

MAP NO.: ASSESSMENT REPORT
106D 16 PROSPECTUS
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 093118
MINING DISTRICT: MAYO
TYPE OF WORK: GEOCHEMICAL

REPORT FILED UNDER: EQUITY ENGINEERING LTD

DATE PERFORMED: SEPTEMBER 1-3, 1992

DATE FILED: JUNE 11, 1993

LOCATION: LAT.: 64°55'N

AREA: BRECCIA CREEK

LONG.: 134°16'W

VALUE \$: 6,000

CLAIM NAME & NO.:
URSUS 1-12 (YB28574-579), URSUS 13-14 (YB28968-969)

WORK DONE BY: DAVID A CAULFIELD

WORK DONE FOR: WESTMIN RESOURCES LTD.

DATE TO GOOD STANDING:

REMARKS: BRECCIAS BEING EVALUATED FOR OLYMPIC DAM TYPE CU
U, AU, AG MINERALIZATION.



**1992 GEOCHEMICAL
REPORT
ON THE
URSUS 1-14 CLAIMS**



Located in the Wernecke Mountains
Mayo Mining District
NTS 106D/16

64° 55' North Latitude
134° 16' West Longitude

093118

-prepared for-
WESTMIN RESOURCES LIMITED

-prepared by-
David A. Caulfield, P.Geo.

DATES OF WORK PERFORMED: September 1-3, 1992
DATE OF REPORT: December, 1992



This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 6,000.

for *Renée J. Ouellette*
Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

1992 GEOCHEMICAL REPORT ON THE URSUS 1-14 CLAIMS

TABLE OF CONTENTS

		<u>Page</u>
1.0	INTRODUCTION	.1.
2.0	LIST OF CLAIMS	.1.
3.0	LOCATION, ACCESS AND PHYSIOGRAPHY	.1.
4.0	REGIONAL AND AREA MINING HISTORY	
4.1	Previous Work	.2.
4.2	1992 Exploration Program	.3.
5.0	REGIONAL GEOLOGY	.4.
6.0	PROPERTY GEOLOGY AND MINERALIZATION	
6.1	Property Geology	.6.
6.2	Mineralization	.7.
7.0	CONCLUSIONS AND RECOMMENDATIONS	.9.

APPENDICES

Appendix A	Bibliography
Appendix B	List of Personnel
Appendix C	Statement of Expenditures
Appendix D	Rock Sample Descriptions
Appendix E	Certificates of Analysis
Appendix F	Geologist's Certificate

LIST OF TABLES

		<u>Page</u>
Table 2.0.1	Claim Data	.1.
Table 6.2.1	North Breccia Rock Geochemistry	.8.

LIST OF FIGURES

		<u>Following Page</u>
Figure 1	Location Map	.1.
Figure 2	Claim Map	.1.
Figure 3	Regional Geology	.4.
Figure 4	Rock Geochemistry	-Pocket-

1.0 INTRODUCTION

The Ursus 1-14 claims are located in the Wernecke Mountains, approximately 165 kilometres northeast of Mayo in east central Yukon (Figure 1). 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 sill and dykes. Exploration to date in the Wernecke Mountains was directed sporadically at copper from the early 1900's until the discovery of uranium mineralization associated with hematite breccias in 1974. Occurrences of copper and breccia-related copper-gold-cobalt mineralization have been noted in the basin, but were largely bypassed in the search for uranium and lead-zinc deposits between 1974 and 1980. The geological setting of the Wernecke Mountains is excellent for hosting Olympic Dam copper-uranium-gold-silver breccia type deposits and the Ursus property was acquired on this basis.

Geological mapping, prospecting and lithochemical sampling were carried out over the Ursus property during September, 1992. This work program was conducted jointly by Pamicon Developments Ltd. and Equity Engineering Ltd. for Westmin Resources Limited. The same companies have been retained to report on the fieldwork.

2.0 LIST OF CLAIMS

The Ursus property comprises 14 contiguous quartz mineral claims, located in the Mayo Mining District (Figure 2). Government records indicate that the following claims are owned by M. Stammers of North Vancouver, British Columbia. Separate documents indicate that they are held under option by Westmin Resources Limited.

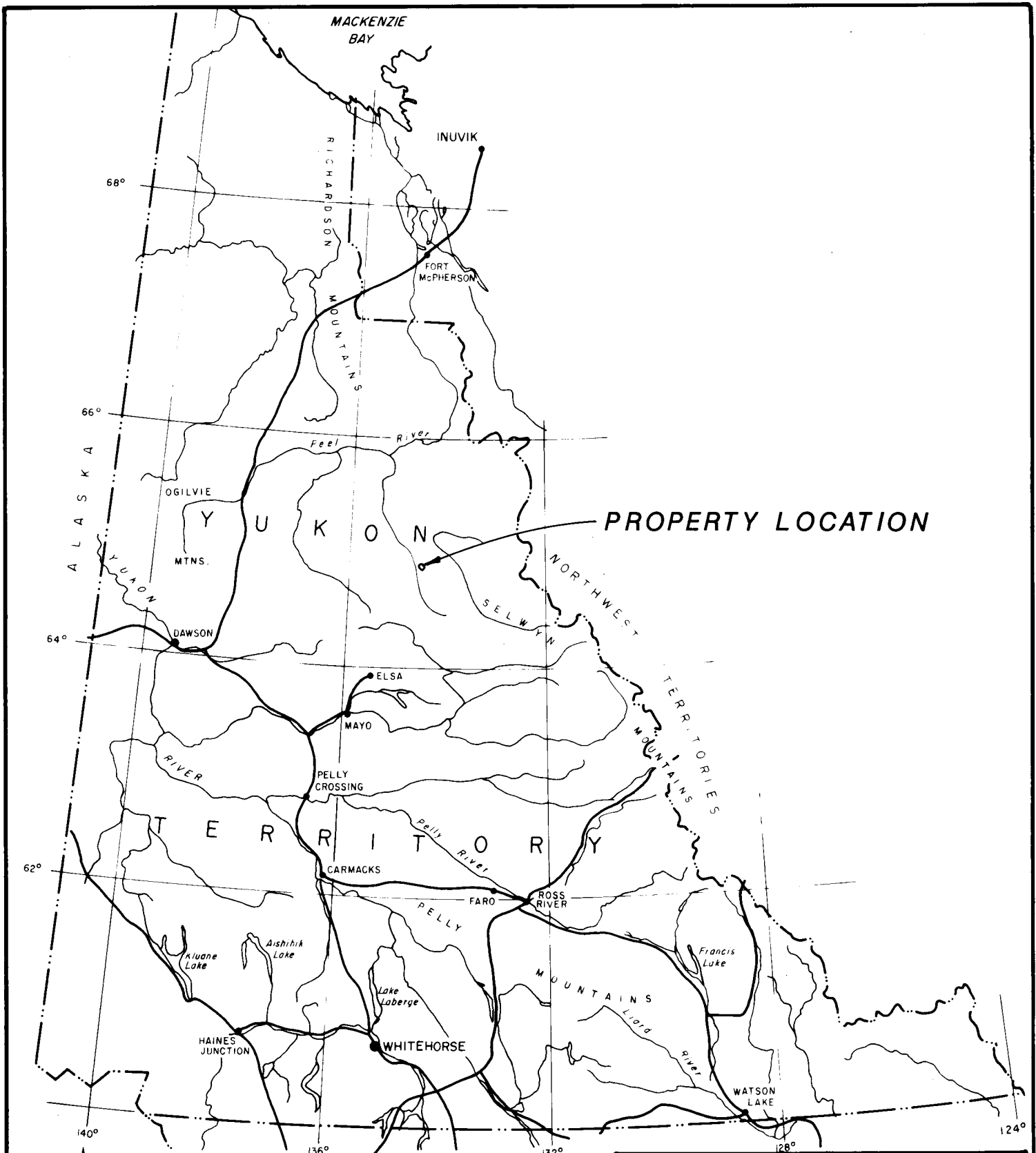
TABLE 2.0.1
CLAIM DATA

Claim Name	Record Numbers	Record Date	Expiry Date
Ursus 1-12	YB28574-579	June 27, 1992	Dec. 31, 1997*
Ursus 13-14	YB28968-969	Sept. 14, 1992	Dec. 31, 1994*

* Subject to approval of assessment work covered by this report.

3.0 LOCATION, ACCESS AND PHYSIOGRAPHY

The Ursus property is located in the Wernecke Mountains of east central Yukon, approximately 165 kilometres northeast of Mayo (Figure 1). The property is located 23 kilometres west-southwest of Fairchild Lake at the headwaters of a western tributary of Breccia Creek. The claims are situated in the Mayo Mining District, centered at 64° 54.5' north latitude and 134° 16' west longitude.



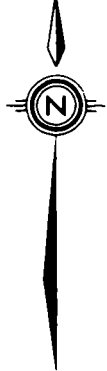
PROPERTY LOCATION

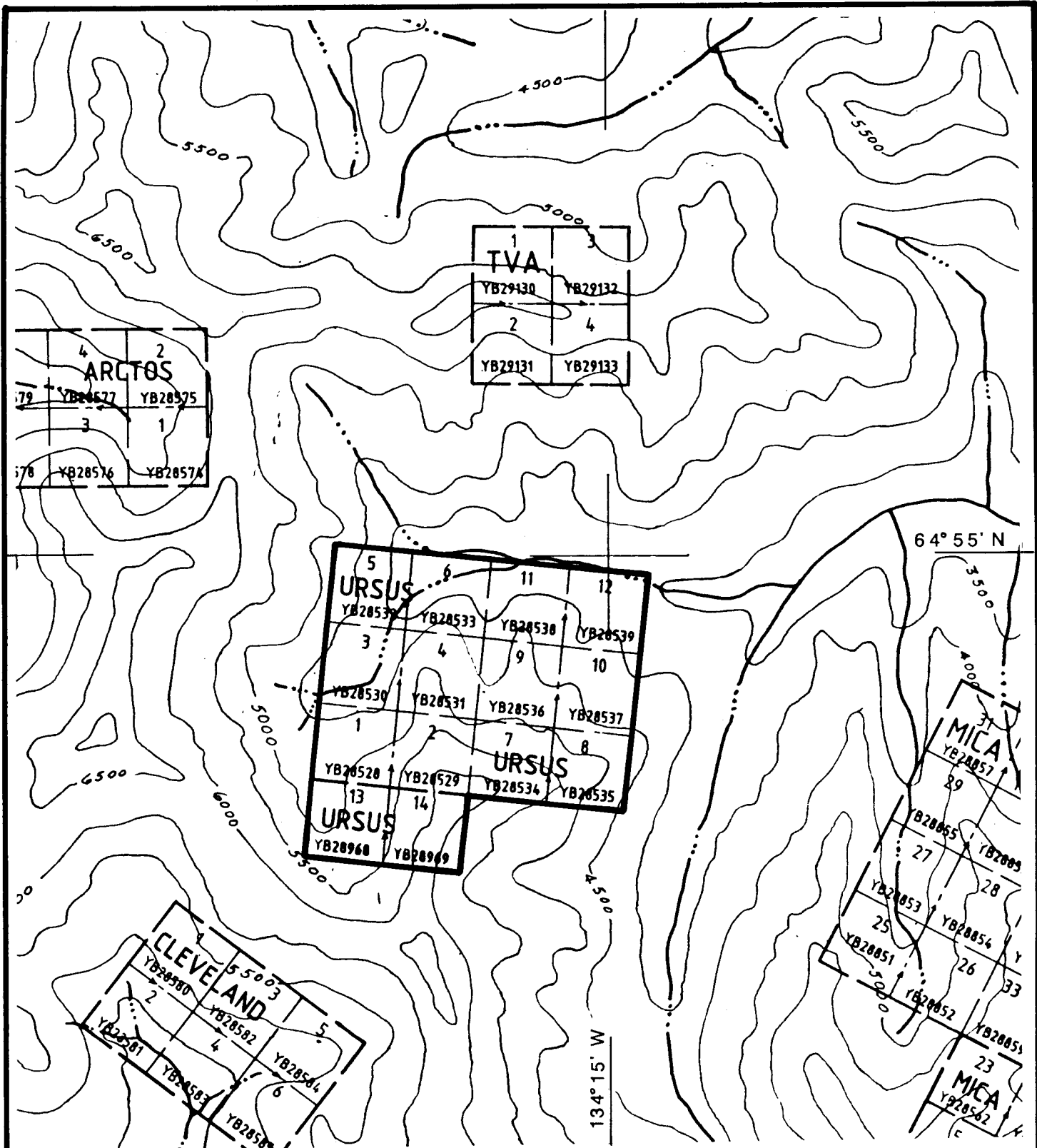
WESTMIN RESOURCES LIMITED

**URSUS 1-14 CLAIMS
LOCATION MAP
YUKON TERRITORY**

— PAMICON DEVELOPMENTS LTD. —
— EQUITY ENGINEERING LTD. —

DRAWN:	MINING DIST.: MAYO	FIGURE
N.T.S.: 106D/16	SCALE: 1:500000	1
DATE: DEC. 1992	REVISED:	





WESTMIN RESOURCES LIMITED		
URSUS 1-14 CLAIMS		
CLAIM MAP		
YUKON TERRITORY		
— PAMICON DEVELOPMENTS LTD. —		
— EQUITY ENGINEERING LTD. —		
DRAWN:	MINING DIST.: MAYO	FIGURE
N.T.S.: 106D/16	SCALE: 1:31 680	2
DATE: DEC. 1992	REVISED:	

The Wernecke Mountains may be accessed from Mayo by float plane to a number of well distributed lakes and by wheeled aircraft to the 800 metre long gravel airstrip at Bear River, some 10 kilometres south of the Ursus property. Mayo has scheduled air service from Whitehorse. The Wind River winter tote road was built through the Wernecke Mountains during the late 1950's and was re-activated during the coal and uranium exploration boom in the late 1970's. During the 1992 field program, access was by helicopter from a camp on a tributary of Breccia Creek located 7.5 kilometres northeast of the Bear River airstrip.

The area lies on the northern flanks of the Wernecke Mountains and includes the Rackla, Bonnet Plume and Knorr Ranges. The Bonnet Plume and Wind Rivers transect the area in a northwesterly direction. The topography is mountainous and typical of alpine glaciated terranes, with deep valleys and serrated ridges. Elevations on the Ursus property range from 1070 metres in the creek valley to over 1800 metres on ridge in the southwest corner of the property. The entire 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.

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 REGIONAL AND AREA MINING HISTORY

4.1 Previous Work

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 drilled coal reserves on their leases 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 embarked on a limited exploration campaign to test the gold potential of some of the known uranium occurrences. The lack of recent exploration activity has allowed most of the staked areas to come open.

The Ursus area was first staked in 1976 by Harman Management Ltd. to cover uranium and copper showings (Minfile 106D/16-52). The property was intermittently worked from 1977-1980 by Pan Ocean Oil; all claims subsequently lapsed. This work consisted of prospecting, geological mapping, hand trenching and magnetometer surveys. In the general area of the present Ursus property, a total of 47 water, 25 silt, 140 soil, 33 rock and 24 lithogeochemical samples were taken during these programs.

4.2 1992 Exploration Program

During September of 1992, Westmin Resources Limited carried out a preliminary exploration program on the Ursus property, consisting of lithogeochemical sampling, limited geological mapping and prospecting. The program was designed to determine the potential for an Olympic Dam copper-uranium-gold-silver breccia type deposit. A total of 17 grab samples and 46 lithogeochemical rock samples were taken.

Lithogeochemical samples were taken approximately 100 metres apart, generally along contours or on ridgelines where exposures and talus slopes were accessible for sampling. The purpose of these samples was threefold: (1) to determine the tenure of copper mineralization as a bulk tonnage target, (2) to locate areas where chalcocite may be present, and (3) to define geochemical trends within the hematite breccias and into the surrounding sedimentary rocks. Grab samples were taken from areas of visible copper mineralization. All rock samples are described in Appendix D, and analytical certificates are attached in Appendix E. Rock samples were analyzed geochemically for gold, lanthanum, uranium and 24-elements by ICP. Samples exceeding 10,000 ppm copper were assayed. In the field, sample locations were marked by a metal tag and a combination of pink and blue flagging.

Geological mapping was carried out on a scale of 1:10,000 and

was limited to the lithogeochemical sample lines (Figure 4).

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 sill 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. 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. Camshell 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 (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 uraniferous 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



Geology by: Pamicon Developments Ltd.,
Delaney (1985)

Legend on following page.



WESTMIN RESOURCES LIMITED		
URSUS 1-14 CLAIMS		
REGIONAL GEOLOGY		
YUKON TERRITORY		
— PAMICON DEVELOPMENTS LTD. — — EQUITY ENGINEERING LTD. —		
DRAWN:	MINING DIST.: MAYO	FIGURE
N.T.S.: 106D/16	SCALE: 1:100000	3
DATE: DEC. 1992	REVISED:	

LEGEND

(to accompany Figure 3)

LITHOLOGIES

QUATERNARY

Q Unconsolidated glacial and alluvial deposits.

PALEOZOIC

P Carbonate and siliciclastic sediments, undivided.

PROTEROZOIC

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

Kd Diabase

Kdi Diorite

Gb Gabbro

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.

Pqtr 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.

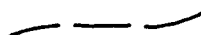
Pq₁ Black shale with sandstone and shale interbeds, quartzite.


Pq₂ 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 (approximate)


 Thrust fault (approximate)


 Fault (approximate)

 Bedding attitude

 Bedding (overturned)

 Anticlinal axis (arrow indicates plunge)

 Synclinal axis (arrow indicates plunge)

 Limit of unconsolidated glacial and alluvial deposits

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. Its lower contact and upper contact, which is marked by glacial deposits of the Rapitan Group (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 diorite dykes/sills, one body of peridotite (Delaney, 1981) and by more felsic intrusive bodies along the east side of the Bonnet Plume River. 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 or Early Cambrian age for these dykes (Delaney, 1981). Gabbroic dykes (**Gb**), tentatively assigned a Helikian age, occur in the southern half of the basin.

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.

6.0 PROPERTY GEOLOGY AND MINERALIZATION

6.1 Property Geology

The bulk of the Ursus property is underlain by Fairchild Lake Group sedimentary units that have been crosscut by heterolithic hematite breccia or associated carbonate-rich border phases (Figure 4). Along the southern boundary of the property, these Fairchild Lake Group sediments lie in fault contact with Gillespie Lake Group dolomites.

The Fairchild Lake Group sediments (**Unit Pf**) consist of light green laminated siltstone in the north fork of the main creek valley. In the direction of the south fork, the sedimentary units have undergone greater deformation and contortion, becoming

phyllitic and exhibiting kink banding with folded quartz rods and crenulated cleavage. At the south end of the property, light to dark grey siltstone lies adjacent to the breccia bodies. On the south side of a major fault crossing the property, steeply dipping sandy dolomite beds of the Gillespie Lake Group (**Unit Pg**) occur. The unit is thicker bedded adjacent to the fault and becomes thin-bedded and graded down section to the south. The displacement on this fault is considerable placing the lowest and highest members of the Wernecke Supergroup in contact.

Two areas of hematite breccia (**Unit Bx**) emplacement occur on the property; each breccia body is cored by heterolithic breccia although border phase alteration assemblages are different in each case. The north breccia body swells to 100 metres wide in the northwest and narrows to the east before widening again. This breccia is clearly discordant, trending in a southeasterly direction and dipping moderately to the northeast. The heterolithic phase (**Unit Bx₁**) of the breccia has a distinct pink colour due to pervasive hematization. Other alteration products include specular hematite, silica, chlorite and albite. The sediments adjacent to the breccia are silicified and contain minor specular hematite along fractures. However, where the breccia crosses the south fork of the creek, its hangingwall consists of a 5.0 metre wide zone of almost massive specular hematite. The silicification persists further out into the surrounding sediments where magnetite occurs at the expense of specular hematite.

The south breccia consists of two separate bodies. The main breccia is up to 200 metres wide and crudely parallels the east-west fault for at least 1100 metres. The breccia remains open to the east but cannot be followed across the creek valley to the west. Although the heterolithic breccia variety is present, carbonate (ankerite-siderite) alteration is very strong, occurring within border phase homolithic breccia (**Unit Bx₂**) or in peripheral veins. The carbonate phases weather to buff and chocolate brown colours. The smaller breccia, approximately 45 metres wide, is poorly exposed on the slope dropping into the creek. This breccia is comprised of a silica-chlorite rich phase on the east side of the breccia and a pink heterolithic phase on the west side.

6.2 Mineralization

Copper mineralization is found within the heterolithic hematite breccia but more commonly is concentrated in carbonate-rich border phases of the breccia bodies or within peripheral carbonate-rich veins (Figure 4). The highest copper value returned from sampling of the heterolithic hematite breccia was 1321 ppm copper (548290) whereas grab samples from carbonate-rich alteration phases or veining ranged up to 4.39% copper (548188).

A series of grab and chip samples were taken across the north breccia where it is exposed in a creek cut. This sampling enables

a preliminary examination of metal zonation through an entire heterolithic breccia body. Chalcopyrite was the only copper sulphide identified and there appears to be a weak sulphide zonation with pyrite peripheral to the chalcopyrite which predominates in the core of the breccia. Table 6.2.1 lists sample results from north to south (HW to FW) through the breccia. Sample 548287 is provided to give an idea of background values of relatively unaltered Fairchild Lake Group sediments. Sample digestion for sodium and potassium will not be complete with the digestion and ICP analysis used and therefore, these values provide qualitative results. However, these values have been included for comparison across the zone. Silver and uranium values were mainly below detection limit for all samples. Lead and zinc values are consistently low.

TABLE 6.2.1
NORTH BRECCIA ROCK GEOCHEMISTRY

Sample	Width (m)	Gold (ppb)	Cobalt (ppm)	Copper (ppm)	Potassium (%)	Sodium (%)	Lanthanum (ppm)
548299 ¹	7.0	<5	15	22	3.96	0.87	30
548292 ²	3.0	<5	17	159	4.51	0.53	90
548291 ³	5.0	150	87	86	0.32	0.34	320
548293 ⁴	5.0	<5	8	277	1.53	4.30	50
548300 ⁴	5.0	<5	8	637	2.08	2.91	60
547410 ⁴	8.0	5	21	8	1.62	3.42	50
547411 ⁵	8.0	<5	10	9	0.19	5.83	<10
547301 ⁵	8.0	<5	8	1	0.34	4.90	<10
547412 ⁵	10.0	15	23	15	0.24	4.84	<10
547302 ⁵	5.0	<5	3	1	1.87	4.72	20
547413 ⁵	6.0	<5	9	9	0.18	5.80	<10
547303 ⁶	5.0	<5	12	3	3.41	0.63	60
548287 ⁷	5.0	<5	12	78	2.49	0.83	50

- ¹ weakly altered phylitic siltstone (Hanging Wall)
- ² magnetite altered siltstone
- ³ massive specular hematite hanging wall zone
- ⁴ pink heterolithic hematite breccia
- ⁵ hematite, chlorite & silica altered sediments
- ⁶ weakly altered phyllite adjacent to main breccia and alteration zone (Footwall)
- ⁷ unaltered phyllite

Copper and to a lesser extent, cobalt are enriched in the core of the breccia whereas the hematized and silica altered footwall rocks are depleted of copper and lanthanum. The entire alteration system including the breccia are significantly enriched in sodium. Potassium values are highest in unaltered country rocks, slightly enriched in the heterolithic breccia phase and depleted in the altered footwall and hanging wall sediments.

The carbonate altered zones of the south breccia contain the

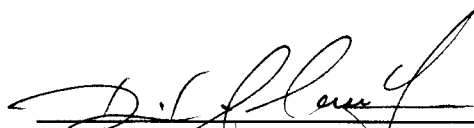
highest copper grades. Splashes of chalcopyrite occur in ankerite or siderite veins or in a siderite-silica cemented breccia unit along the margin of the heterolithic hematite breccia. The extent of the copper mineralization is not known as access was limited by topography and snow conditions so that most of the sampling of this material is from float, talus or from peripheral veining lower down slope. The sampling does indicate that weakly elevated gold and silver values are associated with the copper mineralization and cobalt enrichment does not occur. Sample 547306, taken across 7.0 metres of siderite-silica cemented breccia, contained 180 ppb gold and 1845 ppm copper. A sample of chlorite-rich heterolithic breccia in this area returned low copper values.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The Ursus 1-14 claims were staked to cover known copper occurrences associated with hematite breccia bodies. Two field days were spent examining the breccia potential for hosting Olympic Dam type copper-gold-uranium-silver deposits. The property is underlain mainly by Fairchild Lake Group fine clastics which have been intruded in two areas by hematite breccias. The copper grades of the north breccia are too low and the breccia system is too small to host a bulk tonnage deposit. Snow cover and steep terrain did not allow for a full examination of the south breccia although a number of float samples contained copper values in excess of 0.1%.

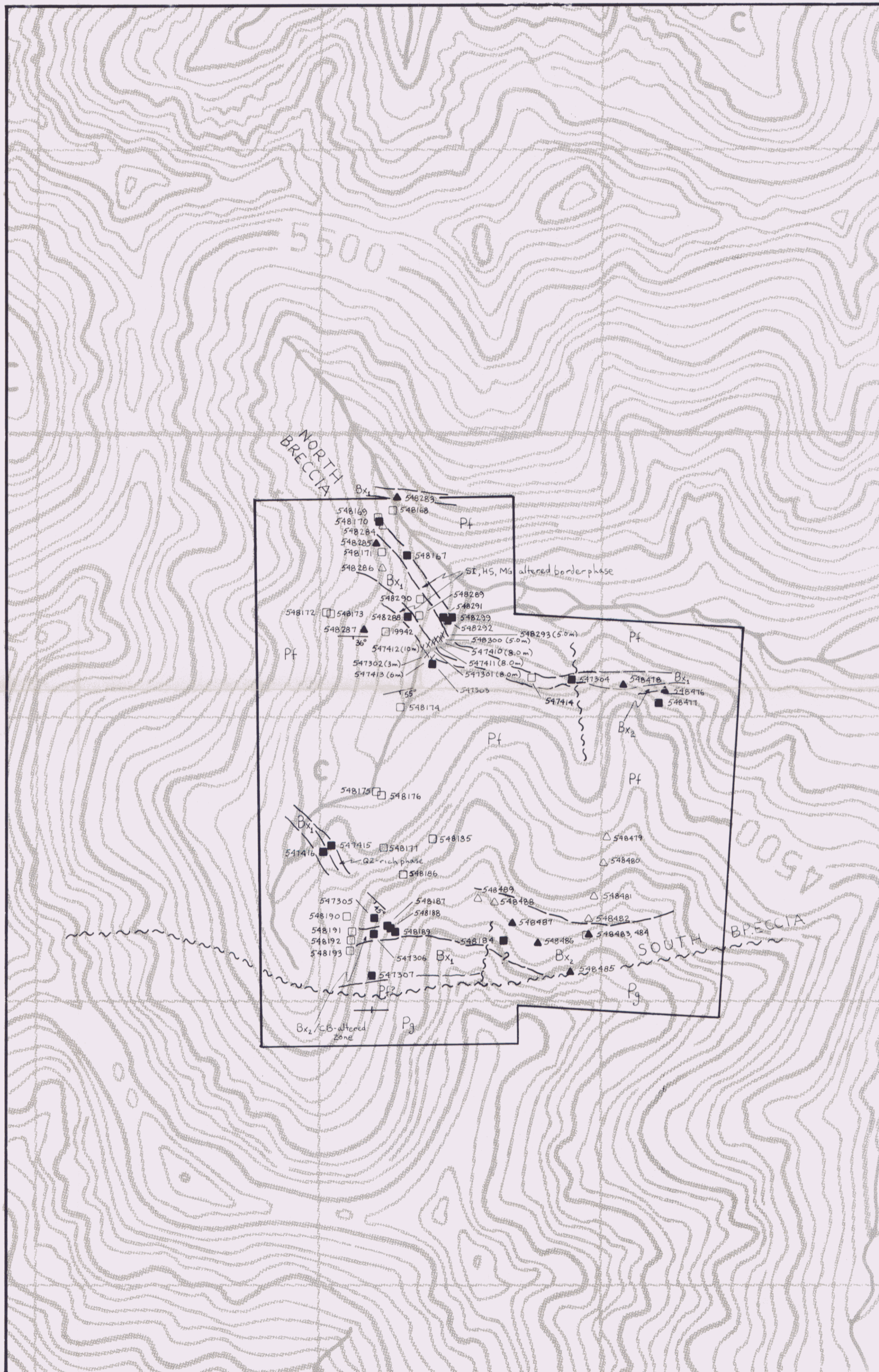
Further work is necessary to determine the extent of the south breccia copper occurrences. Rock exposure is sufficient in this area to determine its potential by detailed mapping and rock sampling. No further work is required on the north breccia where it has been examined to date as the mineralized zone is too small and copper grades are too low to be of interest at present.

Respectfully submitted,


 David A. Caulfield, P. Geol. Eng.
 EQUITY ENGINEERING LTD.



Vancouver, British Columbia
 December, 1992



1992 ROCK GEOCHEMICAL ANALYSES

Sample	Au (ppb)	Ag (ppm)	Co (ppm)	Cu (ppm)	La (ppm)	U (ppm)
19942	15	<0.2	4	391	30	<10
547301	<5	<0.2	8	1	<10	20
547302	<5	<0.2	3	1	20	<10
547303	<5	<0.2	12	3	60	<10
547304	<5	<0.2	11	6	70	<10
547305	<5	<0.2	8	2	30	<10
547306	180	<0.2	12	1845	10	<10
547307	15	<0.2	15	36	40	<10
547410	5	<0.2	21	8	50	<10
547411	<5	<0.2	10	9	<10	30
547412	15	<0.2	23	15	<10	<10
547413	<5	<0.2	9	9	<10	<10
547414	<5	<0.2	10	<1	40	<10
547415	<5	<0.2	8	8	20	<10
547416	10	<0.2	21	193	70	<10
548167	40	<0.2	106	5917	10	<10
548168	25	0.4	157	379	20	10
548169	10	<0.2	71	3664	<10	70
548170	45	<0.2	1029	357	<10	50
548171	5	<0.2	12	121	80	<10
548172	5	<0.2	21	10	10	10
548173	15	<0.2	307	3	<10	30
548174	20	<0.2	28	2429	<10	<10
548175	45	<0.2	26	4823	230	<10
548176	<5	1.8	9	7462	<10	50
548177	<5	<0.2	18	964	110	<10
548184	15	0.8	8	155	40	<10
548185	30	0.6	13	47	<10	40
548186	45	2	8	3.08%	<10	10
548187	40	1.4	11	539%	<10	100
548188	155	4.2	12	4.39%	<10	80
548189	40	0.4	8	3446	<10	50
548190	20	0.6	21	2362	100	<10
548191	190	<0.2	23	3844	30	<10
548192	<5	<0.2	14	2161	170	<10
548193	<5	<0.2	7	38	90	<10
548283	<5	<0.2	48	76	60	<10
548284	<5	<0.2	27	2218	10	<10
548285	<5	<0.2	6	20	40	<10
548286	<5	<0.2	12	12	50	<10
548287	<5	<0.2	12	78	50	<10
548288	<5	<0.2	10	29	10	<10
548289	<5	<0.2	50	691	<10	10
548290	270	<0.2	25	1321	40	<10
548291	150	<0.2	87	86	320	<10
548292	<5	<0.2	17	159	90	<10
548293	<5	<0.2	8	277	50	<10
548299	<5	<0.2	15	22	30	<10
548300	<5	<0.2	8	637	60	<10
548476	<5	<0.2	15	2	20	10
548477	430	10	57	3.07%	10	<10
548478	<5	<0.2	13	212	210	<10
548479	<5	<0.2	8	228	40	<10
548480	<5	<0.2	20	123	<10	30
548481	<5	<0.2	13	274	<10	20
548482	<5	0.6	12	6714	30	<10
548483	<5	<0.2	8	511	<10	20
548484	<5	<0.2	8	60	<10	30
548485	<5	<0.2	7	28	<10	20
548486	<5	<0.2	6	24	<10	20
548487	<5	<0.2	6	28	140	<10
548488	<5	<0.2	11	1013	80	<10
548489	<5	<0.2	23	430	80	<10

LEGEND

LITHOLOGIES

PROTEROZOIC

- Bx Hematite breccia
- Bx1 Heterolithic breccia
- Bx2 Homolithic 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.
- 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.

SYMBOLS

- Geological contact (approximate)
- ~ Fault (assumed)
- Bedding
- Bedding (vertical)
- △, ▲ Lithogeochemical sample (float, outcrop)
- , ■ Grab sample from mineralization (float, outcrop)
- X Chip sample (width in metres)
- Dyke or vein



093118

WESTMIN RESOURCES LIMITED

URSUS 1-14 CLAIMS
ROCK GEOCHEMISTRY
 YUKON TERRITORY

PAMICON DEVELOPMENTS LTD.

EQUITY ENGINEERING LTD.

Drawn:	Mining Dist.: MAYO	FIGURE 4
N.T.S.: 106 D/16	Scale: 1 : 10,000	
Date: DEC., 1992	Revised:	

APPENDIX A

BIBLIOGRAPHY

BIBLIOGRAPHY

- Archer, A. 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.
- 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. (1986): Geological map of northeastern Wernecke Mountains, Yukon Territory; Geological Survey of Canada, Open File 1027.
- Bell, R.T. (1986): 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. 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 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.
- 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, Geological Survey of Canada, Paper 78-1A, p. 53-58.

Goodfellow, W.D. (1979): Geochemistry of copper, lead, and zinc mineralization in Proterozoic rocks near Gillespie Lake, Yukon; in Current Research, Part A, Geological Survey of Canada, Paper 79-1A. p. 333-338.

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

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.

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.

Yukon Assessment Reports: 90291, 90425, 90590, 90818

APPENDIX B

LIST OF PERSONNEL

LIST OF PERSONNEL

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

Harlan Meade (Sr. Geologist)
904, 1055 Dunsmuir Street
Vancouver, B.C. V7X 1C4

Chris Rockingham (Geologist)
904, 1055 Dunsmuir Street
Vancouver, B.C. V7X 1C4

Bruno Kasper (Field Geologist)
207, 675 West Hastings Street
Vancouver, B.C. V6B 1N2

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

K. Parsons (Cook)
c/o TNTA
Carmacks, Yukon

APPENDIX C

STATEMENT OF EXPENDITURES

**STATEMENT OF EXPENDITURES
URSUS 1-14 CLAIMS**

CANADA) In the matter of an evaluation program on the Ursus
) 1-14 Mineral Claims

I, Mike Stammers for Equity Engineering Ltd., 207, 675 West Hastings Street, Vancouver, B.C. do solemnly declare that a program consisting of lithogeochemical sampling, geological mapping, and prospecting was carried out on the Ursus 1-14 Mineral Claims during the period September 1 to 3, 1992.

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

PROFESSIONAL FEES AND WAGES:

David A. Caulfield, Sr. Geol.		
2.75 days @ \$375/day	\$	1,031.25
Harlan Meade, Sr. Geol.		
1 day @ \$300/day		300.00
Chris Rockingham, Geologist		
1 day @ \$300/day		300.00
B. Kasper, Field Geologist		
1.5 days @ \$300/day		450.00
Tom Bell, Sr. Prospector		
2.75 days @ \$250/day		687.50
K. Parsons, Cook		
1 day @ \$250/day		<u>250.00</u>
	\$	3,018.75

EXPENSES:

Travel, Accomodation & Meals	\$	220.40
Airfares		170.50
Camp Food		217.40
Camp Fuel		14.14
Camp Rental		328.62
Radio Rental		45.93
Field Equipment Rental		26.95
Equipment Fuel		7.92
Truck Rental		115.53
Field Equipment & Supplies		228.16
Maps and Reproductions		42.80
Expediting		57.18
Telephone and Communications		39.45
Helicopter & Fuel		1,031.07
Fixed Wing		1,122.00
Freight		46.02
Assays (63 samples @ \$14.95)		941.85
Lawyers Fee (notarizing forms)		3.50
Clerical (UTM's)		126.22
Report		1,782.19
Management Fees		<u>1,281.03</u>
	\$	<u>7,848.86</u>

SUBTOTAL:	\$ 10,867.61
GST:	
7% on subtotal	<u>760.73</u>
TOTAL:	\$ <u>11,628.34</u>

Notes:

1. Wages are based on actual man days spent on the property.
2. Helicopter charges are 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 pro rated according to man 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 before me at Vancouver in)
the Province of British Columbia this)
21st day of JANUARY, 1993)



H.S.D.A.

A Commissioner for Oaths for, or
Notary Public for the Yukon Territory

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

Property : URSUS

NTS : 1060/16

Date : 12/08/92

Sample No.	Location :	7198 050 N	Type :	Float	Alteration :	sCL, KF?	Au	Ag	Co	Cu	La	U
		534 250 E		Strike Length Exp. :		<1%CP, <1%PY, 3-5%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
19942	Elevation:	1300 m		Sample Width :		HE, MC	15.	<0.2	4.	391.	30.	<10.
	Orientation:	-- / --		True Width :		Host						
						Hematite breccia.						

Comments : Ursus 5 claim. Sample taken in creek located approx. 85 m north of Ursus 5 No. 1 post. Alluvial boulders comprised mainly of hematitic breccia. Grab from one piece of random float. Sample labelled as DAC-1.

Sample No.	Location :	7199 250 N	Type :	Chip	Alteration :	mCL, mQZ, sSI, vsHE	Au	Ag	Co	Cu	La	U
		534 380 E		Strike Length Exp. :		trPY, 1-2%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547301	Elevation:	1235 m		Sample Width :		None	<5	<0.2	8.	1.	0.	<10
	Orientation:	140 / 50 SW		True Width :		Host						
						Hematized sediments						

Comments : Border phase of breccia body. Relict bedding still apparent as there appears to be no rotation of fragments. Taken south of H. Meade samples 10, 11.

Sample No.	Location :	7199 220 N	Type :	Chip	Alteration :	mCL, vsSI, sHE	Au	Ag	Co	Cu	La	U
		534 380 E		Strike Length Exp. :		None	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547302	Elevation:	1240 m		Sample Width :		None	<5	<0.2	3.	1.	20.	<10
	Orientation:	140 / 49 SW		True Width :		Host						
						Hematized and silicified sediments						

Comments : Sample taken on east side of creek near contact with unaltered sediments.

Sample No.	Location :	7199 180 N	Type :	Grab	Alteration :	m-sCL	Au	Ag	Co	Cu	La	U
		534 400 E		Strike Length Exp. :		None	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547303	Elevation:	1243 m		Sample Width :		None	<5	<0.2	12.	3.	60.	<10
	Orientation:	110 / 75 S		True Width :		Host						
						Crenulated grey to green phyllite						

Comments : Altered sediments adjacent to southern contact of breccia body.

Sample No.	Location :	7199 130 N	Type :	Grab	Alteration :	vsCL, sSI, wHE	Au	Ag	Co	Cu	La	U
		534 890 E		Strike Length Exp. :		<1%PY, 15%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547304	Elevation:	1220 m		Sample Width :		None	<5	<0.2	11.	6.	70.	<10
	Orientation:	100 / 70 N?		True Width :		Host						
						Altered sediments/minor breccia						

Comments : Breccia development is poor at this location.

Sample No.	Location :	7198 290 N	Type :	Grab	Alteration :	wCA, SI?, mHE	Au	Ag	Co	Cu	La	U
		534 200 E		Strike Length Exp. :		None	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547305	Elevation:	1510 m		Sample Width :		None	<5	<0.2	8.	2.	30.	<10
	Orientation:	/		True Width :		Host						
						Dark grey laminated siltstone						

Comments : Weak calcite veining on fractures; no visible sulphides.

Property : URSUS

NTS : 1060/16

Date : 12/08/92

Sample No.	Location :	7198 225 N	Type :	Grab	Alteration :	wCA, sCB, mSI, sHE	Au	Ag	Co	Cu	La	U
		534 190 E	Strike Length Exp. :	>50 m	Sulphides :	3%CP, <1%PY	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547306	Elevation:	1510 m	Sample Width :	7.0 m	Oxides :	sMC	180.	<0.2	12.	1845.	10.	<10
	Orientation:	090 / V ?	True Width :	7.0 m	Host :	Carbonate-hematite breccia						

Comments : Breccia is supported in siderite matrix with some strong splashes of chalcopyrite mineralization.

Sample No.	Location :	7198 090 N	Type :	Grab	Alteration :	mCB, sCL, mSI, wHE	Au	Ag	Co	Cu	La	U
		534 190 E	Strike Length Exp. :	>50 m	Sulphides :	<1-5%MG, <1%PY, HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547307	Elevation:	1530 m	Sample Width :	8.0 m	Oxides :	None	15.	<0.2	15.	36.	40.	<10
	Orientation:	080 / V	True Width :	8.0 m	Host :	Chlorite-rich heterolithic hematite breccia						

Comments : Breccia clasts are fine close to sediment contact; up to 10cm on north side of sample interval.

Sample No.	Location :	7199 270 N	Type :	Chip	Alteration :	CB, CL, SI	Au	Ag	Co	Cu	La	U
		534 400 E	Strike Length Exp. :	m	Sulphides :	trPY, HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547410	Elevation:	1210 m	Sample Width :	8 m	Oxides :	None	5.	<0.2	21.	8.	50.	<10
	Orientation:	135 / V	True Width :	8 m	Host :	Breccia and feldspathized sediments						

Comments : Red feldspathic alteration with fine specular hematite grading SW into fine-grained granular grey green rocks with fine specular hematite (no magnetite). In contact to SW with red hematite feldspar rich rocks with pyrite.

Sample No.	Location :	7199 260 N	Type :	Chip	Alteration :	<1%CL, KF?, 1-2%QZ, SI	Au	Ag	Co	Cu	La	U
		534 395 E	Strike Length Exp. :	m	Sulphides :	trPY	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547411	Elevation:	1210 m	Sample Width :	8 m	Oxides :	None	<5	<0.2	10.	9.	0.	30.
	Orientation:	/	True Width :	8 m	Host :	Pink feldspar-rich rocks, minor chlorite slips						

Comments : 1-2% quartz vein with very fine-grained grey mineralization, no magnetite. Local coarse-grained specular hematite. Local patchy, coarse red feldspar, but generally fine to medium grained, granular. Few mafics.

Sample No.	Location :	7199 245 N	Type :	Grab	Alteration :	3-5%CL, KF?	Au	Ag	Co	Cu	La	U
		534 360 E	Strike Length Exp. :	m	Sulphides :	PY, HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547412	Elevation:	1210 m	Sample Width :	10 m	Oxides :	None	15.	<0.2	23.	15.	0.	<10
	Orientation:	/	True Width :	10 m	Host :	Feldspathized sediments						

Comments : Red feldspathization of sediments with ghost banding of chlorite>specular hematite. Zebra texture banded rocks. Occasional pyrite.

Sample No.	Location :	7199 210 N	Type :	Chip	Alteration :	AD?, CB	Au	Ag	Co	Cu	La	U
		534 390 E	Strike Length Exp. :	m	Sulphides :	trPY, HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
547413	Elevation:	1215 m	Sample Width :	6 m	Oxides :	None	<5	<0.2	9.	9.	0.	<10
	Orientation:	/	True Width :	6 m	Host :	Feldspathized sediments and 1m breccia body						

Comments : South side of creek - red hematite margin on east side also. Grey albite(?) altered rock with disseminated specular hematite flanked by carbonate envelope (manganese staining) on edge - red hematization - sediments to west.

Property : URSUS

NTS : 106D/16

Date : 12/08/92

Sample No. Location : 7199 135 N Type : Float Alteration : CB, CL, SI Au Ag Co Cu La U
 534 750 E Strike Length Exp. : m Sulphides : trPY, 5-8%HS (ppb) (ppm) (ppm) (ppm) (ppm) (ppm)
 547414 Elevation: 1250 m Sample Width : m Oxides : HE <5 <0.2 10. <1 40. <10
 Orientation: / True Width : m Host : Breccia - grey hematite dolomitic fragments & red fragments
 Comments : Fine pebble breccia - locally red hematite, generally grey with grey hematite dolomite fragments to 15cm. No magnetite;
 no malachite.

Sample No. Location : 7198 525 N Type : Grab Alteration : CL, QZ Au Ag Co Cu La U
 534 015 E Strike Length Exp. : m Sulphides : HS (ppb) (ppm) (ppm) (ppm) (ppm) (ppm)
 547415 Elevation: 1360 m Sample Width : 15 m Oxides : HE <5 <0.2 8. 8. 20. <10
 Orientation: / True Width : m Host : Breccia - quartz-chlorite breccia
 Comments : White with massive chlorite clots; 5% coarse-grained specular hematite. No magnetite.

Sample No. Location : 7198 545 N Type : Grab Alteration : CL, QZ Au Ag Co Cu La U
 534 040 E Strike Length Exp. : m Sulphides : 5%HS, trCP, trPY (ppb) (ppm) (ppm) (ppm) (ppm) (ppm)
 547416 Elevation: 1360 m Sample Width : 30 m Oxides : trMC 10. <0.2 21. 193. 70. <10
 Orientation: 140 / V True Width : m Host : Heterolithic breccia
 Comments : Red breccia clasts 10+cm; mainly microbreccia polymictic, occ. disseminated chalcopyrite-pyrite, some carbonate clasts
 brown weather out to recessive brown areas.

Sample No. Location : 7199 570 N Type : Grab Alteration : mCB, sCL Au Ag Co Cu La U
 534 300 E Strike Length Exp. : m Sulphides : trCP, 1%PY (ppb) (ppm) (ppm) (ppm) (ppm) (ppm)
 548167 Elevation: 4500 ft Sample Width : 1 m Oxides : mJA 40. <0.2 106. 5917. 10. <10
 Orientation: / True Width : m Host : Light green sediments
 Comments : Crackle zone, brecciated sediments. Grab from outcrop.

Sample No. Location : 7199 730 N Type : Float Alteration : mCB, sQZ Au Ag Co Cu La U
 534 250 E Strike Length Exp. : m Sulphides : 1-2%CP, 5-10%HS (ppb) (ppm) (ppm) (ppm) (ppm) (ppm)
 548168 Elevation: 4400 ft Sample Width : m Oxides : None 25. 0.4 157. 379. 20. 10.
 Orientation: / True Width : m Host : Bedded sediments
 Comments : Appears to be a 5-10cm wide vein, hosted in sediments.

Sample No. Location : 7199 725 N Type : Float Alteration : CA, sCB Au Ag Co Cu La U
 534 200 E Strike Length Exp. : m Sulphides : 1-2%CP (ppb) (ppm) (ppm) (ppm) (ppm) (ppm)
 548169 Elevation: 4525 ft Sample Width : m Oxides : None 10. <0.2 71. 3664. 0. 70.
 Orientation: / True Width : m Host : Sediments
 Comments : Taken beside D. Caulfield's sample 548284. Traces of chalcopyrite throughout siderite talus.

Property : URSUS

NTS : 1060/16

Date : 12/08/92

Sample No.	Location : 7199 690 N	Type : Grab	Alteration : sCB	Au	Ag	Co	Cu	La	U
	534 205 E	Strike Length Exp. : 1 m	Sulphides : 1%CP,3-5%MG,1%PY,5-10%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548170	Elevation: 4525 ft	Sample Width : 50 cm	Oxides : mHE	45.	<0.2	1029.	357.	0.	50.
	Orientation: 095 / 62 SW	True Width : 10 cm	Host : Bedded sediments						

Comments : Carbonate vein beside sediment/breccia contact in sediments.

Sample No.	Location : 7199 540 N	Type : Float	Alteration : wHE	Au	Ag	Co	Cu	La	U
	534 210 E	Strike Length Exp. : m	Sulphides : trCP, 15-20%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548171	Elevation: 4575 ft	Sample Width : m	Oxides : None	5.	<0.2	12.	121.	80.	<10
	Orientation: /	True Width : m	Host : Breccia						

Comments : Locally derived talus.

Sample No.	Location : 7199 365 N	Type : Float	Alteration : sHE	Au	Ag	Co	Cu	La	U
	534 020 E	Strike Length Exp. : m	Sulphides : None	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548172	Elevation: 4600 ft	Sample Width : m	Oxides : None	5.	<0.2	21.	10.	10.	10.
	Orientation: /	True Width : m	Host : Heterolithic breccia						

Comments : Jasper clasts and fluorite? in breccia.

Sample No.	Location : 7199 365 N	Type : Float	Alteration : sHE	Au	Ag	Co	Cu	La	U
	534 035 E	Strike Length Exp. : m	Sulphides : <1%CP, 2-3%PY, 10%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548173	Elevation: 4600 ft	Sample Width : m	Oxides : None	15.	<0.2	307.	3.	0.	30.
	Orientation: /	True Width : m	Host : Intrusive (gabbro)						

Comments : 2m above 548172, sample from one rock.

Sample No.	Location : 7199 030 N	Type : Float	Alteration : QZ	Au	Ag	Co	Cu	La	U
	534 280 E	Strike Length Exp. : m	Sulphides : <1%CP, 1%PY	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548174	Elevation: 4425 ft	Sample Width : m	Oxides : None	20.	<0.2	28.	2429.	0.	<10
	Orientation: /	True Width : m	Host : Carbonate breccia						

Comments :

Sample No.	Location : 7198 735 N	Type : Float	Alteration : sCB, mHE	Au	Ag	Co	Cu	La	U
	534 200 E	Strike Length Exp. : m	Sulphides : 1-2%CP, 5-10%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548175	Elevation: 4500 ft	Sample Width : m	Oxides : None	45.	<0.2	26.	4823.	230.	<10
	Orientation: /	True Width : m	Host : Carbonate breccia						

Comments : Grab from one rock. More of this material in float.

Property : URSUS

NTS : 1060/16

Date : 12/08/92

Sample No.	Location :	7198 725 N	Type :	Float	Alteration :	CB	Au	Ag	Co	Cu	La	U
		534 220 E	Strike Length Exp. :	m	Sulphides :	1%CP, <1%PY, 5%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548176	Elevation:	4510 ft	Sample Width :	m	Oxides :	wHE	<5	1.8	9.	7462.	0.	50.
	Orientation:	/	True Width :	m	Host :	Carbonate breccia.						

Comments : Grab from several rocks.

Sample No.	Location :	7198 560 N	Type :	Float	Alteration :	HE	Au	Ag	Co	Cu	La	U
		534 250 E	Strike Length Exp. :	m	Sulphides :	<1%CP, <1%PY, 15-25%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548177	Elevation:	4650 ft	Sample Width :	m	Oxides :	mHE	<5	<0.2	18.	964.	110.	<10
	Orientation:	/	True Width :	m	Host :	Carbonate breccia						

Comments :

Sample No.	Location :	7198 215 N	Type :	Grab	Alteration :	sCB, sHE	Au	Ag	Co	Cu	La	U
		534 655 E	Strike Length Exp. :	m	Sulphides :	15%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548184	Elevation:	5400 ft	Sample Width :	1 m	Oxides :	None	15.	0.8	8.	155.	40.	<10
	Orientation:	/	True Width :	m	Host :	Carbonate breccia						

Comments :

Sample No.	Location :	7198 570 N	Type :	Float	Alteration :	sCB, sMS, HE	Au	Ag	Co	Cu	La	U
		534 400 E	Strike Length Exp. :	m	Sulphides :	trCP, <1%PY, 10%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548185	Elevation:	4725 ft	Sample Width :	m	Oxides :	None	30.	0.6	13.	47.	0.	40.
	Orientation:	/	True Width :	m	Host :	Sediments						

Comments : Subcrop.

Sample No.	Location :	7198 450 N	Type :	Float	Alteration :	CB	Au	Ag	Co	Cu	La	U
		534 290 E	Strike Length Exp. :	m	Sulphides :	1%CP	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548186	Elevation:	4825 ft	Sample Width :	m	Oxides :	None	45.	2.0	8.	3.08%	0.	10.
	Orientation:	/	True Width :	m	Host :	Carbonate breccia						

Comments : Sample taken from one rock.

Sample No.	Location :	7198 265 N	Type :	Grab	Alteration :	CA, CB	Au	Ag	Co	Cu	La	U
		534 240 E	Strike Length Exp. :	15 m	Sulphides :	1-2%CP	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548187	Elevation:	5100 ft	Sample Width :	1 m	Oxides :	sMC	40.	1.4	11.	5399.	0.	100.
	Orientation:	235 / 30 SE	True Width :	15-20 cm	Host :	Calcite vein						

Comments :

Property : URSUS

NTS : 106D/16

Date : 12/08/92

Sample No.	Location :	7198 265 N	Type :	Grab	Alteration :	CA, CB	Au	Ag	Co	Cu	La	U
		534 260 E		Strike Length Exp. :	Sulphides :	1-2%CP	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548188	Elevation:	5110 ft	Sample Width :	50 cm	Oxides :	wMC	155.	4.2	12.	4.39%	0.	80.
	Orientation:	290 / 75 NE	True Width :	50 cm	Host :	Carbonate zone						

Comments :

Sample No.	Location :	7198 245 N	Type :	Grab	Alteration :	CA, CB	Au	Ag	Co	Cu	La	U
		534 270 E		Strike Length Exp. :	Sulphides :	1-2%CP, 5%BA	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548189	Elevation:	5120 ft	Sample Width :	50 cm	Oxides :	wMC	40.	0.4	8.	3446.	0.	50.
	Orientation:	230 / 80 NE	True Width :	50 cm	Host :	Carbonate zone						

Comments :

Sample No.	Location :	7198 290 N	Type :	Float	Alteration :	sCB, sHE	Au	Ag	Co	Cu	La	U
		534 090 E		Strike Length Exp. :	Sulphides :	<1%CP, PY, 15-20%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548190	Elevation:	4825 ft	Sample Width :	m	Oxides :	sJA, sMC	20.	0.6	21.	2362.	100.	<10
	Orientation:	/	True Width :	m	Host :	Carbonate altered sediments						

Comments : Talus - probably from extension of 548187 to 548189 mineralization.

Sample No.	Location :	7198 240 N	Type :	Float	Alteration :	sCA, sCB, sHE	Au	Ag	Co	Cu	La	U
		534 115 E		Strike Length Exp. :	Sulphides :	1%CP, 15%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548191	Elevation:	4900 ft	Sample Width :	m	Oxides :	wMC	190.	<0.2	23.	3844.	30.	<10
	Orientation:	/	True Width :	m	Host :	Carbonate breccia						

Comments : Sample taken over 1.0 metre radius.

Sample No.	Location :	7198 210 N	Type :	Float	Alteration :	sCB, sHE	Au	Ag	Co	Cu	La	U
		534 110 E		Strike Length Exp. :	Sulphides :	<1%CP, 15-20%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548192	Elevation:	4900 ft	Sample Width :	m	Oxides :	None	<5	<0.2	14.	2161.	170.	<10
	Orientation:	/	True Width :	m	Host :	Carbonate breccia						

Comments : Sample taken 25 metres south along slope from 548191.

Sample No.	Location :	7198 175 N	Type :	Float	Alteration :	sCB, wHE	Au	Ag	Co	Cu	La	U
		534 110 E		Strike Length Exp. :	Sulphides :	trCP, 5-10%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548193	Elevation:	4900 ft	Sample Width :	m	Oxides :	None	<5	<0.2	7.	38.	90.	<10
	Orientation:	/	True Width :	m	Host :	Carbonate breccia						

Comments : A further 25 metres along slope from 548192, less chalcopyrite and specular hematite than previous sample.

Property : URSUS

NTS : 1060/16

Date : 12/08/92

Sample No.	Location :	7199 360 N	Type :	Float	Alteration :	wCL, KF?, sSI, w-mHE?	Au	Ag	Co	Cu	La	U
		534 350 E	Strike Length Exp. :	m	Sulphides :	1-2%CP, 10-%MG, HS?	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548289	Elevation:	1255 m	Sample Width :	m	Oxides :	None	<5	<0.2	50.	691.	0.	10.
	Orientation:	/	True Width :	m	Host :	Pink heterolithic breccia?						

Comments : Sample of subcrop heave approximately 25m northeast of 548288.

Sample No.	Location :	7199 415 N	Type :	Float	Alteration :	mEP, KF?, sSI, sHE	Au	Ag	Co	Cu	La	U
		534 350 E	Strike Length Exp. :	15 m	Sulphides :	3%CP, 5-10%MG, 10%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548290	Elevation:	1250 m	Sample Width :	5x5 m	Oxides :	None	270.	<0.2	25.	1321.	40.	<10
	Orientation:	/	True Width :	m	Host :	Heterolithic hematite breccia						

Comments : Sample of subcrop heave approximately 35-40m north of 548289; distinctive pink colour.

Sample No.	Location :	7199 350 N	Type :	Grab	Alteration :	sCB, mCL, wSI	Au	Ag	Co	Cu	La	U
		534 430 E	Strike Length Exp. :	m	Sulphides :	trCP, 3%PY, 70%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548291	Elevation:	1230 m	Sample Width :	5.0 m	Oxides :	HE, JA	150.	<0.2	87.	86.	320.	<10
	Orientation:	165 / 80 NE	True Width :	5.0 m	Host :	Specular hematite zone - altered sediments						

Comments : Hanging wall border phase of heterolithic hematite breccia exposed in creek cut.

Sample No.	Location :	7199 345 N	Type :	Grab	Alteration :	wMS	Au	Ag	Co	Cu	La	U
		534 450 E	Strike Length Exp. :	m	Sulphides :	<1%CP, 1-20%MG, <1%PY	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548292	Elevation:	1220 m	Sample Width :	3.0 m	Oxides :	None	<5	<0.2	17.	159.	90.	<10
	Orientation:	165 / 80 NE	True Width :	3.0 m	Host :	Magnetite zone - altered sediments						

Comments : Sample taken from magnetite altered sediments (green phyllite) lying on the hanging wall specular hematite zone (548291).

Sample No.	Location :	7199 290 N	Type :	Chip	Alteration :	wCA, wCB, sSI, wHE	Au	Ag	Co	Cu	La	U
		534 430 E	Strike Length Exp. :	20 m	Sulphides :	1%CP, 20-30%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548293	Elevation:	1210 m	Sample Width :	5.0 m	Oxides :	None	<5	<0.2	8.	277.	50.	<10
	Orientation:	165 / 80 NE	True Width :	5.0 m	Host :	Heterolithic hematite breccia						

Comments : Sampled from the hanging wall into the breccia a distance of 5.0m. Most of the specular hematite is very fine-grained.

Sample No.	Location :	7199 360 N	Type :	Chip	Alteration :	wCL, MS?	Au	Ag	Co	Cu	La	U
		534 470 E	Strike Length Exp. :	>50 m	Sulphides :	5%MG	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548299	Elevation:	1240 m	Sample Width :	7.0 m	Oxides :	GE	<5	<0.2	15.	22.	30.	<10
	Orientation:	135 / 84 SW	True Width :	7.0 m	Host :	Light green phyllitic siltstone						

Comments : Sample taken from weakly altered sediments in hanging wall of breccia.

Property : URSUS

NTS : 1060/16

Date : 12/08/92

Sample No.	Location : 7199 290 N	Type : Chip	Alteration : mCL, mQZ, sSI, sHE	Au	Ag	Co	Cu	La	U
	534 415 E	Strike Length Exp. : 20 m	Sulphides : 1-2%CP, trPY, 30%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548300	Elevation: 1230 m	Sample Width : 5.0 m	Oxides : trJA, trMC	<5	<0.2	8.	637.	60.	<10
	Orientation: 160 / 75 NW	True Width : 5.0 m	Host : Pink heterolithic breccia						

Comments : This sample was taken adjacent to 548293 to the south. Chalcopyrite occurs in quartz veinlets and is disseminated in the breccia matrix.

Sample No.	Location : 7199 090 N	Type : Grab	Alteration : wCA, CB, sCL	Au	Ag	Co	Cu	La	U
	535 210 E	Strike Length Exp. : >20 m	Sulphides : 2%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548476	Elevation: 1290 m	Sample Width : 3x3 m	Oxides : None	<5	<0.2	15.	2.	20.	10.
	Orientation: /	True Width : m	Host : Homolithic breccia						

Comments : Silica poor, chlorite rich matrix.

Sample No.	Location : 7199 050 N	Type : Select/grab	Alteration : sCL, mQZ	Au	Ag	Co	Cu	La	U
	535 200 E	Strike Length Exp. : 2-3 m	Sulphides : 10%CP, 5%PY	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548477	Elevation: 1320 m	Sample Width : 15 cm	Oxides : GE	430.	10.0	57.	3.07%	10.	<10
	Orientation: 060 / 23 W	True Width : 15 cm	Host : Fairchild shale						

Comments : Chalcopyrite as stringers and irregular veins. Nice looking, but not what we want.

Sample No.	Location : 7199 105 N	Type : Grab	Alteration : wCA, wCB, wCL, m-sSI	Au	Ag	Co	Cu	La	U
	535 070 E	Strike Length Exp. : 20 m	Sulphides : trPY, 5-10%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548478	Elevation: 1310 m	Sample Width : 3x3 m	Oxides : HE	<5	<0.2	13.	212.	210.	<10
	Orientation: /	True Width : m	Host : Breccia						

Comments : Near contact with sediments or may include raft of sediments. Hematite rich, silica rich matrix. On claim line.

Sample No.	Location : 7198 580 N	Type : Float	Alteration : CA, mCB, mCL, sSI	Au	Ag	Co	Cu	La	U
	535 015 E	Strike Length Exp. : >100 m	Sulphides : trCP	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548479	Elevation: 1440 m	Sample Width : 2x2 m	Oxides : HE	<5	<0.2	8.	228.	40.	<10
	Orientation: /	True Width : m	Host : Breccia						

Comments : Talus coming from breccia at Quartet Gillespie contact.

Sample No.	Location : 7198 485 N	Type : Float	Alteration : sCB, mCL, sSI	Au	Ag	Co	Cu	La	U
	535 000 E	Strike Length Exp. : m	Sulphides : 1-2%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548480	Elevation: 1480 m	Sample Width : 2x2 m	Oxides : None	<5	<0.2	20.	123.	0.	30.
	Orientation: /	True Width : m	Host : Breccia						

Comments : Talus appears to be contact type material; layered sections.

Property : URSUS

NTS : 106D/16

Date : 12/08/92

Sample No.	Location :	7198 370 N	Type :	Float	Alteration :	CA, sCB, mCL, mSI	Au	Ag	Co	Cu	La	U
		534 970 E	Strike Length Exp. :	m	Sulphides :	None	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548481	Elevation:	1530 m	Sample Width :	2x2 m	Oxides :	None	<5	<0.2	13.	274.	0.	20.
	Orientation:	160 / 60 W	True Width :	m	Host :	Breccia						

Comments : Talus - mixture of breccia and metasediments.

Sample No.	Location :	7198 290 N	Type :	Float	Alteration :	sCA, wCL, mSI	Au	Ag	Co	Cu	La	U
		534 960 E	Strike Length Exp. :	m	Sulphides :	1/2%CP, trPY, 1%HS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548482	Elevation:	1580 m	Sample Width :	m	Oxides :	GE, MC	<5	0.6	12.	6714.	30.	<10
	Orientation:	/	True Width :	m	Host :	Breccia						

Comments : Talus on metasediment outcrops. Abundant malachite in float.

Sample No.	Location :	7198 225 N	Type :	Float	Alteration :	wCB, mCL, mSI	Au	Ag	Co	Cu	La	U
		534 940 E	Strike Length Exp. :	m	Sulphides :	trCP	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548483	Elevation:	1610 m	Sample Width :	m	Oxides :	sMC	<5	<0.2	8.	511.	0.	20.
	Orientation:	/	True Width :	m	Host :							

Comments : Abundant malachite boulders and cobbles in talus chute. Not enough chalcocopyrite for malachite. 70m from 548482.

Sample No.	Location :	7198 225 N	Type :	Grab	Alteration :	CA, mCB, mCL, wSI	Au	Ag	Co	Cu	La	U
		534 940 E	Strike Length Exp. :	100 m	Sulphides :	CP, trPY, trHS	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548484	Elevation:	1610 m	Sample Width :	2x2 m	Oxides :	None	<5	<0.2	8.	60.	0.	30.
	Orientation:	/	True Width :	m	Host :	Breccia						

Comments : Vein-hosted chalcocopyrite, up to 20% in metasediments - not included in sample - vein density not that high. 70m from 548482.

Sample No.	Location :	7198 090 N	Type :	Grab	Alteration :	CB, mCL, mSI	Au	Ag	Co	Cu	La	U
		534 885 E	Strike Length Exp. :	10x10 m	Sulphides :	None	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548485	Elevation:	1700 m	Sample Width :	2x2 m	Oxides :	None	<5	<0.2	7.	28.	0.	20.
	Orientation:	/	True Width :	m	Host :	Breccia						

Comments : Breccia not well developed; intensely weathered.

Sample No.	Location :	7198 200 N	Type :	Grab	Alteration :	mCA, mCL	Au	Ag	Co	Cu	La	U
		534 770 E	Strike Length Exp. :	10x10 m	Sulphides :	None	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548486	Elevation:	1635 m	Sample Width :	2x2 m	Oxides :	None	<5	<0.2	6.	24.	0.	20.
	Orientation:	/	True Width :	m	Host :	Breccia (?) - not well developed						

Comments : Calcite veins with chalcocopyrite/malachite - not sampled. Just below dolomite contact. 115m from 548485.

Property : URSUS

NTS : 106D/16

Date : 12/08/92

Sample No.	Location :	7198 275 N	Type :	Grab	Alteration :	mCB, mCL, wSI, trHE	Au	Ag	Co	Cu	La	U
		534 695 E	Strike Length Exp. :	20 m	Sulphides :	None	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548487	Elevation:	1610 m	Sample Width :	2x2 m	Oxides :	None	<5	<0.2	6.	28.	140.	<10
	Orientation:	/	True Width :	m	Host :	Breccia - not well developed						

Comments : Same as 548486 - 175m from that sample. Weak alteration and brecciation.

Sample No.	Location :	7198 345 N	Type :	Float	Alteration :	None	Au	Ag	Co	Cu	La	U
		534 615 E	Strike Length Exp. :	100 m	Sulphides :	None	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548488	Elevation:	1610 m	Sample Width :	2x2 m	Oxides :	None	<5	<0.2	11.	1013.	80.	<10
	Orientation:	/	True Width :	m	Host :	Breccia						

Comments :

Sample No.	Location :	7198 360 N	Type :	Float	Alteration :	wCA, sCL, mSI, HE	Au	Ag	Co	Cu	La	U
		534 560 E	Strike Length Exp. :	m	Sulphides :	1/2%CP	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
548489	Elevation:	1630 m	Sample Width :	m	Oxides :	None	<5	<0.2	23.	430.	80.	<10
	Orientation:	/	True Width :	m	Host :	Breccia						

Comments : Saddle on ridge. Shale on both sides, possibly approximately 50m thick.

APPENDIX E

CERTIFICATES OF ANALYSIS



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 %



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



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: FAIRCHILD
Comments: ATTN: MIKE STAMMERS

Page Number :1-A
Total Pages :1
Certificate Date: 11-NOV-92
Invoice No. :19224082
P.O. Number :
Account :BM

CORRECTED COPY

CERTIFICATE OF ANALYSIS A9224082

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)
URSUS 19942	205 274	15	< 0.2	6.40	630	< 0.5	< 2	1.95	< 0.5	4	92	391	5.64	3.00	0.93

CERTIFICATION:



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: FAIRCHILD
Comments: ATTN: MIKE STAMMERS

Page Number :1-B
Total Pages :1
Certificate Date: 11-NOV-92
Invoice No. :19224082
P.O. Number :
Account :BM

CERTIFICATE OF ANALYSIS

A9224082

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	U ppm ICP	
URSUS 19942	205 274	2750	< 1	2.63	6	700	< 2	14	0.18	81	< 10	18	30	< 10	

CERTIFICATION:

Jhai D Ma



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: FAIRCHILD LAKE **URSUS**
 Comments: CC: MURRAY JONES CC: DAVID CAULFIELD

Page Number: 1
 Total: 4
 Certificate Date: 29-SEP-92
 Invoice No.:
 P.O. Number:
 Account: BM

	Au ppb	Ag ppm	Al %	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %
547301	<5	<0.2	7.12	170	1.0	<2	3.84	<0.5	8	77	1	2.25	0.34	1.17
547302	<5	<0.2	9.06	360	2.5	<2	0.66	<0.5	3	80	1	1.29	1.87	0.44
547303	<5	<0.2	10.22	980	1.5	<2	0.19	<0.5	12	80	3	4.15	3.41	0.80
547304	<5	<0.2	7.27	350	<0.5	<2	2.65	<0.5	11	90	6	7.80	0.57	1.21
547305	<5	<0.2	7.10	650	<0.5	<2	2.65	<0.5	8	81	2	4.21	4.11	1.93
547306	180	<0.2	5.47	610	<0.5	<2	5.54	<0.5	12	80	1845	5.58	3.48	2.86
547307	15	<0.2	5.78	320	<0.5	2	5.07	<0.5	15	80	38	8.52	2.47	3.84
547410	5	<0.2	7.01	620	<0.5	4	2.27	0.5	21	78	8	6.59	1.62	1.38
547411	<5	<0.2	7.69	290	<0.5	4	3.87	<0.5	10	53	9	2.08	0.19	1.65
547412	15	<0.2	6.90	830	<0.5	4	4.71	<0.5	23	63	15	2.79	0.24	1.53
547413	<5	<0.2	7.92	320	<0.5	6	3.96	<0.5	9	52	9	3.76	0.18	1.80
547414	<5	<0.2	6.29	890	<0.5	6	3.25	0.5	10	74	<1	5.62	0.83	1.42
547415	<5	<0.2	4.28	280	8.0	<2	0.92	0.5	8	185	8	6.35	1.58	0.99
547416	10	<0.2	7.48	500	<0.5	<2	2.08	0.5	21	88	193	6.28	4.51	1.71
548167	40	<0.2	1.28	180	<0.5	<2	0.32	<0.5	108	247	5917	12.05	0.47	0.14
548168	25	0.4	7.05	660	0.5	8	3.68	<0.5	157	77	379	3.72	3.01	1.83
548169	10	<0.2	2.21	590	<0.5	4	13.58	0.5	71	56	3664	5.75	0.76	6.49
548170	45	<0.2	2.87	70	<0.5	<2	8.13	<0.5	1029	78	357	15.13	0.72	3.92
548171	5	<0.2	6.74	580	<0.5	<2	1.80	0.5	12	113	121	6.91	2.29	1.42
548172	5	<0.2	7.04	1320	<0.5	<2	3.17	<0.5	21	58	10	4.89	6.40	1.34
548173	15	<0.2	5.71	90	<0.5	8	5.20	<0.5	307	99	3	11.58	0.18	2.78
548174	20	<0.2	0.32	50	<0.5	12	0.12	<0.5	28	497	2429	1.36	0.12	0.09
548175	45	<0.2	8.29	550	<0.5	6	2.21	0.5	26	77	4823	4.57	3.59	1.85
548176	<5	1.8	2.03	540	<0.5	<2	14.32	<0.5	9	35	7462	5.56	1.06	7.65
548177	<5	<0.2	6.50	490	<0.5	<2	1.27	<0.5	18	97	964	9.02	4.31	2.45
548184	15	0.8	6.22	490	<0.5	<2	4.03	<0.5	8	82	155	7.48	2.69	2.13
548185	30	0.6	6.02	120	0.5	2	6.79	<0.5	13	82	47	5.39	1.83	2.34
548186	45	2.0	1.98	130	<0.5	<2	11.37	<0.5	8	54	>10000	7.82	1.15	6.25
548187	40	1.4	0.16	90	<0.5	<2	17.73	<0.5	11	1	5399	5.17		8.54
548188	155	4.2	0.39	100	<0.5	<2	14.59	<0.5	12	7	>10000	8.26		6.73
548189	40	0.4	0.68	400	<0.5	4	10.22	<0.5	8	4	3446	3.48	0.52	4.91
548190	20	0.6	7.16	1700	<0.5	<2	1.36	<0.5	21	87	2362	6.33	4.81	0.80
548191	190	<0.2	4.51	2030	<0.5	6	7.13	<0.5	23	77	3844	5.61	4.17	3.58
548192	<5	<0.2	5.02	1500	<0.5	2	6.19	<0.5	14	82	2161	6.78	5.04	3.48
548193	<5	<0.2	4.96	510	<0.5	<2	3.98	<0.5	7	79	38	8.56	3.54	2.92

CERTIFICATION: *B. Caulfield*



Chemex Labs Ltd.

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

PROJECT DEVELOPMENTS LIMITED

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

Invoice Number: 4
 Total Pages: 4
 Certificate Date: 29-SEP-92
 Invoice No.:
 P.O. Number:
 Account: BM

Project: FAIRCHILD LAKE **URSUS**
 Comments: CC: MURRAY JONES CC: DAVID CAULFIELD

	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sr ppm	Tl %	V ppm	W ppm	Zn ppm	La ppm	U ppm
547301	3215	2	4.90	9	970	4	48	0.08	31	<10	8	<10	20
547302	390	1	4.72	13	490	2	39	0.13	55	<10	4	20	<10
547303	400	2	0.63	30	460	10	84	0.17	59	<10	20	60	<10
547304	4195	4	4.27	20	750	<2	30	0.22	55	<10	18	70	<10
547305	1405	1	1.40	27	690	<2	25	0.29	62	<10	32	30	<10
547306	4525	3	1.62	9	580	<2	23	0.14	44	<10	18	10	<10
547307	2755	9	0.80	24	940	<2	29	0.15	78	<10	30	40	<10
547410	2790	2	3.42	33	740	<2	24	0.20	53	20	20	50	<10
547411	3315	<1	5.83	15	730	<2	56	0.10	21	10	8	<10	30
547412	3520	18	4.84	13	1520	<2	58	0.03	32	10	12	<10	<10
547413	4010	<1	5.80	8	670	<2	54	0.09	37	10	8	<10	<10
547414	4635	2	3.78	11	780	<2	29	0.13	38	20	14	40	<10
547415	1055	<1	0.15	65	3230	<2	23	0.23	54	10	28	20	<10
547418	2240	1	1.95	34	1090	<2	20	0.21	87	20	32	70	<10
548167	345	<1	0.06	57	870	<2	14	0.03	14	30	42	10	<10
548168	4270	18	0.27	63	370	36	31	0.23	62	10	14	20	10
548169	>10000	<1	0.08	72	220	<2	48	0.04	40	40	36	<10	70
548170	>10000	<1	0.11	93	280	<2	75	0.02	27	70	44	<10	50
548171	2475	<1	2.85	15	800	<2	15	0.18	77	20	36	80	<10
548172	4060	<1	1.04	9	690	<2	22	0.14	50	20	16	10	10
548173	5705	<1	3.37	105	680	<2	35	0.04	71	70	36	<10	30
548174	290	<1	0.06	7	40	10	12	<0.01	4	<10	20	<10	<10
548175	1680	<1	1.65	20	370	<2	26	0.15	75	40	32	230	<10
548176	8785	2	0.24	12	140	10	38	0.07	33	40	38	<10	50
548177	1205	10	0.11	53	740	<2	10	0.21	66	<10	60	110	<10
548184	4715	11	1.34	29	1000	<2	21	0.11	59	<10	38	40	<10
548185	2690	2	1.30	39	700	<2	30	0.19	68	<10	60	<10	40
548186	7285	6	0.08	7	90	<2	24	0.06	41	260	90	<10	10
548187	>10000	2	0.06	5	<10	4	43	<0.01	15	40	32	<10	100
548188	>10000	4	0.09	10	<10	8	29	<0.01	12	400	112	<10	80
548189	8050	2	0.06	2	60	<2	1840	0.01	13	20	20	<10	50
548190	2090	7	1.71	17	870	2	34	0.19	66	<10	20	100	<10
548191	5700	4	0.76	10	450	<2	47	0.14	36	20	22	30	<10
548192	4645	14	0.49	14	620	<2	37	0.21	65	<10	24	170	<10
548193	2115	10	0.27	17	1180	<2	19	0.14	99	<10	24	90	<10

CERTIFICATION: *David Caulfield*



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: FAIRCHILD LAKE **URSUS**
 Comments: CC: MURRAY JONES CC: DAVID CAULFIELD

Page number : 2
 Total : 1
 Certificate Date: 29-SEP-92
 Invoice No. :
 P.O. Number :
 Account : BM

	Au ppb	Ag ppm	Al %	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %
548283	<5	<0.2	7.32	750	<0.5	<2	3.04	<0.5	48	93	76	5.64	3.32	1.96
548284	<5	<0.2	7.14	980	1.0	<2	3.50	<0.5	27	78	2218	3.04	3.03	1.71
548285	<5	<0.2	7.01	250	<0.5	<2	3.28	<0.5	6	84	20	4.50	2.25	1.90
548286	<5	<0.2	6.99	190	<0.5	<2	1.71	<0.5	12	87	12	5.99	1.05	2.07
548287	<5	<0.2	10.02	930	2.0	<2	0.43	<0.5	12	81	78	3.55	2.49	0.99
548288	<5	<0.2	1.91	170	<0.5	<2	0.20	<0.5	10	96	29	13.73	0.52	0.31
548289	<5	<0.2	7.05	1230	<0.5	<2	2.56	<0.5	50	297	691	8.15	2.22	2.31
548290	270	<0.2	6.90	4770	<0.5	<2	2.27	<0.5	25	76	1321	7.37	0.61	1.05
548291	150	<0.2	2.15	220	<0.5	28	0.99	<0.5	87	96	86	16.23	0.32	0.77
548292	<5	<0.2	9.60	1500	1.0	<2	0.13	<0.5	17	98	159	5.34	4.51	0.45
548293	<5	<0.2	7.66	1370	<0.5	<2	2.52	<0.5	8	82	277	5.87	1.53	1.23
548299	<5	<0.2	8.81	610	0.5	<2	0.13	<0.5	15	94	22	5.92	3.96	0.21
548300	<5	<0.2	6.99	520	<0.5	<2	2.81	<0.5	8	95	637	6.02	2.08	1.45
548476	<5	<0.2	5.87	3040	<0.5	<2	2.41	<0.5	15	65	2	6.38	0.28	1.93
548477	430	10.0	4.74	130	<0.5	<20	0.10	<0.5	57	87	>10000	9.04	0.53	1.52
548478	<5	<0.2	7.20	150	<0.5	8	2.92	<0.5	13	104	212	6.59	0.29	1.42
548479	<5	<0.2	9.48	210	<0.5	<2	0.65	<0.5	8	69	228	3.63	1.30	0.50
548480	<5	<0.2	4.53	680	<0.5	6	8.89	<0.5	20	61	123	2.37	3.39	3.86
548481	<5	<0.2	5.31	980	<0.5	<2	6.44	<0.5	13	76	274	3.12	3.68	3.76
548482	<5	0.6	5.37	440	<0.5	2	6.44	<0.5	12	69	6714	3.79	2.21	3.50
548483	<5	<0.2	4.89	230	<0.5	<2	6.35	<0.5	8	36	511	3.18	2.14	3.47
548484	<5	<0.2	5.99	390	<0.5	4	5.58	<0.5	8	95	60	3.73	3.18	3.09
548485	<5	<0.2	5.28	400	<0.5	6	6.26	<0.5	7	36	28	2.95	2.51	3.03
548486	<5	<0.2	7.17	950	<0.5	6	7.04	<0.5	6	92	24	3.94	3.92	0.91
548487	<5	<0.2	6.41	400	<0.5	<2	5.60	<0.5	6	100	28	3.07	3.03	1.64
548488	<5	<0.2	5.60	550	<0.5	<2	4.95	<0.5	11	133	1013	3.31	3.72	2.75
548489	<5	<0.2	6.85	690	<0.5	<2	2.38	<0.5	23	115	430	5.37	3.73	2.34

CERTIFICATION: *B. Caulfield*



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: FAIRCHILD LAKE **URSUS**
 Comments: CC: MURRAY JONES CC: DAVID CAULFIELD

Page Number : 4
 Total : 4
 Certificate Date: 29-SEP-92
 Invoice No. :
 P.O. Number :
 Account : BM

	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sr ppm	Ti %	V ppm	W ppm	Zn ppm	La ppm	U ppm
548283	3530	5	2.20	52	1080	<2	23	0.15	47	<10	52	60	<10
548284	2900	3	0.19	39	380	<2	27	0.21	61	10	18	10	<10
548285	3815	2	2.86	8	670	<2	10	0.16	50	<10	14	40	<10
548286	2375	3	3.24	16	680	<2	13	0.16	56	<10	50	50	<10
548287	350	2	0.83	44	510	20	188	0.09	58	<10	16	50	<10
548288	>10000	8	0.02	21	1090	<2	7	0.03	11	<10	20	10	<10
548289	4225	9	2.06	143	310	<2	45	0.23	251	<10	34	<10	10
548290	3595	41	4.28	23	700	<2	81	0.07	34	<10	24	40	<10
548291	1550	29	0.34	50	1630	<2	15	0.03	32	<10	30	320	<10
548292	110	5	0.53	30	610	<2	20	0.20	71	<10	8	90	<10
548293	3690	3	4.30	13	720	<2	43	0.17	49	<10	16	50	<10
548299	4690	5	0.20	25	420	<2	32	0.24	77	<10	8	30	<10
548300	3795	4	2.91	10	580	<2	24	0.16	47	<10	20	60	<10
548476	3480	2	3.01	19	690	<2	358	0.17	41	20	40	20	10
548477	530	6	0.64	82	<200	10	20	0.12	23	200	132	10	<10
548478	4435	1	5.15	17	740	<2	19	0.20	58	20	18	210	<10
548479	1105	1	5.58	17	1100	<2	46	0.10	53	<10	18	40	<10
548480	3850	8	0.91	15	1170	<2	49	0.13	66	10	20	<10	30
548481	3245	<1	1.03	20	860	<2	46	0.22	69	10	26	<10	20
548482	4515	<1	2.48	12	710	<2	29	0.15	33	60	36	30	<10
548483	5095	<1	1.68	2	710	<2	26	0.10	33	10	14	<10	20
548484	3940	<1	2.20	6	770	<2	22	0.17	54	10	14	<10	30
548485	4370	<1	2.13	3	850	4	32	0.13	37	10	12	<10	20
548486	2180	2	0.88	15	830	4	35	0.27	52	10	30	<10	20
548487	2925	1	1.68	3	690	<2	28	0.15	41	10	18	140	<10
548488	3570	<1	1.78	8	600	<2	25	0.18	33	10	28	80	<10
548489	3180	4	1.57	29	1100	<2	23	0.19	58	20	62	80	<10

CERTIFICATION: *B. Caulfield*



Chemex Labs Ltd.

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

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

Project: FAIRCHILD LAKE
Comments: ATTN: M. JONES CC: D. CAULFIELD

Page iv : 3
Total P. : 3
Certificate Date: 03-OCT-92
Invoice No. : 19222307
P.O. Number :
Account : BM

CERTIFICATE OF ANALYSIS

A9222307

SAMPLE	PREP CODE	Cu %										
548477	244 --	3.07										
548186	244 --	3.08										
548188	244 --	4.39										

CERTIFICATION: *W. McManis*

APPENDIX F

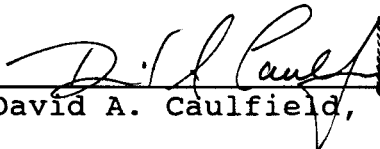
GEOLOGIST'S CERTIFICATE

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 on fieldwork carried out under my direction in September 1992, government publications and assessment reports filed with the Yukon. I have examined the property in the field.

DATED at Vancouver, British Columbia, this 14th day of December, 1992.


David A. Caulfield, P. Geo.

