GEOCHEMICAL REPORT ON THE GINNY GROUP OF CLAIMS, SALMO AREA, NELSON MINING DIVISION BRITISH COLUMBIA, CANADA

COVERING:

Ginny 1	12 units	2990(3)
Ginny 2	15 units	2991(3)

CEGEGEICAL BRANCE ASSESSMENT MEPORI

84-#328-12244

Record No.

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LOCATED:

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Longitude:	11/01/	Sames /			T
NTS 82F3W					
Elevation:	2500' - 5	000' ASL			

**PREPARED BY:** 

P.J. Santos, P. Eng. Anginel Resources Ltd. 626 - 9th Avenue, Castlegar Castlegar, British Columbia Canada March 31, 1984

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## SCHEDULE OF ACCOMPANYING MAPS & ILLUSTRATIONS

#### Plate No. Page 1 Index Map 13 Claim Map 14 2 Geologic Map 15 3 16 Geochemical Grid Lines 4 Gold Geochemistry Map In Pocket 5 Silver Geochemistry Map In Pocket 6 In Pocket Proposed Detail Lines 7 23 Au Histogram 8 24 9 Ag Histogram

### 1. SUMMARY AND CONCLUSION

A reconnaissance geochemical survey was conducted on the Ginny Group of claims in September and October of 1983 involving mainly soil sampling, some silt sampling, and rock sampling. Two hundred sixty-two (262) A and B-horizon soil samples were collected on the basis of a grid system, four (4) silt samples were collected from the creek draining the area and four (4) rock samples were collected from two mineralized zones. As a primary step, one hundred one (101) of the B-horizon soil samples were analyzed for gold and silver; the silt samples were analyzed for gold, silver, lead, and zinc; while two rock samples were analyzed for gold, silver, lead, zinc, and arsenic.

Three areas in the property showed elevated gold values bounded downslope by a zone of slightly elevated silver values. The stream sediments from the creeks draining one of the areas showed elevated gold values also. It is planned to analyze the remainder of the soil samples, and to collect more soil samples on a tighter grid in the above-mentioned areas.

## 2. INTRODUCTION

The area immediately west of Salmo, British Columbia in the Nelson Mining Division of British Columbia is underlain by rock

formations of the Rossland Group that host gold and silver-bearing lead-zinc deposits. A geologically favorable area underlain by these rock units was acquired and an on-going series of exploration work is being conducted in search of precious metals deposits.

### 3. LOCATION AND ACCESS

The Ginny Group is located southwest of Salmo, British Columbia, in the Nelson Mining Division of British Columbia, Canada, with the geographic coordinates of longitude 117°17' and latitude 49°10' (see Figure 1).

Access to the property is by way of the Hell-roaring Creek logging road which connects with Highway 3 two kilometers south of Salmo, British Columbia. The northern and eastern part of the property is also accessible by way of the Salmo ski hill road and Highway 3.

Most of the surface area of the property is covered with a mixture of immature and merchantable timber.

The property lies at an elevation of between 2,500 feet (762 meters) and 5,000 feet (1,524 meters) above sea level. The topography is moderate except at the northwestern corner of Ginny 2 claim.

### 4. PROPERTY DESCRIPTION AND HISTORY

The Ginny Group consists of three (3) located claims of 40 metric units with details listed below:

<u>Claim</u>	Number of Units	Record Number	Due Dates
Ginny 1	12	2990(3)	March 31, 1986
Ginny 2	15	2991(3)	March 31, 1986
Ginny 3	15	3487(10)	October 5, 1984

The above mineral property is entirely owned by P. J. Santos of Castlegar, British Columbia, who staked these claims in 1983. There is no known mineral exploration work ever been done on the property although the southern edge of the property had been staked by various people in the past.

## 5. REGIONAL GEOLOGY

The Salmo Area is located on the western edge of the Kootenay Arc of British Columbia. In this area, the Cambrian rock formations that comprise the Kootenay Arc (Laib, Reno, and Quentzite Range formations) are overlain by a metasedimentary-metavolcanic rock sequence of the Rossland Group that range in age from Ordovician to Jurassic. These formations are intruded by Cretaceous plutons belonging to the Nelson Plutonic rocks (see Plate 3).

### 6. LOCAL GEOLOGY

The Ginny claims are underlain by rock units of the Rossland Group.

The western part of the claims is underlain by a sequence of greenstones belonging to the Elise Formation. These greenstones are basalt and andesite flows that have undergone alteration consisting of serpentinization and the formation of olivine resulting in the distinctive green coloration of the altered rock. On the eastern part of the claim, black, often carbonaceous argillites with thin quartzite interbeds belonging to the Hall Formation overlies the Elise Formation. Andesite and basalt porphyry, largely unaltered, overlie the Hall Formation on the southeastern part of the property.

On the eastern edge of the property, a zone of brecciation is exposed along a road cut on Highway 3. Veinlets of pyrite cements the fractured fragments together. An east-west trending fault is shown on Plate 3, taken from Geological Survey of Canada Map 1145A by Little, Walker, Fyles, and Hewlett.

## 7. MINERALIZATION

A zone of brecciation in black argillites of the Hall Formation is cemented with veinlets of pyrite. This type of mineralization is also found in the Arlington Mine and the Keystone Mine in the same rock formation bordering gold-bearing galena-sphalerite quartz veins. These mines are situated a short distance north of the Ginny claims. A couple of samples (#10150, #10151) were analyzed and showed slight silver, lead, and zinc values. Ore assay sheets are found in the Appendix of this report.

The black argillites also contain pyrite preferentially disseminated along certain horizons. This mineralization is considered to be syngenetic.

The greenstones of the Elise Formation contain veinlets of quartz which occasionally contain specks of chalcopyrite and pyrite. Samples were taken but were not assayed.

### 8. GEOCHEMISTRY

In September and October of 1983, a program of reconnaissance geochemical survey was conducted on the Ginny claims which consisted of soil sampling, silt sampling, and rock sampling of visibly mineralized areas.

The soil samples were taken from grid lines as shown on Plate 4. The lines are 500 meters apart and the samples were taken every 100 meters. This grid spacing was chosen as a reconnaissance grid. Both the A-horizon (humus) and the B-horizon soils were sampled. As a primary step, the Bhorizon samples were assayed for gold and silver. The geochemical analyses are found in the Appendix of this report and are plotted on Plate 5 and Plate 6. Due to the wide sample spacing contouring of the results is not meaningful, but lines are drawn to select the areas where the metal values may be significant. These areas are suitable for further detailing.

The gold geochemical values of the B-horizon soil show three "anomalous" areas that have values higher than background. In this survey 5 ppb is considered background for Au in the B-horizon soil. These three areas are shown on Plate 5 and the follow-up detail lines are shown on Plate 7.

The silver geochemical analyses of the B-horizon soils are found in the Appendix of this report and are plotted on Plate 6. The values are low and again contouring the values on such a wide sample spacing is not meaningful. However, a continuous zone with silver values above background occurs downslope of the geochemically high gold areas shown on Plate 5. The value

of 1.0 ppm Ag which is the statistical mean plus one standard deviation is considered as background in this survey.

Silt samples were taken from the creeks draining the property. The location of these samples are plotted on Plate 5 and the geochemical analyses are shown in the Appendix of this report. The gold assays of Gin 83-1 and Gin 83-2 are higher than the other silt samples and this is considered significant because the streams where these samples were taken drains the areas which have elevated gold assays in the B-horizon soils.

Several rock samples were taken from brecciated and mineralized argillites and greenstones in the property. Two samples collected from a brecciated argillite on Ginny 1 were assayed for Au/Ag/Pb/Zn. The Ag content compares well with the assays of mineralized argillite breccia that border the ore bodies in the Ymir area and in the Keystone Mountain area nearby.

The geochemical laboratory techniques used by Kamloops Research and Assay Laboratory Ltd. on the above samples are described in the Appendix of this report. The histograms and statistical data are also found in the Appendix of this report.

### 9. RECOMMENDATIONS

Follow-up geochemical work is recommended on the property as follows:

- (a) The A-horizon samples collected in 1983 should be submitted for gold analyses.
- (b) Further geochemical assays for Pb, Zn, As should be done on the duplicates of the samples of the Bhorizon collected in 1983.
- (c) More soil samples of the A-horizon and the B-horizon should be collected on closer spaced grid lines as shown on Plate 7 and assayed for Au/Ag/Pb/Zn/As.

### 10. STATEMENT OF COSTS

Dates of Work: Ken Syrja (Line cutting and samples) Sept. 29, 30, 1983 Oct. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 12, 13, 14, 1983 P. J. Santos (Geologist) Sept. 28, 29, 1983 Oct. 1, 2, 5, 11, 1983 Mar. 23, 26, 1984 Line Cutting \$1,575.00 10.5 km @ \$150/km Soil Sampling 1,575.00 10.5 km @ 150/km Assays \$917.40 Geochemical 66.50 Freight \$983.90 983.90 Supplies Disposable Bags, Flagging, \$150.00 Topofil Thread Equipment 65.00 Compass 215.00 \$215.00 **Travel** Expenses Truck rental (19 days @ \$35) \$665.00 Gas, oil, diesel fuel 100.00 765.00 \$765.00 Geologist \$1,680.00 1,680.00 8 man days @ \$210 \$6,793.90 Total

P./J. Santos, P. Eng.

April 15, 1984

### 11. BIBLIOGRAPHY

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1944

1981

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1981

Page, J. W.

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  - Map 1145 A, Geology, Salmo, British Columbia; Geological Survey of Canada.
  - Soil geochemistry report, Jim Group, Nelson mining division, for Amaco Canada Petroleum Company Ltd., Assessment report #8258, 14 pp.
  - Lode-gold deposits of southeast British Columbia; British Columbia Department of Mines Bulletin 20.
    - Prospecting report on the Rachel property, Nelson mining division for Kimberley Gold Resources Inc., Assessment report #10,088, 22 pp.
    - Geochemical and geophysical report on the Silverhorn property, Nelson mining division for Salmet Resources Corporation, Assessment report #8986, 40 pp.

12. STATEMENT OF QUALIFICATIONS

I, Perfecto J. Santos, of 626 - 9th Avenue, of the City of

Castlegar, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geological Engineer with the firm of Anginel Resources Ltd. whose offices are located at 626 -9th Avenue, Castlegar, British Columbia, Canada,

That I am a registered Professional Engineer in the Province of British Columbia, Canada,

That I am a graduate of the College of Engineering, University of the Philippines with a Bachelor of Science degree in Mining Engineering (Geology Option),

That I have been practicing my profession continuously for the past twenty-three years,

That I have prepared this report based on personal work on the property and I personally supervized the work done as described in this report on the Ginny Group of Claims located in the Nelson Mining Division of British Columbia,

That in addition, pertinent available literature and maps were studied prior to the preparation of this report,

That I am the owner of the Ginny Group of Claims.

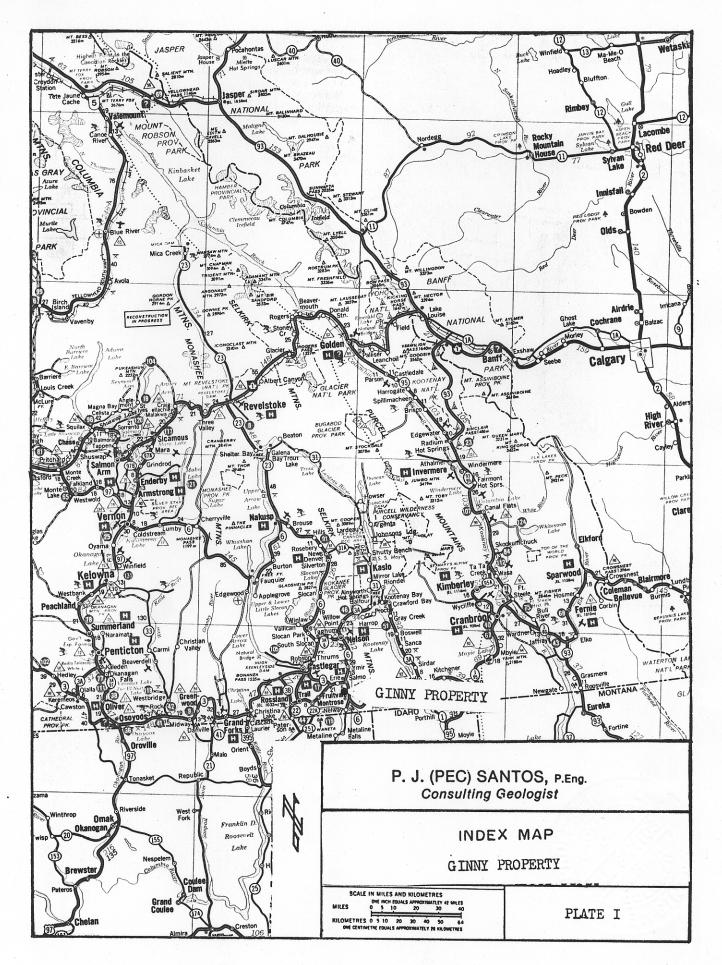
DATED at Castlegar, British Columbia, this 15th day of April, A.D. 1984.

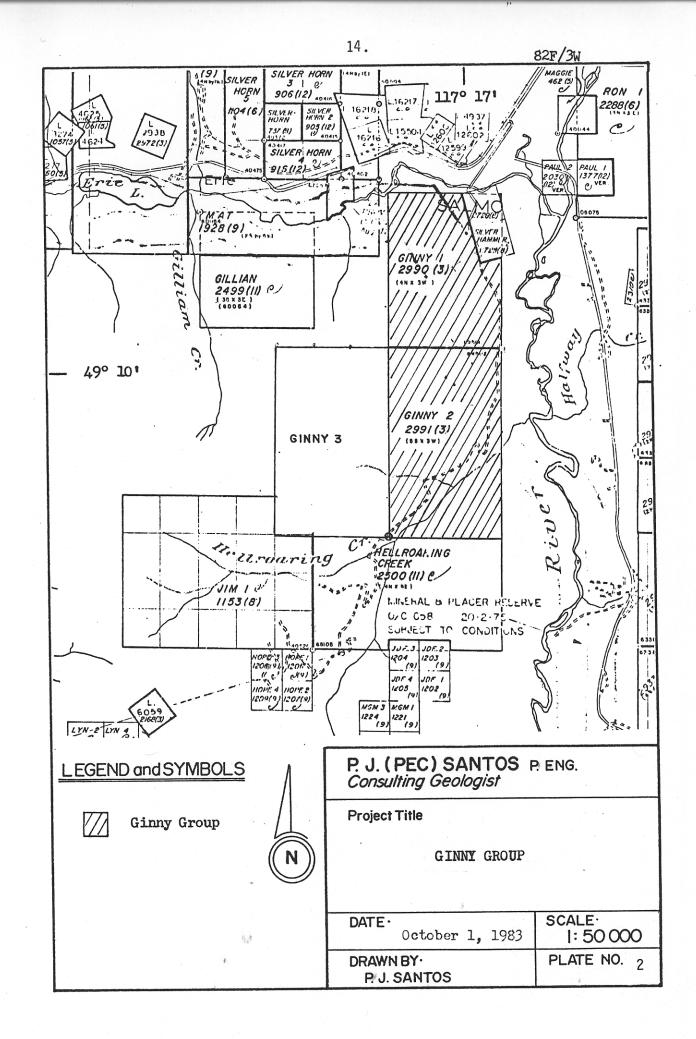
P. J. Santos, P. Eng.

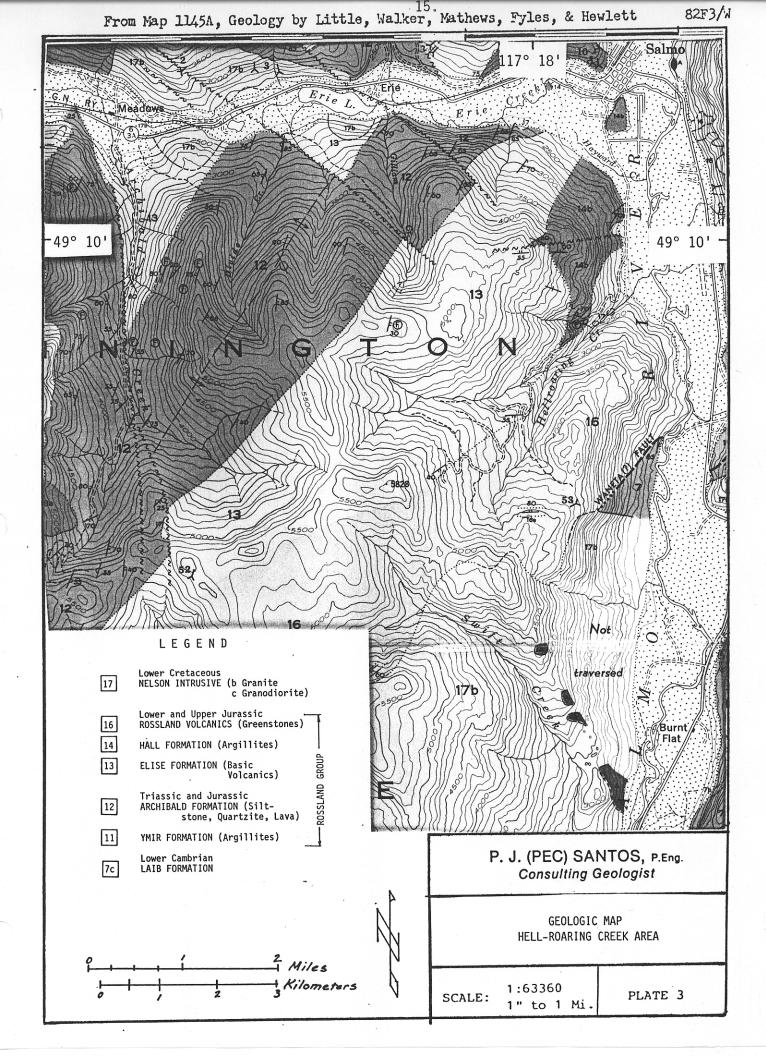
13. <u>APPENDIX</u>

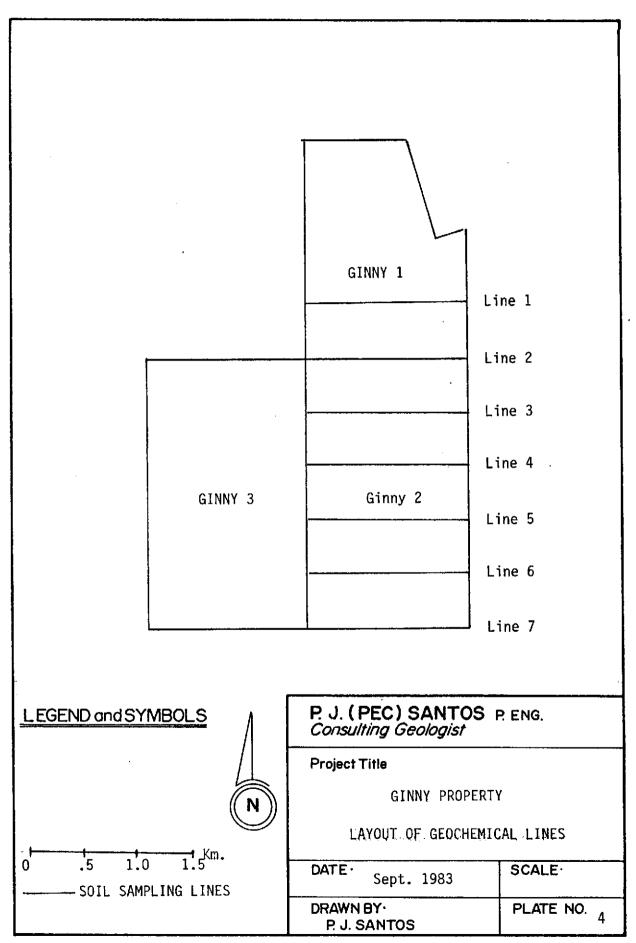
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## KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

B.C. CERTIFIED ASSAYERS

912 LAVAL CRESCENT --- KAMLOOPS, B.C. V2C 5P5 PHONE: (604) 372-2784 --- TELEX: 048-8320

# GEOCHEMICAL LAB REPORT

#### Mr. P. J. Santos 626 9th Ave., Castlegar, B.C. V1N 1M4

## DATE \_\_\_\_\_ March 30, 1984

FIL.	Castlegar, B.C. V1N 1M4 ENO			SOIL SAI B-HOR		ANALYST	043		
KRAL NO.	IDENTIFICATION	рро Au	ppm Ag		KRAL #	Identification	ppb Au	ppm Ag	
1	L2 1+00W	L5	.7		31	L3 10+00W	L5	.8	
2	2+00W	L5	.8		322	11+00w	L5	.7	
3	3+00W	L5	1.6		33	12+00W	L5	.7	
4	4+00W	5	.6		34	13+00W	L5	.7	
5	5+00W	L5	.8		35	14+00W	L5	.6	
6	6+00W()	5	.8	.	36	15+00w	L5	.7	
7	7+00W	L5	.5		37	16+00W	L5	.7	
8	8+00W	L5	.9		38	L4 0+00W	L5	.6	
9	9+00W	L5	.8		39	1+00₩	L5	.5	,
10	10+00W	20	.8		40	2+00₩	L5	.6	
11	11+00W	5	.9		41	3+00W	L5	.7	
12	12+00W	L5	.8		42	4+00W	L5	.6	
13	13+00W	5	.9		43	5+00W	L5	.6	
14	14+00₩	L5	.7		44	6+00W	L5	.7	
15	15+00W	L5	.6		45	7+00W	L5	1.1	
16	16+00W	L5	.7		46	8+00W	L5	.9	
17	17+00W	L5	.5		47	9+00W	L5	8	
18	18+00W	L5	.6		48	10+00W	L5	.7	
19	19+00W	L5	.7		49	11+00W	L5	.6	
20	20+00W	L5	.6		50	12+00W	L5	.8	
21	L3 0+00W	L5	.6		51	13+00W	L5		
22	1+00W	L5	.7	ļ	52	14+00W	L5	.7	
23	2+00W	L5	.6		53	15+00W	L5	7	
24	3+00W	L5	.6		54	L5 Q+00W	L5		ļ
25	4+00W	L5	.7		55	1+00W	L5		ļ
26	5+00W	L5	.8		56	2+00W	L5	.7	
27	6+00W	L5	i.8		57	3+00W	30	.7	<u> </u>
28	7+00₩	L5	1.1	<u> </u>	58	4+00W	L5	.7	
29	8+00₩	L5	1.0		59	5+00W	L5	.5	
30	9+00W	L5	.7		60	6+00W	L5	.7	<u> </u>

## Kamloops Research & Assay Laboratory Ltd.

**B.C. CERTIFIED ASSAYERS** 

912 LAVAL CRESCENT — KAMLOOPS, B.C. V2C 5P5 PHONE: (604) 372-2784 — TELEX: 048-8320

# GEOCHEMICAL LAB REPORT

Mr. P. J. Santos

						OATE <u>Mar</u>	ch 30,	1984	<b>_</b>
SOIL SAMPLES ANALYST									
FIL	.E NO	. <u></u>		B-HORI	-	FILE NO. G 1	043		
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KRAL NO.	IDENTIFICATION	Au	Ag		KRAL #	Identification	Au	Ag	
61	L5 7+00W	L5	1.2		91	L7 5+00W	L5	.7	
62	8+00W	L5	.6		92	6+00W	L5	1.0	
63	9+00₩	L5	.8		93	7+00W	L5	.8	
64	10+00W	L5	1.6		94	8+00¥	L5	.7	
65	11+00W	L5	.8		95	9+00W	L5	.6	
66	12+00W	15	.7		96	10+00W	L5	.7	<u></u>
67	13+00W	10	.8		97	11+00W	L5	.5	
68	14+00W	15	.7		98	12+00₩	L5	.6	
69	15+00W	20	.7		99	13+00W	L5	1.2	
70	L6 0+00W	L5	.6		100	14+00₩	L5	.8	
71	1+00W	L5	.7		101	15+00₩	L5	.8	
72	2+00W	L5	.6						
73	3+00W	L5	.4						
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75	5+00W	L5	.6						
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82	12+00W	L5					ļ		
83	13+00₩	L5	.7		1				
84	14+00W	L5	.8						
85	15+00₩	L5	.6					_	
86	16+00W	L5	.7				ļ		
87	L7 1+00W	L5	.6						
88	2+00W	L5	.7						
89	3+00₩	L5	.9						
90	4+00W	L5	1.0			•			

## Kamloops Research & Assay Laboratory Ltd.

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912 LAVAL CRESCENT — KAMLOOPS, B.C. V2C 5P5 PHONE: (604) 372-2784 — TELEX: 048-8320

# **GEOCHEMICAL LAB REPORT**

#### Mr. P. J. Santos

FILE NO. \_\_\_\_\_

## DATE \_\_\_\_\_ March 30, 1984

SILT SAMPLES

ANALYST \_\_\_\_\_G 1043

		<u>bbp</u>	ppm	ppm	II ppm				
KRAL NO.	IDENTIFICATION	Âu	Ag	Pb	Zn				
102	GIN 83-1	90	.4	15	142		 		
103	GIN 83-2	30	.7	56	183				
104	GIN 83-3	10	.8	30	82		<u></u>		
105	GIN 83-4	10	.7	100	88				L
·									
	Au Method: -80 me	sh .							·
	Fire a Atomic	ssay absorp	tion						
	Ag, Pb, Zn Method	-80 m	csh						
	Hot ac Atomic	d extr absorp	action tion						
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# KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS, B.C. V2C 5P5 PHONE: (604) 372-2784 — TELEX: 048-8320 CERTIFICATE OF ASSAY

TO Mr. P. J. Santos

626 9th Ave.,

Castlegar, B.C. VIN 1M4

Jurrby certify that the following are the results of assays made by us upon the herein described \_\_\_\_\_\_ samples

Kral No. Marked Au Ag Pb Zn As ozs/ton ozs/ton percent percent percent .02 1 10150 L.001 .05 .02 L.01 2 10151 L.001 .05 L.01 L.01 .03 20 L means""dess than" NOTE:

NOTE: Rejects retained three weeks. Pulps retained three months unless otherwise arranged.

Certificate No. \_K 6264

Date \_\_\_\_\_\_ April 2, 1984\_\_\_\_\_

**METALLURGISTS** 

**B.C. LICENSED ASSAYERS** 

**GEOCHEMICAL ANALYSTS** 

### GEOCHEMICAL LABORATORY TECHNIQUES

#### SAMPLE PREPARATION

Soils, silts, lake bottom sediments - Samples are sorted and dried at 50°C for 12 - 16 hours. Dried material is then screened to obtain the -80 mesh component of each sample. Coarse material is discarded unless other instructions are received. Other mesh sizes are available if required.

Rock chips or pieces of core designeated as rock geochem samples are dried, crushed and then pulverized to -100 mesh in a ring grinder. The sample is homogenized and packaged.

#### SAMPLE ANALYSES

(a) <u>ppm Copper, Lead, Zinc, Silver</u>: A 1.0 gm portion of sample is digested in conc. perchloric-nitric acid  $(HC10_4-HN0_3)$  for approx. 2 hrs. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Copper, lead, zinc and silver are determined by atomic absorption techniques using background correction for lead and silver analysis.

(b) <u>ppm Arsenic</u>: Digest as above. Generate arsine using the borohydride technique and determine the arsenic concentration by atomic absorption analyses.

(c) <u>ppb Gold</u>: 5 gm samples ashed @ 800°C for 1 hr., digested with aqua regia - twice to dryness - taken up in 25% HCl<sup>-</sup>, Au extracted as the bromide into MIBK and analyzed via A.A.

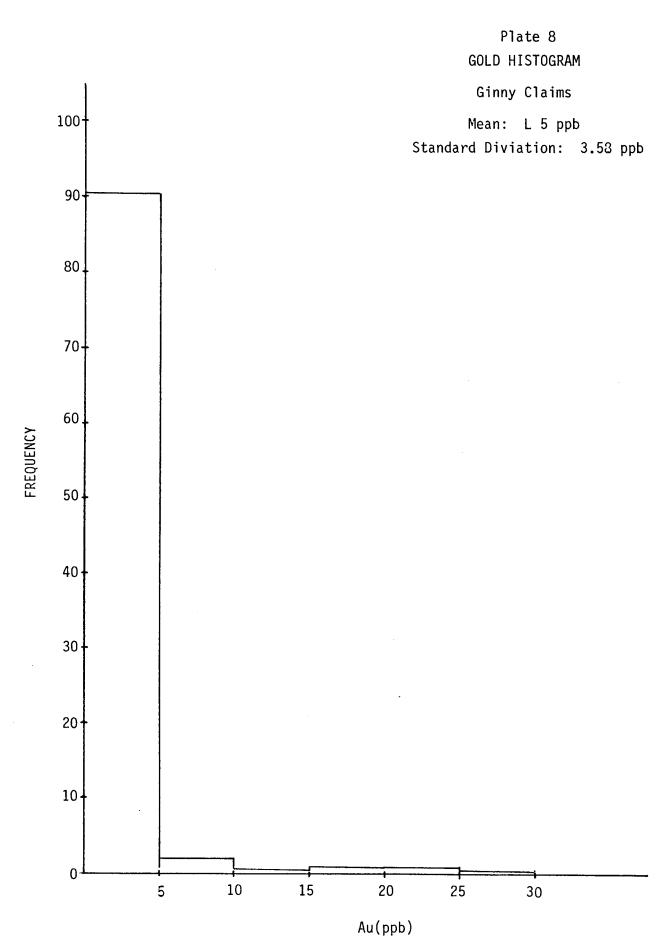
(d) ppm Ba, Sr, Mg, Ca & Na: 0.2 - 0.5 gm samples digested with  $HClO_4$ -HNO<sub>3</sub>-HF, to dryness taken up in 10%  $HClO_4$  with an ionization suppressent added and analyzed via A.A. - accetylene-nitrous oxide for Ba, Mg. Ca & Sr.

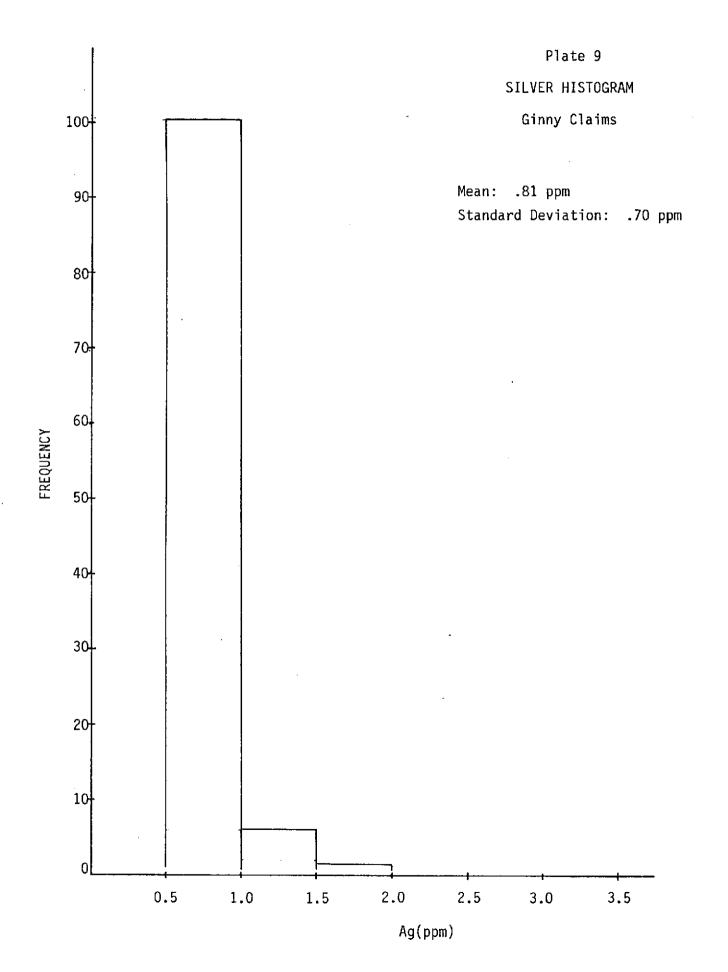
(e) <u>ppm Te</u>: 1 - 5 gm digested with aqua regia, the Te extracted into MIBK as the bromide and analyzed via A.A. using background correction.

(f) <u>Cold Extractable Metals</u>: 1 gm sample is leached for 1 hour with 25 mls of 0.1M HCl in a hot water bath, filtered (Whatman #31) and then analyzed via standard A.A. techniques.

(g) <u>Assay Ag & Au - Fire Assay Method</u>: 0.5 Assay ton sub-samples are fused in litharge, carbonate and siliceous fluxes. The lead button containing the precious metals is cupelled in a muffle furnace. The Ag and Au alloy is weighed on a micro balance, parted, annealed and again weighed as Au. The difference in the two weightings is Ag. Results reported in Oz/Ton.

For low grade samples and geochemical materials 10-gram samples are fused as above with the addition of 10 mg of Au-free Ag metal and cupelled as above. The silver bead is parted with dilute  $HNO_3$  and then treated with aqua regia. The salts are dissolved in dilute HCl and analyzed for Au on an atomic absorption spectrophotometer to a detection of 5 ppb.





GEOCHEMICAL REPORT ON THE GINNY GROUP OF CLAIMS, SALMO AREA, NELSON MINING DIVISION BRITISH COLUMBIA, CANADA

## Plate No.

5	Gold Geochemistry Map
6	Silver Geochemistry Map
7	Proposed Detail Lines

