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ASSESSMENT REPORT

On The

PGC CLAIMS

(GOLD, Copper Zinc)

Ву

G. SALAZAR S., P.Eng. (B.C.)

January & E O TO GICAL BRANCH SSESSMENT REPORT

22,761

PROVINCE: British Columbia

COUNTRY: CANADA

LATITUDE: 49° 51.5' N LONGITUDE: 122° 26.7' W

MINING DIVISION: New Westminster

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#### SUMMARY

This report is prepared to comply with work requirements of the British Columbia Sovernment. It summarizes the soil sampling carried out by Guillermo Salazar, owner of the PGC claims, between August 11th and 15th, 1992.

The results from further sampling of a subdued gossan are reported. The 37 soil samples were collected at a maximum spacing of 20 m. are moderately to strongly anomalous in Copper and Zinc, with spike gold values. These samples define an area about 400 m. wide cutting across the subdued gossan. The stream sediments previously collected increase the size of the targeted anomaly southerly to include the quartz vein showing found and reported in 1990. The Glacier Lake target is at least 500. m wide (in a northerly direction), butts against the Glacier Lake fault (to the west) and is open to the east. From a geological perspective, this gossan and geochemical anomaly coincident target is located where the Fire Lake syncline is truncated by the northeasterly trending Glacier Lake fault.

More work is required.

Calgary, January 8, 1993

Guillermo Salazar S.

#### INTRODUCTION

This report is prepared to comply with work requirements of the British Columbia Government. It summarizes the work carried out by G. Salazar, owner of the PGC claims, between August 11th and 15th, 1992.

#### PROPERTY DESCRIPTION

Table No. 1 summarizes the pertinent title data related to this property. (See Figure No. 1)

TABLE	No.	1:	CLAIM	STATUS.
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CLAIM NAME	TENURE NUMBER	CLAIM TYPE(1)	No. UNITS		RECORD E DATE	EXPIRY DATE (2)
PGC	236009	MGS	12	3749	Sep19/90	1993
PGC #1	236002	2p	1	3742	Aug30/89	1993
PGC #2	236003	2p	1	3743	- 11	1993
PGC #3	236004	2p	1	3744	10	1993
PGC #4	236005	2p	1	3745	P#	1993
FM-O	236333	MGS	20	4083	Oct 15/90	1993
TOTA	AL:		36 u	nits		

NOTES

- (1): MGS is modified grid system, 2P is two post.
- (2): The expiry dates shown reflect this report.

The PGC #1 to #4 claims are partially overlapped by claim FM-O. The writer has optioned claim FM-O from Aranlee Resources Ltd.

#### LOCATION

In between Glacier and Fire Lakes, 7.5 km upstream Snowcap Creek from its confluence with the Lillooet River at Skookumchuck Hot Springs. Skookumchuck is 27 km north of the northern end of Harrison Lake and the village of Douglas. The Fire Lake/Glacier Lake area is 80 km north east of Vancouver and about 30 km south of Pemberton (See Figure No. 1).

#### **ACCESS**

The claims are accessed by 2X4 vehicle via the Snowcap Creek logging road from the Lillooet River all weather road. It takes one hour to reach the village of Pemberton from this road

junction. The claims can also be accessed by float airplane into either Fire Lake or Glacier Lake or by helicopter from Agazziz. From Calgary, the property is reached by driving through Kamloops, Cache Creek, Lillooet and Pemberton (See Figure No. 1).

#### PREVIOUS EXPLORATION

The claims are situated immediately west of the old showings protected by the Money Spinner, Providence, Blue Lead, Barkoola and south of the Mayflower-Dandy Crown Granted mineral claims, at the north end of the Harrison Lake to Fire Lake gold mineralized belt. As such, they have had sporadic periods of prospecting. Exploration activity is related to staking dated 1937, 1967, 1983 and 1989.

The showings discovered in 1937, a recent publication by the B.C. Geological Survey and present on-trend exploration activity by Noranda and Teck justified renewing exploration efforts at the of acquisition of the PGC #s 1-4 and PGC claims. Our acquisition of the FM-O claim on July 31, 1992 signals the end of the claim disputes that hampered the property's orderly exploration.

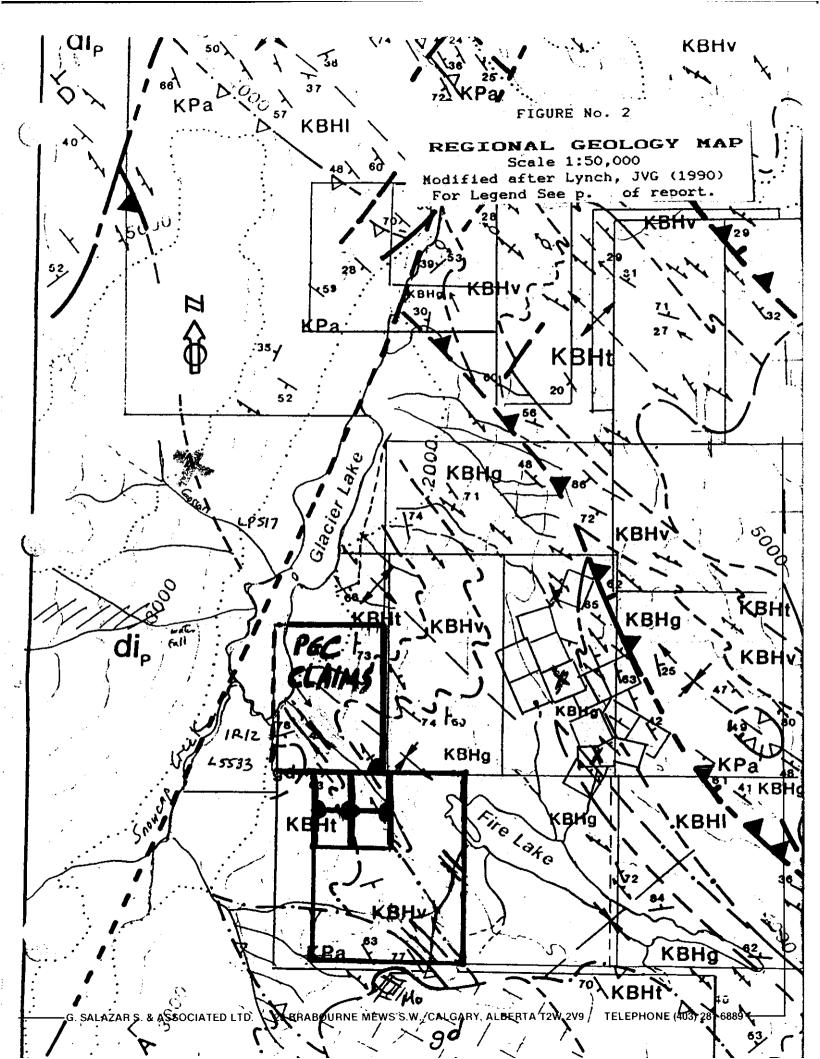
WORK DONE IN 1992 Gilty soil samples were taken with a grubhoe mainly from the B horizon, 15 cm depth, following a road bank.

A total of 37 soil samples were collected from the subdued gossan found in 1990. Prospecting of the lower elevations to the south of the clear cut area was not successful. August 11th and 12th, 1992 were required to mobilize from Calgary to Glacier Lake and to set up camp. Soil sampling and prospecting were carried out in the following two days. Mobilization to Vancouver was carried out on August 15th, 1992.

#### REGIONAL GEOLOGY

The B.C. Geological Survey's O.F. No. 2203 shows the Geology of the Glacier Lake Map Sheet at a scale of 1:50,000. This map shows the claims protect the nose of a southeasterly plunging syncline which exposes Early Cretaceous Fire Lake Group volcanic and sedimentary rocks along both flanks. The subdued gossan soil sampled this year is at the nose of this gossan. These rocks are now considered to be a part of the Gambier Assemblage (J.V.G. Lynch), thus the search for Britannia type copper-gold deposits (Production: 52.8 million tons grading 1.08% Cu, 0.0093 oz Au/ton, 0.11 oz Ag/ton, 0.03% Pb, 0.26% Zn, Minfile 1986) has been intensified in the Fire Lake Area (See Figure No. 2).

Structural control is defined by Journeay & Csontos as being represented by the northwesterly trending, northerly splaying,



imbricated Harrison Lake Shear Zone which is cut by transcurrent northerly to northeasterly faults with a right lateral movement. Journeay & Csontos conclude that '...these transcurrent faults may be providing the necessary structural control for localizing economic concentrations of both base and precious metals within the region ...'. Glacier Lake and Snowcap Creek are recognized as defining the trace of one of these transcurrent fault zones. Tectonic breccias, gypsum 'horizons' and associated sulphide mineralization are potential indicators of this type of mineralization.

The four splays of the Harrison Lake Shear Zone in the Fire Lake — Glacier Lake area are cut off by the Glacier Lake — Snowcap Creek transcurrent fault. Journeay & Csontos report a 10 km right lateral displacement along brittle structures within this fault. An unrecorded gossan observed on the hills above the western shores of Glacier Lake within Garibaldi Park may be associated to the Harrison Lake shear splays reaching Glacier Lake from the southeast and may reduce this movement considerably.

The presence of four splays of a favourable shear zone cut by such a strong transcurrent fault makes the vicinity of Glacier Lake particularly attractive for exploration since this setting may have provided the appropriate plumbing for the emplacement of a hydrothermal and/or epithermal system.

#### LOCAL GEOLOGY & MINERALIZATION

Lynch's geological legend and Stratigraphy for the units present in Figures No. 2-4 is described below:

#### **TERTIARY**

Tgd Granodiorite, minor coarse grained granite.

# AGE UNCERTAIN

gd Granodiorite, minor granite; **bgd** biotite-rich granodiorite; **hgd** horneblende-rich granodiorite.

# EARLY CRETACEOUS (GAMBIER GROUP)

Broken Hill Formation

KBHg Volcaniclastic sandstone, feldspathic greywacke, chloritic phyllite, slate.

KBHv Andesite, autoclastic breccia and heterolithic volcanic conglomerate, minor pillowed

KBHt Slate, muscovite phyllite, feldspar crystal tuff.

Peninsula Formation

KPa Interbedded arkose, pebbly arkose and pyritiferous slate.

## LATE JURASSIC to EARLY CRETACEOUS

di Pemberton Diorite Complex, included with coarse grained diorite, migmatite.

Figures No. 3 (Scale 1:10,000) and 4 (Scale 1:2,500) show the property geology as known to date and essentially un-changed since our 1991 report.

KIDD CREEK MINES LTD.' workers report sampling a breccia zone located south of Fire Lake, near the Garibaldi Park boundary, which ran '...parallel to the intrusive Ito the south and averages 12,919 ppm Cu, 38.4 ppm Ag, 17.0 ppm Sb and 86 ppb Au, across approximately 100.m...' The breccia is defined in their report as consisting of '... white, angular, small (10 cm² fine grained intrusive (?) fragments in a chlorite-sulphide matrix. The fragments contain disseminated pyrite. The volcanics and sediments are cut by narrow ((1.0 m) quartz veins and veinlets, which trend parallel to the strike direction.'

The Kidd Creek personnel continue by stating that '... Pyrite is ubiquitous, but generally (5% in content. Quartz veins often lack open spaces and are sulphide poor; however, at the contact with the host rock can be found pyrite, arsenopyrite, tourmaline and epidote. The greatest sulphide content ((10%; pyrite, chalcopyrite, arsenopyrite) was observed in the breccia body...'.

A vintage 1937 sketch locating the adit also reported by Kidd Creek shows that a 22' wide zone was sampled, assayed and reported at \$50.00, with copper, silver and gold credits. Both reports show the breccia zone at an elevation of about 5,000 feet and in the same location with respect to Fire Lake and the intrusive body. The assay differences is related to the earlier sample being taken across the zone while the Kidd Creek sample is a 100 m. composite along strike.

The 1937 sketch also reports the presence of a 9X50 foot outcrop in the vicinity of Glacier Lake, thus extending this breccia zone to near the lakeshore for a distance of 9,000. ft (2,743.m). The 1937 assays reported across the nine feet at Glacier Lake are:

Gold Silver Copper	REPORTED \$4.85 \$2.00 \$9.00	CALCULATED ASSAYS (using 1937 prices) 0.139 o/ton @ 35\$/ounce 4.167 o/ton @ 0.48 \$/ounce 3.9% @ 11.5 cents/pound.
• •	\$15.85	or bridge transcription

The PGC claims, now including the FM-O claim, protect the entire 4,000.+ metre long mineralized zone identified.

Figure No. 4 (Scale 1:2,500) shows a sloughed-in pit immediately southeast of a large quartz vein outcropping found along the northeast wall of a small ravine draining into Glacier Lake. The quartz vein outcrop has been blasted and is quite disturbed, with large slabs of quartz lying at the bottom of the ravine for about 150.m below the sloughed-in pit.

#### GEOCHEMISTRY

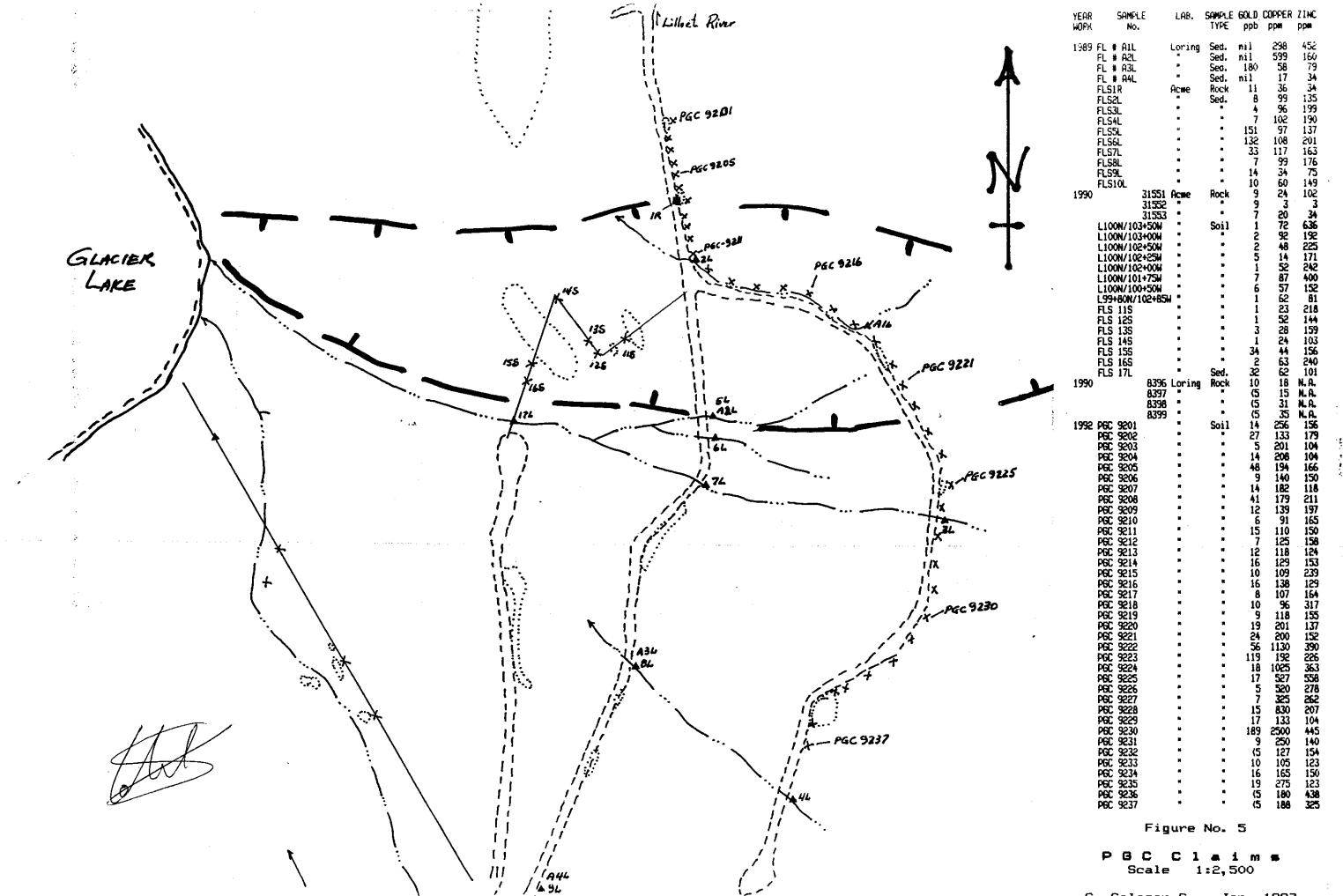
This year's soil sampling (Figure No. 5) defined a copper anomaly with high statistical mean average (197 ppm) and threshold (538 ppm) values. Seven of the 73 samples taken report values greater than 538 ppm copper. All the samples taken in this zone are higher than 90 ppm's copper. A length of sampling across the subdued gossan of 420. meters is reported. The stream sediments previously collected are also plotted on Figure No. 5. The two gold anomalies are near the southern limit of the gossan, at samples FLS15S and FLS17L. Sample FLS17L is a stream sediment from the same ravine as FLS7L which is also weakly anomalous in gold. All samples from here are moderately to strongly anomalous in zinc. Moderately anomalous barium results are reported for this area.

This compilation (Figure No. 5) of the geochemical results to date define the entire topographic bowl between the gossan (to the north) and the quartz vein (to the south) as geochemically anomalous in gold, copper and zinc. The size of this target area is at least 500. m wide, in a northerly direction and butting against Glacier Lake (to the west), but is presently open to east and south. From a geological perspective (See Figures No. 2 and 3), this gossan and geochemical anomaly coincident target is located where the Fire Lake syncline is cut off by the Glacier Lake fault, which trends northeasterly. As well, it is located at the northwestern end of the 4,000 m. long mineralized zone described above.

The limited sampling of the quartz vein outcrop and ravine areas indicates a 3 to 4 fold increase in zinc content and moderately anomalous copper (60-90 ppm) and arsenic (14-29 ppm) values in the soils, moderately anomalous barium (113-153 ppm) and low gold values (a high of 34 ppb is reported). The three rock chip samples collected from the quartz outcrop did not returned values comparable to those reported in 1937.

#### RECOMMENDATIONS

The Glacier Lake geochemical anomaly should be tested, initially by running closely spaced VLF-EM and magnetometer surveys along the roads and establishing a properly laid out grid of lines. Soil sampling at 50 m. intervals, geological mapping



Jan. 1993 6. Salazar S.

and ground magnetics are recommended for this initial phase.

The portion of the mineralized belt sampled by Kidd Creek (i.e. its eastern extension) should be sampled and checked. More work is required to define the location of the 1937 showings.

#### REFERENCES

BORONOMSKI, A.J. (1983): "Geological and Geochemical Report on the LILABET 1 CLAIM", KIDD CREEK MINES LTD. Assesm. Report # 11638.

JOURNEAY J.M.; and CSONTOS, L. (1989): "Preliminary Report on the Structural Setting along the southeast flank of the Coast Belt, British Columbia. GSC Paper 89-1E, pp 177-189.

LYNCH, J.V.G. (1990): "Geology of the Fire Lake Group, southeast Coast Mountains, British Columbia". GSC Paper 90-1E, pp 197-204.

(1990): "Geology of the Glacier Lake Map (926/16)". Open File # 2203. Scale 1:50,000.

O'KEEFE, N. & VERBRUGGEN, K. (1990): "Geological, Prospecting and Geochemical Assessment Report on the FIRE MOUNTAIN CLAIMS" prepared for BURMIN RESOURCES LTD.

Peters, L.J. and Sowerbutts, E.H. (1988): "Seological, Geochemical and Geophysical Report on the Easy # 1 Claim for SYME RESOURCES LTD." Assesm. Report # 17855.

Salazar, 6. (1990): Assesment Report on the PGC Claims Dated August 16, 1990.

Salazar, G. (1991): Assessment Report on the PGC Claims Dated July 10, 1991.

Tylor, B.F. & Price, B.(1988): "Prospecting Report, Fire Mountain Gold Prospect, Claim Ty # 2". Assesm. Rep. # 17,596.

White, G.E. (1983): "Geophysical Report on an Airborne Magnetometer- VLF Electromagnetometer Survey for RHYOLITE RESOURCES LTD., Inferno I to XII - Fire Mountain. Assesm REport # 11,796.

#### APPENDIX No. 1

#### STATEMENT OF QUALIFICATIONS

- I, Guillermo Salazar S., of 23 Brabourne Mews SW, Calgary, Alberta T2W-1V9, hereby certify that:
- 1. I attended and graduated from the Universidad Nacional de Ingenieria de Lima, Peru with a Bachelor's of Science and a Engineering Degrees in Mining Engineering and Mining Geology in 1967. I also attended Harvard University from which I was awarded a Master's of Arts degree in Economic Geology in 1969.
- 2. I am a registered Professional Engineer in the Province of British Columbia and Professional Geologist in the Province of Alberta. I am also a member in good standing of the Society of Economic Geologists of America and of the Society of Mining Engineers of the AIME.
- 3. I have in excess of twenty years of experience in my field in the U.S.A., Canada and South America.

Calgary, Alberta, January 8, 1993.

Guillermo Salazar S. P. Eng. (B.C.)

# APPENDIX No. 3

# ASSAY CERTIFICATES

To:	G. SALAZAR & ASSOCIA S LTD.
23	Brabourne Mews S.W.,
<u>Ca</u> ~	ry, Alberta
T2W	2V9



Date August 31, 1992
Samples Soil

FIRE LAKE

# Certificate of Assay LORING LABORATORIES LTD.

Page # 1

	rage #	•		
SAMPLE NO.	GOLD ppb	COPPER ppm	ZINC ppm	
"GEOCHEM ANALYSIS"				
PGC 9201	14	256	156	
3202	27	133	179	
3203	5	201	104	
3204	14	208	104	
3205	48	194	166	sou often
3206	9	140	150	Ğ
3207	14	182	118	•
3208	41	179	211	~
3209	12	139	197	47
3210	6	91	165	<u>ئ</u>
3211	15	110	150	
3212	7	125	158	
3213	12	118	124	
3214	16	129	153	1-7
3215	10	109	239	~.1
3216	16	138	129	704
3217	8	107	164	14
3218	10	96	317	
3219	9	118	155	
3220	19	201	137	
3221	24	200	152	
3222	56	1130	390	
3223	119	192	226	
3224	18	1025	363	
3225	17	527	558	
3226		520	278	
3227	5 7	325	262	
3228	15	830	207	
3229	17	133	104	
3230	189	2500	445	
3231	9	250	140	
<b>~-</b> ~.	<del>-</del>			

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

Rejects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.

Jongwalez ABBRYOT

To: G. SALAZAR & ASSOCIATES LTD.	,
23 Brabourne Mews S.M.,	
Calgary, Alberta	
2W 2V9	



File No. 35328

Cate August 31, 1992

Samples Soil

# Certificate of Assay LORING LABORATORIES LTD.

Page # 2

SAMPLE NO. GOLD COPPER ZINC ppb ppm ppm

# "GEOCHEM ANALYSIS"

PGC	3232	< 5	127	154
	3233	10	105	123
	3234	16	165	150
	3235	19	275	123
	3236	< 5	180	438
	3237	< 5	188	325

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

ejects retained one month. Pulps retained one month unless specific arrangements are made in advance.

Laufwaly

# APPENDIX No. 2 STATEMENT OF EXPENDITURES

### PERSONNEL

- 1. Guillermo Balazar 9., geologist, with residence at 23 Brabourne Mews 8W, Calyary, Alta. Prospecting and soil sampling between August 11th and August 15th, 1992. Total of five days.
- 2. Carlos Salazar M.D., helper, with residence at 23 Brabourne Mews SW, Calgary, Alta. Prospecting and soil sampling between August 11th and August 15th, 1992. Total of five days.

### STATEMENT OF EXPENDITURES

PERSONNEL G. Salazar S., 5 days @ \$200.00/d Carlos Salazar, 5 days @ \$80.00/d	\$1,000.00 \$800.00
TRANSPORTATION	
Truck Rental, 5 days 0 \$50./	<b>\$</b> 250,00
EXPENSES	
-Room & Board 10 man days @ \$25.00/man day	\$250.00
~Gas & mob/demob	<b>\$250.00</b>
ASBAYING	
Loring Labs: 37 soils (Au, Cu, In) geoch:	<b>\$465.18</b>
REPORT	<b>\$1,000.00</b>
SUNDRY & TYPING	\$47.70
·	<b>亚基保管企业在</b> 国际
TOTAL	\$3,662.88

Guillermo Salazar S.

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G. SALAZAR S. & ASSOCIATES LTD.

23 Brabourne Mews SW

Calgary, Alberta, T2W-2V9
Ph. (403)-281-6889 FAX (403)-281-6889

DATE:

August 10, 1993 2:14pm

TO:

NAME: Talis Kalnins

Co.: B.C. Geol. Survey - Assessment Reports

FAX: \_1-(604)-952-0437

FROM:

Guillermo Salazar S.

Me are trensmitting \_Dlx\_\_\_ (\_G\_) papes (ivoluding this one). If you do not receive the number of pages indicated above, plantage of the number of pages

Talis

RE: PGC Claims Assessment Report (Your File No. 3025697).

Further to our conversation of yesterday, please find enclosed the following:

- 1. Copies of the Statement of Work and Assessment Report apparently missing from your files.
- 2. Copy of our detailed Statement of Expenditures also missing from your files.

I would like to take this opportunity to answer some of the questions you raised yesterday.

-Soil Sampling: We tried to take a "B" Horizon silt. However, the soil near the drain areas had a higher organic content than away from them.

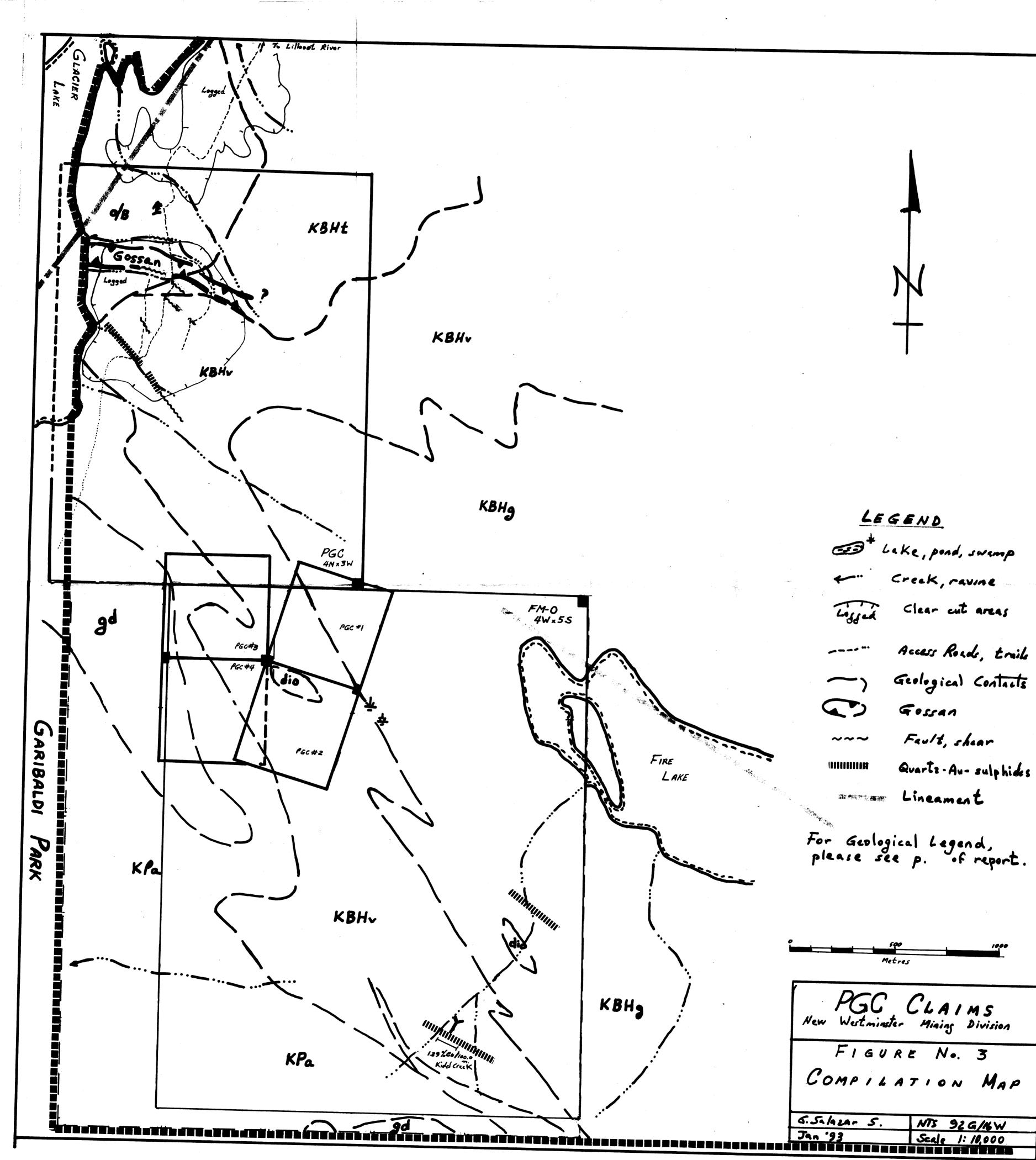
-The sampling was carried out along an old road bank that required some digging with a mattock. Samples were always taken from as close to the top of the bank as possible.

-The depth of sampling varied between 10 and 30 cm. and it consistently taken immediately above the "C" horizon.

-Loring's standard procedure for processing soil samples is 24 hr. drying at low temperatures, screenning off the +80 mesh fraction and assaying a 5 gr sample of the -80 mesh fraction.

Hope this is to your matisfaction.

Guillermo galaza 8.



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