANALYSED November 2, 1979

SAMPLE NO. :	PPB
	Au
LC-0	120 <sup>+</sup>
1W	<10
2	10
3	<10
4	<10
5	10
6	<10
7	<10
8	10
9	<10
10	<10
11	10
12	10
13	<10
14	<10
LC-15N	10
LF-0	20
1W	<10
2	<10
3	<10
4	<10
5	10
6	<10
7	<10
8	<10
LF-9W	10
LG-0	<10
1W	<10
2	<10
3	<10
4	<10
5	<10
6	<10
7	<10
8	<10
9	10
10	<10
11	<10
12	<10
LG-13W	<10



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 ASSOCIATION

CERTIFIED BY: *Hart Biddle*





# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: ██████████ 984-0221  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Angela Developments  
 706 - 675 W. Hastings St.  
 Vancouver, B.C.

CERTIFICATE NO. 51047  
 INVOICE NO. 33310  
 RECEIVED Oct. 10/79  
 ANALYSED Oct. 19/79

ATTN:

SAMPLE NO. :	PPB Au
LD - 6N	< 10
7	< 10
8	40 *
9	10
10	< 10
11	< 10
12	< 10
13	10
14	< 10
LD - 15N	< 10
LD - 1S	20
2	< 10
3	40 *
4	< 10
LD - 5S	< 10
LE - 0	< 10
LE - 1N	20
2	20
3	20
4	< 10
5	< 10
6	< 10
7	< 10
LE - 8N	< 10
LE - 1S	< 10
2	< 10
3	180 *
4	< 10
LE - 5S	< 10



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 ASSOCIATION

CERTIFIED BY: *Hart Biddle*



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J2C1  
TELEPHONE: 984-0221  
AREA CODE: 804  
TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

CERTIFICATE NO: 1210

TO: Gallant Gold Mines  
706 - 675 W. Hastings St.,  
Vancouver, B.C.

INVOICE NO. 33619

RECEIVED October 22, 1979

ATTN:

ANALYSED November 2, 1979

SAMPLE NO. :	PPB
	Au
LG-14W	<10
Li-0	20
1W	<10
2	<10
3	<10
4	<10
5	10
6	<10
7	<10
8	<10
9	<10
10	<10
11	10
12	<10
LH-13W	20
LJ-0	<10
1N	<10
2	<10
3	<10
4	<10
5	<10
6	<10
7	<10
8	<10
9	<10
10	10
11	<10
12	<10
13	<10
14	<10
LJ-15N	<10
LK-0	<10
1N	<10
2	<10
3	<10
4	<10
5	<10
6	10
7	<10
LK-8N	<10



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CANADIAN TESTING  
ASSOCIATION

CERTIFIED BY: *Hart Bielle*



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: ██████████ 984-0221  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Gallant Goldmines  
 706 - 675 W. Hastings St.  
 Vancouver B.C.

CERTIFICATE NO. 51211  
 INVOICE NO. 33663  
 RECEIVED October 22, 1979  
 ANALYSED November 6, 1979

ATTN:

SAMPLE NO. :		PPB
		Au
LK-9	N	< 10 ✓
10		< 10 ✓
11		< 10 ✓
12		< 10 ✓
13		< 10 ✓
14		< 10 ✓
LK-15	N	< 10 ✓
LL-0		< 10
1	N	< 10
2		< 10
3		< 10
4		< 10
5		< 10
6		< 10
7		< 10
8		< 10
9		< 10
10		< 10
11		< 10
12		10
13		10
14		< 10 ✓
LL-15	N	10 ✓
LM-0		20
1	S	< 10
3		< 10
4		< 10
5		< 10
6		< 10
7		20
LM-8	S	< 10
LM-2	N	< 10



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

CERTIFIED BY: *Hart Biddle*

APPENDIX III





# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: 965-0648 964-0221  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ASSAY

CERTIFICATE NO. 66616

TO: Angela Developments  
 706 - 675 W. Hastings St.,  
 Vancouver, B.C.

INVOICE NO. 33606

RECEIVED October 10, 1979

ATTN:

ANALYSED November 2, 1979

SAMPLE NO. :	%	%	oz/ton	oz/ton
	Cu	WO <sub>3</sub>	Ag	Au
6251	0.06		0.38	0.010
6252	0.06		0.01	0.012
6253	0.11		0.01	<0.003
6254	0.13		0.03	0.142
6255	0.07		0.01	0.005
6256	0.13		0.01	0.012
6258			0.20	0.010
6259			0.08	0.005
6260			0.10	0.003
6261			0.08	0.003
6262			0.06	<0.003
6263			0.10	0.014
6264			0.10	<0.003
6265			0.02	<0.003
6266		0.02	0.14	<0.003
6267		0.02	0.08	<0.003



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

*R. Swate*  
 REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: 983-0000 984-0221  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ASSAY

TO: Gallant Gold Mines  
 706 - 675 W. Hastings St.,  
 Vancouver, B.C.

CERTIFICATE NO. 66589  
 INVOICE NO. 33444  
 RECEIVED October 5, 1979  
 ANALYSED October 25, 1979

ATTN:

SAMPLE NO. :	% Cu	% Pb	% Zn	% Wo3	oz/T Ag	OZ/T Au
A - 1					0.04	< 0.003
2					0.04	< 0.003
3				0.02	0.10	< 0.003
4					0.10	< 0.003
5					0.04	0.003
6					0.04	< 0.003
7					0.04	< 0.003
8					0.04	< 0.003
9	0.66			0.20	3.53	0.212
10					0.04	< 0.003
11					0.06	< 0.003
12				0.01	0.08	< 0.003
14					0.08	< 0.003
15					0.02	< 0.003
16					0.25	0.046
17					0.16	< 0.003
18					0.18	< 0.003
19					0.02	< 0.003
22					0.01	< 0.003
23					0.10	< 0.003
24					0.01	< 0.003
25					0.06	< 0.003
27					0.06	< 0.003
28					0.01	< 0.003
29				0.01	0.01	< 0.003
30					0.02	< 0.003
31					0.01	< 0.003
32				0.03	0.02	< 0.003
33					0.04	< 0.003
34					0.06	< 0.003
A - 35	0.83	0.12	0.01		0.08	0.048
6268 B					0.08	< 0.003
6269					0.06	< 0.003
6270					0.08	< 0.003
6211					0.08	< 0.003
5272					0.06	< 0.003
6273					0.04	< 0.003
6274					0.08	< 0.003
6275 B				Also on Spec # 1245	0.04	< 0.003



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 ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

APPENDIX IV



## EM FIELD NOTES Page 21

Property LISBON Date OCT 25/79  
 Job No. 79-19 Operator S. BERRYMAN  
 Trans. SEATTLE Face SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
L 1+20N					
BL 00E					
30E					
60E					
90E	SEATTLE				
1+20E					
1+50E	TRANSMITTER				
1+80E					
2+10E	NOT				
2+40E					
2+70E	OPERATING				
3+00E					
L 1+50N					
3+00E					
2+70E					
2+40E					
2+10E					
1+80E					
1+50E					
1+20E					
90E					
60E					
30E					
BL 00E					

Vanover B.C. Checked \_\_\_\_\_

## EM FIELD NOTES Page 23

Property LISBON Date OCT 26/79  
 Job No. 79-19 Operator S. BERRYMAN  
 Trans. SEATTLE Face SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
L 2+40N					
BL 00E	-5	-10			
30E	-6	-9			
60E	-7	-9			
90E	-8	-8			
1+20E	-7	-7			edge of bank
1+50E	-7	-5			
1+80E	-3	-5			
2+10E	+2	-14			edge of bank
2+40E	+4	-6			edge of bank
2+70E	+4	-14			Slope 60'
3+00E					
L 7+70N					
3+00E					
2+70E	+4	-11			Slope 60'
2+40E	+2	-7			
2+10E	+1	-4			edge of slope
1+80E	-3	+4			small depression
1+50E	-2	-3			LEVEL
1+20E	-1	-10			edge of bank
90E	-4	-7			
60E	-2	-11			LEVEL
30E	-2	-11			
BL 00E	+8	-11			

Vanover B.C. Checked \_\_\_\_\_

ANGUS

OCT 23/79

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP @ SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
L 90 F					
BL 90 N	+4	+20			ROAD
30 N	+5	+21			ROAD
60 N	-4	+31			ROAD
90 N	-5	+33			
120 N	-6	+32			Slope 10°
150 N	-4	+36			
180 N	-3	+35			-10°
210 N	-4	+37			
240 N	-2	+35			
270 N	-8	+40			
300 N	-11	+39			Slope 15°
L 60 E					
300 N	-12	+38			
270 N	-9	+37			
240 N	-4	+35			
210 N	-3	+37			
180 N	-4	+34			
150 N	4	+35			
120 N	-3	+33			
90 E	-3	+32			
60 E	-2	+32			
30 E	+3	+31			
BL 90 N	+4	+30			

Vancouver B.C. Checked \_\_\_\_\_

LISBON

OCT 24/79

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP @ SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
L 60 N					
BL 90 E	+2	-11			ROAD
30 E	+4	-12			
60 E	+5	-13			LEVEL
90 E	+4	-13			
120 E	+5	-10			also 10°
150 E	+5	-11			also 10°
180 E	+4	-8			-40° - 20°
210 E	+4	-12			-35°
240 E	+5	-11			
270 E	+4	-9			also 10°
300 E	+3	-4			also 10°
L 90 N					
300 E	+3	-3			Slope 10°
270 E	+5	-3			also 10°
240 E	+4	-8			Slope -40°
210 E	+5	-3			
180 E	+5	-9			Slope -10°
150 E	+5	-7			
120 E	+5	-13			also 10°
90 E	+5	11			
60 E	+5	1			
30 E	+3	-11			
BL 90 N	0	-15			

Vancouver B.C. Checked \_\_\_\_\_

## EM FIELD NOTES

Page 17

Property ANGUSJob No. 79-19Trans. SEATTLEDate OCT 23/79Operator S. BerrymanFace SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
L 1+50E					ROAD 2
BLOON	+2	+18			ROAD 2
30N	0	+20			
60N	0	+19			ROAD
90N	0	+18			
1+20N	-3	+27			Slope - 8°
1+50N	-6	+29			
1+80N	-4	+37			
2+10N	-6	+35			
2+40N	-6	+35			SAME
2+70N	-6	+36			Slope - 12°
3+00N	-10	+42			
L 1+20E					
3+00N	-10	+46			Slope - 12°
2+70N	-4	+46			
2+40N	-5	+32			
2+10N	-5	+36			Leveling
1+80N	-6	+37			
1+50N	-4	+34			
1+20N	-4	+33			
90N	-4	+30			
60N	+2	+20			ROAD
30N	+2	+19			
0N	0	+17			ROAD

Vancouver B.C. Checked \_\_\_\_\_

## EM FIELD NOTES

Page 19

Property LISBONJob No. 79-19Trans. SEATTLEDate OCT 24/79Operator S. BerrymanFace SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
Line 00N					
BLOON	-2	-6			
30E	0	-8			LEVEL
60E	0	-7			
90E	+2	-7			
1+20E	+2	-9			LEVEL
1+50E	+3	-10			Slope - 40°
1+80E	+5	-12			-40° slope
2+10E	+4	-13			-30° slope
2+40E	+4	-13			-30° slope
2+70E	+4	-10			25° slope
3+00E	+1	-4			+25° slope
L 30N					
3+00E	+2	-6			+25° slope
2+70E	+3	-8			25° slope
2+40E	+3	-10			-30° slope
2+10E	+4	-11			-20° slope
1+80E	+5	-13			-10° slope
1+50E	+3	-12			25° slope
1+20E	+2	-10			25° slope
90E	+2	-10			25° slope
60E	+1	-1			
30E	+1	-1			
0E	0	-11			

Vancouver B.C. Checked \_\_\_\_\_

## EM FIELD NOTES Page 13

 Property Sawmill  
 Job No. 79-19  
 Trans. \_\_\_\_\_

 Date Oct 21st/79  
 Operator \_\_\_\_\_  
 Face \_\_\_\_\_

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
L 1+20N					
940E	-4	+1			
970E	-4	+6			
RL 1000E	0	-5			CREEK
L 60N					
RL 1000E	-2	-10			
970E	-4	-2			
940E	-6	+3			
910E	-7	+5			
880E	-4	+3			
850E	-3	-1			
820E	-4	0			
790E	-4	-2			
760E	-4	-2			
730E	-4	-2			
700E	-2	-2			
670E	-1	-1			
640E	-2	-2			
610E	0	0			
580E	0	0			
550E	+2	0			
520E	+3	-1			

Vanocover B.C. Checked \_\_\_\_\_

## EM FIELD NOTES Page 15

 Property ANGUS  
 Job No. 79-19  
 Trans. SEATTLE

 Date OCT 22/79  
 Operator S. Berryman  
 Face SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
L 2+70E					
BLOON	0	+28			Location Error
30N	-1	+30			Branch
60N	-2	+30			LF V 10L
90N	-4	+30			ROAD
11+20N	-4	+28			
1+50N	-8	+26			
1+80N	-5	+22			
2+10N	-4	+19			-12°
2+40N	-4	+17			-15°
2+70N	-5	+20			
3+00N	-8	+29			-22°
L 2+40E					
3+00N	-12	+25			
2+70N	-6	+26			-14°
2+40N	-6	+18			
2+10N	0	+11			
1+80N	-2	+18			
1+50N	-2	+22			
1+20N	-5	+25			
90N	-2	+27			ROAD
60N	-2	+27			
30N	-1	+27			
BLOON	-1	+26			ROAD

Vanocover B.C. Checked \_\_\_\_\_





Oct 20/79 SAWMILL

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
L210N					Slope 45°
RL100E	-2	-5			10°
920E	-4	+5			CORNER
940E	0	+1			
910E	-1	-5			
830E	-2	-2			
800E	0	-9			
820E	0	-9			
800E	0	-7			
760E	-3	0			
730E	-2	0			
700E	-4	0			
670E	-2	0			
640E	-1	-1			
610E	+1	-7			
580E	0	-1			
550E	+1	+1			
520E	+3	+1			
L140N	1	7			
520E	+2	-4			
550E	+1	-4			Ni
580E	+1	-5			
610E	0	-6			
640E	-1	-5			

Vancouver B.C. Checked \_\_\_\_\_

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
L1+50N					
730E	-3	0			
700E	-2	-3			
670E	-1	-4			
640E	0	-6			
610E	-2	-4			
580E	-1	-4			
550E	+2	-4			
520E	+2	-4			
L1+20N					
520E	+1	-3			
550E	+2	-1			
580E	+1	-3			
610E	0	-2			
640E	-1	-1			
670E	0	-3			
700E	-2	-4			
730E	-2	-2			
760E	-3	-2			
790E	-4	-1			
820E	-4	+2			
850E	-5	+3			
880E	-8	+6			
910E	-3	-1			

Vancouver B.C. Checked \_\_\_\_\_

## EM FIELD NOTES

Page 9

Property SAWMILL  
 Job No. 79-19  
 Trans. SEATTLE

Date Oct. 20/79  
 Operator S. Berryman  
 Face SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM PAIRS	FILTERED DATA	REMARKS & SLOPE
L 2440N					Slope north
520E	+4	+10			11°
550E	+4	+7			
580E	+4	+5			
610E	+1	+5			
640E	-1	+4			
670E	+3	-4			Creek
700E	+4	-8			
730E	+4	-12			
760E	+6	-15			
790E	+3	-10			Level
820E	0	-2			
850E	0	-7			
880E	0	-8			
910E	+1	-7			
940E	0	-5			
970E	-4	+1			
BL 1000E	-2	-7			

Vancouver B.C. Checked \_\_\_\_\_

## EM FIELD NOTES Page 11

Property Sawmill  
 Job No. 79-19  
 Trans. SEATTLE

Date Oct 20/79  
 Operator S. Berryman  
 Face SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM PAIRS	FILTERED DATA	REMARKS & SLOPE
L 1180N					
670E	-3	-3			
700E	-4	0			
730E	-4	+4			
760E	-6	+4			
790E	-8	+2			
820E	-2	-2			
850E	-1	-6			
880E	-1	-8			
910E	0	-3			
940E	-3	+5			
970E	-3	+3			
BL 1000E	0	-6			
Oct 21st					
L 1150N					
BL 1000E	-2	0			Slope north
970E	-3	+7			CREEK
940E	-2	+3			
910E	-1	-3			
880E	0	-5			CREEK
850E	-2	0			
820E	-4	+3			
790E	-5	+2			
760E	-4	+1			

Vancouver B.C. Checked \_\_\_\_\_

Oct. 14/79

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
LINE -90N					
BL 00 E	+5	-32			
30 E	+2	-32			
60 E	+4	-36			
90 E	+4	-35			Main road
1+20 E	+2	-35			
1+50 E	+1	-29			Old road
1+80 E	-2	-25			
2+10 E	-3	-24			
2+40 E	-2	-31			
2+70 E	-6	-25			
3+00 E	-9	-22			
End of Quartz					
Mtn survey					

Vancouver B.C. Checked \_\_\_\_\_

SAWMILL

Oct 20/79

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
L2+70N					
BL 1000 E	0	-11			Slope - 10°
970 E	-2	-4			Creek
940 E	-1	-6			Slight Slope +
910 E	-1	-8			Level
880 E	-1	-11			
850 E	-1	-11			
820 E	+1	-11			Level
790 E	+1	-11			
760 E	+1	-11			
730 E	+2	-11			
700 E	+4	-21			Slope 12°
670 E	+7	-			
640 E	+10	-			
610 E	+9	-			
580 E	+11	-			
550 E	+10	-			Creek 15m
520 E	+6	-			Creek

Vancouver B.C. Checked \_\_\_\_\_



## EM FIELD NOTES Page 5

Property Quartz Mtn. Date Oct. 14/79  
 Job No. 79-19 Operator S. BERRYMAN  
 Trans. SEATTLE Face SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM PAIRS	FILTERED DATA	REMARKS & SLOPE
LINE -30N					
BLOOE +6		-31			
30E +6		-34			
60E +4		-33			Old road
90E +7		-33			Site of old house
1+20E +7		-30			
1+50E +6		-24			
1+80E +5		-21			Edge of Pit
2+10E +2		-16			
2+40E -1		-12			
2+70E -3		-13			
3+00E -3		-18			
LINE -60N					
3+00E -6		-20			
2+70E -1		-21			
2+40E -3		-21			
2+10E -3		-19			
1+80E 0		-23			
1+50E +4		-27			
1+20E +6		-31			Old road
90E +7		-33			
60E +14		-36			Slope 12"
30E +2		-33			Bad line from old
FL 90E +6		-33			

Vanover B.G. Checked \_\_\_\_\_

## EM FIELD NOTES Page 7

Property Sawmill Date Oct. 19/79  
 Job No. 79-19 Operator S. BERRYMAN  
 Trans. SEATTLE Face SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM PAIRS	FILTERED DATA	REMARKS & SLOPE
L 3+00N					
BL 1000E	0	-8			Slope to west
970E	+1	-9			10"
940E	0	-5			10"
910E	+2	-7			Level
880E	+1	-11			Level
850E	+7	-1			Level
820E	+7	-1			Level
790E	+8	-11			
760E	1				
730E					EM Receiver went on
700E					the line for this
670E					part of L 3+00N.
640E					
610E					
580E					
550E					
520E					

Vanover B.G. Checked \_\_\_\_\_

Oct. 13/79

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
LINE 30 N					ROAD.
RL 00 E	+6	-30			NULL WAS READ
30 E	+10	-32			LINE 011
60 E	+4	-36			
90 E	+8	-34			IN PIT
1+20 E	+9	-30			IN PIT
1+50 E	+5	-24			IN PIT
1+80 E	+11	-22			IN PIT
2+10 E	+10	-17			IN PIT
2+40 E	+6	-15			Grad slip to South S-7°
2+70 E	+2	-12			
3+00 E	+2	-13			
L 00 N					
3+00 E	-4	-13			
2+70 E	-1	-13			
2+40 E	+4	-15			
2+10 E	+4	-17			
1+80 E	+3	-11			
1+50 E	+10	-30			IN PIT
1+20 E	+14	-30			IN PIT
90 E	+11	-2			
60 E	+9	-5			
30 E	+10	-3			
RL 00 E	+5	-34			

Date: Oct. 13/79

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
LINE 90 N					
BL 00 E	+4	-35			
30 E	+8	-34			
60 E	+7	-32			IN PIT
90 E	+8	-25			IN PIT
1+20 E	+7	-21			IN PIT
1+50 E	+5	-17			IN PIT
1+80 E	+8	-16			Grad slip to South S-8°
2+10 E	+8	-16			
2+40 E	+6	-14			
2+70 E	+6	-13			
3+00 E	+6	-13			
LINE 60 N					
3+00 E	+1	-12			
2+70 E	+4	-13			
2+40 E	+6	-16			
2+10 E	+8	-15			
1+80 E	+8	-14			IN PIT
1+50 E	+6	-17			IN PIT
1+20 E	+8	-25			IN PIT
90 E	+7	-20			IN PIT
60 E	+5	-31			IN PIT
30 E	+3	-32			IN PIT
RL 00 E	+5	-33			

## EM FIELD NOTES Page 1

Property Quartz Mtn.  
Job No. 79-19  
Trans. SEATTLEDate Oct. 17/79  
Operator S. BERRYMAN  
Face SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
Line 2+10N	+6	-37			
Sta. 30E	+8	-32			Sloping south 12° not 2 mull. (N=3)
60E	+8	-30			Slope south 10°
90E	+10	-29			Same
1+20E	+6	-25			Same
1+50E	+10	-25			HAVE BEEN REPT AS READING AT EACH STATION LAST WEEK.
1+80E	+5	-21			THIN FOREST & ROCK STREWS
2+10E	+8	-21			GROUND SLOPE GRADU- UAL TO SOUTH
2+40E	+8	-21			
2+70E	+9	-22			
2+00E	+9	-19			
End of Line					
Line 1+80N					
3+00E	+10	-17			
2+70E	+8	-16			
2+40E	+8	-19			
2+10E	+8	-18			
1+80E	+8	-21			2 small trees to the south about 10 m
1+50E	+9	-23			
1+20E	+10	-25			
90E	+8	-25			
60E	+6	-29			
30E	+6	-32			
BL 00 E	+4	-34			

Vanover B.O. Checked \_\_\_\_\_

## EM FIELD NOTES Page 2

Property Quartz Mtn.  
Job No. 79-19  
Trans. SEATTLEDate Oct. 12/79  
Operator S. BERRYMAN  
Face SOUTH

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM OF PAIRS	FILTERED DATA	REMARKS & SLOPE
LINE 1+20N					
BL 00 E	+8	-36			Ground slope south 10°
30E	+10	-36			
60E	+10	-35			Edge of pit
90E	+9	-32			In pit
1+20E	+10	-33			In pit
1+50E	+10	-22			Edge of pit
1+80E	+8	-18			
2+10E	+8	-11		3	Grad slo to South 10°
2+40E	+10	-16		1	
2+70E	+8	-16			
3+00E	+8	-12			
End of Line					
Line 1+50N					
3+00E	+10	-15			
2+70E	+9	-17			grad slope 6°-8°
2+40E	+12	-17			
2+10E	+10	-17			Rock STREWS
1+80E	+6	-21			Edge of pit about 20m due south 6° slip here
1+50E	+8	-23			
1+20E	+14	-32			
90E	+10	-31			
60E	+4	-30			
30E	+6	-31			
BL 00 E	+8	-35			

Vanover B.O. Checked \_\_\_\_\_

.APPENDIX V



C. DRILLING (Details in report submitted as per section 8 of regulations.)  
 (The itemized cost statement must be part of the report.)

D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL  
 (Details in report submitted as per section 5, 6, or 7 of regulations.)  
 (The itemized cost statement must be part of the report.)  
 (State type of work in space below.)

		COST
GEOCHEMICAL & EM-16 SURVEY		1500.00
(REPORT TO FOLLOW)		
TOTAL OF C AND D		1500.00

Who paid for the above-described work? Name GALLANT GOLD MINES LTD.  
 Address 706-675 W. HASTINGS ST.  
VANCOUVER, B.C.

Portable Assessment Credits (PAC) Withdrawal Request		AMOUNT
Amount to be withdrawn from owner(s) account(s):		
Name of Owner		
(May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.)	1. _____	
	2. _____	
	3. _____	
	4. _____	
TOTAL WITHDRAWAL		
TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL		1500.00

I wish to apply \$ 1500.00 of this work to the claims listed below.


(State number of years to be applied to each claim and its month of record.)

JANET (86) 1 unit	100.00	1 yr
JANET 1 (87) 4 units	400.00	1 yr
AZLIN (394) 6 units	600.00	1 yr
GOLDEN WOLFE (396) 4 units	400.00	1 yr
	1500.00	

Value of work to be credited to portable assessment credit (PAC) account(s).

(May only be credited from the approved value of C and (or) D not applied to claims.)

Name		AMOUNT
In owner(s) name.	1. _____	
	2. _____	
	3. _____	
In operator(s) name (person paying for the work).	1. _____	
	2. _____	
	3. _____	

  
 (Signature of Applicant)



**C. DRILLING** (Details in report submitted as per section 8 of regulations.)  
 (The itemized cost statement must be part of the report.)

		COST
<b>D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL</b> (Details in report submitted as per section 5, 6, or 7 of regulations.) (The itemized cost statement must be part of the report.) (State type of work in space below.)		
LINECUTTING & GEOCHEMISTRY		1900.00
TOTAL OF C AND D		1900.00

Who paid for the above-described work? Name GALLANT GOLD MINES  
 Address 706-675 W NASTINGS ST.  
VANCOUVER, B.C.

Portable Assessment Credits (PAC) Withdrawal Request		AMOUNT
Amount to be withdrawn from owner(s) account(s):		
Name of Owner		
(May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.)	1. _____	
	2. _____	
	3. _____	
	4. _____	
TOTAL WITHDRAWAL		
TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL		1900.00

I wish to apply \$ 1900.00 of this work to the claims listed below.

(State number of years to be applied to each claim and its month of record.)

MARK (6)	136 (11)	1 yr.	600.00
LOUIE (9)	137 (11)	1 yr.	900.00
JOHN (4)	138 (11)	1 yr.	400.00
			1900.00

Value of work to be credited to portable assessment credit (PAC) account(s).

(May only be credited from the approved value of C and (or) D not applied to claims.)

		Name	AMOUNT
In owner(s) name.	1. _____		
	2. _____		
	3. _____		
In operator(s) name (person paying for the work).	1. _____		
	2. _____		
	3. _____		

G.H. Groux  
 (Signature of Applicant)





**C. DRILLING** (Details in report submitted as per section 8 of regulations.)  
 (The itemized cost statement must be part of the report.)

	COST
<b>D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL</b> (Details in report submitted as per section 5, 6, or 7 of regulations.) (The itemized cost statement must be part of the report.) (State type of work in space below.)	
LINECUTTING & GEOCHEMISTRY	700.00
TOTAL OF C AND D	700.00

Who paid for the above-described work? Name: GALLANT GOLD MINES  
 Address: 706-675 W HASTINGS ST.  
VANCOUVER B.C.

Portable Assessment Credits (PAC) Withdrawal Request	AMOUNT
Amount to be withdrawn from owner(s) account(s):	
Name of Owner	
(May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.)	
1.....	
2.....	
3.....	
4.....	
TOTAL WITHDRAWAL	
TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL	

I wish to apply \$ 700.00 of this work to the claims listed below.

(State number of years to be applied to each claim and its month of record.)

ECLIPSE (343 (11))	1 yr.	100
ANNA 344 (11)	1 yr	100
STANDARD 345 (11)	1 yr	100
AGNES 346 (11)	1 yr	100
PIONEER 347 (11)	1 yr	100
OYSTER 348 (11)	1 yr	100
EVENING STAR 349 (11)	1 yr	100
		<u>\$700</u>

Value of work to be credited to portable assessment credit (PAC) account(s).

(May only be credited from the approved value of C and (or) D not applied to claims.)

	Name	AMOUNT
In owner(s) name.	1.....	
	2.....	
	3.....	
In operator(s) name (person paying for the work).	1.....	
	2.....	
	3.....	

G. H. Groux  
 (Signature of Applicant)



**C. DRILLING** (Details in report submitted as per section 8 of regulations.)  
 (The itemized cost statement must be part of the report.)

		COST
<b>D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL</b> (Details in report submitted as per section 5, 6, or 7 of regulations.) (The itemized cost statement must be part of the report.) (State type of work in space below.)		
GEOCHEMICAL & EM - 16 SURVEY (REPORT TO FOLLOW)		900.00
TOTAL OF C AND D		900.00

Who paid for the above-described work? Name GALLANT GOLD MINES LTD.  
 Address 706-675 W HASTINGS ST.  
VANCOUVER B.C.

Portable Assessment Credits (PAC) Withdrawal Request		AMOUNT
Amount to be withdrawn from owner(s) account(s):		
Name of Owner		
(May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.)	1. _____	
	2. _____	
	3. _____	
	4. _____	
TOTAL WITHDRAWAL		
TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL		900.00

I wish to apply \$ 900 of this work to the claims listed below.

(State number of years to be applied to each claim and its month of record.)

PETER ROCK (397) 9 units 1yr 900

Value of work to be credited to portable assessment credit (PAC) account(s).

(May only be credited from the approved value of C and (or) D not applied to claims.)

Name		AMOUNT
In owner(s) name.	1. _____	
	2. _____	
	3. _____	
In operator(s) name (person paying for the work).	1. _____	
	2. _____	
	3. _____	

G. H. Gray  
 (Signature of Applicant)



**C. DRILLING** (Details in report submitted as per section 8 of regulations.)  
 (The itemized cost statement must be part of the report.)

COST	
<b>TOTAL OF C AND D</b>	1385.42

**D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL**  
 (Details in report submitted as per section 5, 6, or 7 of regulations.)  
 (The itemized cost statement must be part of the report.)  
 (State type of work in space below.)

Linecutting, Geochemistry,  
 Geophysics  
 (Report to follow Feb 19/80)

	1385.42
<b>TOTAL OF C AND D</b>	1385.42

Who paid for the above-described work? Name Gallant Gold Mines Ltd.  
 Address 706-675 W. Hastings St.  
Vancouver, B.C.

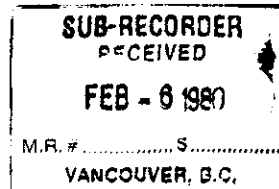
Portable Assessment Credits (PAC) Withdrawal Request		AMOUNT
Amount to be withdrawn from owner(s) account(s):		
Name of Owner		
(May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.)	1. <u>Gallant Gold Mines Ltd.</u>	114.58
	2. _____	
	3. _____	
	4. _____	
<b>TOTAL WITHDRAWAL</b>		114.58
<b>TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL</b>		1500.00

I wish to apply \$ 1500.00 of this work to the claims listed below.  
 (State number of years to be applied to each claim and its month of record.)  
Angus 300 (15) 709 (7) 1 yr \$1500.00

Value of work to be credited to portable assessment credit (PAC) account(s).  
 (May only be credited from the approved value of C and (or) D not applied to claims.)

Name		AMOUNT
In owner(s) name.	1. _____	
	2. _____	
	3. _____	
In operator(s) name (person paying for the work).	1. _____	
	2. _____	
	3. _____	

[Signature]  
 (Signature of Applicant)





**C. DRILLING** (Details in report submitted as per section 8 of regulations.)  
(The itemized cost statement must be part of the report.)

**D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL**  
(Details in report submitted as per section 5, 6, or 7 of regulations.)  
(The itemized cost statement must be part of the report.)  
(State type of work in space below.)

		COST
Like cutting, Geophysics, Geochemistry		1030.83
(Report to follow: Feb 10/80)		
<b>TOTAL OF C AND D</b>		<b>1030.83</b>

Who paid for the above-described work? Name Gallant Gold Mines Ltd.  
Address 706-675 W. Hastings St.  
Vancouver, B.C.

Portable Assessment Credits (PAC) Withdrawal Request		AMOUNT
Amount to be withdrawn from owner(s) account(s):		
Name of Owner		
(May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.)	1. _____	
	2. _____	
	3. _____	
	4. _____	
<b>TOTAL WITHDRAWAL</b>		
<b>TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL</b>		

I wish to apply \$ 800.00 <sup>400.00 (work)</sup> ~~400.00 (credit)~~ of this work to the claims listed below.  
(State number of years to be applied to each claim and its month of record.) 400.00

TARIS (4) FEB 1<sup>st</sup> 149 (2) @ 100.00/yr. - 800.00  
credit - 400.00

Value of work to be credited to portable assessment credit (PAC) account(s).  
(May only be credited from the approved value of C and (or) D not applied to claims.)

		AMOUNT
In owner(s) name.	1. _____	
	2. _____	
	3. _____	
In operator(s) name (person paying for the work).	1. <u>Gallant Gold Mines Ltd.</u>	<u>230.83</u>
	2. _____	
	3. _____	

[Signature]  
(Signature of Applicant)





**C. DRILLING** (Details in report submitted as per section 8 of regulations.)  
 (The itemized cost statement must be part of the report.)

**D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL**  
 (Details in report submitted as per section 5, 6, or 7 of regulations.)  
 (The itemized cost statement must be part of the report.)  
 (State type of work in space below.)

	COST
Line cutting, Geophysical, Geochemical	\$ 2061.00
(Report to follow: Feb 10/80)	
<b>TOTAL OF C AND D</b>	<b>\$ 2061.00</b>

Who paid for the above-described work? Name: Gallant Gold Mines Ltd.  
 Address: 706 - 675 W. Hastings St.  
Vancouver, B.C.

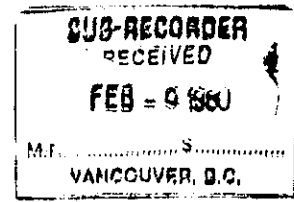
Portable Assessment Credits (PAC) Withdrawal Request		AMOUNT
Amount to be withdrawn from owner(s) account(s):		
Name of Owner		
(May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.)	1. _____	
	2. _____	
	3. _____	
	4. _____	
<b>TOTAL WITHDRAWAL</b>		
<b>TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL</b>		

I wish to apply \$ 2000.00 of this work to the claims listed below.  
 (State number of years to be applied to each claim and its month of record.)  
Gold (10) 148 (2) Feb 4<sup>th</sup> 1 year \$ 2000.00

Value of work to be credited to portable assessment credit (PAC) account(s).  
 (May only be credited from the approved value of C and (or) D not applied to claims.)

Name	AMOUNT
In owner(s) name:	
1. _____	
2. _____	
3. _____	
In operator(s) name (person paying for the work):	
1. <u>Gallant Gold Mines Ltd.</u>	<u>61.00</u>
2. _____	
3. _____	

[Signature]  
 (Signature of Applicant)









APPENDIX VI

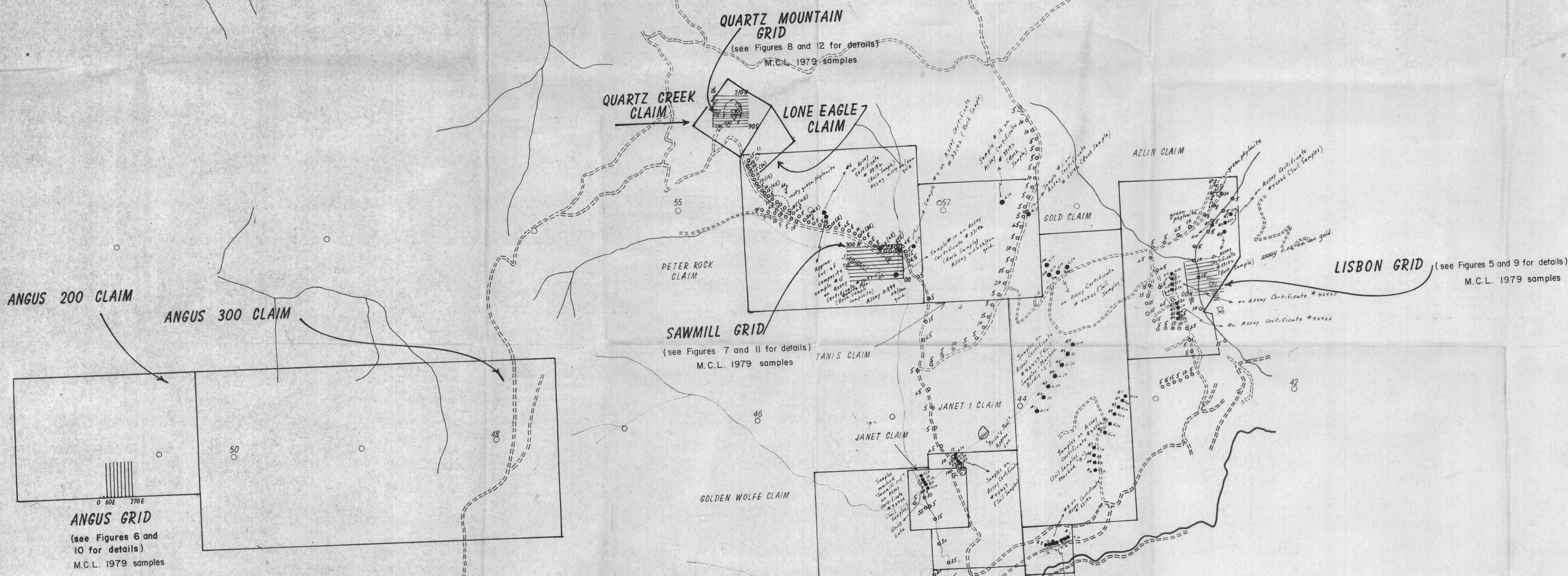
### GEOCHEMICAL SAMPLING PROCEDURE

Soil samples were taken from the "B" horizon, as much as possible, at a nominal depth of 15-25 cm. Samples were placed in kraft bags for shipping, and sent to Min-En Laboratory, in North Vancouver, B.C.

The samples were dried and then screened. In most cases the -80 mesh fraction was used for analysis, but when insufficient fine material was present in the sample, the -20 mesh fraction was used. (see Appendix I).

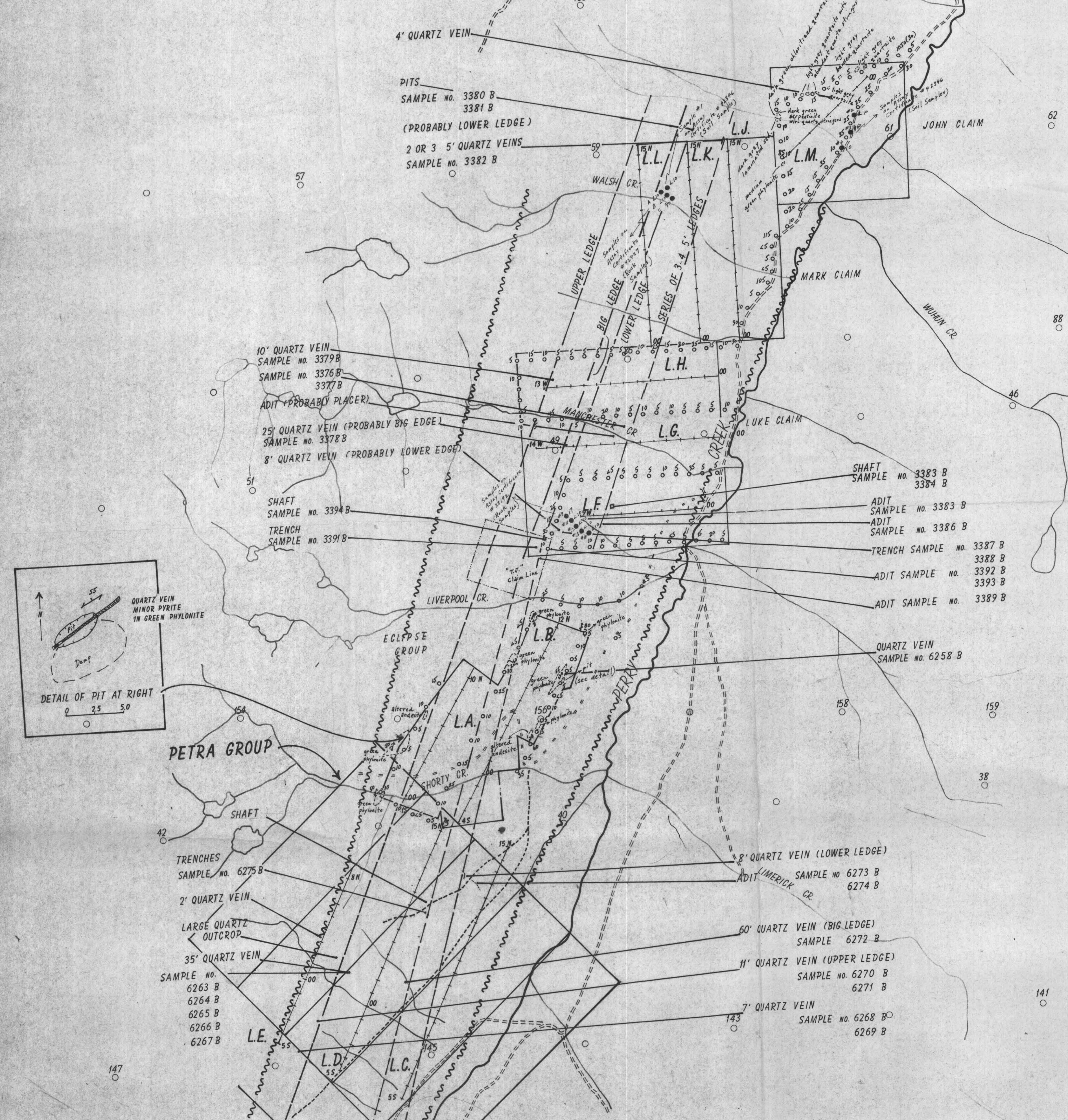
The samples were then analysed using standard (acid dissolution-atomic absorption) techniques for geochemical samples.





**LOCAL GEOLOGY GEOCHEMICAL PLAN GOLD**  
**PERRY CREEK (CRANBROOK) AREA PROJECT**  
GALLANT GOLD MINES LIMITED  
MONTGOMERY CONSULTANTS LIMITED  
JANUARY 15, 1980

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
NO. 7723



**DETAILS OF 1979 SAMPLING DONE BY GALLANT GOLD MINES LTD.**

+ MT. BIGATTINI

10 10 N	410 12 N	10 15 N	410 15 N	410 17 N	410 18 W	410 14 W	20 13 W	410 15 N	410 15 N	10 15 N	20 00
410 9 N	410 11 N	410 14 N	410 14 N	410 17 N	410 7 W	410 13 W	410 12 W	410 14 N	410 14 N	410 14 N	410 15
20 8 N	60 10 N	410 13 N	10 13 N	410 16 N	410 7 W	410 11 W	410 11 W	410 11 N	410 13 N	10 13 N	410 25
20 7 N	410 9 N	10 12 N	410 12 N	410 4 N	410 10 W	410 10 W	410 10 W	410 11 N	410 11 N	10 12 N	410 35
410 6 N	410 8 N	10 11 N	410 11 N	410 5 N	410 10 W	410 9 W	410 9 W	410 10 N	410 10 N	410 10 N	410 45
410 5 N	410 7 N	410 10 N	410 10 N	20 3 N	410 4 W	410 8 W	410 7 W	410 8 N	410 8 N	410 8 N	410 55
410 4 N	410 6 N	410 9 N	410 9 N	20 2 N	410 3 W	410 7 W	410 7 W	410 9 N	410 9 N	410 9 N	410 65
410 3 N	410 5 N	10 8 N	40 8 N	20 1 N	410 2 W	410 6 W	410 6 W	410 10 N	410 10 N	410 10 N	410 75
410 2 N	410 4 N	10 7 N	410 7 N	410 1 N	410 1 W	410 5 W	410 5 W	410 8 N	410 8 N	410 8 N	410 85
410 1 N	410 3 N	10 6 N	410 6 N	410 0 N	410 0 W	410 4 W	410 4 W	410 7 N	410 7 N	410 7 N	410 95
410 0 N	410 2 N	10 5 N	10 5 N	410 1 S	410 1 W	410 3 W	410 3 W	410 6 N	410 6 N	410 6 N	410 105
	410 1 N	10 4 N	10 4 N	180 1 S	410 1 W	410 2 W	410 2 W	410 5 N	410 5 N	410 5 N	L.M.
	410 0 N	10 3 N	10 3 N	410 1 S	410 1 W	410 1 N	410 1 N	410 4 N	410 4 N	410 4 N	
	410 2 S	410 1 N	10 3 N	410 1 S	410 1 W	410 2 W	410 2 W	410 3 N	410 3 N	410 3 N	
	410 3 S	410 1 S	10 1 N	410 1 S	410 1 W	410 1 N	410 1 N	410 2 N	410 2 N	410 2 N	
	20 4 S	410 1 S	10 1 N	410 1 S	410 1 W	410 1 N	410 1 N	410 1 N	410 1 N	410 1 N	
		410 2 S	410 2 S	410 1 S	410 1 W	410 1 N	410 1 N	410 0	410 0	410 0	
		410 3 S	410 3 S	410 1 S	410 1 W	410 1 N	410 1 N	410 0	410 0	410 0	
		410 4 S	410 4 S	410 1 S	410 1 W	410 1 N	410 1 N	410 0	410 0	410 0	
		410 5 S	410 5 S	410 1 S	410 1 W	410 1 N	410 1 N	410 0	410 0	410 0	

L.A. L.B. L.C. L.D. L.E. L.F. L.G. L.H. L.I. L.J. L.K. L.L.

FIGURE 4