

LOG NO: 0522.	RD. 1
ACTION: Date received back from amendment	
FILE NO:	

LOG NO: 0119	RD.
ACTION:	
FILE NO:	

AU - 1 & 2 CLAIMS

ISKUT RIVER - SULPHURETS MINING CAMP

FILMED

Province of BRITISH COLUMBIA

NTS 104 B / 10

56° ~~37~~' N 39' 00"
130° ~~40~~' W 43' 30"

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,573

Prepared for: BRAZOS PETROLEUM CORP.
3773 - 19th Street N.E.
Calgary, Alberta
T2E 6S8

Prepared by: Hughes P. SALAT, P. ENG.
5904 Dalhousie Drive N.W.
Calgary, Alberta
T3A 1T1

NOVEMBER 27, 1989

TABLE OF CONTENT

1 -	Property description	page 1
2 -	Introduction	1
3 -	Physiography and Access	3
4 -	Geological setting	3
5 -	Property geology	4
	5 -1 The intrusive rocks	6
	5 -2 The layered volcanic and sedimentary formations	6
6 -	Structure	6
7 -	Alteration	7
8 -	Mineralization	7
9 -	Geochemical sampling and analysis	8
10-	Conclusions	10
11-	Recommendations	10
	Statement of expenditures for 1989 exploration work	11
	References	12
Figures	1 - location map	2
	2 - Geological map	5
	3 - Geochemical sampling locations	9
	4 - Geochemical results (in pocket)	
Plate	1 - Stop 6 - graded/cross-bedded tuffaceous sandstone	13
Certificate		14
Appendices I	- Thin section study	
	II - Assay results	
	III - Analytical procedures	

1 - PROPERTY DESCRIPTION

The claims under investigation are the following:

<u>claim name</u>	<u>Record #</u>	<u>Expiry date</u>	<u>Mining Division</u>
AU - 1	5710	Jan. 19, 1990	Liard
AU - 2	5711	Jan. 19, 1990	Liard

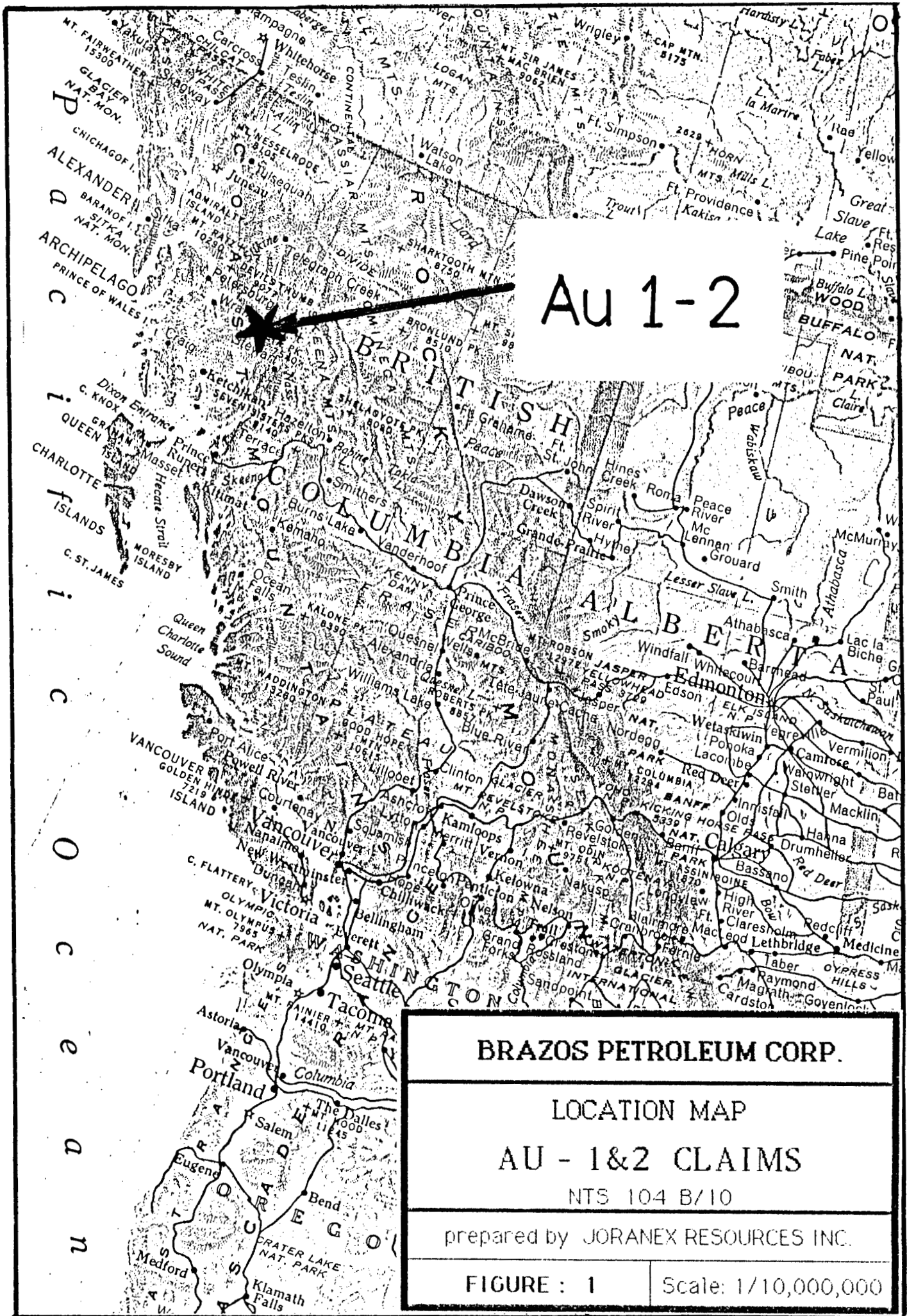
These claims are located within the presently very active Iskut River - Sulphurets Mining Camp in the Northwestern part of British Columbia (NTS 104 B /10), North of Prince Rupert and only 80 km North of the sea-port of Steward (see Figure 1).

2 - INTRODUCTION.

Exploration in the district goes back to 1893 when placer miners prospected the Unuk River and adjacent areas toward the Iskut River on their way to the Klondike Fields.

In the early part of this century, several major gold discoveries were made near Steward, in N.W. British Columbia, and along the lower reaches of the Iskut River. One of them, the Johnny Mountains Mine was subjected to some underground works. Recently, a flurry of exploration has re-opened the old working and turned the area into a major gold exploration Camp, with some promising prospects (Stikine, Inel, Eskay, Sulphuret).

The AU - 1 & 2 claims staked by Brazos Petroleum Corp. of Calgary, are located in close vicinity to these major deposits.



Au 1-2

BRAZOS PETROLEUM CORP.

LOCATION MAP

AU - 1&2 CLAIMS

NTS 104 B/10

prepared by JORANEX RESOURCES INC.

FIGURE : 1

Scale: 1/10,000,000

3 - PHYSIOGRAPHY AND ACCESS.

The terrane in the North western part of British Columbia near the border with Alaska, consists of rugged mountains belonging to the Coast Ranges. Although of medium heights, heavy snowfalls and northern latitudes contribute to the large extent of glaciers capping most of mountain tops, lower reaches and stretching far into the valleys where they terminate into long moraines

Wide U-shaped valleys are the trademark of dissection by the glaciers. While larger river systems occupy broad valleys and their wide braided sandbars provide flat fluvial terraces, their tributaries flowing from snowy ranges have dissected into their glacial moraine and oversteepened their banks often into inaccessible canyons.

Vegetation consists of spruce and pine trees on lower slopes up to 1500 meters elevation where it is replaced by alpine eco-systems. In valley bottom, and especially in avalanche areas the trees are intermixed or replaced by very thick, impenetrable alders (buck-brush) and devil's club, making progress at time impossible, at best very tedious.

Access to the claims, away from trails or roads, is restricted to helicopter drop-off either on mountain ridges or at bottom of valley.

4 - GEOLOGICAL SETTING.

The rock formations underlying the ground around Iskut and Unuk rivers, are a mixture of volcanics and mostly clastic sediments making the bulk of an "euogeosynclinal" succession, ranging in age from upper Triassic to late Jurassic.

This package of rock formations constitutes the western border of "Stikinia". This term applies to an uplifted arch through which the older Triassic units are exposed within the wider Intramontane tectono-stratigraphic assemblage, which makes up the framework of the Interior Plateaus and Mountains of British Columbia.

Stratigraphy of the region can be divided into four major units which are from base to top:

- The **Takla Group** (upper Triassic) of conglomerate, sandstone and siltstone intermixed with some volcanic elements.
- The **Unuk River Formation** (lower Jurassic) made of volcanic breccia and tuff as well as conglomerate and sandstone
- The **Betty Creek Formation** with its pillow lavas, green and purple volcanic breccia and some sandstone and siltstone.
- The **Salsou River Formation**, clearly transgressive on older units, is composed of greywacke, sandstone and argillite.

The last three units are lumped together into the **Hazelton Group** for correlative purpose across the Province of British Columbia.

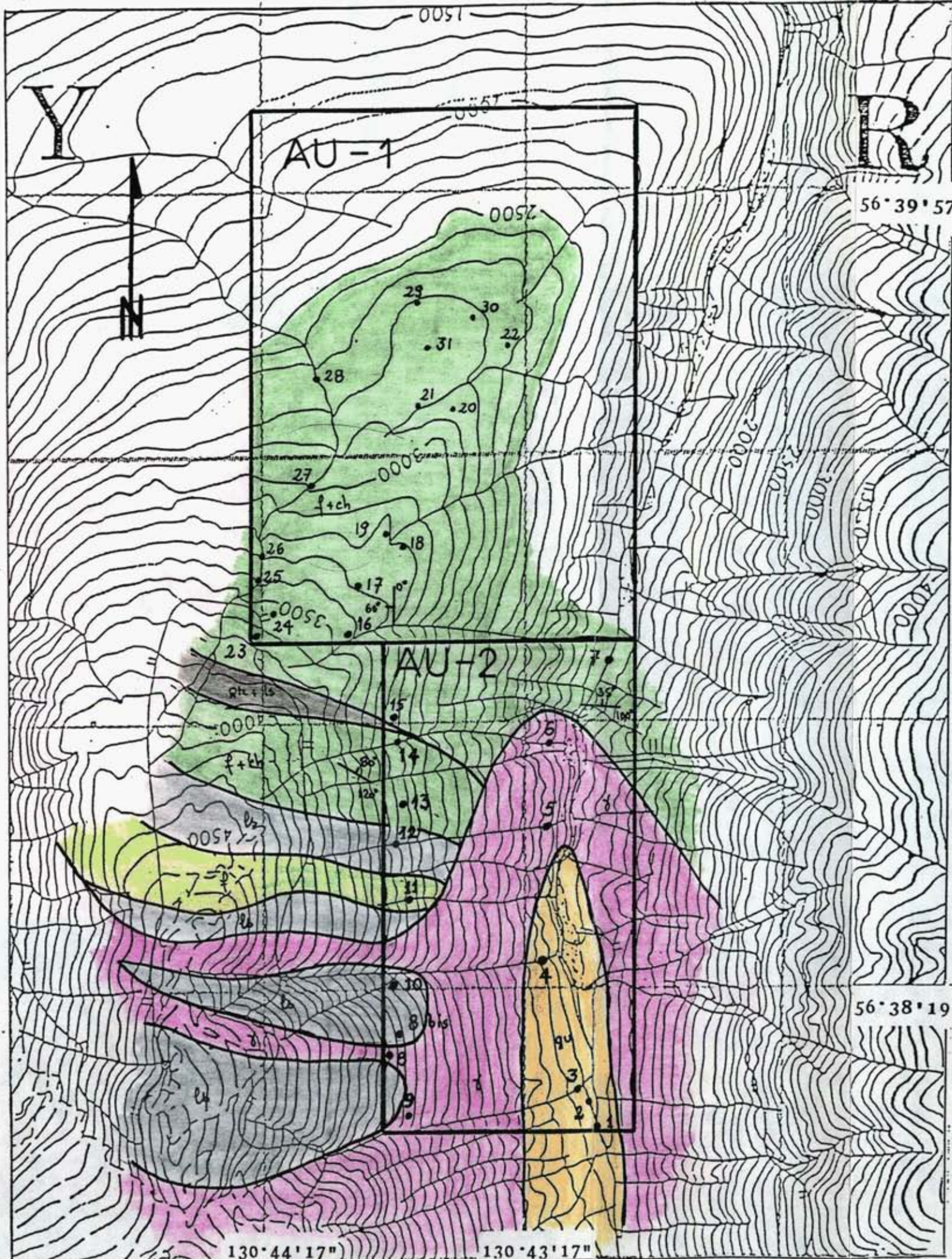
In turn, the volcanic layers and sediments have been successively intruded by granodioritic plugs from the time of middle Jurassic until the Tertiary. These local igneous intrusions are easterly expressions of the main Coast Range Batholith protruding just a little distance away to the West. The larger intrusive stocks found in the area range from monzonite to quartz diorite in composition while the smaller ones present a more basic chemistry like diorite or gabbro.

5 - PROPERTY GEOLOGY.-(figure 2)

Mapping of Au-1 and Au-2 claims have brought to light a much different picture than that one presented by Grove's map (1986), on which the area is shown to be entirely covered with Unuk River Formation (Lower Jurassic).

Indeed, all the head valley of the creek flowing North-South through the property, is underlain by a medium-grained hornblend granodiorite, which in fact extends as far as Snippaker Creek and peaks up as steep serrated summits through the wide alpine glaciers just to the south.

The granodiorite crops out on both side of the valley but toward the last third of the slope toward the ridge, remnants, then continuous sequence, of sediments and interlayered volcanics rocks rest above the granitoid stock. The contact can be followed very distinctly, horizontal at first and then nearly vertical. North of the border between Au-1 and Au-2, it is a continuous outcropping of volcano-sedimentary units.

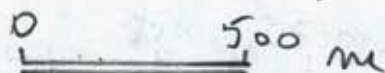


LEGEND

- qu moraine deposits
- γ granodiorite

Unuk River Formation

- f-ch felsic tuffs, chert, minor argillite
- qz-ls quartzite, limestone
- f felsic tuffs
- ls limestone
- bedding attitude
- stop point



BRAZOS PETROLEUM CORP.

GEOLOGICAL MAP
AU - 1 & 2 CLAIMS

NTS 104 B/10

prepared by JORANEX RES. Inc.

Figure: 2

Scale: 1/17,500

5-1- The intrusive rocks

On the property two types of cogenetic plutonic rocks are encountered. The first one constitutes the huge masses of intrusive hornblend granodiorite mentioned above. Massive and lightly jointed, the stock shows some shearing or at least a strong mineral lineation near the contact with surrounding country-rock, and oftenly is laced with thin seams of epidote. Near its contact, it takes frequently on a leucocratic phase, although its colour is uniformly whitish grey, and contains numerous enclaves.

The second type of related intrusive comprises a number of small, more or less vertical, dikes of microsyenite cutting through the overlying sediments.

5-2 The layered volcanic and sedimentary formations.

Observations at stop 6 of cross-bedding, graded-bedding as well as load features at stop 16, indicate the succession of mostly isoclinal layers, to be in normal position with younging toward the West and North.

In broad terms, therefore, the sequence is composed of limy beds at the base, often marbledized and epidotized where resting directly on granodiorite. Then, the content of felsic and rhyolitic tuffs increase upward, interlayered with black chert and argillite, often pyritic. Toward the top, trachytic lava and crystal tuffs are predominant lithologies. Within the basal part of the succession, slivers and sheets of granodiorite are frequently interlayered.

6 - STRUCTURE

The general attitude of beds over the claim area is monoclinial with dips toward the East and N.E. However, in proximity to the granodioritic intrusive stocks, some minor refolding is encountered and on the crest of the ridge (stop.23) a strong vergence to the west is indicated.

The regional folding has not induced any pervasive foliation. Nevertheless, measurements of tension gashes demonstrate the primary compressive stress is to the N.E.. Subsequently, the granitic intrusion has provoked minor re-adjustments and kinked folding with a main N.-S. component, as it warps the overlying formations around its apex.

Late jointing in the granodiorite and quartz veining have superimposed a distinct fracturing in the area, with a N70°E direction. It explains the linear features so well observed in aerial photograph.

7 - ALTERATION

Only moderate alteration was discovered; it affects mainly the granodiorite stock, and increases in intensity near contact with country-rocks. Alteration at first diffuse, become more and more intense with increasing amount of epidote seams. First in joints, epidote invades the rock and replaces chloritized hornblend; it also pervades the skarnified limestone at contact, and turns them into a greenish "epidotite".

8 - MINERALIZATION

Three types of sulfide mineralization have been discovered over the AU-1 and AU-2 property.

1. very disseminated pyrite in leucocratic phase of the granodiorite, imparting a pink to brown-red color to outcrops. When such intrusive facies comes to contact with limestone or skarn, the latter are turned into ankeritic rock. However, a soil sample taken downslope from such granodioritic outcrop reveals some trace amount of gold (sample Au 1/2 - 10 with 80 ppb Au) while sampling over ankeritic rich limestone turned out barren (sample Au1/2 -15).

2. pyrite rich siliceous argillite and felsic tuffs, with thin layers (1-2 m/m) of massive sulfides and blebs (2-3 cm) of same. This type has been mainly encountered as angular rubbles from side of

mountain; samples Au 2/1 Rx-1, Rx-4 and outcrop samples Rx-7, Rx-16, Rx-23 belong to this category. Rx-1 and Rx-4 contains interesting amount of gold (0.008 oz/T or 270 ppb) with some Copper, and Molybdenum for Rx-1.

3. most interesting in-place quartz veining, evidently dilational and late phase. They form a conjugate set at N075°E, and at N110° - 130° E, both steeply dipping to the South, and hold disseminated pyrite and chalcopyrite. This set of veining is well marked on air photo as straight features and can be use as a further guide for prospecting.

Assays of samples from such veins are represented by Rx - 22, Rx - 25 and Rx - 26, all containing between 0.004 oz/T (190 ppb) and 0.008 oz/T (275 ppb). Of particular interest, are Rx - 26 with 0.17% Cu and Rx - 22 with indication of arsenopyrite.

9- Geochemical sampling and analysis.

In the course of the first phase of exploration and mapping reported here, it was thought necessary to sample the catchment medium most appropriate to the property.

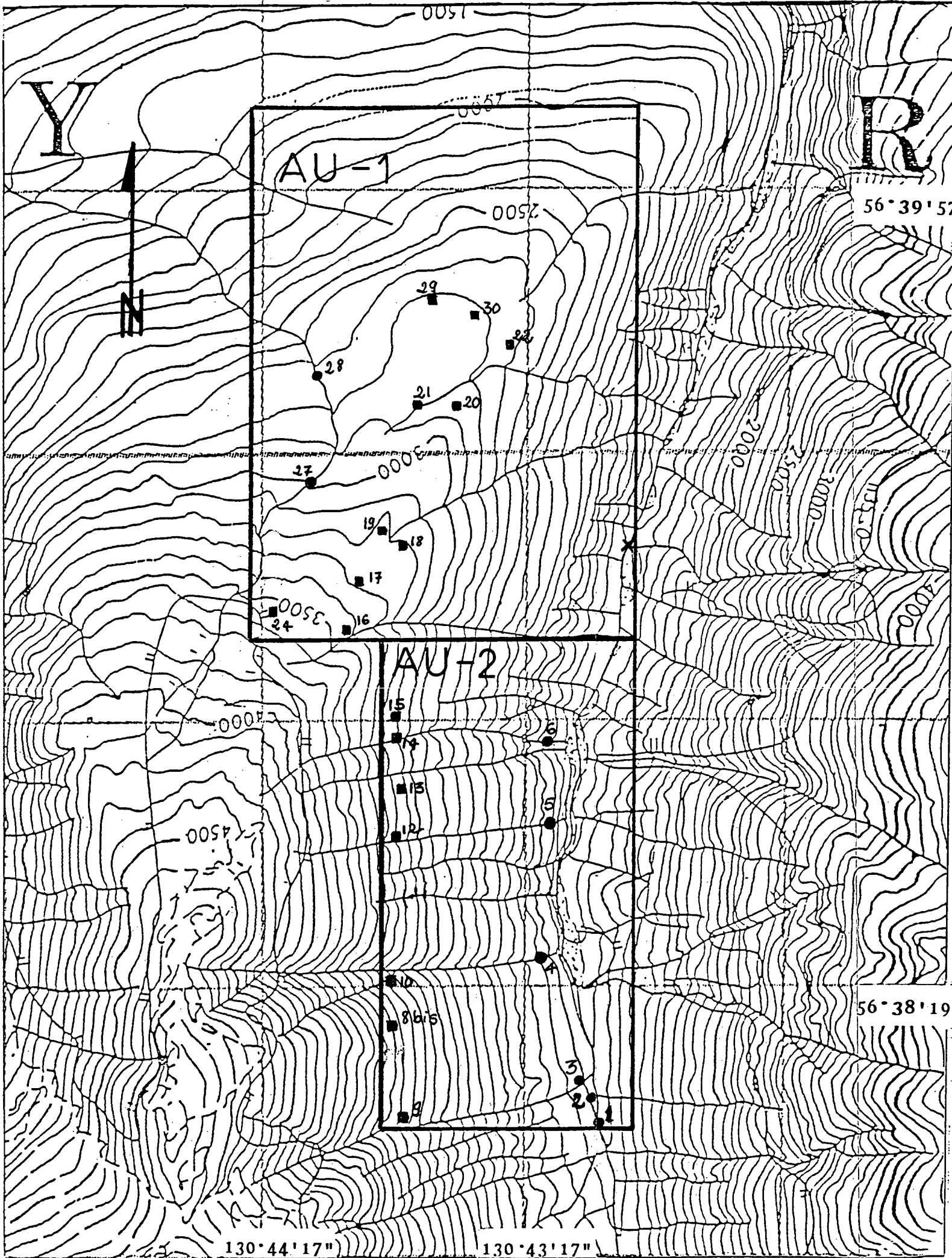
Two type of sample were collected (see figure 3):

- silt samples and one major 10 kg sample for heavy mineral separation at the point where the main stream was flowing away from the claims area to the North. (Samples Au 2/1 - 1 to 6).

- soil samples at top of ridge or along side where some vegetation helps create comminution of rock horizon and retention of trace elements. (Samples Au 2/1 - 8 bis to 30).

It is interesting to note that samples taken within the influence of sediment and layered volcanic tuffs display a higher background in Zn. However, one sample near an oxidized leucogranodiorite outcrop, in contact with marble, Rx - 10, shows elevated tenor in gold (80 ppb) and Cu (272 ppm), which points toward metallic concentration processus.

It remains that the most valuable information, whereas less specific than the one above, is given by the very strong results obtained in stream sediments samples, Au 2/1 - 2,3,4 and culminating with Au 2/1 - 6 with 675 ppb (0.02 oz/T) gold, confirmed by heavy mineral separation (Au 2/1 - 200 sink: more than 1000 ppb - 0.03 oz/T Au) .By itself, this sample warrants a more detailed prospection of the area.



LEGEND

- Stream sediment sample
- Soil or talus fine sample
- X Large stream sample (for heavy liquid separation)

BRAZOS PETROLEUM CORP.	
GEOCHEMICAL SAMPLING LOCATIONS	
AU - 1 & 2 CLAIMS	
NTS 104 B/10	
prepared by JORANEX RES. Inc.	
Figure: 3	Scale: 1/17,500

10 - CONCLUSIONS

Although major mineralizations have not been discovered in this first phase of exploration, mapping, prospecting and silt sampling have indicated a good potential for hosting Gold - Copper deposit.

- 1 - property underlain by fine-grained sediment and volcanic tuffs often rich in pyrite, capping a late granodioritic stock, itself showing heavy epidote alteration.
- 2 - minor dilational quartz veinings containing pyrite, arsenopyrite and chalcopyrite with gold indications.
- 3 - silt stream sediments pointing toward the existence and proximity of gold mineralization within the boundary of the Au - 1 and Au - 2 claims

11 - RECOMMENDATIONS

Consequently to the strong presumption of gold mineralization within the Au - 1 and Au - 2 claims, and considering the rugged topography, the following recommendations are made:

- a short program, 4 linear kms at 200 m spacing, MAG-EM heliborne survey with the Dighem system, to analyze resistive and conductive bodies.
- a line cutting of a grid, approximately 6 km, in total, over the more gently sloping northern part of Au - 1 claim.
- a detailed soil survey along the cut out grid.
- a detailed prospecting, with help of ropes and harness along the more difficult slopes along the North flowing creek.

Such a program should be able to delineate the presence of mineralization. Its total cost is estimated at \$30,000.

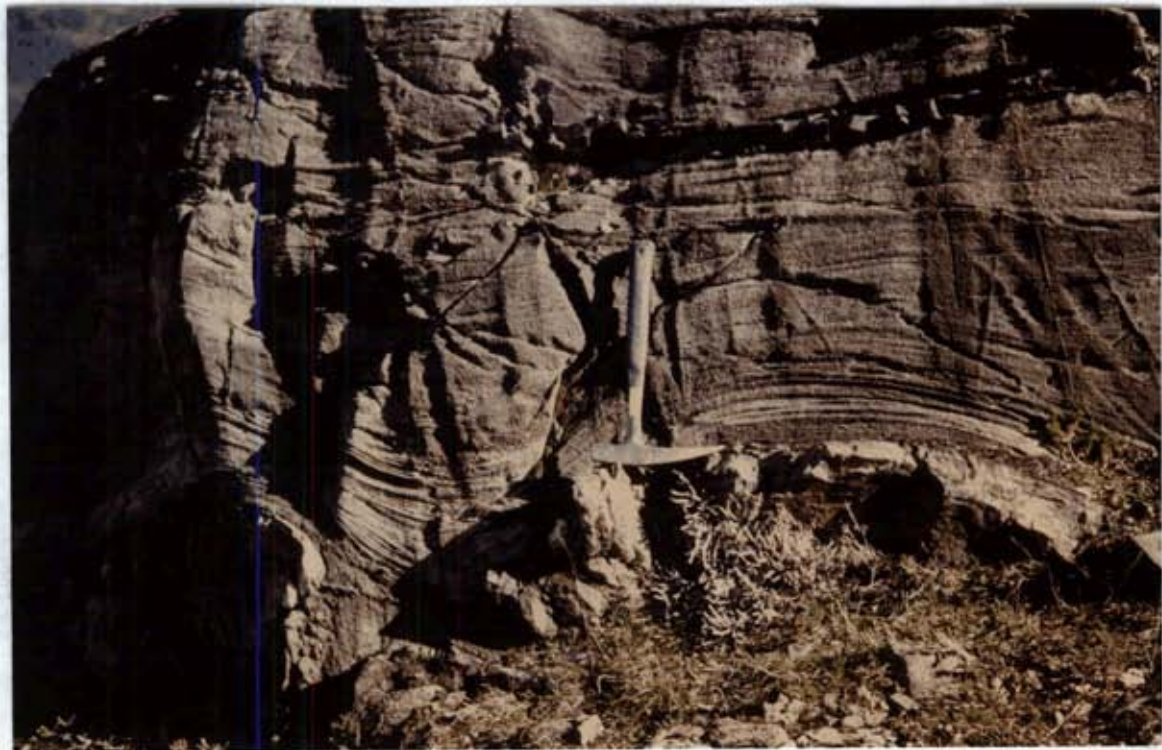
statement of expenditure for 1989 exploration work

Field work wages -	
7 days - consulting geologist at \$ 400/d.....	\$ 2,800
7 days - prospector-helper at \$ 150/d.....	\$ 1,050
lodging and supplies -	
14 days at \$150/d.....	\$ 2,100
Helicopter time -	
5 hrs at \$ 625/hr.....	\$ 3,125
Travel expenses.....	\$ 3,500
Report and reproduction	\$ 2,000
Analysis.....	\$ 900
	<hr/>
Sub-Total.....	\$ 15,475
10% administrative and accounting.....	\$ 1,547
	<hr/>
TOTAL.....	\$ 17,022

REFERENCES

- Grove, E.W. - 1971 - Geology and Mineral Deposits of the Steward Area, B.C.;
B.C. Dept Mines & Petrol. Res. Bull. 58, 219 p.
- Grove, E.W. - 1986 - Geology and Mineral Deposits of the Unuk River - Salmon
River - Anyox Area; B.C. Ministry of Energy, Mines
and Petrol. Res. Bull. 63, 152 p.
- MIMFILE Map 104 B, B.C. Dept Mines & Petrol. Res. Publications.(2 maps).
- Regional Stream Sediments and Water Data, B.C. - 1987 - B.C. Open File RGS 18 /
GSC Open File 1645, NTS 104 B - Iskut River.

PLATE - 1



Stop 6= Looking N at graded and through
cross-bedded tuffaceous sandstone.

CERTIFICATE

I, HUGHES P. SALAT, of the City of Calgary, Alberta, certify that:

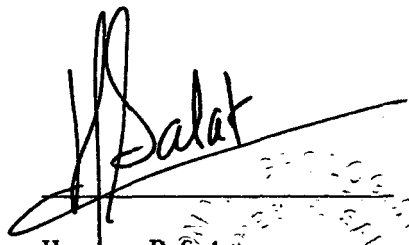
1/ My present address is 5904, Dalhousie Drive N.W., Calgary, Alberta, T3A 1T1 and my occupation is that of a consulting geologist.

2/ I am a graduate of the Ecole Nationale Supérieure de Géologie Appliquée de Nancy and of Faculty of Earth Sciences, University of Nancy (France) with a degree of M.Sc. and have completed all credit requirements for a degree of Ph.D. at the University of Southern California in Los Angeles (unwritten thesis due to military recall).

3/ I have been practising continuously my profession of geologist since 1968 in Canada and Europe.

4/ I am a member of the Association of Professional Engineers, Geologists and Geophysicists of the Province of Alberta, of the Geological Association of Canada and of the Canadian Institute of Mining and Metallurgy.

5/ I have no interest either directly or indirectly, nor do I expect to receive any interest in the property covered in this report.


Hughes P. Salat
Consulting Geologist.

(Faint circular stamp of the Geological Association of Canada is visible behind the signature)

APPENDIX I

THIN SECTION STUDY

STOP - 4

- Texture = granoblastic, mostly xenomorphic as few automorphic mineral borders have survived reaction with alteration products.
crystal sizes: 1 to 4 mm with tendency to porphyritic texture.
- Modal composition =
 - 1)Major constituents = quartz, quite a few are intact, some are strained or recrystallized. It represents 25% of section.
Large, clear orthoclase, good twinning, 2 to 3 mm in size, about 40%.
Plagioclase, some large phenocrysts (4 mm) but mostly altered to damourite, rare measurement allowed, give Anorthite 15 to 30. Represents 15%.
Hornblend, almost completely pseudomorphosed by chlorite and epidote, 15%.
 - 2)Accessories = a few well formed sphene.
Pyrite within hornblend pseudomorphs, or along cracks filled-up by chlorite and epidote.
- Rock type = **Hornblend granodiorite.**

STOP - 6

- Texture = well defined automorphic, slightly lepidoblastic (crysts up to 1.5 mm), locally some rare poeciloblasts.
- Modal composition =
 - 1)Major constituents = quartz, little abundant, mainly interstitial and sub-automorphic, around 10%.
Feldspars, automorphic, all are well zoned, showing several rings of alteration products.
The multiple-twinned plagioclase (An 10+) do not show zoning but are highly altered, 10%.
On the contrary, multiple-twinned albite (An 5-) are well zoned like the other orthoclase, representing 75% of section.
Hornblend, altered into chlorite, 5%.
 - 2)Accessories = epidote, some sphene, pyrite up to 2% in places. In cracks: pyrite and calcite.
- Note = number of zoning in feldspar varies from 1 to 5; this crystal mush is near apex of batholith, with variation in Na-K composition in function to T° changes.
- Rock type = **leucocratic hornblend monzonite**

STOP - 7

- Texture = porphyritic, mainly 1 to 2 mm crystals, rare large ones up to 5 mm, in ground mass of microliths.
- Constituents =
 - Groundmass: quartz represents 40% of matrix, with a few feldspars, and fresh chlorite, grain size is 20 μ m; the rest is irresolvable matter.
 - Fragments (floating in matrix): a few clear rectangular sanidine (1 to 2%) many large (2 mm) plagioclases, completely damouritized, rocks fragments of hornblend-plagioclase and well rounded pieces of calcite-chlorite aggregates.
 - dispersed pyrite: 2%
- Rock type = **Trachytic crystal tuff.**

STOP - 8

- same as sample -7- except:
 - no rock fragments.
 - more fresher plagioclase laths (An 5-20), well automorphic, sometimes zoned.
 - many hornblend grains, well formed but pseudomorphosed by chlorite.
 - many grains of epidote.
 - groundmass, same as sample -7- but more fluidal in texture, and made of quartz and orthoclase.
- Rock type = **Trachytic lava.**

STOP - 12

- crackle breccia of amorphous material (glass)
- within cracks: broken or bent crystal of orthoclase, plagioclase and quartz.
- but hardly any mafic minerals.
- Rock type = **Glassy rhyolite**

STOP - 26

- Texture = microcrystalline
- Major constituents =
 - 60% of microliths of brown hornblend
 - 5% large automorphic epidote, often rimmed by chlorite, also
 - 5% of small grains.
 - 20% orthoclase.
 - 5% plagioclase, non-determinable
- Accessory = large patches of calcite or chlorite representing +/- 5%
- Rock type = **Microsyenitic lamprophyre (camptonite ?)**

STOP - 31

- Texture = massive, no sedimentary texture except for a certain mineral layering (see below).
- Constituents = 60% of very fine-grained (20 μ m) quartz.
 - 25% of large xenomorphic patches of poeciloblastic quartz, with size up to 0.5 mm.
 - regular thin layers of chlorite intermixed with grains of epidote, but also epidote and chlorite grains (less than 5 μ m) interspersed; in total =15%
 - One such chlorite-epidote layer swells up to a lens-like shape (a pumice ?)
- Rock type = **Rhyolitic ashfall.**

APPENDIX II

ASSAY RESULTS



Certificate of Assay LORING LABORATORIES LTD.

SAMPLE NO.	PPB Au	PPM Cu
------------	-----------	-----------

Chemical Analysis

Au 2/1- 1	NIL	26
2	55	21
3	250	27
4	35	19
5	NIL	29
6	675	181
8 bis	NIL	40
9	NIL	30
10	80	272
12	NIL	31
13	NIL	15
14	NIL	14
15	NIL	26
16	NIL	75
17	NIL	54
18	NIL	41
19	NIL	90
20	NIL	33
21	NIL	21
22	NIL	50
24	NIL	26
27	NIL	24
28	NIL	35
29	NIL	16
30	NIL	20

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

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

Ray Salby
Assayer

To: MR. HUGHES P. SALAT,

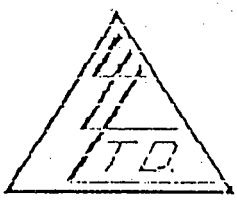
File No. 32814

904 Dalhousie Drive N.W.,

Date October 18, 1989

Calgary, Alberta T3A 1T1

Samples Silts/Rock



Certificate of Assay LORING LABORATORIES LTD.

SAMPLE NO.	PPM Ag	PPM Zn	PPM Mo	PPM As
Geochemical Analysis				
Au 2/1- 1	0.4	58	3	2
2	0.5	56	3	2
3	0.7	60	2	3
4	0.3	51	2	6
5	0.3	81	4	4
6	0.9	240	9	15
8	0.8	213	8	7
9	0.8	355	5	10
10	0.9	332	5	39
12	0.6	171	6	4
13	0.6	211	5	9
14	0.6	265	6	12
15	0.6	191	7	12
16	0.8	192	5	20
17	0.7	185	7	20
18	0.5	203	6	17
19	0.5	388	5	26
20	0.4	208	7	19
21	0.5	115	8	16
22	0.6	190	7	21
24	0.4	94	6	11
27	0.3	99	6	9
28	0.3	138	5	19
29	0.5	66	9	13
30	0.3	49	7	9
Au 2/1 RX- 1	0.9	70	537	12
4	0.1	24	9	22
7	0.2	35	17	25
16	0.2	27	8	61
22	0.2	14	4	117
23	0.1	34	23	15
25	0.2	8	6	8
26	0.3	7	5	8

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.

Loring Assay
Assayer

To: MR. HUGHES SALAT,
904 Dalhousie Drive N.W.,
Calgary, Alberta
BA 1T1

File No. 32814-1
Date November 3, 1989
Samples



Certificate of Assay LORING LABORATORIES LTD.

SAMPLE NO.	% By Weight	PPB Au	PPM Cu
Heavy Liquid Separation			
Au 2/1 -80+200 Sink	3.71	85	18
Float	96.29	NIL	40
Au 2/1 -200 Sink	1.4	+1000	NSS
Float	98.6	NIL	83

* NSS = Non Sufficient Sample.

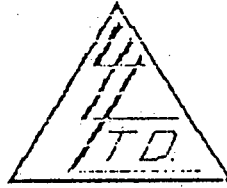
I Hereby Certify that the above results are those assays made by me upon the herein described samples....

Objects retained one month.
Pulps retained one month
unless specific arrangements
be made in advance.


Assayer

MR. HUGHES P. SALAT,
5501 Dalhousie Drive N.W.,
Calgary, Alberta T3A 1T1

File No. 32814
Date October 18, 1989
Samples Rock



Certificate of Assay LORING LABORATORIES LTD.

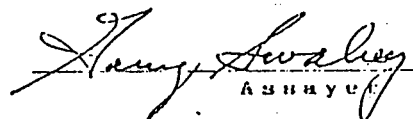
SAMPLE NO.	OZ./TON GOLD	% Cu
------------	-----------------	---------

"Assay Analysis"

Au 2/1 RX- 1	.008	.06
RX- 4	.004	Trace
RX- 7	Trace	Trace
RX-16	Trace	.02
RX-22	.008	.01
RX-23	Trace	.03
RX-25	.004	.01
RX-26	.006	.17

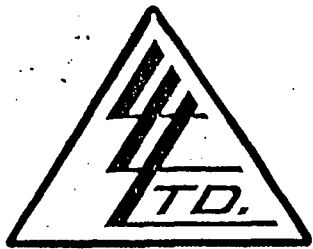
I Hereby Certify that the above results are those
assays made by me upon the herein described samples....

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


Assayer

APPENDIX III

ANALYTICAL PROCEDURES



629 Beaverdam Rd. N.E.
Calgary, Alberta T2K 4W2

LORING LABORATORIES LTD.

Phone 274-2777

Preparation Procedures for Geochemical Samples

1 - Soil And Silts:

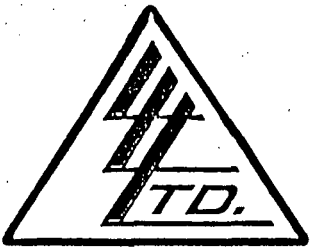
- a) The soil sample bags are placed in dryer to dry at 105°C.
- b) Each sample is passed through an 80 mesh nylon seive. The +80 mesh material is discarded.
- c) The -80 mesh sample is placed into a coin envelope and delivered to the laboratory for analysis.

2 - Lake Sediments:

- a) The sediment sample bags are placed into the dryer at 105°C until dry.
- b) The dried material is transferred to a ring and puck pulverizer and ground to -200 mesh.
- c) The -200 mesh pulp is then rolled for mixing, placed into a coin envelope, and taken to the laboratory for analysis.

3 - Rocks and Cores:

- a) The samples are dried in aluminum disposable pans at 105°C.
- b) They are then crushed to 1/8" in jaw crusher.
- c) the 1/8" material is mixed and split to sample pulp size.
- d) The sample is then pulverized to 100 mesh, using a ring and puck pulverizer.
- e) The -100 mesh material is rolled on rolling mat and transferred to sample bag. The sample is then sent to the laboratory for analysis.



629 Beaverdam Rd. N.E.
Calgary 67, Alberta

LORING LABORATORIES LTD.

Phone 274-2777

Geochemical Analysis of Soils, Sediments and Silts.

FOR: Copper, Lead, Zinc, Nickel and Silver, and Cobalt

Sample Preparation:

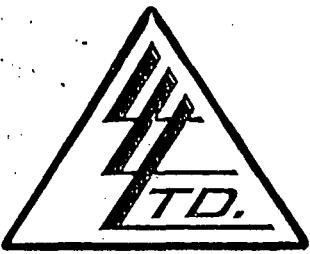
- Samples were placed in dryer overnight at 105°C.
- All samples are sieved through an 80 mesh nylon screen.
- The minus 80 is placed in pre-marked sample bag for analysis. The plus 80 portion is discarded.

Sample Dissolution:

- 1/2 gram samples are weighed and transferred to test tubes.
- One ml water added, then three mls hydrochloric (concentrated), one ml nitric acid (concentrated) are added.
- Test tubes are then placed into hot water bath 100°C and digested for three hours with occasional shaking to ensure complete digestion.
- Test tubes are removed from water bath and allowed to cool.
- Test tubes are bulked to exactly 10 mls, corked and shook.
- All samples are then allowed to settle until clear.
- The clear solutions are then aspirated through the atomic absorption spectrophotometer with appropriate standards to obtain the metal content.

Detection Limits and Precision:

<u>Element</u>	<u>Detection Limit</u>	<u>Precision at 100 ppm level</u>
Copper	1 ppm	+ - 2 ppm
Lead	2 ppm	+ - 4 ppm
Zinc	1 ppm	+ - 2 ppm
Nickel	1 ppm	+ - 2 ppm
Silver	0.2 ppm	+ - 1 ppm
Cobalt	1 ppm	+ - 4 ppm



629 Beaverdam Rd. N.E.
Calgary, Alberta T2K 4W2

LORING LABORATORIES LTD.

Phone 274-2777

Au Geochems (Soils & Sediments)

1. Weigh 10 g sample to fire assay crucible (carry blank)
 2. Place crucibles in fire assay furnace at fusion temperature for 15 minutes.
 3. Allow crucibles to cool on steel table.
 4. Add 1 tablespoon flux and 1 in quart to each crucible.
 5. Fuse for $\frac{1}{2}$ hr. at fusion temperature.
 6. Pour pots, remove slag and cupel.
 7. Place beads into 50 ml flasks.
 8. Pipette stds. and blank into 50 ml flasks.

1 ml of 10 ppm	=	1000 ppb
1 ml of 5 ppm	=	500
1 ml of 1 ppm	=	100
0 ml	=	0
 9. Add 5 mls H₂O, 3 mls HNO₃ and place on 1 switch plate for 5 minutes. Take off plate. Add 5 mls HCl.
 10. Digest until total dissolution approximately $\frac{1}{2}$ hr.
 11. Bulk flasks to approximately 25 mls with distilled H₂O. Cool to room temperature.
 12. Add 5 mls MIBK. Stopper and shake each flask for exactly 1 minute.
 13. Allow MIBK to settle.
 14. Set 1100 AA unit as follows:

mu	-	2428
slit	-	.5
lamp MA	-	3
flame	-	air-acetylene - extremely lean
- Stds. 100 ppb - 10
1000 ppb - 100
500 ppb - reading

15. Report directly in ppb. Detection limit 5 ppb at reading of .5.

*-1 - for rock geochems steps 2 and 3 can be eliminated.

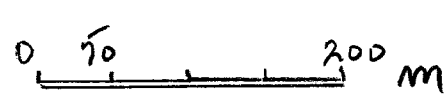
*-2 - it is important to maintain as closely as possible standard conditions for all samples and standards in a series.

Reagents & Material

- MIBK - 4-Methyl-2-Pentanone
- HCl - conc
- HNO3 - conc
- Flux - 2980 g PbO
777 g Na2CO3
68 g Na2B4O7
68 g SiO2
167 g Flour

LEGEND

- 26 Stop point of field observation
- $\frac{35}{19}$ silt Au in ppb, nature of medium sampled
Cu in ppm
- Creek, sand bar
- Bedding attitude (where observed)
- Fold axis plunge
- X Location of large stream sediment sample for heavy liquid separation.



BRAZOS PETROLEUM CORP.	
AU-1 & 2 CLAIMS GEOCHEMICAL RESULTS	
NTS 104 B/10	
Prepared by JORANEX RESOURCES INC.	
FIGURE: 4	Scale: 1/5,000
To accompany Report on: AU-1 & 2 Claims by H.P. Salat - Nov. 27, 1989	

