# 1993 GEOLOGICAL & GEOCHEMICAL REPORT

# ON THE 1 - 10 WHALE CLAIMS

Fairchild Lake Area

NTS 106C/13

Located at 64° 56' North Latitude

133° 41' West Longitude

- Prepared For -

**INTERNATIONAL PRISM EXPLORATION LTD.**

- Prepared By -

**PAMICON DEVELOPMENTS LIMITED**

M.A. Stammers, P.Geo., FGAC

Work Completed: July 6, 1993

Report Date: February, 1994

Yukon Mining Incentives Program: Designation No. 93-052

# 1993 GEOLOGICAL & GEOCHEMICAL REPORT ON THE WHALE CLAIMS

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## 1.0 INTRODUCTION

The Whale mineral claims are located in the Bonnet Plume River valley approximately 182 kilometres north-northeast of Mayo in east central Yukon (Figure 1). The property, located in the Wernecke Mountains and accessible by air or winter cat road is situated 6 kilometres southeast of Fairchild Lake near the Bonnet Plume River valley. Geologically, the claim group is underlain by a faulted and folded sequence of Proterozoic sedimentary Quartet Group strata of the Wernecke Supergroup that has been intruded by one or more small hematite breccia bodies and cut by several quartz veins.

Recent publication of data on the giant Olympic Dam copper-gold-silver-uranium deposit in Australia lead to the development of applying this deposit model to the Wernecke Supergroup strata and related hematite breccia complexes with its widely documented copper-uranium-gold-cobalt occurrences. It was on this basis that the Whale 1 - 10 claims were acquired by staking in October 1992.

A brief exploration program comprising preliminary geological mapping, lithogeochemical sampling and soil geochemistry was completed on the property on July 6, 1993. There is no record of any previous work on the property. Results from the limited program demonstrate that much of the claim group is underlain by unmineralized and monotonous Quartet Group stratigraphy. Minor copper mineralization was discovered on the Whale 9 and 10 claims and appears to be associated with a hematite breccia body and related jasper horizon.

All work programs and property acquisition have been jointly conducted by Pamicon

**INTERNATIONAL PRISM EXPLORATION LTD.**

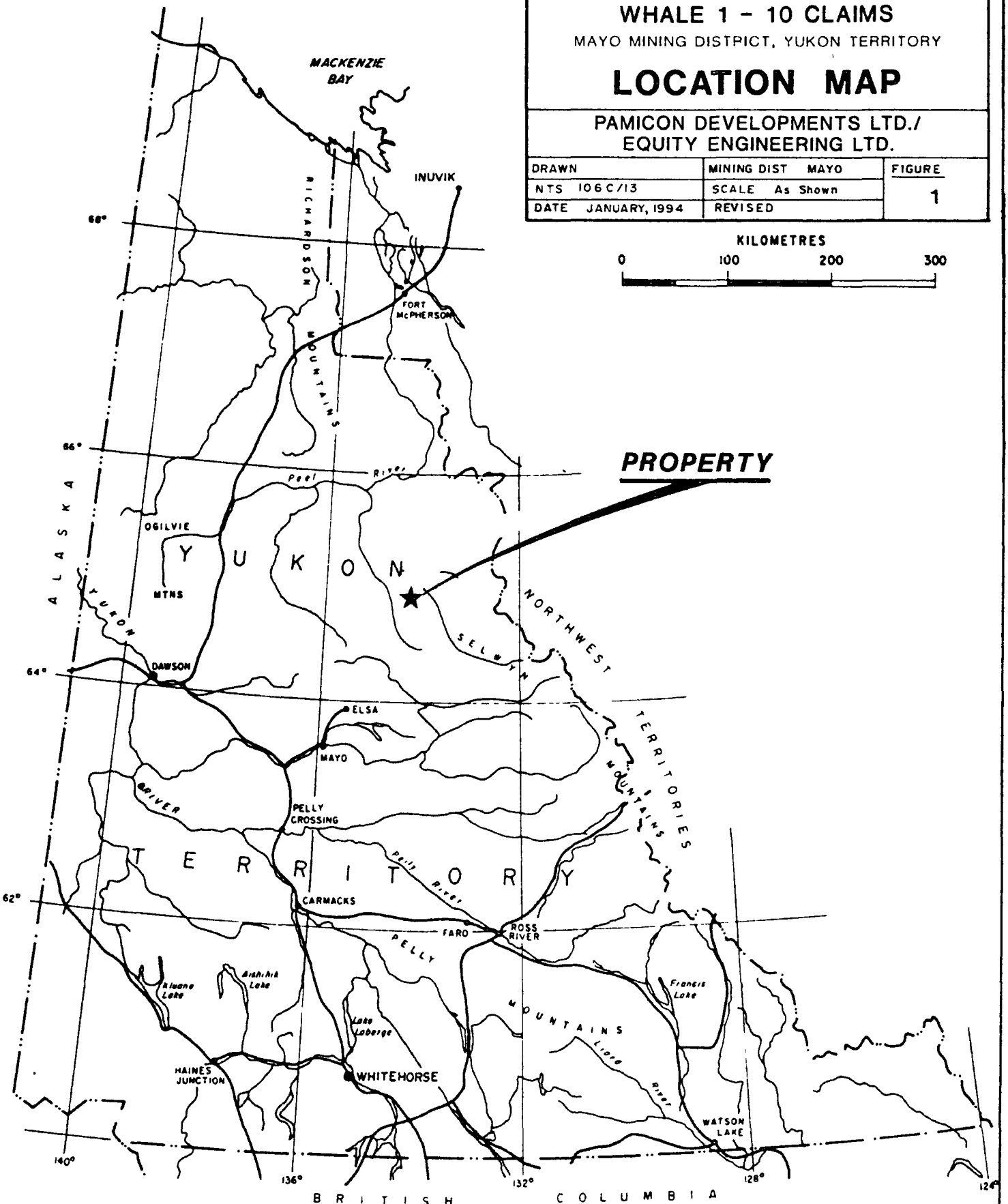
# DOLORES PROJECT
## WHALE 1 - 10 CLAIMS
MAYO MINING DISTPICT, YUKON TERRITORY

# LOCATION MAP

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

| | | |
|---|---|---|
| DRAWN | MINING DIST MAYO | FIGURE 1 |
| NTS 106C/13 | SCALE As Shown | |
| DATE JANUARY, 1994 | REVISED | |

KILOMETRES
0 100 200 300



Developments Ltd. and Equity Engineering Ltd. The claims were optioned to International Prism Exploration Ltd in the spring of 1993. The same companies have been retained to report on the fieldwork activities.

## 2.0 LIST OF CLAIMS

The Whale property comprises 10 contiguous quartz mineral claims located in the Mayo Mining District (Figure 2). Government records indicate that the claims are owned 50% each by Pamicon Developments Ltd. and Equity Engineering Ltd. of Vancouver, B.C. Separate documents indicate that the claims are held under option by International Prism Exploration Ltd. of Calgary, Alberta.

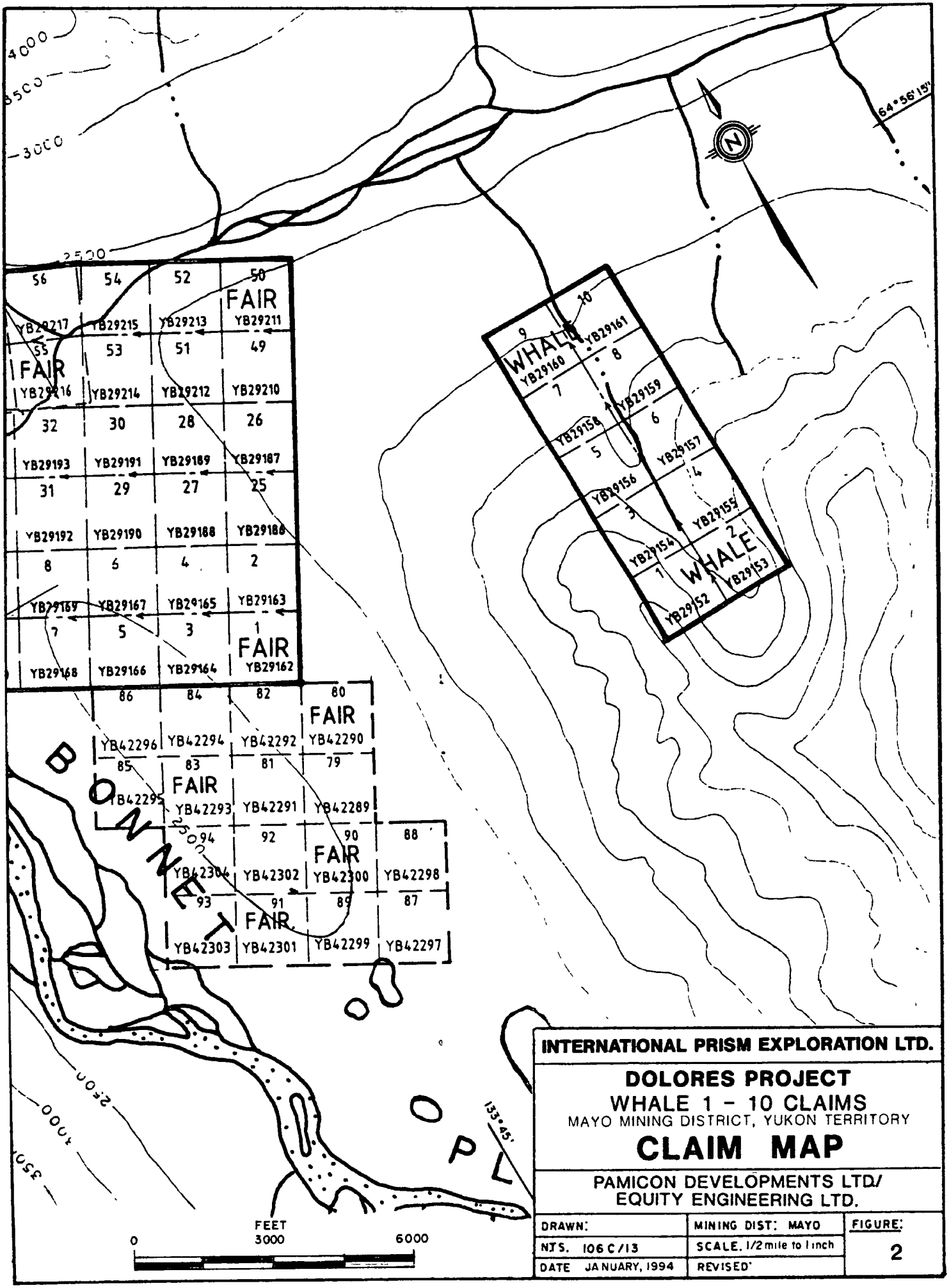
The following table lists the claims by name, number, record date, and pending expiry date:

| Claim Name | Claim Numbers | Record Numbers | Record Date | Expiry Date |
|---|---|---|---|---|
| Whale | 1 - 10 | YB29152-161 | 10/19/92 | 12/31/96* |

*** Pending acceptance of work filed with this assessment report.**

## 3.0 LOCATION, ACCESS AND PHYSIOGRAPHY

The Whale property is located in the Wernecke Mountains of east central Yukon, approximately 182 kilometres northeast of Mayo (Figure 1). Approximate coordinates of the claims are 64°56' North longitude and 133°41' West latitude on NTS map sheet 106C/13. The property may be accessed from Mayo by float plane

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# DOLORES PROJECT

## WHALE 1 - 10 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

# CLAIM MAP

PAMICON DEVELOPMENTS LTD/
EQUITY ENGINEERING LTD.

| | | |
|---|---|---|
| DRAWN: | MINING DIST: MAYO | FIGURE: |
| NTS. 106 C/13 | SCALE. 1/2 mile to 1 inch | 2 |
| DATE JANUARY, 1994 | REVISED' | |

to Fairchild Lake, 6 kilometres to the northwest of the claims. Helicopter support is necessary to the property from Fairchild Lake. Access during the 1993 work program was by wheeled aircraft to the Bear River airstrip located 28 kilometres west-southwest of the property and then by helicopter to a basecamp shared with Westmin Resources on Breccia Creek. From Breccia Creek, access was by helicopter, 19 kilometres east to the property.

In the late 1960's, a spur trail was built to the property area from the Wind River winter tote road. The Wind River tote road was built during the late 1950's to access oil and gas exploration sites to the north and in the early 1960's was utilized again during work on the Snake River (Crest) iron deposit.

Elevations on the Whale property range between 910 and 1,550 metres above sea level. The topography is mountainous and typical of alpine glaciated terranes, with deep valleys and serrated ridges. Relief ranges from gentle to steep. The majority of the area is above tree line, which lies at approximately 900 metres. Thick stands of spruce are found only in the major river valleys. Above tree line, vegetation consists of alpine grasses and moss with local concentrations of dwarf birch and alder. Work on the claim holdings could proceed from early June to late September.

This part of the Yukon did not receive continental Pleistocene glaciation, but was subjected to significant alpine glaciation to form the wide U-shaped valleys of the Bonnet Plume and Wind Rivers. A few receding alpine glaciers are present on north facing slopes.

## 4.0 AREA HISTORY

The first copper occurrences were noted by trappers working in the region at the turn of the century. In 1935, the McCluskey Lake copper occurrences were staked and the Bonnet Plume and Wind River area received sporadic exploration for copper over the next 20 years. Exploration activity was stimulated in the late 1950's when Crest Exploration Limited built a winter road from Elsa into their banded iron deposit in the Snake River area. Work on the Snake River Iron deposit outlined 18.6 billion tonnes averaging 47% iron in the Hadrynian Rapitan Group (Yeo, 1986).

In the early 1960's, the first copper showing was found at Dolores Creek by L. Brown. Bonnet Plume River Mines Ltd. conducted exploration from 1967 to 1969, at which time limited diamond drilling was completed (Laznicka and Edwards, 1979).

In 1971, the discovery of zinc-lead showings in the Mackenzie Mountains to the east brought exploration activity to the southeastern portion of the Wernecke Mountains. Continued lead-zinc exploration in the Proterozoic basin led to the discovery of uranium mineralization in 1974 by Archer, Cathro and Associates Ltd. In the period 1975 to 1980, a number of major companies (i.e. Urangesellschaft, Noranda) and joint ventures (i.e. Wernecke Joint Venture, Mountaineer Mines- Pan Ocean Oil Ltd.) were involved in exploration of breccia-related uranium mineralization. At this time, Pan Ocean staked and drilled coal reserves to outline in excess of 500 million tonnes of low sulphur, high volatile bituminous coal in Cretaceous strata in the Bonnet Plume Basin located north of the Wernecke Mountain Range.

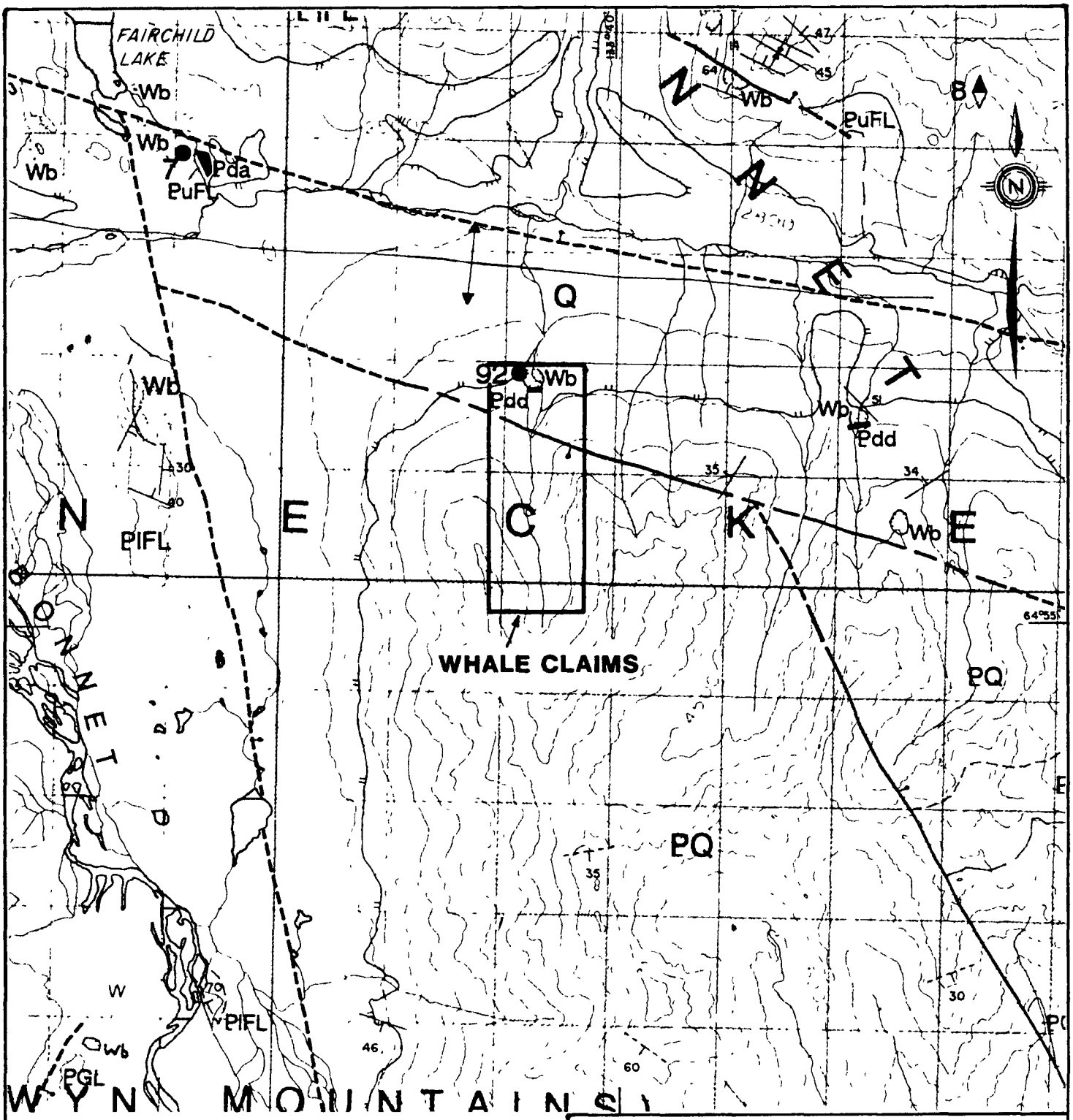
The 1980's saw very limited exploration throughout the project area. Archer Cathro, Texaco and Cyprus Gold embarked on limited exploration campaigns to test the gold potential of some known uranium and copper occurrences. The lack of recent exploration activity has allowed most of the staked areas to come open.

No prior work is reported in the Whale claims area.

## 5.0 REGIONAL GEOLOGY (Figure 3)

The Wernecke Mountains are cored by at least 14,000 metres of generally fine-grained terrigenous and carbonate rocks of Helikian age that have been penetrated by mineralized breccias and cut by mafic sills and dykes. The entire succession has been named the Wernecke Supergroup and has been divided into three groups (oldest to youngest): Fairchild Lake Group, Quartet Group and Gillespie Lake Group. To the east and south, the Hadrynian Pinguicula Group unconformably overlies the Wernecke Supergroup. Palaeozoic strata bound the western margin and Cretaceous and Tertiary sediments fill the area to the north in the Bonnet Plume Basin.

Delaney (1985) provides the most updated discussion of the Proterozoic stratigraphy whereas, Bell (1977, 1978, 1982, 1986a, 1986b, 1987) focused on the mineralogy, morphology and genesis of the breccia complexes. In addition to this published work, many stratigraphic sections were measured by Pamicon Developments Ltd. during their work programs. The following lithological discussion combines the detailed Pamicon work and that of Delaney. Where applicable, the **Fairchild,**

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Geology Map from Thorkelson and Wallace

Open File 1994-6 (G)

Indian and Northern Affairs Canada

Exploration and Geological Services Division,

Yukon Region.

KILOMETRES

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# DOLORES PROJECT

WHALE 1 - 10 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

# REGIONAL GEOLOGY

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

| | | |
|---|---|---|
| DRAWN | MINING DIST MAYO | FIGURE: |
| NTS 106C/13 | SCALE 1 50,000 | 3 |
| DATE. FEBRUARY, 1994 | REVISED | |

# LEGEND

(to accompany Figure 3)

## STRATIFIED ROCKS

Quaternary

**Q** Alluvium, colluvium, and glacial deposits

Middle Proterozoic

**Gillespie Lake Group**

**PGL** Undivided Gillespie Lake Group; orange, brown and grey weathering dolostone and silty dolostone, locally stromatolitic, locally hosting chert nodules and sparry karst infillings, interbedded with subordinate black weathering siltstone and shale, green, grey and brown weathering laminated mudstone, and grey to white weathering quartzose sandstone

**Quartet Group**

**PQ** Black weathering shale, finely laminated dark grey weathering siltstone, and planar to cross laminated light grey weathering siltstone and fine grained sandstone. In upper part of succession, siltstone and fine grained sandstone interbedded with subordinate orange weathering dolostone grades upward into basal Gillespie Lake Group

**Fairchild Lake Group**

**PuFL** Upper Fairchild Lake Group: black weathering siltstone, buff to light grey weathering dolomitic siltstone, orange to brown weathering dolostone

**PlFL** Lower Fairchild Lake Group: Greenish grey to pink and green weathering calcareous laminated siltstone, grey weathering fine grained sandstone, and minor brown weathering carbonate

## INTRUSIVE ROCKS

Middle Proterozoic

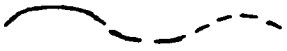
**Wernecke Breccia**

**WB** Mottled red, green and grey weathering hematitic and dolomitic breccia, and related metasomatized country rock

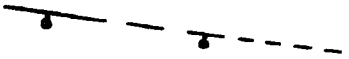
**Igneous Dykes**

**Pd** Fine to medium grained, mafic to intermediate dykes. **Pdd**, greenish grey weathering, fine to medium grained diorite to gabbro; **Pda**, grey weathering, biotitic andesite to basalt, locally spherulitic and amygdaloidal

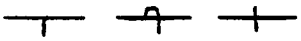
# SYMBOLS



**stratigraphic or intrusive contact**
known, approximate, assumed

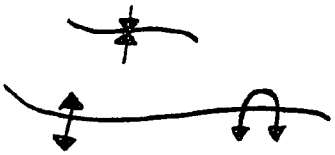


**normal or strike-slip fault** (pegs on downthrown side)
known, approximate, assumed



**bedding**
inclined, overturned, vertical

**cleavage**
inclined, vertical



**fold**

syncline

anticline: inclined; overturned

# GEOLOGY

106C/13 After Derek J. Thorkelson and Carol A. Wallace, OPEN FILE 1994-6 (G) Geological Map of Fairchild Lake Map Area, Wernecke Mountains, Yukon, Canada/Yukon Mineral Development Agreement, Geoscience Office

**Quartet** and **Gillespie** subgroups of Delaney (1985) have been bracketed after the Pamicon description.

Recent publication of 1:50000 scale mapping of NTS mapsheet 106C/13 by Thorkelson and Wallace (1994a), along with its accompanying report (Thorkelson and Wallace (1994b) provide excellent additional information on the region. Figure 3 is taken directly from this work.

The Fairchild Lake Group outcrops along the western edge of the Bonnet Plume River, at Bond Creek and near the headwaters of the Little Wind River. The thickness is greater than 4,000 metres and the base of this sequence has not been observed. The lowest members of the Fairchild Lake Group consist of light to dark green, fractured, chloritic siltstone grading upwards into light grey, massively bedded, siliceous siltstone (**F-1**). The remainder of the section consists of alternating repetition of the grey siltstone described above and an interbedded unit of narrow limestone (20%) and siltstone (80%) beds (**F-2**). The interbedded unit is recognized by its "ribbed" weathering. Overlying these units is a sequence of massively bedded, green calcareous siltstone, brown weathering dolomite and a coarser, light green sandstone or quartzite with local magnetite (**F-3, F-4**). The top of this section is marked by a 12.0 metre massively bedded, calcareous white quartzite overlain by thin bedded, green calcareous siltstone and minor limestone. The transitional (**F-Tr**) upper part of the Fairchild Lake Group is measured from the appearance of a well developed phyllite. Overlying the phyllite is a bed of black, soft silty shale, followed by 170 metres of thick, massively interbedded section of brown weathering dolomite with black shale and topped by 120 metres of pyritic, rusty weathering, black shale. Near

the top of the dolomite sequence is a distinctive 12 metre thick marker horizon of white, recrystallized limestone. This sequence is typical of a thick miogeoclinal succession.

The Quartet Group consists of greater than 5,000 metres of monotonous dark-grey weathering, fine-grained siliclastic sediments. Immediately above the red brown weathering shale of the Fairchild Lake Group is a 330 metre thick section of dark grey to black weathering, laminated shales and silty shales (**Q-1**). The balance of the section is comprised of dark grey weathering siltstone and sandstone with interbeds of shale and quartzite (**Q-2**). Primary structures include cross and graded bedding, ripple marks and load casts. Massively bedded quartzites increase in frequency towards the top of the group. The base of Q-2 is marked by a 180 metre thick, rusty weathering, pyritic quartzite unit. The base of the Quartet Group is interpreted by Delaney (1985) to have accumulated in a sediment starved basin with the thicker bedded siliclastic sediments of Q-2 being typical of shallow marine sediments.

The Gillespie Lake dolomitic rocks exhibit a gradational contact with the underlying Quartet Group. The thickness of the transition zone varies from 25 metres to as much as 700 metres (Delaney, 1981) and consists of massively interbedded, brown to orange weathering dolomite and dark grey to black, calcareous siltstone or shale giving a striped appearance to this unit (**G-TR**). Delaney (1981) has subdivided the remainder of the group into **G-2** through **G-7**, although none of these subgroups can be followed along strike due to dramatic facies changes. Above the transition zone, the Gillespie Lake Group is dominated by bright orange-weathering, grey dolomite with minor black shale, maroon shale

and lesser quartzite. Stromatolites, oolites and molar tooth structures occur near the top of the section. The Gillespie Lake Group is a 4,000 metre thick section of terrigenous siliclastic sediments and shallow marine platformal dolomites.

The overlying Pinguicula Group of Hadrynian age consists of a basal andesitic flow overlain by coarse unsorted conglomerate, alternating red and green siltstones/sandstones, and, finally by stromatolitic dolomite. This poorly studied group has been correlated to the Coates Lake Group or "copper cycle" in the upper part of the MacKenzie Mountains Supergroup (Jefferson and Ruelle, 1986). Its lower contact and upper contact, which is marked by glacial deposits of the Rapitan Group (Windermere or Ekwi Supergroup), are both erosional unconformities.

Strata of the Wernecke Supergroup are cut by numerous hematitic breccia complexes that are enriched in iron, uranium, barium, fluorine, copper, cobalt, rare earths and gold. At least 86 breccias have been identified, which represents about 2% of the surface exposure in the region (Archer and Schmidt, 1978). No breccias cut the younger Pinguicula Group rocks.

The Wernecke Supergroup is cut by gabbro dykes/sills and one body of peridotite. Several lamprophyre dykes approximately 1.0 metre wide, with books of fresh biotite up to 4.0 centimetres in diameter are found northwest of Fairchild Lake (Archer and Schmidt, 1978). K-Ar dating of biotite points to a Late Proterozoic age for these dykes (Delaney, 1981). Diabase dykes, tentatively assigned a Helikian age, occur in the southern half of the map-area.

The main structural components of the Wernecke terrane are the southeast trending fault splays (Deslauriers, Knorr and Snake River Faults) of the Richardson Fault Array. These faults are interpreted to be deep-seated, long-lived, vertical structures which have undergone considerable right lateral and vertical movement. These faults separate the Wernecke Supergroup from younger Proterozoic rocks to the east. In the western part of the area, Lower Palaeozoic rocks unconformably overlie the Wernecke Supergroup, forming spectacular angular unconformities. On a regional scale, sediments dip away from the Bonnet Plume valley causing the Proterozoic rock units to be exposed in a northwest trending anticlinal structure.

The Bonnet Plume valley is considered to be an expression of a major fault splay from the Knorr Fault and the Wind River from the Deslauriers Fault. A secondary northerly set of faults likely controls the topographic linears such as the Slats Creek pass and Fairchild Lake valley.

At least two early major orogenic events affected the Proterozoic strata in the Werneckes. These include the "Racklan orogeny" at the base of the Pinguicula Group (1.2 Ga) and a major rifting event at the base of the Rapitan Group (0.8 Ga), the "Hayhook orogeny" (Young et al, 1979).

Deformation due to the Racklan orogeny consists mainly of intense cross block faulting with steep reverse and normal block faulting and subsequent rotation of large blocks. Folding is normally an open style and the Richardson Fault Array was probably active (Delaney, 1981). This deformational phase is consistent with an extensional rifting environment producing mafic volcanic flows at the base of the Pinguicula Group and development of the breccia complexes.

Within the Lower Fairchild Lake Group, the deformation is more intense as folds are normally tight, isoclinal and occasionally recumbent. A large portion of the group is overturned south of Fairchild Lake. Since the degree of alteration and structural complexity of the Quartet and Gillespie Lake Groups is much less, it is suspected that another orogeny, compressional in nature, affected the Lower Fairchild Lake Group, perhaps marking the boundary between the Aphebian and Helikian. Bell (1982) feels that these structural features were produced by the interaction of transcurrent faults producing areas of tension and compression creating variations in style and intensity of deformation.

Four styles of nonferrous metallic mineralization have been identified in Proterozoic rocks of the Wernecke Mountains: (1) Hematite breccia and vein related copper-uranium-gold-silver-cobalt, (2) Sedimentary copper, (3) Shale-hosted lead-zinc-silver, and (4) Carbonate hosted lead-zinc-silver. To date, the greatest exploration effort has been concentrated on the breccia mineralization, but even this effort has been really limited to the period 1975-1980 and almost solely targeted at the uranium.

## 6.0 1993 WORK PROGRAM

An exploration program comprising geological mapping, lithogeochemistry, soil geochemistry and prospecting was completed on the Whale 1 - 10 claims on July 6, 1993.

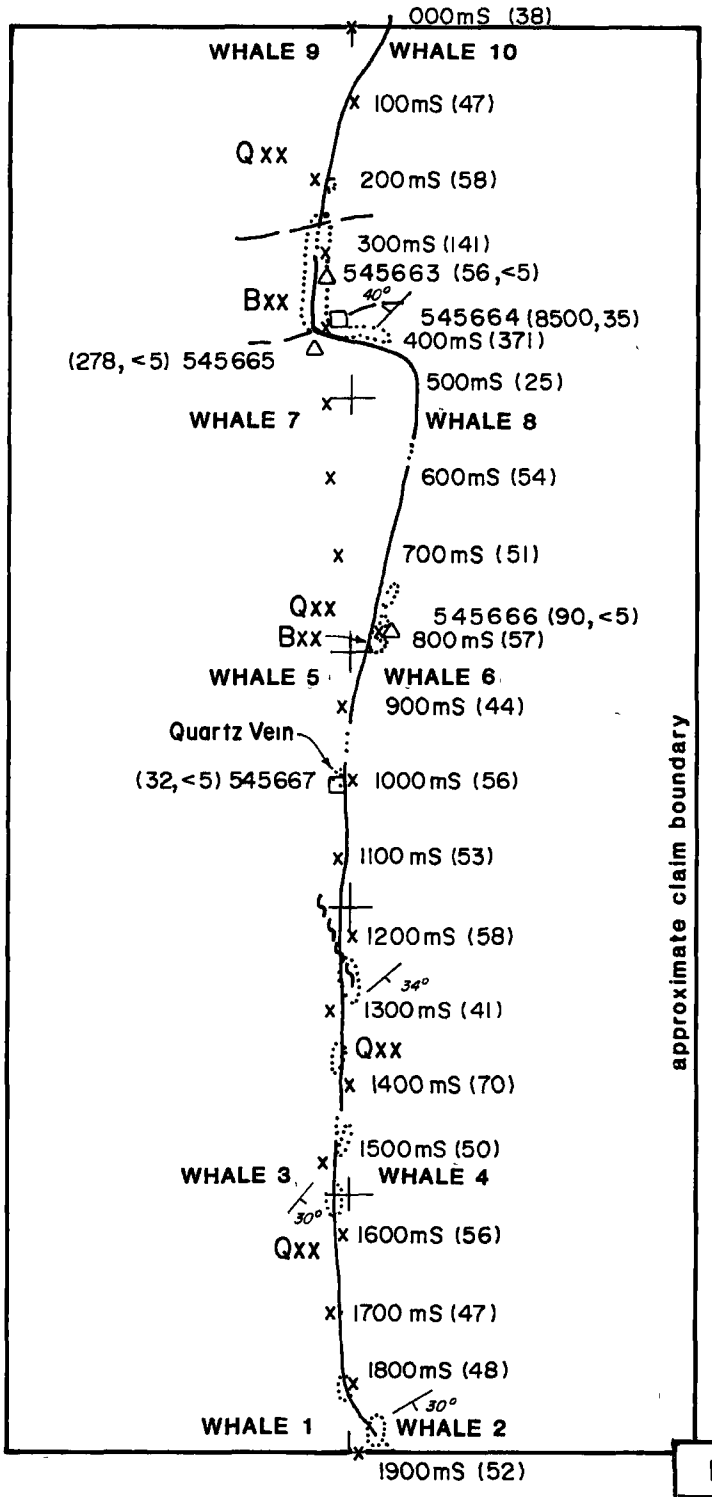
Preliminary geological mapping at one inch to one-half mile scale was carried out

over portions of the property and surrounding area. A total of 3 lithogeochemical and 4 grab samples was taken during the course of mapping and limited prospecting.

A total of 20 soil samples was collected every 100 metres on the claim line. Samples were taken, where possible from the "B" horizon at depths ranging from 10 to 30 centimetres and averaging about 20 centimetres. The sample site was marked in the field with plastic flagging tape. The sampler recorded notes pertaining to sample horizon, colour, texture, vegetation, and local physiography. Samples were partially dried in camp then shipped along with rock samples to Chemex Labs, North Vancouver B.C. for preparation and analysis. Analytical procedures, rock description forms and a complete set of results for gold, lanthanum and 24 elements by ICP geochemistry are listed in the appendices.

## 7.0 PROPERTY GEOLOGY AND MINERALIZATION (Figures 4 and 5)

The Whale claim group is underlain by Quartet group dark grey to black, siliclastic sediments including shale, slate, siltstone, argillite and quartzite. Exposure is very good in the southern claims area but becomes poor to the north as one enters the wide till covered valley of Louis (Ram) Creek. Most lithologies are finely laminated with prominent crossbedding features with tops up. Quartzite is thick bedded and blocky weathering while other units are progressively medium to thin bedded. Fine grained, diagenetic pyrite is common in many of the Quartet Group lithologies. Stratigraphy strikes generally north-northeast with east-southeasterly dips. Steeply dipping faults and shear zones were observed along both north-south and east-west trends.




**LEGEND**

- Post Location
- x Soil Location-Sample No. (ppm Cu)
- △ Litho Location-Sample No. (ppm Cu, ppb Au)
- □ Grab Location No. (ppm Cu, ppb Au)
- Outcrop
- Bedding,strike,dip
- Fault

**LITHOLOGIES**

**Qxx - Quartet Group: black siltstone quartzite**

**Bxx - Wernecke Breccia**

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# DOLORES PROJECT

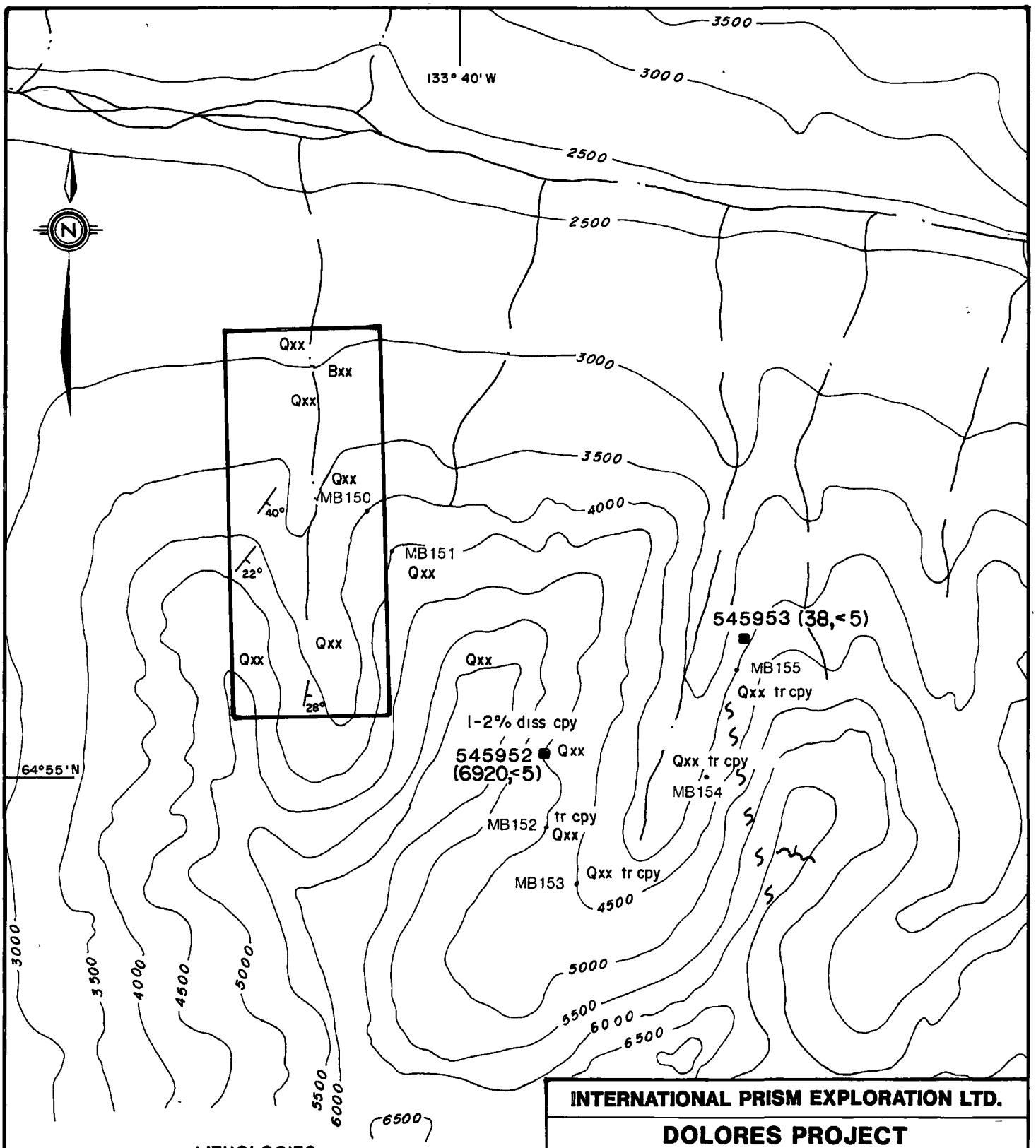
WHALE 1 - 10 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

## SOIL GEOCHEMISTRY, ROCK SAMPLING AND PRELIMINARY GEOLOGY MAP

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

| | | |
|---|---|---|
| DRAWN | MINING DIST. MAYO | FIGURE |
| NTS 106C/13 | SCALE 1:10,000 | 4 |
| DATE: FEBRUARY, 1994 | REVISED | |




**LITHOLOGIES**

- **Qxx** Quartet Group: black siltstone quartzite
- **Bxx** Wernecke Breccia
- **cpy** Chalcopyrite Mineralization in Quartz Veins

**Symbols**

- Bedding, strike, dip
- ■ Grab Rock Sample (Copper ppm, Gold ppb)
- MB155 • Geological Reference Station

Feet 0 1500 3000 4500 Feet

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# DOLORES PROJECT

WHALE 1 - 10 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

## AREA GEOLOGY AND ROCK SAMPLING TRAVERSE MAP

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

| | | |
|---|---|---|
| DRAWN: | MINING DIST. MAYO | FIGURE |
| N.T.S 106C/13 | SCALE 1/2mile=1inch | 5 |
| DATE. FEBRUARY, 1994 | REVISED | |

Quartet Group rocks are locally crosscut by small to medium size quartz veins and occasional quartz-carbonate veins. Minor chalcopyrite and/or pyrite mineralization is infrequently associated with these veins and attendant silicified zones. Two samples plotted on Figure 5, 545952 (chalcopyrite-bearing) and 545953 (pyrite-bearing) returned respective copper values of 6920 and 38 ppm Cu. Gold values for both samples were below detection limits. A 5 metre wide, 90° trending quartz vein is exposed in the main creek in the middle of the claim group. Grab sample 545667 returned values of 32 ppm Cu and <5 ppb Au.

A small hematite breccia body is partially exposed in the main creek cut on the Whale 9 and 10 claims. Both heterolithic and homolithic members are present as well as a spatially related 1 cm thick jasper horizon. The heterolithic breccia includes two clast types. A brown, laminated sandy clasts are present, as well as a black argillite component. Carbonate alteration is very strong and lithogeochemical sample 545663 containing 5-7% specularite and <1% pyrite returned values of 56 ppm Cu and <5 ppb Au. A second lithogeochemical sample, 545665 with 3% specularite and trace chalcopyrite ran 278 ppm Cu and <5 ppb Au. Grab sample 545664, a carbonate and jasper altered thinly laminated siltstone with about 3% chalcopyrite returned values of 8,500 ppm Cu and 35 ppb Au. A second, very small homolithic breccia body outcropping near the Whale 5 - 8 claim posts was sampled (545666) for lithogeochemical purposes and ran 90 ppm Cu and <5 ppb Au.

## 8.0 SOIL GEOCHEMISTRY (Figure 4)

A total of 20 soil samples was collected along the claim line which basically runs down the centre of the main creek valley. Samples were collected every 100 metres on alternating sides of the creek.

Results of this small sampling program are shown for copper on Figure 4. Values for copper ranged from 25 to 371 ppm. The two highest values of 141 and 371 ppm Cu (0300M S and 0400M S) correspond to chalcopyrite mineralization discovered in and immediately adjacent to the largest hematite breccia body.

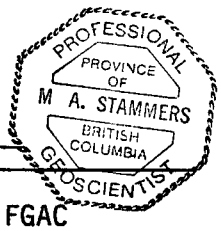
Geochemically anomalous manganese values of 2,930 and 5,630 ppm are coincident with the highest copper results. No other elements report any significant or anomalous values.

## 9.0 CONCLUSIONS AND RECOMMENDATIONS

The Whale 1 - 10 claims were staked to cover favourable geology and reported copper mineralization outlined by a regional exploration program completed by Pamicon Developments Ltd. in the late 1970s. A minimal geological and geochemical work program completed in 1993 failed to identify significant copper mineralization or geology favourable for locating bulk tonnage Cu-Au deposits of the Olympic Dam model.

No further work is recommended on the claims at this time.

Respectively submitted,




M.A. STAMMERS, P.GEO., FGAC

# APPENDIX A

# BIBLIOGRAPHY

## BIBLIOGRAPHY


Archer, A.R., Bell, R.T. and Thorpe R. (1986): Age Relationships from U-Th-Pb isotope studies of uranium mineralization in Wernecke breccias; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A, p. 385-391.

Archer, A.R. and Schmidt, U. (1978): Mineralized Breccias of Early Proterozoic Age, Bonnet Blume River District, Yukon Territory; CIM Bulletin, vol. 71, p. 53-58.

Bell, R.T. (1978): Breccias and uranium mineralization in the Wernecke Mountains, Yukon - a progress report ; in Current Research, Part A, Geological Survey of Canada, Paper 78-1A. p. 317-322.

Bell, R.T. (1982): Comments on the geology and uraniferous mineral occurrences of the Wernecke Mountains , Yukon and District of MacKenzie; in Current Research, Geological Survey of Canada, Paper 82-1B. p. 279-284.

Bell, R.T. (1986a): Geological map of northeastern Wernecke Mountains, Yukon Territory; Geological Survey of Canada, Open File 1027.

Bell, R.T. (1986b): Megabreccias in northeastern Wernecke Mountains, Yukon Territory; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A. p. 375-384.

Bell, R.T. (1989): A Conceptual Model for Development of Megabreccias and Associated Mineral Deposits in Wernecke Mountains, Canada, Copperbelt, Zaire, and Flinders Range, Australia; in Uranium Resources and Geology of North America, International Atomic Energy Agency, p. 149-169.

Bell, R.T. and Delaney, G.D. (1977): Geology of some uranium occurrences in Yukon Territory; in Current Research, Part A, Geological Survey of Canada, Paper 77-1A. p. 33-37.

Bell, R.T. and Jefferson, C.W. (1987): An Hypothesis for an Australian-Canadian Connection in the Late Proterozoic and the Birth of the Pacific Ocean; Pacific Rim Congress 87, p. 39-50.

Bell, R.T. and Jones, L.D. (1979): Geology of some Uranium Occurrences in Western Canada; in Current Research, Part A, Geological Survey of Canada, Paper 79-1A. p. 397-340.

Delaney, G.D. (1981): The Mid-Proterozoic Wernecke Supergroup, Wernecke Mountains, Yukon Territory; in Proterozoic Basins of Canada, Geological Survey of Canada, Paper 81-10, p. 1-23.

Delaney, G.D. (1985): The Middle Proterozoic Wernecke Supergroup, Wernecke Mountains, Yukon Territory; Unpublished Ph.D. Thesis, University of Western Ontario, 373 pp.

Eisbacher, G.H. (1978): The Major Proterozoic Unconformities, Northern Cordillera; in Current Research, Part A, Geology Survey of Canada, Paper 78-1A, p. 53-58.

Green, L.H. (1972): Geology of Nash Creek, Larsen Creek and Dawson map-areas, Yukon Territory; Geological Survey of Canada, Memoir 364, 157 pp.

Hitzman, M.W., Oreskes, N. and Einaudi, M.T. (1992): Geological Characteristics and Tectonic Setting of Proterozoic Iron Oxide (Cu-U-Au-Ree) Deposits, unpublished.

Jefferson, C.W. and Ruelle, J.D.L. (1986): The late Proterozoic Redstone Copper Belt, Mackenzie Mountains, N.W.T.; in Morin, J.A., ed., Mineral Deposits of Northern Cordillera; Canadian Institute of Mining and Metallurgy, Special Publication 37, p. 154-168.

Lalor, J.H. (1991): Discovery of the Olympic Dam Copper-Uranium-Gold-Silver Deposit; in Case Histories of Mineral Discoveries, Society for Mining, Metallurgy, and Exploration, Inc., Vol. 3, p. 219-221.

Laznicka, P. and Edwards, R.J. (1979): Dolores Creek, Yukon - a Disseminated Copper Mineralization in Sodic Metasomatites; in Economic Geology, vol. 74, p. 1352-1370.

Parish, R.R. and Bell, R.T. (1987): Age of the Nor breccia pipe, Wernecke Supergroup, Yukon Territory; in Radiogenic Age and Isotopic Studies: Report 1, Geological Survey of Canada, Paper 87-2, p. 39-42.

Reeve, J.S. (1990): The discovery and evaluation of the Olympic Dam deposit; in Geological Aspects of the Discovery of Important Minerals in Australia, Australasian Institute of Mining and Metallurgy, mon. 17, p. 125-133.

Reeve, J.S., Cross, K.C., Smith, R.N. and Oreskes N. (1990): Olympic Dam Copper-Uranium-Gold-Silver Deposit; in Geology and Mineral Deposits of Australia and Papua New Guinea, Australasian Institute of Mining and Metallurgy, mon.14, p. 1009-1035.

Roberts, D.E. and Hudson, G.R.T. (1983): The Olympic Dam Copper-Uranium-Gold Deposit, Roxby Downs, South Australia; in Economic Geology, vol. 78, p. 799-822.

Thorkelson, D.J. and Wallace, C.A. (1994a): Geological map of Fairchild Lake Map Area (106C/13), Wernecke Mountains, Yukon; Exploration and Geological Services Division Yukon; Indian and Northern Affairs Canada, Open File 1994-6(G).

Thorkelson, D.J. and Wallace, C.A. (1994b): Geological setting of mineral occurrences in Fairchild Lake map area (106C/13), Wernecke Mountains, Yukon; in Yukon Exploration and Geology, 1993; Exploration and Geological Services Division, Indian and Northern Affairs Canada.

Young, G.M., Jefferson, C.W., Delaney, G.D. and Yeo, G.M. (1979): Middle and late Proterozoic evolution of the northern Canadian Cordillera and Shield; in Geology, vol. 7, p. 329-330.

Youles, I.P. (1984): The Olympic Dam copper-uranium-gold Deposit, Roxby Downs, South Australia - a discussion; in Economic Geology, vol. 79, p. 1941-1944.

# APPENDIX B

# LIST OF PERSONNEL

## LIST OF PERSONNEL

Michael Stammers (Sr. Geologist)
#711 - 675 West Hastings Street
Vancouver, B.C. V6B 1N4

Mark Baknes (Sr. Geologist)
#207 - 675 West Hastings Street
Vancouver, B.C. V6B 1N2

David Caulfield (Sr. Geologist)
#207 - 675 West Hastings Street
Vancouver, B.C. V6B 1N2

# APPENDIX C

# STATEMENT OF EXPENDITURES

# STATEMENT OF EXPENDITURES
# WHALE 1 - 10 MINERAL CLAIMS

**CANADA** ) In the matter of an evaluation program on the
) Whale 1 - 10 Mineral Claims

I, Mike Stammers for Pamicon Developments Limited, #711 - 675 West Hastings Street, Vancouver, B.C. and Equity Engineering Ltd., #206 - 675 West Hastings Street, Vancouver, B.C. do solemnly declare that a program consisting of geological mapping, lithogeochemical sampling, soil geochemistry and prospecting work was carried out on the Whale 1 - 10 Mineral Claims on July 6, 1993.

The following expenses were incurred during the course of this work and in the compilation and reporting of the results:

## PROFESSIONAL FEES AND WAGES:

| | | | |
|---|---|---|---|
| M. Stammers, P.Geo. | 1.0 days @ $375 | $ 375.00 | |
| D. Caulfield, P.Geo. | 1.0 days @ $375 | 375.00 | |
| M. Baknes, P.Geo. | 1.0 days @ $300 | 300.00 | |
| | | | $ 1,050.00 |

## EXPENSES:

| | | | |
|---|---|---|---|
| Maps & Reproductions | | 13.15 | |
| Drafting | | 19.45 | |
| Travel: | Airfare | 10.60 | |
| | Mob/Demob Costs | 125.20 | |
| Rentals: | Camp | 79.66 | |
| | Radio | 12.60 | |
| | Truck | 49.59 | |
| Camp Food | | 44.85 | |
| Field Supplies | | 2.07 | |
| Telephone | | 9.27 | |
| Freight | | 1.94 | |
| Fixed Wing | | 126.23 | |
| Helicopter: | Direct | 420.00 | |
| | Fuel | 94.81 | |
| Assays | | 416.25 | |
| Report Cost | | 121.45 | |
| Recording Fees | | 41.73 | |
| Management Fees | | 135.78 | |
| | | | 1,724.63 |
| SUBTOTAL | | | 3,824.63 |
| | | GST | 267.72 |
| **TOTAL PROGRAM COST:** | | | **$ 4,092.35** |

.../2

Notes:

1. Wages are based on actual man days spent on the property.
2. Helicopter charges and based on actual hours flown.
3. Assay charges are based on actual numbers of samples from the property.
4. General expenses (all other costs) are prorated according to many days allocated to each property.

And I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

Declared at Vancouver in the )
Province of British Columbia this )
22 day of FEBRUARY, 1994 )


# APPENDIX D

# ROCK SAMPLE DESCRIPTIONS

## MINERALS AND ALTERATION TYPES

| | | | |
|---|---|---|---|
| AB | albite | AD | adularia |
| AK | ankerite | AS | arsenopyrite |
| AZ | azurite | BA | barite |
| BI | biotite | BO | bornite |
| BR | brannerite | CA | calcite |
| CB | Fe-carbonate | CC | chalcocite |
| CL | chlorite | CO | cobaltite |
| CP | chalcopyrite | CY | clay |
| DI | diopside | DO | dolomite |
| EP | epidote | ER | erythrite |
| GA | garnet | GE | goethite |
| GL | galena | GR | graphite |
| HE | earthy hematite | HS | specularite |
| JA | jarosite | KF | potassium feldspar |
| MC | malachite | MG | magnetite |
| MN | Mn-oxides | MR | mariposite |
| MS | muscovite/sericite | NE | neotocite |
| PO | pyrrhotite | PY | pyrite |
| QZ | quartz | SI | silica |
| SP | sphalerite | TT | tetrahedrite |

## ALTERATION INTENSITIES

| | | | | | |
|---|---|---|---|---|---|
| m | medium | s | strong | tr | trace |
| vs | very strong | vw | very weak | w | weak |

| Sample No. | UTM : | | Type : Grab | Alteration : sCB, wMS | Au | Ag | Co | Cu | La | Ni |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | | Strike Length Exp. : >50 m | Metallics : 6%HS, <1%PY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545663 | Elevation: 3150 ft | | Sample Width : 4x1 m | Secondaries: None | <5 | 1.0 | 14. | 56. | 50. | 24. |
| | Orientation: / | | True Width : ? m | Host : Heterolithic hematitic breccia | | | | | | |

Comments : Breccia outcrop in creek 320m south of No. 2 post, Whale 9-10.

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| Sample No. | UTM : | | Type : Grab | Alteration : sCB | Au | Ag | Co | Cu | La | Ni |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | | Strike Length Exp. : 1.5 m | Metallics : 3%CP | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545664 | Elevation: 3225 ft | | Sample Width : 5.0 cm | Secondaries: trMC, wNE | 35. | 3.0 | 9. | 8502. | 130. | 18. |
| | Bedding : 050 / 68 NW | | True Width : 5.0 cm | Host : Carbonate-jasper altered thinly laminated siltstone | | | | | | |

Comments : Disseminated chalcopyrite found in carbonate altered siltstone in envelope surrounding jasper horizon.

---

| Sample No. | UTM : | | Type : Float | Alteration : sCB, wKF | Au | Ag | Co | Cu | La | Ni |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | | Strike Length Exp. : m | Metallics : trCP, 3%HS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545665 | Elevation: 3250 ft | | Sample Width : m | Secondaries: None | <5 | 1.0 | <1 | 278. | 20. | 13. |
| | Orientation: / | | True Width : m | Host : Carbonate altered homo-heterolithic breccia | | | | | | |

Comments : Few specks of chalcopyrite noted in breccia matrix in Fe-carbonate clasts. Sample located 420 m south of No. 2 posts, Whale 9 - 10.

---

| Sample No. | UTM : | | Type : Grab | Alteration : sCB, wMS | Au | Ag | Co | Cu | La | Ni |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | | Strike Length Exp. : ? m | Metallics : 1%HS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545666 | Elevation: 3380 ft | | Sample Width : 6.0 m | Secondaries: None | <5 | 2.0 | <1 | 90. | <10 | 15. |
| | Orientation: / | | True Width : ? m | Host : Carbonate altered homolithic breccia | | | | | | |

Comments : Breccia is exposed on east side of creek for approximately 6m on creek bottom.

---

| Sample No. | UTM : | | Type : Grab | Alteration : QZ | Au | Ag | Co | Cu | La | Ni |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | | Strike Length Exp. : 8.0 m | Metallics : trPY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545667 | Elevation: 3525 ft | | Sample Width : 30 cm | Secondaries: None | <5 | <0.2 | <1 | 32. | <10 | 10. |
| | Vein : 090 / 68 N | | True Width : 30 cm | Host : Quartz vein | | | | | | |

Comments : Outcrop of bull quartz with trace of pyrite crossing creek bottom. Located approximately 1000m south of No. 2 post, Whale 9 - 10.

---

| Sample No. | UTM : | | Type : Float | Alteration : wCB, wCL, sQZ | Au | Ag | Co | Cu | La | Ni |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | | Strike Length Exp. : m | Metallics : 2%CP | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545952 | Elevation: 1520 m | | Sample Width : m | Secondaries: HE | <5 | 2.0 | 108. | 6921. | <10 | 56. |
| | Orientation: / | | True Width : m | Host : Grey argillite | | | | | | |

Comments : 15x30x30cm angular boulder in talus 20 metres north of gully. Drusy quartz vugs parallel to vein. Fe-carbonate and minor chlorite also occurs in veins. Chalcopyrite occurs as 1-3mm patches.

---

| Sample No. | UTM : N | Type : Float | Alteration : wCB, sQZ | Au | Ag | Co | Cu | La | Ni |
|---|---|---|---|---|---|---|---|---|---|
| | E | Strike Length Exp. : m | Metallics : trCP, 7%HS, 2%PY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545953 | Elevation: 1190 m | Sample Width : m | Secondaries: None | <5 | <0.2 | 3. | 38. | 20. | 16. |
| | Orientation: / | True Width : m | Host : Green siltstone | | | | | | |

Comments : 40x40cm boulder in talus. Specular hematite as coarse veins within siltstone. Pyrite as finely disseminated cubes.

---

# APPENDIX E

# CERTIFICATES OF ANALYSIS & ANALYTICAL PROCEDURES

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project: Whale
Comments: ATTN: M. STAMMERS CC: EQUITY ENG. LTD.


Certificate Date: 04-AUG-93
Invoice No. :I9317874
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9317874

| SAMPLE | PREP CODE | Au ppb FA+AA | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) | Mg % (ICP) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WHALE 0000M S | 201 285 | < 5 | < 0.2 | 7.32 | 450 | 0.5 | < 2 | 0.14 | < 0.5 | 9 | 75 | 38 | 2.77 | 2.83 | 0.86 |
| WHALE 0100M S | 201 285 | < 5 | < 0.2 | 8.34 | 520 | 0.5 | < 2 | 0.58 | < 0.5 | 11 | 104 | 47 | 3.14 | 3.13 | 1.14 |
| WHALE 0200M S | 201 285 | < 5 | < 0.2 | 8.07 | 540 | 0.5 | 2 | 0.66 | < 0.5 | 13 | 90 | 58 | 3.11 | 2.99 | 1.09 |
| WHALE 0300M S | 201 285 | < 5 | < 0.2 | 8.27 | 820 | < 0.5 | 4 | 0.36 | < 0.5 | 16 | 84 | 141 | 4.30 | 2.82 | 0.74 |
| WHALE 0400M S | 201 285 | < 5 | < 0.2 | 7.92 | 1110 | < 0.5 | < 2 | 0.62 | < 0.5 | 15 | 84 | 371 | 4.69 | 2.53 | 0.93 |
| WHALE 0500M S | 201 285 | < 5 | < 0.2 | 6.81 | 550 | < 0.5 | 4 | 0.30 | < 0.5 | 11 | 86 | 25 | 5.75 | 2.06 | 0.65 |
| WHALE 0600M S | 201 285 | < 5 | < 0.2 | 8.41 | 580 | 0.5 | 2 | 0.25 | < 0.5 | 15 | 96 | 54 | 4.48 | 2.88 | 0.98 |
| WHALE 0700M S | 201 285 | < 5 | < 0.2 | 7.24 | 600 | < 0.5 | < 2 | 1.24 | < 0.5 | 15 | 84 | 51 | 3.09 | 2.56 | 1.36 |
| WHALE 0800M S | 201 285 | < 5 | < 0.2 | 7.43 | 750 | 1.0 | < 2 | 0.80 | < 0.5 | 13 | 90 | 57 | 3.35 | 2.62 | 1.03 |
| WHALE 0900M S | 201 285 | < 5 | < 0.2 | 7.78 | 560 | < 0.5 | < 2 | 1.04 | < 0.5 | 13 | 84 | 44 | 3.10 | 2.73 | 1.37 |
| WHALE 1000M S | 201 285 | < 5 | < 0.2 | 6.90 | 710 | < 0.5 | < 2 | 1.06 | < 0.5 | 12 | 84 | 56 | 3.19 | 2.50 | 1.18 |
| WHALE 1100M S | 201 285 | < 5 | < 0.2 | 7.72 | 660 | 0.5 | 4 | 0.64 | < 0.5 | 12 | 88 | 53 | 3.49 | 3.03 | 1.08 |
| WHALE 1200M S | 201 285 | < 5 | < 0.2 | 6.69 | 830 | < 0.5 | < 2 | 1.15 | < 0.5 | 12 | 83 | 58 | 3.47 | 2.34 | 1.04 |
| WHALE 1300M S | 201 285 | < 5 | < 0.2 | 7.13 | 720 | < 0.5 | 6 | 0.71 | < 0.5 | 12 | 87 | 41 | 3.67 | 2.36 | 0.91 |
| WHALE 1400M S | 201 285 | < 5 | < 0.2 | 7.68 | 740 | < 0.5 | < 2 | 0.62 | < 0.5 | 12 | 92 | 70 | 3.71 | 2.66 | 1.04 |
| WHALE 1500M S | 201 285 | < 5 | < 0.2 | 6.54 | 930 | < 0.5 | < 2 | 1.19 | < 0.5 | 12 | 79 | 50 | 3.26 | 2.10 | 1.02 |
| WHALE 1600M S | 201 285 | < 5 | < 0.2 | 8.04 | 830 | < 0.5 | 8 | 0.68 | < 0.5 | 12 | 92 | 56 | 3.67 | 2.59 | 0.99 |
| WHALE 1700M S | 201 285 | < 5 | < 0.2 | 8.13 | 660 | < 0.5 | 6 | 0.49 | < 0.5 | 21 | 94 | 47 | 3.77 | 2.63 | 1.15 |
| WHALE 1800M S | 201 285 | < 5 | < 0.2 | 7.17 | 750 | < 0.5 | < 2 | 0.57 | < 0.5 | 15 | 83 | 48 | 3.21 | 2.08 | 0.83 |
| WHALE 1900M S | 201 285 | < 5 | < 0.2 | 7.98 | 790 | < 0.5 | < 2 | 0.54 | < 0.5 | 13 | 93 | 52 | 3.36 | 2.35 | 0.96 |
| 545663 | 205 274 | < 5 | 1.0 | 7.23 | 690 | 0.5 | < 2 | 3.56 | < 0.5 | 14 | 111 | 56 | 6.90 | 3.17 | 0.83 |
| 545664 | 205 274 | 35 | 3.0 | 4.83 | 250 | 1.0 | < 2 | 4.55 | < 0.5 | 9 | 118 | 8500 | 2.45 | 0.79 | 1.30 |
| 545665 | 205 274 | < 5 | 1.0 | 6.27 | 540 | < 0.5 | < 2 | 4.41 | 0.5 | < 1 | 99 | 278 | 5.49 | 0.81 | 0.47 |
| 545666 | 205 274 | < 5 | 2.0 | 5.63 | 500 | < 0.5 | < 2 | 5.58 | < 0.5 | < 1 | 74 | 90 | 3.86 | 2.64 | 1.78 |
| 545667 | 205 274 | < 5 | < 1.0 | 0.61 | 40 | < 0.5 | 30 | 0.07 | < 0.5 | < 1 | 299 | 32 | 0.76 | 0.09 | 0.41 |
| 545952 | 205 274 | < 5 | 2.0 | 1.31 | 20 | < 0.5 | < 2 | 0.12 | < 0.5 | 108 | 161 | 6920 | 2.93 | 0.30 | 0.68 |
| 545953 | 205 274 | < 5 | < 1.0 | 1.62 | 3200 | < 0.5 | < 2 | 0.89 | < 0.5 | 3 | 314 | 38 | 4.88 | 0.05 | 0.07 |

CERTIFICATION: Stewart Bichler

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project : Whale
Comments: ATTN: M. STAMMERS CC: EQUITY ENG. LTD.


Certificate Date: 04-AUG-93
Invoice No. :I9317874
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9317874

| SAMPLE | PREP CODE | | Mn ppm (ICP) | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) | La ppm ICP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WHALE 0000M S | 201 | 285 | 540 | < 1 | 0.66 | 20 | 210 | 8 | 37 | 0.32 | 67 | < 10 | 38 | 50 |
| WHALE 0100M S | 201 | 285 | 690 | < 1 | 0.73 | 31 | 430 | 8 | 40 | 0.31 | 77 | < 10 | 46 | 50 |
| WHALE 0200M S | 201 | 285 | 665 | < 1 | 0.72 | 23 | 520 | 10 | 65 | 0.35 | 84 | < 10 | 58 | 60 |
| WHALE 0300M S | 201 | 285 | 2930 | 2 | 1.31 | 28 | 570 | 10 | 43 | 0.31 | 80 | < 10 | 54 | 50 |
| WHALE 0400M S | 201 | 285 | 5630 | 1 | 1.53 | 31 | 760 | 12 | 62 | 0.30 | 86 | < 10 | 62 | 40 |
| WHALE 0500M S | 201 | 285 | 800 | 1 | 0.60 | 16 | 460 | 26 | 64 | 0.38 | 133 | < 10 | 106 | 40 |
| WHALE 0600M S | 201 | 285 | 600 | < 1 | 0.59 | 28 | 590 | 14 | 50 | 0.32 | 89 | < 10 | 74 | 40 |
| WHALE 0700M S | 201 | 285 | 700 | 2 | 0.82 | 27 | 550 | 12 | 93 | 0.31 | 79 | < 10 | 64 | 50 |
| WHALE 0800M S | 201 | 285 | 745 | < 1 | 0.87 | 27 | 640 | 16 | 107 | 0.33 | 99 | < 10 | 88 | 40 |
| WHALE 0900M S | 201 | 285 | 620 | < 1 | 0.71 | 25 | 550 | 12 | 74 | 0.33 | 80 | < 10 | 58 | 70 |
| WHALE 1000M S | 201 | 285 | 690 | < 1 | 0.88 | 24 | 700 | 18 | 110 | 0.34 | 93 | < 10 | 84 | 50 |
| WHALE 1100M S | 201 | 285 | 760 | < 1 | 0.79 | 24 | 530 | 28 | 80 | 0.34 | 93 | < 10 | 88 | 60 |
| WHALE 1200M S | 201 | 285 | 875 | 2 | 0.82 | 26 | 740 | 32 | 105 | 0.28 | 103 | < 10 | 120 | 30 |
| WHALE 1300M S | 201 | 285 | 730 | < 1 | 0.83 | 21 | 770 | 18 | 99 | 0.33 | 110 | < 10 | 98 | 40 |
| WHALE 1400M S | 201 | 285 | 640 | 1 | 0.83 | 28 | 490 | 22 | 99 | 0.34 | 109 | < 10 | 106 | 40 |
| WHALE 1500M S | 201 | 285 | 690 | 1 | 1.08 | 27 | 810 | 24 | 147 | 0.30 | 110 | < 10 | 116 | 30 |
| WHALE 1600M S | 201 | 285 | 705 | < 1 | 0.79 | 29 | 870 | 18 | 95 | 0.29 | 118 | < 10 | 104 | 30 |
| WHALE 1700M S | 201 | 285 | 565 | < 1 | 0.81 | 25 | 880 | 20 | 95 | 0.32 | 114 | < 10 | 94 | 40 |
| WHALE 1800M S | 201 | 285 | 695 | < 1 | 1.01 | 26 | 580 | 18 | 126 | 0.34 | 110 | < 10 | 84 | 30 |
| WHALE 1900M S | 201 | 285 | 435 | < 1 | 1.03 | 30 | 460 | 20 | 123 | 0.39 | 116 | < 10 | 88 | 30 |
| 545663 | 205 | 274 | 3380 | 3 | 2.27 | 24 | 790 | < 8 | 31 | 0.26 | 83 | < 10 | 16 | 50 |
| 545664 | 205 | 274 | 3170 | 28 | 2.85 | 18 | 4110 | 33 | 39 | 0.11 | 50 | < 10 | 24 | 130 |
| 545665 | 205 | 274 | 4920 | < 1 | 3.92 | 13 | 760 | < 8 | 37 | 0.28 | 63 | < 10 | 14 | 20 |
| 545666 | 205 | 274 | 4120 | 1 | 3.10 | 15 | 650 | < 8 | 49 | 0.16 | 50 | < 10 | 12 | < 10 |
| 545667 | 205 | 274 | 275 | < 1 | 0.12 | 10 | 30 | < 8 | 13 | 0.01 | < 1 | < 10 | 36 | < 10 |
| 545952 | 205 | 274 | 275 | 3 | 0.05 | 56 | 70 | < 8 | 4 | 0.03 | 6 | < 10 | 28 | < 10 |
| 545953 | 205 | 274 | 640 | < 1 | 1.04 | 16 | 90 | < 8 | 205 | 0.06 | 10 | < 10 | 14 | 20 |

CERTIFICATION: Ian Buchlen

# Chemex Labs Ltd.

*Analytical Chemists* *Geochemists* *Registered Assayers*

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1

Phone: (604) 984-0221
Telex: 04-352597
Fax: (604) 984-0218


## Gold

### Fire Assay Collection/ Atomic Absorption Spectroscopy (FA-AA)

Chemex Code: 100

A 10g sample is fused with a neutral lead oxide flux inquarted with 6mg of gold-free silver and then cupelled to yield a precious metal bead.

These beads are digested for 30 mins in 0.5ml concentrated nitric acid, then 1.5ml of concentrated hydrochloric acid are added and the mixture is digested for 1 hr. The samples are cooled, diluted to a final volume of 5ml, homogenized and analyzed by atomic absorption spectroscopy.

Detection limit: 5 ppb

Upper Limit: 10,000 ppb

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212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1
Phone: (604) 984-0221
Telex: 04-352597
Fax: (604) 984-0218


## 24-Element Geochemistry Package (24-ICP)

Inductively-Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

The 24 element rock geochemistry package provides quantitative analysis of all major elements (except silicon) as well as most important trace elements.

A prepared sample (0.50g) is digested with perchloric, nitric and hydrofluoric acids to dryness. The residue is taken up in a volume of 25ml of 10% hydrochloric acid and the resulting solution is analyzed by inductively-coupled plasma atomic emission spectroscopy. Results are corrected for spectral interelement interferences.
For this project only uranium and lanthanum were also analyzed.

| Chemex Code | Element | Detection Limit | Upper Limit |
|---|---|---|---|
| 573 | Aluminum | 0.01 % | 15 % |
| 565 | Barium | 10 ppm | 1 % |
| 575 | Beryllium | 0.5 ppm | 0.01 % |
| 561 | Bismuth | 2 ppm | 1 % |
| 576 | Calcium | 0.01 % | 25 % |
| 562 | Cadmium | 0.5 ppm | 0.05 % |
| 569 | Chromium | 1 ppm | 1 % |
| 563 | Cobalt | 1 ppm | 1 % |
| 577 | Copper | 1 ppm | 1 % |
| 566 | Iron | 0.01 % | 15 % |
| 560 | Lead | 2 ppm | 1 % |
| 570 | Magnesium | 0.01 % | 15 % |
| 568 | Manganese | 5 ppm | 1 % |
| 554 | Molybdenum | 1 ppm | 1 % |
| 564 | Nickel | 1 ppm | 1 % |
| 559 | Phosphorus | 10 ppm | 1 % |
| 584 | Potassium | 0.01 % | 10 % |
| 578 | Silver | 0.5 ppm | 0.02 % |
| 583 | Sodium | 0.01 % | 10 % |
| 582 | Strontium | 1 ppm | 1 % |
| 579 | Titanium | 0.01 % | 10 % |
| 556 | Tungsten | 10 ppm | 1 % |
| 572 | Vanadium | 1 ppm | 1 % |
| 558 | Zinc | 2 ppm | 1 % |
| | Uranium | 10 ppm | 1 % |
| | Lanthanum | 10 ppm | 1 % |

# APPENDIX F

# GEOLOGIST'S CERTIFICATE

## GEOLOGIST'S CERTIFICATE

I, MICHAEL A. STAMMERS, of 941 Kennedy Avenue, North Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. I am a graduate of McMaster University (1977) and hold a combined Honours B.A. in Geology and Geography.

2. I have practiced in my profession with various mining companies in Yukon, British Columbia, the Northwest Territories, Nova Scotia and Venezuela for 20 years.

3. I am duly registered as a Professional Geoscientist in the Province of British Columbia (#18883).

4. I am a Fellow of the Geological Association of Canada.

5. This report is based on property work I personally completed and supervised on July 6, 1993 combined with four years experience in the Wernecke terrain.

6. THAT I have no interest in the property described herein, nor in securities of any company associated with the property, nor do I expect to receive any such interest.

7. THAT I hereby grant permission to International Prism Exploration Ltd. for the use of this report in any prospectus or other documentation required by any regulatory authority.

DATED at Vancouver, B.C., this 22 day of FEBRUARY, 1994.

PROFESSIONAL ENGINEERS PROVINCE OF BRITISH COLUMBIA M. A. STAMMERS GEOSCIENTIST

Michael A. Stammers, P.Geo., FGAC

GEOLOGICAL ASSOCIATION OF CANADA M A STAMMERS FELLOW

# GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT

# ON THE

# DOLORES 1 - 48 CLAIM GROUP

Located in the Dolores Creek Area

NTS 106C/14
64° 57' North Latitude
133° 17' West Longitude

Yukon Territory

- prepared for -

**INTERNATIONAL PRISM EXPLORATION LTD.**

- prepared by -

David A. Caulfield, P.Geo.
Michael A. Stammers, P.Geo.
Mark E. Baknes, P.Geo.

Dates Work Performed: June 30 to July 8, 1993
Date of Report: February, 1994

Yukon Mining Incentives Program: Designation No. 93-052

# GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT ON THE DOLORES 1 - 48 CLAIM GROUP

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# GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT
# ON THE DOLORES 1 - 48 CLAIM GROUP

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**APPENDICES**

## 1.0 INTRODUCTION

The Dolores 1 - 48 claims are located in the Wernecke Mountains, approximately 190 kilometres northeast of Mayo in the east central Yukon (Figure 1). The property is accessible by air or winter cat road and was located to cover a number of copper and cobalt occurrences located and explored in the late 1960's. Diamond drilling in 1969 at the Porphyry showing returned encouraging results including 0.75% Cu over 22.9 metres. The claim group is underlain by a folded and faulted sequence of weakly metamorphosed Helikian and Hadrynian age sedimentary rocks that have been extensively intruded by hematite breccias, mafic sills and dykes and monzo-diorite (?) plugs.

Recent publication of data on the giant Olympic Dam copper-gold-silver-uranium deposit in Australia lead to the development of applying this deposit model to the Wernecke Supergroup strata and related hematite breccia complexes with its widely documented Cu-U-Co occurrences. It was on this basis that the property was acquired by staking by Pamicon Developments Ltd. and Equity Engineering Ltd. in October, 1992. The claims were subsequently optioned to International Prism Explorations Ltd. in the Spring of 1993. All work since then has been carried out Pamicon and Equity on behalf of International Prism.

This report is based on geological, geochemical and prospecting field work completed on the property from June 30, 1993 to July 8, 1993. Results of this work program confirmed previously noted copper and cobalt mineralization, lead to the discovery of new showings and identified a strong association of anomalous gold values with copper in rock samples. The Dolores 49 - 78 claims were added

**INTERNATIONAL PRISM EXPLORATION LTD.**

# DOLORES PROJECT

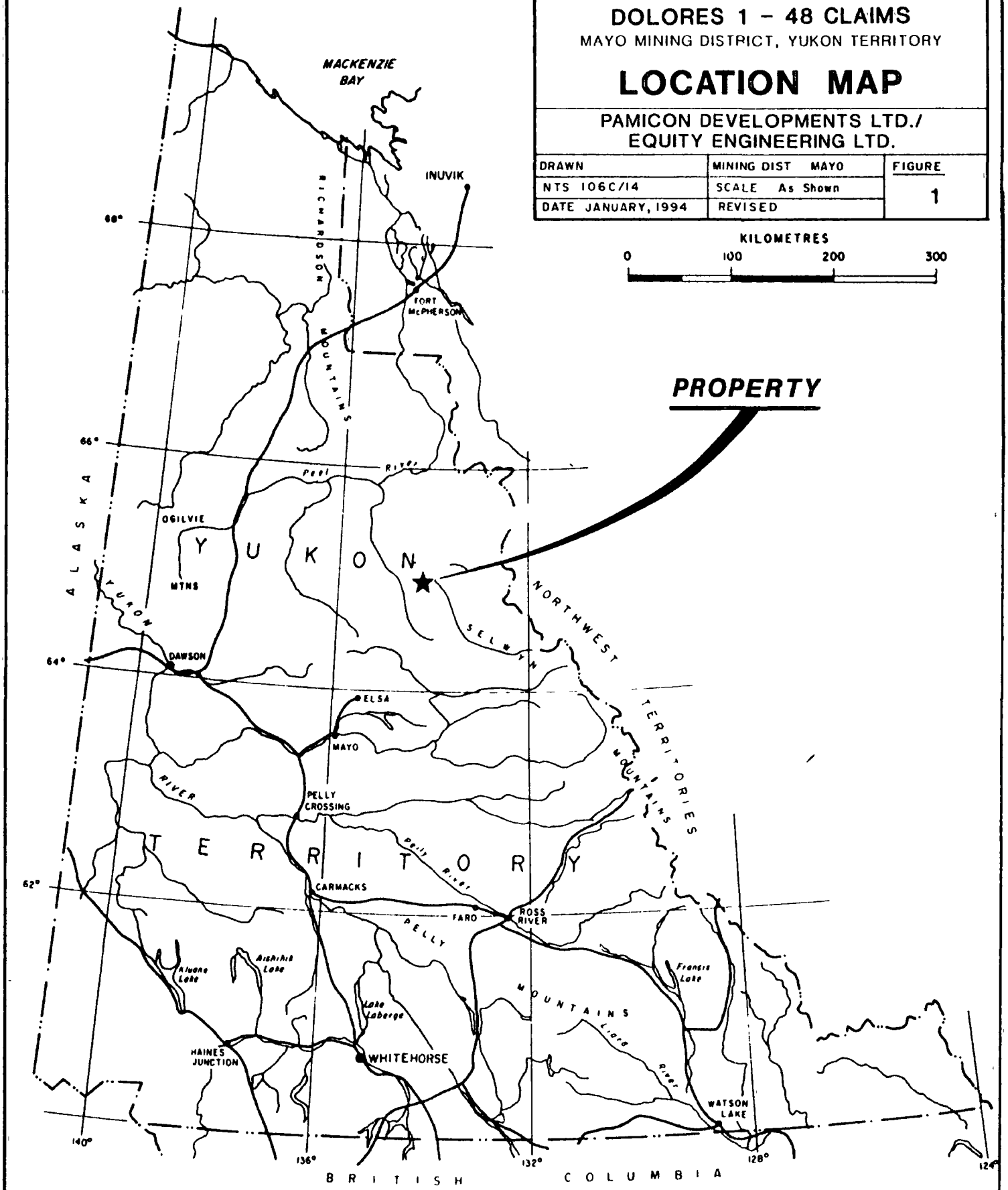
## DOLORES 1 - 48 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

# LOCATION MAP

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

| | | |
|---|---|---|
| DRAWN | MINING DIST MAYO | FIGURE 1 |
| NTS 106C/14 | SCALE As Shown | |
| DATE JANUARY, 1994 | REVISED | |



in August 1993 to cover favourable ground identified during the course of the field program.

## 2.0 LIST OF CLAIMS

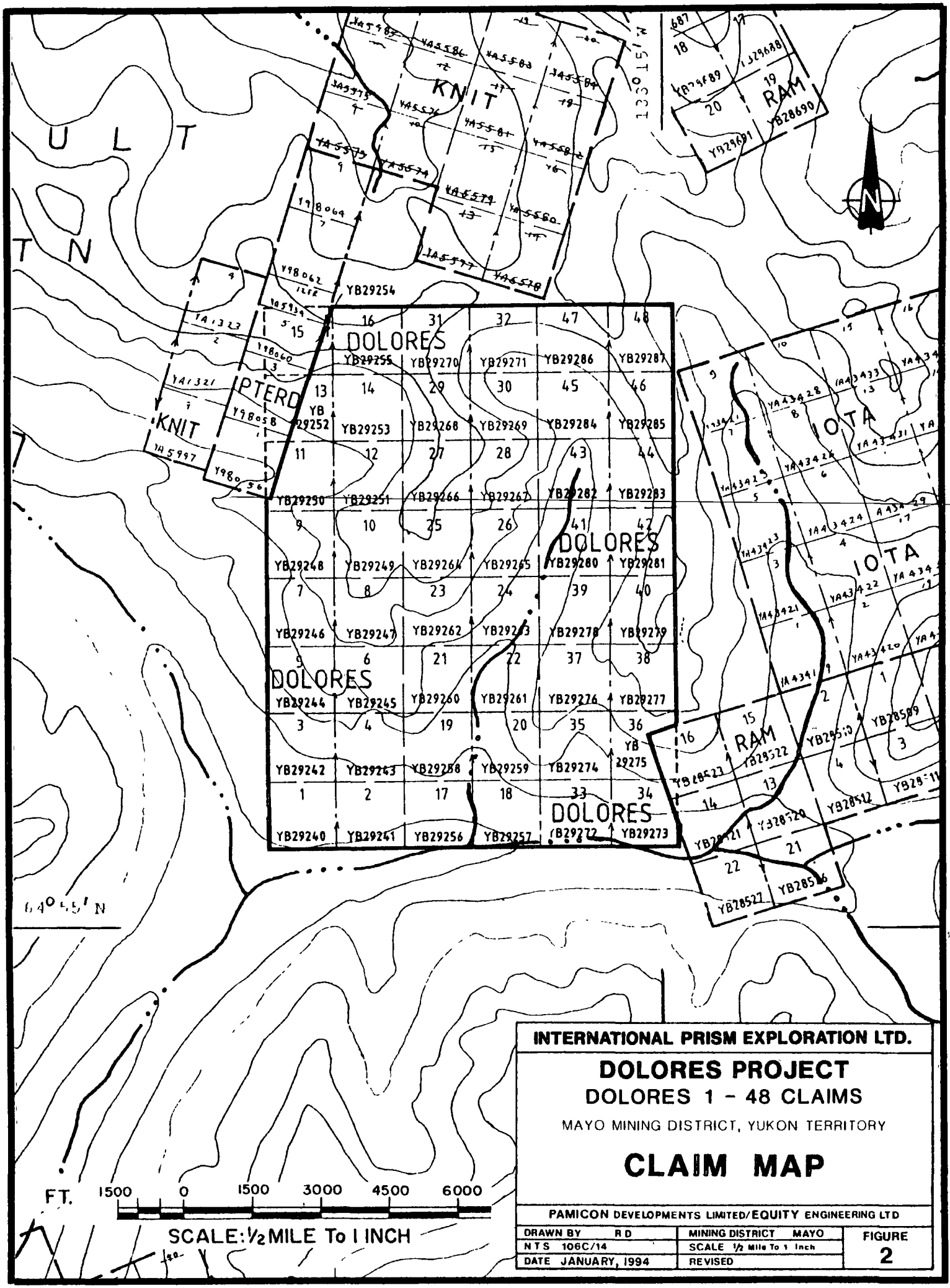
The Dolores property comprises 48 contiguous quartz mineral claims, located in the Mayo Mining District (Figure 2). Government records indicate that the Dolores 1 - 48 claims are each owned 50% by Pamicon Developments Ltd and Equity Engineering Ltd of Vancouver, B.C. The Dolores 49 - 78 claims were added in August 1993 and are held in the name of M. Stammers of North Vancouver, British Columbia. This assessment report only covers the original Dolores 1 - 48 claim group.

TABLE 2.0.1

CLAIM DATA

| Claim Name | Record Numbers | Record Date | Expiry Date |
|---|---|---|---|
| Dolores 1 - 48 | YB29240 - 287 | October 19, 1992 | October 19, 1997* |
| Dolores 49 - 78 | YB22537 - 558 | August 24, 1993 | August 24, 1994 |

*** Pending government approval of assessment work filed**




**INTERNATIONAL PRISM EXPLORATION LTD.**

# DOLORES PROJECT

## DOLORES 1 - 48 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

# CLAIM MAP

PAMICON DEVELOPMENTS LIMITED/EQUITY ENGINEERING LTD

| | | |
|---|---|---|
| DRAWN BY RD | MINING DISTRICT MAYO | FIGURE 2 |
| NTS 106C/14 | SCALE ½ Mile To 1 Inch | |
| DATE JANUARY, 1994 | REVISED | |

## 3.0 LOCATION, ACCESS AND PHYSIOGRAPHY

The Dolores property is located in the Wernecke Mountains of east central Yukon, approximately 190 kilometres northeast of Mayo, which has seasonal scheduled air service from Whitehorse (Figure 1). Approximate coordinates of the claims are 64°57' North longitude and 133°17' West latitude on NTS map sheet 106C/14. The property may be accessed from Mayo by float plane to Fairchild Lake, 23 kilometres to the north-northwest and then by helicopter, to the property. Alternatively, wheeled aircraft may employ an airstrip constructed southwest of the property. This 485 metre (1600') gravel strip is in poor condition and is presently usable over a shorter length, accommodating only small STOL aircraft. Additional work is required to enable larger aircraft such as a DC3 to operate into the strip.

Access during the 1993 program was via fixed wing aircraft to the Bear River airstrip, thence by helicopter to a basecamp shared with Westmin Resources on Breccia Creek. From Breccia Creek, access was by helicopter, 40 kilometres east to the property. A prospectors' fly camp was established in the central claims area.

In the late 1960's, a spur trail was built to the property from the Wind River winter tote road. The Wind River tote road was built during the late 1950's to access oil and gas exploration sites to the north and in the early 1960's was utilized again during work on the Snake River (Crest) iron deposit. In 1968, several bulldozer trails were constructed on the property at Cobalt Cirque and at the Porphyry showing.

Elevations on the Dolores property range between 1065 and 2165 metres above sea level. The topography is mountainous and typical of alpine glaciated terrains, with deep valleys and serrated ridges. Relief ranges from gentle to steep and locally extreme. The majority of the area is above tree line, which lies at approximately 900 metres. Thick stands of spruce are found only in the major river valleys. Above tree line, vegetation consists of alpine grasses and moss with local concentrations of dwarf birch and alder. Work on the lower portions of the claim holdings could proceed from early June to late September with access to the highest elevations restricted to July and August.

This part of the Yukon did not receive continental Pleistocene glaciation, but was subjected to significant alpine glaciation to form the wide U-shaped valleys of the Bonnet Plume and Wind Rivers. A few receding alpine glaciers are present on north facing slopes.

## 4.0 AREA HISTORY

The first copper occurrences were noted by trappers working in the region at the turn of the century. In 1935, the McCluskey Lake copper occurrences were staked and the Bonnet Plume and Wind River area received sporadic exploration for copper over the next 20 years. Exploration activity was stimulated in the late 1950's when Crest Exploration Limited built a winter road from Elsa into their banded iron deposit in the Snake River area. Work on the Snake River Iron deposit outlined 18.6 billion tonnes averaging 47% iron in the Hadrynian Rapitan Group (Yeo, 1986).

In the early 1960's, the first copper showing was found at Dolores Creek by L. Brown. Bonnet Plume River Mines Ltd. conducted exploration from 1967 to 1969, at which time limited diamond drilling was completed (Laznicka and Edwards, 1979).

In 1971, the discovery of zinc-lead showings in the Mackenzie Mountains to the east brought exploration activity to the southeastern portion of the Wernecke Mountains. Continued lead-zinc exploration in the Proterozoic basin led to the discovery of uranium mineralization in 1974 by Archer, Cathro and Associates Ltd. In the period 1975 to 1980, a number of major companies (i.e. Urangesellschaft, Noranda) and joint ventures (i.e. Wernecke Joint Venture, Mountaineer Mines- Pan Ocean Oil Ltd.) were involved in exploration of breccia-related uranium mineralization. At this time, Pan Ocean staked and drilled coal reserves to outline in excess of 500 million tonnes of low sulphur, high volatile bituminous coal in Cretaceous strata in the Bonnet Plume Basin located north of the Wernecke Mountain Range.

The 1980's saw very limited exploration throughout the project area. Archer Cathro, Texaco and Cyprus Gold embarked on limited exploration campaigns to test the gold potential of some known uranium and copper occurrences. The lack of recent exploration activity has allowed most of the staked areas to come open. The Dolores property is bounded to the northwest by Archer-Cathro's Pterd group and to the southeast by J. Hajek's Iota-Ram claims.

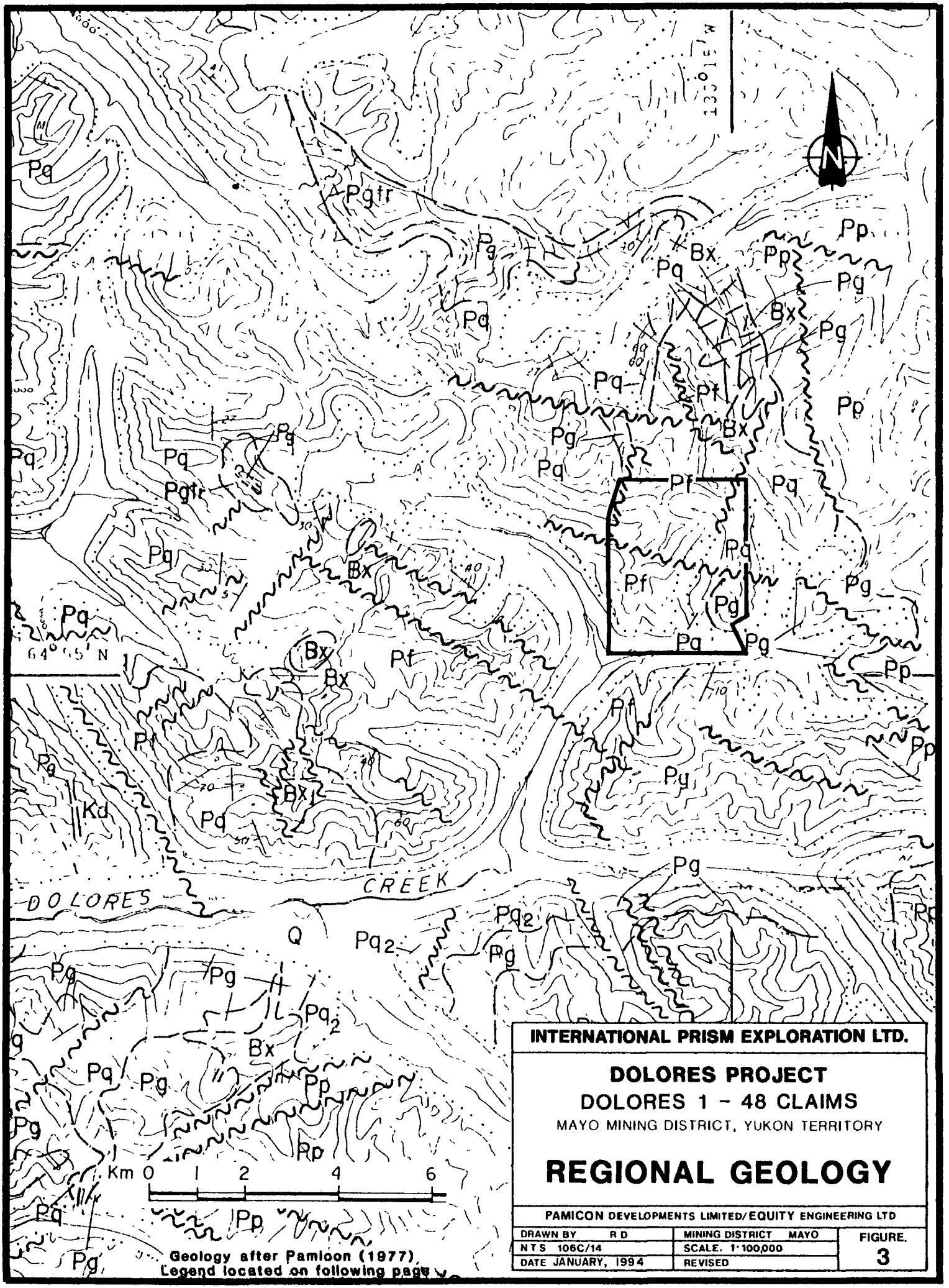
The initial exploration on the Dolores property was conducted during two periods: 1967 - 1969 and 1974 - 1976. Following the discovery of copper mineralization,

Bonnet Plume River Mines conducted soil geochemical and ground magnetic surveys, geological mapping and prospecting in 1967. Further mapping and road building was completed the following year. In 1969, additional soil geochemistry and diamond drilling (7 holes; 609.9 m.) was conducted. During the 1970's, the hematite breccias were examined for their potential uranium content. Additional work in 1981 - 1983 (Texaco Canada Resources) and 1987 - 1988 (Silverquest Resources; Cyprus Gold Canada) was undertaken with an emphasis on gold mineralization.

## 5.0 REGIONAL GEOLOGY

The Wernecke Mountains are cored by at least 14,000 metres of generally fine-grained terrigenous and carbonate rocks of Helikian age that have been penetrated by mineralized breccias and cut by mafic sills and dykes (Figure 3). The entire succession has been named the Wernecke Supergroup and has been divided into three groups (oldest to youngest): Fairchild Lake Group, Quartet Group and Gillespie Lake Group. To the east and south, the Hadrynian Pinguicula Group unconformably overlies the Wernecke Supergroup. Paleozoic strata bound the western margin and Cretaceous and Tertiary sediments fill the area to the north in the Bonnet Plume Basin.

The first recorded geological mapping in the area was by C. Camsell of the Geological Survey of Canada in 1905, who completed a topographic and geological survey between the Stewart River and Fort McPherson. In 1961, "Operation Ogilvie" was launched and the Nash Creek (106D), Larsen Creek (116A) and Dawson




**INTERNATIONAL PRISM EXPLORATION LTD.**

# DOLORES PROJECT

## DOLORES 1 - 48 CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

# REGIONAL GEOLOGY

PAMICON DEVELOPMENTS LIMITED/EQUITY ENGINEERING LTD

| | | |
|---|---|---|
| DRAWN BY R D | MINING DISTRICT MAYO | FIGURE. 3 |
| NTS 106C/14 | SCALE. 1:100,000 | |
| DATE JANUARY, 1994 | REVISED | |

# LEGEND

(to accompany Figure 3)

## LITHOLOGIES

**QUATERNARY**

Q Unconsolidated glacial and alluvial deposits.

**CRETACEOUS(?)**

Kd Diabase

Kdi Diorite

**PALEOZOIC**

P Carbonate and siliciclastic sediments, undivided.

**PROTEROZOIC**

Pp *Pinguicula Group:* Carbonate and siliciclastic sedimentary rocks and lesser volcanics.

Bx *Hematite breccia*

*WERNECKE SUPERGROUP*

Pg *Gillespie Lake Group:* Buff-, orange-, grey-, and locally maroon-weathering dolomite, dolomite terrigenous admixtures, limestone, claystone, mudstone, siltstone and fine sandstone.

Pgtr Transitional Zone: Interbedded dolomite and dark siltstone/shale with characteristic striped appearance.

Pq *Quartet Group:* Dark grey- and grey-weathering siltstone, mudstone, claystone and fine sandstone (wavy bedded); locally quartzites.

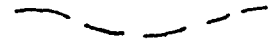
$Pq_1$ Black shale with sandstone and shale interbeds, quartzite.

$Pq_2$ Pyritic quartzite.

Pf *Fairchild Lake Group:* Light grey-, greenish grey-, and locally dark grey-weathering shale, siltstone (80%), fine sandstone and limestone (20%); locally phyllites, schists and slates.

Pftr Transitional Zone: Shale and brown-weathering dolomite with limestone marker unit, pyritic black shale.

## SYMBOLS



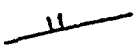
Geological contact (defined, approximate, assumed)

Thrust fault (defined, approximate)

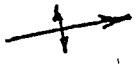
Fault (defined, assumed)

Bedding attitude defined (G-gentle, M-moderate, S-steep)

Bedding overturned

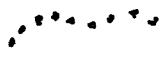


Bedding tops unknown



Anticlinal axis (arrow indicates plunge)

Synclinal axis (arrow indicates plunge)



Limits of unconsolidated glacial and alluvial deposits

(116B&C) map areas were mapped under the direction of J.A. Roddick and L.H. Green (1972). Mapping of the Nadaleen River map sheet (106C) was started in 1971 by S. Blusson and released in 1974 (Open File 205). The geology of the Wind River (106E) and Snake River (106F) map areas was mapped by D.K. Norris (Open File 279) in 1975. Since 1976, the Geological Survey of Canada, led by R.T. Bell, G.D. Delaney and W.D. Goodfellow have been mapping the Proterozoic basin and studying the uriniferous breccia complexes. Delaney (1985) provides the most updated discussion of the Proterozoic stratigraphy whereas Bell (1977, 1978, 1982, 1986, 1987) focused on the mineralogy, morphology and genesis of the breccia complexes. In addition to this published work, many stratigraphic sections were measured by Pamicon Developments Ltd. during their work programs. The following lithological discussion combines the detailed Pamicon work and that of Delaney. Where applicable, the **Fairchild**, **Quartet** and **Gillespie** subgroups of Delaney (1985) have been bracketed after the Pamicon description.

The Fairchild Lake Group outcrops along the western edge of the Bonnet Plume River, at Bond Creek and near the headwaters of the Little Wind River. The thickness is greater than 4,000 metres and the base of this sequence has not been observed. The lowest members of the Fairchild Lake Group consist of light to dark green, fractured, chloritic siltstone grading upwards into light grey, massively bedded, siliceous siltstone (**F-1**). The remainder of the section consists of alternating repetition of the grey siltstone described above and an interbedded unit of narrow limestone (20%) and siltstone (80%) beds (**F-2**). The interbedded unit is recognized by its "ribbed" weathering. Overlying these units is a sequence of massively bedded, green calcareous siltstone, brown weathering dolomite and a coarser, light green sandstone or quartzite with local magnetite

(F-3, F-4). The top of this section is marked by a 12.0 metre massively bedded, calcareous white quartzite overlain by thin bedded, green calcareous siltstone and minor limestone. The transitional (F-Tr) upper part of the Fairchild Lake Group is measured from the appearance of a well developed phyllite. Overlying the phyllite is a bed of black, soft silty shale, followed by 170 metres of thick, massively interbedded section of brown weathering dolomite with black shale and topped by 120 metres of pyritic, rusty weathering, black shale. Near the top of the dolomite sequence is a distinctive 12 metre thick marker horizon of white, recrystallized limestone. This sequence is typical of a thick miogeoclinal succession.

The Quartet Group consists of greater than 5,000 metres of monotonous dark-grey weathering, fine-grained siliciclastic sediments. Immediately above the red brown weathering shale of the Fairchild Lake Group is a 330 metre thick section of dark grey to black weathering, laminated shales and silty shales (Q-1). The balance of the section is comprised of dark grey weathering siltstone and sandstone with interbeds of shale and quartzite (Q-2). Primary structures include cross and graded bedding, ripple marks and load casts. Massively bedded quartzites increase in frequency towards the top of the group. The base of Q-2 is marked by a 180 metre thick, rusty weathering, pyritic quartzite unit. The base of the Quartet Group is interpreted by Delaney (1985) to have accumulated in a sediment starved basin with the thicker bedded siliciclastic sediments of Q-2 being typical of shallow marine sediments.

The Gillespie Lake dolomitic rocks exhibit a gradational contact with the underlying Quartet Group. The thickness of the transition zone varies from 25

metres to as much as 700 metres (Delaney, 1981) and consists of massively interbedded, brown to orange weathering dolomite and dark grey to black, calcareous siltstone or shale giving a striped appearance to this unit (G-TR). Delaney (1981) has subdivided the remainder of the group into G-2 through G-7, although none of these subgroups can be followed along strike due to dramatic facies changes. Above the transition zone, the Gillespie Lake Group is dominated by bright orange-weathering, grey dolomite with minor black shale, maroon shale and lesser quartzite. Stromatolites, oolites and molar tooth structures occur near the top of the section. The Gillespie Lake Group is a 4,000 metre thick section of terrigenous siliciclastic sediments and shallow marine platformal dolomites.

The overlying Pinguicula Group of Hadrynian age consists of a basal andesitic flow overlain by coarse unsorted conglomerate, alternating red and green siltstones/sandstones, and, finally by stromatolitic dolomite. This poorly studied group has been correlated to the Coates Lake Group or "copper cycle" in the upper part of the MacKenzie Mountains Supergroup (Jefferson and Ruelle, 1986). Its lower contact and upper contact, which is marked by glacial deposits of the Rapitan Group (Windermere or Ekwi Supergroup), are both erosional unconformities.

Strata of the Wernecke Supergroup are cut by numerous hematitic breccia complexes that are enriched in iron, uranium, barium, fluorine, copper, cobalt, rare earths and gold. At least 86 breccias have been identified, which represents about 2% of the surface exposure in the region (Archer and Schmidt, 1978). No breccias cut the younger Pinguicula Group rocks.

The Wernecke Supergroup is cut by gabbro dykes/sills and one body of peridotite. Several lamprophyre dykes approximately 1.0 metre wide, with books of fresh biotite up to 4.0 centimetres in diameter are found northwest of Fairchild Lake (Archer and Schmidt, 1978). K-Ar dating of biotite points to a Late Proterozoic age for these dykes (Delaney, 1981). Diabase dykes, tentatively assigned a Helikian age, occur in the southern half of the map-area.

The main structural components of the Wernecke terrane are the southeast trending fault splays (Deslauriers, Knorr and Snake River Faults) of the Richardson Fault Array. These faults are interpreted to be deep-seated, long-lived, vertical structures which have undergone considerable right lateral and vertical movement. These faults separate the Wernecke Supergroup from younger Proterozoic rocks to the east. In the western part of the area, Lower Paleozoic rocks unconformably overlie the Wernecke Supergroup, forming spectacular angular unconformities. On a regional scale, sediments dip away from the Bonnet Plume valley causing the Proterozoic rock units to be exposed in a northwest trending anticlinal structure.

The Bonnet Plume valley is considered to be an expression of a major fault splay from the Knorr Fault and the Wind River from the Deslauriers Fault. A secondary northerly set of faults likely controls the topographic linears such as the Slats Creek pass and Fairchild Lake valley.

At least two early major orogenic events affected the Proterozoic strata in the Werneckes. These include the "Racklan orogeny" at the base of the Pinguicula Group (1.2 Ga) and a major rifting event at the base of the Rapitan Group (0.8 Ga), the "Hayhook orogeny" (Young et al, 1979).

Deformation due to the Racklan orogeny consists mainly of intense cross block faulting with steep reverse and normal block faulting and subsequent rotation of large blocks. Folding is normally an open style and the Richardson Fault Array was probably active (Delaney, 1981). This deformational phase is consistent with an extensional rifting environment producing mafic volcanic flows at the base of the Pinguicula Group and development of the breccia complexes.

Within the Lower Fairchild Lake Group, the deformation is more intense as folds are normally tight, isoclinal and occasionally recumbent. A large portion of the group is overturned south of Fairchild Lake. Since the degree of alteration and structural complexity of the Quartet and Gillespie Lake Groups is much less, it is suspected that another orogeny, compressional in nature, affected the Lower Fairchild Lake Group, perhaps marking the boundary between the Aphebian and Helikian. Bell (1982) feels that these structural features were produced by the interaction of transcurrent faults producing areas of tension and compression creating variations in style and intensity of deformation.

Four styles of nonferrous metallic mineralization have been identified in Proterozoic rocks of the Wernecke Mountains: (1) Hematite breccia and vein related copper-uranium-gold-silver-cobalt, (2) Sedimentary copper, (3) Shale-hosted lead-zinc-silver, and (4) Carbonate hosted lead-zinc-silver. To date, the greatest exploration effort has been concentrated on the breccia mineralization, but even this effort has been really limited to the period 1975 - 1980 and almost solely targeted at the uranium.

## 6.0 1993 WORK PROGRAM

An exploration program comprising geological mapping, grid emplacement, soil geochemistry and prospecting was completed on the Dolores 1 - 48 claims from June 30 to July 8, 1993.

Mapping included 1:10000 preliminary surveys over most accessible portions of the property and 1:2500 detailed work over the Porphyry showing grid and hipchain and compass controlled surveys in Cobalt Cirque.

Grid emplacement at the Porphyry showing included the establishment of secant chained and picketed 500 metre long baseline with six, 500 metre long, hipchained and compassed, flagged crosslines 100 metres apart.

A total of 64 soil samples was collected every 50 metres on lines 100 metres apart at the Porphyry showing. Samples were taken, where possible from either B or C horizon at depths ranging from 10 to 40 centimetres and averaging about 20 centimetres. The sample site was marked in the field with plastic flagging tape or on a metal tag attached to a wood picket. The sampler recorded notes pertaining to sample horizon, colour, texture, vegetation, and local physiography. Samples were partially dried in camp then shipped to Chemex Labs, North Vancouver B.C. for preparation and analysis. Analytical procedures and a complete set of results for gold, lanthanum and 24 elements by ICP geochemistry are listed in the appendices. One soil sample returned a copper value over the detection limit and was subsequently assayed.

Geological mapping was completed on the Porphyry grid at 1:2500 scale, Cobalt Cirque area at 1:1000 scale and at 1:10000 scale over other areas of the property where accessible. Prospecting was carried out by a dedicated two man crew in and around the claims area concurrent with mapping.

A total of 94 rock samples was collected on the Dolores property and includes 11 lithogeochemical, 52 grab samples and 31 chip samples. All samples were shipped to Chemex Labs (as above) and analyzed for gold, lanthanum and 24 elements by ICP geochemistry. Twenty-six overlimit results were assayed for copper and four for cobalt. Rock descriptions, analytical procedures and complete results are included in the appendices of this report.

## 7.0 GEOLOGY

### 7.1 **Property Geology** (Figures 4 and 5)

The Dolores property is underlain by a complexly folded and faulted sequence of Proterozoic Wernecke Supergroup strata cut by hematite breccia and felsic and mafic intrusives. Pinguicula Group rocks, consisting of maroon and green laminites, lie unconformably on Wernecke strata east of the property. The property geology is summarized on Figure 4 after (Bell 1986b), while Figure 5 presents more detailed results from the 1993 work program.

The Dolores Creek area is situated in the core of a northeast trending and northeast plunging anticline. Stratigraphy has been intensely faulted with

Cobalt Cirque

Discovery Showing

Porphyry Prospect

COBALT CREEK

DISCOVERY CREEK

TETRAHEDRITE CREEK

CAMP CREEK

64° 55' N

133° 15' W

## LEGEND

**Pinguicula Group**

PP — shales, carbonates, sandstones

unconformity

**WERNECKE SUPERGROUP**

**Gillespie Lake Group**

PG — mainly dolomite, includes some transitional facies to Quartet

**Quartet Group**

PQ — mainly black and dark grey siltstones, shales and sandstones

**Fairchild Lake Group** – mainly detached units

PFd — mainly grey dolomitic fine clastics

PFs — mainly dark grey siltstone

PFl — light grey limestone

PFp — light grey-green phyllite

Bx — hematite breccia, clasts < 10 m

Sy — albitites (syenite)

dolerite dykes and plugs (gabbro)

**SYMBOLS**

fault dipping ~30° in tooth direction

fault, mainly vertical

Cu showing

area of alteration

Geology after: Bell, T.R. (1986b) GSC paper 86-1A

ft. 1500 0 1500 3000

N

**INTERNATIONAL PRISM EXPLORATION LTD.**

**DOLORES**
1 – 48
MINERAL CLAIMS

# PROPERTY GEOLOGY
AND
# MINERAL OCCURRENCES

PAMICON DEVELOPMENTS LIMITED/EQUITY ENGINEERING LTD

| | | |
|---|---|---|
| DRAWN BY R D | MINING DISTRICT MAYO | FIGURE 4 |
| NTS 106C/14 | SCALE: ½ Mile To 1 Inch | |
| DATE MARCH, 1993 | REVISED | |

immense vertical displacement in evidence with Fairchild Lake, Quartet, Gilliespie and Pinguicula Group rocks frequently juxtaposed against each other. The oldest rocks, consisting of fine siliclastics interbedded with carbonate units, form part of the Fairchild Lake Group. These units are light grey to green to purple and vary from thin to thick bedded. They have been metamorphosed to lower greenschist facies. Near the top of the Fairchild Lake Group, a banded iron formation (**Fbif**) comprised of jasper, specular hematite and ankerite occurs in a north-northwesterly trending outcrop north of Cobalt Creek immediately west of the property. Limestone (**Fls**) and dolomite (**Fdo**) form massive, grey weathering bluffs in the western claims area and in Discovery Creek cirque. In addition, in the large areas mapped as undefined Wernecke breccia (**Bxx**), a large component of this map unit includes metasomatized dolomite and limestone. The limestone and dolomite units are often in contact with a thick shale (**Fsh**) and/or phyllite (**Fph**) unit which includes grey, grey-green and green thinly bedded lithologies. Two other members of the Fairchild Lake Group have been mapped in the southern claims area and include a laminated green-grey siltstone (**Fst**) and a purple, earthy hematite rich mudstone (**Fms**) with minor dolomite in the far southwest claims area.

The Quartet Group (**Q**) sediments outcrop on the northern, western and eastern part of the property. This group consists of a thick monotonous sequence of dark grey to black, fissile shale with coarse, arenaceous fractions and dolomite near the top of the section. These rock units have been only weakly metamorphosed.

The Quartet Group grades upwards through interbeds of grey argillite and limestone-dolomite (**Gdos**) into the dominantly orange weathering dolomite facies (**Gdo**) of the Gillespie Lake Group (**G**). This unit contains abundant stromatolites, chert nodules and sparry karst infillings. As noted above, the

Wernecke assemblage is unconformably overlain by maroon coloured shale (**Pms**) of the Hadrynian Pinguicula Group to the east and on the west side of Discovery Creek.

The Wernecke strata is intruded by gabbroic to dioritic dykes (**Idi**), monzonite to diorite (**Imd**) plugs and hematite breccia (**Bxx**) bodies. None of these bodies penetrate into the Pinguicula strata. The gabbroic to dioritic intrusives are composed of feldspar, hornblende and magnetite with accessory pyrite and chalcopyrite. The largest of these, some 100 metres in width, outcrops in the northwest corner of the property. Archer (1967a) states that this dyke appears as a coarse-grained diorite in the core and is more diabasic at the margin. Laznicka and Edwards (1979) noted from thin section that the plagioclase feldspar in the diorite has been altered to albite.

The monzonite to diorite map unit appearing in this report has been referred by various authors as a syenite (Archer, 1967a,b), diorite or quartz diorite (Szetu, 1967) and albite syenite (Laznicka and Edwards, 1979). Until whole rock analysis is made, the authors prefer using monzonite as a general field mapping term to recognize the rich alkali feldspar content and to avoid confusion with the more basic gabbro described above. These feldspars have been described by earlier workers as being orthoclase (**K-feldspar**), oligoclase-andesine (**Na-Ca feldspar**) and albite (**Na-feldspar**). Of note, Laznicka and Edwards (1979) interpret this rock unit as the end member of progressively stronger albite metasomatism derived from the hematite breccia while others indicate a magmatic origin for it. The monzonite contains little quartz and 10 - 15% hornblende (Archer, 1967a). Accessory minerals include magnetite, specular hematite and chalcopyrite. The mineralization at the Porphyry showing is hosted by the monzonite.

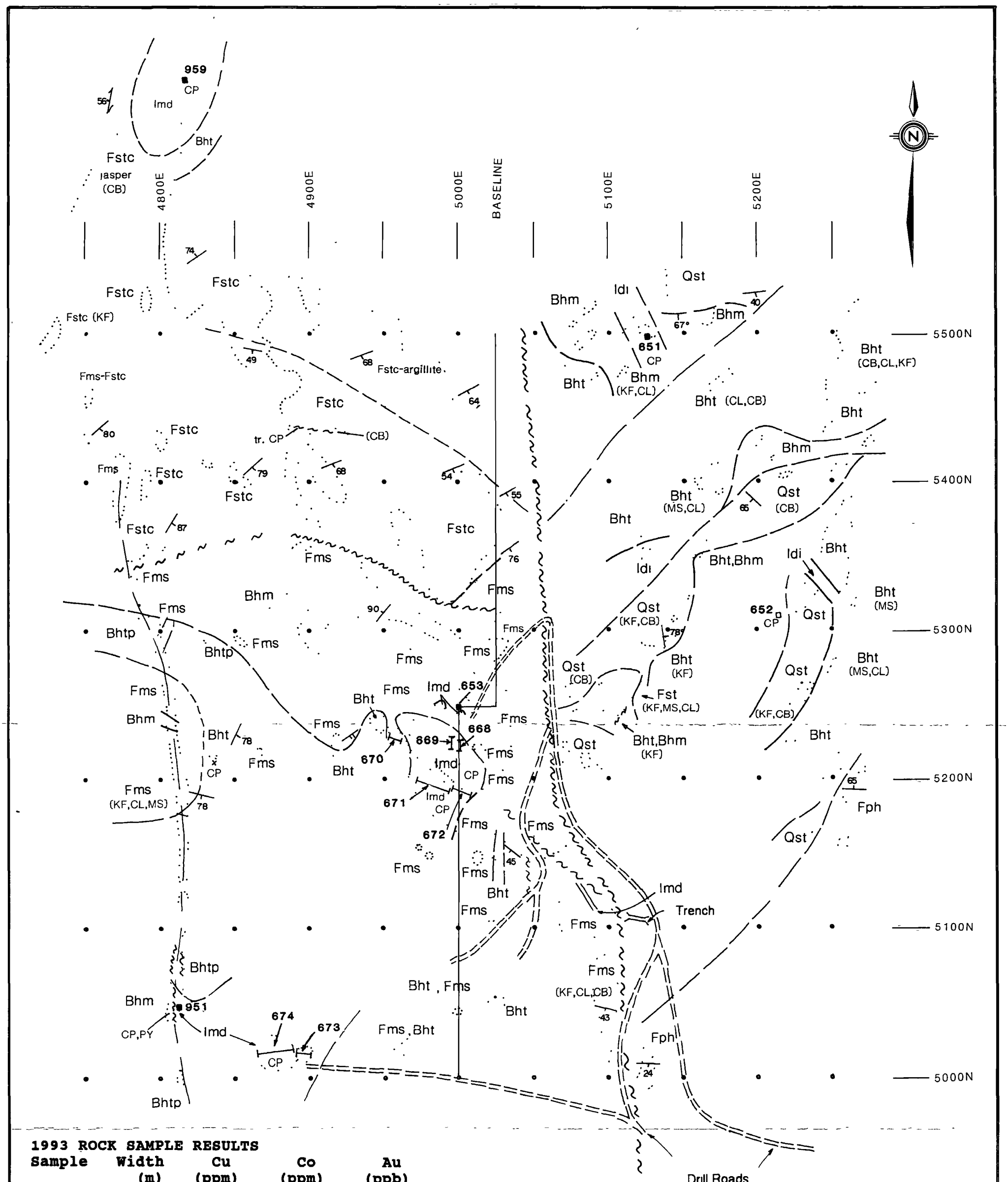
The hematite breccia is typical of the Wernecke hematite breccias although previous workers described it as an agglomerate, pseudoconglomerate and clastic intrusive breccia. The breccia contains a variety of angular fragment types cemented in a dark aphanitic matrix containing chlorite, albite, dolomite and ubiquitous specular hematite as coarse aggregates or as fine disseminations. Clast size average 2 - 5 centimetres but varies from small pebbles to blocks several metres in diameter. The breccias range from near conformable to clearly discordant and they are best developed in the area of the Porphyry prospect and north and east of Discovery Creek. The degree of fragment rounding, rotation and the matrix:clast ratio increases towards the core of the breccias. In addition, Archer (1967b) described thin vesicular andesitic flow units associated with the breccias. There appears to be a spatial relationship between the fault structures and the location of intrusives, hematite breccia and carbonate lenses. The greatest density of all three coincides with a northeasterly trending corridor through the Porphyry prospect. As far as timing of the different intrusive elements, Laznicka and Edwards (1979) noted that "a thin diorite [gabbro] abruptly terminates against a body of breccia" and the monzonite clearly crosscuts the boundary of the hematite breccia. Fragments of gabbroic/dioritic and monzonitic material have been noted in the hematite breccias.

Structurally, the Dolores property stratigraphy has been disrupted by numerous northeast and east-west trending faults, some showing extreme displacements. These faults are indicated by drainages which show a discontinuity of stratigraphy across their courses.

## 7.2 **Porphyry Showing** (Figure 6)

The Porphyry showing is centred on copper mineralization hosted in a monzonite-diorite stock (**Imd**) (Figure 6). Geologically, the area is divided into two parts separated by a north-trending fault following the creek on the east side of baseline. All of the significant copper mineralization is found west of the fault.

The east side of the fault is underlain by a north-northeast trending belt of heterolithic (**Bht**) and homolithic (**Bhm**) breccias intruding Quartet Group grey siltstones and argillite (**Qst**). In the southeast corner of the grid, the siltstone lies in contact with wavy, kinked calcareous phyllite (**Fph**) of the Fairchild Lake Group. The breccias in turn are cut by diorite (**Idi**) dykes which trend northwest. The diorite differs from the monzonite unit on the west side of the fault in that it has a more mafic composition and is only weakly mineralized. The diorite is blocky-fractured and grey-green on weathered surface. On fresh surface, it appears as a medium-grained, equigranular intergrowth of plagioclase and chlorite-altered mafic minerals with variable magnetite. At 5320N, 5250E, the breccia on the south side of the dyke is altered to light pink potassium feldspar; veinlets of potassium feldspar may be found within the diorite. The breccias are comprised of Quartet Group fragments with a matrix variably altered by chlorite, carbonate, potassium feldspar, sericite and specular hematite (up to 7%). Sedimentary units in contact with the breccia are altered by a similar assemblage of alteration minerals. Metasomatised pink siltstone may have rhombohedral shaped pits on outcrop surfaces due to dissolved carbonate porphyroblasts. Adjacent to the fault, the sediments have a buff




**1993 ROCK SAMPLE RESULTS**

| Sample | Width (m) | Cu (ppm) | Co (ppm) | Au (ppb) |
|---|---|---|---|---|
| 545651 | 2.0 | 320 | 49 | 10 |
| 545652 | float | 8484 | 13 | 35 |
| 545653 | 0.2 | 4250 | 28 | 40 |
| 545668 | 10.0 | 2640 | 48 | 65 |
| 545669 | 10.0 | 6070 | 50 | 50 |
| 545670 | 9.3 | 56 | 33 | <5 |
| 545671 | 25.0 | 2178 | 67 | 35 |
| 545672 | 23.0 | 1885 | 56 | 10 |
| 545673 | 9.0 | 2060 | 55 | 20 |
| 545674 | 24.0 | 3030 | 57 | 25 |
| 545951 | grab | 923 | 89 | <5 |
| 545959 | grab | 27 | 21 | <5 |

LEGEND ON FOLLOWING PAGE

Grab Sample

653 □ Float Sample
Only last 3 digits of sample shown

**INTERNATIONAL PRISM EXPLORATION LTD.**

# DOLORES PROJECT

DOLORES 1 - 48 CLAIMS

## PORPHYRY PROSPECT

MAYO MINING DISTRICT, YUKON TERRITORY

## GEOLOGY AND GEOCHEMISTRY

PAMICON DEVELOPMENTS LTD./
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| | | |
|---|---|---|
| DRAWN | MINING DIST MAYO | FIGURE |
| NTS 106C/14 | SCALE 1 2500 | 6 |
| DATE JANUARY, 1994 | REVISED | |

# LEGEND

(to accompany Figure 6)

## LITHOLOGIES

**PROTEROZOIC**

I *Igneous Rocks*

- **Idi** diorite, gabbro
- **Imd** monzonite, diorite

B *Wernecke Breccia:*

- **Bht** Heterolithic breccia:
- **Bht** hydrothermal matrix comprised of alteration minerals: K-feldspar, plagioclase, carbonate, quartz, pyroxene, chlorite, sericite and specular hematite
- **Bhtp** maroon colouration
- **Bhm** Homolithic breccia: ranges from well brecciated to crackle brecciated to non brecciated wall rocks

***WERNECKE SUPERGROUP***

Q *Quartet Group:* Dark grey- and grey-weathering siltstone, mudstone, claystone and fine sandstone (wavy bedded); local quartzite.

- **Qst** grey siltstone, argillite

F *Fairchild Lake Group:* Light grey-, greenish grey-, and locally dark grey-weathering shale, siltstone (80%), fine sandstone and limestone (20%); locally phyllites, schists and slates.

- **Fph** grey to green phyllite, dolomitic
- **Fst** siltstone, grey-green
- **Fstc** siltstone, calcareous
- **Fms** maroon mudstone

## ALTERATION AND MINERALIZATION

- **CB** iron carbonate
- **CL** chlorite
- **CP** chalcopyrite
- **KF** potassium feldspar
- **MS** sericite

## SYMBOLS

- Outcrop
- Geological contact (approximate)
- Fault (assumed)
- Bedding/foliation

colour due to strong carbonatization, are highly fractured and are intensely sheared parallel to the creek direction.

West of the main fault, an east-west fault separates predominately finely laminated, calcareous, grey siltstone (**Fstc**) of the Fairchild Lake Group from an area of monzonite-diorite intrusions (**Imd**), maroon mudstone (**Fms**) and heterolithic hematite breccias (**Bht**) on the south side of the fault. All of the latter units are part of a breccia-intrusive complex quite different and separate from the more simple stratigraphic sequences north of the fault trace. Exceptions to this simplified picture are banded iron formation and finely laminated maroon siltstone in Fstc dominated lithology. Unit Imd is a medium-grained, leucocratic intrusive that contains plagioclase, potassium feldspar, hornblende, magnetite and very minor quartz. The high sodium values returned in rock samples suggest that the plagioclase is likely albitic. A variation of this unit is a porphyritic dyke with 1 - 2 millimetre plagioclase phenocrysts at 5140N, 5080E. The aphanitic matrix is light pink, nonmagnetic and contains no sulphide mineralization. The monzonite clearly crosscuts breccia although minor intrusive clasts, some of which are altered, are found along with mainly maroon, pink and grey fine-grained sediments in the clast supported heterolithic breccia. Some of the breccias have a strong maroon colour and have been designated separately (**Bhtp**). The maroon colour of unit Fms is caused by finely impregnated specular hematite likely introduced during a process probably linked fairly closely to the breccia emplacement. The contact between the mudstone and breccia is often indistinct. At 5050E, 4990E, the mudstone contains approximately 10% angular pink fragments resembling a lapilli tuff-breccia volcaniclastic.

## 7.3 **Cobalt Cirque** (Figure 7)

Cobalt Cirque is underlain by lithologies belonging to the Fairchild Lake Group. The area of mineralization is underlain by black and grey shales, slates (**Fsl**) and pale green phyllites (**Fph**) (Figure 4, 7). The sequence of shales and phyllites is broadly folded into a single anticline that occupies the head of the cirque, with an axis trending roughly east-west and plunging shallowly to the west. Foliations on the south limb average 128°/45° SW and on the north limb 025°/33° NW. Light grey crystalline dolomite is exposed on the northwest wall of the cirque, part of which is strongly altered imparting a bright orange-red coloration. Maroon-weathering heterolithic breccia (**Bht**) with maroon siltstone fragments and possible diorite fragments, outcrops in a small area on the south wall of the cirque. Intrusive rocks include monzo-diorite (**Imd**), which is a medium-grained greyish green intergrowth of plagioclase, potassium feldspar, quartz, pyroxene, amphibole, pyrite and magnetite. The monzo-diorite is variably textured with local coarse, and rare pegmatitic, segregations, suggesting a high level of emplacement.

Alteration in Cobalt Cirque is extensive and is the cause of a rusty brown colouration of much of the east end of the cirque. Alteration is primarily of two types, which likely formed during the same alteration event. Pervasive sericite alteration affects a significant proportion of the phyllitic units, imparting a pale grey green colour and formation of a phyllitic cleavage. The division of Fairchild rocks into slates, shales (**Fsl**) and phyllites (**Fph**) is based on development of shaley versus phyllitic cleavage and the grey versus green colour; and as such, the division may be an alteration effect rather than

a primary lithological contrast. The zones of sericite alteration appear to centre on, but extend beyond, the zones of iron carbonate alteration. Iron carbonate-quartz alteration is the main alteration type associated with copper and cobalt mineralization. Iron carbonate occurs as pervasive zones of iron carbonate replacement, that are peripheral to zones of intense alteration marked by stockworks of milky and cockscomb quartz and coarse crystalline iron carbonate. Quartz-iron carbonate forms conformable, well-defined veins, discontinuous and irregular replacement-type veins and as cross cutting veins and conjugate tension fractures. All vein types may contain coarse blebs of chalcopyrite and locally, crystalline cobaltite. Potassium feldspar alteration is not easily recognised in the cirque, however it does occur as a contact halo around a monzo-diorite outcrop near the ridge top, on the south wall of Cobalt Cirque. A very localised zone of intense clay alteration is also associated with the intrusive contact.

The relative timing of breccias, veining/mineralization, intrusive activity, deformation and alteration are revealed by exposures within the Cobalt Cirque area. Heterolithic breccia (**Bht**) is found adjacent to the intrusive (**Imd**) and may contain intrusive fragments, as well as potassium feldspar-altered fragments. The presence of potassium feldspar-altered fragments in the breccia as well as a contact potassium feldspar alteration halo about the intrusive suggests brecciation may be associated with the intrusive or postdates it. Specular hematite and traces of chalcopyrite mineralization noted in the breccia occur as cross-cutting stringers in the intrusive. Pervasive iron carbonate alteration overprints both the breccia and intrusive. Mineralized veins and replacements occur in conformable and cross-cutting structures. Of particular interest are

veins that occupy open fold hinges, kink bands, conjugate fractures and tension veins. These kinematic indicators are believed to be related to the fold event ($F_2$), which caused open folds, such as the major antiform occupying Cobalt Cirque. The implication of these relationships is that veining, alteration and mineralization postdated intrusive and breccia activity and may have been coincident with folding. As mentioned above much of the mineralization occurs in zones of replacement. In Cobalt Cirque the area of replacement style mineralization roughly coincides with the core of the major antiform. It is possible that dissolution, which is often concentrated in the cores of folds, provided the open space and favourable environment for quartz-iron carbonate alteration and sulphide mineralization.

## 8.0 MINERALIZATION

### 8.1 Property Mineralization (Figures 4 and 5)

Abundant copper and lesser cobalt mineralization has been discovered on the Dolores property (Figure 4). Significant gold and silver values are associated with both cobalt and copper while very high nickel results were returned from the cobalt-rich samples. All of this mineralization is related to Helikian hydrothermal systems generated by the emplacement of the intrusives and/or hematite breccias. In a regional sense, this mineralization occurs within a central zone of sodic alteration encompassed by phyllic (sericite) alteration.

The copper mineralization may be grouped into four classifications: (1) quartz-carbonate vein type, (2) diorite/gabbro-related, (3) monzonite hosted "porphyry"

style and (4) hematite breccia mineralization. The more massive chalcopyrite mineralization is found in the vein type whereas the chalcopyrite may be evenly disseminated in the other three. Cobalt, in the form of cobaltite, occurs as fine-grained masses in carbonate veins or as fine disseminations in the surrounding country rocks. Surface weathering has produced malachite (±azurite, chrysocolla) and erythrite, respectively from copper and cobalt sulphide mineralization. Euhedral pyrite grains are found in both sedimentary and intrusive rocks. Magnetite occurs with abundance in intrusive units and is closely associated with copper mineralization.

**Discovery Showing**

This original discovery is typical of the quartz-carbonate vein type which may be fault-related and is hosted in carbonate strata of the Gillespie Lake Group. The vein is narrow (<30 cm) and is limited in strike length to the exposure in Discovery Creek. In one area, 2.5 metres by 3.7 metres, the host carbonate unit has been replaced adjacent to the vein and this zone has been well mineralized with chalcopyrite assaying 6.91% copper over 2.8 metres (546055). Other anomalous values from this sample include 10.0 ppm Ag, 56 ppm Mo and 300 ppm Zn. A select sample (545056) from this same location assayed 32.4% Cu, 40 ppb Au, 36.0 ppm Ag, 230 ppm Mo and 612 ppm Zn. No further mineralization was found in the immediate area.

**Other Occurrences**

At the head of Discovery Creek, disseminated chalcopyrite and lesser cobaltite occurs within Fairchild Lake Group sediments, in diorite/gabbro and in Wernecke breccia. Secondary mineralization including malachite, azurite and erythrite is

ubiquitously associated with the primary sulphides. Some of the mineralization resembles that found over the cirque headwall at Cobalt Creek. In general, mineralization is either lensey or discontinuous. Many samples were collected from this area with copper results ranging from 22 ppm Cu to 1.2%, gold from <5 ppb to 310 ppb and cobalt from 6 to 655 ppm Co. A one-metre chip sample (546064) taken across a 10 metre long chalcopyrite-erytherite mineralized exposure of fractured grey and brown Fairchild Lake Group shales ran 6140 ppm Cu, 140 ppm Co and 140 ppb Au. Mineralization appears associated with one or all of the following features: an 030° trending fault structure, minor east-west fractures and bedding plane slips. A second sample (546065), taken across 2.0 metres and collected 25 metres away from the first chip sample, returned values of 3380 ppm Cu, 655 ppm Co and 40 ppb Au (Figure 5).

Several small chalcopyrite showings were located in the southeast claims area on the slope facing Tetrahedrite Creek. Replacement style chalcopyrite-tetrahedrite mineralization occurs in Gillespie Lake dolomite adjacent to Wernecke breccia or as disseminated chalcopyrite in the breccia itself. Chip sample 546155 across a 0.65 metre wide vein hosted by dolomite ran 1.99% Cu, >200 ppm Ag, 90 ppb Au and 2390 ppm Zn. A select grab sample, 546151 taken from a mineralized structure at the contact between Wernecke breccia and Gillespie Lake dolomite assayed 9.8% Cu, 330 ppb Au, 10 ppm Ag and 265 ppm Mo. Grab sample 546153, collected from hematite breccia and containing disseminated and blebby chalcopyrite ran 1.71% Cu and 60 ppb Au.

A third area of other noteworthy mineralization is in the western claims area southwest of Cobalt Cirque where silicified and iron carbonate altered Fairchild

Lake Group sediments host-fracture controlled chalcopyrite mineralization. Chip sample 546176 across 8.0 metres returned values of 1325 ppm Cu, 462 ppm Co and 25 ppb Au. A two metre chip sample (546178) located 15 metres from the above sample ran 2.38% Cu and 405 ppb Au. Further geological evaluation in this area is required.

Northwest of Cobalt Cirque, bornite and chalcopyrite mineralization was discovered near the contact between dolomite of the Fairchild Lake Group and overlying Quartet shale adjacent to a gabbro dyke. Wispy and blebby bornite occurs in fracture fillings and along some bedding planes within the dolomite. Mineralization has been described as discontinuous and erratic. Grab samples 545564 and 545566 assayed 7.14% Cu, 110 ppb Au, 119 ppm Ag and 3.33% Cu, 40 ppb Au and 118 ppm Ag, respectively.

### 8.2 **Porphyry Showing** (Figure 6)

Significant copper mineralization at the Porphyry showing is hosted in Unit Imd associated with pervasive potassium feldspar and weak chlorite alteration of the mafic grains. Chalcopyrite is the only hypogene copper sulphide with very minor pyrite and magnetite. The chalcopyrite occurs mostly as evenly distributed disseminated grains and less frequently as fracture coatings. Greater concentrations occur in magnetite-rich marginal phases (545669) of the stock. Although sediments and heterolithic breccia adjacent to the monzonite are intensely potassium feldspar, chlorite and specular hematite altered, sulphide mineralization is poor (545670).

The main mineralized zone, approximately 50 metres wide, can be traced along a north-northeasterly direction for approximately 200 metres following the trend

of the monzonite-diorite stock. The zone remains open to the south-southwest. The 1993 samples confirm the consistent nature of the mineralization with copper values ranging from 1885 to 6070 ppm. Gold, silver, cobalt, lead, zinc, tungsten and lanthanum values are low whereas phosphorus and sodium values are enriched. This sampling is consistent with the 1960's work by Archer (1967b) and drilling which returned a best result of 0.75% copper over 22.9 metres.

Other copper mineralization on the grid includes chalcopyrite associated with diorite (545651, 320 ppm Cu) and heterolithic breccia float (545652, 8484 ppm Cu) on the east side of the grid. On the west side of the grid, a carbonate-rich fault zone at 5440N, 4900E contains chalcopyrite but was not sampled.

### 8.3 **Cobalt Cirque** (Figure 7)

Copper and cobalt mineralization with lesser nickel and gold occur in a broad area of Cobalt Cirque measuring roughly 500 by 500 metres square. Mineralization within this zone is very discontinuous, but is locally very high grade. Mineralization is associated with large zones of sericite alteration and directly associated with zones of strong iron carbonate (dolomite?) and quartz alteration and veining. Secondary minerals include erythrite, malachite and abundant manganese oxide. As already discussed, the veins and replacements have many different forms and orientations, however, it appears that mineralization is grossly conformable to the main foliation, which has been broadly folded into a roughly east-west trending antiform. Chalcopyrite, cobaltite and minor pyrite occur as blebs and crystal masses and locally, as conformable disseminated zones. Massive sulphide veins of narrow width are common on the east and south east end

of the cirque. Estimation of the actual grade and extent of mineralization is made difficult because of the severity of the terrain and by the nature of the mineralization. A number of chip samples were taken near the base of outcrop exposures around the perimeter of the cirque in an effort to estimate the average grade of mineralization. The mineralization in the lower reaches of the cirque is of lower grade, but over more substantial widths than that on the upper southeast extremes of the cirque. Samples from the upper east and southeast sides of the cirque are grab samples from high grade veins that are generally less than 20 centimetres thick. The chip sample results show that the better zones of copper mineralization range between 0.2% and 0.5% copper with low gold and anomalous cobalt values (Figure 7). High grade pods of chalcopyrite mineralization, which are not volumetrically significant, were not included in the chip samples. The grab samples illustrate the high grades of cobalt, copper and gold attained in narrow veins. Some of the highest results from grab samples include 21.4% copper, 6.6% cobalt, 8860 ppm nickel and 2820 ppb gold. Metal correlations are complex between copper, cobalt and gold and in most instances, gold is associated with either cobalt or copper. The reason for the inconsistent relationships is likely a reflection of complex and multiple vein generations and styles.

## 9.0 SOIL GEOCHEMISTRY - PORPHYRY SHOWING (Figure 8)

The soil geochemical grid work was designed to test the response in soils of copper mineralization in the Porphyry showing area. A survey conducted in 1968 indicated that >100 ppm copper values coincided with the Porphyry showing

(Archer, 1968). Samples were collected at 50 metre intervals along grid lines spaced 100 metres apart. The baseline (5000E) was offset 25 metres east at 5250N to avoid steep cliffs. The 5000N line lies near the upper level of the valley till cover. Statistical analysis of the soil results was not undertaken although values for copper >100 ppm and >400 ppm are contoured and are considered significant (Figure 8).

The 1993 copper soil geochemistry clearly outlines the extent of the copper mineralization in the monzonite-diorite. The strongest portion of the anomaly overlies the two areas of mineralized exposures centred at 5200N, 5000E and 5000N, 4850E and remain open to the south. Gold values in these areas, except for a 420 ppb result at 5200N, 5000E, are only slightly elevated, reflecting the low gold content of rock samples taken in the area.

The high copper values east of the baseline on the north end of the grid reflect dispersion from the chalcopyrite-bearing diorite at 5500N, 5125E. Similarly, the elevated copper values in the northwest corner of the grid lie downslope from a monzonite outcrop. To date, mineralization sampled from this outcrop is not sufficient to account for this anomaly.

Lead and zinc values are low overall. Elevated cobalt and molybdenum values accompany the highest copper in soils.

## 10.0 CONCLUSIONS AND RECOMMENDATIONS

The Dolores property was staked to explore for Olympic Dam copper-uranium-gold-silver type deposits in the Wernecke Mountains of east central Yukon. This

4800E 4900E 5000E BASELINE 5100E 5200E

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 57 • <5 | 130 • <5 | 154 • <5 | 1455 • 55 | 479 • <5 | 233 • <5 | 51 • <5 | 352 • <5 | 16 • <5 | 26 • <5 | 35 • <5 |
| 28 • <5 | 440 • <5 | 829 • 15 | 47 • <5 | | | 507 • <5 | 60 • <5 | 73 • 10 | 91 • 10 | 19 • <5 |
| 24 • <5 | 317 • <5 | 147 • <5 | 20 • <5 | 60 • <5 | 1400 • 55 | 39 • <5 | 156 • <5 | 36 • <5 | 42 • <5 | 17 • <5 |
| 52 • <5 | 33 • <5 | 62 • <5 | 49 • <5 | 2280 • 55 | >10,000 • 420 | 3180 • 80 | 53 • 15 | 72 • <5 | 79 • <5 | 73 • <5 |
| 37 • <5 | 69 • <5 | 112 • 25 | 88 • <5 | 909 • <5 | 552 • <5 | 90 • <5 | 52 • <5 | 60 • <5 | 60 • <5 | 35 • <5 |
| 50 • <5 | 79 • <5 | 771 • 20 | 104 • <5 | 503 • 15 | 470 • <5 | 49 • <5 | 42 • <5 | 103 • <5 | 73 • <5 | 26 • <5 |

5500N
5400N
5300N
5200N
5100N
5000N

N

*LEGEND*

20 • 5 — Cu ppm / Soil Sample Location / Au ppb

> 100 ppm Cu

> 400 ppm Cu

m 50 0 50 100 m

**INTERNATIONAL PRISM EXPLORATION LTD.**

# DOLORES PROJECT

DOLORES 1 - 48 CLAIMS

**PORPHYRY PROSPECT**

MAYO MINING DISTRICT, YUKON TERRITORY

## Cu, Au IN SOILS

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

| | | |
|---|---|---|
| DRAWN | MINING DIST MAYO | FIGURE |
| NTS 106C/14 | SCALE: 1 2500 | 8 |
| DATE JANUARY, 1994 | REVISED: | |

target type, which has the potential to host tremendous resources on a world scale, represents a relatively unexplored target in the Canadian Cordillera. South Australia's Olympic Dam deposit contains an inferred resource in excess of 2,000 million tonnes of 1.6% copper, 0.06% uranium oxide, 0.6 g/tonne gold and 3.5 g/tonne silver. The Wernecke Proterozoic stratigraphy and metallogeny resembles that of South Australia to the extent that a physical connection to Cambrian time has been proposed by Bell and Jefferson (1987).

The mineralization and geological setting at Dolores Creek is permissive for discovering an Olympic Dam type target or a variant thereof. Other deposits of this type include the southeast Missouri Iron Province - U.S.A., Kiruna District - Sweden, Okiep Copper District - South Africa, Redbank - Australia and Great Bear magmatic zone - Northwest Territories, Canada (Hitzman et al., 1992); (Lombaard and Schreuder, 1975).

Among the numerous copper showings found to date, two areas on the Dolores property exhibit the potential for hosting bulk tonnage copper $\pm$ cobalt $\pm$ gold deposits: (1) Cobalt Cirque and (2) Porphyry Showing.

The Porphyry showing represents both the most explored and perhaps most significant copper mineralization found to date. The showing consists of a complex array of hematite breccia and copper-bearing monzonite/diorite intrusives trending along a northerly direction for at least 200 metres. The showing cores a large alteration system, roughly 6.0 by 4.0 kilometres, consisting of sodic (albite) alteration in the centre surrounded by potassic alteration (sericite) (Laznicka and Edwards, 1979). The tenor of copper mineralization in the

monzonite/diorite, as indicated by surface samples and drilling, is in the range of 0.2% to 1.0% copper. The best drill intercept from the 1969 drilling returned 0.75% copper over 22.9 metres. A soil geochemical survey over the Porphyry showing area was successful in outlining the mineralized monzonite/diorite and this technique plus magnetometer surveys will be extremely helpful in extending mineralization under areas of cover.

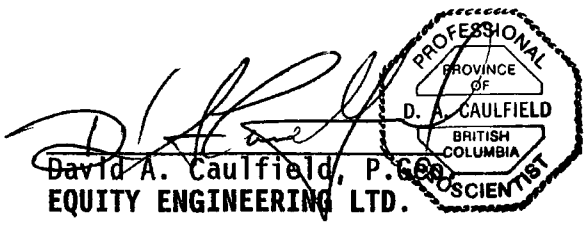
Mineralization at Cobalt Cirque is associated with late stage sericite and quartz-iron carbonate alteration. The timing of the alteration and mineralization appears to post-date intrusive activity and brecciation and may coincide with folding. This relative timing suggests Cobalt Cirque post-dates the Porphyry showing mineralization. It is suggested that the Cobalt Cirque mineralization may be genetically related to the same intrusive activity that produced the "Porphyry" mineralization, but that the Cobalt Cirque mineralization was a late stage structurally controlled, perhaps higher level, reflection of the same mineralizing system. The trend of the mineralization at Cobalt Cirque is controlled by the orientation of veins and alteration which grossly conform to the main antiform structure.

The grades of mineralization in Cobalt Cirque are high, but discontinuous and difficult to estimate. Chip samples provide a reasonable estimate of the bulk copper grades that might be expected. Some of the better results from sampling are in the range of 0.2% - 0.5% copper over widths of 2 metres. High grade samples from the upper slopes of the cirque confirm the impressive grades of copper, cobalt and gold, but do not allow for an estimate of the overall grade.

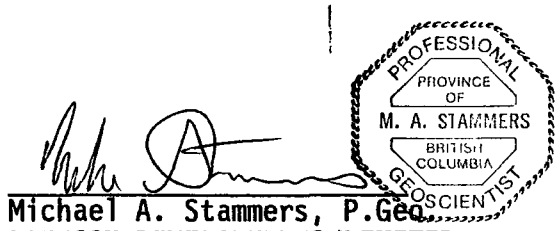
Further work on Cobalt Cirque will have to resolve some of the inherent sampling problems. To do this, better control, by way of grid establishment, will be needed for sampling. Sampling will include continuous chip sampling where accessible. Testing of the high grade mineralization high in the cirque wall will likely need to be tested by drilling.

An exploration program consisting of ground geophysical, geochemical and geological surveys is recommended for the Porphyry showing and other selected areas of the Dolores property. This work should be followed by a six hole diamond drilling program at the Porphyry showing and one or two holes at Cobalt Cirque.

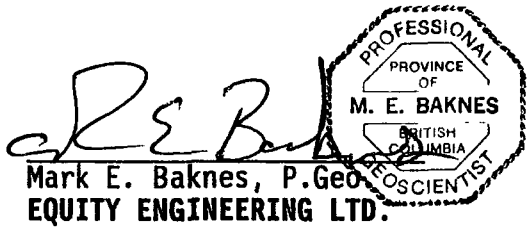
Respectfully submitted,




David A. Caulfield, P.Geo.
**EQUITY ENGINEERING LTD.**




Michael A. Stammers, P.Geo.
**PAMICON DEVELOPMENTS LIMITED**




Mark E. Baknes, P.Geo.
**EQUITY ENGINEERING LTD.**

Vancouver, British Columbia
February 1994

# APPENDIX A

# BIBLIOGRAPHY

## BIBLIOGRAPHY


Archer, A.R. (1967a): Report on the Bonnet Plume Copper Property; report prepared for L.I. Proctor, July 16.

Archer, A.R. (1967b): Bonnet Plume Copper Property; report prepared for Bonnet Plume River Mines Limited, October 14.

Archer, A.R. (1968): Report on the Mammoth 1 - 108 and 201 - 250 Claims; report prepared for Bonnet Plume River Mines Limited.

Archer, A.R., Bell, R.T. and Thorpe R. (1986): Age Relationships from U-Th-Pb isotope studies of uranium mineralization in Wernecke breccias; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A, p. 385 - 391.

Archer, A.R. and Schmidt, U. (1978): Mineralized Breccias of Early Proterozoic Age, Bonnet Plume River District, Yukon Territory; CIM Bulletin, vol. 71, p. 53 - 58.

Armour-Brown, A. and Nichol, I. (1970): Regional Geochemical Reconnaissance and the Location of Metallogenic Provinces; in Economic Geology, vol. 65, p. 312 - 330.

Bell, R.T. (1978): Breccias and uranium mineralization in the Wernecke Mountains, Yukon - a progress report ; in Current Research, Part A, Geological Survey of Canada, Paper 78-1A. p. 317 - 322.

Bell, R.T. (1982): Comments on the geology and uraniferous mineral occurrences of the Wernecke Mountains , Yukon and District of MacKenzie; in Current Research, Geological Survey of Canada, Paper 82-1B. p. 279 - 284.

Bell, R.T. (1986a): Geological map of northeastern Wernecke Mountains, Yukon Territory; Geological Survey of Canada, Open File 1027.

Bell, R.T. (1986b): Megabreccias in northeastern Wernecke Mountains, Yukon Territory; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A. p. 375 - 384.

Bell, R.T. (1989): A Conceptual Model for Development of Megabreccias and Associated Mineral Deposits in Wernecke Mountains, Canada, Copperbelt, Zaire, and Flinders Range, Australia; in Uranium Resources and Geology of North America, International Atomic Energy Agency, p. 149 - 169.

Bell, R.T. and Delaney, G.D. (1977): Geology of some uranium occurrences in Yukon Territory; in Current Research, Part A, Geological Survey of Canada, Paper 77-1A. p. 33 - 37.

Bell, R.T. and Jefferson, C.W. (1987): An Hypothesis for an Australian-Canadian Connection in the Late Proterozoic and the Birth of the Pacific Ocean; Pacific Rim Congress 87, p. 39 - 50.

Bell, R.T. and Jones, L.D. (1979): Geology of some Uranium Occurrences in Western Canada; in Current Research, Part A, Geological Survey of Canada, Paper 79-1A. p. 397 - 340.

Carriere, J.J., Sinclair, W.D. and Kirkham, R.V. (1981): Copper Deposits and Occurrences in Yukon Territory; Geological Survey of Canada, Paper 81-12, 10 pp.

Caulfield, D.A., Stammers, M.A. and Ikona, C.K. (1993): Summary Report on the Dolores 1 - 48 Claim Group, Private Report, March 1993.

Delaney, G.D. (1981): The Mid-Proterozoic Wernecke Supergroup, Wernecke Mountains, Yukon Territory; in Proterozoic Basins of Canada, Geological Survey of Canada, Paper 81-10, p. 1 - 23.

Delaney, G.D. (1985): The Middle Proterozoic Wernecke Supergroup, Wernecke Mountains, Yukon Territory; Unpublished Ph.D. Thesis, University of Western Ontario, 373 pp.

Eisbacher, G.H. (1978): The Major Proterozoic Unconformities, Northern Cordillera; in Current Research, Part A, Geology Survey of Canada, Paper 78-1A, p. 53 - 58.

Green, L.H. (1972): Geology of Nash Creek, Larsen Creek and Dawson map-areas, Yukon Territory; Geological Survey of Canada, Memoir 364, 157 pp.

Hitzman, M.W., Oreskes, N. and Einaudi, M.T. (1992): Geological Characteristics and Tectonic Setting of Proterozoic Iron Oxide (Cu-U-Au-Ree) Deposits, unpublished.

Jefferson, C.W. and Ruelle, J.D.L. (1986): The late Proterozoic Redstone Copper Belt, Mackenzie Mountains, N.W.T.; in Morin, J.A., ed. Mineral Deposits of Northern Cordillera; Canadian Institute of Mining and Metallurgy, Special Publication 37, p. 154 - 168.

Lalor, J.H. (1991): Discovery of the Olympic Dam Copper-Uranium-Gold-Silver Deposit; in Case Histories of Mineral Discoveries, Society for Mining, Metallurgy, and Exploration, Inc., Vol. 3, p. 219 - 221.

Lambert, I.B., Knutson, J., Donelly, T.H. and Etminan, H. (1987): Stuart Shelf -Adelaide Geosyncline Copper Province, South Australia; in Economic Geology, vol. 82, p. 108 - 123.

Laznicka, P. and Edwards, R.J. (1979): Dolores Creek, Yukon - a Disseminated Copper Mineralization in Sodic Metasomatites; in Economic Geology, vol. 74, p. 1352 - 1370.

Lombaard, A.F. and Schreuder, F.J.G. (1975): Distribution Pattern and General Geological Features of Steep Structures, Megabreccias and Basic Rocks in the Okiep Copper District; in Mineralization in Metamorphic Terrains; p. 269 - 296.

Marshall Smith, F. (1968): Geology and Geochemistry Report on the Bonnet Plume Area from the Bonnet Plume River Area From the Bonnet Plume Pass to Fairchild Lake; report prepared for Bonnet Plume River Mines Limited.

O'Driscoll, E.S.T. (1985): The application of Lineament Tectonics in the Discovery of the Olympic Dam Cu-Au-U Deposit at Roxby Downs, South Australia; in Global Tectonics and Metallogeny, Vol. 3, No.1, p.42 - 57.

Oreskes, N. and Einaudi, M.T. (1990): Origin of Rare Earth-Enriched Hematite Breccias at the Olympic Dam Cu-U-Au-Ag Deposit, Roxby Downs, South Australia; in Economic Geology, vol. 85 p. 1 - 28.

Parish, R.R. and Bell, R.T. (1987): Age of the Nor breccia pipe, Wernecke Supergroup, Yukon Territory; in Radiogenic Age and Isotopic Studies: Report 1, Geological Survey of Canada, Paper 87-2, p. 39 - 42.

Reeve, J.S. (1990): The discovery and evaluation of the Olympic Dam deposit; in Geological Aspects of the Discovery of Important Minerals in Australia, Australasian Institute of Mining and Metallurgy, mon. 17, p. 125 - 133.

Reeve, J.S., Cross, K.C., Smith, R.N. and Oreskes N. (1990): Olympic Dam Copper-Uranium-Gold-Silver Deposit; in Geology and Mineral Deposits of Australia and Papua New Guinea, Australasian Institute of Mining and Metallurgy, mon.14, p. 1009 - 1035.

Roberts, D.E. and Hudson, G.R.T. (1983): The Olympic Dam Copper-Uranium-Gold Deposit, Roxby Downs, South Australia; in Economic Geology, vol. 78, p. 799 - 822.

Szetu, S.S. (1967): Geophysical Survey and Property Examination; report prepared for Bonnet Plume River Mines Ltd.

Taylor, C.D.N. (1967a): Preliminary Report, Mammoth 1 to 56 Mineral Claims; report prepared for Nordex Exploration Limited, July 1.

Taylor, C.D.N. (1967b): Interim Report, Mammoth 1 to 108 Mineral Claims; report prepared for Nordex Exploration Limited, August 15.

Taylor, C.D.N. (1968a): Engineering Report on the Mammoth Property; report prepared for Bonnet Plume River Mines Limited.

Taylor, C.D.N. (1968b): Engineering Report - Year 1968 on the Mammoth Copper Property; report prepared for Bonnet Plume River Mines Limited.

Thomson, B.P. (1965): Geology and Mineralization of South Australia; in Geology of Australian Ore Deposits, Australasian Institute of Mining and Metallurgy, vol. 1, p. 270 - 284.

Yeo, G.M. (1986): Iron-Formation in the late Proterozoic Rapitan Group, Yukon and Northwest Territories; in Mineral Deposits of the Northern Cordillera, Canadian Institute of Mining and Metallurgy Special Vol. 37, p. 142 - 153.

Young, G.M., Jefferson, C.W., Delaney, G.D. and Yeo, G.M. (1979): Middle and late Proterozoic evolution of the northern Canadian Cordillera and Shield; in Geology, vol. 7, p. 329 - 330.

Youles, I.P. (1984): The Olympic Dam copper-uranium-gold Deposit, Roxby Downs, South Australia - a discussion; in Economic Geology, vol. 79, p. 1941 - 1944.

# APPENDIX B

# LIST OF PERSONNEL

## DOLORES 1 - 48 CLAIMS GROUP

LIST OF PERSONNEL

Michael Stammers (Sr. Geologist)
#711 - 675 West Hastings Street
Vancouver, B.C. V6B 1N4

Mark Baknes (Sr. Geologist)
#207 - 675 West Hastings Street
Vancouver, B.C. V6B 1N2

David Caulfield (Sr. Geologist)
#207 - 675 West Hastings Street
Vancouver, B.C. V6B 1N2

Barry Girling (Sr. Prospector)
#711 - 675 West Hastings Street
Vancouver, B.C. V6B 1N4

Tom Bell (Sr. Prospector)
#207 - 675 West Hastings Street
Vancouver, B.C. V6B 1N2

# APPENDIX C

# STATEMENT OF EXPENDITURES

# STATEMENT OF EXPENDITURES
# DOLORES 1 - 48 MINERAL CLAIMS

**CANADA** ) In the matter of an evaluation program on the
) Dolores 1 - 48 Mineral Claims

I, Mike Stammers for Pamicon Developments Limited, #711 - 675 West Hastings Street, Vancouver, B.C. and Equity Engineering Ltd., #206 - 675 West Hastings Street, Vancouver, B.C. do solemnly declare that a program consisting of grid establishment, geological mapping, lithogeochemical sampling, soil geochemistry and prospecting work was carried out on the Dolores 1 - 48 Mineral Claims during the period June 30 to July 8, 1993.

The following expenses were incurred during the course of this work and in the compilation and reporting of the results:

## PROFESSIONAL FEES AND WAGES:

| | | | |
|---|---|---|---|
| M. Stammers, P.Geo. | 8.5 days @ $375 | $ 3,187.50 | |
| D. Caulfield, P.Geo. | 5.5 days @ $375 | 2,062.50 | |
| M. Baknes, P.Geo. | 6.5 days @ $300 | 1,950.00 | |
| T. Bell, Prospector | 8.0 days @ $250 | 2,000.00 | |
| B. Girling, Prospector | 9.0 days @ $250 | 2,250.00 | |
| | | | $ 11,450.00 |

## EXPENSES:

| | | | |
|---|---|---|---|
| Maps & Reproductions | | 164.25 | |
| Drafting | | 243.05 | |
| Travel: | Airfare | 132.50 | |
| | Mob/Demob Costs | 1,564.39 | |
| Rentals: | Camp | 995.34 | |
| | Radio | 157.40 | |
| | Truck | 619.69 | |
| Camp Food | | 560.41 | |
| Field Supplies | | 25.81 | |
| Telephone | | 115.79 | |
| Freight | | 24.30 | |
| Fixed Wing | | 1,577.27 | |
| Helicopter: | Direct | 11,700.00 | |
| | Fuel | 2,637.59 | |
| Assays | | 2,939.69 | |
| Report Cost | | 3,240.65 | |
| Recording Fees | | 1,113.39 | |
| Management Fees | | 3,623.06 | |
| | | | $ 31,434.58 |
| SUBTOTAL | | | 42,884.58 |
| | | GST | 3,001.92 |
| **TOTAL PROGRAM COST:** | | | **$ 45,886.50** |

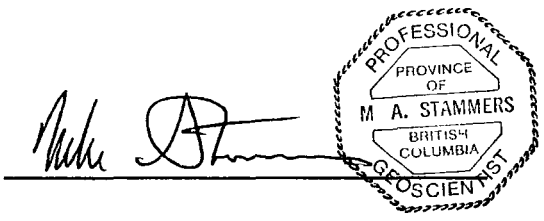
.../2

Notes:

1. Wages are based on actual man days spent on the property.
2. Helicopter charges and based on actual hours flown.
3. Assay charges are based on actual numbers of samples from the property.
4. General expenses (all other costs) are prorated according to many days allocated to each property.

And I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

Declared at Vancouver in the )
Province of British Columbia this )
24 day of FEBRUARY, 1994 )



# APPENDIX D

# ROCK SAMPLE DESCRIPTIONS

## MINERALS AND ALTERATION TYPES

| | | | |
|---|---|---|---|
| AB | albite | AD | adularia |
| AK | ankerite | AS | arsenopyrite |
| AZ | azurite | BA | barite |
| BI | biotite | BO | bornite |
| BR | brannerite | CA | calcite |
| CB | Fe-carbonate | CC | chalcocite |
| CL | chlorite | CO | cobaltite |
| CP | chalcopyrite | CY | clay |
| DI | diopside | DO | dolomite |
| EP | epidote | ER | erythrite |
| GA | garnet | GE | goethite |
| GL | galena | GR | graphite |
| HE | earthy hematite | HS | specularite |
| JA | jarosite | KF | potassium feldspar |
| MC | malachite | MG | magnetite |
| MN | Mn-oxides | MR | mariposite |
| MS | muscovite/sericite | NE | neotocite |
| PO | pyrrhotite | PY | pyrite |
| QZ | quartz | SI | silica |
| SP | sphalerite | TT | tetrahedrite |

## ALTERATION INTENSITIES

| | | | | | |
|---|---|---|---|---|---|
| m | medium | s | strong | tr | trace |
| vs | very strong | vw | very weak | w | weak |

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 760 N | Type : Select | Alteration : | wCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 080 E | Strike Length Exp. : 1 m | Metallics : | 10%CP, 5%PY | | | | | | |
| 545551 | Elevation: | 1705 m | Sample Width : 25 cm | Secondaries: | None | 235. | 1.0 | 40. | 2.74% | 5. | 36. |
| | Veining : | / | True Width : 25 cm | Host : | Fairchild phyllite | | | | | | |

Comments : Brown-black weathering, quartz vein fracture in Fairchild phyllite on ridge 50m west of 9-12 post set. (Posts significantly off line)

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 890 N | Type : Select | Alteration : | sCB, mQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 240 E | Strike Length Exp. : 10+ m | Metallics : | 70%CP | | | | | | |
| 545552 | Elevation: | 1890 m | Sample Width : 5 cm | Secondaries: | wAZ, wMC | 2820. | 19.0 | 546. | 21.4% | 20. | 849. |
| | Veining : | / | True Width : 5 cm | Host : | Fairchild phyllite | | | | | | |

Comments : Massive zone in shear perpendicular to bedding disseminated over 3+ metres.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 820 N | Type : Select | Alteration : | 5%CB | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 220 E | Strike Length Exp. : 10+ m | Metallics : | 90%CP | | | | | | |
| 545553 | Elevation: | 1920 m | Sample Width : 20 cm | Secondaries: | wAZ, wMC | 540. | 14.0 | 50. | 29.8% | 12. | 295. |
| | Veining : | / | True Width : 20 cm | Host : | Fairchild phyllite | | | | | | |

Comments : Another massive zone parallel to 545551, perpendicular to stratigraphy. Lots of copper in area.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 995 N | Type : Select | Alteration : | mCB, mQZ, mSI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 300 E | Strike Length Exp. : 15 m | Metallics : | <1%CP, <1%CO | | | | | | |
| 545554 | Elevation: | 1940 m | Sample Width : 20 cm | Secondaries: | wMC, sER | 430. | 1.0 | 3.03% | 5100. | 26. | 1668. |
| | Orientation: | / | True Width : 20 cm | Host : | | | | | | | |

Comments : Cobalt very fine-grained, cross cut chalcopyrite stringer. Rusty shear approximately 3m wide with chalcopyrite margin outside cobalt. Alteration=silica. Fairchild green phyllite.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7201 910 N | Type : Select | Alteration : | None | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 360 E | Strike Length Exp. : 50 m | Metallics : | 1%CP | | | | | | |
| 545555 | Elevation: | 1670 m | Sample Width : 15 cm | Secondaries: | wAZ, mMC | 30. | 1.0 | 89. | 9607. | 1. | 46. |
| | Orientation: | / | True Width : 2? cm | Host : | | | | | | | |

Comments : Shear in intrusive.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 100 N | Type : Grab | Alteration : | sCB | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 050 E | Strike Length Exp. : 75 m | Metallics : | 15-80%CP | | | | | | |
| 545556 | Elevation: | 1800 m | Sample Width : 25 cm | Secondaries: | wMC | 940. | 13.0 | 166. | 20.5% | 11. | 205. |
| | Veining : | / | True Width : 40-80 cm | Host : | Fairchild sediments | | | | | | |

Comments : Chalcopyrite - 3 chunks in sample 10%, 40% and 80%. Little malachite as overprinted by carbonate. Mapped by Dave and Mark.

---

| Sample No. | UTM : | 7203 010 N | Type : Select | Alteration : | sCB | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 581 090 E | Strike Length Exp. : 7 m | Metallics : | 25%CO | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545557 | Elevation: | 1860 m | Sample Width : 7 cm | Secondaries: | mER* | 870. | 1.0 | 3.60% | 274. | 13. | 7042. |
| | Veining : | / | True Width : 7 cm | Host : | Quartet sediment | | | | | | |

Comments : *No ER on weathered surface, only when broken. Narrow veining, but multiple veins in area carrying disseminated ER into wall rock.

---

| Sample No. | UTM : | 7203 000 N | Type : Select | Alteration : | mCB | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 581 060 E | Strike Length Exp. : m | Metallics : | 15%CO | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545558 | Elevation: | 1870 m | Sample Width : 7.5 cm | Secondaries: | mER | 2400. | <0.5 | 6.60% | 1351. | 13. | 8666. |
| | Orientation: | / | True Width : 7.5 cm | Host : | Fairchild sediment | | | | | | |

Comments : Veinlets of cobalt along margins of calcite vein, disseminations of cobalt and erythrite over 2m. Higher grade core to 15cm. Not directly in calcite veins like 545557, but 20m south. Possibly same structure.

---

| Sample No. | UTM : | 7203 010 N | Type : Select | Alteration : | sCB | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 581 130 E | Strike Length Exp. : 5 m | Metallics : | 1%CP, 3%CO | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545559 | Elevation: | 1890 m | Sample Width : 25 cm | Secondaries: | mER | 600. | 3.0 | 8663. | 1.25% | 31. | 1795. |
| | Veining : | / | True Width : 25+ cm | Host : | Fairchild sediment | | | | | | |

Comments : Quartz carbonate vein in carbonate alteration. Chalcopyrite and cobalt in middle of draw above 545557.

---

| Sample No. | UTM : | 7203 010 N | Type : | Alteration : | None | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 581 130 E | Strike Length Exp. : m | Metallics : | None | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545560 | Elevation: | | Sample Width : m | Secondaries: | None | 990. | 4.0 | 3.05% | 1.60% | 43. | 5103. |
| | Orientation: | / | True Width : m | Host : | | | | | | | |

Comments : Highgrade of 545559 vein, 10m wide.

---

| Sample No. | UTM : | 7203 060 N | Type : Select | Alteration : | sCB | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 581 140 E | Strike Length Exp. : 30 m | Metallics : | 80%CP | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545561 | Elevation: | 1920 m | Sample Width : 10 cm | Secondaries: | None | 1770. | 21.0 | 1240. | 20.1% | 19. | 1131. |
| | Veining : | / | True Width : m | Host : | Quartet? sediment | | | | | | |

Comments : Massive chalcopyrite, >1% alteration/vein. Minor cobalt/erythrite in area. Not sampled.

---

| Sample No. | UTM : | 7203 090 N | Type : Select | Alteration : | sCB, mSI | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 581 640 E | Strike Length Exp. : 10 m | Metallics : | 6-8%CP, 4%PY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545562 | Elevation: | 1820 m | Sample Width : 15 cm | Secondaries: | sMC | 815. | 5.0 | 214. | 8.0% | 93. | 77. |
| | Orientation: | / | True Width : 2-3+ m | Host : | Fairchild | | | | | | |

Comments : Fairly wide, but apparently discontinuous zone. Most of sulphide leached out, with slumping in gulley - hard to tell true width. Majority of material in area lower grade; carbonate fragments in mineralization, approximately 1/4" locally to 1".

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 140 N | Type : | Alteration : | sCB, mSI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 660 E | Strike Length Exp. : 5 m | Metallics : | 2%CP, <1%PY | | | | | | |
| 545563 | Elevation: | 184 m | Sample Width : 15-20 cm | Secondaries: | wMC | 40. | <0.5 | 124. | 0.63% | 37. | 48. |
| | Orientation: | / | True Width : >1? m | Host : | Fairchild green phyllitic sediment | | | | | | |

Comments : 75m north of 545562. Fairchild/Quartet contact, cobalt alteration stronger below chalcopyrite stringers (micro) along fractured disseminations - small blebs.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 590 N | Type : Select | Alteration : | mCB, wSI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 370 E | Strike Length Exp. : 3 m | Metallics : | 1-2%BO, 2-3%CP | | | | | | |
| 545564 | Elevation: | 1780 m | Sample Width : 20 cm | Secondaries: | mAZ, mMC | 110. | 119.0 | 17. | 7.14% | 6. | 40. |
| | Veining : | / | True Width : 20? cm | Host : | Dolomite | | | | | | |

Comments : Generally fracture filling, almost to crackle breccia. Parallels Fairchild shale contact. Fairchild narrow adjacent diorite? blebs and chunks sporadically through massive dolomite and more massive along calcite veinlets.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 560 N | Type : Select | Alteration : | mCB, mSI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 430 E | Strike Length Exp. : m | Metallics : | 1-2%CP, 1%PY | | | | | | |
| 545565 | Elevation: | 1780 m | Sample Width : 25 cm | Secondaries: | sMC | 35. | 6.0 | 4. | 2.35% | 21. | 21. |
| | Orientation: | 14 / 56 W | True Width : 25+ cm | Host : | Dolomite | | | | | | |

Comments : Very fine-grained disseminations of chalcopyrite in bedding, approximately 25cm thick pseudo parallel to 545564.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 560 N | Type : Select | Alteration : | mCB | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 360 E | Strike Length Exp. : m | Metallics : | 1%BO | | | | | | |
| 545566 | Elevation: | 1870 m | Sample Width : 15 cm | Secondaries: | wMC | 40. | 118.0 | 24. | 3.33% | 194. | 21. |
| | Orientation: | / | True Width : .5 m | Host : | Dolomite | | | | | | |

Comments : Blebs - wisps of bornite along fractures. Secondaries only on fresh surfaces. Mineralization discontinuous and erratic.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 000 N | Type : Chip | Alteration : | sCB | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 090 E | Strike Length Exp. : 25 m | Metallics : | <1%CP, <1%CO | | | | | | |
| 545568 | Elevation: | 1870 m | Sample Width : 2 m | Secondaries: | wER, wMC | 290. | 5.0 | 4393. | 1.16% | 32. | 480. |
| | Orientation: | / | True Width : 2 m | Host : | Fairchild sediment | | | | | | |

Comments : Zone could be wider, but covered by overburden. Higher grade material in area not reflected in sample. Below 545560.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Grid Co-or. | 55+00N | Type : Grab | Alteration : | wCA, mCL, mKF | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 51+30E | Strike Length Exp. : 10 m | Metallics : | trCP, <1%PY | | | | | | |
| 545651 | Elevation: | 4700 ft | Sample Width : 2.0 m | Secondaries: | wMC | 10. | 1.0 | 49. | 320. | 2. | 57. |
| | Dyke : | 170 / ? | True Width : 2.0 m | Host : | Diorite/gabbro | | | | | | |

Comments : Chalcopyrite occurs as finely disseminated grains, occasional splash in carbonate vein.

---

| Sample No. | Grid Co-or. | Type | Alteration | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|
| | 53 +20N | Float | sCB, sCL, sKF | | | | | | |
| | 52 +10E | Strike Length Exp. : m | Metallics : <1%CP, <5%HS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545652 | Elevation: 4600 ft | Sample Width : m | Secondaries: trAZ, wJA, mMC | 35. | 1.0 | 13. | 8484. | 30. | 20. |
| | Orientation: / | True Width : m | Host : Heterolithic hematitic breccia | | | | | | |

Comments : Several 1/2 metre blocks clustered in talus. Composite sample from several blocks.

---

| Sample No. | Grid Co-or. | Type | Alteration | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|
| | 52 +50N | Grab | sCB, sCL, sKF | | | | | | |
| | 50 +00E | Strike Length Exp. : 1.0 m | Metallics : 2%CP | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545653 | Elevation: 4425 ft | Sample Width : 20 cm | Secondaries: sMC | 40. | 2.0 | 28. | 4249. | 15. | 24. |
| | Orientation: / | True Width : 20 cm | Host : Metasomatized siltstone | | | | | | |

Comments : Small pod of potassium feldspar altered siltstone with blebby chalcopyrite disseminations and chlorite/Fe-carbonate veinlets.

---

| Sample No. | UTM : | Type | Alteration | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|
| | 7203 360 N | Chip | sCB, wKF, sMS, sQZ | | | | | | |
| | 580 885 E | Strike Length Exp. : >50 m | Metallics : trCP, 1%PY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545654 | Elevation: 5750 ft | Sample Width : 10 m | Secondaries: trMC | <5. | 1.0 | 35. | 100. | <1. | 23. |
| | Bedding : 040 / 55 N | True Width : 8 m | Host : Light green slate (phyllitic siltstone) | | | | | | |

Comments : Representative sample of outcrop of quartz-carbonate stockwork. Larger veins parallel to foliation with veinlets cross-cutting. Chalcopyrite in late vuggy quartz-carbonate vein.

---

| Sample No. | UTM : | Type | Alteration | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|
| | 7203 306 N | Chip | wCB, sMS, wQZ | | | | | | |
| | 580 934 E | Strike Length Exp. : 7 m | Metallics : trCP, trPY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545655 | Elevation: 5800 ft | Sample Width : .9 m | Secondaries: wMC | <5. | 1.0 | 103. | 178. | 1. | 56. |
| | Bedding : 015 / 46 W | True Width : .9 m | Host : Light green slate (phyllitic siltstone) | | | | | | |

Comments : Less altered than 545654. Seems to be more malachite than chalcopyrite.

---

| Sample No. | UTM : | Type | Alteration | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|
| | 7203 282 N | Chip | sCB, mMS, mQZ | | | | | | |
| | 580 922 E | Strike Length Exp. : >50 m | Metallics : 1%CP | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545656 | Elevation: 5800 ft | Sample Width : 1.6 m | Secondaries: trER, wHE, mMC | 90. | 2.0 | 64. | 3675. | 2. | 34. |
| | Bedding : 030 / 45 NW | True Width : 1.6 m | Host : Light grey to green slate (phyllitic siltstone) | | | | | | |

Comments : Sample taken across best mineralization in area. Best mineralization parallel to foliation.

---

| Sample No. | UTM : | Type | Alteration | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|
| | 7203 042 N | Chip | sCB, mMS | | | | | | |
| | 581 006 E | Strike Length Exp. : 5.0 m | Metallics : 1%CP | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545657 | Elevation: 5950 ft | Sample Width : 2.1 m | Secondaries: wGE, mMC | 30. | 2.0 | 18. | 4634. | 6. | 32. |
| | Bedding : 070 / 60 SE | True Width : 2.1 m | Host : Light green phyllitic siltstone | | | | | | |

Comments : Chip across foliation with disseminated and poddy chalcopyrite mineralization. High grade 20cm pod of chalcopyrite not included.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 224 N | Type : Chip | Alteration : | sCB, sMS, wQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 960 E | Strike Length Exp. : >50 m | Metallics : | 1%CP, <1%PY | | | | | | |
| 545658 | Elevation: | 5800 ft | Sample Width : 7.0 m | Secondaries: | wGE, trHE, wJA, wMC, mMN | <5. | <0.5 | 115. | 848. | 11. | 34. |
| | Orientation: | 036 / 60 ? | True Width : 5.0 m | Host : | Light green phyllitic siltstone | | | | | | |

Comments : Fe-carbonate zone with manganese? wad on outcrop surface. Best copper mineralization hosted in most intense carbonate altered sections.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 010 N | Type : | Alteration : | sCB,vsQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 018 E | Strike Length Exp. : 2.0 m | Metallics : | <1%CP, CO? | | | | | | |
| 545659 | Elevation: | 6000 ft | Sample Width : 1.0 m | Secondaries: | mER, wMC | 30. | <0.5 | 3320. | 2082. | 3. | 787. |
| | Vein | : 005 / 80 W | True Width : 20 cm | Host : | Grey to black phyllite | | | | | | |

Comments : Irregular quartz-carbonate vein cross-cutting foliation.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 012 N | Type : Chip | Alteration : | mCB, sMS, wQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 997 E | Strike Length Exp. : 70 m | Metallics : | 1%CP, trPY | | | | | | |
| 545660 | Elevation: | 5975 ft | Sample Width : 3.0 m | Secondaries: | mER, mMC | 40. | 2.0 | 384. | 2486. | 1. | 71. |
| | Bedding | : 130 / 45 SW | True Width : 3.0 m | Host : | Light green phyllitic siltstone | | | | | | |

Comments : Finely disseminated chalcopyrite occurs along foliation and in cross-cutting tension gashes.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 012 N | Type : Chip | Alteration : | sCB, mMS, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 995 E | Strike Length Exp. : 70 m | Metallics : | 2%CP, <1%PY | | | | | | |
| 545661 | Elevation: | 5975 ft | Sample Width : 1.0 m | Secondaries: | trER, trMC, wNE | 200. | 3.0 | 155. | 1.51% | 44. | 161. |
| | Bedding | : 130 / 45 SW | True Width : 1.0 m | Host : | Light green phyllitic siltstone | | | | | | |

Comments : Continuation of chip sample 545660 through higher grade chalcopyrite zone with strong quartz-carbonate alteration. Massive pods of chalcopyrite occur in this zone but were not sampled.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 006 N | Type : Grab | Alteration : | sCB, wCL, mMS, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 956 E | Strike Length Exp. : 15 m | Metallics : | 1.5%CP, <1%PY | | | | | | |
| 545662 | Elevation: | 5825 ft | Sample Width : 1.8 m | Secondaries: | None | 65. | 1.0 | 111. | 5563. | 4. | 49. |
| | Bedding | : 120 / 52 SW | True Width : 1.8 m | Host : | Light green phyllitic siltstone | | | | | | |

Comments : Zone of intense iron carbonate and silica alteration. No malachite on outcrop.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Grid Co-or. | 52 +25N | Type : Chip | Alteration : | wCL, sKF | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 50 +02E | Strike Length Exp. : 25 m | Metallics : | 1%CP, 5%MG | | | | | | |
| 545668 | Elevation: | 4250 ft | Sample Width : 10 m | Secondaries: | wMC | 65. | 2.0 | 48. | 2641. | 6. | 7. |
| | Orientation: | / | True Width : 10 m | Host : | Monzonite-diorite | | | | | | |

Comments :

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| Sample No. | Grid Co-or. | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 52 +25N | Type : | Chip | Alteration : | wCl, sKF | | | | | | |
| | | 49 +97E | Strike Length Exp. : | 25 m | Metallics : | 2%CP, 5%MG, trPY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545669 | Elevation: | 4260 ft | Sample Width : | 10 m | Secondaries: | mMC | 50. | 3.0 | 50. | 6065. | 23. | 15. |
| | Orientation: | / | True Width : | 10 m | Host : | Monzonite-diorite | | | | | | |

Comments :

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| Sample No. | Grid Co-or. | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 52 +25N | Type : | Chip | Alteration : | wCL, sKF | | | | | | |
| | | 49 +60E | Strike Length Exp. : | 5.0 m | Metallics : | 1%HS, trPY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545670 | Elevation: | 4350 ft | Sample Width : | 9.3 m | Secondaries: | None | <0.5. | 1.0 | 33. | 56. | 2. | 37. |
| | Orientation: | / | True Width : | 9.3 m | Host : | Siltstone | | | | | | |

Comments : Chip sample of wallrock east of intrusive near to the contact.

---

| Sample No. | Grid Co-or. | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 52 +00N | Type : | Grab | Alteration : | wCL, mKF | | | | | | |
| | | 49 +95E | Strike Length Exp. : | 20 m | Metallics : | 1%CP, 5%MG, 1%PY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545671 | Elevation: | 4250 ft | Sample Width : | 25 m | Secondaries: | wMC | 35. | 3.0 | 67. | 2178. | 6. | 11. |
| | Orientation: | / | True Width : | 25 m | Host : | Monzonite-diorite | | | | | | |

Comments :

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| Sample No. | Grid Co-or. | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 52 +00N | Type : | Chip | Alteration : | mCL, sKF | | | | | | |
| | | 50 +00E | Strike Length Exp. : | 25 m | Metallics : | <1%CP, 3%MG, <1%PY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545672 | Elevation: | 4225 ft | Sample Width : | 23 m | Secondaries: | wJA, trMC | 10. | 3.0 | 56. | 1884. | 8. | 10. |
| | Orientation: | / | True Width : | 23 m | Host : | Monzonite-diorite | | | | | | |

Comments :

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| Sample No. | Grid Co-or. | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 50 +15N | Type : | Chip | Alteration : | mCL, mKF | | | | | | |
| | | 49 +00E | Strike Length Exp. : | 25 m | Metallics : | <1%CP, 5%MG, trPY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545673 | Elevation: | 3750 ft | Sample Width : | 9.0 m | Secondaries: | mMC | 20. | 4.0 | 55. | 2064. | 7. | 9. |
| | Orientation: | / | True Width : | 9.0 m | Host : | Monzonite-diorite | | | | | | |

Comments : Sample taken from end of lower drill road.

---

| Sample No. | Grid Co-or. | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 50 +20N | Type : | Chip | Alteration : | sKF | | | | | | |
| | | 48 +75E | Strike Length Exp. : | 25 m | Metallics : | 1%CP, 5%MG, trPY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545674 | Elevation: | 3750 ft | Sample Width : | 24 m | Secondaries: | wMC | 25. | 1.0 | 57. | 3029. | 18. | 11. |
| | Orientation: | / | True Width : | 24 m | Host : | Monzonite-diorite | | | | | | |

Comments : Located at end of lower drill road west of 545674.

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| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Grid Co-or. | 50 +40N | Type : Grab | Alteration : | None | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 48 +12E | Strike Length Exp. : 12 m | Metallics : | 0.5%CP, 0.5%HS, 3%PY | | | | | | |
| 545951 | Elevation: | 1200 m | Sample Width : m | Secondaries: | None | <5. | <0.5. | 89. | 923. | 3. | 10. |
| | Orientation: | / | True Width : m | Host : | Diorite | | | | | | |

Comments : Fresh diorite with 2-3% disseminated blebs of pyrite with minor intergrown chalcopyrite. Extension of outcrop on 5000N to the east.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 912 N | Type : Chip | Alteration : | sCB, wQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 884 E | Strike Length Exp. : 5.0 m | Metallics : | 0.7%CP, 1%PY, 0.5%CO | | | | | | |
| 545954 | Elevation: | 1810 m | Sample Width : 80 cm | Secondaries: | wGB | <5. | 1.0 | 391. | 224. | 1. | 36. |
| | Vein | : 162 / 46 W | True Width : 80 cm | Host : | Grey phyllite | | | | | | |

Comments : Local conformable Fe-carbonate veinlets. Minor chalcopyrite as blebs in Fe-carbonate and fine disseminations in phyllite. Cobaltite fine-grained association with pyrite.

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| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 952 N | Type : Chip | Alteration : | sCB, wCL, sMS, mQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 812 E | Strike Length Exp. : 30 m | Metallics : | 0.5%CP, 0.5%CO | | | | | | |
| 545955 | Elevation: | 1740 m | Sample Width : 4.5 m | Secondaries: | wMN, mCO | 35. | 1.0 | 1354. | 196. | 14. | 113. |
| | Bedding | : 173 / 49 W | True Width : 4.5 m | Host : | Grey + greenish phyllite | | | | | | |

Comments : Fe-carbonate >20% by volume as pods and foliation parallel lenses (replacement) and as semi-continuous quartz-carbonate veins. Chalcopyrite as blebs and local massive pods. Cobalt with pyrite and in carbonate veins.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 955 N | Type : Chip | Alteration : | sCB, wMS, wQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 803 E | Strike Length Exp. : .30 m | Metallics : | 2%CP, 0.1%PY, 0.1%CO | | | | | | |
| 545956 | Elevation: | 1735 m | Sample Width : 2.0 m | Secondaries: | None | 45. | 1.0 | 109. | 4998. | 14. | 59. |
| | Vein | : 022 / 37 | True Width : 2.0 m | Host : | Green-grey phyllite | | | | | | |

Comments : Continuation of zone sampled in 545955. Zone here is cobalt deficient and chalcopyrite dominant.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 650 N | Type : Grab | Alteration : | mCB, sKF, mQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 760 E | Strike Length Exp. : .20 m | Metallics : | 5%HS, 2%PY | | | | | | |
| 545957 | Elevation: | 1870 m | Sample Width : m | Secondaries: | None | 10. | <0.5 | 105. | 104. | 3. | 49. |
| | Orientation: | / | True Width : m | Host : | Heterolithic breccia | | | | | | |

Comments : Strong potassium feldspar altered fragments in hematitic matrix. Pyrite as disseminations and crystals in matrix. May be intrusive fragments.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7201 790 N | Type : Grab | Alteration : | sCL, mKF | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 540 E | Strike Length Exp. : 15 m | Metallics : | 0.5%CP, 1%HS | | | | | | |
| 545958 | Elevation: | 1705 m | Sample Width : m | Secondaries: | wHE | 30. | <0.5. | 39. | 1194. | 3. | 81. |
| | Orientation: | / | True Width : m | Host : | Dark green chlorite altered diorite | | | | | | |

Comments : Sheared diorite or altered argillite. Traces of disseminated and fracture controlled chalcopyrite.

---

| Sample No. | UTM : | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7201 500 N | Type : | Grab | Alteration : | wCL | Au | Ag | Co | Cu | Mo | Ni |
| | | 580 500 E | Strike Length Exp. : | m | Metallics : | 0.1%CP, 1%HS, 2%MG, 2%PY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545959 | Elevation: | | Sample Width : | m | Secondaries: | None | <5. | 1.0 | 21. | 27. | 2. | 3. |
| | Orientation: / | | True Width : | m | Host : | Diorite - metadiorite | | | | | | |

Comments : Dark, >20% mafics, green and pinkish. Medium grained - similar to composition of intrusives at porphyry showing. Very rare chalcopyrite on fractures.

---

| Sample No. | UTM : | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7200 600 N | Type : | Grab | Alteration : | wCB, sKF, mSI | Au | Ag | Co | Cu | Mo | Ni |
| | | 579 800 E | Strike Length Exp. : | 15 m | Metallics : | 0.1%CP, 3%HS, 1%PY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 545960 | Elevation: | | Sample Width : | m | Secondaries: | None | <5. | 1.0 | 8. | 193. | <1. | 33. |
| | Orientation: / | | True Width : | m | Host : | Brown weathering calcareous siltstone | | | | | | |

Comments : Strong potassium feldspar altered sediments and local potassium feldspar altered heterolithic breccia. Hematite 3-5% fine disseminations, strong pink coloration similar to alteration at the porphyry showing.

---

| Sample No. | UTM : | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7202 700 N | Type : | | Alteration : | mCB, sMS, mSI | Au | Ag | Co | Cu | Mo | Ni |
| | | 581 000 E | Strike Length Exp. : | m | Metallics : | 1%CP | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546051 | Elevation: | 1960 m | Sample Width : | m | Secondaries: | wER, mMC | 25. | 1.0 | 389. | 2447. | 4. | 57. |
| | Orientation: / | | True Width : | m | Host : | Fairchild transition shale | | | | | | |

Comments : Irregular zone marginal to cobalt cirque deposit.

---

| Sample No. | UTM : | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7201 560 N | Type : | Grab | Alteration : | wCB, mCL, sKF, mMs | Au | Ag | Co | Cu | Mo | Ni |
| | | 581 020 E | Strike Length Exp. : | m | Metallics : | 1%HS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546052 | Elevation: | 1622 m | Sample Width : | m | Secondaries: | None | <5. | <0.5 | 8. | 27. | 1. | 24. |
| | Orientation: / | | True Width : | m | Host : | Heterolithic breccia | | | | | | |

Comments : No copper mineralization visible.

---

| Sample No. | UTM : | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7201 290 N | Type : | Grab | Alteration : | mCB, wCL, mKF, wMS | Au | Ag | Co | Cu | Mo | Ni |
| | | 581 060 E | Strike Length Exp. : | m | Metallics : | trHS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546053 | Elevation: | 1522 m | Sample Width : | m | Secondaries: | wGE | <5. | 1.0 | 5. | 18. | <1. | 27. |
| | Orientation: / | | True Width : | m | Host : | Homolithic breccia/metasomatite | | | | | | |

Comments : No visisble copper through whole section of breccia.

---

| Sample No. | UTM : | | Type : | | Alteration : | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7201 250 N | Type : | Float | Alteration : | sCB, sLI | Au | Ag | Co | Cu | Mo | Ni |
| | | 581 280 E | Strike Length Exp. : | m | Metallics : | None | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546054 | Elevation: | 1375 m | Sample Width : | m | Secondaries: | mGE, sLI | <5. | 1.0 | 18. | 24. | 1. | 48. |
| | Orientation: / | | True Width : | m | Host : | Limonitic heterolithic breccia | | | | | | |

Comments : Sample collected in an 080 trending zone 20m wide by 100+ m long.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7200 920 N | Type : Chip | Alteration : | CB, QZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 520 E | Strike Length Exp. : m | Metallics : | 3%CP | | | | | | |
| 546055 | Elevation: | 1181 m | Sample Width : 2.8 m | Secondaries: | AZ, MC | 15. | 10.0 | 10. | 6.91% | 56. | 31. |
| | Orientation: | / | True Width : 3.0 m | Host : | Dolomite Gillespie | | | | | | |

Comments : Rough chip across zone - high grade nuggets pulled out.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7200 920 N | Type : Select | Alteration : | mCB, mQZ, sLI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 520 E | Strike Length Exp. : <1 m | Metallics : | 80%CP | | | | | | |
| 546056 | Elevation: | 1181 m | Sample Width : m | Secondaries: | mAZ, mMC, sLI | 40. | 36.0 | 26. | 32.4% | 230. | 31. |
| | Vein | : 090 / 80 S | True Width : m | Host : | Dolomite Gillespie | | | | | | |

Comments : Irregular zone average 3m wide - poddy chalcopyrite associated with 090 shear.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 340 N | Type : Grab | Alteration : | wCB, mCL | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 560 E | Strike Length Exp. : m | Metallics : | <1%HS | | | | | | |
| 546057 | Elevation: | 1610 m | Sample Width : m | Secondaries: | mGE, sHE | <5. | <0.5. | 3. | 2100. | 2. | 31. |
| | Orientation: | / | True Width : m | Host : | Heterolithic breccia | | | | | | |

Comments :

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| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 400 N | Type : Grab | Alteration : | sCB, mSI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 550 E | Strike Length Exp. : m | Metallics : | <1%HS | | | | | | |
| 546058 | Elevation: | | Sample Width : m | Secondaries: | mHE, sLI | <5. | <0.5. | 4. | 886. | 3. | 17. |
| | Orientation: | / | True Width : m | Host : | Heterolithic breccia | | | | | | |

Comments : 100 metres north of 546057.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 620 N | Type : Float | Alteration : | sCB, sMS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 375 E | Strike Length Exp. : m | Metallics : | 2%CP, 1%HS | | | | | | |
| 546059 | Elevation: | 1755 m | Sample Width : m | Secondaries: | sGE, mMC | 90. | 1.0 | 301. | 5154. | 11. | 69. |
| | Orientation: | / | True Width : m | Host : | Carbonate metasediments? | | | | | | |

Comments : Several tens of mineralized boulders on talus slope.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 140 N | Type : Grab | Alteration : | mCB, mCL, mKF, mSI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 582 610 E | Strike Length Exp. : m | Metallics : | 2%HS | | | | | | |
| 546060 | Elevation: | 1908 m | Sample Width : m | Secondaries: | wHE | 5. | 1.0 | 10. | 78. | 2. | 40. |
| | Orientation: | / | True Width : m | Host : | | | | | | | |

Comments :

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| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7201 740 N | Type : Grab | Alteration : | wCB, mCL, mKF, mMS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 582 000 E | Strike Length Exp. : m | Metallics : | 2%HS | | | | | | |
| 546061 | Elevation: | 1689 m | Sample Width : m | Secondaries: | mHE | <5. | 1.0 | 10. | 32. | 5. | 30. |
| | Orientation: | / | True Width : m | Host : | Heterolithic breccia | | | | | | |

Comments :

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| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7201 310 N | Type : Grab | Alteration : | mCL, wKF | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 610 E | Strike Length Exp. : m | Metallics : | <1%CP, 4%MG, 1%PY | | | | | | |
| 546062 | Elevation: | 1358 m | Sample Width : m | Secondaries: | None | 40. | 1.0 | 54. | 1403. | 2. | 51. |
| | Orientation: | / | True Width : m | Host : | Gabbro dyke | | | | | | |

Comments :

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| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 460 N | Type : Grab | Alteration : | mCB, wKF, wSI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 320 E | Strike Length Exp. : m | Metallics : | 3%HS | | | | | | |
| 546063 | Elevation: | 1710 m | Sample Width : m | Secondaries: | sHE | 15. | <0.5 | 6. | 62. | 2. | 31. |
| | Orientation: | / | True Width : m | Host : | Heterolithic breccia | | | | | | |

Comments : No copper.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 490 N | Type : Chip | Alteration : | mCB, mSI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 270 E | Strike Length Exp. : 10 m | Metallics : | <1%CP | | | | | | |
| 546064 | Elevation: | 1700 m | Sample Width : 1 m | Secondaries: | wAZ, wER, mMC, mMN | 140. | 1.0 | 140. | 6144. | 2. | 86. |
| | Bedding : | 140 / 40 NE | True Width : 1 m | Host : | Fairchild Group shale | | | | | | |

Comments : Quasi chip as face is hard to sample.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 520 N | Type : Chip | Alteration : | mCB, wKF, mMS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 250 E | Strike Length Exp. : m | Metallics : | <1%CP, trPY | | | | | | |
| 546065 | Elevation: | 1705 m | Sample Width : 2 m | Secondaries: | wAZ, mMC, wMN | 40. | <0.5 | 655. | 3378. | 1. | 93. |
| | Bedding : | 142 / 40 NE | True Width : 2 m | Host : | Fairchild shale | | | | | | |

Comments : Located about 25-30m NW of 546064.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 640 N | Type : Grab | Alteration : | sCB, wKF, mSI | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 180 E | Strike Length Exp. : m | Metallics : | trCP, 1%HS, <1%PY | | | | | | |
| 546066 | Elevation: | 1680 m | Sample Width : m | Secondaries: | mHE | 5. | <0.5 | 84. | 108. | 6. | 70. |
| | Orientation: | / | True Width : m | Host : | Heterolithic breccia | | | | | | |

Comments :

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| Sample No. | UTM : | 7203 670 N | Type : Select | Alteration : | wCB, sSI | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 581 170 E | Strike Length Exp. : m | Metallics : | 4%PY | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546067 | Elevation: | 1705 m | Sample Width : m | Secondaries: | sLI | <5 | 1.0 | 137. | 91. | 7. | 22. |
| | Orientation: | / | True Width : m | Host : | Silicified sediments | | | | | | |

Comments : Could be a large clast in breccia.

---

| Sample No. | UTM : | 7203 780 N | Type : Select | Alteration : | mCL, mKF, mMS | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 581 290 E | Strike Length Exp. : m | Metallics : | <1%CP, 1%HS, 4%MG | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546068 | Elevation: | 1660 m | Sample Width : m | Secondaries: | wMC | 10. | 1.0 | 44. | 2106. | 2. | 31. |
| | Orientation: | / | True Width : m | Host : | Gabbro | | | | | | |

Comments : Mineralized gabbro - chalcoprite and magnetite is finely disseminated.

---

| Sample No. | UTM : | 7202 640 N | Type : Select | Alteration : | sCB, mQZ, sSI | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 580 500 E | Strike Length Exp. : 10 m | Metallics : | 5%CP | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546069 | Elevation: | 1847 m | Sample Width : m | Secondaries: | MC | 310. | 3.0 | 2. | 4.06% | 60. | 35. |
| | Vein : | 085 / 60 S | True Width : m | Host : | Carbonate altered shales | | | | | | |

Comments : Old posts Y6728 No. 1 at site.

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| Sample No. | UTM : | 7202 270 N | Type : Select | Alteration : | mCB, sCL, mKF | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 580 040 E | Strike Length Exp. : ? m | Metallics : | 4%CP | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546070 | Elevation: | 1532 m | Sample Width : m | Secondaries: | mMC | 560. | 1.0 | 586. | 1.07% | 5. | 71. |
| | Orientation: | / | True Width : m | Host : | Sheared Gabbro/Breccia Complex | | | | | | |

Comments :

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| Sample No. | UTM : | 7202 230 N | Type : Float | Alteration : | sMS | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 582 670 E | Strike Length Exp. : 25 m | Metallics : | 2%CP, 4%HS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546151 | Elevation: | 6290 ft | Sample Width : 1.0 m | Secondaries: | mHE, sJA, mMC | 330. | 10.0 | 23. | 9.80% | 265. | 49. |
| | Orientation: | 140 / | True Width : 1.0 m | Host : | Dolomite | | | | | | |

Comments : Contact between dolomite and Fairchild breccia. Strong sericite altered dolomite.

---

| Sample No. | UTM : | 7202 240 N | Type : Float | Alteration : | sMS | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 582 810 E | Strike Length Exp. : m | Metallics : | >1%CP, 7%HS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| 546152 | Elevation: | 6200 ft | Sample Width : m | Secondaries: | None | 85. | <0.5 | 14. | 2200. | 4. | 34. |
| | Orientation: | / | True Width : m | Host : | Specular hematite breccia | | | | | | |

Comments : Taken from subcrop in sidehill talus - moderate amount of material present.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 260 N | Type : | Alteration : | sMS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 582 830 E | Strike Length Exp. : m | Metallics : | >1%CP, 8%HS | | | | | | |
| 546153 | Elevation: | 6200 ft | Sample Width : 50 cm | Secondaries: | sJA, wMC | 60. | 1.0 | 30. | 1.71% | 8. | 52. |
| | Orientation: | / | True Width : m | Host : | Specular hematite breccia | | | | | | |

Comments : Taken from subcrop. 30m across slope from 546152, chalcopyrite in blebs and bands, spotty mineralization.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7200 820 N | Type : Grab | Alteration : | sCB, mMS | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 583 350 E | Strike Length Exp. : m | Metallics : | 10%HS, >1%PY | | | | | | |
| 546154 | Elevation: | 4100 ft | Sample Width : 1.0 m | Secondaries: | wJA | <5 | 1.0 | <1 | 56. | 1. | 10. |
| | Orientation: | / | True Width : ? m | Host : | Sediments/carbonate altered | | | | | | |

Comments : Quick grab as chopper was coming - no time for a good look. Might be old showing, old ribbon.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7201 680 N | Type : Chip | Alteration : | sCB | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 582 470 E | Strike Length Exp. : 2.0 m | Metallics : | trPY, 3%TT | | | | | | |
| 546155 | Elevation: | 5500 ft | Sample Width : 65 cm | Secondaries: | sAZ, mCV, sMC | 90. | 200.0 | 17. | 1.99% | 2. | 13. |
| | Orientation: | 100 / ? | True Width : 65 cm | Host : | Dolomite | | | | | | |

Comments :

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 950 N | Type : Float | Alteration : | sCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 920 E | Strike Length Exp. : m | Metallics : | 65%HS, 10%PY | | | | | | |
| 546156 | Elevation: | 5725 ft | Sample Width : m | Secondaries: | sHE | <5 | 1.0 | 64. | 210. | 7. | 66. |
| | Orientation: | / | True Width : m | Host : | Dolomite/quartz-carbonate flooded | | | | | | |

Comments : Taken from talus below cliff - large zone (10-15m) in cliff above.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 999 N | Type : Chip | Alteration : | sCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 890 E | Strike Length Exp. : 40 m | Metallics : | >1%CP, 80%HS, 5%PY | | | | | | |
| 546157 | Elevation: | 5750 ft | Sample Width : 3.0 m | Secondaries: | sHE | 10. | 1.0 | 327. | 3418. | 8. | 77. |
| | Orientation: | 040 / ? | True Width : 4-5 m | Host : | Dolomite/quartz-carbonate flooded | | | | | | |

Comments :

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| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7204 030 N | Type : Chip | Alteration : | None | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 370 E | Strike Length Exp. : m | Metallics : | >1%CP | | | | | | |
| 546158 | Elevation: | 6275 ft | Sample Width : 50 cm | Secondaries: | wMC | <5 | 1.0 | 13. | 2029. | 1. | 45. |
| | Orientation: | / | True Width : m | Host : | Light green sediments | | | | | | |

Comments :

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| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 850 N | Type : Chip | Alteration : | sCA | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 350 E | Strike Length Exp. : 6.0 m | Metallics : | 1%CP, 5%HS, 2%PY | | | | | | |
| 546159 | Elevation: | 5900 ft | Sample Width : 4.0 m | Secondaries: | sHE, wMC | 115. | 1.0 | 66. | 6560. | 2. | 44. |
| | Orientation: | / | True Width : 4.0 m | Host : | Block of sediments in breccia section | | | | | | |

Comments : Mineralization is disseminated and in blebs in coarse crystalline carbonate.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 820 N | Type : Chip | Alteration : | sCA, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 340 E | Strike Length Exp. : 20 m | Metallics : | 1%CP, 2%HS, 2%PY | | | | | | |
| 546160 | Elevation: | 5650 ft | Sample Width : 2.0 m | Secondaries: | sHE | 65. | 1.0 | 166. | 5063. | 3. | 87. |
| | Orientation: | 070 / ? | True Width : 4.0 m | Host : | Breccia | | | | | | |

Comments : 4 metre band of quartz-carbonate alteration within breccia.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 700 N | Type : Chip | Alteration : | sCA, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 230 E | Strike Length Exp. : 25 m | Metallics : | >1%CP, 3%HS, 1%PY | | | | | | |
| 546161 | Elevation: | 6000 ft | Sample Width : 50 cm | Secondaries: | sHE, sJA | 70. | 1.0 | 136. | 571. | 4. | 37. |
| | Orientation: | 060 / 40 NW | True Width : 50 cm | Host : | Banded shattered sediments | | | | | | |

Comments : Alteration zone follows bedding - pinches out to the north.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 680 N | Type : Select | Alteration : | sCA, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 220 E | Strike Length Exp. : 5 m | Metallics : | 1%CP, 3%HS, >1%PY | | | | | | |
| 546162 | Elevation: | 6010 ft | Sample Width : 30 cm | Secondaries: | sHE, mJA | 45. | <0.5 | 38. | 4713. | 2. | 119. |
| | Orientation: | 060 / 40 NW | True Width : m | Host : | Sediments | | | | | | |

Comments : Grab from hanging wall of unmineralized 4.0 metre wide quartz-carbonate zone.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 660 N | Type : Grab | Alteration : | sCA, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 210 E | Strike Length Exp. : 50 m | Metallics : | trCP, 10%HS, 5%PY | | | | | | |
| 546163 | Elevation: | 6010 ft | Sample Width : 15 cm | Secondaries: | sHE, sJA | 30. | <0.5 | 59. | 22. | 1. | 78. |
| | Orientation: | 00 / 40 NW | True Width : m | Host : | Banded sediments | | | | | | |

Comments : Spotty mineralization within alteration zone in sediments, 10m past 546162.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 600 N | Type : Float | Alteration : | sCB, sCL | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 190 E | Strike Length Exp. : m | Metallics : | >1%CP, 5%HS, 1%PY | | | | | | |
| 546164 | Elevation: | 6175 ft | Sample Width : m | Secondaries: | sHE, sJA | 15. | <0.5 | 370. | 414. | 2. | 181. |
| | Orientation: | / | True Width : m | Host : | Sediments | | | | | | |

Comments : Sample from cliffs above.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 580 N | Type : Float | Alteration : | sCB, sCL, mQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 270 E | Strike Length Exp. : m | Metallics : | 1%CP, 5%HS | | | | | | |
| 546165 | Elevation: | 6000 ft | Sample Width : 2 m | Secondaries: | sHE, wJA | 35. | <0.5 | 36. | 4621. | 4. | 36. |
| | Orientation: | / | True Width : m | Host : | Banded sediments | | | | | | |

Comments : Sample from 3 metre radius in altered sediments.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 570 N | Type : Select | Alteration : | sCB, sCL, mQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 280 E | Strike Length Exp. : 10 m | Metallics : | 2%CP, trHS, 1%PY | | | | | | |
| 546166 | Elevation: | | Sample Width : m | Secondaries: | sHE, sJA, sMC | 310. | 1.0 | 387. | 1.10% | 10. | 101. |
| | Bedding : | 160 / 05 NW | True Width : m | Host : | Banded sediments | | | | | | |

Comments : Sample taken over 5m radius, 10m south of 546165, mineralization spotty.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7201 020 N | Type : Grab | Alteration : | mCL | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 680 E | Strike Length Exp. : m | Metallics : | >1%CP | | | | | | |
| 546167 | Elevation: | 4325 ft | Sample Width : 50 cm | Secondaries: | wJA, wMC | 105. | 3.0 | 56. | 1.30% | 17. | 13. |
| | Orientation: | / | True Width : m | Host : | Altered diorite | | | | | | |

Comments : Sample taken above cat trench.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 520 N | Type : Chip | Alteration : | sCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 840 E | Strike Length Exp. : 15 m | Metallics : | >1%CP, 1%HS | | | | | | |
| 546168 | Elevation: | 5500 ft | Sample Width : 30 cm | Secondaries: | wJA, sMC | 80. | 2.0 | 27. | 2660. | 104. | 46. |
| | Bedding : | 160 / 90 | True Width : 30 cm | Host : | Medium green sediments, jasper bands | | | | | | |

Comments : Alteration is parallel to bedding. Jasper bands with specular hematete, chalcopryite, malachite and jarosite.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 480 N | Type : Grab | Alteration : | mCB, mQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 660 E | Strike Length Exp. : 25 m | Metallics : | 55%HS, 8%PY | | | | | | |
| 546169 | Elevation: | 5725 ft | Sample Width : 4.0 m | Secondaries: | sHE | 15. | 1.0 | 330. | 97. | 15. | 47. |
| | Bedding : | 080 / 90 | True Width : 4.0 m | Host : | Banded sediments | | | | | | |

Comments : 200m past 546168. Contact between massive sediments and breccia and light coloured sediments.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 500 N | Type : Float | Alteration : | sCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 620 E | Strike Length Exp. : m | Metallics : | 65%HS, 8%PY | | | | | | |
| 546170 | Elevation: | 5750 ft | Sample Width : m | Secondaries: | wGE, sHE, mJA | <5 | <0.5 | 652. | 44. | 4. | 57. |
| | Orientation: | / | True Width : m | Host : | Banded sediments | | | | | | |

Comments : Same zone as 546169.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 460 N | Type : Grab | Alteration : | sCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 510 E | Strike Length Exp. : m | Metallics : | trCP, 3%PY | | | | | | |
| 546171 | Elevation: | 6000 ft | Sample Width : 50 cm | Secondaries: | mGE, sHE, wJA | <5 | <0.5 | 562. | 814. | 13. | 61. |
| | Bedding : | 110 / 80 NE | True Width : 2 m | Host : | Banded sediments, altered | | | | | | |

Comments : Zone is shattered and hard to reach and sample, conformable to bedding.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 520 N | Type : Float | Alteration : | sCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 550 E | Strike Length Exp. : m | Metallics : | 1%CP,>1%PY | | | | | | |
| 546172 | Elevation: | 5800 ft | Sample Width : m | Secondaries: | wJA | 220. | 3.0 | 527. | 1.20% | 4. | 141. |
| | Orientation: | / | True Width : m | Host : | Breccia sediment contact | | | | | | |

Comments : Near sediment-breccia contact. Talus sample from chute below 546171 (difficult area to sample).

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 520 N | Type : Float | Alteration : | mCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 570 E | Strike Length Exp. : m | Metallics : | >1%CP, >1%PY | | | | | | |
| 546173 | Elevation: | 5800 ft | Sample Width : m | Secondaries: | sGE, sHE, sJA | 50. | 1.0 | 241. | 7025. | 6. | 54. |
| | Orientation: | / | True Width : m | Host : | Banded sediments | | | | | | |

Comments : Below 546171.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 440 N | Type : Grab | Alteration : | sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 400 E | Strike Length Exp. : 5 m | Metallics : | 2%PY | | | | | | |
| 546174 | Elevation: | 6100 ft | Sample Width : 30 cm | Secondaries: | sGE, sJA | 40. | 1.0 | 290. | 1977. | 1. | 48. |
| | Vein : | 090 / | True Width : 30 cm | Host : | Banded sediments | | | | | | |

Comments : Vein within 8-10 metre wide quartz-carbonate zone. Two chutes up from 546171.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7203 440 N | Type : Float | Alteration : | sCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 581 400 E | Strike Length Exp. : m | Metallics : | 1%CP | | | | | | |
| 546175 | Elevation: | 6050 ft | Sample Width : m | Secondaries: | sJA | 135. | 1.0 | 97. | 1.31% | 4. | 46. |
| | Orientation: | 180 / | True Width : 8-10? m | Host : | Breccia-quartz-carbonate zone | | | | | | |

Comments : Float near contact between banded sediments and breccia.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 380 N | Type : Chip | Alteration : | sCB, mQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 370 E | Strike Length Exp. : 15 m | Metallics : | >1%CP, >1%PY | | | | | | |
| 546176 | Elevation: | 5650 ft | Sample Width : 8.0 m | Secondaries: | wHE, wJA, wMC | 25. | 0.0 | 462. | 1324. | 2. | 81. |
| | Orientation: | 120 / | True Width : 15.0 m | Host : | Meta-sediments | | | | | | |

Comments : Near contact between dark green sediments and lighter sediments. Disseminated sulphides with quartz-carbonate alteration.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 380 N | Type : Chip | Alteration : | sCB, mQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 350 E | Strike Length Exp. : 15 m | Metallics : | >1%CP, >1%PY | | | | | | |
| 546177 | Elevation: | 5650 ft | Sample Width : 7.0 m | Secondaries: | wHE, wJA, wMC | 55. | 1.0 | 27. | 2191. | 3. | 65. |
| | Orientation: | / | True Width : 15.0 m | Host : | Meta-sediments | | | | | | |

Comments : Adjacent to 546176 taken fron light green sediments at contact.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 350 N | Type : Chip | Alteration : | mCB, mQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 330 E | Strike Length Exp. : 7.0 m | Metallics : | 1%CP, 2%PY | | | | | | |
| 546178 | Elevation: | 5640 ft | Sample Width : 2.0 m | Secondaries: | mAZ, mGE, mJA, mMC | 405. | 2.0 | 58. | 2.38% | 4. | 198. |
| | Bedding | : 109 / 60 NE | True Width : 2.0 m | Host : | Banded sediments | | | | | | |

Comments : 5cm wide chalcopyrite stringers within zone parallel to bedding. 15m from 546176 and 546177.

---

| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 400 N | Type : Chip | Alteration : | sCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 290 E | Strike Length Exp. : 10 m | Metallics : | 3%CP | | | | | | |
| 546179 | Elevation: | 5450 ft | Sample Width : 35 cm | Secondaries: | sGE, sJA | 175. | 2.0 | 268. | 1.37% | 24. | 99. |
| | Bedding | : 160 / 50 NE | True Width : 35 cm | Host : | Banded sediments | | | | | | |

Comments : Knots of highgrade chalcopyrite (60-70%) in quartz-carbonate vein, spotty mineralization.

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| Sample No. | | | | | | Au | Ag | Co | Cu | Mo | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM : | 7202 460 N | Type : Grab | Alteration : | sCB, sQZ | (ppb) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| | | 580 120 E | Strike Length Exp. : 4.0 m | Metallics : | >1%CP, 4%HS, 2%MG | | | | | | |
| 546180 | Elevation: | 5250 ft | Sample Width : 50 cm | Secondaries: | sHE | 15. | 1.0 | 42. | 2441. | 1. | 28. |
| | Bedding | : 040 / 40 NW | True Width : 50 cm | Host : | Banded sediments | | | | | | |

Comments : Magnetite crystals repaced by specular hematite - many small mineralized zones in area.

---

# APPENDIX E

# CERTIFICATES OF ANALYSIS

# AND ANALYTICAL PROCEDURES

# Chemex Labs Ltd.

*Analytical Chemists* *Geochemists* *Registered Assayers*

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1

Phone: (604) 984-0221
Telex: 04-352597
Fax: (604) 984-0218


## 24-Element Geochemistry Package (24-ICP)

Inductively-Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

The 24 element rock geochemistry package provides quantitative analysis of all major elements (except silicon) as well as most important trace elements.

A prepared sample (0.50g) is digested with perchloric, nitric and hydrofluoric acids to dryness. The residue is taken up in a volume of 25ml of 10% hydrochloric acid and the resulting solution is analyzed by inductively-coupled plasma atomic emission spectroscopy. Results are corrected for spectral interelement interferences.
For this project only uranium and lanthanum were also analyzed.

| Chemex Code | Element | Detection Limit | Upper Limit |
|---|---|---|---|
| 573 | Aluminum | 0.01 % | 15 % |
| 565 | Barium | 10 ppm | 1 % |
| 575 | Beryllium | 0.5 ppm | 0.01 % |
| 561 | Bismuth | 2 ppm | 1 % |
| 576 | Calcium | 0.01 % | 25 % |
| 562 | Cadmium | 0.5 ppm | 0.05 % |
| 569 | Chromium | 1 ppm | 1 % |
| 563 | Cobalt | 1 ppm | 1 % |
| 577 | Copper | 1 ppm | 1 % |
| 566 | Iron | 0.01 % | 15 % |
| 560 | Lead | 2 ppm | 1 % |
| 570 | Magnesium | 0.01 % | 15 % |
| 568 | Manganese | 5 ppm | 1 % |
| 554 | Molybdenum | 1 ppm | 1 % |
| 564 | Nickel | 1 ppm | 1 % |
| 559 | Phosphorus | 10 ppm | 1 % |
| 584 | Potassium | 0.01 % | 10 % |
| 578 | Silver | 0.5 ppm | 0.02 % |
| 583 | Sodium | 0.01 % | 10 % |
| 582 | Strontium | 1 ppm | 1 % |
| 579 | Titanium | 0.01 % | 10 % |
| 556 | Tungsten | 10 ppm | 1 % |
| 572 | Vanadium | 1 ppm | 1 % |
| 558 | Zinc | 2 ppm | 1 % |
| | Uranium | 10 ppm | 1 % |
| | Lanthanum | 10 ppm | 1 % |

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212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1

Phone: (604) 984-0221
Telex: 04-352597
Fax: (604) 984-0218


## Gold

### Fire Assay Collection/ Atomic Absorption Spectroscopy (FA-AA)

Chemex Code: 100

A 10g sample is fused with a neutral lead oxide flux inquarted with 6mg of gold-free silver and then cupelled to yield a precious metal bead.

These beads are digested for 30 mins in 0.5ml concentrated nitric acid, then 1.5ml of concentrated hydrochloric acid are added and the mixture is digested for 1 hr. The samples are cooled, diluted to a final volume of 5ml, homogenized and analyzed by atomic absorption spectroscopy.

Detection limit: 5 ppb

Upper Limit: 10,000 ppb

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221


To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENGINEERING LTD.

Page Number :1
Total Pages :1
Certificate Date: 18-AUG-93
Invoice No. : I9318860
P.O. Number :
Account : BM

## CERTIFICATE OF ANALYSIS A9318860

| SAMPLE | PREP CODE | Cu % | Co % |
|---|---|---|---|
| 545551 | 244 -- | 2.74 | ----- |
| 545552 | 244 -- | 21.4 | ----- |
| 545553 | 244 -- | 29.8 | ----- |
| 545554 | 244 -- | ----- | 3.03 |
| 545556 | 244 -- | 20.5 | ----- |
| 545557 | 244 -- | ----- | 3.60 |
| 545558 | 244 -- | ----- | 6.60 |
| 545559 | 244 -- | 1.25 | ----- |
| 545560 | 244 -- | 3.05 | 1.60 |
| 545561 | 244 -- | 20.1 | ----- |
| 545562 | 244 -- | 8.00 | ----- |
| 545564 | 244 -- | 7.14 | ----- |
| 545565 | 244 -- | 2.35 | ----- |
| 545566 | 244 -- | 3.33 | ----- |
| 545568 | 244 -- | 1.16 | ----- |
| 545661 | 244 -- | 1.51 | ----- |
| 546055 | 244 -- | 6.91 | ----- |
| 546056 | 244 -- | 32.4 | ----- |
| 546069 | 244 -- | 4.06 | ----- |
| 546070 | 244 -- | 1.07 | ----- |
| 546151 | 244 -- | 9.80 | ----- |
| 546153 | 244 -- | 1.71 | ----- |
| 546155 | 244 -- | 1.99 | ----- |
| 546166 | 244 -- | 1.10 | ----- |
| 546167 | 244 -- | 1.30 | ----- |
| 546172 | 244 -- | 1.20 | ----- |
| 546175 | 244 -- | 1.31 | ----- |
| 546178 | 244 -- | 2.38 | ----- |
| 546179 | 244 -- | 1.37 | ----- |

CERTIFICATION: Said Zeinab

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221


To: PAMICON DEVELOPMENTS LIMITED *

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VANCOUVER, BC
V6B 1N4

Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENGINEERING LTD.

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Total Pages :1
Certificate Date: 11-AUG-93
Invoice No. :I9318597
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9318597

| SAMPLE | PREP CODE | | Cu % | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L5200 5000E | 244 | -- | 1.15 | | | | | | | | | |

CERTIFICATION: D Chretien

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Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

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VANCOUVER, BC
V6B 1N4

Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENG. LTD.


Certificate Date: 04-AUG-93
Invoice No. :I9317874
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9317874

| SAMPLE | PREP CODE | Au ppb FA+AA | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) | Mg % (ICP) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L5000N 4750E | 201 285 | < 5 | < 0.2 | 7.62 | 1600 | 3.5 | < 2 | 0.65 | < 0.5 | 24 | 91 | 50 | 5.86 | 2.70 | 1.56 |
| L5000N 4800E | 201 285 | < 5 | < 0.2 | 7.13 | 1150 | 2.0 | < 2 | 0.81 | < 0.5 | 22 | 82 | 79 | 5.46 | 2.86 | 1.27 |
| L5000N 4850E | 201 285 | 20 | < 0.2 | 7.80 | 1390 | 1.5 | < 2 | 0.72 | < 0.5 | 50 | 81 | 771 | 5.96 | 3.53 | 1.63 |
| L5000N 4900E | 201 285 | < 5 | < 0.2 | 7.39 | 1580 | 2.0 | < 2 | 0.99 | < 0.5 | 22 | 82 | 104 | 5.51 | 3.25 | 1.35 |
| L5000N 4950E | 201 285 | 15 | < 0.2 | 7.56 | 1330 | 2.0 | < 2 | 0.98 | < 0.5 | 41 | 81 | 503 | 5.87 | 3.47 | 1.73 |
| L5000N 5000E | 201 285 | < 5 | < 0.2 | 7.55 | 1300 | 2.0 | < 2 | 0.94 | < 0.5 | 35 | 83 | 470 | 5.49 | 3.35 | 1.56 |
| L5000N 5050E | 201 285 | < 5 | < 0.2 | 7.59 | 1350 | < 0.5 | < 2 | 0.49 | < 0.5 | 18 | 88 | 49 | 5.79 | 3.44 | 1.18 |
| L5000N 5100E | 201 285 | < 5 | < 0.2 | 8.02 | 1030 | 1.5 | < 2 | 0.69 | < 0.5 | 18 | 85 | 42 | 4.80 | 3.79 | 2.14 |
| L5000N 5150E | 201 285 | < 5 | < 0.2 | 8.01 | 1400 | < 0.5 | < 2 | 0.71 | < 0.5 | 23 | 88 | 103 | 6.03 | 4.02 | 2.25 |
| L5000N 5200E | 201 285 | < 5 | < 0.2 | 8.11 | 1280 | 1.5 | < 2 | 0.38 | < 0.5 | 20 | 92 | 73 | 5.96 | 3.36 | 1.27 |
| L5000N 5250E | 201 285 | < 5 | < 0.2 | 6.89 | 1070 | < 0.5 | < 2 | 0.30 | < 0.5 | 18 | 88 | 26 | 5.54 | 3.15 | 1.80 |
| L5100N 4750E | 201 285 | < 5 | < 0.2 | 6.91 | 870 | 1.0 | < 2 | 1.13 | < 0.5 | 22 | 85 | 37 | 4.57 | 1.67 | 1.68 |
| L5100N 4800E | 201 285 | < 5 | < 0.2 | 7.15 | 1130 | 2.0 | 2 | 0.75 | < 0.5 | 19 | 80 | 69 | 5.20 | 2.90 | 1.47 |
| L5100N 4850E | 201 285 | 25 | < 0.2 | 7.04 | 1110 | 1.5 | < 2 | 0.69 | < 0.5 | 24 | 80 | 112 | 5.32 | 3.41 | 1.28 |
| L5100N 4900E | 201 285 | < 5 | < 0.2 | 7.70 | 990 | 1.5 | < 2 | 0.66 | < 0.5 | 17 | 80 | 88 | 5.51 | 2.90 | 1.30 |
| L5100N 4950E | 201 285 | < 5 | < 0.2 | 7.43 | 1690 | 1.0 | < 2 | 0.97 | < 0.5 | 75 | 76 | 909 | 5.84 | 3.07 | 1.39 |
| L5100N 5000E | 201 285 | < 5 | < 0.2 | 6.52 | 950 | 2.0 | 2 | 0.90 | < 0.5 | 83 | 74 | 552 | 5.77 | 2.48 | 1.28 |
| L5100N 5050E | 201 285 | < 5 | < 0.2 | 7.31 | 1330 | 1.5 | < 2 | 0.64 | < 0.5 | 24 | 85 | 90 | 5.26 | 3.16 | 1.49 |
| L5100N 5100E | 201 285 | < 5 | < 0.2 | 7.40 | 1310 | 2.0 | < 2 | 2.66 | < 0.5 | 21 | 96 | 52 | 3.53 | 2.84 | 1.42 |
| L5100N 5150E | 201 285 | < 5 | < 0.2 | 7.77 | 920 | < 0.5 | < 2 | 0.21 | < 0.5 | 22 | 88 | 60 | 5.59 | 3.53 | 1.40 |

CERTIFICATION: Ian Bichler

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To. PAMICON DEVELOPMENTS LIMITED

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Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENG. LTD.

Page Number :1-B
Total Pages :3
Certificate Date: 04-AUG-93
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Account :BM

## CERTIFICATE OF ANALYSIS A9317874

| SAMPLE | PREP CODE | Mn ppm (ICP) | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) | La ppm ICP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L5000N 4750E | 201 285 | 1920 | < 1 | 1.67 | 38 | 1020 | 8 | 54 | 0.28 | 114 | < 10 | 54 | 100 |
| L5000N 4800E | 201 285 | 1350 | 2 | 1.67 | 30 | 1070 | 8 | 64 | 0.32 | 113 | < 10 | 52 | 60 |
| L5000N 4850E | 201 285 | 2240 | 2 | 1.27 | 38 | 1100 | 6 | 59 | 0.35 | 113 | < 10 | 62 | 70 |
| L5000N 4900E | 201 285 | 2020 | 3 | 1.44 | 33 | 1710 | 6 | 67 | 0.26 | 94 | < 10 | 40 | 80 |
| L5000N 4950E | 201 285 | 1425 | 2 | 1.36 | 35 | 1150 | 6 | 62 | 0.35 | 109 | 10 | 44 | 70 |
| L5000N 5000E | 201 285 | 1470 | 3 | 1.18 | 35 | 1240 | 3 | 57 | 0.30 | 95 | < 10 | 44 | 70 |
| L5000N 5050E | 201 285 | 1305 | 3 | 1.05 | 28 | 590 | 8 | 60 | 0.32 | 110 | 10 | 40 | 60 |
| L5000N 5100E | 201 285 | 745 | < 1 | 0.99 | 35 | 800 | 6 | 40 | 0.26 | 91 | < 10 | 40 | 70 |
| L5000N 5150E | 201 285 | 1790 | 1 | 0.87 | 39 | 720 | 6 | 45 | 0.29 | 107 | < 10 | 40 | 60 |
| L5000N 5200E | 201 285 | 1300 | 2 | 1.21 | 33 | 570 | 6 | 60 | 0.30 | 110 | < 10 | 44 | 60 |
| L5000N 5250E | 201 285 | 2170 | 4 | 0.54 | 29 | 810 | 12 | 60 | 0.33 | 149 | < 10 | 52 | 40 |
| L5100N 4750E | 201 285 | 1975 | 3 | 1.51 | 39 | 1530 | 8 | 52 | 0.26 | 126 | < 10 | 72 | 50 |
| L5100N 4800E | 201 285 | 1230 | 1 | 1.46 | 33 | 1270 | 6 | 60 | 0.24 | 94 | < 10 | 56 | 90 |
| L5100N 4850E | 201 285 | 2260 | 2 | 1.16 | 34 | 1190 | 4 | 50 | 0.25 | 89 | < 10 | 36 | 80 |
| L5100N 4900E | 201 285 | 805 | 2 | 2.50 | 32 | 910 | 4 | 71 | 0.25 | 91 | < 10 | 38 | 90 |
| L5100N 4950E | 201 285 | 1265 | 6 | 1.81 | 31 | 1470 | 4 | 73 | 0.38 | 88 | 10 | 48 | 90 |
| L5100N 5000E | 201 285 | 2400 | 2 | 1.26 | 35 | 1570 | 6 | 50 | 0.34 | 86 | < 10 | 42 | 80 |
| L5100N 5050E | 201 285 | 1615 | 2 | 1.01 | 38 | 760 | 6 | 78 | 0.30 | 101 | < 10 | 42 | 70 |
| L5100N 5100E | 201 285 | 1745 | < 1 | 1.96 | 50 | 2410 | 8 | 63 | 0.26 | 91 | < 10 | 56 | 60 |
| L5100N 5150E | 201 285 | 1355 | 3 | 0.87 | 31 | 940 | 4 | 47 | 0.30 | 104 | < 10 | 38 | 60 |

CERTIFICATION: Ian H Bucholz

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

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Project : DOLORES
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Certificate Date: 04-AUG-93
Invoice No. : I9317874
P.O. Number :
Account : BM

## CERTIFICATE OF ANALYSIS A9317874

| SAMPLE | PREP CODE | Au ppb FA+AA | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) | Mg % (ICP) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L5100N 5200E | 201 285 | < 5 | < 0.2 | 8.33 | 1140 | 2.0 | < 2 | 0.43 | < 0.5 | 28 | 90 | 60 | 6.08 | 2.91 | 1.66 |
| L5100N 5250E | 201 285 | < 5 | < 0.2 | 6.67 | 1480 | 1.5 | < 2 | 0.86 | < 0.5 | 24 | 72 | 35 | 5.31 | 1.99 | 1.00 |
| L5200N 4750E | 201 285 | < 5 | < 0.2 | 5.70 | 1020 | 0.5 | < 2 | 1.82 | < 0.5 | 15 | 67 | 52 | 3.53 | 1.07 | 0.87 |
| L5200N 4800E | 201 285 | < 5 | < 0.2 | 7.72 | 1010 | 2.0 | < 2 | 0.75 | < 0.5 | 24 | 84 | 33 | 5.38 | 2.49 | 1.43 |
| L5200N 4850E | 201 285 | < 5 | < 0.2 | 7.73 | 1370 | 3.5 | < 2 | 0.70 | < 0.5 | 26 | 78 | 62 | 5.81 | 3.08 | 1.78 |
| L5200N 4900E | 201 285 | < 5 | < 0.2 | 7.28 | 850 | 2.5 | < 2 | 0.69 | < 0.5 | 19 | 74 | 49 | 5.35 | 2.21 | 1.07 |
| L5200N 4950E | 201 285 | 55 | < 0.2 | 7.05 | 1110 | 5.5 | < 2 | 1.30 | < 0.5 | 175 | 76 | 2280 | 6.35 | 2.16 | 1.50 |
| L5200N 5000E | 201 285 | 420 | 1.6 | 6.18 | 390 | 3.0 | < 2 | 1.32 | < 0.5 | 216 | 36 | >10000 | 7.95 | 0.84 | 1.65 |
| L5200N 5050E | 201 285 | 80 | 0.6 | 7.10 | 1920 | 2.0 | < 2 | 1.33 | < 0.5 | 91 | 67 | 3180 | 6.54 | 1.57 | 1.31 |
| L5200N 5100E | 201 285 | 15 | < 0.2 | 8.60 | 870 | 3.0 | 8 | 0.35 | < 0.5 | 36 | 105 | 53 | 6.49 | 3.15 | 2.12 |
| L5200N 5150E | 201 285 | < 5 | < 0.2 | 7.43 | 1030 | 2.5 | < 2 | 0.52 | < 0.5 | 33 | 83 | 72 | 5.88 | 2.59 | 1.79 |
| L5200N 5200E | 201 285 | < 5 | < 0.2 | 7.28 | 1120 | 2.0 | < 2 | 0.43 | < 0.5 | 31 | 85 | 79 | 6.49 | 2.40 | 1.31 |
| L5200N 5250E | 201 285 | < 5 | < 0.2 | 7.49 | 900 | 1.5 | < 2 | 0.43 | < 0.5 | 27 | 81 | 73 | 6.34 | 2.08 | 1.38 |
| L5300N 4750E | 201 285 | < 5 | 0.6 | 8.35 | 880 | 3.5 | < 2 | 1.47 | < 0.5 | 25 | 89 | 24 | 4.31 | 1.85 | 0.92 |
| L5300N 4800E | 201 285 | 75 | 0.6 | 7.14 | 1640 | 2.0 | < 2 | 1.46 | < 0.5 | 30 | 75 | 317 | 3.47 | 2.01 | 0.92 |
| L5300N 4850E | 201 285 | < 5 | 0.4 | 6.70 | 3960 | 2.5 | < 2 | 6.67 | < 0.5 | 36 | 77 | 147 | 4.75 | 2.35 | 1.04 |
| L5300N 4900E | 201 285 | < 5 | < 0.2 | 6.58 | 2480 | 1.5 | < 2 | 0.97 | < 0.5 | 13 | 71 | 20 | 3.23 | 1.69 | 0.72 |
| L5300N 4950E | 201 285 | < 5 | 0.4 | 7.01 | 1210 | 2.5 | 2 | 0.76 | < 0.5 | 32 | 73 | 60 | 5.33 | 1.66 | 0.81 |
| L5300N 5000E | 201 285 | 55 | < 0.2 | 5.40 | 1080 | 4.5 | < 2 | 1.87 | < 0.5 | 171 | 61 | 1400 | 4.87 | 1.68 | 1.20 |
| L5300N 5050E | 201 285 | < 5 | < 0.2 | 6.90 | 1000 | 2.0 | < 2 | 0.50 | < 0.5 | 35 | 83 | 39 | 5.40 | 2.18 | 2.85 |
| L5300N 5100E | 201 285 | < 5 | < 0.2 | 3.80 | 2020 | 0.5 | < 2 | 12.95 | < 0.5 | 21 | 50 | 156 | 2.65 | 1.46 | 0.80 |
| L5300N 5150E | 201 285 | < 5 | < 0.2 | 6.96 | 1270 | 1.0 | < 2 | 0.55 | < 0.5 | 25 | 84 | 36 | 5.70 | 2.75 | 2.19 |
| L5300N 5200E | 201 285 | < 5 | < 0.2 | 5.93 | 1130 | 0.5 | < 2 | 1.03 | < 0.5 | 17 | 84 | 42 | 7.18 | 3.54 | 0.94 |
| L5300N 5250E | 201 285 | < 5 | < 0.2 | 6.50 | 800 | 0.5 | < 2 | 0.67 | < 0.5 | 15 | 79 | 17 | 6.07 | 3.61 | 1.48 |
| L5400N 4750E | 201 285 | < 5 | < 0.2 | 6.89 | 890 | 2.0 | < 2 | 1.07 | < 0.5 | 7 | 76 | 28 | 4.37 | 2.33 | 0.77 |
| L5400N 4800E | 201 285 | < 5 | < 0.2 | 5.06 | 1060 | 1.5 | < 2 | 1.92 | < 0.5 | 25 | 68 | 440 | 3.99 | 1.71 | 0.67 |
| L5400N 4850E | 201 285 | 15 | < 0.2 | 6.17 | 1730 | 1.5 | < 2 | 1.39 | < 0.5 | 151 | 71 | 829 | 3.90 | 2.38 | 0.88 |
| L5400N 4900E | 201 285 | < 5 | < 0.2 | 3.40 | 1930 | < 0.5 | < 2 | 8.28 | 0.5 | 19 | 44 | 47 | 2.73 | 1.03 | 0.88 |
| L5400N 5050E | 201 285 | < 5 | < 0.2 | 7.26 | 1170 | 3.5 | < 2 | 1.20 | < 0.5 | 44 | 75 | 507 | 4.93 | 2.54 | 0.92 |
| L5400N 5100E | 201 285 | < 5 | < 0.2 | 7.57 | 1380 | 2.5 | 4 | 0.37 | < 0.5 | 23 | 91 | 60 | 6.04 | 3.34 | 2.14 |
| L5400N 5150E | 201 285 | 10 | < 0.2 | 8.24 | 1290 | 5.0 | < 2 | 0.59 | < 0.5 | 24 | 97 | 73 | 6.11 | 3.78 | 3.21 |
| L5400N 5200E | 201 285 | 10 | < 0.2 | 7.44 | 2860 | 5.0 | < 2 | 0.51 | < 0.5 | 43 | 92 | 91 | 6.85 | 3.48 | 2.04 |
| L5400N 5250E | 201 285 | < 5 | < 0.2 | 8.26 | 1030 | 5.0 | < 2 | 0.22 | < 0.5 | 26 | 85 | 19 | 7.50 | 4.41 | 3.33 |
| L5500N 4750E | 201 285 | < 5 | < 0.2 | 8.17 | 760 | 3.0 | < 2 | 0.73 | < 0.5 | 19 | 71 | 57 | 4.36 | 1.39 | 0.54 |
| L5500N 4800E | 201 285 | < 5 | < 0.2 | 7.02 | 1250 | 4.0 | < 2 | 1.06 | < 0.5 | 19 | 78 | 130 | 4.19 | 2.43 | 1.27 |
| L5500N 4850E | 201 285 | < 5 | < 0.2 | 6.73 | 1080 | 3.5 | < 2 | 1.06 | < 0.5 | 25 | 88 | 154 | 4.54 | 1.72 | 1.11 |
| L5500N 4900E | 201 285 | 55 | < 0.2 | 6.60 | 1470 | 4.0 | < 2 | 1.07 | < 0.5 | 90 | 71 | 1455 | 5.08 | 2.16 | 1.04 |
| L5500N 4950E | 201 285 | < 5 | < 0.2 | 4.96 | 1690 | 4.0 | < 2 | 2.33 | < 0.5 | 33 | 62 | 479 | 4.73 | 1.58 | 1.16 |
| L5500N 5000E | 201 285 | < 5 | < 0.2 | 6.31 | 1070 | 2.0 | < 2 | 1.38 | < 0.5 | 25 | 68 | 233 | 3.99 | 1.92 | 0.87 |
| L5500N 5050E | 201 285 | < 5 | < 0.2 | 6.30 | 830 | 1.5 | < 2 | 0.69 | < 0.5 | 30 | 79 | 51 | 5.72 | 2.14 | 2.38 |

CERTIFICATION: Ian Bichler

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project : DOLORES
Comments. ATTN: M STAMMERS CC. EQUITY ENG. LTD


Certificate Date. 04-AUG-93
Invoice No. :19317874
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9317874

| SAMPLE | PREP CODE | | Mn ppm (ICP) | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) | La ppm ICP | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L5100N 5200E | 201 | 285 | 1345 | 2 | 0.68 | 42 | 920 | 6 | 53 | 0.33 | 116 | < 10 | 44 | 40 | | |
| L5100N 5250E | 201 | 285 | 4220 | 2 | 0.43 | 24 | 2300 | 16 | 44 | 0.25 | 86 | < 10 | 46 | 30 | | |
| L5200N 4750E | 201 | 285 | 2260 | 1 | 1.36 | 26 | 1710 | 10 | 65 | 0.22 | 77 | < 10 | 44 | 40 | | |
| L5200N 4800E | 201 | 285 | 1160 | < 1 | 1.32 | 41 | 950 | 14 | 58 | 0.28 | 98 | < 10 | 52 | 80 | | |
| L5200N 4850E | 201 | 285 | 715 | 2 | 0.84 | 44 | 1090 | 6 | 66 | 0.29 | 108 | < 10 | 54 | 90 | | |
| L5200N 4900E | 201 | 285 | 920 | 1 | 1.69 | 31 | 940 | 6 | 68 | 0.23 | 84 | < 10 | 34 | 90 | | |
| L5200N 4950E | 201 | 285 | 1350 | 13 | 1.29 | 34 | 1350 | 12 | 81 | 0.34 | 95 | < 10 | 70 | 100 | | |
| L5200N 5000E | 201 | 285 | 3400 | 26 | 1.67 | 13 | 2360 | 8 | 48 | 0.72 | 62 | < 10 | 96 | 120 | | |
| L5200N 5050E | 201 | 285 | 2110 | 10 | 2.07 | 33 | 1920 | 4 | 85 | 0.37 | 80 | < 10 | 58 | 90 | | |
| L5200N 5100E | 201 | 285 | 1235 | 11 | 0.39 | 53 | 830 | 8 | 96 | 0.30 | 122 | < 10 | 52 | 70 | | |
| L5200N 5150E | 201 | 285 | 2820 | 1 | 0.66 | 42 | 1250 | 8 | 54 | 0.26 | 112 | < 10 | 48 | 50 | | |
| L5200N 5200E | 201 | 285 | 1545 | 1 | 0.68 | 39 | 750 | 8 | 54 | 0.28 | 107 | < 10 | 44 | 50 | | |
| L5200N 5250E | 201 | 285 | 1390 | 1 | 0.68 | 33 | 900 | 6 | 59 | 0.29 | 116 | < 10 | 46 | 40 | | |
| L5300N 4750E | 201 | 285 | 2800 | 9 | 1.87 | 54 | 1460 | 10 | 74 | 0.27 | 104 | < 10 | 66 | 70 | | |
| L5300N 4800E | 201 | 285 | 3470 | 8 | 0.60 | 48 | 2150 | 8 | 73 | 0.20 | 89 | < 10 | 56 | 80 | | |
| L5300N 4850E | 201 | 285 | 4020 | 3 | 0.57 | 42 | 3200 | 6 | 170 | 0.23 | 86 | < 10 | 48 | 20 | | |
| L5300N 4900E | 201 | 285 | 1710 | < 1 | 1.73 | 21 | 1480 | 8 | 89 | 0.25 | 74 | < 10 | 36 | 70 | | |
| L5300N 4950E | 201 | 285 | 935 | 4 | 1.88 | 30 | 920 | 30 | 84 | 0.26 | 86 | < 10 | 44 | 110 | | |
| L5300N 5000E | 201 | 285 | 4410 | 17 | 0.93 | 36 | 1530 | 12 | 59 | 0.22 | 69 | < 10 | 60 | 60 | | |
| L5300N 5050E | 201 | 285 | 1740 | 3 | 0.41 | 47 | 1210 | 8 | 47 | 0.29 | 125 | < 10 | 56 | 40 | | |
| L5300N 5100E | 201 | 285 | 7830 | 3 | 0.17 | 27 | 4090 | 8 | 505 | 0.11 | 55 | < 10 | 40 | < 10 | | |
| L5300N 5150E | 201 | 285 | 1110 | 2 | 0.62 | 42 | 980 | 8 | 75 | 0.30 | 103 | < 10 | 64 | 40 | | |
| L5300N 5200E | 201 | 285 | 4750 | 4 | 0.39 | 37 | 1660 | 12 | 50 | 0.25 | 106 | < 10 | 54 | 50 | | |
| L5300N 5250E | 201 | 285 | 1515 | 4 | 0.49 | 28 | 1130 | 12 | 50 | 0.26 | 106 | < 10 | 82 | 40 | | |
| L5400N 4750E | 201 | 285 | 545 | 1 | 1.40 | 26 | 1340 | 8 | 69 | 0.23 | 79 | < 10 | 54 | 60 | | |
| L5400N 4800E | 201 | 285 | 2410 | 3 | 0.47 | 29 | 2070 | 12 | 89 | 0.23 | 76 | < 10 | 58 | 70 | | |
| L5400N 4850E | 201 | 285 | 4030 | 13 | 0.44 | 41 | 2390 | 18 | 83 | 0.23 | 77 | < 10 | 56 | 70 | | |
| L5400N 4900E | 201 | 285 | >10000 | 2 | 0.26 | 23 | 4170 | 12 | 514 | 0.10 | 56 | < 10 | 48 | < 10 | | |
| L5400N 5050E | 201 | 285 | 2670 | 4 | 1.13 | 33 | 1230 | 10 | 68 | 0.26 | 79 | < 10 | 54 | 80 | | |
| L5400N 5100E | 201 | 285 | 1175 | 7 | 0.65 | 44 | 950 | 6 | 83 | 0.34 | 127 | < 10 | 58 | 50 | | |
| L5400N 5150E | 201 | 285 | 1395 | 10 | 0.39 | 55 | 1030 | 6 | 45 | 0.29 | 113 | < 10 | 58 | 50 | | |
| L5400N 5200E | 201 | 285 | 2990 | 8 | 0.70 | 52 | 1010 | 8 | 79 | 0.29 | 108 | < 10 | 60 | 60 | | |
| L5400N 5250E | 201 | 285 | 1415 | 13 | 0.32 | 53 | 890 | 4 | 29 | 0.29 | 138 | < 10 | 60 | 60 | | |
| L5500N 4750E | 201 | 285 | 960 | 4 | 1.14 | 32 | 950 | 18 | 53 | 0.19 | 78 | < 10 | 58 | 60 | | |
| L5500N 4800E | 201 | 285 | 2960 | 2 | 1.38 | 33 | 1420 | 8 | 92 | 0.30 | 84 | < 10 | 66 | 60 | | |
| L5500N 4850E | 201 | 285 | 2430 | 4 | 1.09 | 36 | 750 | 18 | 159 | 0.40 | 120 | < 10 | 94 | 50 | | |
| L5500N 4900E | 201 | 285 | 5580 | 7 | 0.46 | 38 | 1470 | 32 | 77 | 0.24 | 78 | < 10 | 78 | 70 | | |
| L5500N 4950E | 201 | 285 | 9450 | 4 | 0.39 | 32 | 1870 | 10 | 88 | 0.20 | 61 | < 10 | 60 | 60 | | |
| L5500N 5000E | 201 | 285 | 2430 | 2 | 1.28 | 28 | 1280 | 10 | 64 | 0.22 | 66 | < 10 | 52 | 70 | | |
| L5500N 5050E | 201 | 285 | 1420 | 2 | 0.69 | 40 | 1670 | 14 | 70 | 0.34 | 123 | < 10 | 84 | 40 | | |

CERTIFICATION: Ian Buchler

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENG. LTD.


Certificate Date: 04-AUG-93
Invoice No. :I9317874
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9317874

| SAMPLE | PREP CODE | | Au ppb FA+AA | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) | Mg % (ICP) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L5500N 5100E | 201 | 285 | < 5 | < 0.2 | 6.77 | 710 | 2.5 | 4 | 1.11 | < 0.5 | 40 | 77 | 352 | 7.09 | 2.47 | 3.15 |
| L5500N 5150E | 201 | 285 | < 5 | < 0.2 | 7.25 | 780 | 2.0 | < 2 | 0.65 | < 0.5 | 26 | 90 | 16 | 5.57 | 1.58 | 2.23 |
| L5500N 5200E | 201 | 285 | < 5 | < 0.2 | 6.88 | 1830 | 2.5 | < 2 | 0.29 | < 0.5 | 27 | 83 | 26 | 6.84 | 4.12 | 2.10 |
| L5500N 5250E | 201 | 285 | < 5 | < 0.2 | 7.27 | 880 | 3.0 | < 2 | 0.58 | < 0.5 | 17 | 94 | 35 | 6.80 | 3.05 | 2.17 |

CERTIFICATION: Hart Buchler

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To: PAMICON DEVELOPMENTS LIMITED

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V6B 1N4

Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENG. LTD.


Certificate Date: 04-AUG-93
Invoice No. : I9317874
P.O. Number :
Account : BM

## CERTIFICATE OF ANALYSIS A9317874

| SAMPLE | PREP CODE | Mn ppm (ICP) | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) | La ppm ICP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L5500N 5100E | 201 285 | 745 | 1 | 0.91 | 43 | 920 | 48 | 78 | 0.40 | 199 | < 10 | 96 | 40 |
| L5500N 5150E | 201 285 | 2110 | < 1 | 2.72 | 53 | 1870 | 6 | 48 | 0.26 | 90 | < 10 | 50 | 70 |
| L5500N 5200E | 201 285 | 2100 | 2 | 0.54 | 39 | 2130 | 10 | 37 | 0.27 | 122 | < 10 | 48 | 50 |
| L5500N 5250E | 201 285 | 1265 | < 1 | 0.76 | 40 | 1310 | 10 | 84 | 0.34 | 124 | < 10 | 76 | 40 |

CERTIFICATION: Stewart Bachlet

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To PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project : DOLORES
Comments. ATTN: M. STAMMERS CC: EQUITY ENGINEERING


Certificate Date: 09-AUG-93
Invoice No. :19317861
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9317861

| SAMPLE | PREP CODE | Au ppb FA+AA | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) | Mg % (ICP) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 545551 | 205 274 | 235 | 1.0 | 2.17 | 170 | 1.0 | < 2 | 0.12 | < 0.5 | 40 | 220 | >10000 | 7.49 | 0.93 | 0.22 |
| 545552 | 205 274 | 2820 | 19.0 | 0.96 | 10 | < 0.5 | < 2 | 0.12 | < 0.5 | 546 | 46 | >10000 | >25.0 | 0.01 | 0.05 |
| 545553 | 205 274 | 540 | 14.0 | 0.06 | < 10 | < 0.5 | < 2 | 0.02 | < 0.5 | 50 | 34 | >10000 | >25.0 | < 0.01 | 0.03 |
| 545554 | 205 274 | 430 | 1.0 | 2.65 | 70 | < 0.5 | 28 | 1.33 | < 0.5 | >10000 | 191 | 5100 | 2.10 | 0.39 | 0.36 |
| 545555 | 205 274 | 30 | 1.0 | 6.53 | 790 | 1.5 | < 2 | 7.54 | 0.5 | 89 | 140 | 9610 | 3.90 | 1.16 | 2.33 |
| 545556 | 205 274 | 940 | 13.0 | 0.13 | 10 | < 0.5 | < 2 | 7.47 | < 0.5 | 166 | 41 | >10000 | 22.8 | 0.09 | 2.88 |
| 545557 | 205 274 | 870 | 1.0 | 2.15 | 150 | < 0.5 | < 2 | 12.00 | < 0.5 | >10000 | 45 | 274 | 6.98 | 0.71 | 4.76 |
| 545558 | 205 274 | 2400 | < 1.0 | 5.10 | 380 | < 0.5 | < 2 | 2.98 | < 0.5 | >10000 | 111 | 1350 | 3.66 | 1.98 | 1.35 |
| 545559 | 205 274 | 600 | 3.0 | 1.37 | 130 | < 0.5 | < 2 | 16.00 | < 0.5 | 8660 | 36 | >10000 | 9.31 | 0.60 | 6.55 |
| 545560 | 205 274 | 990 | 4.0 | 4.26 | 320 | 1.0 | < 2 | 9.08 | < 0.5 | >10000 | 54 | >10000 | 9.61 | 1.74 | 3.96 |
| 545561 | 205 274 | 1770 | 21.0 | 0.10 | 10 | 4.5 | < 2 | 1.08 | < 0.5 | 1240 | 41 | >10000 | >25.0 | < 0.01 | 0.52 |
| 545562 | 205 274 | 815 | 5.0 | 7.34 | 40 | < 0.5 | 30 | 0.40 | < 0.5 | 214 | 120 | >10000 | 10.50 | 0.40 | 0.09 |
| 545563 | 205 274 | 40 | < 1.0 | 9.46 | 50 | 0.5 | < 2 | 1.35 | < 0.5 | 124 | 78 | 6300 | 2.59 | 0.25 | 0.27 |
| 545564 | 205 274 | 110 | 119.0 | 6.48 | 450 | 0.5 | 120 | 2.76 | < 0.5 | 17 | 137 | >10000 | 3.78 | 3.53 | 0.47 |
| 545565 | 205 274 | 35 | 6.0 | 7.18 | 1910 | 0.5 | < 2 | 0.19 | < 0.5 | 4 | 118 | >10000 | 2.65 | 7.43 | 0.34 |
| 545566 | 205 274 | 40 | 118.0 | 5.72 | 1060 | < 0.5 | 20 | 9.17 | 0.5 | 24 | 103 | >10000 | 1.70 | 2.45 | 0.99 |
| 545568 | 205 274 | 290 | 5.0 | 7.36 | 520 | 2.0 | < 2 | 3.59 | < 0.5 | 4390 | 108 | >10000 | 4.29 | 2.84 | 1.56 |
| 545651 | 205 274 | 10 | 1.0 | 7.03 | 310 | < 0.5 | 2 | 2.92 | < 0.5 | 49 | 71 | 320 | 11.60 | 2.17 | 3.97 |
| 545652 | 205 274 | 35 | 1.0 | 6.62 | 640 | < 0.5 | < 2 | 5.20 | 0.5 | 13 | 68 | 8480 | 3.28 | 6.69 | 3.35 |
| 545653 | 205 274 | 40 | 2.0 | 5.85 | 110 | 2.5 | < 2 | 6.43 | < 0.5 | 28 | 71 | 4250 | 7.66 | 0.19 | 1.22 |
| 545654 | 205 274 | < 5 | 1.0 | 9.41 | 800 | 3.5 | < 2 | 0.42 | < 0.5 | 35 | 154 | 100 | 1.13 | 3.85 | 0.34 |
| 545655 | 205 274 | < 5 | 1.0 | 9.44 | 750 | 4.5 | < 2 | 0.21 | < 0.5 | 103 | 119 | 178 | 3.90 | 3.49 | 0.74 |
| 545656 | 205 274 | 90 | 2.0 | 10.10 | 840 | 4.5 | < 2 | 0.79 | 0.5 | 64 | 128 | 3680 | 2.03 | 3.89 | 0.48 |
| 545657 | 205 274 | 30 | 2.0 | 8.81 | 530 | 3.5 | < 2 | 1.31 | < 0.5 | 18 | 126 | 4630 | 2.84 | 3.75 | 0.80 |
| 545658 | 205 274 | < 5 | < 1.0 | 9.16 | 530 | 4.0 | < 2 | 1.85 | < 0.5 | 115 | 128 | 848 | 2.79 | 3.63 | 0.94 |
| 545659 | 205 274 | 30 | < 1.0 | 6.96 | 360 | 2.5 | < 2 | 0.62 | 0.5 | 3320 | 194 | 2080 | 1.13 | 2.13 | 0.37 |
| 545660 | 205 274 | 40 | 2.0 | 9.13 | 620 | 3.5 | < 2 | 1.41 | 0.5 | 384 | 113 | 2490 | 1.76 | 3.87 | 0.88 |
| 545661 | 205 274 | 200 | 3.0 | 6.83 | 320 | 1.0 | < 2 | 5.94 | 0.5 | 155 | 105 | >10000 | 5.23 | 2.02 | 2.24 |
| 545662 | 205 274 | 65 | 1.0 | 6.66 | 90 | < 0.5 | < 2 | 5.42 | 0.5 | 111 | 82 | 5560 | 4.78 | 0.65 | 1.86 |
| 545668 | 205 274 | 65 | 2.0 | 6.37 | 180 | 3.0 | < 2 | 3.34 | < 0.5 | 48 | 61 | 2640 | 8.34 | 0.63 | 1.09 |
| 545669 | 205 274 | 50 | 3.0 | 6.28 | 90 | 2.0 | < 2 | 2.45 | < 0.5 | 50 | 103 | 6070 | 10.20 | 0.49 | 1.40 |
| 545670 | 205 274 | < 5 | 1.0 | 8.59 | 2650 | 3.5 | < 2 | 3.22 | < 0.5 | 33 | 104 | 56 | 3.40 | 6.90 | 1.56 |
| 545671 | 205 274 | 35 | 3.0 | 6.42 | 190 | 6.0 | < 2 | 1.84 | < 0.5 | 67 | 95 | 2180 | 9.85 | 0.42 | 1.56 |
| 545672 | 205 274 | 10 | 3.0 | 6.47 | 220 | 5.0 | < 2 | 3.46 | < 0.5 | 56 | 51 | 1885 | 7.35 | 0.35 | 1.89 |
| 545673 | 205 274 | 20 | 4.0 | 6.43 | 170 | 4.5 | < 2 | 3.26 | < 0.5 | 55 | 77 | 2060 | 7.56 | 0.28 | 1.64 |

CERTIFICATION: Hartt Bichler

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Project : DOLORES
Comments: ATTN. M. STAMMERS CC: EQUITY ENGINEERING

Page Number :1-B
Total Pages :3
Certificate Date: 09-AUG-93
Invoice No. :19317861
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9317861

| SAMPLE | PREP CODE | | Mn ppm (ICP) | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) | La ppm ICP | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 545551 | 205 | 274 | 360 | 5 | 0.24 | 36 | 280 | < 8 | 11 | 0.11 | 18 | < 10 | 24 | 70 | | |
| 545552 | 205 | 274 | 995 | 20 | 0.67 | 849 | 1230 | < 8 | 9 | 0.02 | 3 | < 10 | 110 | < 10 | | |
| 545553 | 205 | 274 | 25 | 12 | 0.05 | 295 | 970 | < 8 | 1 | < 0.01 | < 1 | < 10 | 94 | < 10 | | |
| 545554 | 205 | 274 | 495 | 26 | 1.27 | 1670 | 2930 | < 8 | 44 | 0.18 | 13 | < 10 | 14 | 330 | | |
| 545555 | 205 | 274 | 2460 | 1 | 2.85 | 46 | 380 | < 8 | 136 | 0.35 | 145 | < 10 | 78 | < 10 | | |
| 545556 | 205 | 274 | 4350 | 11 | 0.17 | 205 | 740 | < 8 | 34 | < 0.01 | 11 | < 10 | 46 | < 10 | | |
| 545557 | 205 | 274 | 6570 | 13 | 0.62 | 7040 | 480 | < 8 | 71 | 0.04 | 28 | < 10 | 40 | < 10 | | |
| 545558 | 205 | 274 | 1755 | 13 | 0.92 | 8670 | 470 | < 8 | 35 | 0.11 | 50 | < 10 | 40 | < 10 | | |
| 545559 | 205 | 274 | 8350 | 31 | 0.10 | 1795 | 30 | < 8 | 77 | 0.03 | 27 | < 10 | 28 | < 10 | | |
| 545560 | 205 | 274 | 5110 | 43 | 0.46 | 5100 | 270 | < 8 | 52 | 0.12 | 42 | < 10 | 38 | < 10 | | |
| 545561 | 205 | 274 | 1095 | 19 | 0.26 | 1130 | 610 | < 8 | 7 | < 0.01 | 5 | < 10 | 82 | < 10 | | |
| 545562 | 205 | 274 | 595 | 93 | 5.32 | 77 | 680 | < 8 | 59 | 0.19 | 57 | < 10 | 8 | 10 | | |
| 545563 | 205 | 274 | 925 | 37 | 7.35 | 48 | 910 | < 8 | 129 | 0.23 | 16 | < 10 | 10 | < 10 | | |
| 545564 | 205 | 274 | 545 | 6 | 2.14 | 40 | 790 | < 8 | 229 | 0.17 | 74 | < 10 | 10 | 170 | | |
| 545565 | 205 | 274 | 100 | 21 | 0.51 | 21 | 520 | < 8 | 206 | 0.16 | 102 | < 10 | 14 | < 10 | | |
| 545566 | 205 | 274 | 1900 | 194 | 2.74 | 21 | 400 | < 8 | 323 | 0.15 | 43 | < 10 | 68 | < 10 | | |
| 545568 | 205 | 274 | 2030 | 32 | 1.58 | 480 | 320 | < 8 | 47 | 0.19 | 52 | < 10 | 14 | 20 | | |
| 545651 | 205 | 274 | 830 | 2 | 2.50 | 57 | 940 | < 8 | 60 | 1.29 | 486 | < 10 | 96 | 10 | | |
| 545652 | 205 | 274 | 1475 | 30 | 0.80 | 20 | 1080 | < 8 | 29 | 0.18 | 119 | < 10 | 12 | 50 | | |
| 545653 | 205 | 274 | 1110 | 15 | 4.15 | 24 | 3930 | < 8 | 75 | 1.26 | 55 | < 10 | 34 | 50 | | |
| 545654 | 205 | 274 | 400 | < 1 | 1.77 | 23 | 780 | < 8 | 35 | 0.25 | 52 | < 10 | 8 | 10 | | |
| 545655 | 205 | 274 | 640 | 1 | 1.42 | 56 | 460 | < 8 | 31 | 0.30 | 65 | < 10 | 12 | 50 | | |
| 545656 | 205 | 274 | 530 | 2 | 1.73 | 34 | 360 | < 8 | 37 | 0.26 | 78 | < 10 | 8 | 70 | | |
| 545657 | 205 | 274 | 820 | 6 | 1.36 | 32 | 490 | < 8 | 27 | 0.26 | 64 | < 10 | 10 | 30 | | |
| 545658 | 205 | 274 | 1475 | 11 | 1.84 | 34 | 550 | < 8 | 42 | 0.31 | 70 | < 10 | 8 | 20 | | |
| 545659 | 205 | 274 | 265 | 3 | 2.24 | 787 | 590 | < 8 | 45 | 0.13 | 42 | < 10 | 8 | < 10 | | |
| 545660 | 205 | 274 | 745 | 1 | 1.47 | 71 | 740 | < 8 | 36 | 0.22 | 70 | < 10 | 6 | 20 | | |
| 545661 | 205 | 274 | 3670 | 44 | 2.61 | 161 | 230 | < 8 | 76 | 0.13 | 54 | < 10 | 14 | < 10 | | |
| 545662 | 205 | 274 | 3550 | 4 | 4.61 | 49 | 870 | < 8 | 72 | 0.18 | 43 | < 10 | 10 | 60 | | |
| 545668 | 205 | 274 | 785 | 6 | 4.04 | 7 | 3560 | < 8 | 53 | 1.20 | 40 | < 10 | 38 | 50 | | |
| 545669 | 205 | 274 | 735 | 23 | 3.47 | 15 | 2890 | < 8 | 39 | 1.09 | 39 | < 10 | 52 | 70 | | |
| 545670 | 205 | 274 | 835 | 2 | 1.88 | 37 | 720 | < 8 | 92 | 0.22 | 64 | < 10 | 52 | 90 | | |
| 545671 | 205 | 274 | 430 | 6 | 4.06 | 11 | 3510 | < 8 | 45 | 1.20 | 37 | < 10 | 70 | 90 | | |
| 545672 | 205 | 274 | 610 | 8 | 3.97 | 10 | 3760 | < 8 | 57 | 1.30 | 61 | < 10 | 66 | 70 | | |
| 545673 | 205 | 274 | 760 | 7 | 4.20 | 9 | 3090 | < 8 | 51 | 1.15 | 32 | < 10 | 74 | 80 | | |

CERTIFICATION: Hart Bichler

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST
VANCOUVER, BC
V6B 1N4

Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENGINEERING


Certificate Date: 09-AUG-93
Invoice No. : I9317861
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9317861

| SAMPLE | PREP CODE | Au ppb FA+AA | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) | Mg % (ICP) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 545674 | 205 274 | 25 | 1.0 | 6.59 | 160 | 3.5 | < 2 | 4.00 | < 0.5 | 57 | 85 | 3030 | 7.21 | 0.21 | 1.48 |
| 545951 | 205 274 | < 5 | < 1.0 | 6.04 | 80 | 2.0 | < 2 | 3.53 | < 0.5 | 89 | 91 | 923 | 9.25 | 0.13 | 1.70 |
| 545954 | 205 274 | < 5 | 1.0 | 6.89 | 560 | 2.0 | < 2 | 5.71 | < 0.5 | 391 | 112 | 224 | 4.11 | 3.13 | 2.19 |
| 545955 | 205 274 | 35 | 1.0 | 7.60 | 460 | 2.0 | < 2 | 4.45 | < 0.5 | 1355 | 100 | 196 | 2.78 | 2.77 | 1.92 |
| 545956 | 205 274 | 45 | 1.0 | 7.03 | 420 | 1.5 | < 2 | 5.53 | 0.5 | 109 | 95 | 5000 | 3.91 | 2.55 | 2.11 |
| 545957 | 205 274 | 10 | < 1.0 | 6.29 | 850 | < 0.5 | < 2 | 1.63 | < 0.5 | 105 | 122 | 104 | 15.20 | 4.73 | 1.67 |
| 545958 | 205 274 | 30 | < 1.0 | 7.48 | 800 | < 0.5 | < 2 | 2.94 | < 0.5 | 39 | 62 | 1195 | 10.25 | 2.23 | 4.40 |
| 545959 | 205 274 | < 5 | 1.0 | 6.24 | 60 | 2.0 | < 2 | 2.31 | < 0.5 | 21 | 76 | 27 | 10.85 | 0.18 | 2.05 |
| 545960 | 205 274 | < 5 | 1.0 | 6.96 | 2680 | 1.0 | < 2 | 2.27 | 0.5 | 8 | 112 | 193 | 5.26 | 5.69 | 1.18 |
| 546051 | 205 274 | 25 | 1.0 | 8.76 | 480 | 2.5 | < 2 | 0.70 | < 0.5 | 389 | 121 | 2450 | 1.42 | 3.13 | 0.40 |
| 546052 | 205 274 | < 5 | < 1.0 | 6.80 | 2400 | < 0.5 | < 2 | 1.89 | < 0.5 | 8 | 127 | 27 | 7.57 | 8.00 | 2.19 |
| 546053 | 205 274 | < 5 | 1.0 | 7.47 | 710 | < 0.5 | < 2 | 2.85 | 0.5 | 5 | 105 | 18 | 6.40 | 8.77 | 2.23 |
| 546054 | 205 274 | < 5 | 1.0 | 7.08 | 370 | 1.0 | < 2 | 1.29 | < 0.5 | 18 | 129 | 24 | 3.54 | 3.58 | 3.02 |
| 546055 | 205 274 | 15 | 10.0 | 0.47 | 250 | < 0.5 | 30 | 15.25 | < 0.5 | 10 | 50 | >10000 | 8.99 | 0.05 | 8.88 |
| 546056 | 205 274 | 40 | 36.0 | 0.06 | 150 | < 0.5 | < 2 | 0.32 | < 0.5 | 26 | 30 | >10000 | >25.0 | < 0.01 | 0.20 |
| 546057 | 205 274 | < 5 | < 1.0 | 7.75 | 840 | < 0.5 | 8 | 4.16 | < 0.5 | 3 | 98 | 2100 | 5.54 | 4.46 | 1.34 |
| 546058 | 205 274 | < 5 | < 1.0 | 6.67 | 50 | < 0.5 | < 2 | 3.70 | < 0.5 | 4 | 161 | 886 | 5.91 | 0.60 | 1.01 |
| 546059 | 205 274 | 90 | 1.0 | 8.18 | 30 | 0.5 | < 2 | 0.63 | < 0.5 | 301 | 142 | 5150 | 2.19 | 0.27 | 0.19 |
| 546060 | 205 274 | 5 | 1.0 | 6.78 | 870 | < 0.5 | 4 | 6.46 | < 0.5 | 10 | 122 | 78 | 7.51 | 5.26 | 0.61 |
| 546061 | 205 274 | < 5 | 1.0 | 8.22 | 880 | < 0.5 | < 2 | 0.42 | < 0.5 | 10 | 101 | 32 | 8.50 | 6.98 | 4.80 |
| 546062 | 205 274 | 40 | 1.0 | 7.84 | 840 | < 0.5 | < 2 | 3.71 | < 0.5 | 54 | 75 | 1405 | 12.10 | 2.84 | 4.89 |
| 546063 | 205 274 | 15 | < 1.0 | 7.76 | 410 | 0.5 | < 2 | 2.77 | < 0.5 | 6 | 107 | 62 | 7.48 | 3.89 | 1.38 |
| 546064 | 205 274 | 140 | 1.0 | 9.28 | 580 | 3.5 | < 2 | 0.45 | 0.5 | 140 | 111 | 6140 | 1.85 | 3.84 | 0.48 |
| 546065 | 205 274 | 40 | < 1.0 | 8.88 | 630 | 3.5 | < 2 | 0.37 | < 0.5 | 655 | 106 | 3380 | 1.66 | 3.76 | 0.67 |
| 546066 | 205 274 | 5 | < 1.0 | 8.53 | 150 | < 0.5 | < 2 | 3.08 | < 0.5 | 84 | 117 | 108 | 7.81 | 1.04 | 1.27 |
| 546067 | 205 274 | < 5 | 1.0 | 7.28 | 20 | 1.5 | < 2 | 0.36 | 0.5 | 137 | 108 | 91 | 1.44 | 0.20 | 0.05 |
| 546068 | 205 274 | 10 | 1.0 | 6.99 | 5070 | < 0.5 | < 2 | 3.28 | < 0.5 | 44 | 42 | 2110 | 9.66 | 1.00 | 2.31 |
| 546069 | 205 274 | 310 | 3.0 | 4.85 | 140 | < 0.5 | < 2 | 0.31 | 0.5 | 2 | 190 | >10000 | 5.61 | 1.00 | 0.10 |
| 546070 | 205 274 | 560 | 1.0 | 7.53 | 200 | < 0.5 | < 2 | 1.80 | < 0.5 | 586 | 94 | >10000 | 9.08 | 0.77 | 3.40 |
| 546151 | 205 274 | 330 | 10.0 | 5.74 | 370 | < 0.5 | < 2 | 2.96 | < 0.5 | 23 | 93 | >10000 | 10.05 | 3.14 | 1.03 |
| 546152 | 205 274 | 85 | < 1.0 | 8.77 | 920 | 2.0 | 4 | 1.63 | < 0.5 | 14 | 121 | 2200 | 6.67 | 5.41 | 1.65 |
| 546153 | 205 274 | 60 | 1.0 | 8.21 | 1260 | 1.5 | < 2 | 0.48 | < 0.5 | 30 | 128 | >10000 | 8.51 | 5.40 | 2.20 |
| 546154 | 205 274 | < 5 | 1.0 | 0.25 | 10 | < 0.5 | < 2 | 21.7 | < 0.5 | < 1 | 28 | 56 | 3.83 | 0.04 | 12.25 |
| 546155 | 205 274 | 90 | >200 | 1.06 | 20 | < 0.5 | 120 | 7.10 | 8.0 | 17 | 108 | >10000 | 2.00 | 0.38 | 4.09 |
| 546156 | 205 274 | < 5 | 1.0 | 0.36 | 90 | < 0.5 | 4 | 7.24 | < 0.5 | 64 | 65 | 210 | 20.2 | 0.11 | 1.33 |
| 546157 | 205 274 | 10 | 1.0 | 0.52 | 70 | < 0.5 | < 2 | 7.03 | < 0.5 | 327 | 73 | 3420 | 20.2 | 0.10 | 1.17 |
| 546158 | 205 274 | < 5 | 1.0 | 8.33 | 530 | 1.5 | < 2 | 3.77 | < 0.5 | 13 | 75 | 2030 | 3.30 | 3.87 | 1.45 |
| 546159 | 205 274 | 115 | 1.0 | 3.57 | 380 | < 0.5 | < 2 | 13.25 | 0.5 | 66 | 48 | 6560 | 7.08 | 1.37 | 5.41 |

CERTIFICATION: Stewart Bradshaw

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To. PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENGINEERING


Certificate Date. 09-AUG-93
Invoice No. :I9317861
P.O. Number :
Account :BM

## CERTIFICATE OF ANALYSIS A9317861

| SAMPLE | PREP CODE | Mn ppm (ICP) | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) | La ppm ICP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 545674 | 205 274 | 825 | 18 | 4.32 | 11 | 3120 | < 8 | 48 | 1.11 | 37 | < 10 | 72 | 90 |
| 545951 | 205 274 | 755 | 3 | 3.67 | 10 | 4040 | < 8 | 54 | 1.23 | 52 | < 10 | 50 | 60 |
| 545954 | 205 274 | 2990 | 1 | 0.62 | 36 | 480 | < 8 | 44 | 0.17 | 53 | < 10 | 10 | 10 |
| 545955 | 205 274 | 2240 | 14 | 1.69 | 113 | 570 | < 8 | 57 | 0.17 | 55 | < 10 | 6 | 10 |
| 545956 | 205 274 | 3010 | 14 | 1.65 | 59 | 560 | < 8 | 57 | 0.15 | 53 | < 10 | 8 | 20 |
| 545957 | 205 274 | 1015 | 3 | 0.23 | 49 | 550 | < 8 | 21 | 0.45 | 209 | < 10 | 56 | 10 |
| 545958 | 205 274 | 2290 | 3 | 1.81 | 81 | 290 | < 8 | 36 | 0.91 | 430 | < 10 | 110 | < 10 |
| 545959 | 205 274 | 780 | 2 | 2.95 | 3 | 4390 | < 8 | 57 | 1.30 | 54 | < 10 | 82 | 60 |
| 545960 | 205 274 | 1325 | < 1 | 0.72 | 33 | 730 | < 8 | 43 | 0.15 | 66 | < 10 | 14 | 30 |
| 546051 | 205 274 | 390 | 4 | 2.11 | 57 | 1330 | < 8 | 30 | 0.26 | 58 | < 10 | 6 | 20 |
| 546052 | 205 274 | 570 | 1 | 0.40 | 24 | 760 | < 8 | 51 | 0.25 | 77 | < 10 | 28 | 80 |
| 546053 | 205 274 | 610 | < 1 | 0.48 | 27 | 740 | < 8 | 23 | 0.21 | 75 | < 10 | 14 | 40 |
| 546054 | 205 274 | 250 | 1 | 0.26 | 48 | 730 | < 8 | 13 | 0.16 | 89 | < 10 | 32 | 20 |
| 546055 | 205 274 | 1635 | 56 | 0.07 | 31 | 210 | < 8 | 130 | < 0.01 | 32 | < 10 | 300 | < 10 |
| 546056 | 205 274 | 90 | 230 | 0.03 | 31 | 250 | 14 | 8 | < 0.01 | 8 | < 10 | 612 | < 10 |
| 546057 | 205 274 | 690 | 2 | 3.02 | 31 | 680 | < 8 | 63 | 0.26 | 69 | < 10 | 34 | 30 |
| 546058 | 205 274 | 1895 | 3 | 3.86 | 17 | 880 | < 8 | 53 | 0.22 | 50 | < 10 | 16 | 90 |
| 546059 | 205 274 | 430 | 11 | 6.20 | 69 | 610 | < 8 | 45 | 0.14 | 14 | < 10 | 8 | 20 |
| 546060 | 205 274 | 1385 | 2 | 0.35 | 40 | 700 | < 8 | 38 | 0.24 | 80 | < 10 | 32 | 30 |
| 546061 | 205 274 | 160 | 5 | 0.43 | 30 | 810 | < 8 | 19 | 0.26 | 82 | < 10 | 22 | 70 |
| 546062 | 205 274 | 720 | 2 | 2.20 | 51 | 1060 | < 8 | 100 | 1.40 | 550 | < 10 | 64 | 20 |
| 546063 | 205 274 | 1180 | 2 | 1.98 | 31 | 710 | < 8 | 37 | 0.27 | 81 | < 10 | 14 | 30 |
| 546064 | 205 274 | 130 | 2 | 1.73 | 86 | 400 | < 8 | 37 | 0.15 | 72 | < 10 | 8 | < 10 |
| 546065 | 205 274 | 125 | 1 | 1.38 | 93 | 460 | < 8 | 31 | 0.17 | 72 | < 10 | 8 | < 10 |
| 546066 | 205 274 | 1690 | 6 | 4.84 | 70 | 510 | < 8 | 94 | 0.18 | 76 | < 10 | 16 | < 10 |
| 546067 | 205 274 | 140 | 7 | 5.47 | 22 | 450 | < 8 | 96 | 0.11 | 4 | < 10 | 4 | < 10 |
| 546068 | 205 274 | 1055 | 2 | 4.12 | 31 | 700 | 12 | 218 | 1.26 | 339 | < 10 | 142 | 20 |
| 546069 | 205 274 | 115 | 60 | 1.82 | 35 | 820 | < 8 | 24 | 0.08 | 15 | < 10 | 14 | < 10 |
| 546070 | 205 274 | 1800 | 5 | 3.77 | 71 | 100 | < 8 | 55 | 0.54 | 157 | < 10 | 72 | 40 |
| 546151 | 205 274 | 2030 | 265 | 0.31 | 49 | 770 | < 8 | 20 | 0.21 | 252 | < 10 | 24 | 110 |
| 546152 | 205 274 | 895 | 4 | 0.44 | 34 | 680 | < 8 | 16 | 0.31 | 75 | < 10 | 40 | 70 |
| 546153 | 205 274 | 780 | 8 | 0.33 | 52 | 590 | < 8 | 17 | 0.30 | 75 | < 10 | 78 | 250 |
| 546154 | 205 274 | 2520 | 1 | 0.05 | 10 | 30 | 15 | 101 | < 0.01 | 31 | < 10 | 36 | < 10 |
| 546155 | 205 274 | 1885 | 2 | 0.06 | 13 | 130 | < 8 | 42 | 0.02 | 15 | < 10 | 2390 | < 10 |
| 546156 | 205 274 | 5750 | 7 | 0.04 | 66 | 4180 | < 8 | 43 | < 0.01 | 35 | < 10 | 30 | < 10 |
| 546157 | 205 274 | 5660 | 8 | 0.05 | 77 | 4070 | < 8 | 33 | 0.01 | 26 | < 10 | 30 | < 10 |
| 546158 | 205 274 | 1700 | 1 | 0.45 | 45 | 680 | < 8 | 38 | 0.19 | 64 | < 10 | 10 | 40 |
| 546159 | 205 274 | 6340 | 2 | 1.08 | 44 | 410 | < 8 | 76 | 0.08 | 40 | < 10 | 18 | 20 |

CERTIFICATION: Ian R Bachlet

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221


To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST
VANCOUVER, BC
V6B 1N4

Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENGINEERING


Certificate Date: 09-AUG-93
Invoice No. : I9317861
P.O. Number :
Account : BM

## CERTIFICATE OF ANALYSIS A9317861

| SAMPLE | PREP CODE | Au ppb FA+AA | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) | Mg % (ICP) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 546160 | 205 274 | 65 | 1.0 | 0.74 | 90 | < 0.5 | < 2 | 18.80 | < 0.5 | 166 | 35 | 5060 | 8.28 | 0.38 | 8.21 |
| 546161 | 205 274 | 70 | 1.0 | 5.70 | 610 | 1.0 | < 2 | 4.64 | < 0.5 | 136 | 184 | 571 | 3.66 | 2.77 | 1.83 |
| 546162 | 205 274 | 45 | < 1.0 | 5.79 | 490 | 0.5 | < 2 | 2.02 | < 0.5 | 38 | 154 | 4710 | 6.29 | 2.23 | 1.72 |
| 546163 | 205 274 | 30 | < 1.0 | 1.69 | 140 | < 0.5 | < 2 | 12.00 | < 0.5 | 59 | 71 | 22 | 8.83 | 0.48 | 5.41 |
| 546164 | 205 274 | 15 | < 1.0 | 7.24 | 400 | < 0.5 | < 2 | 3.15 | < 0.5 | 370 | 113 | 414 | 10.30 | 1.91 | 2.78 |
| 546165 | 205 274 | 35 | < 1.0 | 8.22 | 120 | 1.0 | < 2 | 4.53 | < 0.5 | 36 | 35 | 4620 | 3.88 | 0.36 | 1.44 |
| 546166 | 205 274 | 310 | 1.0 | 9.61 | 490 | 1.5 | < 2 | 0.57 | < 0.5 | 387 | 101 | >10000 | 4.58 | 2.41 | 0.73 |
| 546167 | 205 274 | 105 | 3.0 | 6.63 | 90 | < 0.5 | < 2 | 3.68 | < 0.5 | 56 | 81 | >10000 | 9.23 | 0.39 | 0.89 |
| 546168 | 205 274 | 80 | 2.0 | 4.85 | 3950 | < 0.5 | < 2 | 5.70 | 0.5 | 27 | 128 | 2660 | 2.20 | 2.20 | 1.52 |
| 546169 | 205 274 | 15 | 1.0 | 5.12 | 220 | < 0.5 | < 2 | 5.66 | < 0.5 | 330 | 98 | 97 | 16.35 | 1.41 | 2.33 |
| 546170 | 205 274 | < 5 | < 1.0 | 4.74 | 470 | < 0.5 | < 2 | 3.14 | < 0.5 | 652 | 125 | 44 | 24.4 | 2.67 | 1.38 |
| 546171 | 205 274 | < 5 | < 1.0 | 2.87 | 160 | < 0.5 | < 2 | 4.95 | < 0.5 | 562 | 244 | 814 | 5.82 | 1.48 | 1.56 |
| 546172 | 205 274 | 220 | 3.0 | 7.82 | 40 | < 0.5 | 60 | 2.65 | < 0.5 | 527 | 122 | >10000 | 4.97 | 0.39 | 1.05 |
| 546173 | 205 274 | 50 | 1.0 | 9.11 | 260 | 1.5 | 14 | 1.40 | 0.5 | 241 | 140 | 7030 | 3.27 | 2.13 | 0.62 |
| 546174 | 205 274 | 40 | 1.0 | 8.40 | 790 | 1.5 | < 2 | 0.52 | < 0.5 | 290 | 199 | 1975 | 3.50 | 3.91 | 0.43 |
| 546175 | 205 274 | 135 | 1.0 | 5.62 | 400 | < 0.5 | < 2 | 9.85 | < 0.5 | 97 | 121 | >10000 | 4.34 | 2.44 | 1.10 |
| 546176 | 205 274 | 25 | < 1.0 | 7.72 | 360 | 1.5 | < 2 | 3.55 | < 0.5 | 462 | 109 | 1325 | 3.85 | 3.44 | 1.36 |
| 546177 | 205 274 | 55 | 1.0 | 7.76 | 330 | 1.5 | < 2 | 3.08 | < 0.5 | 27 | 114 | 2190 | 3.71 | 3.20 | 1.19 |
| 546178 | 205 274 | 405 | 2.0 | 7.09 | 340 | < 0.5 | < 2 | 0.93 | 0.5 | 58 | 141 | >10000 | 6.95 | 2.78 | 0.43 |
| 546179 | 205 274 | 175 | 2.0 | 3.61 | 220 | < 0.5 | < 2 | 9.42 | < 0.5 | 268 | 145 | >10000 | 7.53 | 1.49 | 2.59 |
| 546180 | 205 274 | 15 | 1.0 | 5.55 | 100 | < 0.5 | < 2 | 6.40 | < 0.5 | 42 | 89 | 2440 | 5.84 | 0.52 | 1.66 |

CERTIFICATION: Ian Bichler

# Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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British Columbia, Canada V7J 2C1
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Project : DOLORES
Comments: ATTN: M. STAMMERS CC: EQUITY ENGINEERING


Certificate Date: 09-AUG-93
Invoice No. : I9317861
P.O. Number :
Account : BM

## CERTIFICATE OF ANALYSIS A9317861

| SAMPLE | PREP CODE | | Mn ppm (ICP) | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) | La ppm ICP | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 546160 | 205 | 274 | 8720 | 3 | 0.07 | 87 | < 10 | < 8 | 86 | 0.01 | 28 | < 10 | 20 | < 10 | | |
| 546161 | 205 | 274 | 2150 | 4 | 0.22 | 37 | 520 | < 8 | 41 | 0.13 | 46 | < 10 | 10 | < 10 | | |
| 546162 | 205 | 274 | 935 | 2 | 0.29 | 119 | 440 | < 8 | 29 | 0.12 | 39 | < 10 | 14 | 30 | | |
| 546163 | 205 | 274 | 5020 | 1 | 0.07 | 78 | 410 | < 8 | 59 | 0.04 | 26 | < 10 | 20 | < 10 | | |
| 546164 | 205 | 274 | 1680 | 2 | 1.57 | 181 | 710 | < 8 | 31 | 0.15 | 55 | < 10 | 20 | 640 | | |
| 546165 | 205 | 274 | 2800 | 4 | 5.51 | 36 | 340 | < 8 | 88 | 0.12 | 8 | < 10 | 10 | < 10 | | |
| 546166 | 205 | 274 | 450 | 10 | 3.42 | 101 | 490 | < 8 | 76 | 0.12 | 54 | < 10 | 12 | 70 | | |
| 546167 | 205 | 274 | 650 | 17 | 4.26 | 13 | 4140 | < 8 | 62 | 1.33 | 47 | < 10 | 42 | 50 | | |
| 546168 | 205 | 274 | 2380 | 104 | 1.67 | 46 | 670 | < 8 | 133 | 0.13 | 88 | < 10 | 14 | 20 | | |
| 546169 | 205 | 274 | 4140 | 15 | 2.15 | 47 | 600 | < 8 | 51 | 0.20 | 81 | < 10 | 18 | < 10 | | |
| 546170 | 205 | 274 | 2810 | 4 | 0.11 | 57 | 600 | < 8 | 26 | 0.22 | 49 | < 10 | 22 | < 10 | | |
| 546171 | 205 | 274 | 3650 | 13 | 0.08 | 61 | 260 | < 8 | 33 | 0.06 | 30 | < 10 | 14 | 40 | | |
| 546172 | 205 | 274 | 1785 | 4 | 5.71 | 141 | 480 | < 8 | 46 | 0.07 | 24 | < 10 | 30 | 10 | | |
| 546173 | 205 | 274 | 745 | 6 | 4.30 | 54 | 370 | < 8 | 43 | 0.16 | 136 | < 10 | 58 | 40 | | |
| 546174 | 205 | 274 | 240 | 1 | 1.23 | 48 | 760 | < 8 | 34 | 0.17 | 85 | < 10 | 6 | 60 | | |
| 546175 | 205 | 274 | 2960 | 4 | 1.98 | 46 | 250 | < 8 | 76 | 0.08 | 79 | < 10 | 8 | < 10 | | |
| 546176 | 205 | 274 | 2600 | 2 | 1.28 | 81 | 520 | < 8 | 32 | 0.25 | 66 | < 10 | 14 | 30 | | |
| 546177 | 205 | 274 | 2080 | 3 | 1.41 | 65 | 490 | < 8 | 38 | 0.26 | 61 | < 10 | 14 | 30 | | |
| 546178 | 205 | 274 | 1360 | 4 | 1.77 | 198 | 290 | < 8 | 26 | 0.22 | 49 | < 10 | 14 | 30 | | |
| 546179 | 205 | 274 | 4310 | 24 | 0.75 | 99 | 190 | < 8 | 39 | 0.12 | 36 | < 10 | 14 | < 10 | | |
| 546180 | 205 | 274 | 2580 | 1 | 3.62 | 28 | 920 | < 8 | 50 | 0.12 | 40 | < 10 | 12 | 20 | | |

CERTIFICATION: Hart Bichler

# APPENDIX F

# GEOLOGISTS' CERTIFICATES

## GEOLOGIST'S CERTIFICATE

I, MARK E. BAKNES, of 4355 St. Catherines Street, Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

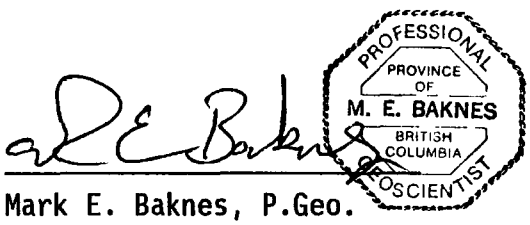
1. THAT I am a Consulting Geologist with offices at Suite 207, 675 West Hastings Street, Vancouver, British Columbia.

2. THAT I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geology and a Master of Science degree in Geology from McMaster University.

3. THAT I am a Professional Geoscientist registered in good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

4. THAT this report is based in part on property work I personally completed and/or directly supervised between June 30 and July 7, 1993, government publications and assessment reports filed with the Yukon.

DATED at Vancouver, British Columbia, this 24th day of February, 1994.




Mark E. Baknes, P.Geo.

## GEOLOGIST'S CERTIFICATE

I, DAVID A. CAULFIELD, of 3142 Gambier Street, Coquitlam, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist with offices at Suite 207, 675 West Hastings Street, Vancouver, British Columbia.

2. THAT I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geology.

3. THAT I am a Professional Geoscientist registered in good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

4. THAT this report is based in part on property work I personally completed and/or directly supervised between June 30 and July 7, 1993, government publications and assessment reports filed with the Yukon.

DATED at Vancouver, British Columbia, this 24th day of February, 1994.

David A. Caulfield, P.Geo.

PROFESSIONAL ENGINEERS AND GEOSCIENTISTS PROVINCE OF BRITISH COLUMBIA D. A. CAULFIELD

## GEOLOGIST'S CERTIFICATE

I, MICHAEL A. STAMMERS, of 941 Kennedy Avenue, North Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. I am a graduate of McMaster University (1977) and hold a combined Honours B.A. in Geology and Geography.

2. I have practised in my profession with various mining companies in Yukon, British Columbia, the Northwest Territories, Nova Scotia and Venezuela for 20 years.

3. I am duly registered as a Professional Geoscientist in the Province of British Columbia (#18883).

4. I am a Fellow of the Geological Association of Canada.

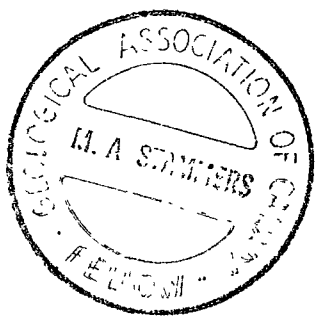
5. This report is based on property work I personally completed and/or directly supervised between June 30 and July 8, 1993 combined with four years experience in the Wernecke terrain.

6. THAT I have no interest in the property described herein, nor in securities of any company associated with the property, nor do I expect to receive any such interest.

7. THAT I hereby grant permission to International Prism Exploration Ltd. for the use of this report in any prospectus or other documentation required by any regulatory authority.

DATED at Vancouver, B.C., this 24 day of FEBRUARY, 1994.


Michael A. Stammers, P.Geo., FGAC



# LEGEND

## LITHOLOGIES

**PROTEROZOIC**

***WERNECKE SUPERGROUP***

**F** ***Fairchild Lake Group:*** Light grey-, greenish grey-, and locally dark grey-weathering shale, siltstone (80%), fine sandstone and limestone (20%); locally phyllites, schists and slates.

- **Fsl** grey slate
- **Fph** pale grey and green phyllite, sericite-carbonate-quartz altered slate?

## ALTERATION

Alteration Minerals

- **CB** iron carbonate
- **MS** sericite/muscovite
- **QZ** quartz

Alteration Intensity

- **1** weak
- **2** moderate
- **3** strong

## MINERALIZATION

CP - chalcopyrite
CO - cobaltite
ER - erythrite
HS - specular hematite

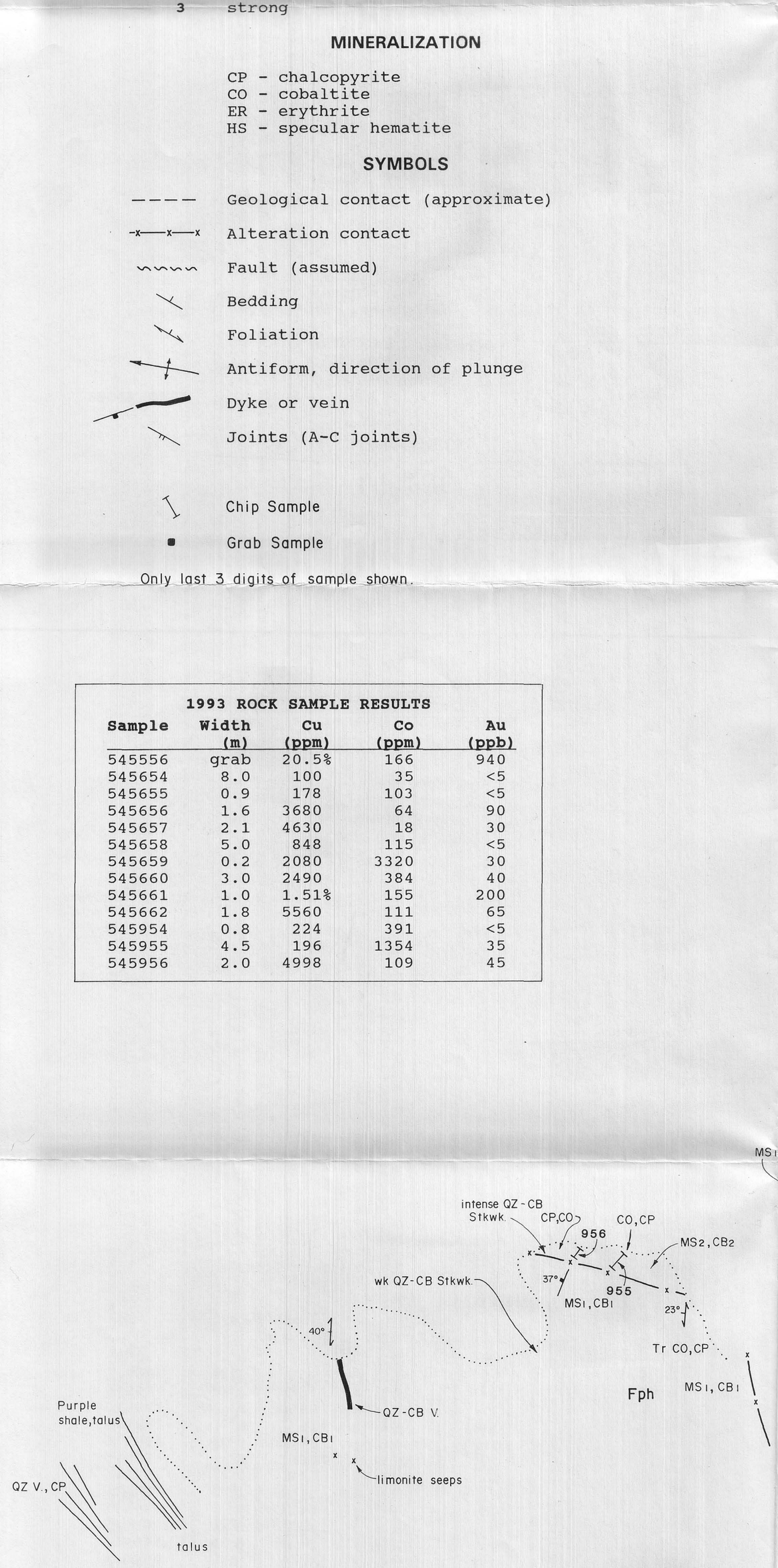
## SYMBOLS

- Geological contact (approximate)
- Alteration contact
- Fault (assumed)
- Bedding
- Foliation
- Antiform, direction of plunge
- Dyke or vein
- Joints (A-C joints)
- Chip Sample
- Grab Sample

Only last 3 digits of sample shown.

**1993 ROCK SAMPLE RESULTS**

| Sample | Width (m) | Cu (ppm) | Co (ppm) | Au (ppb) |
|---|---|---|---|---|
| 545556 | grab | 20.5% | 166 | 940 |
| 545654 | 8.0 | 100 | 35 | <5 |
| 545655 | 0.9 | 178 | 103 | <5 |
| 545656 | 1.6 | 3680 | 64 | 90 |
| 545657 | 2.1 | 4630 | 18 | 30 |
| 545658 | 5.0 | 848 | 115 | <5 |
| 545659 | 0.2 | 2080 | 3320 | 30 |
| 545660 | 3.0 | 2490 | 384 | 40 |
| 545661 | 1.0 | 1.51% | 155 | 200 |
| 545662 | 1.8 | 5560 | 111 | 65 |
| 545954 | 0.8 | 224 | 391 | <5 |
| 545955 | 4.5 | 196 | 1354 | 35 |
| 545956 | 2.0 | 4998 | 109 | 45 |




**INTERNATIONAL PRISM EXPLORATION LTD.**

# DOLORES PROJECT

DOLORES 1 - 48 CLAIMS

**COBALT CIRQUE**

MAYO MINING DISTRICT, YUKON TERRITORY

## GEOLOGY AND GEOCHEMISTRY

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

| | | |
|---|---|---|
| DRAWN: | MINING DIST. MAYO | FIGURE: 7 |
| N.T.S. 106C / 14 | SCALE: 1: 1000 | |
| DATE: FEB. / 1994 | REVISED: | |

## ROCK SAMPLE RESULTS

| SAMPLE NUMBER | SAMPLE TYPE | INTERVAL | COPPER (ppm) | COPPER % | COBALT (ppm) | COBALT % | AU (ppb) |
|---|---|---|---|---|---|---|---|
| 545551 | G | - | >10000 | 2.74 | 40 | - | 235 |
| 545552 | G | - | >10000 | 21.4 | 546 | - | 2820 |
| 545553 | G | - | >10000 | 29.8 | 50 | - | 540 |
| 545554 | G | - | 5100 | - | >10000 | 3.03 | 430 |
| 545555 | G | - | 9610 | - | 89 | - | 30 |
| 545556 | G | - | >10000 | 20.5 | 166 | - | 940 |
| 545557 | G | - | 274 | - | >10000 | 3.60 | 870 |
| 545558 | G | - | 1350 | - | >10000 | 6.60 | 2400 |
| 545559 | G | - | >10000 | 1.25 | 8660 | - | 600 |
| 545560 | G | - | >10000 | 3.05 | >10000 | 1.60 | 990 |
| 545561 | G | - | >10000 | 20.1 | 1240 | - | 1770 |
| 545562 | G | - | >10000 | 8.00 | 214 | - | 815 |
| 545563 | G | - | 6300 | - | 124 | - | 40 |
| 545564 | G | - | >10000 | 7.14 | 17 | - | 110 |
| 545565 | G | - | >10000 | 2.35 | 4 | - | 35 |
| 545566 | G | - | >10000 | 3.33 | 24 | - | 40 |
| 545568 | C | 2.0m | >10000 | 1.16 | 4390 | - | 290 |
| 545958 | G | - | 39 | - | 1195 | - | 30 |
| 545959 | G | - | 21 | - | 27 | - | <5 |
| 545960 | G | - | 8 | - | 193 | - | <5 |
| 546051 | G | - | 2450 | - | 389 | - | 25 |
| 546052 | L | - | 27 | - | 8 | - | <5 |
| 546053 | L | - | 18 | - | 5 | - | <5 |
| 546054 | Lf | - | 24 | - | 18 | - | <5 |
| 546055 | C | 2.8m | >10000 | 6.91 | 10 | - | 15 |
| 546056 | G | - | >10000 | 32.4 | 26 | - | 40 |
| 546057 | L | - | 2100 | - | 3 | - | <5 |
| 546058 | L | - | 886 | - | 4 | - | <5 |
| 546059 | Gf | - | 5150 | - | 301 | - | 90 |
| 546060 | L | - | 78 | - | 10 | - | 5 |
| 546061 | L | - | 32 | - | 10 | - | <5 |
| 546062 | L | - | 1405 | - | 54 | - | 40 |
| 546063 | L | - | 62 | - | 6 | - | 15 |
| 546064 | C | 1.0m | 6140 | - | 140 | - | 140 |
| 546065 | C | 2.0m | 3380 | - | 655 | - | 40 |
| 546066 | L | - | 108 | - | 84 | - | 5 |
| 546067 | G | - | 91 | - | 137 | - | <5 |
| 546068 | Lf | - | 2110 | - | 44 | - | 10 |
| 546069 | G | - | >10000 | 4.06 | 2 | - | 310 |
| 546070 | G | - | >10000 | 1.07 | 586 | - | 560 |
| 546151 | Gf | - | >10000 | 9.80 | 23 | - | 330 |
| 546152 | Gf | - | 2200 | - | 14 | - | 85 |
| 546153 | G | - | >10000 | 1.71 | 30 | - | 60 |
| 546154 | G | - | 56 | - | <1 | - | <5 |
| 546155 | C | 0.65m | >10000 | 1.99 | 17 | - | 90 |
| 546156 | Gf | - | 210 | - | 64 | - | <5 |
| 546157 | C | 3.0m | 3420 | - | 327 | - | 10 |
| 546158 | C | 0.5m | 2030 | - | 13 | - | <5 |
| 546159 | C | 4.0m | 6560 | - | 66 | - | 115 |
| 546160 | C | 2.0m | 5060 | - | 166 | - | 65 |
| 546161 | C | 0.5m | 571 | - | 136 | - | 70 |
| 546162 | G | - | 4710 | - | 38 | - | 45 |
| 546163 | G | - | 22 | - | 59 | - | 30 |
| 546164 | Gf | - | 414 | - | 370 | - | 15 |
| 546165 | Gf | - | 4620 | - | 36 | - | 35 |
| 546166 | G | - | >10000 | 1.10 | 387 | - | 310 |
| 546167 | G | - | >10000 | 1.30 | 56 | - | 105 |
| 546168 | C | 0.3m | 2660 | - | 27 | - | 80 |
| 546169 | G | - | 97 | - | 330 | - | 15 |
| 546170 | Gf | - | 44 | - | 652 | - | <5 |
| 546171 | G | - | 814 | - | 562 | - | <5 |
| 546172 | Gf | - | >10000 | 1.20 | 527 | - | 220 |
| 546173 | Gf, | - | 7030 | - | 241 | - | 50 |
| 546174 | Gf | - | 1975 | - | 290 | - | 40 |
| 546175 | Gf | - | >10000 | 1.31 | 97 | - | 135 |
| 546176 | C | 8.0m | 1325 | - | 462 | - | 25 |
| 546177 | C | 7.0m | 2190 | - | 27 | - | 55 |
| 546178 | C | 2.0m | >10000 | 2.36 | 58 | - | 405 |
| 546179 | C | 0.35m | >10000 | 1.37 | 268 | - | 175 |
| 546180 | G | - | 2440 | - | 42 | - | 15 |

### SAMPLE TYPE SYMBOLS

C Chip Sample
G Grab Sample
L Lithogeochemical Sample
f Float Sample

Cobalt Cirque
Figure 7

Porphyry Showing
Figures 6 & 8

DISCOVERY
COPPER SHOWING

DOLORES 1 - 48 CLAIM BOUNDARY

5500N

5000N

BL. 5000E

4000

Airstrip

## LEGEND

### LITHOLOGIES

PROTEROZOIC

I Igneous Rocks
- Idi diorite, gabbro
- Imd monzonite, diorite

B Wernecke Breccia
- Bxx Undivided, includes metasomatites, minor diorite
- Bht Heterolithic breccia: hydrothermal matrix comprised of alteration minerals: K-feldspar, plagioclase, carbonate, quartz, pyroxene, chlorite, sericite, and specular hematite, metasomatite
- Bhm Homolithic breccia: ranges from well brecciated to crackle brecciated to non brecciated wall rocks

P Pinguicula Group
- Pms Maroon shale and siltstone

WERNECKE SUPERGROUP

G Gillespie Lake Group: buff-, orange-, grey-, and locally maroon-weathering dolomite, dolomite terrigenous admixtures, limestone, claystone, mudstone, siltstone and fine sandstone
- Gdos Dolomite, interbedded with dark siltstone, shale, sandstone, "striped transitional unit"
- Gdo Buff and orange weathering dolomite

Q Quartet Group: dark grey- and grey-weathering siltstone, mudstone, claystone and fine sandstone (wavy bedded); local quartzite

F Fairchild Lake Group: light grey- and greenish grey-, and locally dark grey-weathering shale, siltstone (80%), fine sandstone and limestone (20%); locally phyllites, schists and slates
- Fsh Grey and green shale, phyllitic partings
- Fph Grey to green phyllite, dolomitic
- Fst Siltstone, grey-green
- Fstc Siltstone, grey-green, calcareous
- Fdo Grey dolomite
- Fbf Banded iron formation, jasper-hematite
- Fms Purple mudstone
- Fss Grey-brown sandstone
- Fls Grey limestone

### SYMBOLS

- 545556 1993 Rock Sample Location
- Claim Post Location
- Outcrop
- Geological Contact (approximate)
- Fault (assumed)
- Bedding/Foliation

METRES
0 100 200 300 400 500 1000

INTERNATIONAL PRISM EXPLORATION LTD.

# DOLORES PROJECT

DOLORES 1 - 48 CLAIMS
MAYO MINING DISTRICT, YUKON TERRITORY

# COMPILATION MAP

PAMICON DEVELOPMENTS LTD./
EQUITY ENGINEERING LTD.

| | | |
|---|---|---|
| DRAWN: | MINING DIST.: MAYO | FIGURE: 5 |
| N.T.S. 106C/14 | SCALE: 1:10,000 | |
| DATE: FEBRUARY, 1994 | REVISED: | |