
$55^{\circ} 12$ ' North Latitude $/ 124^{\circ} 40^{\prime}$ West Longitude

Owner:
Nation River Resources Ltd.
Site 480, R.R. \#4
Courtenay, B.C.
V9N 7J3

BPVR 91-6
December, 1991
GEOLOGICALBRANCH
C. T. Barrie ASSESSMENTREPORT
J. B. Binns
R.H. Wong

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Operator:<br>BP Resources Canada Limited<br>700-890 West Pender Street<br>Vancouver, B.C.<br>V6C 1K5

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## 1. SUMMARY

The ANOM I claim group, comprising 82 units is located approximately 90 km north of Fort St. James in north-central B.C. The property was explored in 1991 as a jointventure between BP Resources Canada Limited and Nation River Resources Ltd. With BP as operator, a program of linecutting, IP-resistivity surveying, and geologic mapping was carried out from July 15 to September 30, 1991.

The project area is situated on the southeastern end of the Hogem Batholith and straddles its contact with augite-phyric andesitic flows and tuffs of the co-magmatic Upper Triassic to Lower Jurassic Takla Group. Phases of the Hogem Batholith in this area include medium to coarse-grained diorite, monzonite and syenite.

Weak to moderate, fracture-controlled propylitic alteration with accompanying pyrite and subordinate pyrrhotite to $2 \%$ is found in Hogem monzonites and porphyritic andesites in the central and southeastern portions of the claim area. Locally, incipient garnet-bearing skarn is developed in the andesites adjacent to small bodies of crowded plagioclase porphyry monzonite.

Rock chip sampling of sulphide-bearing outcrop yields low gold and copper values.

Results of IP-resistivity surveys indicate no large sulphide system underlies the claim area. Small discrete chargeability anomalies appear to correspond to relatively fresh pyrite-bearing Hogem plutonic rocks.

No drill targets or areas warranting ground follow-up were delineated by the 1991 program.

A total of $\$ 53,400$ has been applied as assessment and upon approval will maintain all claims to their anniversary dates in 1997.

## 2. LOCATION and ACCESS

The ANOM I claim group is located on the north side of the western end of Chuchi Lake approximately 90 km north of Fort St. James, B.C. (Fig. 1). The claim area is centred at $55^{\circ} 12^{\prime}$ north latitude and $124^{\circ} 40^{\prime}$ west longitude within NTS map-sheet $93 \mathrm{~N} / 2 \mathrm{E}$.

The claims are readily accessible via the Germansen-Indata forest service road which leaves the Fort St. James-Germansen Landing all-weather gravel road at Mile 65.

## 3. TOPOGRAPHY AND VEGETATION

Within the claim area, relief is gentle to moderate with elevations rising from 870 m a.s.l. at Chuchi Lake to 1100 m a.s.l. along the northern boundary. A broad, southeasttrending valley bisects the property and is occupied by a number of small lakes and extensive marshes.

Vegetation consists mainly of widely-spaced jackpine and spruce in timbered areas. The southeastern portion of the claim area was clearcut in the late 1970's with subsequent reforestation.


## 4. CLAIM DATA

The ANOM $1-5$ claims, comprising 82 contiguous units, are wholly-owned by Nation River Resources Ltd. Claim details are listed below.

| Claim <br> Name | Units | Record <br> No. | Claim <br> Group | Current <br> Expiry Date* |
| :--- | :--- | :--- | :--- | :--- |
| ANOM 1 | 20 | 12093 | ANOM I | June 20, 1997 |
| ANOM 2 | 20 | 12094 | $n$ | June 20, 1997 |
| ANOM 3 | 12 | 12095 | $n$ | June 19, 1997 |
| ANOM 4 | 12 | 12096 | $n$ | June 19, 1997 |
| ANOM 5 | 18 | 12310 | $n$ | July 14, 1997 |

The claims were grouped as the ANOM I group on December 21, 1990.

* upon acceptance of applied assessment.



## 5. HISTORY

This area has seen extensive exploration activity peaking in the early 1970's. In 1971, Plateau Metals Ltd. held a large number of claims in the area (TOP and POT claims) that covered most of the present ANOM I group. Soil geochemistry and magnetometer surveys were conducted as well as geological mapping (A.R. \#3409,3410).

In 1982, Westmin Resources Limited performed soil and stream silt geochemistry on their NATION 1 claim group, an 18 unit block immediately north of Little Witch Lake (A.R. \#10971).

In 1990, Nation River Resources Ltd. staked the present ANOM I group and subsequently optioned the claims to BP Resources Canada Limited. In December, 1990, BP contracted the flying of a 207 line-km airborne magnetic and VLF-EM survey over the ANOM I group.

## 6. REGIONAL GEOLOGY

The area north of Chuchi Lake is located within the central Quesnel terrane, within the Intermontane Belt of the Canadian Cordillera. Rocks of the Quesnel terrane in this area are comprised of Upper Triassic - Lower Jurassic Takla Group sedimentary and volcanic rocks, and coeval and younger intrusive rocks including the Hogem Batholith. They are bound to the east by gneisses of the Wolverine Metamorphic Complex, and to the west by carbonates and siliciclastics of the Permian Cache Creek Group (Fig. 3). The Takla Group stratigraphy is broadly correlative with Nicola Group rocks in southern B.C. and Stuhini Group rocks in northern B.C. (Richards, 1976; Monger, 1977).

The Takla Group north of Chuchi Lake, informally named the Chuchi Lake formation (Nelson et al., 1991) is comprised of intercalated volcanic and sedimentary rocks (see Fig. 4 in pocket). Basalts, andesites, and latites occur as augite porphyritic and/or plagioclase porphyrytic flows and flow breccias with lesser tuffs. There are mappable units of vesicular flows and flow breccias with amygdule filling of calcite, epidote and probably altered zeolites. These flows and flow breccias are gradational with maroon and gray agglomerates that contain fragments of monzonite/diorite, ash/ash-crystal tuff, siltstone, and black shale. The agglomerates have carbonate-rich fragments and a calcareous matrix locally. The sedimentary rocks are graywacke, siltstone, black shale and hornfelsed varieties of these rocks (argillite), all intercalated with ash and ash-crystal tuff beds locally. Macrofossils found in shales in the area provide a tentative age of 193-

196 Ma (Pleinsbachian) for these rocks (Nelson, personal communication).


Intrusive rocks are: crowded plagioclase monzonite/diorite porphyry, and the Hogem Batholith Intrusive Suite. The plagioclase monzonite/diorite porphyry rocks are subdivided on the basis of the presence of significant ( $>2 \%$ ) primary and/or deuteric magnetite content. The magnetite-rich variety, which comprises the core of the Chuchi $\mathrm{Cu}-\mathrm{Au}$ system to the northwest, contains augite and biotite. Both plagioclase porphyries are believed to be hypabyssal, and genetically related to the plagioclase and augite porphyritic flows and breccias described above. The Hogem Batholith Intrusive Suite is generally hypidiomorphic granular, but also contains aplitic, pegmatitic and K-feldspar porphyritic varieties. It is subdivided on the basis of modal content into four groups:
i) syenite, quartz syenite, alkali feldspar granite which cores the batholith in this area;
ii) alkali gabbro - diorite, located in the central region of the map area;
iii) K-feldspar monzonite, locally porphyritic, and surrounding the more syenitic phase at the core; and
iv) monzodiorite, which surrounds and may be a fractionated equivalent to the alkali gabbro - diorite.

Regionally the stratigraphy has $20^{\circ}-45^{\circ}$ dips to the south. There are two notable exceptions: in the Chuchi $\mathrm{Cu}-\mathrm{Au}$ area to the northwest dips are $30^{\circ}-50^{\circ}$ to the east and southeast, and in the central Skook area to the south dips are $20^{\circ}-30^{\circ}$ to the east (Fig. 4). The east-trending dips may be attributed to the emplacement of adjacent intrusions that postdate sediment deposition.

Faults generally follow creeks or other physiographic linear features (vegetation breaks) seen on air photos. The sense of displacement is usually difficult to discern due to the discontinuous nature of the volcanic and sedimentary stratigraphy.

## 7. LINECUTTING

Linecutting on the ANOM claims was carried out by Exploration Services Incorporated of Port Moody, B.C. from July 15 to August 31, 1991. The grid, totalling 49 line-km, consisted of 5 km long east-west base-line and tie-line, and 11 north-south cross-lines at 500 m spacings. Lines were cut to I.P. standard with picketted stations at 25 m intervals.

Total linecutting cost for 49 line-km was $\$ 29,400$.

Figure 5 shows location and numbering of all grid lines at a scale of $1: 25,000$.


## 8. PROPERTY GEOLOGY

The ANOM claims are principally underlain by diorites, monzonites and syenites of Hogem Batholith at its southeastern extremity, augite-phyric andesite porphyry flows and tuffs, and distinctive, "crowded" plagioclase monzonite porphyry rocks (Fig. 6, in pocket). To the southwest, the Hogem intrusive rocks are medium and coarse-grained, with an intrusive flow or cumulate texture exhibited by aligned plagioclase and/or hornblende phenocrysts trending north-south, near-vertical. These rocks are slightly to moderately magnetic. To the northeast, Hogem intrusive rocks are coarse-grained to pegmatitic biotite syenites and biotite hornblende syenites, and medium to coarse-grained monzonites. Here the syenites are non-magnetic, and the monzonites are non to slightly magnetic. The augite andesite porphyry flows and tuffs are found in the southeastern part of the ANOM claims. They have $5-35 \%$ medium to coarse-grained augite phenocrysts in an aphanitic to fine-grained groundmass, and are non to slightly magnetic. They probably border on basaltic composition; staining for K-feldspar content indicates that they are not latitic.

Other rock types include medium-grained, crowded plagioclase monzonite porphyry, similar to the mineralized monzonite porphyry on the Chuchi property, and hornblende andesite porphyry dykes. The crowded plagioclase porphyry is located in the southeast corner of the ANOM property, on the north side of "Porcupine Hill", and has a subvertical contact at $130^{\circ}$ with the augite andesite porphyry volcanic rocks. As the volcanic rocks are found at the surface 100 m to the north, the crowded plagioclase
porphyry is probably a dyke here. It has $40-70 \%$ lath-like plagiocalse in an aphanitic grey-black groundmass; biotite is present in the groundmass comprising up to $1 \%$ of the rock. The crowded plagioclase porphyry is non-magnetic. The hornblende andesite porphyry dykes have $5-45 \%$ fresh hornblende in an aphanitic to fine-grained hornblendefeldspar groundmass. They occur as subvertical dykes that trend easterly to southeasterly and are up to 1 m thick.

A major physiographic linear at $115^{\circ}$ is present on the north half of the claim group. It broadly corresponds to the foot of a hill that extends ten km to the north to the top of Lhole Tse and Chuchi Mountains. A secondary linear is parallel 1.5 km to the northwest, and a probably fault, with iron oxide-stained syenitic rocks, is located 1.5 km further to the northeast. Jointing on the claim group is predominantly north-south, subvertical; some joint sets are $115^{\circ}$ and subvertical, parallel to the physiographic linears.

Significant alteration is found in Hogem monzonites and augite andesite porphyry rocks in the central and southeastern parts of the claim group. Moderate propylitic alteration is principally fracture-controlled in both rock types. Pervasive propylitic alteration is weak in the same areas locally. Fracture-controlled potassic alteration is slight to moderate and generally in the form of K-feldspar. Possible fracture-controlled biotite alteration is found in biotite hornblende monzonites at $14+00 \mathrm{E}, 86+50 \mathrm{~N}$ along with the most significant mineralization, and near the strongest chargeability anomaly. Garnet
(grossular) accompanies calcite and epidote in the augite andesite porphyry rocks on Porcupine Hill and elsewhere in the southeast part of the area, and is likely due to thermal metamorphism from nearby intrusive rocks, with calcite +3 epidote $==>2$ garnet $+\mathrm{CO}_{2}+\mathrm{H}_{2} \mathrm{O}$.

Six samples from the property were selected for whole rock major and trace element geochemistry (Table I, Fig. 6). They were analyzed by flux-fusion ICP and XRF by Actlabs, Toronto. Hornblende monzonites of the Hogem Batholith are characterized by relatively low SiO 2 , and high $\mathrm{K} 2 \mathrm{O}, \mathrm{Ba}$ and Rb contents. Hornblende and augite-phyric basaltic andesite dykes and flows also have relatively high K2O contents, and have borderline calc-alkalic/alkalic affinity.

Mineralization is predominantly in the form of fracture-controlled pyrite and pyrrhotite; trace chalcopyrite is present in one sample of float. Pyrite occurs up to $2 \%$ in Hogem monzonite and augite andesite porphyry rocks, principally along fractures. In monzonites at L115E, $85-90 \mathrm{~N}$, pyrite occurs as disseminated blebs in fresh rock, and in rocks with weak alteration along fractures. Pyrite and pyrrhotite is noted along with $2 \%$ pyrite in one angular float boulder at $14+00 \mathrm{E}, 86+50 \mathrm{~N}$, in moderately propylitically altered, crowded plagioclase porphyry. The presence of sulphides corresponds to the chargeability anomalies in the southern half of the claims (see Chapter 9).

Table 1
Whole Rock Geochemistry of Selected Samples from the ANOM Property

|  | $\begin{aligned} & \text { CTB91-40 } \\ & \text { ANOMMZ } \end{aligned}$ | CTB91-41 <br> ANOMDK | $\begin{aligned} & \text { CTB91-42 } \\ & \text { ANOMMZ } \end{aligned}$ | $\begin{aligned} & \text { CTB91-43 } \\ & \text { ANOMMZ } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { CTB91-44 } \\ & \text { ANOMDK } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { CTB91-45 } \\ & \text { ANOMAND } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| wt\% |  |  |  |  |  |  |
| SiO 2 | 50.51 | 48.47 | 66.80 | 52.69 | 47.00 | 48.47 |
| TiO 2 | 0.72 | 0.96 | 0.14 | 0.74 | 1.09 | 1.05 |
| $\mathrm{Al2O}^{2}$ | 20.02 | 18.66 | 16.33 | 17.76 | 16.22 | 16.84 |
| Fe2O3 | 38.47 | 10.56 | 3.27 | 8.47 | 12.14 | 11.40 |
| MgO | 3.32 | 4.51 | 0.23 | 3.30 | 6.88 | 6.81 |
| MnO | 0.13 | 0.21 | 0.10 | 0.18 | 0.26 | 0.25 |
| CaO | 7.79 | 9.18 | 1.06 | 6.81 | 8.43 | 8.98 |
| Na 2 O | 3.04 | 3.35 | 5.55 | 3.53 | 2.86 | 3.00 |
| K2O | 3.58 | 2.52 | 5.70 | 4.28 | 2.80 | 1.58 |
| P2O5 | 0.94 | 0.38 | 0.06 | 0.60 | 0.22 | 0.34 |
| LOI | 1.71 | 1.30 | 0.46 | 1.95 | 1.68 | 1.31 |
| Total ppm | 100.25 | 100.11 | 99.70 | 100.30 | 99.61 | 100.03 |
| Zr | 110 | 152 | 418 | 151 | 177 | 149 |
| Hf | 1.6 | 1.8 | 9.7 | 2.3 | 1.2 | 1.5 |
| Th | 2.3 | 2.8 | 15.0 | 3.6 | 1.0 | 0.8 |
| U | 1.3 | 1.3 | 6.2 | 1.7 | 0.7 | 0.5 |
| Y | 12 | 20 | 32 | 18 | 20 | 20 |
| Rb | 75 | 80 | 290 | 110 | 100 | 39 |
| Cs | 2.4 | 2.7 | 9.0 | 1.4 | 2.9 | 1.9 |
| Sr 1 | 1280 | 841 | 78 | 897 | 599 | 634 |
| Ba | 4750 | 1570 | 172 | 2653 | 1165 | 967 |
| Sc | 12 | 26 | 2 | 18 | 51 | 30 |
| V | 270 | 280 | 0 | 210 | 330 | 290 |
| Cr | 42 | 14 | 5 | 31 | 130 | 38 |
| Ni | 30 | 20 | 0 | 0 | 30 | 20 |
| Co | 27 | 32 | 2 | 23 | 36 | 43 |
| Cu | 160 | 120 | 0 | 210 | 35 | 150 |
| La | 13.8 | 10.9 | 18.8 | 14.9 | 6.6 | 8.4 |
| Yb | 1.09 | 1.86 | 3.92 | 1.93 | 1.42 | 1.65 |
| $\mathrm{Au}(\mathrm{ppb}$ | b)13 | 2 | 0 | 6 | 0 | 0 |
| As | 2 | 2 | 5 | 2 | 2 | 30 |
| Sb | 0 | 0.4 | 1 | 1 | 0.6 | 5 |

CTB91-40: Hornblende biotite monzonite, coarse-grained, moderately magnetic.
CTB91-41: Hornblende andesite porphyry dyke, non-magnetic.
CTB91-42: Biotite hornblende monzonite, medium-grained, non-magnetic.
CTB91-43: Hornblende biotite monzodiorite, slightly magnetic.
CTB91-44: Hornblende andesite porphyry dyke, non-magnetic.
CTB91-45: Augite andesite/latite porphyry, slightly magnetic.

Results from 26 rock chip samples of sulphide-bearing outcrop are given in Appendix III. In general, copper and gold values are low with copper $\leq 374 \mathrm{ppm}$ and gold $\leq 43 \mathrm{ppb}$. One sample (101009) yielded 772 ppm copper with 270 ppm molybdenum and 1.2 ppm silver.

## 9. I.P.-RESISTIVITY SURVEY

A) Summary

IP and resistivity surveys have been carried out on the ANOM I claim group by Pacific Geophysical Ltd. of Vancouver, B.C.

North-south lines at 400 m line-spacing have been completed. No large "sulphide system" has been found. The survey has outlined a number of small, discrete chargeability anomalies corresponding to relatively fresh pyritic Hogem intrusive. No drilling has been recommended.

## B) Introduction

IP-resistivity surveys have been carried out over the ANOM claims as part of an integrated exploration program whose target is an open-pittable "porphyry" style orebody. The line-spacing and array geometry were a function of the minimum target dimensions and depths of burial. The objective of the IP-resistivity survey was to outline any large area of elevated chargeability which would correspond to an "alteration system".

The area is underlain by intrusive units of the Hogem suite divided by a prominent $\mathrm{N} 100^{\circ}$ contact based on resistivity contrast with more resistive units to the northeast and more conductive lithologies to the southwest. The lines extend from Chuchi Lake to the south to $120+00 \mathrm{~N}$.

Topography follows the geological strike and elevations range from $\pm 900 \mathrm{~m}$ at the lake to 100 m in the northeast corner of the grid.

## C) Survey Specifications

The geophysical crew was provided and supervised by Pacific Geophysical Limited of Vancouver. The crew was led by a geophysicist - crew chief - receiver operator with a total complement of 6 men. Transport to and from a nearby was by truck, provided by Pacific Geophysical Ltd.

The Time-domain receiver was the BRGM designed and built model IP-6 distributed in Canada by EDA. This largely automated unit records up to 6 dipoles simultaneously integrating a 900 milliseconds window after a delay time of 120 milliseconds. The 2 second on 2 second off square wave bi-directional pulse train used as a signal is provided by a Phoenix IPT-1 transmitter (with 2 KW motor generator set). Motorola FM radios were used for communication. Chargeability was recorded in milliseconds and apparent resistivity, corrected for array geometry, was recorded as ohm. metres. Stainless steel stakes were used as electrodes, both current and potential.

## D) Field Procedure

The survey was carried out using the pole-dipole array with receiver dipole length ("a") being 50 m and " n " separations of 1-4.

The local current electrode $\left(\mathrm{C}^{1}\right)$ position was a to the south of the receiver dipole.

With the six-man crew, $\mathrm{n}=1-4$ measurements were completed in a single pass. All wire laid out was retrieved and copper sulphate was not required on the electrodes.

## E) Data Presentation

Chargeability and resistivity data are presented as pseudosection profiles (Fig. 9 to 19, in pocket) showing:

Chargeability (Ma) in milliseconds
Apparent Resistivity ( Pa ) in ohm metres
"Metal Factor" (Ma x 1000) Pa

Each pseudosection includes the 10 point triangular filter value above the contoured $n=1-4$ values.

The horizontal scale is $1: 5000$.

Results are presented in map form (Figs. 7 and 8, in pocket) at $1: 10,000$ for both 10 point filtered chargeability and 10 point filtered apparent resistivity. For chargeability
the contour interval is 2 milliseconds and for apparent resistivity it is logarithmic with 6 points per decade. Apparent resistivity data is not corrected for rough topography.

## F) Discussion of Results

The geophysical pattern is dominated by the prominent $\mathrm{N} 100^{\circ}$ linear contact crossing the northern half of the grid with more resistive Hogem lithologies to the northeast. The prominent isolated resistivity high in the southeast corner of the grid corresponds to outcrop mapped as augite porphyry flows and flow breccias. In the centre of the grid the lower resistivities correspond to more conductive overburden overlying the slightly less resistive Hogem lithologies southwest of the major contact with resistivities of 200600 ohm.m.

The chargeability background in the Hogem unit is 4-6 msec. The major anomaly on L9500 is 400 m wide with maximum surface chargeabilities of 40 msec . The anomaly source is at surface with limited depth extent. Sampling of outcrop has returned fresh monzonite with $1.5 \%$ disseminated pyrite on the southern edge of the anomaly where the average chargeability is $\pm 20 \mathrm{msec}$. The anomaly is not visible on the adjacent lines.

The remaining, weaker chargeability anomalies have all been mapped as Hogem intrusive with minor amounts of pyrite either disseminated or fracture coatings.

## G) Conclusions and Recommendations

In this pyrite dominant mineralization system the significant chargeability anomalies of more than twice background have all been found by ground checking to correspond to pyrite in relatively fresh intrusive. There is no geophysical encouragement to test these anomalies further.

## 10. CONCLUSIONS and RECOMMENDATIONS

Results of geologic mapping, rock chip sampling, and IP-resistivity surveys failed to delineate any areas of widespread hydrothermal alteration or sulphide mineralization. Most of the intrusive rock mapped consists of equigranular, medium to coarse-grained plutonic phases of the Hogem Batholith. Minor hypabyssal crowded plagioclase porphyry monzonite was seen to cut andesitic rocks with locally-developed skarn alteration. However, no significant mineralization was evident in these areas.

No additional work appears to be warranted to test for porphyry-type copper-gold mineralization.

## BIBLIOGRAPHY

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3. NELSON, J., BELLEFONTAINE, K., GREEN, G., MacLEAN, M., 1990. Regional Geologic Mapping near the Mount Milligan Copper-Gold Deposit (93K/16, 93N/1), in Geological Fieldwork 1990, Paper 1991-1.

## APPENDIX I

## STATEMENT OF QUALIFICATIONS

## STATEMENT OF QUALIFICATIONS

I, C. Tucker Barrie, of 700-890 West Pender Street, Vancouver in the province of British Columbia, do hereby state:

1. That I have Doctor of Philosophy in Economic Geology from the University of Toronto, Ontario, where I graduated in 1990;
2. That I have been active in mineral exploration since 1980.
C. Tucker Barrie

December, 1991
Vancouver, B.C.

## STATEMENT OF QUALIFICATIONS

I, John B. Binns, of the district of West Vancouver, in the province of British Columbia, do hereby certify:

1. I am a consultant geophysicist residing at 2370 Marine Drive, West Vancouver, B.C. V7V 1K8
2. I am a graduate of the University of Newcastle Upon Tyne, England with B.Sc. degree in Mining Engineering (1969).
3. I am a graduate of the Imperial College, University of London with an M.Sc. degree in Applied Geophysics (1981).
4. I am a licenced professional engineer in the province of Ontario.
5. I have been practising my profession for 22 years.


John B. Binns

December, 1991
Vancouver, B.C.

## STATEMENT OF QUALIFICATIONS

I, Russell H. Wong, of 700-890 West Pender Street, Vancouver, British Columbia, do hereby state:

1. That I am a graduate of the University of British Columbia, Vancouver, B.C., where I obtained a B.Sc., in Geology in 1975.
2. That I have been active in mineral exploration since 1973.
3. That I have practised my profession continuously as a staff geologist for BP Resources Canada Limited, since 1979.


December, 1991
Vancouver, B.C

## APPENDIX II

## STATEMENT OF COSTS

## STATEMENT OF COSTS

1. Linecutting:
49 line-kms @ \$600 ..... $\$ 29,400.00$
2. I.P. Resistivity Survey:
39 line-kms @ \$700 ..... 27,300.00
3. Geologic Mapping:

- Geologist for 8 days @ $\$ 200$ ..... $1,600.00$
- 26 samples for ICP + geochem. Au analysis @ \$12.50 ..... 325.00
- 6 samples for whole rock geochemical analysis @ \$84 ..... 504.00
- vehicle for 8 days @ \$40 ..... 320.00


## APPENDIX III

ROCK SAMPLE DESCRIPTIONS AND RESULTS

## APPENDIX III

## ROCK SAMPLE DESCRIPTIONS and RESULTS

| Sample | Grid Coordinates | Description |
| :---: | :---: | :---: |
| 101001 | 84N, 114E | Med-grained $\mathrm{Hb}-\mathrm{Bi}$ monzonite with weak epid-py on fractures (.5\% Py). |
| 101002 | 84N, 114E | Monzonite with concentrations of epid-kspar-py fracture fillings. |
| 101003 | 84N, 114E | Hb andesite porphyry with weak epid-py on fractures and shears (.4\% Py). |
| 101004 | 84N, 114E | $\mathrm{Hb}-\mathrm{Bi}$ monzonite with $.2 \%$ Py on fractures. |
| 101005 | 88N, 114E | Crowded plag. porphyry with mod. epid-py on fractures, $1 \%$ Py, trace Cpy (subcrop). |
| 101006 | $85+80 \mathrm{~N}, 115+20 \mathrm{E}$ | $\mathrm{Hb}-\mathrm{Bi}$ monzonite with rusty fractures. |
| 101007 | $89+60 \mathrm{~N}, 115 \mathrm{E}$ | Med. to coarse-grained $\mathrm{Hb}-\mathrm{Bi}$ monzonite, mod. propylitic alteration along fractures. |
| 101008 | $89+40 \mathrm{~N}, 115 \mathrm{E}$ | Med.-grained $\mathrm{Hb}-\mathrm{Bi}$ monzonite with weak propylitic alteration. |
| 101009 | $88+80 \mathrm{~N}, 115 \mathrm{E}$ | Kspar megacrystic monzonite porphyry, 1\% Py on fractures. |
| 101010 | $88+80 \mathrm{~N}, 115+20 \mathrm{E}$ | Kspar megacrystic monzonite porphyry, 1\% Py on fractures. |
| 101011 | $82+70 \mathrm{~N}, 98 \mathrm{E}$ | Subporphyritic Kspar monzonite, weak propylitic alteration. |
| 101012 | $89+80 \mathrm{~N}, 125 \mathrm{E}$ | Augite porphyry andesite, $1 \%$ dissem. Py. |
| 101013 | $91+85 \mathrm{~N}, 128 \mathrm{E}$ | Augite porphyry andesite, .5\% Py on fractures, mod. propylitic alteration. |
| 101014 | 120N, 126+85E | $\mathrm{Hb}-\mathrm{Bi}$ monzonite, coarse-grained with rusty fractures. |

## Appendix III (continued)

| Sample | Grid Coordinates | Description |
| :---: | :---: | :---: |
| 101015 | $88+85 \mathrm{~N}, 130 \mathrm{E}$ | Crowded plag. porphyry, mod. propylitic alteration, rusty fractures. |
| 101016 | $86+70 \mathrm{~N}, 130 \mathrm{E}$ | Augite porphyry, mod. epid-py on fractures. |
| 101017 | $88+75 \mathrm{~N}, 130 \mathrm{E}$ | Augite porphyry, local strong Kspar-epid-py on fractures. |
| 101018 | $86+75 \mathrm{~N}, 115 \mathrm{E}$ | Hb monzonite with epid-Kspar-py on fractures. |
| 101019 | $87+90 \mathrm{~N}, 115+25 \mathrm{E}$ | Plag. porphyry monzonite, epid-chl-py on fractures (1.5\% Py). |
| 101020 | 88N, 115E | Plag. porphyry monzonite with mod. propylitic alteration on fractures, $1 \%$ Py on fractures. |
| 101021 | $86+75 \mathrm{~N}, 130 \mathrm{E}$ | Augite porphyry andesite, weak-mod. epid-Kspar-py on fractures, 1\% Py. |
| 101022 | $86+80 \mathrm{~N}, 130 \mathrm{E}$ | Crowded plag. porphyry, unaltered. |
| 101023 | $89 \mathrm{~N}, 128+50 \mathrm{E}$ | Augite porphyry andesite, mod. chl-epid-py on fractures, .5-1.0\% Py. |
| 101024 | $89+60 \mathrm{~N}, 115 \mathrm{E}$ | Med. to coarse-grained Hb monzonite, mod. propylitic alteration. |
| 101025 | 92N, 95E | Coarse-grained plag. porphyry monzonite, mod. propylitic alteration on fractures, $1 \%$ Py on fractures and dissem. |
| 101026 | 90N, 95E | Hb monzonite, fresh with $1.5 \%$ dissem Py. |



IC - . 500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO IO ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B $W$ AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY IC IS 3 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS $>1 \%, A G>30$ PPM \& AU $>1000$ PPR

- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginging 'RE' are duplicate samples.

DATE RECEIVED: AUG 191991 DATE REPORT MAILED:
SIGNED BY. .: Anroy.D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS






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