

84-#299-12211

**GEOLOGICAL ASSESSMENT REPORT**  
GABRIEL RESOURCES INC.  
Report on the

**12,211**

G SOUTH PROPERTY

CARIBOO MINING DIVISION

GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY

N.T.S. 93G/1W, 7E, 8W

February 1984

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CLAIMS WORKED

<u>AREA</u>	<u>GROUP NAME</u>	<u>CLAIM NAMES</u>
Yardley Lake	Mary	G SOUTH, G 3, G 4, and G 7
	Naver	G 6 and G 8
	Creek	G 12 and G 15
	Terry	G 11, G 13, G 14, G 16 and G 35
Ahbau Creek	Ahbau	G 23, G 24, G 27, G 30 and G 31
	Norm	G 25, G 28, G 29, G 33 and G 34
	Gene	G 22, G 26 and G 32
Government Creek	Buck	G 37, G 42, G 43, G 44 and G 48
	Hix	G 40 and G 41

Location: Ahbau Creek Area 53°10'N, 122°21'W  
Government Creek Area 53°28'N, 122°32'W  
Yardley Lake Area 53°22'N, 122°25'W

Owner: Gabriel Resources Inc.

Operator: Gabriel Resources Inc.

Consultant: A.G. Troup, P.Eng., Archean Engineering Ltd.

Project Geologist: J.C. Ridley, B.Sc., Mark Management Ltd.

Geologist: B.P. Butterworth, B.Sc., Mark Management Ltd.

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G SOUTH PROPERTY  
GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY

SUMMARY

The G South property is comprised of several lode and placer gold prospects located approximately 40 km northeast of Quesnel, B.C. The property includes three blocks of mineral claims totalling 804 units and 15 placer leases.

In 1983 Gabriel Resources Inc. of Vancouver, B.C. carried out follow-up geological mapping, geochemistry, geophysics and trenching on the property.

In the Ahbau Creek area a trenching programme exposed a massive sulphide zone with a width of up to 1.9 metres and a strike length of at least 80 metres. Chip samples from the zone assay up to 0.43 oz/ton gold, 6.46 oz/ton silver, 3.36% copper, 5.20% zinc and 1.81% lead. A follow-up VLF survey over the zone outlined a 300m long VLF conductor running parallel to the zone. Anomalous copper, lead and zinc values in soil samples from this area indicate that these elements may be useful as geochemical pathfinders. Soil sampling also outlined a highly anomalous gold zone to the southeast. The source of this anomaly is yet to be identified.

In the Yardley Lake area soil and lithochemical sampling was carried out over a diorite dyke east of Lord Lake and over several north - south trending VLF conductors north of Terry Creek. Results from both sampling grids showed few gold values greater than the background level.

In the Government Creek - Hixon Creek area, the Hix VLF grid was extended northward. Results of the survey outlined an extension to the north - south trending VLF conductors. Soil samples collected over these conductors contained only background gold concentrations.

Due to the depth of overburden in the Government - Hixon Creeks and Yardley Lake areas, gold mineralization in bedrock may be masked. Soil samples should therefore be analysed for the more mobile pathfinder elements copper, lead and zinc.

Additional work consisting of detailed geological mapping, geophysical and geochemical surveys, trenching and percussion or diamond-drilling is recommended.

G SOUTH PROPERTY  
GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY

1. INTRODUCTION

This report covers three claim blocks, the Ahbau Creek, Yardley Lake and the Government Creek blocks, located in central British Columbia. These claims cover several areas that have been gold prospects since the beginning of this century.

The purpose of the 1983 field programme was to follow up areas which were indicated as possible sources of gold by results of the 1981 and 1982 field programmes. Geological, geophysical and geochemical work was carried out over the property from August 7th to October 31st, 1983, by a crew of four persons working out of Hixon, B.C. The programme was supervised by Mark Management project geologist, J.C. Ridley and geologist, Brian Butterworth under the direction of consulting geologist, A.G. Troup of Archean Engineering Ltd.

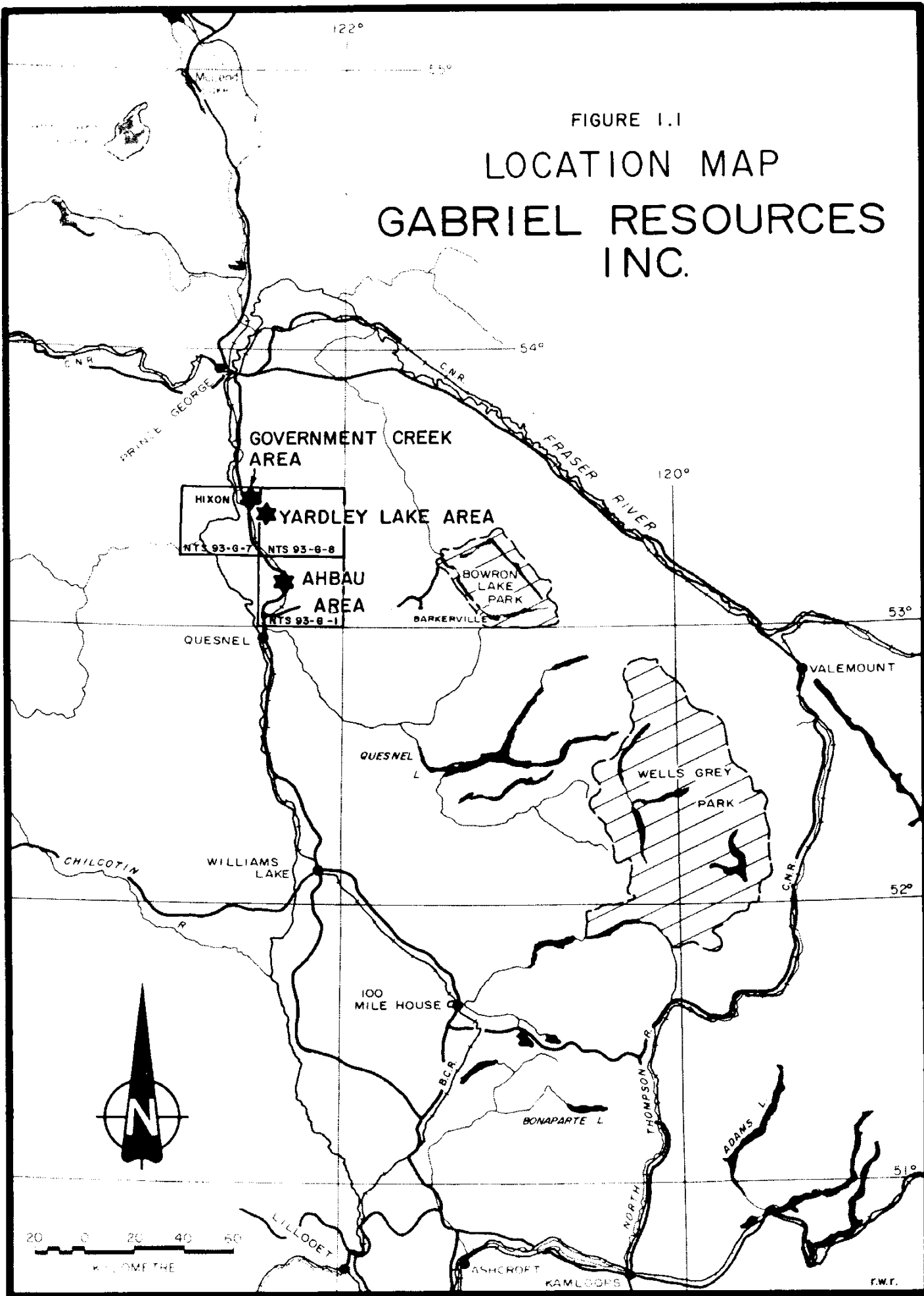
1.1 Location and Access

The G South property is situated in the Cariboo Mining Division of central British Columbia. It begins 20 km north of Quesnel and extends northwards to 40 km south of Prince George, covering an area of 201 square kilometres.

The largest sector of the property, the Yardley Lake block, is 112.5 km<sup>2</sup> in extent. It is centred approximately 10 km southeast of Hixon, B.C. at 53°22'N and 122°25'W. Access to this area is by a network of logging and forestry roads.

The Government Creek block contains the northern most claims. This block is centred at 53°N, 122°32'W approximately 2 km northeast of Hixon, B.C. Access to this area is by the Hixon Creek Road and the Colebank East Road. The former intersects Highway 97 at the northern edge of the community and the latter intersects Highway 97 some 2 km north of Hixon.

FIGURE 1.1  
LOCATION MAP  
GABRIEL RESOURCES  
INC.



The southern sector of the property is comprised of the Ahbau block, centred at 53°10'N, 122°21'W, approximately 1 km southeast of the community of Ahbau, B.C. Access is by Highway 97 and several gravel roads that follow the Ahbau Creek and the Cottonwood River. A railway (B.C.R.) which parallels Highway 97 at this point also provides access. (See Figure 1.1).

## 1.2 Physiography

The G South property is in a fairly moderate climatic zone. Average annual precipitation is 50 to 75 cm. Mean daily temperature in July is 14 to 18 degrees Celsius and in January is -15 to -10 degrees Celsius.

The topography of the property consists predominantly of gently-rolling hills and valleys. Steep canyons occur along Thunder and Hixon Creeks and along the Cottonwood River. Elevations range from 455 m (1500 ft.) to 1220 m (4,000 ft.)

Vegetation over the area is predominantly heavy to moderate bush consisting of pine, spruce, tamarack and alder trees. Heavy undergrowth occurs where reforestation has replaced trees removed by logging or forest fires. Several large cleared areas occur where logging has been carried out without reforestation. Tall grasses and devil's club are found in several large swamps.

The major drainage systems on the property flow westward into the southward-flowing Fraser River. The Government Creek area is drained by Hixon and Government Creeks and several tributaries. The Ahbau area is drained by Ahbau Creek and the Cottonwood River and all their tributaries.

## 1.3 Claim Information

The G South property is comprised of 44 modified grid claims, totalling 804 units. These are divided into 10 groups (Table 1.3.1, Maps 1.3.1, 1.3.2). In 1983 Gabriel Resources Inc. carried out field work over most of these claims.

TABLE 1.3.1

<u>AREA</u>	<u>GROUP</u>	<u>CLAIM STATUS</u>		<u>RECORD NO.</u>	<u>EXPIRY</u>	
		<u>CLAIM</u>	<u>UNITS</u>			
Yardley Lake	Mary	G South	20	3196	12/3/85	
		G 1	20	3195	12/3/85	
		G 3	20	3210	13/3/85	
		G 4	20	3211	13/3/85	
		G 7	20	3214	16/3/85	
	Naver	G 2	20	3209	13/3/85	
		G 5	20	3212	16/3/85	
		G 6	20	3213	16/3/85	
		G 8	20	3215	16/3/85	
		G 39	20	3853	23/7/85	
	Creek	G 12	20	3219	16/3/85	
		G 15	20	3222	16/3/85	
		G 17	10	3224	16/3/85	
		G 46	18	4020	23/9/85	
	Quartz	G 9	20	3216	16/3/85	
		G 10	20	3217	16/3/85	
		G 36	14	3637	15/6/85	
		G 38	20	3852	23/7/85	
	Terry	G 11	20	3218	16/3/85	
		G 13	20	3220	13/3/85	
		G 14	20	3221	16/3/85	
		G 16	20	3223	13/3/85	
		G 35	20	3636	15/3/85	
	Ahbau Creek	Ahbau	G 23	20	3230	16/3/85
			G 24	20	3231	13/3/85
			G 27	20	3234	16/3/85
			G 30	20	3237	16/3/85
G 31			20	3238	13/3/85	
Norm		G 25	20	3232	13/3/85	
		G 28	20	3235	13/3/85	
		G 29	20	3236	16/3/85	
		G 33	20	3240	16/3/86	
		G 34	20	3241	16/3/85	
Gene		G 22	20	3229	16/3/85	
		G 26	20	3233	13/3/85	
		G 32	20	3239	13/3/85	

TABLE 1.3.1, CLAIM STATUS CONTINUED

<u>AREA</u>	<u>GROUP</u>	<u>CLAIM</u>	<u>UNITS</u>	<u>RECORD NO.</u>	<u>EXPIRY</u>
Government Creek	Buck	G 37	20	3798	29/6/85
		G 42	20	4081	19/8/85
		G 43	20	4082	19/8/85
		G 44	6	4083	24/8/85
		G 47	2	4021	23/8/86
		G 48	16	4022	23/8/85
		Hix	G 40	6	4079
G 41	12		4081	19/8/85	

TABLE 1.3.2PLACER LEASE STATUS

<u>CREEK</u>	<u>LEASE NUMBER</u>	<u>EXPIRY DATE</u>	
Naver	PL 5838	5/04/85	
	PL 5839	5/04/85	
	PL 5840	31/05/85	
	PL 5841	31/05/85	
	PL 5842	31/05/85	
	PL 5843	5/04/85	
	PL 5844	5/04/85	
	PL 5845	5/04/85	
	PL 5846	5/04/85	
	PL 5847	5/04/85	
	PL 5792	5/04/85	
	Terry	PL 6410	2/10/85
		PL 6411	2/10/85
PL 6412		2/10/85	
PL 6413		2/10/85	

In addition to the foregoing mineral claims, Gabriel Resources Inc. staked 34 placer leases. Sixteen of these were located on Ahbau Creek, fourteen on Naver Creek and four on Terry Creek (Table 1.3.2). During the 1981 field season five of the fourteen Naver Creek leases were tested for placer potential, using backhoe and a centrifugal washing plant. Six other Naver Creek leases and all four Terry Creek leases were tested by hand dug pits and panning. Results indicated that the leases are not economically feasible for placer mining. The remaining Naver Creek leases and all of the Ahbau Creek leases have been dropped since the original work in these areas indicated less mineral potential than the Naver Creek leases.



#### 1.4 History

Placer gold in the Government Creek area was discovered in the late 1800's and the area has been worked by private companies since then. The Ahbau Creek area was first explored for placer gold in the early 1900's and has been explored for lode gold and copper since 1968.

A reconnaissance heavy mineral concentrate sampling programme was carried out over the area by the A. T. Syndicate in 1980. Results of that survey lead to the staking of the present property.

In 1981 and 1982, Gabriel Resources Inc. worked the claims through an option agreement with the A. T. Syndicate. (See 1981 and 1982 Assessment Reports on the G South property for more details).

#### 1.5 Work by Gabriel Resources Inc. in 1983

In 1983 field work by Gabriel Resources Inc. was conducted from August 7 to October 31. During this period the following surveys were completed:

In the Ahbau Creek area:

- 1) Soil sampling and rock chip sampling was carried out over the 1981 VLF grid.
- 2) Detailed (1:5,000 scale) geologic mapping and rock chip sampling was carried out over the Au soil geochem anomalies.
- 3) Backhoe trenching was carried out over accessible Au soil geochemical anomalies and mineralized showings.
- 4) A second VLF survey, called the Thunder Creek survey, was carried out over the massive sulphide zone exposed by trenching.

- 5) Soil sampling was carried out over the Thunder Creek VLF grid.

In the Yardley Lake area:

- 1) Geologic mapping (1:10,000 scale) and rock chip sampling was carried out over the Tom and Terry Creeks area.
- 2) A VLF survey was conducted over a weakly carbonatized zone north of Terry Creek on the G 15 claim.
- 3) Soil sampling was carried out over the Terry Creek VLF grid.
- 4) Backhoe trenching was carried out over the Terry Creek carbonatized zone.

In the Government Creek area:

- 1) Geologic mapping (1:10,000 scale) and rock chip sampling was carried out on Hixon Creek and a tributary to Government Creek.
- 2) The Hix VLF grid was extended to the north.
- 3) Soil sampling was carried out over VLF conductors on the Hix grid.

## 2. GEOLOGY

### 2.1 General Geology

The geology of topographic sheet 93G was mapped by Amos Bowman of the Geological Survey of Canada in 1885-6, by H. W. Tipper, also of the G. S. C. in 1961 and was updated in 1974 on Geologic Sheet 93: Geology of the Parsnip River area; Fig.2.1.

The G South property is underlain by the Early Cretaceous Naver Intrusives to the east, the flanking Upper Triassic black phyllites in the centre and the Upper Triassic - Lower Jurassic Takla Group to the west. The plateaus above the Cottonwood River are underlain by tertiary sandstone, slate, conglomerate, diatomite and lignite.

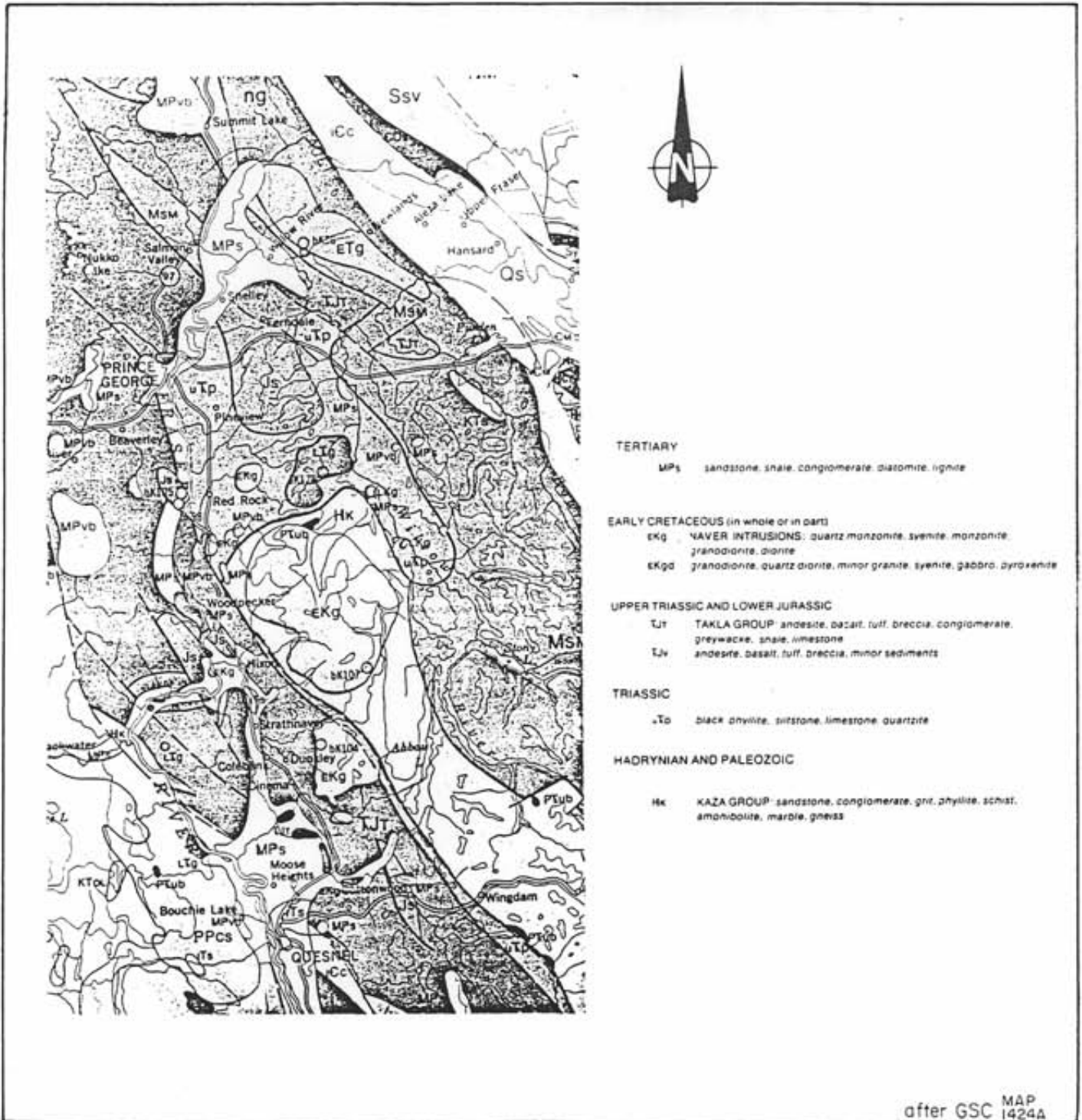
The Naver intrusives consist of quartz monzonite, syenite, monzonite, granodiorite, diorite and aplite dykes. Pyroxenites and serpentinites are also found associated with the intrusives. Some of the intrusive bodies intrude the Takla Group of andesite, basalt, tuff, breccia, conglomerate and argillite. A chlorite or talc schist occurs as an alteration halo where these bodies intrude the andesite or basalt and a phyllite occurs where they intrude the argillite (See 1981 Assessment Report on the G South property for details). (Maps 2.1.1 to 2.1.2)

### 2.2 Property Geology and Mineralization

In the Ahbau Creek area, mineralization consisting of pyrite, arsenopyrite, chalcopyrite, sphalerite and galena occurs as massive sulphide veins or zones in the andesites and argillites of the Takla Group adjacent to several aplite dykes. The aplite dykes themselves contain disseminated pyrite mineralization. (Map 2.2.1).

In the centre of the Yardley Lake claim block the Takla andesite has been altered to a chlorite schist peripheral to a diorite dyke. Several quartz veins and a monzonite intrusive cut the unaltered andesite and argillites. Most of these have a strike parallel (northwest - southeast) to the dyke. (Maps 2.2.2 and 2.2.3).

In the Government Creek area pyritic quartz veins up to 45 cm wide cut the Takla andesite - chlorite schist and argillite - phyllite. Several crosscutting pyritic quartz veins up to 30 cm wide were found in a pyritic carbonatized intrusive. Soil samples taken over these veins contain up to 300 ppb Au. Aplite dykes containing disseminated pyrite also crosscut the Takla Group in this area. (Map 2.2.4).



**TERTIARY**

MPs sandstone, shale, conglomerate, diatomite, lignite

**EARLY CRETACEOUS (in whole or in part)**

EKq HAVER INTRUSIONS: quartz monzonite, syenite, monzonite, granodiorite, diorite

EKgd granodiorite, quartz diorite, minor granite, syenite, gabbro, pyroxenite

**UPPER TRIASSIC AND LOWER JURASSIC**

TJt TAKLA GROUP: andesite, basalt, tuff, breccia, conglomerate, greywacke, shale, limestone

TJv andesite, basalt, tuff, breccia, minor sediments

**TRIASSIC**

To black phyllite, siltstone, limestone, quartzite

**HADRYNIAN AND PALEOZOIC**

Hk KAZA GROUP: sandstone, conglomerate, gnt, phyllite, schist, amphibolite, marble, gneiss

Gabriel Resources Inc.

GOVERNMENT CK.; YARDLEY LK.  
& AHBANU PROPERTIES

CARIBOO M.D.-B.C.  
NTS 93-G-7&8

REGIONAL GEOLOGY

J.C.R. r.w.r.

FEB. 7/82

FIG. 2.1

### 3. GEOCHEMISTRY

#### 3.1 Soil Sampling

##### 3.1.1 Sampling

#### Ahbau Creek Area

In the Ahbau Creek area, a soil sample survey that commenced in 1982 was extended over the 1981 VLF grid. A total of 579 samples were collected at 25 metre stations on east - west lines spaced 200 metres apart. In addition, detailed sampling, at 10 metre stations on east - west and north - south lines, was carried out over two zones where highly anomalous gold values were found during the 1982 soil sampling programme. One zone is located along line 46N from 51+75E to 53+75E; the other zone is on line 64N from 50+00E to 51+50E.

Following the discovery of a NE - SW trending massive sulphide zone, a new grid was put in with lines trending NW - SE (perpendicular to the structure). A total of 109 samples were collected at 25 metre intervals along 50 metre spaced lines. This new grid, the Thunder Creek grid, is centred at 46N and 52E on the 1981 VLF grid.

#### Yardley Lake Area

In the Yardley Lake area, soil sampling was carried out just east of Lord Lake where a diorite dyke was found to parallel VLF conductors outlined in 1981. A total of 183 samples were collected at 25 metre intervals along lines 151N, 153N and 159N.

Soil samples were also collected over a grid on claim G 15, just north of Terry Creek, where a weakly carbonatized zone was found in the chlorite schist. A total of 119 samples were collected at 25 metre intervals along east - west lines spaced 100 metres apart.

### Government Creek area

The Hix grid was extended from line 105N to 111N. A total of 71 soil samples were collected at 25 metre stations over VLF conductors.

#### 3.1.2 Sample Preparation and Analytical Procedures

All soil samples were collected from the 'B' soil horizon with the aid of a lightweight mattock and were sent to Chemex Labs Ltd. in North Vancouver for analysis.

In the laboratory, samples were oven dried at approximately 60°C. The dried samples were sieved to minus 80 mesh and the coarse fraction was analysed for the element Au by atomic absorption after digestion with hot concentrated nitric and hydrochloric acids. Samples from the new Ahbau grid were also analysed for Cu, Pb, Zn and Ag.

#### 3.1.3 Treatment and Presentation of Results

In assessing the soil geochemical results, graphical statistical methods were used to separate background from anomalous metal concentration. Threshold and anomalous levels were determined at the mean plus two standard deviations ( $x+2s$ ) and the mean plus three standard deviations ( $x+3s$ ), respectively, from log probability plots prepared for each element. This data is given in Table 3.1.3

Sample locations and analytical results are shown on Maps 3.1.1 to 3.1.10. Results for both elements have been contoured at threshold ( $x+2s$ ) and anomalous ( $x+3s$ ) levels.

TABLE 3.1.3  
 MEAN, THRESHOLD AND ANOMALOUS  
 METAL VALUES IN 'B' HORIZON  
SOIL SAMPLES FROM THE G SOUTH PROPERTY

<u>METAL</u>	<u>N</u>	<u>MEAN (x)</u>	<u>THRESHOLD (x+2s)</u>	<u>ANOMALOUS (x+3s)</u>
Au	1015	2 ppb	20 ppb	30 ppb
Ag	109	0.2 ppm	0.7 ppm	1.3 ppm
Cu	109	35.5 ppm	53.0 ppm	66.0 ppm
Pb	109	2.5 ppm	6.0 ppm	9.4 ppm
Zn	109	33.0 ppm	78.0 ppm	120.0 ppm

### 3.1.4 Discussion of Results

#### Ahbau Creek Area

The detailed soil sampling over the 46N zone extended this anomalous gold area to the east and north. Anomalous gold values occur along line 46N from 51+75E to 53+75E and from 45+80S to 46+70N on line 53+25E. Most of the outcrop in this area is a siliceous pyritic andesite. Anomalous values range from 30 to 4200 ppb. (Map 3.1.1 and 3.1.2).

Several highly anomalous gold values were discovered by the detailed sampling along line 64N, however this anomalous zone was not extended to the north or south. Very little outcrop is seen in this area. (Map 3.1.1).

Results from the Thunder Creek grid, reveal highly anomalous values for copper, lead, zinc, silver and gold over the massive sulphide zone. A very strong correlation exists between gold and zinc and a moderate correlation exists between gold, copper and lead indicating that these may be effective pathfinder elements for gold mineralization. (Map 3.1.2 to 3.1.6).



### Yardley Lake Area

In the Yardley Lake area only background gold concentrations were obtained over the Lord Lake and Terry Creek soil grids. These samples should be analysed for copper, lead and zinc since these elements were found to be associated with gold mineralization in the Ahbau area. Because of their greater mobility, these elements may be more easily detected through the relatively thick overburden which covers much of the Yardley Lake area. (Maps 3.1.7 to 3.1.9).

### Government Creek Area

Samples collected over the Hix grid failed to yield anomalous gold values. As with the Yardley Lake area, these samples should be analysed for copper, lead and zinc. (Map 3.1.10).

## 3.2 LITHOGEOCHEMISTRY - ROCK CHIP SAMPLING

### 3.2.1 Sampling, Sample Preparation and Analytical Procedures

Rock chip samples were collected from all outcrops with visible mineralization, boxwork, iron staining or silicification, and from all quartz veins, aplite dykes and aplite-pyroxenite contacts.

In most cases, grab samples were taken where outcrop exposures were poor. Chip samples were taken at regular intervals (according to the size of the unit) across the width of massive sulphide veins and zones, wallrock to veins and gossanous, siliceous or pyritic zones in trenches.

The samples were placed in numbered plastic bags and sent to Chemex Labs Ltd. in North Vancouver for analysis. In the laboratory, samples were put through primary and secondary jaw crushers and a tertiary cone crusher. A sub-sample of approximately 250 gm was then pulverized in a rotary pulverizer. Pulp for precious metal analysis was screened to minus 100 mesh and examined for 'metallics'. The pulp was then fire assayed for Au. Some samples were also analysed for Cu, Pb, Zn and Ag.

### 3.2.2 Presentation and Discussion of Results

Assay results, locations, and descriptions of samples are given in Table 3.2 and shown on Maps 2.2.2, 2.2.3, 3.2.1 to 3.2.4 and 4.1.

#### Ahbau Creek Area

Results from grab samples and chip samples from outcrops in this area show values ranging from trace amounts up to 0.102 oz/ton Au, 1.21 oz/ton Ag, 4.20% Cu and 0.60% Zn. The highest values were obtained from massive sulphide veins and zones, up to 15 cm wide, exposed along Thunder Creek and approximately 2 metres wide in the east - central portion of the Thunder Creek grid. Trace amounts of gold were obtained from siliceous, iron stained andesite containing both disseminated and hair line veinlets of pyrite, pyrrhotite and chalcopyrite. (Maps 3.2.1, 3.2.2 and 4.1).

The most significant results obtained from rock chip samples in trenches in the Ahbau Creek area were obtained from the 1.9 metre massive sulphide zone. This zone was exposed in trenches 1, 2, 9 and 10, giving it a strike length of at least 80 metres. Assay values from this zone range from .094 to 0.430 oz/ton gold, 1.02 to 6.46 oz/ton silver, 0.07 to 3.36% copper, <0.01 to 1.81% lead and 0.01 to 5.2% zinc. In addition, chip samples of the wallrock assayed as high as 0.14 oz/ton Au, 0.70 oz/ton Ag, 0.46% Cu, 0.04% Pb and 0.29% Zn. A 20 cm wide vein in a cross fracture assayed 1.84 oz/ton Au where exposed in trench 9. (Map 4.1).

Chip samples from a siliceous, pyritic, andesite exposed in trenches 4, 5, 6, 7, 8, 11 and 12 assayed up to 0.012 oz/ton gold. (Maps 4.1).

#### Yardley Lake and Government Creek Areas

Grab samples of aplite, diorite, pyroxenite and argillite in the Yardley Lake and Government Creek areas contained few gold values above the detection limit. (Maps 3.2.3 and 3.2.4). Chip samples from trenches in the Terry Creek and Lord Lake areas also had very low gold values. (Maps 2.2.2 and 2.2.3).

TABLE 3.2 - ASSAYS AND SAMPLE DESCRIPTIONS

ASSAYS	LOCATION	Cu	Pb	Zn	Ag	Au	DESCRIPTION
		PERCENTAGE			OZ/TON		
83001	Ahbau	-	-	-	-	0.005	Aplite w/PY.
83002	"	-	-	-	-	<0.003	Sil. Andesite flow w/f.gr. PY
83003	"	-	-	-	-	<0.003	Andes. tuffs and flows w/PY.
83004	"	-	-	-	-	<0.003	" " " " "
83005	"	-	-	-	-	0.005	Sil. Andes. w/PY
83006	"	0.03	-	-	-	0.004	Andes. flow w/veinlets of CP and PY.
83007	"	0.50	-	0.03	1.21	0.102	Msv. sulf. vein in andes. Abundant CP,PY,PR.
83008	"	0.02	-	<0.01	0.06	0.012	Porphyritic andes. w/hbld. phenos. PY stringers
83009	"	0.02	-	-	-	0.003	Sil. andes.
83010	"	-	-	-	-	0.005	Very sil. andes w/hbld. phenos., minor f.gr. PY
83011	"	-	-	<0.01	0.04	0.022	Sil. andes. minor f.gr. dissem. PY.
83012	"	-	-	<0.01	0.13	0.042	Weathered sulf. vein in andes.
83013	"	1.44	-	0.01	0.32	0.056	Msv. sulf. vein 15 cm wide w/CP and MG
83014	"	1.80	-	-	-	<0.003	Andes. w/malachite staining
83015	"	-	-	-	-	0.008	Calcite vein in andes.
83016	Cttnwd	0.01	-	-	-	<0.003	Sil. argillite w/CP
83017	Ydly Lk.	-	-	-	-	<0.003	Qtz. vein in chlorite schist
83018	G-15	-	-	-	-	<0.003	" " " " "
83019	G-15	-	-	-	-	<0.003	Epidotized qtz. pod in chlorite schist
83020	G-15	-	-	-	-	<0.003	Calcite and epidote vein; 4 cm wide, in chlorite schist
83021	G-15	-	-	-	-	<0.003	Calcite and epidote vein in chlorite schist
83022	G-15	-	-	-	-	<0.003	Hematite stained qtz. vein, 6 cm wide, in chlorite schist
83023	G-15	-	-	-	-	<0.003	Qtz. and calcite stringers in highly fractured chlorite schist. Minor diss. PY.
83024	Yrdly Lk.	-	-	-	-	<0.003	Argillite
83025	"	-	-	-	-	<0.003	Sil. chlorite schist w/minor PY.
83026	G-10	-	-	-	-	<0.003	Garnetiferous aplite. Float
83027	G-10	-	-	-	-	<0.003	Aplite-pyroxenite contact
83028	G-10	-	-	-	-	<0.003	Aplite w/PY.
83029	G-10	-	-	-	-	<0.003	Aplite-pyroxenite contact
83030	G-10	-	-	-	-	<0.003	Hematite stained aplite w/ qtz. and PY. Grab samp.

TABLE 3.2 - ASSAYS AND SAMPLE DESCRIPTIONS Continued

ASSAYS	LOCATION	Cu	Pb	Zn	Ag	Au	DESCRIPTION
		PERCENTAGE			OZ./TON		
83031	G-10	-	-	-	-	<0.003	Pyroxenite
83032	G-10	-	-	-	-	<0.003	Aplite-pyroxenite contact. Minor diss. PY. Grab samp.
83033	G-10	-	-	-	-	<0.003	Aplite-pyroxenite contact. Minor diss. PY.
83034	G-10	-	-	-	-	<0.003	Pyroxenite w/minor aplite. Some diss. PY.
83035	G-10	-	-	-	-	<0.003	Argillite w/qtz. stringers crosscutting cleavage
83036	G-10	-	-	-	-	<0.003	Argillite w/qtz. stringers
83037	G-10	-	-	-	-	<0.003	Qtz. vein; 8 cm wide. Grab sample.
83038	Yrdly Lk.	-	-	-	-	<0.003	Aplite
83039	G-8	-	-	-	-	<0.003	Aplite
83040	G-8	-	-	-	-	<0.003	Pyroxenite w/qtz. stringers and minor diss. PY.
83041	G-8	-	-	-	-	<0.003	Aplite w/minor diss. PY.
83042	G-8	-	-	-	-	0.003	Pyroxenite w/qtz. stringers and minor diss. PY.
83043	G-8	-	-	-	-	0.003	Aplite w/diss. PY.
83044	Ahbau G-28	-	-	-	-	0.003	Sil. andes. w/narrow veinlets and diss. PY and AS.
83045	"	-	-	-	-	0.005	Sil. andes w/diss. PY and AS.
83046	"	-	-	-	-	0.003	Sil. andes. w/diss. PY, AS and CP.
83047	"	-	-	-	-	0.003	Sil. andes. w/diss. AS and PY.
83048	Ahbau	-	-	-	-	<0.003	Sil. andes. w/diss. PY and minor CP.
83049	"	-	-	-	-	<0.003	Sil. andes. w/diss. PY and 1- 2mm wide qtz. stringers 180°/90
83050	"	-	-	-	-	<0.003	Cs.gr. silic. andes. w/small PY blebs.
83051	Trench 3 0-3m	0.04	<0.01	-	-	<0.003	Sil. andes. w/diss. PY and 1 cm wide msv. sulf. vein w/PY and CP.
83052	Tr. 3 3-6m	0.01	<0.01	-	-	<0.003	Sil. andes w/diss. PY.
83053	Tr. 3 3-6m	0.01	<0.01	-	-	<0.003	Fault gouge and highly fractured andes. Hematite stained. Selected sample.
83054	Tr. 3 9-12m	0.01	<0.01	-	-	<0.003	Sil. andes. w/ diss. PY and narrow qtz. stringers.

TABLE 3.2 - ASSAYS AND SAMPLE DESCRIPTIONS Continued

ASSAYS	LOCATION	Cu	Pb	Zn	Ag	Au	DESCRIPTION
		PERCENTAGE			OZ/TON		
83055	Tr.3 12-15m	0.01	<0.01	-	-	<0.003	Highly sil.andes.w/ numerous qtz. stringers, abundant diss. PY. minor CPY.
83056	Tr.3 6-9m	0.02	<0.01	-	-	<0.003	mod. sil. andes. some qtz. veinlets; diss. PY
83057	Tr.4 0-3m	0.01	<0.01	-	-	<0.003	Sil. andes. w/qtz. stringers minor dissem. PY and PY veinlets
83058	Tr.3 1-6m	0.08	<0.01	-	-	<0.003	Msv. sulf. vein 10cm wide w/CP and PY.
83059	Tr.4 3-6m	0.03	<0.01	-	-	0.003	Sil.andes. w/diss. PY
83060	Tr.4 6-9m	0.05	<0.01	-	-	0.003	Sil. andes. w/diss. PY
83061	Tr.5 0-3m	<0.01	<0.01	-	-	<0.003	Sil.andes. w/minor diss. PY
83062	Tr.5 3-6m	0.02	<0.02	<0.01	0.04	0.012	Sil. andes. w/diss.PY and narrow PY veinlets.
83063	Tr.2 0-3m	<0.01	<0.01	-	-	<0.003	Sil. andes. w/minor diss.PY
83064	Tr.2 3-6m	0.12	0.02	0.04	0.16	0.090	Sil. andes. w/diss. PY
83065	Tr.2 6-7.9m	1.40	0.05	0.07	2.03	0.334	Msv.sulf.vein, 1.9m wide, PY,CP,GA
83066	Tr.2 7.9-8.7m	0.46	0.03	0.29	0.70	0.068	Alt. andes. w/PY,CP and qtz. veinlets
83067	Tr.2 8.7-9.3m	0.36	0.34	0.23	3.99	0.430	Msv. sulf. vein 0.6m wide, w/ CP,B0,PY and black oxidized sulfs.
83068	Tr.2 9.3-12m	0.03	<0.01	0.02	0.14	0.010	Andes. w/fi.gr. diss. PY. Hanging wall.
83069	Tr.2 12-15m	0.02	<0.01	-	-	<0.003	Andes. w/minor diss. PY.
83070	Tr.5 6-9m	0.01	<0.01	-	-	0.006	Sil. andes. w/diss. PY.
83071	Tr.5 9-12m	0.03	<0.01	-	-	0.006	Sil. andes. w/PY.
87072	Tr.5 12-13m	0.02	<0.01	-	-	0.008	Andes. highly fractured, kaol. alt. w/diss. PY and PY stringers.
87073	Tr.5 13-15m	<0.01	<0.01	-	-	<0.003	Andes. w/qtz. veinlets and minor PY stringers.
87074	Tr.5 15-17.5m	<0.01	<0.01	0.01	0.04	0.010	Andes. w/minor diss. PY.
87075	Tr.6 0-3m	0.01	<0.01	-	-	0.008	Sil. andes. w/narrow qtz. stringers and minor diss. PY.

TABLE 3.2 - ASSAYS AND SAMPLE DESCRIPTIONS Continued

ASSAYS	LOCATION	Cu	Pb	Zn	Ag	Au	DESCRIPTION
		PERCENTAGE			OZ/TON		
87076	Tr.6 3-5.5m	0.02	<0.01	-	-	<0.003	Sil. andes. w/diss. PY.
87077	Tr.7 0-3m	0.02	<0.01	-	-	0.003	Sil. andes. w/network of PY veinlets
87078	Tr.7 3-6m	0.02	<0.01	-	-	0.008	Sil. andes. w/narrow qtz. stringers and diss. PY.
87079	Tr.7 9-12m	0.02	<0.01	<0.01	0.06	0.012	Sil. andes. w/diss.PY.
87080	Tr.8 0-3m	0.02	<0.01	-	-	0.003	Andes. w/PY along fracture surfaces
83081	Tr.8 3-6m	0.03	<0.01	<0.01	0.04	0.020	Sil. andes. w/diss. PY.
83082	Tr.8 6-7m	<0.01	<0.01	-	-	<0.003	Sil. andes. w/minor diss. PY.
83083	Tr.8 7-9m	<0.01	<0.01	-	-	0.003	Andes. propylitic alt., diss. PY.
83084	Tr.8 9-12m	0.03	<0.01	-	-	0.003	Sil. andes. w/diss. PY.
83085	Tr.9 0-3m	0.02	0.01	-	-	0.005	Sil. andes w/diss. PY.
83086	Tr.9 9-10m	0.68	0.13	0.76	1.57	0.094	Msv. sulf. vein; 1.1m wide; qtz. PY, CPY, AS, SL showing banded texture.
83087	Tr.9 7-9m	0.08	<0.01	0.03	0.17	0.032	Sil. andes. w/ PY and CP stringers and diss. throughout. Adjacent to vein.
83088	Tr.9 10.1-12m	0.16	0.04	0.17	0.29	0.140	Sil. andes. w/ diss. PY and CP. Adjacent to vein
83089	Tr.9	0.31	<0.01	0.01	0.45	1.842	NW/SE vein, 20cm wide w/ qtz. and MSV, CP and PY
83090	Tr.9 .80m	<0.01	<0.01	-	-	0.003	N.E. Hanging Wall, Sil. andes.
83091	Tr.9 .70m	0.01	<0.01	-	-	0.005	S.W. footwall. Sil. andes.
83092	Tr.10 1.2m	3.36	0.06	1.48	6.46	0.182	Msv. sulf. vein; 055/90; 1.2m wide, w/ qtz. CP, PY, B0
83093	Tr.10 2.0m Yardley Lake	0.07	<0.01	-	-	0.003	Highly sil. andes; minor diss. PY; highly fractured
83094	Tr.13 0.1m	-	-	-	-	0.005	Aplite dyke
83095	Tr.13	-	-	-	-	0.003	Aplite dyke hanging wall rock, intense propylitic and Kaolnite alt.
83096	Tr.13	-	-	<0.01	0.10	0.012	Footwall rock; same as 83095

TABLE 3.2 - ASSAYS AND SAMPLE DESCRIPTIONS Continued

ASSAYS	LOCATION	Cu	Pb	Zn	Ag	Au	DESCRIPTION
		PERCENTAGE			OZ/TON		
83097	Tr.13 39.4-42.2m	-	-	-	-	0.005	Aplite dyke 4.8m wide
83098	Tr.13 42.2-45.0m	-	-	-	-	0.003	Pyroxenite adjacent to aplite dyke
83099	Tr.13 35-37.4m	-	-	-	-	<0.003	Aplite/pyroxenite
83100	Tr.14	-	-	-	-	<0.003	Calcite vein, 3cm wide
83451	Tr.10 1.8m	0.04	<0.01	-	-	0.003	Sil. andes. chlor.ep.alt. PY and CP in narrow stringers
83452	Tr.11 3-6m	0.01	<0.01	-	-	<0.003	Sil.andes, minor diss. PY
83453	Tr.11 9-11m	0.01	<0.01	-	-	<0.003	Sil. andes, w/ PY stringers
83454	Tr.12 6-9m	<0.01	<0.01	-	-	0.003	Sil andes. w/ diss. PY
83455	Tr.12 3-6m	<0.01	<0.01	-	-	<0.003	Sil.andes. w/ diss. PY
83456	Gov.Ck.	-	-	-	-	<0.003	Arg. w/ PY and qtz.stringers
83457	" "	-	-	-	-	<0.003	Qtz.vein in arg.
83458	" "	<0.01	-	-	-	<0.003	GRDR w/ epidote andn diss. PY
83459	" "	-	-	-	-	<0.003	Qtz. vein 10cm wide; iron stained
83460	" "	-	-	-	-	<0.003	Arg. w/ qtz.veins and PY
83461	Ahbau	0.05	<0.01	0.030	0.01	0.05	Highly sil.andes. w/ diss.PY, PR, CPY and A5 and minor veinlets infilling fractures.
83462	"	0.03	<0.01	0.006	0.01	0.05	Highly sil.andes. w/ diss. PY, PR, minor CP and infilling fractures
83463	"	4.20	<0.01	0.096	0.04	1.02	Msv sulf.vein, 3cm wide, w/ PY, PR, MC,B0 and CV
83464	"	0.32	0.05	0.090	0.60	0.79	Msv. CP,PY and PR, in boulder
47185	Yardley Lake G-3	-	-	-	-	0.003	Granite porphyry w/ abundant plug.phenus
47186	Yardley Lake G-3	-	-	-	-	0.005	Hornfels argillite w/ narrow qtz. veinlets
47188	Yardley Lake G-8	-	-	-	-	0.003	Sil.andes.w/ abundant PY veinlets, Float
47189	"	-	-	-	-	0.003	Sil. arg.
47190	Ahbau	-	-	-	-	<0.003	Sil. andes. numerous qtz. stringers (1 mm wide), some diss. PY.
47191	"	-	-	0.04	0.42	0.100	Sil. andes. narrow qtz. stringers; diss.,PY and CP.
47192	"	-	-	0.01	0.17	0.042	Sil. andes. w/ diss.PY and CP

TABLE 3.2 - ASSAYS AND SAMPLE DESCRIPTIONS Continued

<u>ASSAYS</u>	<u>LOCATION</u>	<u>Cu</u> <u>PERCENTAGE</u>	<u>Pb</u> <u>PERCENTAGE</u>	<u>Zn</u> <u>PERCENTAGE</u>	<u>Ag</u> <u>OZ/TON</u>	<u>Au</u> <u>OZ/TON</u>	<u>DESCRIPTION</u>
47193	Ahbau Tr.1 0-3m	0.03	<0.01	-	-	0.003	Sil. andes.w/ narrow PY and qtz. stringers and diss.PY
47194	Tr.1 3-6m	0.13	<0.01	0.01	0.11	0.032	Sil. andes. w/ diss. PY and CP
47195	Tr.1 @ 5m	0.93	<0.01	0.01	1.02	0.278	Msv. sulf.vein, 7 cm wide w/ and CP
47196	Tr.1 6-7m	0.05	<0.01	0.02	0.06	0.010	Sil.andes. w/ diss. PY and CP. Footwall
47197	Tr.1 @ 7m	0.07	1.81	5.20	1.36	0.114	Msv.sulf.vein, 16cm wide w/ PY,GA and CP
47198	Tr.1 7.16-9m	<0.01	0.02	-	-	<0.003	Sil.andes. w/ minor diss. PY
47199	Tr.1 9-12m	0.01	<0.01	-	-	<0.003	Sil.andes. w/ diss. PY,CP and B0
47200	Tr.1 12-14m	<0.01	<0.01	-	-	<0.003	Sil.andes. w/ diss. PY and CP
3551D	Hixon Ck.	0.04	0.06	0.11	0.10	<0.003	Sericite Schist float



#### 4. TRENCHING

From October 4 to October 10, a Case 450 Backhoe was contracted to trench accessible mineralized showings, geochemical soil anomalies, and VLF conductors in the Ahbau Creek and Yardley Lake areas. A total of 14 trenches were cut during this phase of the programme. Geology, litho-geochemistry and locations of these trenches are shown on Maps 2.2.2, 2.2.3 and 4.1.

##### 4.1 Trench Geology

###### Ahbau Creek Area

###### TRENCHES 1, 2, 3, 9 AND 10

This series of trenches was cut across a massive sulphide zone to determine its extent and orientation. The vein is exposed along strike for 80 metres and has a width of up to 1.9 metres. It occurs within a siliceous andesite host and consists of pyrite, pyrrhotite, arsenopyrite, chalcopyrite, sphalerite and galena with a slightly banded texture. The vein is open to the southwest but appears to pinch out in a northeasterly direction. Further trenching is needed in this area to search for new veins and outline possible extensions of the existing vein. (Map 4.1).

###### TRENCHES 4, 5, 6, 7, 8, 11 AND 12

These trenches were cut at various orientations to expose an anomalous gold zone in soils along line 46N on the Ahbau grid. Bedrock is a siliceous, pyritic andesite which in some areas is intensely fractured and has associated chlorite and kaolinite alteration. Disseminated pyrite occurs on some fracture surfaces. Rock chip samples from this area assayed up to 0.012 oz/ton gold. (Map 4.1).

Yardley Lake AreaTRENCH 13

Trenching in the area east of Lord Lake was carried out over an aplite - pyroxenite dyke. A number of aplite stringers within a diorite - pyroxenite were sampled at the contacts. Results showed only a few samples having values greater than 0.005 oz/ton gold. (Map 2.2.2).

TRENCH 14

Trenching on the Terry Creek grid, across a north - south trending VLF conductor, exposed a weakly carbonatized zone within a chlorite schist. A single calcite vein was sampled but did not assay in gold. (Map 2.2.3).

## 5. GEOPHYSICS

### 5.1 VLF-EM Survey

#### 5.1.1 Instrument and Survey Techniques

A Geonics EM-16 unit was used to carry out VLF surveys on several grids.

A detailed VLF survey, called the Thunder Creek surveys, was carried out over the massive sulphide zone exposed by the trenching programme in the Ahbau Creek area. The 17.8kHz Annapolis, Maryland submarine transmitting station was used. In-phase quadrature readings were taken in a northerly ( $350^{\circ}$ ) direction to insure that south dips were negative. In-phase dip angle readings were later converted by means of the Fraser filtering techniques (Fraser, 1969) to data which could be contoured. Readings were taken at 25 m intervals along 50 m spaced NW - SE lines for a total of 2.7 kilometres.

In the Yardley Lake area a new VLF grid was put in just north of Terry Creek. East - west lines were run at 200 metre spacings for a total of 3.9 km. The Hix grid was extended to the north of Hixon Creek along lines 107, 109, 111, 121 and 122N. A total of 3.8 line kilometres were run.

On both the Yardley Lake and Hixon Creek grids, the 24.8kHz Seattle, Washington submarine transmitting station was used. In-phase quadrature readings were taken in a westerly direction ( $260^{\circ}$ ) to insure that east dips would be indicated as negative readings by the instrument. The in-phase dip angle readings were later converted by means of the Fraser filtering techniques (Fraser, 1969) to data which could be contoured. Readings were taken at 25 m intervals along 100 m or 200 m spaced east-west lines.

### 5.1.2 Presentation and Discussion of Results

The results of the VLF surveys are shown on Maps 5.1.1 to 5.1.3. These maps give the in-phase dip angle and filtered dip angle results (Fraser, 1969) with the filtered data contoured at a 10% contour interval.

The detailed Thunder Creek survey carried out in the Ahbau Creek area outlined a strong conductive zone cutting across the eastern portion of the grid in an northeast - southwest direction. This zone runs parallel and adjacent to the massive sulphide zone exposed in the east - central portion of the grid. In the western portion of the grid, the same conductive zone runs east - west and has not yet been explored. Fraser filter values over the zone reached levels up to +33%. In addition, a number of highly anomalous gold values were found in soils over the conductors. (Map 5.1.1).

Results of the VLF survey carried out in the Terry Creek area revealed a number of north - south trending conductors. The conductors parallel the strike of quartz and calcite veins found in this area. Soil samples over these conductors showed only background gold concentrations. (Map 5.1.2).

The northern extension of the Hixon Creek grid showed most of the previously outlined conductors to extend northward. Conductors with Fraser filtered values greater than or equal to +10% were soil sampled but showed only background gold concentrations. (Map 5.1.3).

## 6. CONCLUSIONS

The results of the 1983 programme may be summarized as follows:

### Ahbau Creek Area

1. In the Ahbau Creek area, trenching has exposed a massive sulphide zone which is up to 1.9 metres wide and extends for at least 80 metres along strike. Chip samples from this zone assay up to 0.43 oz/ton gold, 6.46 oz/ton silver, 3.36% copper, 1.81 % lead and 5.2% zinc. A VLF conductor running parallel and adjacent to this zone extends for at least 220 metres beyond the exposed mineralization. The association of copper, zinc and lead with the precious metal mineralization enables these elements to be used as geochemical pathfinders.

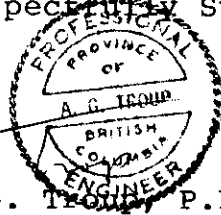
### Yardley Lake Area

2. In the Yardley Lake area, soil sampling carried out over the diorite dyke east of Lord Lake indicated little gold mineralization. This may be due masking effect of deep overburden in this area.
3. Several conductors were outlined by the VLF survey run north of Terry Creek. These parallel north striking quartz and calcite veins found within the chlorite schist in this area. Soil samples collected over these conductors showed only background gold concentrations.

Government Creek Area

4. The VLF conductors previously outlined on the Hix grid in the Government Creek - Hixon Creek area have been extended northward. Soil sampling over these conductors revealed little gold but this may be due to the masking effect of deep overburden in this area.
  
5. A weakly mineralized sericite schist was found on Hixon Creek on strike with the Yardley Lake diorite dyke and associated chlorite schist zone. Although not strongly mineralized, this is evidence of hydrothermal alteration.

Respectfully Submitted,


  
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## 7. RECOMMENDATIONS

### A. In the Ahbau Creek area:

1. All soil samples should be reanalysed for the more mobile elements copper, zinc and lead.
2. The Thunder Creek VLF grid should be extended in all directions.
3. Detailed soil sampling and rock chip sampling should be carried out over VLF conductors outlined on the Thunder Creek grid. All samples should be analysed for copper, lead and zinc.
4. Detailed soil sampling, rock chip sampling and mapping should be carried out over all gold, copper, lead and zinc anomalies indicated by the reconnaissance survey.

### B. Over the Yardley Lake and Government Creek areas:

1. Reanalyse all soil samples for the more mobile elements copper, zinc and lead.
2. Detailed geologic mapping and prospecting should be extended.
3. VLF conductors should be soil sampled and the samples analysed for copper, lead and zinc.
4. Overburden drilling and deep soil sampling should be carried out in areas of deep overburden.

### C. Areas where anomalous soil samples and rock chip samples coincide with VLF conductors should be tested by trenching, percussion and diamond drilling.

References

- Fraser, D.C.                      Contouring of VLF-EM Data  
1969                                      Geophysics v.34, No.6, pp.958-967.
- Ridley, J.C. and                      G South Property - Assessment  
Troup, A.G.                              Report - Geology, Geochemistry  
February 1982                              Geophysics and Physical.
- Ridley, J.C. and                      G South Property - Assessment  
Troup, A.G.                              Report - Geology, Geochemistry  
December 1982                              and Geophysics.



COST STATEMENT  
G SOUTH CLAIMS  
GEOLOGY, GEOPHYSICS, and GEOCHEMISTRY  
5 August - 30 October 1983

GENERAL COSTS

<u>FOOD AND ACCOMMODATION</u>		
4 Pers., 5Aug-30Oct, 281 man days @ \$18.78		\$ 1,664.00
<u>REPAIRS</u>		177.69
<u>SUPPLIES</u>		1,014.73
<u>SHIPPING AND POSTAGE</u>		208.15
<u>RENTAL EQUIPMENT</u>		
U-Haul Trailer, 5-9, 24-25Aug, 31Oct-1Nov	\$ 388.51	
Mark Mgmt 4WD Bronco		
5Aug-31Oct, 76 days @ \$43	3,268.00	
10,939km @ \$0.16	1,748.80	
Gabriel SBX-11A, 76 days @ \$11	836.00	
Gabriel Field Equipment, 281 Man days @ \$6	1,686.00	8,903.71
<u>FIXED WING</u>		
CP Air, Vcr-PGe Return, 2	\$ 488.20	
Taxis	26.00	514.20
<u>FUEL</u>		1,360.80
<u>FIELD TELEPHONE SERVICE</u>		260.00
<u>CONSULTANT</u>		
Archean Engineering		3,433.50
<u>REPORT PREPARATION</u>		5,350.00
<u>TOTAL GENERAL COSTS</u>		<u>\$26,498.70</u>

GEOLOGY COSTS

<u>SALARIES AND WAGES</u>	
4 Pers., 99 Man days @ \$88.87	\$ 8,798.33
<u>BENEFITS @ 20%</u>	1,759.67
<u>GENERAL COSTS APPORTIONED</u>	
99/238 Man days X \$26,498.70	<u>11,022.57</u>
<u>TOTAL GEOLOGY COSTS</u>	<u>\$21,580.57</u>

GEOPHYSICS COSTS

<u>SALARIES AND WAGES</u>	
4 Pers., 26 Man days @ \$88.87	\$ 2,310.62
<u>BENEFITS @ 20%</u>	462.12
<u>RENTAL EQUIPMENT</u>	
Gabriel EM-16 VLF, 76 days @ \$27	2,052.00
<u>GENERAL COSTS APPORTIONED</u>	
26/238 Man days X \$26,498.70	<u>2,894.82</u>
<u>TOTAL GEOPHYSICS COSTS</u>	<u>\$ 7,719.56</u>

GEOCHEMISTRY COSTSSALARIES AND WAGES

4 Pers., 113 Man days @ \$88.87		\$10,042.31
---------------------------------	--	-------------

BENEFITS @ 20%

		2,008.46
--	--	----------

CONTRACTOR

Harris Backhoe Service 28Sep-10Oct		
------------------------------------	--	--

Mob/Demob	\$ 450.00	
-----------	-----------	--

Case 450, 40.5 hrs @ \$55	<u>2,227.50</u>	2,677.50
---------------------------	-----------------	----------

RENTAL EQUIPMENT

Cream Silver Atlas Copco Cobra Drill		
--------------------------------------	--	--

76 days @ \$27	\$2,052.00	
----------------	------------	--

Drilcor Rods & Adaptor		
------------------------	--	--

14Sep-02Nov, 6Wks @ \$80.25	<u>481.50</u>	2,533.50
-----------------------------	---------------	----------

SUPPLIES

		124.33
--	--	--------

GEOCHEMICAL ASSAYS and ANALYSES CHEMEX LABS

5 Rocks for Cu,Pb,Zn,Ag,Au @ \$30	\$ 150.00	
-----------------------------------	-----------	--

56 Rocks for Cu,Pb,Au @ \$22	1,232.00	
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8 Rocks for Cu,Au @ \$16.50	132.00	
-----------------------------	--------	--

61 Rocks for Au @ \$11.25	686.25	
---------------------------	--------	--

109 Soils for Cu,Mo,Pb,Zn,Ag,Au @ \$12.50	1,362.50	
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951 Soils for Au @ \$7	6,657.00	
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1000 Plastic Sample Bags	81.50	
--------------------------	-------	--

500 Kraft Bags	70.00	
----------------	-------	--

Sample Shipments	<u>106.60</u>	10,477.85
------------------	---------------	-----------

GENERAL COSTS APPORTIONED

113/238 Man days X \$26,498.70		<u>12,581.32</u>
--------------------------------	--	------------------

TOTAL GEOCHEMISTRY COSTS

		<u><u>\$40,445.27</u></u>
--	--	---------------------------

STATEMENT OF QUALIFICATIONSJ.C. RIDLEY, B.SC.Academic

1978	B.A. Geography	University of Western Ontario
1981	B.Sc. Geology	University of British Columbia

Practical

1981 - Present	Mark Management Ltd. Vancouver, B.C.	Project Geologist. Involved with geological, geochemical and geophysical aspects of precious metals exploration in B.C.
1980 - 1981	Utah Mines Vancouver, B.C.	Temporary Summer and part-time Winter Geologist in Charge of mapping and diamond drilling of a coal property in N.E. B.C. logging of rotary drilling chip samples on another coal property in N.E. B.C.
1979	Utah Mines Vancouver, B.C.	Temporary Summer. Reconnaissance and detailed mapping, logging of diamond drill core on coal properties in N.E. B.C.

STATEMENT OF QUALIFICATIONSA. TROUP, P.ENG.ACADEMIC

1967	B.Sc. Geology	McMaster University, Ontario
1969	M.Sc. Geochemistry	McMaster University, Ontario

PRACTICAL

1981 -	3605 Creery Avenue West Vancouver, B.C.	Consulting Geologist with Archean Engineering Ltd.
1977 - 1980	Geological Survey of Malaysia	Project Manager on a CIDA supported mineral explora- tion survey over peninsular Malaysia.
1969 - 1977	Rio Tinto Canadian Exploration Ltd. Vancouver, B.C.	Geologist involved in all aspects of mineral explora- tion in B.C., the Yukon and N.W.T.
1968	McMaster University Dept. of Geology Hamilton, Ontario	M.Sc. thesis work. Reconnaissance mapping and geochemical study, Lake Shubenacadia area, Nova Scotia.
1967 (summer)	Canex Aerial Exploration Ltd. Toronto, Ontario	Geologist in charge of detailed mapping and reconnaissance geochemical program in Gaspé, Quebec
1966 (summer)	McMaster University Dept. of Geology Hamilton, Ontario	Detailed and reconnaissance mapping in Northern Ontario.
1965 (summer)	International Nickel Co. of Canada Thompson, Manitoba	Detailed mapping in the Thompson area, Manitoba.
1964 (summer)	Geological Survey of Canada Ottawa, Ontario	Regional geochemical survey in the Keno Hill area, Yukon.

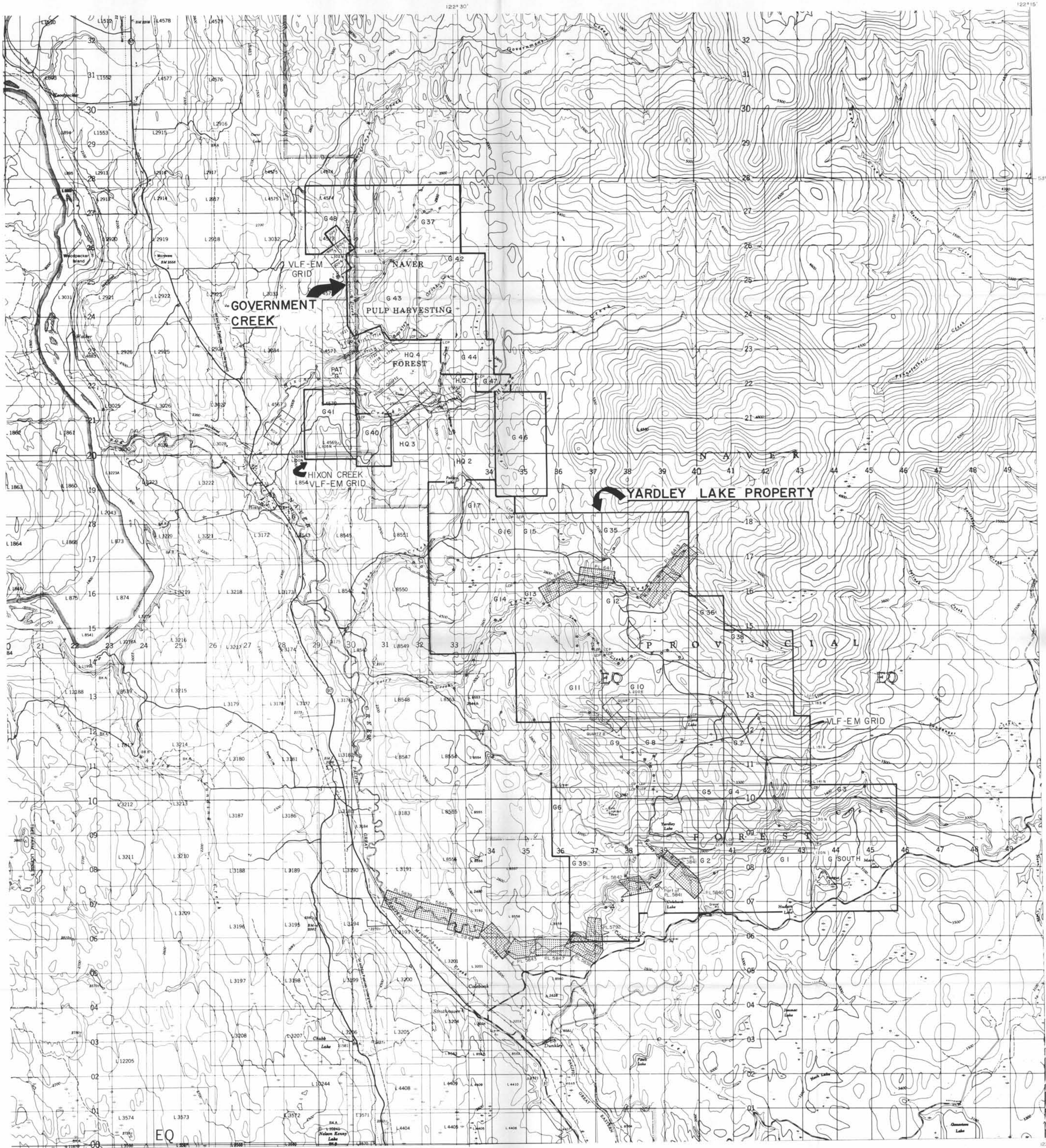
STATEMENT OF QUALIFICATIONSBRIAN P. BUTTERWORTHACADEMIC

1983	B.Sc. Geology	University of B.C.
------	---------------	--------------------

PRACTICAL

1983 -	Mark Management Vancouver, B.C.	Geologist involved in all aspects of precious metals exploration in B.C.
1982 (Summer)	Riocanex Vancouver, B.C.	Property work in Central B.C. which included detailed outcrop and trench mapping, core description and geochemical surveys.
1981 (Summer)	Riocanex Vancouver, B.C.	Regional geochemical survey, prospecting and property work throughout Central B.C. and Southern Yukon.
1980 (Summer)	Riocanex Vancouver, B.C.	Geochemical survey and and geologic mapping on properties in Central and Southeastern Yukon.





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

12,211

LEGEND  
Placer lease

GABRIEL RESOURCES INC.  
GOVERNMENT CK. B YARDLEY LK. PROPERTIES  
G SOUTH & G CLAIMS - CARIBOO M.D. - B.C.

CLAIM MAP

0 1 2 3 4  
1:50,000

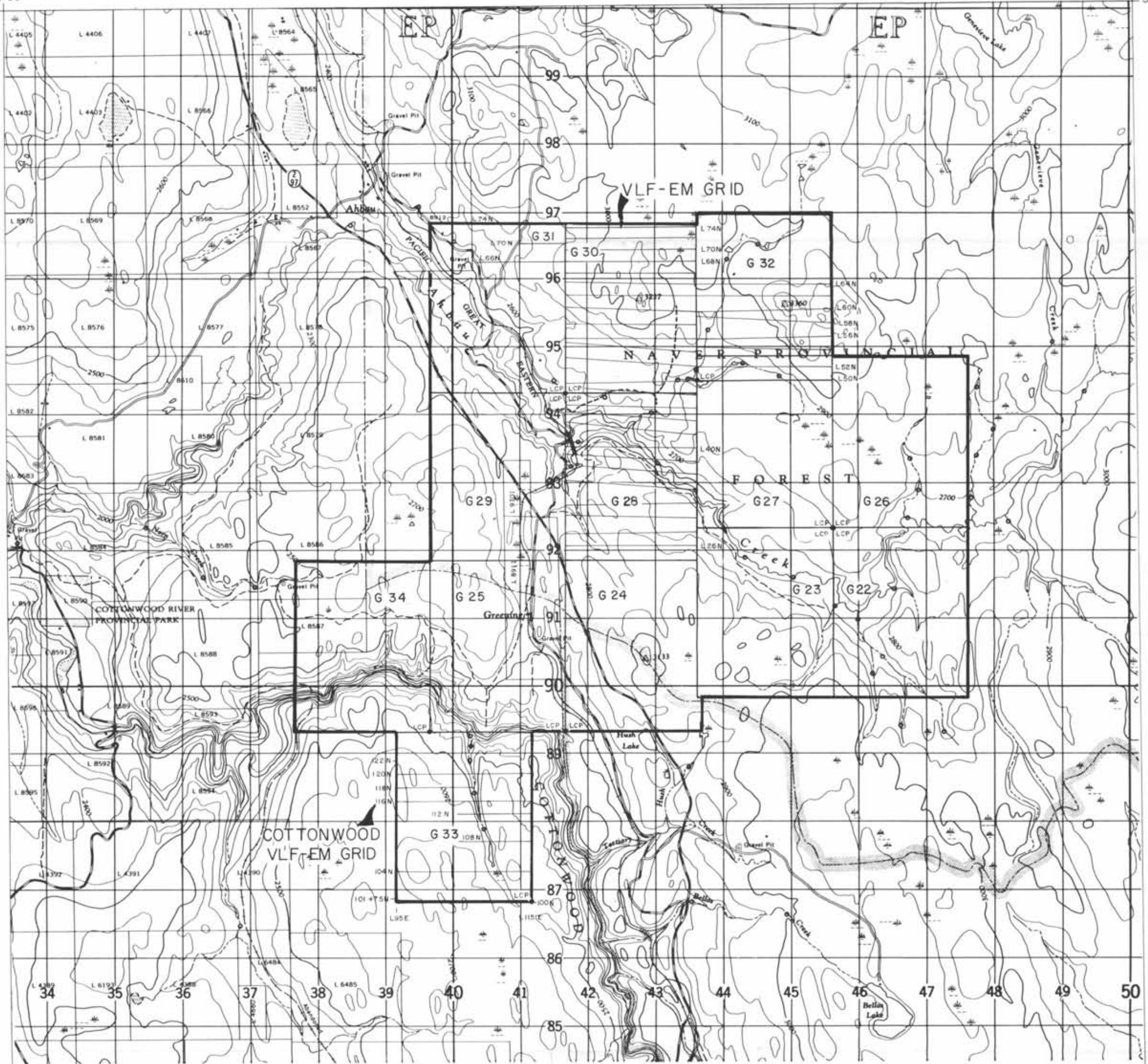
DATE Feb 1983  
NTS 93-G-788 J.C.R./rwr MAP I.3.1





122°30'  
53°15'

122°15'  
53°15'



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

**GABRIEL RESOURCES INC.**  
AHBAU PROPERTY  
G CLAIMS - CARIBOO M.D - B.C.

**CLAIM MAP**

KM 0 1 2 3 4  
1:50,000

DATE Nov. 1/81 Dec. /82

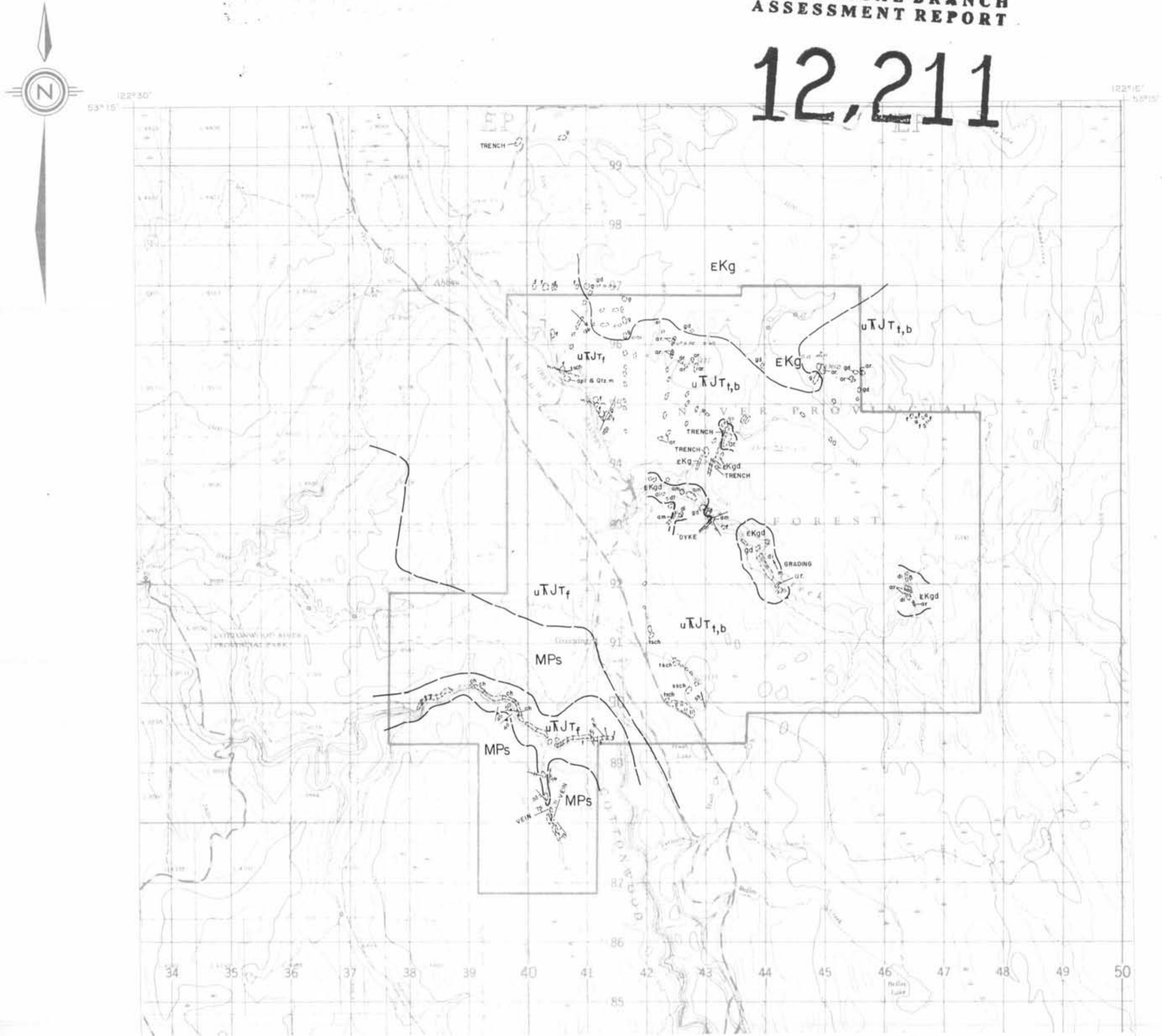
NTS 93-G-1

J.C.R./rwr

MAP 1.3.2



12,211



**ROCK TYPES**

f, t, bc	ANDESITE-FLOW, TUFF, BRECCIA
ar	ARGILLITE
ch	CHERTS (mostly bedded)
c	CONGLOMERATES
gd, m	GRANODIORITE, MONZONITE
g, apl	GRANITE, APLITE
um	PYROXINITE-SERPENTINITE
qtz	QUARTZ (veins and pods)
csch, msch, tsch	SCHIST - CHLORITE, MICA, TALC
slst - mdst	SILTSTONE - MUDSTONE
Ps	PLEISTOCENE SEDIMENTS
gs	GRANITIZED SEDIMENTS

**LEGEND:**

<b>TERTIARY</b>	
MPs	SANDSTONE, SHALE, CONGLOMERATE, DIATOMITE, LIGNITE
<b>EARLY CRETACEOUS - Naver Intrusions</b>	
EKq	QTZ. MONZONITE, SYENITE, MONZONITE, GRANODIORITE, DIORITE (di)
<b>UPPER TRIASSIC - LOWER JURASSIC</b>	
uTJT	Takla Group ANDESITE, (b) BASALT, (f) FLOW (t) TUFF, (bc) BRECCIA, (c) CONGLOMERATE, GREYWACKE, (ar) ARGILLITE, LIMESTONE
<b>UPPER TRIASSIC</b>	
uTp	BLACK PHYLLITE, SILTSTONE, LIMESTONE, QUARTZITE, SERPENTINIZED PERIDOTITE & SERPENTINITE (uTps)
<b>HADRYNIAN</b>	
Hk	Kazo Group SANDSTONE, CONGLOMERATE, GRIT, PHYLLITE, SCHIST, (am) AMPHIBOLITE, MARBLE, GNEISS

	JOINTS strike & dip (inclined, vertical)
	BEDDING " " ( " , " )
	FOLIATION strike & dip
	FRACTURE " "
	CLEAVAGE " "
	FOLD AXIS & PLUNGE
	FAULT ZONE
	SHEAR ZONE
	FLOAT

GABRIEL RESOURCES INC.  
AHBAU PROPERTY  
6 CLAIMS - CARIBOO M.D - B.C.

**REGIONAL GEOLOGICAL MAP**



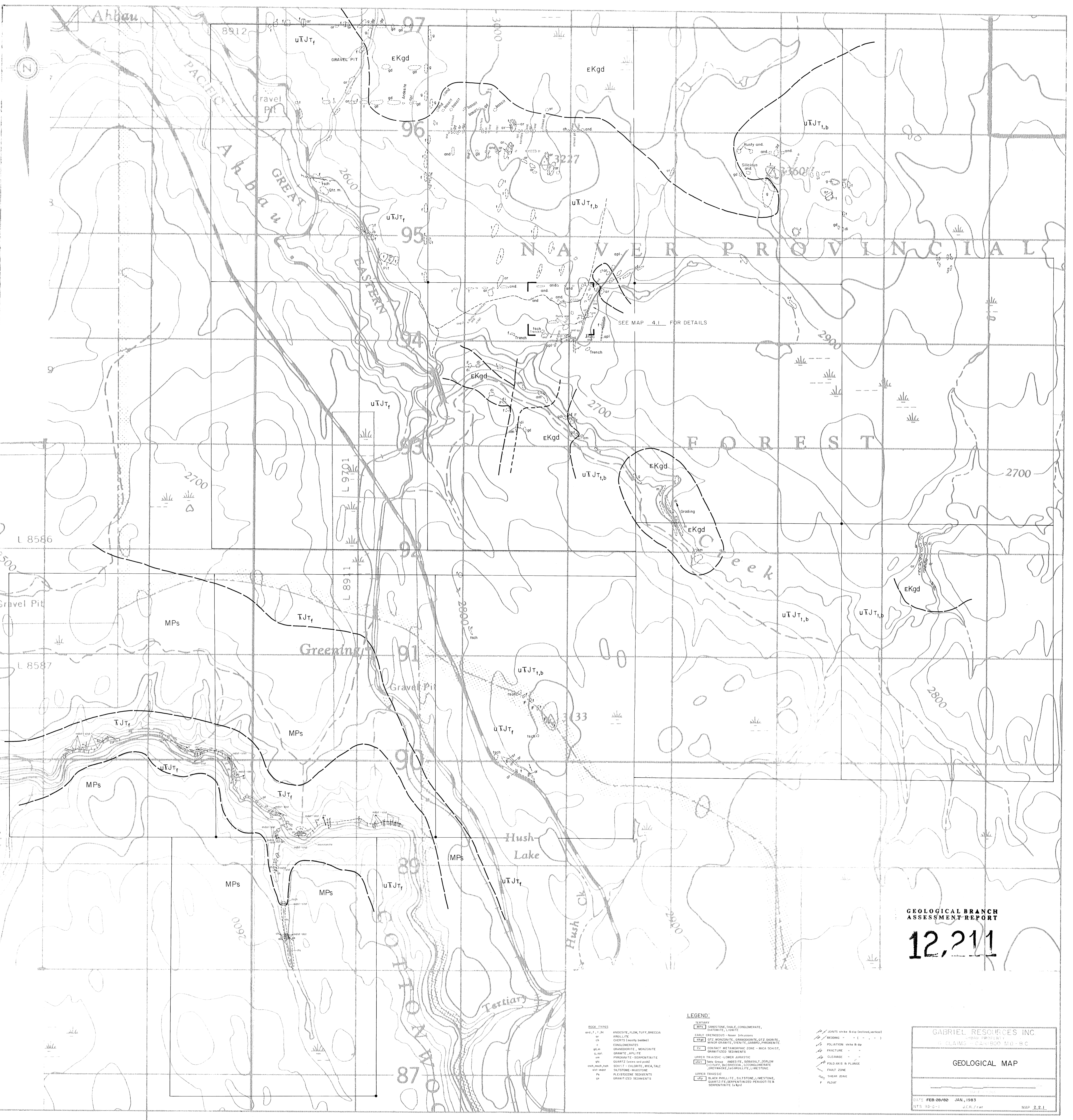
DATE FEB-7/82 JAN., 1983

NTS 93-G-1

J.C.R. / rwr

MAP 2.1.1





SEE MAP 4.1 FOR DETAILS

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

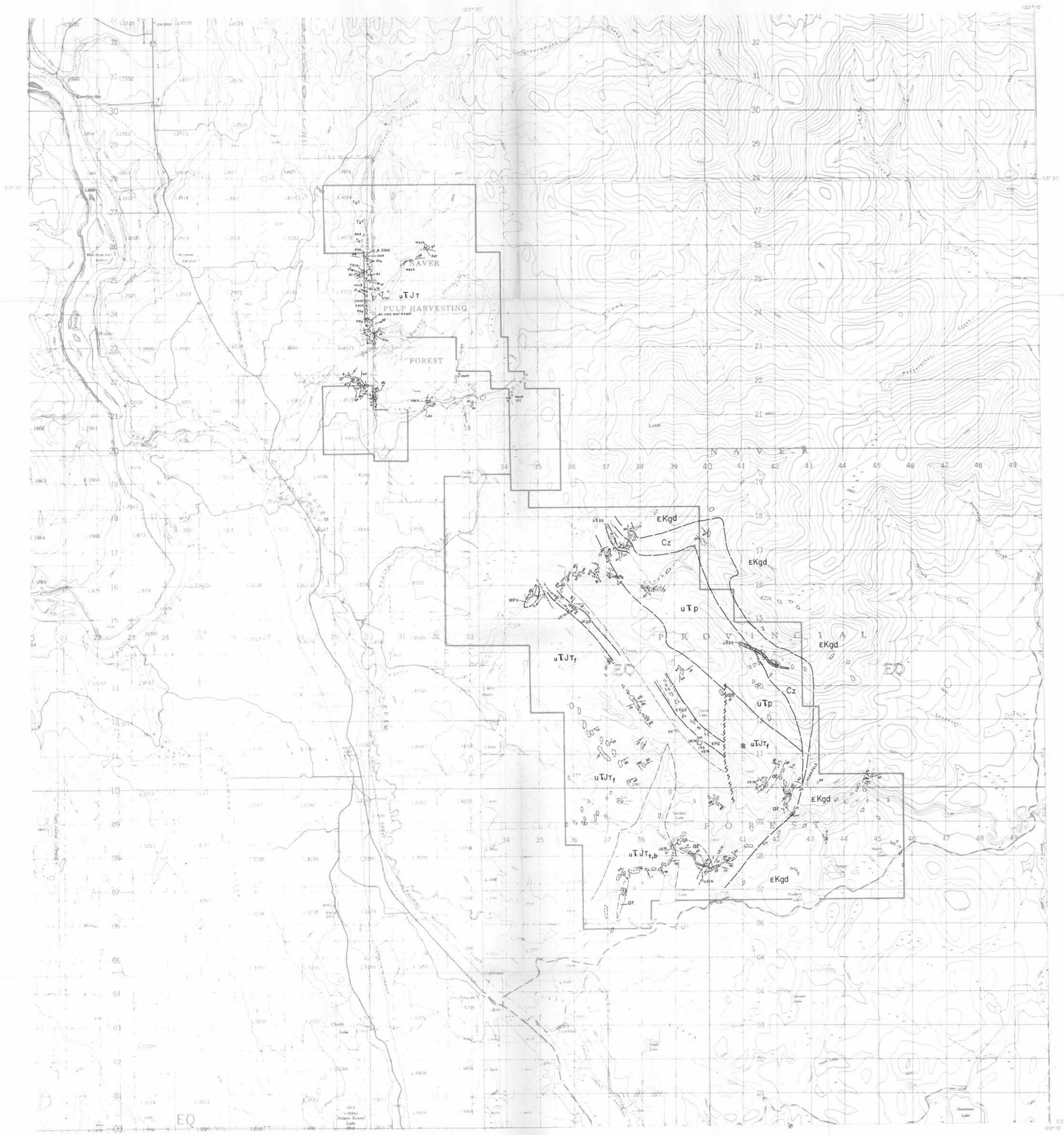
LEGEND:	
<b>ROCK TYPES</b>	<b>TERTIARY</b>
ANDSITe, FLOW, TUFF, BRECCIA	DIAMONITE, CLONITE
ARGLITE	EARLY CRETACEOUS - lower Devonian
CHERTS (massive bedded)	DIAMONITE, CLONITE
CONGLOMERATES	DIAMONITE, CLONITE, GABBRO, PROTONITE
GRANODIORITE - MONZONITE	CONTACT METAMORPHIC ZONE - MICA SCHIST, GRANITIZED SEDIMENTS
GRANITE, SPLITE	UPPER TRIASSIC - LOWER JURASSIC
PYROXENITE - SERPENTINITE	QUARTZ - ANDERITE, GABBRO, DIAPYROXENITE, SCLEROLITE, LITHOMIOMIOMITE
QUARTZ (massive and bedded)	UPPER TRIASSIC
SCHIST - GARNET, ANKA, TALC	BLACK PHTHALITE, SILTSTONE, LIMESTONE, QUARTZITE, SERPENTINIZED PEGMATITE, SERPENTINITE (Gabb)
SILTSTONE - MUDSTONE	
PLEISTOCENE SEDIMENTS	
GRANITIZED SEDIMENTS	
	<b>STRUCTURAL</b>
	JUNTS (strike slip faults, normal)
	BEDDING
	POLATION
	FRACTURE
	CLEAVAGE
	FOLD AXIS & PLUNGE
	FAULT ZONE
	SHEAR ZONE
	FLOOD

GABRIEL RESOURCES INC.  
6 CLAIMS - CAHU 800 MD - BC

**GEOLOGICAL MAP**

DATE: FEB-28/82 JAN, 1983  
NTS: 93-5-1 JCR/rar MAP 2.2.1





**LEGEND**

**ROCK TYPES**

- f, t, bc ANDESITE - FLOW, TUFF, BRECCIA
- ar ARGILLITE
- ch CHERT'S (mostly bedded)
- c CONGLOMERATES
- g, m GRANODIORITE, MONZONITE
- g, opl GRANITE, APLITE
- um PYROXENITE - SERPENTINITE
- qtz QUARTZ (veins and pools)
- sch, mch, hch SCHIST - CHLORITE, MICA, TALC
- sl - mdst SILTSTONE - MUDSTONE
- ps PLEISTOCENE SEDIMENTS
- gs GRANITIZED SEDIMENTS
- cb CARBONATIZED
- Tg TERTIARY GRAVEL
- Phy PHYLLITE

**TERTIARY**

- MPs SANDSTONE, SHALE, CONGLOMERATE, DIATOMITE, L. LIMITE
- EARLY CRETACEOUS - Nover Intrusions
- EKGd QTZ, MONZONITE, GRANODIORITE, QTZ DIORITE, MINOR GRANITE, SYENITE, GABBRO, PYROXENITE.
- Cz CONTACT METAMORPHIC ZONE - MICA SCHIST, GRANITIZED SEDIMENTS
- UPPER TRIASSIC - LOWER JURASSIC
- uTJT Tuff Group ANDESITE, (b) BASALT, (f) FLOW, (t) TUFF, (bc) BRECCIA, (c) CONGLOMERATE, GREYWACKE, (gr) ARGILLITE, LIMESTONE.
- UPPER TRIASSIC
- uTp BLACK PHYLLITE, SILTSTONE, LIMESTONE, QUARTZITE, SERPENTINIZED PERDOTITE & SERPENTINITE (uTps)

- JOINTS strike & dip (inclined, vertical)
- BEDDING - - - - -
- FOLIATION strike & dip
- FRACTURE - - - - -
- CLEAVAGE - - - - -
- FOLD AXIS & PLUNGE
- FAULT ZONE
- SHEAR ZONE
- F FLOAT

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

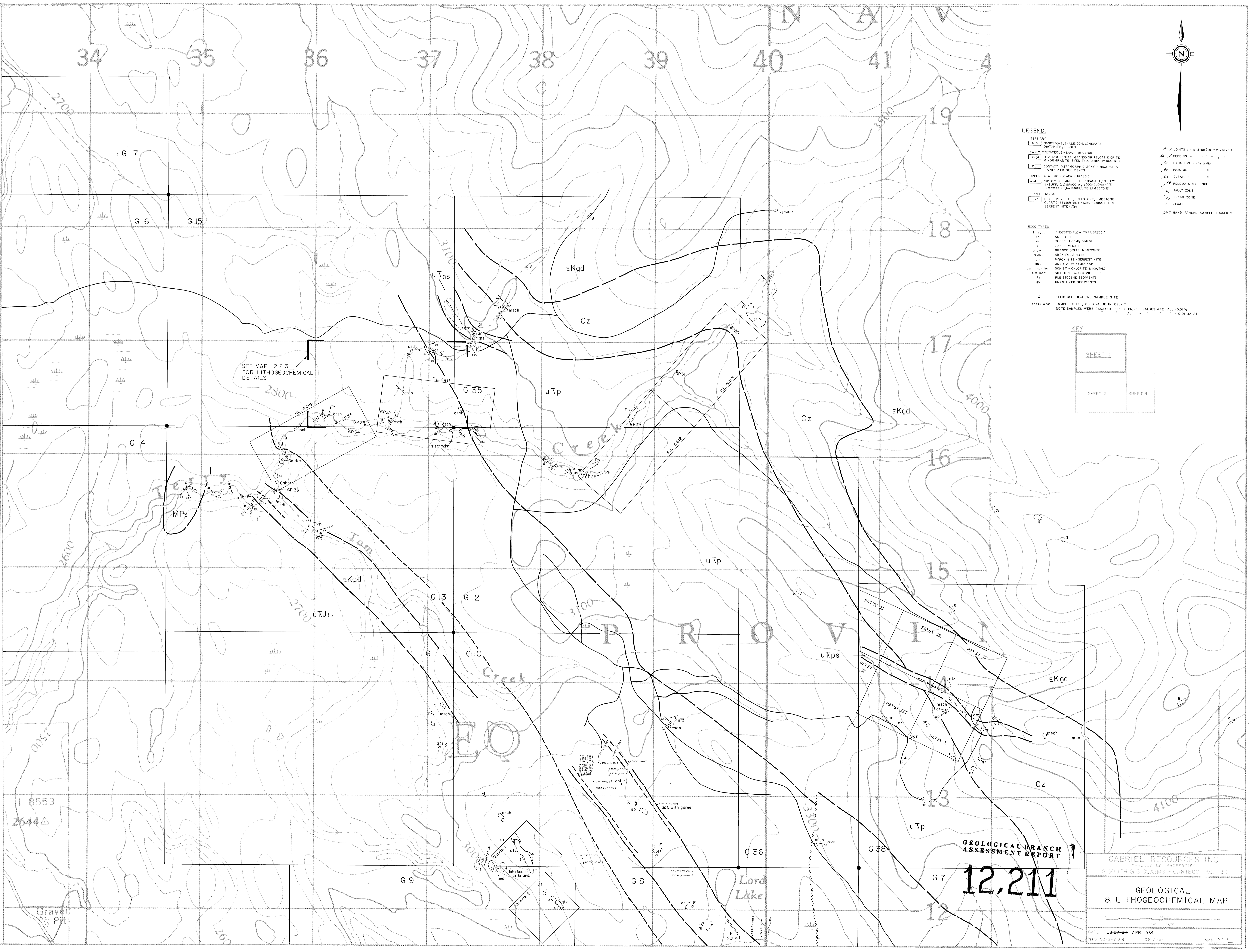
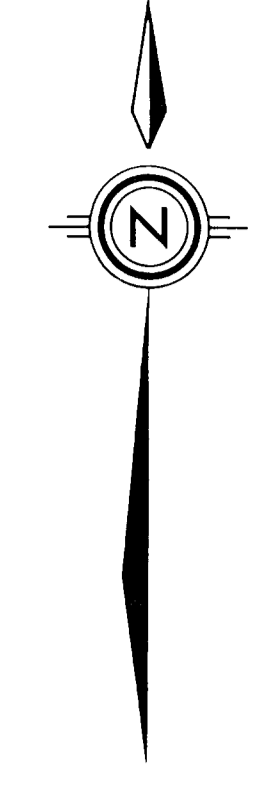
**12,211**

GABRIEL RESOURCES INC.  
GOVERNMENT CK & YARDLEY LK. PROPERTIES  
G SOUTH & G CLAIMS - CARIBOO MD. - B.C.

**REGIONAL GEOLOGICAL MAP**

DATE FEB-7/82 APR, 1984  
NTS 93-G-7 & 8 J.C.R. / r.w.t. MAP 2.1.2





SEE MAP 2.2.3 FOR LITHOGEOCHEMICAL DETAILS

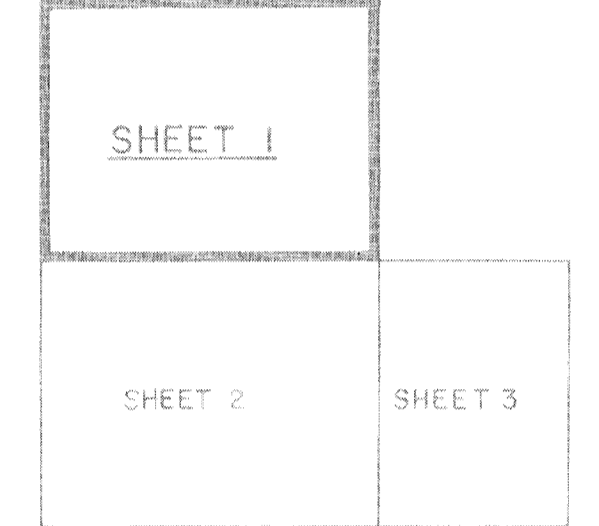
**LEGEND:**

- TERTIARY**
    - MPs SANDSTONE, SHALE, CONGLOMERATE, QUARTZITE, LIGNITE
    - uTps ANDRESITE - LOW, BUCCIA, BRECCIA
    - eKgd ANDRESITE - HIGH, BUCCIA, BRECCIA
    - Cz CHERTS (massive bedded)
  - CONTACT METAMORPHIC ZONE - MICA SCHIST, GRANITIZED SEDIMENTS**
  - UPPER TRIASSIC - LOWER JURASSIC**
    - uTp ANDRESITE, DIORITE, GABBRO, PYROXENITE
    - uTps ANDRESITE, DIORITE, GABBRO, PYROXENITE, QUARTZ, APLITE
  - UPPER TRIASSIC**
    - uTp ANDRESITE, DIORITE, GABBRO, PYROXENITE, QUARTZ, APLITE
    - uTps ANDRESITE, DIORITE, GABBRO, PYROXENITE, QUARTZ, APLITE
  - BLACK PHYLLITE, SILTSTONE, LIMESTONE, QUARTZITE, SERPENTINIZED PERidotITE & SERPENTINITE (Gp)**
- BOOK TYPES:**  
f, l, bc ANDRESITE - LOW, BUCCIA, BRECCIA  
ar ARKALITE  
ch CHERTS (massive bedded)  
c CONGLOMERATES  
g, gm GABBRO, MONZONITE  
gr GRANITE, APLITE  
msch PYROXENITE - SERPENTINITE  
qtz QUARTZ (veins and aplite)  
sch, mch, hch SCHIST - CHLORITE, MICA, TALC  
slst, msl SILTSTONE - MUDSTONE  
ps PLEISTOCENE SEDIMENTS  
gls GRANITIZED SEDIMENTS
- LITHOGEOCHEMICAL SAMPLE SITE**  
SAMPLE SITE, GOLD VALUE IN OZ./T.  
NOTE: SAMPLES WERE ASSAYED FOR Cu, Pb, Zn - VALUES ARE ALL <0.01%  
Ag - VALUES ARE ALL <0.01 OZ./T.

- JNITS strike & dip (inclined vertical)
- BEDDING strike & dip
- FOLIATION strike & dip
- FRACTURE strike & dip
- CLEAVAGE strike & dip
- FOLD AXIS & PLUNGE
- FAULT ZONE
- SHEAR ZONE
- FLOAT

GP 7 HAND PANNED SAMPLE LOCATION

**KEY**



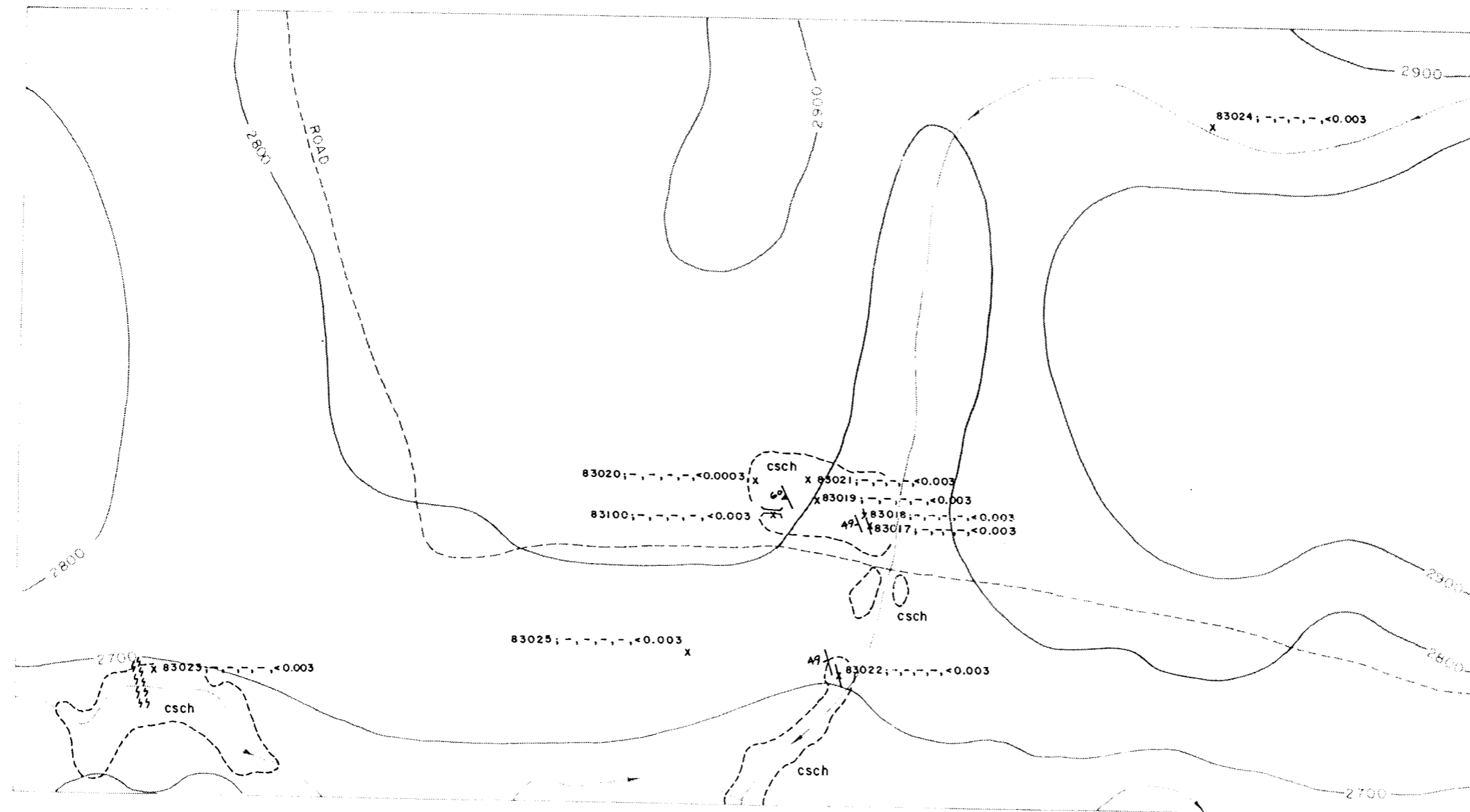
**GEOLOGICAL BRANCH ASSESSMENT REPORT**  
**12,211**

GABRIEL RESOURCES INC.  
YARDLEY LA. PROPERTY  
G SOUTH & G CLAIMS - CARIBOO 'D - B.C.

**GEOLOGICAL & LITHOGEOCHEMICAL MAP**

DATE FEB-27/92 - APR 1984  
NTS 93-5-798 JCR / twr MAP 2.2.2





**LEGEND:**

- OUTCROP
- STRIKE & DIP OF QUARTZ VEINS
- " " " FOLIATION
- SHEAR ZONE
- LITHOGEOCHEMICAL SAMPLE SITE
- 83020, -, -, -, -, <0.003 SAMPLE N<sup>o</sup>; Cu, Pb, Zn, Ag, Au  
% OZ./T
- , -, VALUE <0.01 % or <0.01 OZ./T
- csch CHLORITE SCHIST

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

GABRIEL RESOURCES INC  
YARDLEY LAKE AREA  
CARIBOO M.D. BC  
TERRY CREEK GRID  
GEOLOGICAL &  
LITHOGEOCHEMICAL SURVEY

0 100 200 METRES SCALE 50:1

NTS 93-G-7,8  
DATE APR, 1984  
BY J.C.R./r.w.

MAP 2.2.3



L 4574

L 4573

L 4572

2600

2900

NAVER

PULP HARVESTING

Backley

Creek

CLAIM BOUNDARY

CLAIM BOUNDARY

G 48

G 37

G 43

G 42

L 4572

L 7721

L 7714

2700

GOVERNMENT

Creek

uTJT

uTJT

uTJT

uTJT

GT315-quartz vein to 70cm  
GT314-Carbonatized sediments  
GT313-csch-phylite  
qtz v. 6-10cm  
GT310-Phylite-grey qtz, py  
clear qtz 2-4m

GT300-Tertiary soil  
qtz v. massive subbed  
zone

GT207-csch & phylite  
inbedded, qtz v. with pyrite  
0.5cm at 038/36W

GT208-apt w/in phylite py

Phyllite

Phyllite

Graphitic calcareous mudstone-GT306  
or -qtz v. py 10-30 cm-GT307

Graphitic or -qtz 50 cm

Graphitic or -qtz 50 cm

Graphitic or -qtz 50 cm

Graphitic or -qtz 50 cm

Graphitic or -qtz 50 cm

Graphitic or -qtz 50 cm

Graphitic or -qtz 50 cm

Graphitic or -qtz 50 cm

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Graphitic or -qtz 50 cm

Graphitic or -qtz 50 cm

Graphitic or -qtz 50 cm

VEIN  
-0.003  
oz / Au

VEIN  
-0.003  
oz / Au

VEIN  
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oz / Au

VEIN  
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oz / Au

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VEIN  
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oz / Au

LEGEND

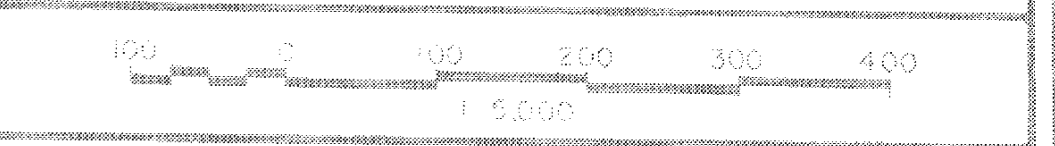
- ROCK TYPES AND T. 1:50
- ANDSITE, FLOW, TUFF, BRECCIA
- ARGILLITE
- CHERTS (massive banded)
- CONGLOMERATES
- GRANODIORITE, MONZONITE
- GRANITE, APLITE
- PROXIMATE SERPENTINITE
- QUARTZ (chert and sand)
- SCHIST - CLONITE, MICAL, TALC
- TERTIARY SANDSTONE
- PLEISTOCENE SEDIMENTS
- QUARTZIFIED SEDIMENTS
- TERTIARY
- EARLY (MEXICAN) - MOUNTAIN
- DIABASE, L. UNITE
- EARLY (MEXICAN) - MOUNTAIN
- DIABASE, L. UNITE
- MINOR GRANITE, SYENITE, GABBRO, PHONOITE
- CONTACT METAMORPHIC ZONE - MICAL SCHIST, QUARTZIFIED SEDIMENTS
- UPPER TRIASSIC LOWER JURASSIC
- IRON ORE - BRECCIA (IRONSTONE), DOLOMITE, TALC, QUARTZ, L. UNITE, L. UNITE
- UPPER TRIASSIC
- BLACK PHYLITE, SILTSTONE, LIMESTONE, QUARTZITE, SERPENTINITE, PERIDOTITE & SPHERULITE (GEM)
- POINTS 1/4" to 1/2" (incl. vertical)
- READING 1/4" to 1/2" (incl. vertical)
- FOLIATION
- FRACTURE
- CLEARING
- FOLD AXIS IN PLUNGE
- FAULT ZONE
- OUTCROP
- GEOLOGICAL STATION NUMBER

GEOLOGICAL BRANCH ASSESSMENT REPORT

12,211

GABRIEL RESOURCES INC. GOVERNMENT CK. PROPERTY

GEOLOGICAL MAP



DATE: JAN, 1982 - APR 84  
GTS: 02/1/82 - 12/31/82  
MAP: 2.2.4



MAP 3.2.3.1  
JOINS HERE

L66N,40E

G31

G29

60+00E

L 74 N

L 72 N

L 70 N

L 68 N

L 66 N

L 60 N

L 58 N

L 56 N

L 54 N

L 52 N

L 50 N

G 32

G 27

L 48 N

L 46 N

L 44 N

L 42 N

L 40 N

L 38 N

L 36 N

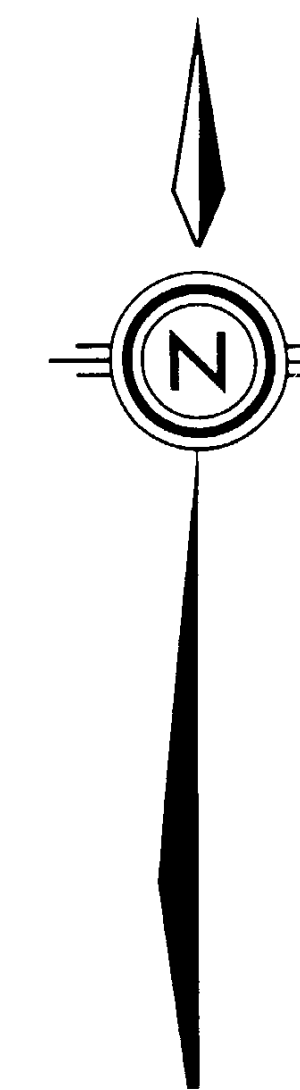
L 34 N

L 32 N

L 30 N

L 28 N

L 26 N



L66N  
L65N  
LEAN (SWR) DATA

SEE MAPS 3.1.2-6  
FOR DETAIL GEOCHEM

L 44+00N

BARBANK  
TRAIL

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

12,211

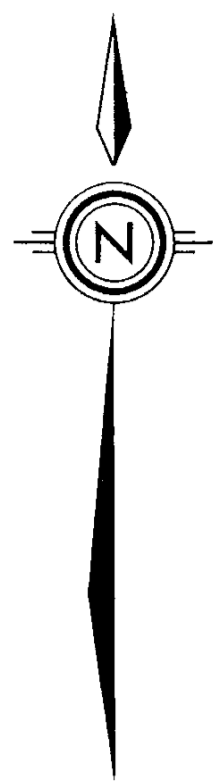
GABRIEL RESOURCES INC.  
ANIBAU PROPERTY  
G CLAIMS - CARIBOO MD - B.C.

GEOCHEMICAL SURVEY  
(Au & Sb)

0 100 200 300 400 500 METRES  
1:5,000

DATE: JAN; 1983 APR, 1984  
NTS: 93-G-1 JCR/rwr MAP 3.1.1

- LEGEND:
- SOIL SAMPLE LOCATION
  - GOLD VALUE ppb
  - ANTIMONY VALUE ppm
  - 1983 GOLD SAMPLE SITE (VALUES <10 ppb Au are not plotted)



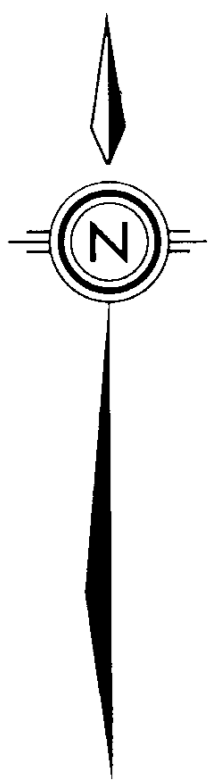
GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**12,211**

GABRIEL RESOURCES INC. AHBAU PROPERTY NORM GROUP - CARIBOO M.D. - B.C.		
THUNDER CREEK GRID GEOCHEMICAL SURVEY GOLD IN SOILS		
<p>SCALE 1:1000 (METRES)</p>		
DATE: APR. 84	J.C.R./r.w.r.	MAP 3.1.2

**LEGEND**  
 ANOMALOUS >= 30 ppt GOLD  
 THRESHOLD >= 20 ppt GOLD



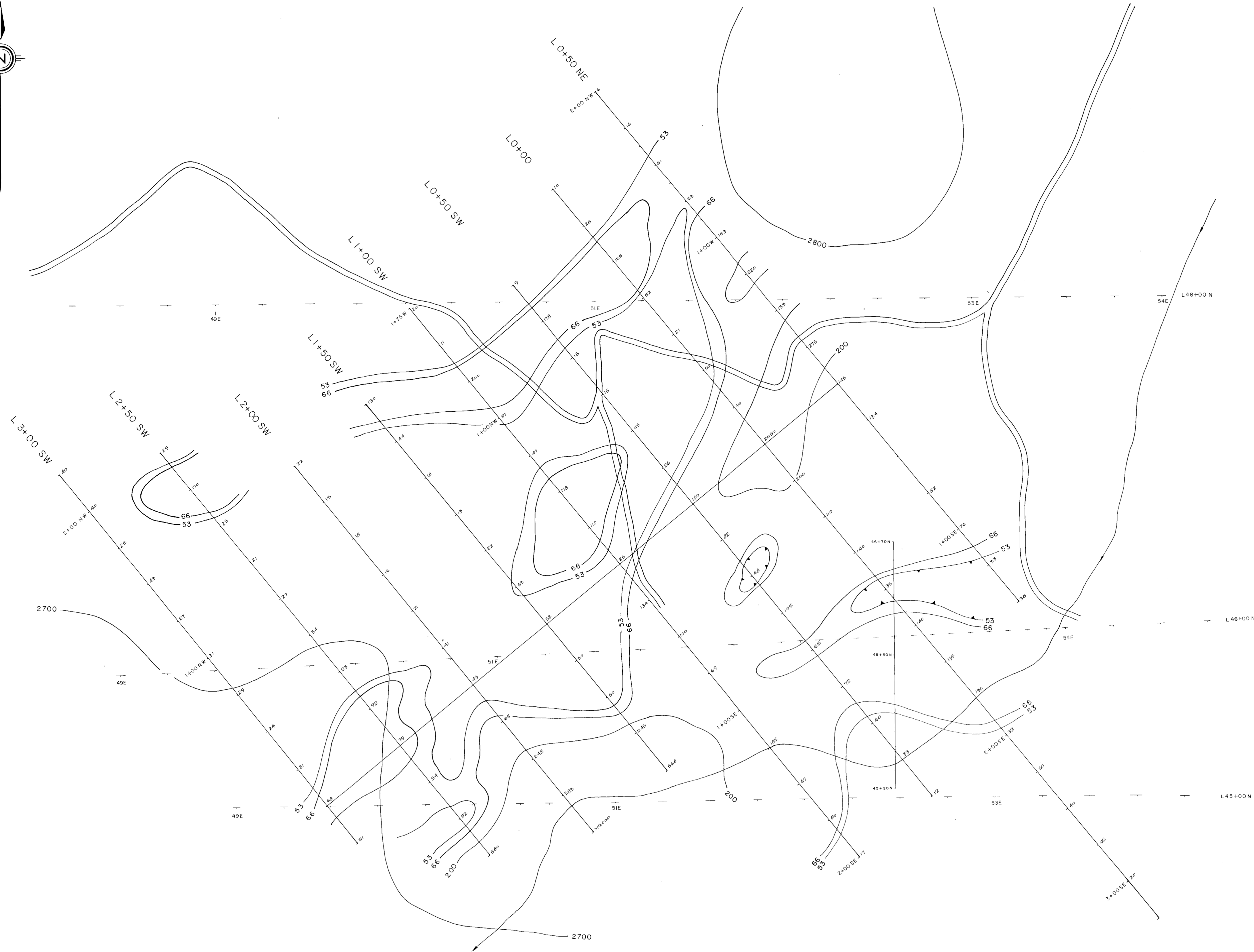
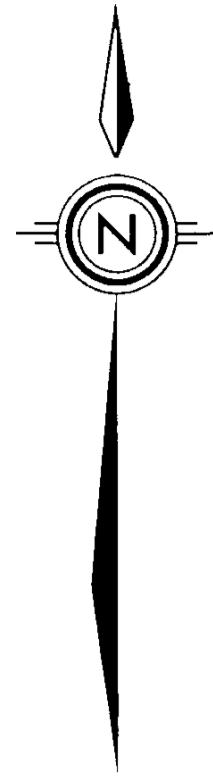


**LEGEND**  
— ANOMALOUS ≥125 ppm SILVER  
— THRESHOLD 2070 ppm SILVER

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

GABRIEL RESOURCES INC. AHBAU PROPERTY NORM GROUP - CARIBOO M.D. - B.C.	
THUNDER CREEK GRID GEOCHEMICAL SURVEY SILVER IN SOILS	
20 0 20 40 60 80 SCALE 1:1000 (METRES)	
DATE: APR. 84 NTS 93-G-1	J.C.R./r.w.r. MAP 3.1.3

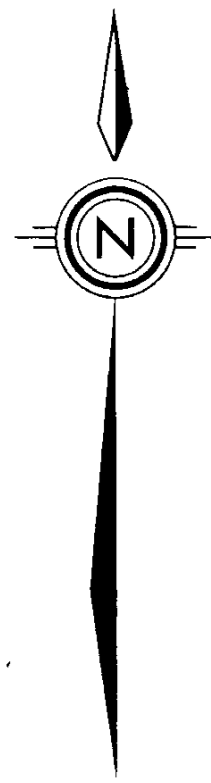


**LEGEND**  
— ANOMALOUS ≥ 66 ppm COPPER  
— THRESHOLD ≥ 53 ppm COPPER

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**12,211**

GABRIEL RESOURCES INC. AHBAU PROPERTY NORM GROUP - CARIBOO M.D. - B.C.		
THUNDER CREEK GRID GEOCHEMICAL SURVEY COPPER IN SOILS		
20 0 20 40 60 80 SCALE 1:1000 (METRES)		
DATE: APR. 84	J.C.R./r.w.r.	MAP 3.1.4

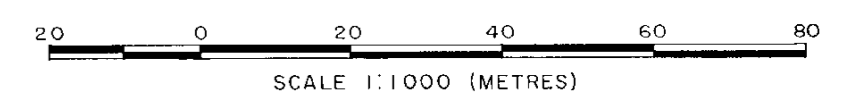


**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

GABRIEL RESOURCES INC.  
AHBAU PROPERTY  
NORM GROUP - CARIBOO M.D. - B.C.

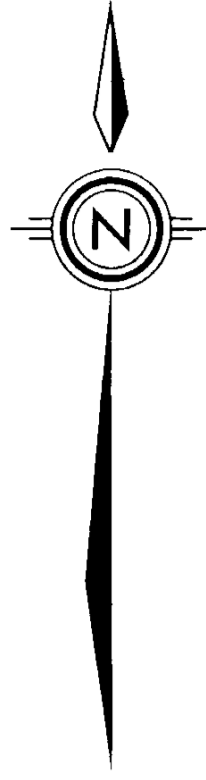
THUNDER CREEK GRID  
GEOCHEMICAL SURVEY  
LEAD IN SOILS



DATE: APR. 84  
NTS 93-6-1

J.C.R. / r.w.r.

MAP 315

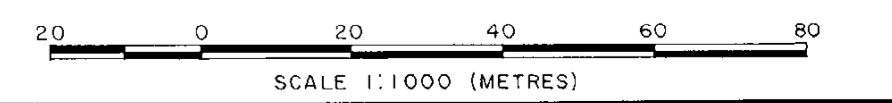


LEGEND  
ANOMALOUS  $\geq 120$ ppm ZINC  
THRESHOLD  $\geq 78$ ppm ZINC

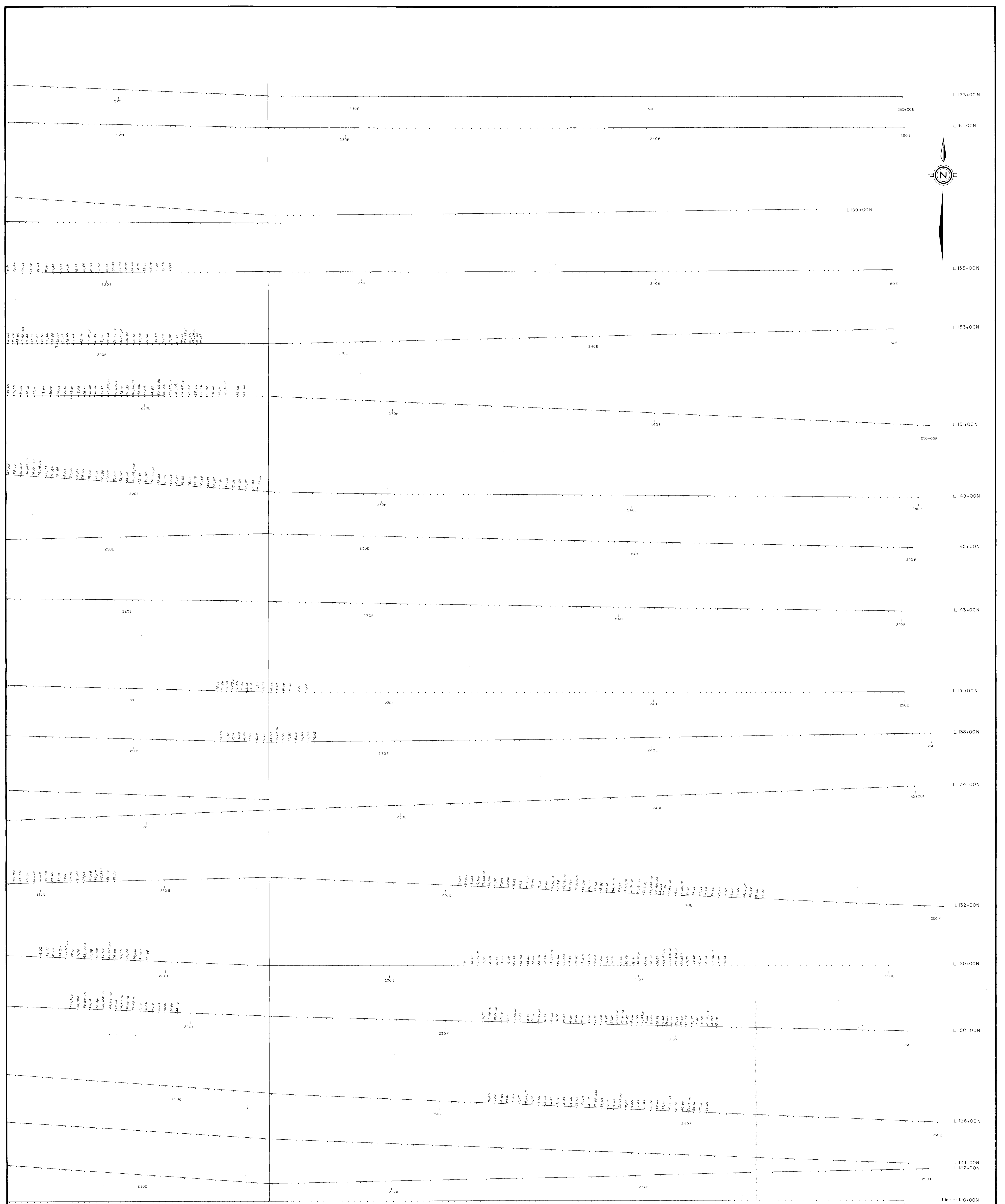
GEOLOGICAL BRANCH  
ASSESSMENT REPORT

12,211

GABRIEL RESOURCES INC.  
AHBAU PROPERTY  
NORM GROUP - CARIBOO M.D. - B.C.  
THUNDER CREEK GRID  
GEOCHEMICAL SURVEY  
ZINC IN SOILS



DATE: APR. 84  
NTS 93-G-1 J.C.R./r.w.r. MAP 3.1.6

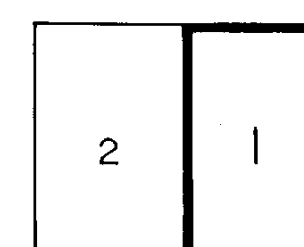


**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

**LEGEND:**  
 11,55,450 COPPER, ZINC, GOLD VALUES  
 1983 GOLD SAMPLE SITE  
 (VALUES <10 PPB NOT PLOTTED)

**MAP KEY**

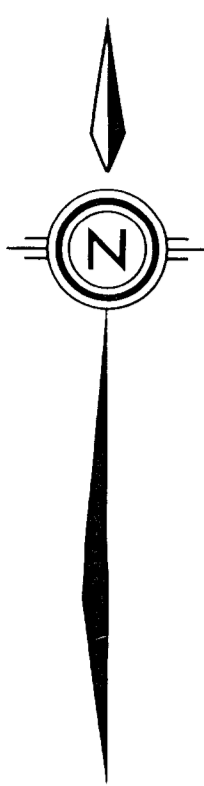


GABRIEL RESOURCES INC.  
 6 SOUTH & 6 CLAIMS - CARIBOO M.D. - B.C.

SOIL GEOCHEMICAL SURVEY  
 YARDLEY LAKE GRID  
 Cu & Zn RESULTS in p.p.m.  
 GOLD RESULTS in p.p.b.

0 100 200 300 400 500  
 1:5,000 Metres

DATE FEB 20, 1982 - APR 1984  
 NTS 93-C-8W MAP 3.1.7



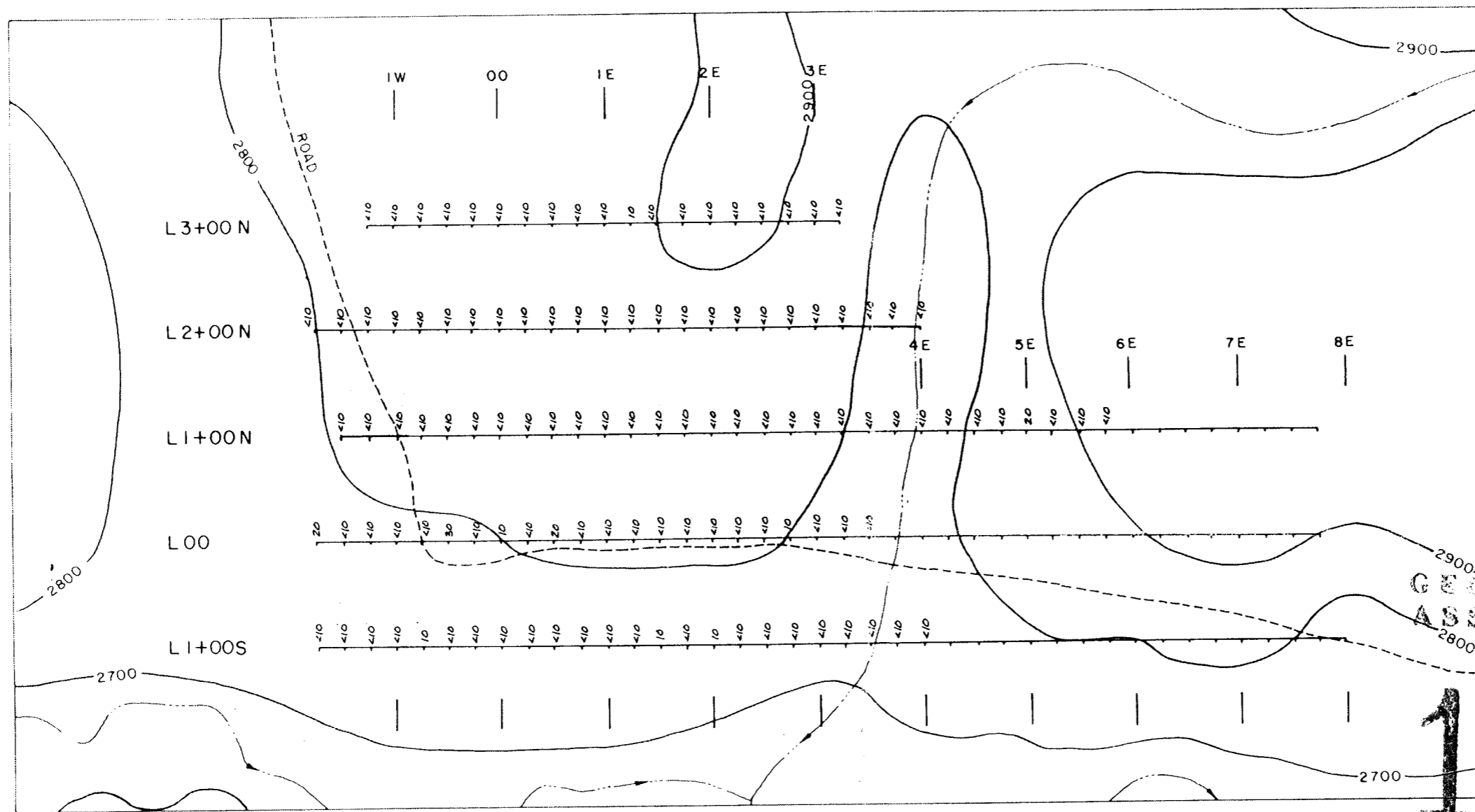
12,211  
 GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

LEGEND:  
34.95, 20 COPPER, ZINC, GOLD VALUES  
 1983 GOLD SAMPLE SITE  
 (VALUES 10ppb NOT PLOTTED)

MAP KEY  
 2 1

GABRIEL RESOURCES INC. G SOUTH & G CLAIMS - CARIBOO M.D. - B.C.	
SOIL GEOCHEMICAL SURVEY YARDLEY LAKE GRID Cu & Zn RESULTS in p.p.m. GOLD RESULTS in ppb.	
0 100 200 300 400 500 1:5,000 Metres	
DATE FEB-20, 1982 APR 1984 NTS 93-G-8W	MAP 3.1.B



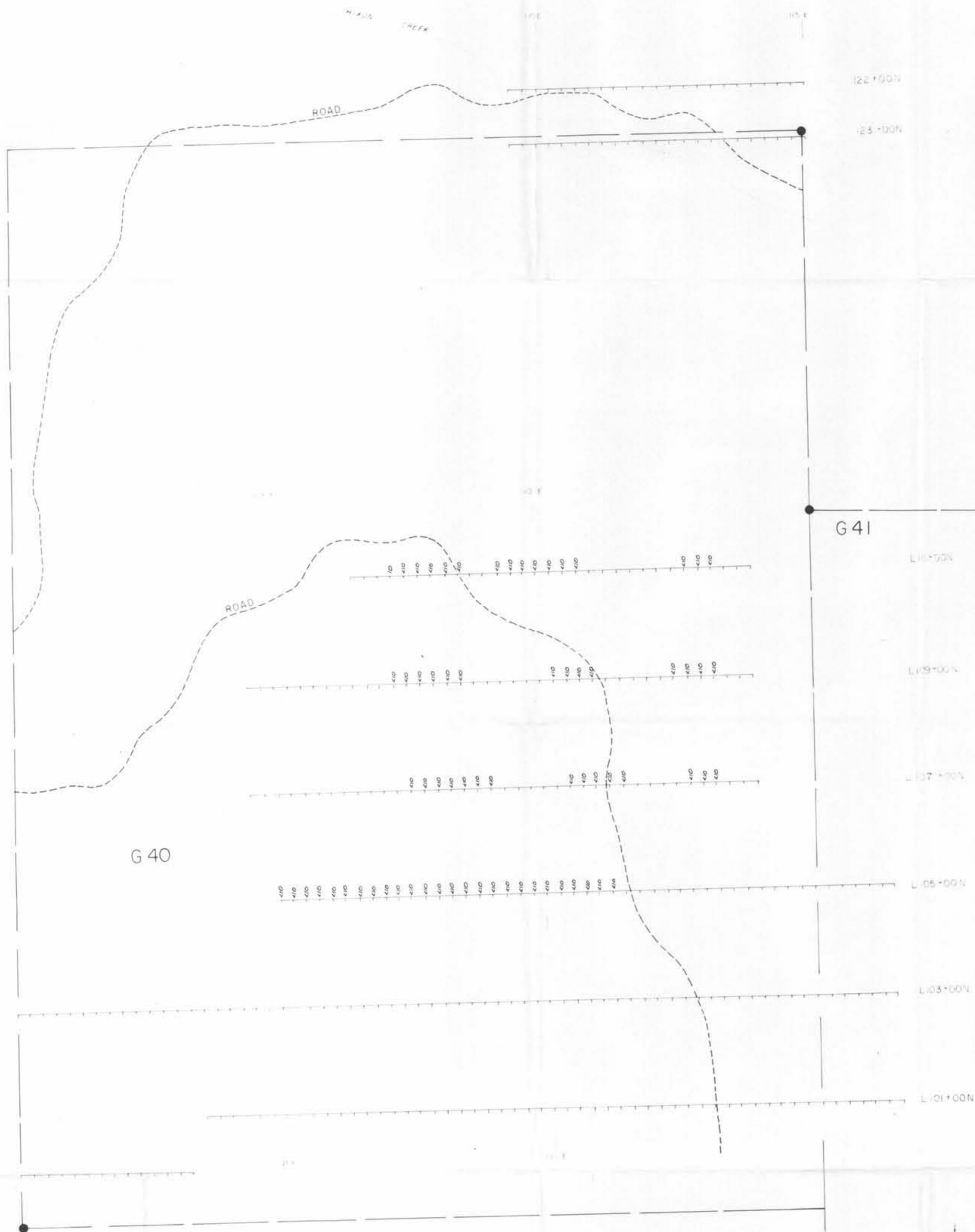


GEOLOGICAL BRANCH  
ASSESSMENT REPORT

12,211

NOTE: GOLD VALUES IN ppb

GABRIEL RESOURCES INC. YARDLEY LAKE AREA CARIBOO M.D.-B.C.	
TERRY CREEK GRID GEOCHEMICAL SURVEY GOLD IN SOILS	
0 100 200 METRES	SCALE 1:5000
NTS 93-G-7,8 DATE APR, 1984 BY: J.C.R./r.w.r.	
MAP 3.1.9	



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

GABRIEL RESOURCES INC.  
HIXON CREEK GRID  
G40 & 41 M.C. CARIBOO MD-BC

**GEOCHEMICAL SURVEY  
GOLD IN SOILS**  
(VALUES IN PPB)



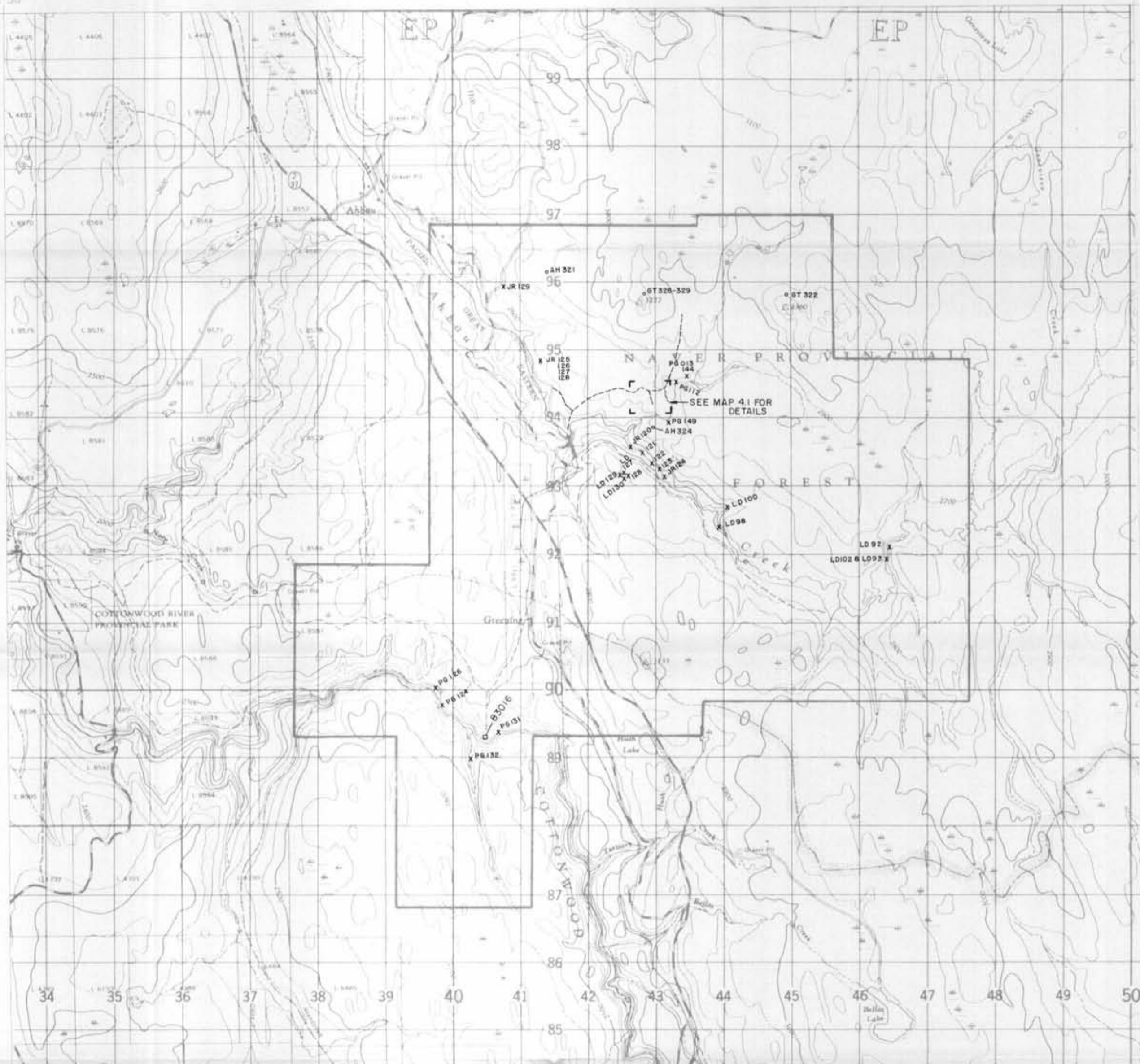
NTS 93-G-8  
DATE: APR 84 JCR/rwt MAP 3.1.10





53° 15' 22" 30'

122° 15' 53" 15'



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

GABRIEL RESOURCES INC.  
AHSU PROPERTY  
G CLAIMS - CARIBOO MD - B.C.

**LITHOGEOCHEMICAL SURVEY  
SAMPLE LOCATION MAP**

XJR 129 Sample site & number

D 1983 sample site.



DATE Nov. 8/81 Dec. 82 APR. 84

NTS: 93-G-1

J.C.R./rwr

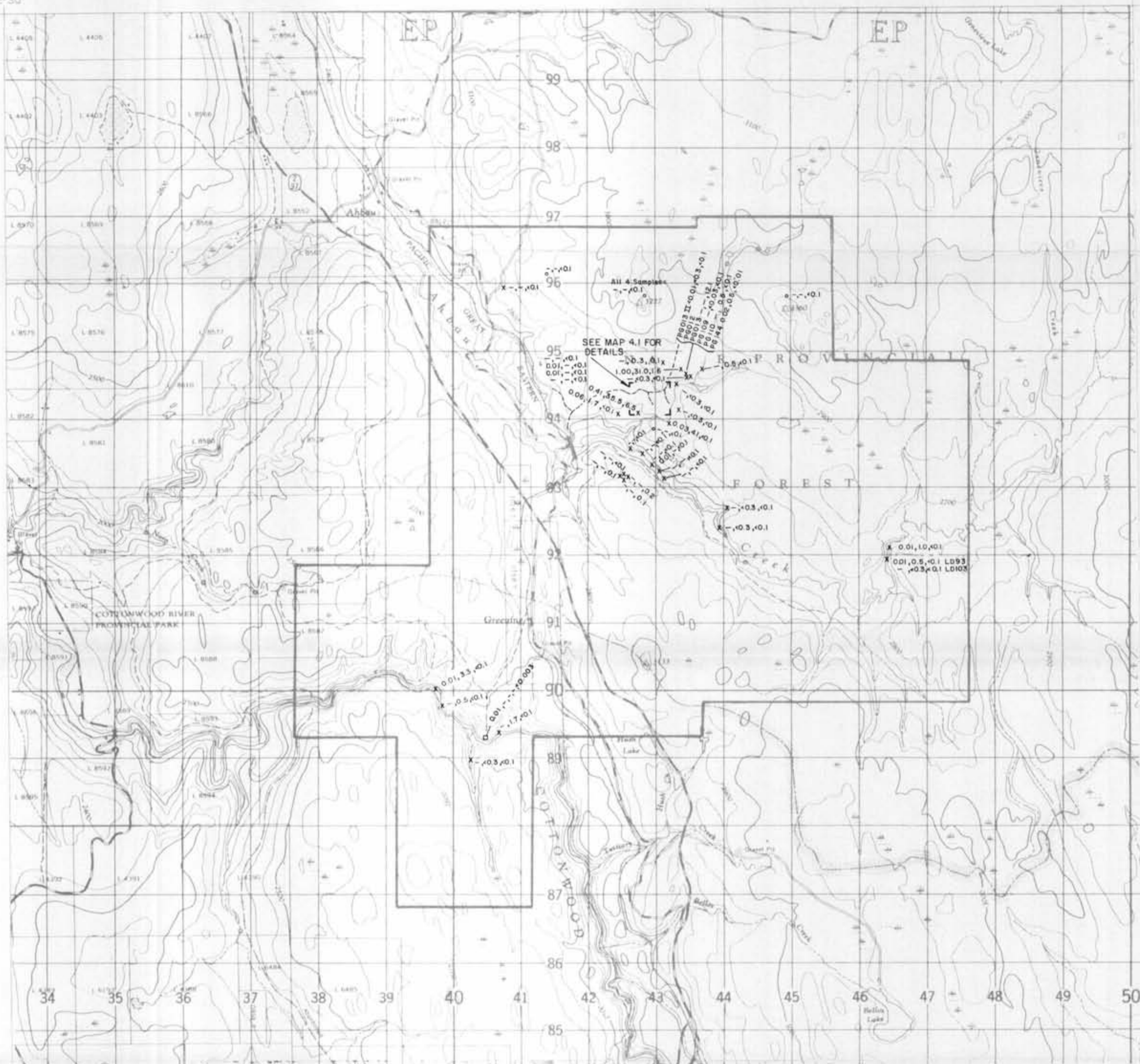
MAP 3.2.1





122°30'  
53°15'

122°15'  
53°15'



### GEOLOGICAL BRANCH ASSESSMENT REPORT

# 12,211

GABRIEL RESOURCES INC.  
AHBAU PROPERTY  
CLAIMS - CARIBOO MD - BC

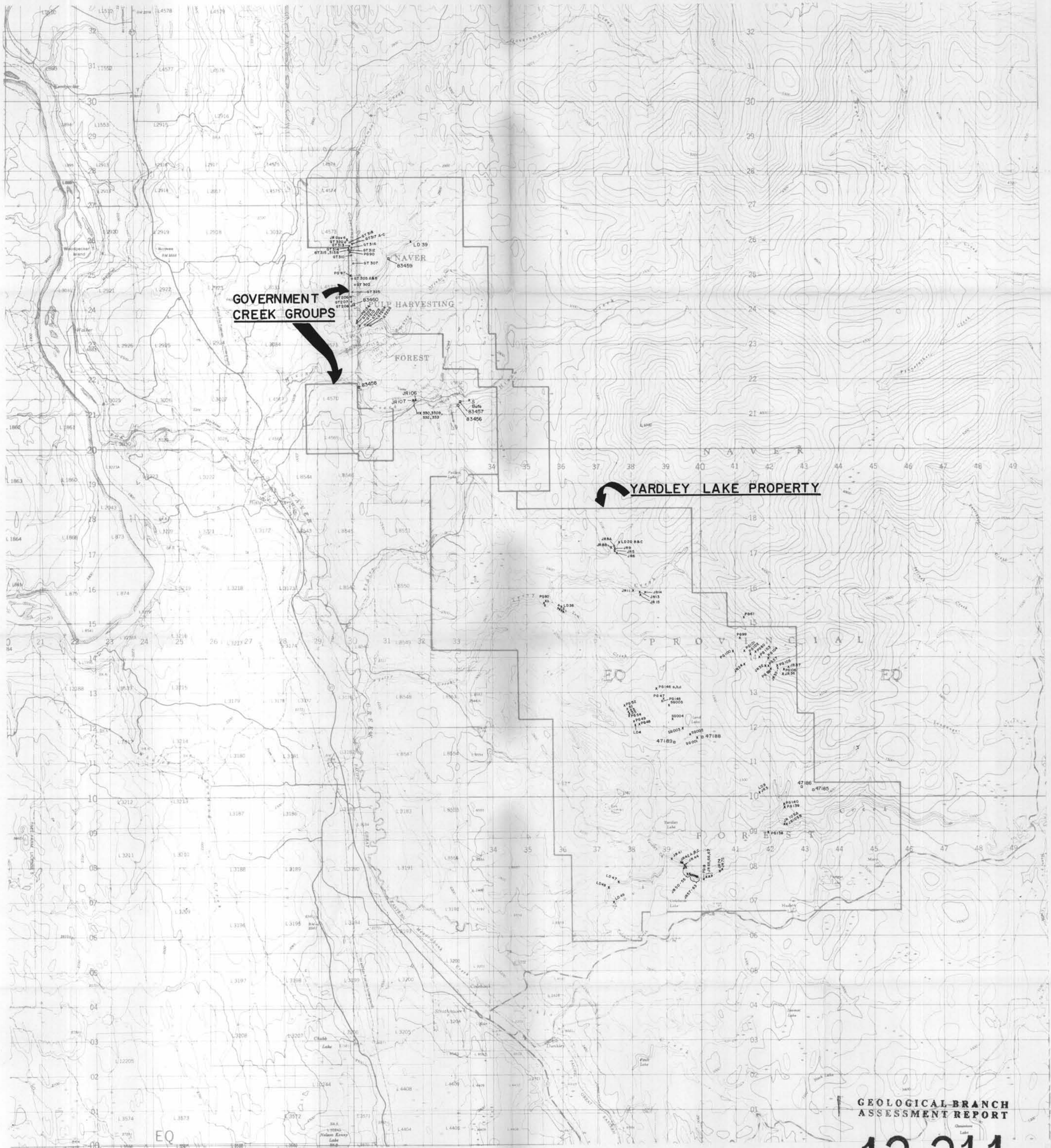
### LITHOGEOCHEMICAL SURVEY Cu, Ag, Au RESULTS

0.01, 1.7, 0.1 % Cu, gm/t Ag, gm/t Au  
x Dash = an element that has not been assayed  
o 1982 sample site  
o 0.01, 0.001, 0.0003 1983 sample site % Cu, % Pb, % Zn, oz./t Ag, oz./t Au

DATE Nov. 8/81 Dec. 82 APR. 84  
NTS 93-G-1 JCR/rwr

MAP 3.2.2





**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

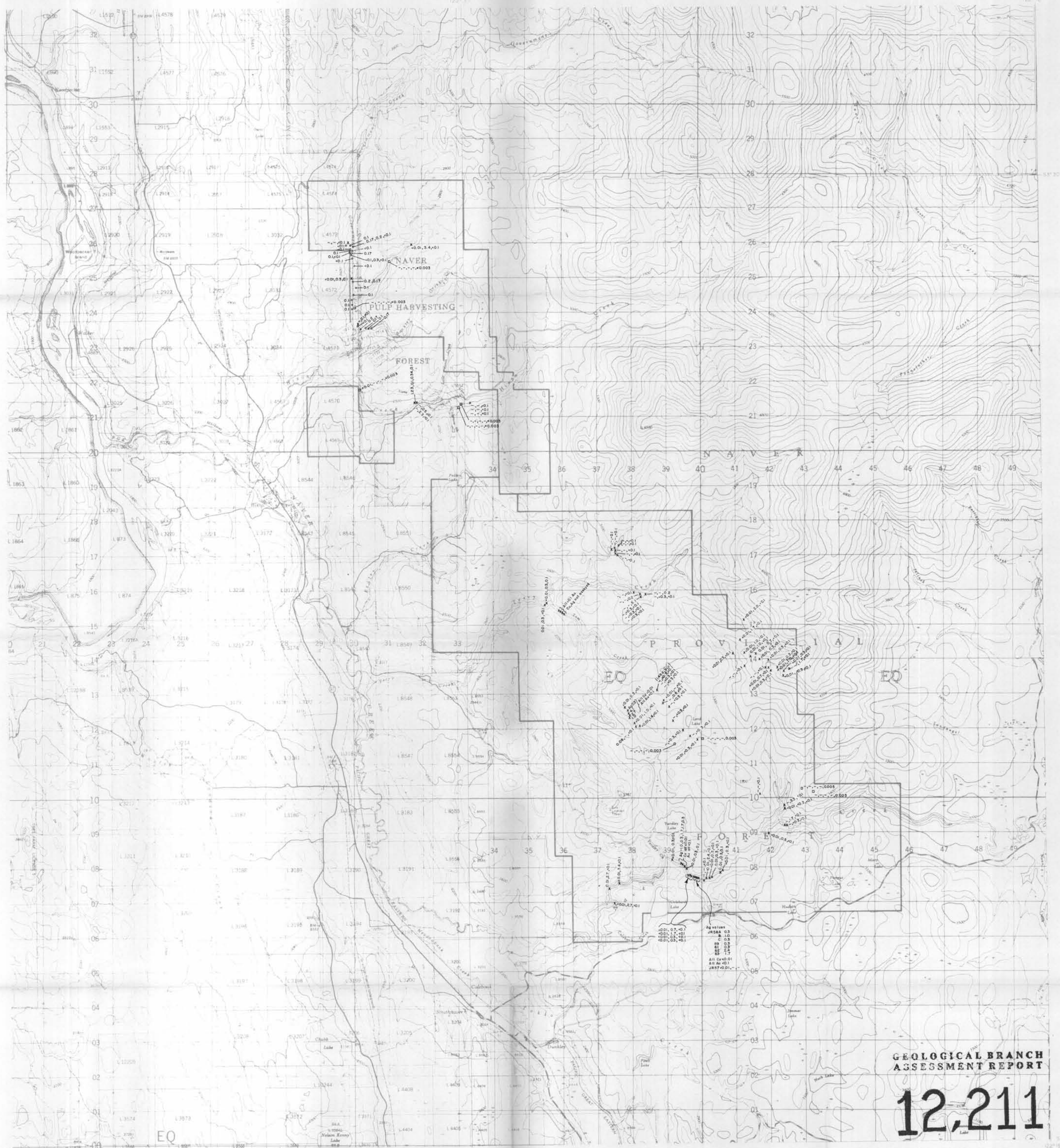
GABRIEL RESOURCES INC.  
GOVERNMENT CK & YARDLEY LK. PROPERTIES  
G SOUTH & G CLAIMS - CARIBOO MD - B.C.

**LITHOGEOCHEMICAL SURVEY  
SAMPLE LOCATION MAP**

LD 47  
x Sample site & number  
• 1982 sample site  
□ 1983 sample site

DATE Nov-8/81- Dec-82- APR. 84  
NTS. 93-C-789 JCR / rwr MAP 3.2.3





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

12,211

x 0.01, 1.7, 0.1 % Cu, gm/l Ag, gm/l Au  
- - - - - Dash = an element that has not been assayed  
• 1982 sample site (analysed for Gold only)  
□ 1983 sample % Cu, % Pb, % Zn, oz/l Ag, oz/l Au

GABRIEL RESOURCES INC.  
GOVERNMENT CK B YARDLEY LK. PROPERTIES  
G SOUTH & G CLAIMS - CARIBOO M.D. - B.C.

**LITHOGEOCHEMICAL SURVEY**  
**Cu, Ag, Au RESULTS**

DATE Nov-8;81 Dec-82 APR 84  
NTS: 93-G-7 B B J.C.R./rwr MAP 3.2.4





SAMPLE NR.	% Cu	% Pb	% Zn	Ag	Au	SAMPLE WIDTH (m)
47193	0.03	+0.01			0.003	3
47194	0.13	+0.01	0.01	0.11	0.032	3
47195	0.33	+0.01	0.01	1.02	0.278	0.07
47196	0.05	+0.01	0.02	0.06	0.010	1
47197	0.07	1.81	5.20	1.36	0.114	0.16
47198	+0.01	0.02			+0.003	1.84
47199	0.01	+0.01			+0.003	3
47200	+0.01	+0.01			+0.003	2
83069	0.02	+0.01			+0.003	3
83068	0.03	0.01	0.02	0.14	0.010	2.7
83067	0.55	0.34	0.23	3.99	0.430	0.6
83066	0.46	0.03	0.29	0.70	0.068	0.7
83065	1.40	0.05	0.07	2.03	0.334	1.9
83064	0.12	0.02	0.04	0.16	0.090	3
83063	+0.01	+0.01			+0.003	3
83055	0.01	+0.01			+0.003	3
83054	0.01	+0.01			+0.003	3
83056	0.02	+0.01			+0.003	3
83052	0.01	+0.01			+0.003	3
83053	0.01	+0.01			+0.003	3
83051	0.04	+0.01			+0.003	3
83058	0.08	+0.01			+0.003	0.2
83074	+0.01	+0.01	0.01	0.04	0.010	2.5
83073	+0.01	+0.01			+0.003	2
83072	0.02	+0.01			0.008	1
83071	0.03	+0.01			0.006	3
83070	0.01	+0.01			0.006	3
83062	0.02	+0.01	0.01	0.04	0.012	3
83061	+0.01	+0.01			+0.003	3
83060	0.05	+0.01			0.003	3
83059	0.03	+0.01			+0.003	3
83057	0.01	+0.01			+0.003	3
83075	0.01	+0.01			0.008	3
83076	0.02	+0.01			+0.003	2.5
83079	0.02	+0.01	0.01	0.06	0.012	3
83078	0.02	+0.01			0.008	3
83077	0.02	+0.01			0.003	3
83084	0.03	+0.01			0.003	3
83083	+0.01	+0.01			0.003	2
83082	+0.01	+0.01			+0.003	1
83080	0.02	+0.01	0.01	0.04	0.003	3
83081	0.03	+0.01			0.020	3
83088	0.16	0.04	0.17	0.29	0.140	1.9
83086	0.68	0.13	0.76	1.57	0.094	1.1
83087	0.08	+0.01	0.03	0.17	0.032	1
83089	0.31	+0.01	0.01	0.45	1.842	0.2
83090	+0.01	+0.01			0.003	0.8
83091	0.01	+0.01			0.005	0.7
83085	0.02	+0.01			0.005	3
83093	0.07	+0.01			0.003	2
83092	3.36	0.06	1.48	6.46	0.182	1.2
83451	0.04	+0.01			0.003	1.8
83452	0.01	+0.01			+0.003	3
83453	0.01	+0.01			+0.003	2
83455	+0.01	+0.01			+0.003	3
83454	+0.01	+0.01			0.003	3

x LITHOGEOCHEMICAL SAMPLE SITE  
 83463, 4.20, 0.01, 0.04, 1.02, 0.096 SAMPLE NR., % Cu, % Pb, % Zn, % Ag, Au

**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**

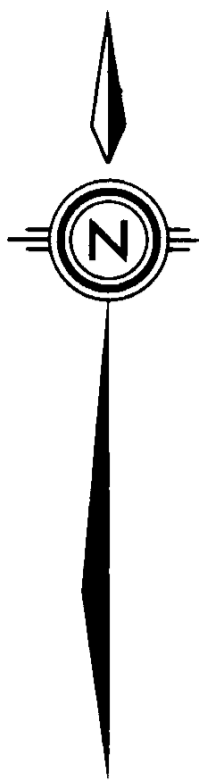
**12,211**

GABRIEL RESOURCES INC.  
 AHBADU PROPERTY  
 NORM GROUP - CARIBOO M.D. - B.C.

**THUNDER CREEK GRID  
 GEOLOGICAL, LITHOGEOCHEMICAL  
 & TRENCH SAMPLING MAP**

0 20 40 60 80  
 SCALE 1:1000 (METRES)

DATE: APR. 84  
 NTS 93-G-1 J.C.R./rwr. MAP 4.1



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

# 12,211

**LEGEND**

6+23 FRASER FILTER RESULT(%)

6-23 IN PHASE READING(%)

CONTOUR INTERVAL=10%

STATION 178 KM2, COTTIER MAINE

INSTRUMENT GEONICS EM-16

**GABRIEL RESOURCES INC.**  
 AHBAU PROPERTY  
 NORM GROUP - CARIBOO M.D. - B.C.

**THUNDER CREEK GRID  
 VLF-EM SURVEY  
 FRASER FILTER CONTOURS**

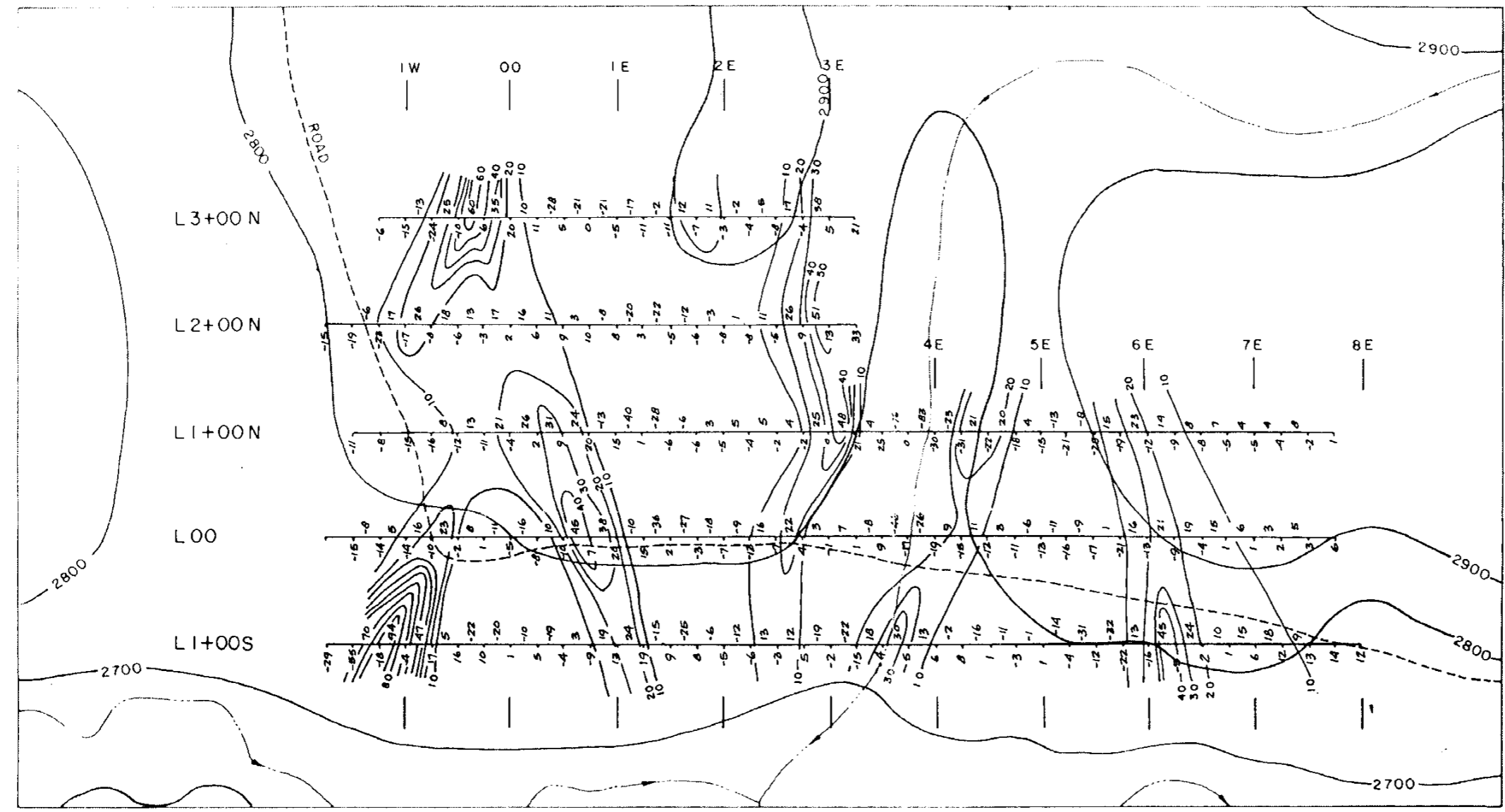
SCALE 1:1000 (METRES)

DATE: APR. 84  
 NTS 93-G-1 J.C.R./r.w.r. MAP 5.1.1



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

12.211



LEGEND:

- FRASER FILTER RESULT (%)
- IN-PHASE READINGS
- CONTOUR INTERVAL = 10°
- INSTRUMENT GEONICS EM-16
- STATION 24.8 KHz SEATTLE

GABRIEL RESOURCES INC.  
YARDLEY LAKE AREA  
CARIBOO M.D.-B.C.

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TERRY CREEK GRID  
VLF-EM SURVEY  
FRASER FILTER CONTOURS

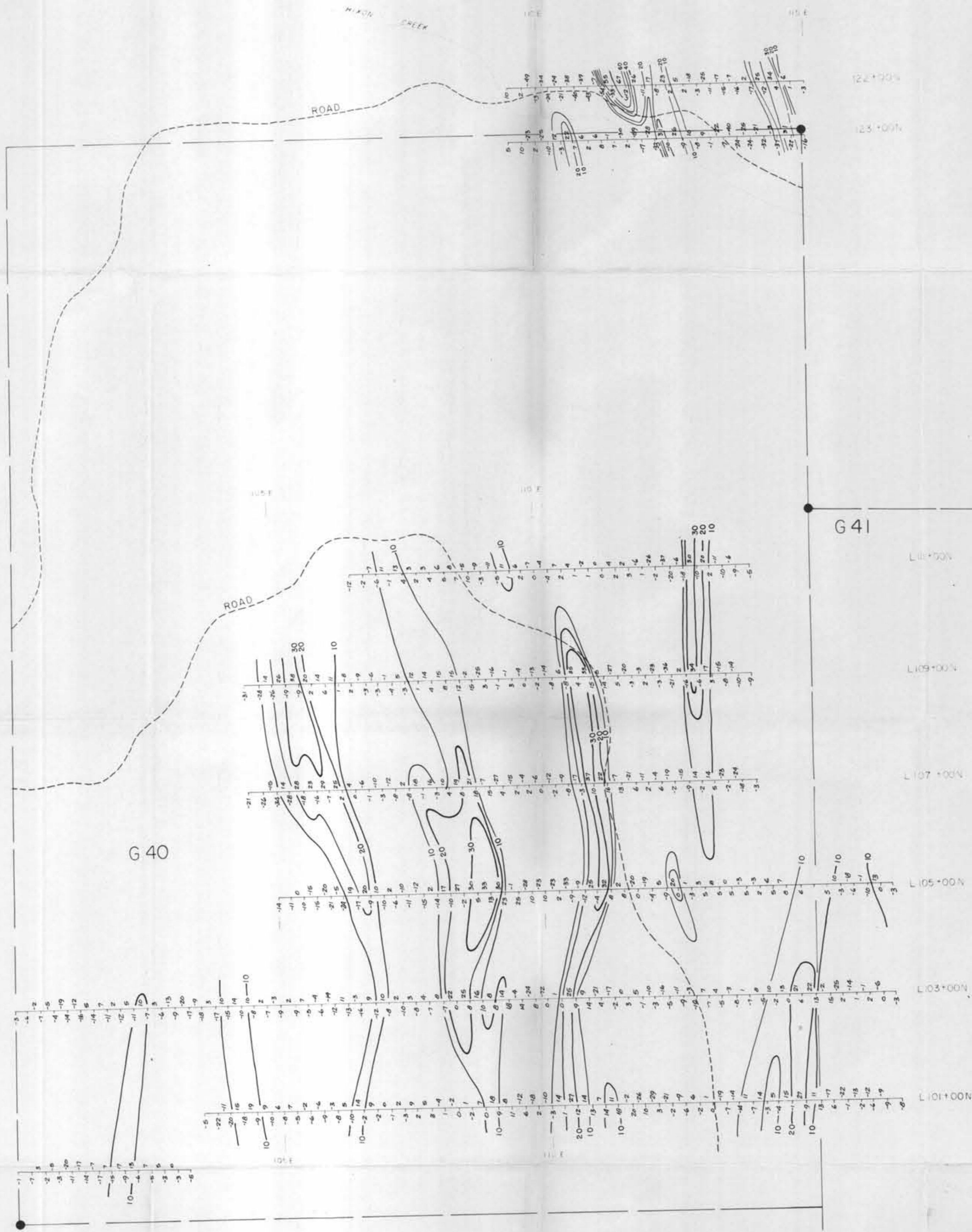
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0 100 200 METRES SCALE 1:5,000

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NTS 93-G-7,8  
DATE APR. 1984  
BY: J.C.R./r.w.r. MAP 5.1.2





**LEGEND:**

FRASER FILTER RESULT (%)  
 IN-PHASE READINGS (%)

CONTOUR INTERVAL = 10%

STATION 248 KHz SEATTLE

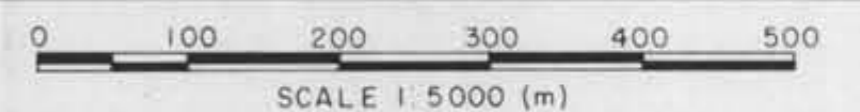
INSTRUMENT: GEONICS EM-16

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,211**

GABRIEL RESOURCES INC.  
HIXON CREEK GRID  
G40 & 41 M.C. CARIBOO MD-BC

**VLF-EM SURVEY  
FRASER FILTER CONTOURS (%)**



NTS 93-G-7

DATE APR 84

J.G.R./rwr

MAP 5.1.3