ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED
CONSULTING GEOLOGICAL ENGINEERS

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GEOCHEMICAL AND GEOLOGICAL REPORT

on the

PIGLET 1-32 CLAIMS

WATSON LAKE MINING DISTRICT

NTS 95D/12

Latitude: 60°31'

Longitude: 127°52'

by

R.C. Carne, B.Sc., M.Sc.

Submitted May, 1985

BOX 4127, 3125 THIRD AVENUE, WHITEHORSE, Y.T. Y1A 3S9

(403) 667-4415

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 $ 12,800.00.

Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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SUMMARY AND RECOMMENDATIONS

The association of widespread arsenic soil geochemical anomalies over Late Proterozoic or Early Paleozoic clastic sedimentary rocks near areas of suspected high level intrusive activity prompted Archer, Cathro & Associates (1981) Limited to stake and explore the Piglet 1-32 claims for micron-sized, disseminated gold. The Piglet claims were recorded on March 13, 1984. They are located on the south shore of Quartz (Hulse) Lake, about 65 km northeast of Watson Lake, Y.T. Access is by float-equipped, fixed-wing aircraft to a camp site near the northwest corner of the property.

The area of the Piglet property was first explored as the SN claims by Laird River Mining Co. Ltd. (Noranda, New Jersey Zinc and Asarco) in 1954 in conjunction with work on the adjacent McMillan deposit. The property was restaked as the Porker claims and explored in 1973-75 by Hyland Joint Venture (Marietta Resources International Ltd., Mitsubishi Metal Corp. and Messers. L.T. and H. Clay) which carried out additional geology and grid soil geochemical surveys.

The 1984 exploration was carried out between July 14 and July 29, 1984 and was comprised of prospecting, geological mapping and soil geochemical surveys. Two hundred and seventy-three soil and 83 rock samples were collected at 30 m (100 foot) or 15 m (50 foot) intervals along 245 m (800 foot) or 120 m (400 foot) line spacing. These were analyzed for gold by Fire Assay preconcentration with a Neutron Activation Analysis finish. Geology and available arsenic soil geochemical data were compiled from results of previous work.

The area of the claims is underlain by interbedded phyllite, quartzite, grit and minor limestone of the Upper Hadrynian "Grit Unit" and the partially correlative or slightly younger Lower Cambrian "Phyllite Unit". This gently west-dipping succession is cut by steep northerly-trending normal faults. Nearby areas of garnet-staurolite schist are thought to represent thermal domes over unroofed Tertiary intrusive bodies.

The McMillan deposit, located 5 km west of the Piglet claims, is the only major nearby occurrence. Here two pyritic massive sulphide bodies have been outlined by extensive surface exploration and diamond drilling. These together total about one million tonnes grading 10% Zn, 5% Pb and 56 g/t Ag. The mineralization occurs as replacements of limestone beds and/or calcareous matrix of clastic sedimentary rocks of the "Phyllite Unit" by the activity of hydrothermal fluids ascending along northerly-trending normal fault zones. Lead isotope studies suggest a Tertiary age of mineralization.

The 1973-75 work on the Piglet claims has outlined four areas of anomalous arsenic soil geochemical response known as Zones A, B, C and D. Zone A is the area of most widespread arsenic soil anomalies and was the focus of 1984 exploration. Zone B is an elongate moderate-strength, arsenic anomaly while Zones C and D are fairly restricted areas of hydrothermal alteration and base metal-sulfosalt vein mineralization.

Zone A consists of a 5 km2, north-trending moderate to strong arsenic soil geochemical anomaly bounded by prominent airphoto linears that are thought to represent normal faults. Within this area, widespread pervasive silicification of varying intensity has affected Lower Cambrian quartzites adjacent to NNE-trending normal fault zones mineralized with manganiferous siderite bodies. Fine-grained, disseminated arsenopyrite is associated with

elevated gold values up to 18,300 ppb in silicified quartzite and in manganiferous siderite masses. Wide-spaced soil sampling carried out in 1984 returned anomalous values of gold (up to 1937 ppb) that coincide with strongest arsenic anomalies.

Results of preliminary exploration for gold on the Piglet property and published descriptions of sediment-hosted micron gold deposits of the western United States compare favourably. Unlike the U.S. examples, however, the Piglet Target is poorly exposed and relatively heavily vegetated. These deposits are most commonly explored by detailed rock chip geochemistry guided by soil geochemistry as a preliminary phase. Continued exploration on the Piglet property will require hand trenching as an intermediate phase. A proposed budget for further exploration is given below:

Phase I - soil geochemcial survey (1 geologist, 4 assistants)

Analysis of 200 soil samples stored in Whitehorse for Au,As @ $10.50 ea	$ 2,100	
Analysis of 2000 soil samples for Au, As @ $10.50 ea	21,000	
Camp Support @ $100/manday x 60 mandays	6,000	
Transportation	1,500	
Labour @ $300/day x 12 days + $150/day x 48 days	10,000	
Management, Office Support	8,000	
		$80,000

Phase II - hand trenching follow-up (1 geologist, 2 assistants)

Analysis of 50 rock samples for Au @ $8.00	4,000	
Camp Support @ $100/manday x 18 mandays	1,800	
Transportation	900	
Labour @ $300/day x 6 days + $150/day x 12 days	3,600	
Explosives	2,000	
Management, Office Support	3,700	
		15,000
		95,000
Report Preparation		5,000
		$100,000

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

R.C. Carne

/mc

INTRODUCTION

The Piglet 1-32 claims (Figure 1) were staked in the spring of 1984 by Archer, Cathro & Associates (1981) Limited to cover a structurally complex area that has strong arsenic soil geochemical response associated with numerous linear sideritized fracture and/or breccia zones. The 1984 exploration took place between July 14 and July 29 and consisted of prospecting, geological mapping and soil geochemical surveys along previously located cut lines on the property. Personnel consisted of geologist R. Carne and assistant B. Wengzynowski. Two hundred and seventy-three soil and 83 rock samples were collected at 30 m (100 foot) or 15 m (50 foot) intervals along 245 m (800 foot) or 120 m (400 foot) line spacing. Soil samples were pulverized to approximately 100 mesh and analyzed by Fire Assay followed by Neutron Activation for gold. Rock samples were crushed and pulverized to approximately -100 mesh and analyzed by the same method. All analyses were performed by Chemex Labs Ltd., North Vancouver, B.C. Sample and claim locations are shown on Figures 2 and 3.

Topographic control for the 1984 survey was established with the aid of a 1:5000 scale contour map prepared for earlier work in 1974.

LOCATION, ACCESS AND PHYSIOGRAPHY

The Piglet 1-32 claims are located at latitude 60°31' and longitude 127°52' on NTS map sheet 95D/12. The claim group lies along the southeast edge of Quartz (Hulse) Lake and is located about 65 km northeast of the town of Watson Lake, Y.T. Access in 1984 was by float-equipped, fixed-wing aircraft to a camp site on a sandy creek delta located on the south shore of the lake, just northeast of the claim block.

The area underlain by the Piglet claims is moderately rugged with elevations ranging between lake level at 3030 feet (920 m) and 4330 feet) 1320 m). The area lies beneath treeline which locally occurs at about 4800 feet (1465 m). Vegetation ranges from mossy black spruce forest cover on wet northerly-facing slopes and thick tangles of alder and willow on wet slopes with a southerly aspect to open mixed pine and white spruce stands on dry hilltops and southwest facing slopes.

The area has been subjected to heavy Pleistocene glaciation with local ice direction apparently from the north or northwest as determined from scour marks and distribution of glacial deposits. Clay and boulder till cover is erratic and relatively restricted in extent. Most north-facing slopes are bare while south and east-facing hillsides are mantled with an unknown thickness of glacial till. A prominent terrace of glaciofluvial material lies along the northwest corner of the property at about 3500 feet (1070 m) elevation. This is part of a much larger continuous deposit of similar material that rims both sides of the Quartz Lake and adjoining valleys.

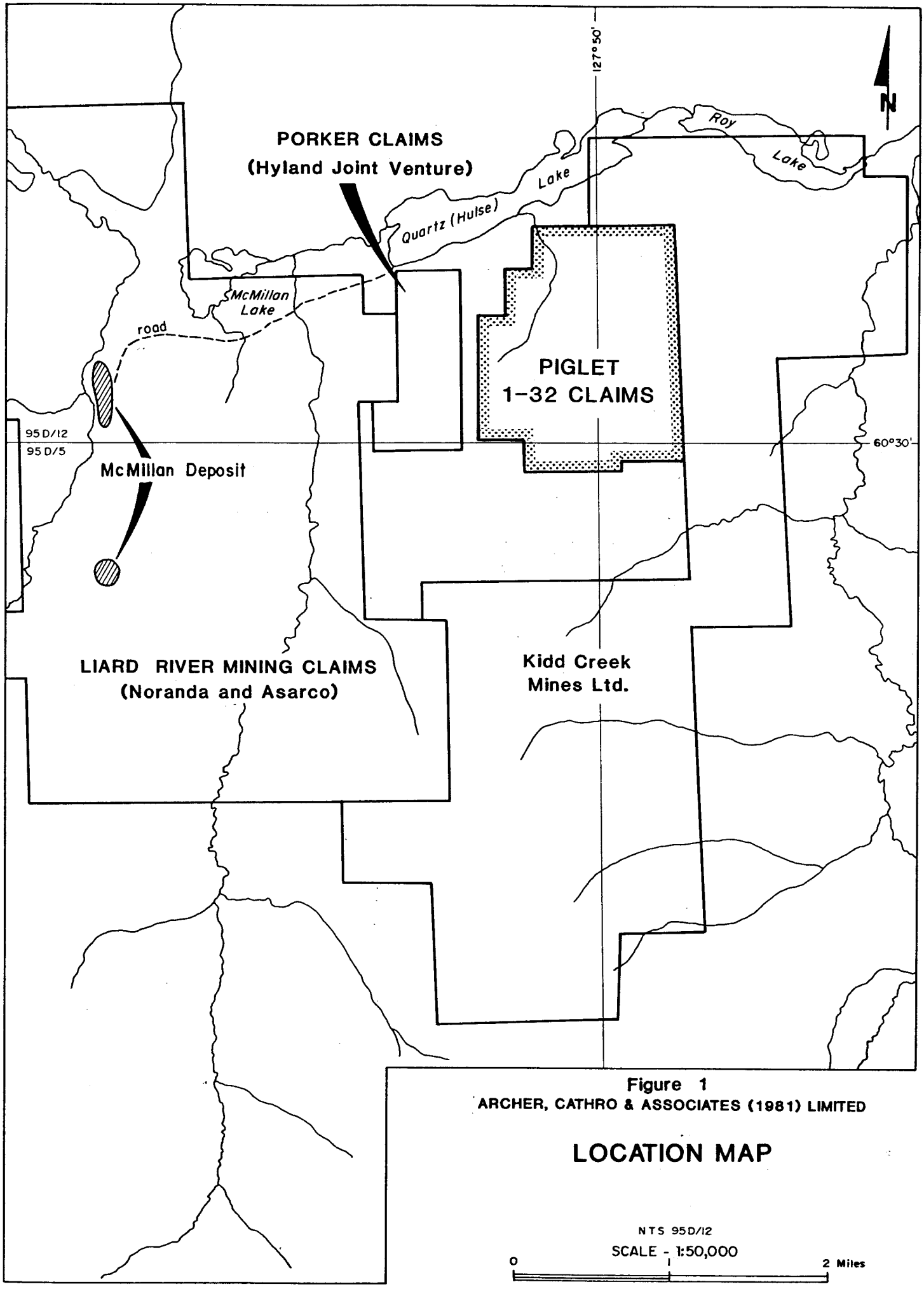

Figure 1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

LOCATION MAP

NTS 95D/12

SCALE - 1:50,000

0 2 Miles

HISTORY AND PREVIOUS WORK

The Quartz Lake area of southeastern Yukon has been prospected for placer gold and base metal deposits since the late 1800's when the McMillan showing was discovered. The McMillan property, presently held by Noranda, has received more or less continuous exploration including extensive drilling, since the late 1940's.

The area of the Piglet 1-32 claims was first staked as the SN property in August, 1954 by Liard River Mining Company Ltd. (a joint venture between Noranda, New Jersey Zinc and Asarco) which carried out mapping, hand trenching, soil sampling and an EM survey that year and drilled four holes about 1.5 km west in 1955 as part of exploration programs over a much larger area that included the adjacent McMillan deposit.

The property was restaked as the Porker 1-56 claims in July, 1973 by Hyland Joint Venture (Marietta Resources International Limited, Mitsubishi Metal Corporation and Messrs. Landon T. Clay and Harris Clay) which carried out detailed mapping, prospecting and grid soil sampling the same year. In 1974 Hyland JV conducted a gravity survey over the north part of the Porker claims and drilled four holes totalling 303 m in an area just off the northeast corner of the present Piglet property in 1975.

Kidd Creek Mines Limited fringe staked the Cuz and Quiver claims to the northeast, east and south of the Porker block in winter 1981 and spring 1982 and carried out geological and geochemical surveys in 1982.

Most of the Porker claim group expired in spring 1983 and the area was restaked as the Piglet 1-32 claims by Archer, Cathro & Associates (1981) Limited, the present operator.

GEOLOGY AND MINERALIZATION

Regional

The Quartz Lake area of southeast Yukon (Coal River and Watson Lake map sheets) has received little regional mapping by the Geological Survey of Canada since 1968 due, in part, to generally poor bedrock exposure in the area. The region is underlain by sedimentary and lesser volcanic rocks of the North American Upper Proterozoic to Middle Paleozoic continental margin. These have been partially overthrust from the west by Mississippian to Triassic rocks of the Yukon-Tanana and Slide Mountain Terranes, composed of Paleozoic sedimentary, volcanic and igneous rocks with island arc and oceanic affinities, respectively. The combined sequence has been intruded by Middle Cretaceous to Tertiary plutons (50-160 Ma) and crosscut by large-scale faults whose displacements range in age from possibly as old as Lower Cambrian (Rock River Fault) to Tertiary (Tintina Fault).

The immediate Quartz Lake area is underlain by interbedded phyllite, quartzite, grit, quartz-feldspar pebble conglomerate and minor limestone of the Hadrynian "Grit Unit" and the partially correlative or slightly younger (Lower Cambrian) "Phyllite Unit". The region has been only weakly regionally metamorphosed. Phyllitic cleavage is well developed in agillaceous units but is only incipiently developed at best in limestone and quartzite units.

This succession has been intruded by a northeast-trending belt of Early Mid-Cretaceous to Tertiary granodiorite, quartz-monzonite and quartz-diorite bodies which crosscut and dome the stratigraphy. The southwest end of the belt terminates northeast of the Quartz Lake area although unroofed continuations probably pass beneath the area. Just northeast of Quartz Lake,

the "Grit Unit" and/or "Phyllite Unit" rocks are locally thermally metamorphosed to garnet-staurolite schist, presumably above an unroofed stock. Hornfels zones and small Pb-Zn and/or W-bearing skarns have been found marginal to some of the intrusions.

The McMillan deposit lies 5 km west of the Piglet claims. It was discovered in the late 1880's and has been explored intermittently to the present. Approximately one million tonnes grading 10% Zn, 5% Pb and 56 g/t Ag are indicated by the results of diamond drilling. The deposit is open-pittable and consists of both stratabound and structurally-controlled massive sulphide mineralization hosted by Hadrynian to Cambrian sedimentary rocks. A case can be made for either a syngenetic origin and therefore a Hadrynian or Cambrian age of mineralization or a later hydrothermal replacement of existing strata, perhaps related to an unroofed Tertiary intrusive body. Lead isotope and fluid inclusion data support the later hypothesis.

Property

Geology of the Piglet 1-32 claims is shown on Figure 4 at 1:5000 scale. Detailed geology of the central claim area is shown at 1:2000 scale on Figure 5. This information was compiled from 1954, 1973, 1974, 1979 and 1984 mapping by Archer, Cathro and others.

The Piglet property is entirely underlain by Upper Proterozoic to Lower Paleozoic clastic sedimentary rocks and limestone. These have undergone only very low grade regional metamorphism but locally intense hydrothermal alteration and shearing have obliterated the original nature of the bedrock lithologies. Because of this, construction of a stratigraphic column is difficult. Correlation with detailed stratigraphic studies carried out in the area by previous workers, including Archer, Cathro, GSC and DIAND geologists, yeilds the stratigraphic column given below in Table I.

TABLE I: TABLE OF FORMATIONS

Cambrian(?) and Hadrynian "Phyllite Unit"

Hls dark gray, platy, fetid limestone]
Hpl dark gray to black phyllite] interlayered sequences
Hqu medium- to coarse-grained gray quartzite]

~~~ fault contact

Hqb partly calcareous, massive- to thick-bedded white quartzite

Hph thin bedded, gray to green, partly calcareous phyllite

Hqc massive to platy, gray to white, sericitic and calcareous quartzite and greywacke with intervals of greenish calcareous phyllite (Hph) and argillaceous limestone (Hla)

Hadrynian "Grit Unit"

Hgr weakly foliated gray-green quartzite, grit and pebble conglomerate with kaolinized feldspar clasts

Older strata exposed are weakly foliated quartzite, grit and quartz-pebble conglomerate with kaolinized feldspar clasts. These correlate well with type descriptions of the Hadrynian "Grit Unit". This succession is overlain with apparent conformity by strata correlative with fine- to medium-grained clastic sedimentary rocks and thin bedded limestone of the Hadrynian to Lower Cambrian "Phyllite Unit". Measured bedding attitudes are relatively shallow and only broad, open folds are apparently present. The overall succession dips gently west with oldest units exposed along the east side of the property.
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The central part of the Piglet claims is bracketed by two major north-trending airphoto linears that are marked by prominent topographic depressions and vegetation anomalies. A series of NNE-trending airphoto linears traverse the east-central part of this area and appear to terminate against the eastern of the two north-trending major linears. Both sets of linears probably represent near-vertical to steeply southeast-dipping normal fault zones. A reconstruction through the central part of the property based on available geological data is given on Figure 5.

Mineralization, hydrothermal alteration and coincident Au-As geochemical anomalies define four distinct areas. These are located on Figure 4 and described below. Accompanying geochemical response is discussed in a following section. Much of the knowledge about the four areas is compiled from previous work on the property. Only one of these areas, Zone A, was explored in 1984.

Zone A - Zone A is a north-trending area of siderite and/or iron-oxide gossans and silicified bedrock that covers a 850 by 2400 m (5 km2) area. Zone A is terminated by a return to background As soil geochemical values at the south end and is open to the north in an area of thick glacial cover.

The gossans are present as float or slumped bedrock occurrences of siderite and/or iron oxides after siderite(?). Individual lenses appear to vary from a metre to 10 m or more in width and can be followed up to 60 m along strike. Where seen, the siderite is pyritic and manganiferous and has a spongy iron and manganese oxide weathering rind. The gossanous deposits vary from massive siderite and/or oxide to breccia-fillings of yellowish limonite with minor siderite. Irregular seams of arsenopyrite are occasionally present. Bedrock geology is too poorly understood at this point to determine whether or not stratigraphic control of gossan distribution is significant

although there is very good evidence to show that they nearly always occur in the hanging wall sections of the NNE-trending linears (assuming a southeast dip of related fault zones).

Large irregular areas of patchy greenish silica alteration of quartzite occur within Zone A (Figure 5). The degree of alteration ranges from weak intergranular silicification to complete replacement by amorphous silica. Pervasive silicification is generally accompanied by up to 5% very finely disseminated arsenopyrite or boxworks after arsenopyrite(?). One sample of silicified quartzite assayed 1.5% As, 18.3 g/t Au (0.53 oz/ton) and 0.5 g/t Ag. A small area of jamesonite float is located near the centre of Zone A (Figure 5) in an area of moderate silicification. A sample of this material assayed 44.5% Pb, 4.8 g/t Au (0.14 oz/ton) and 222.8 g/t Ag (6.5 oz/ton).

Zone B - Zone B is an elongate, north-trending belt defined by anomalous As soil geochemical values. These are discussed in a following section dealing with geochemistry. A piece of sulfosalt float from the north end of the zone assayed 8.9 g/t Au (0.26 oz/ton) and 6.2 g/t Ag (0.18 oz/ton).

Zone C - Zone C is a flat-lying sequence of highly silicified quartzites and phyllite that principally occurs on the remaining Porker claims, an area excluded from current exploration by Archer, Cathro. A sample from a jamesonite-galena veinlet stockwork in calcareous quartzite assayed 2.05% Pb, Tr Au and 91.9 g/t Ag (2.7 oz/ton).

Zone D - Zone D lies along the northwest corner of the Piglet claims. Here two siderite gossans are associated with flat-lying but contorted limestone overlain by calcareous quartzite. Creek float boulders of quartzite cut by quartz veins contain small veins of galena-sphalerite-jamesonite mineralization. Previous surveys did not sample these for assay and the area was not included in the 1984 survey.

GEOCHEMISTRY

Results of earlier geochemical surveys for Au and As are compiled with the 1984 data on Figures 6 to 9. These are shown for the property as a whole at 1:5000 scale and for the central part of the claim group (Zone A) at 1:2000 scale. Sample locations are shown on Figures 2 and 3 at the same scales.

Two hundred and seventy-three soil and seventy-three rock samples were collected in 1984 at 30 m (100 foot) or 15 m (50 foot) intervals along 245 m (800 foot) or 120 m (300 foot) line spacing. Samples sites were marked at 30 m (100 foot) intervals with pickets and orange flagging and 15 m (50 foot) in-between sample sites were marked with orange flagging only. Most of the alternative 15 m (50 foot) samples were collected but not analyzed. There are stored in a dry location in Archer, Cathro's Whitehorse warehouse.

Soil samples were pulverized to better than -100 mesh and analyzed by Fire Assay followed by Neutron Activation Analysis (NAA) for gold which process has a 1 ppb detection limit. This procedure was used to minimize the anticipated effects of silica encapsulation of micron-sized gold in very fine detrital material. Rock samples were crushed and pulverized to better than -100 mesh and analyzed by the same method.

Arsenic analyses were carried out in 1973-75 on -80 mesh fractions digested in nitric-perchloric acid and analyzed by Atomic Absorption spectrometry (AAS). These samples were collected at wide spaced grid intervals (200 by 800 foot or 60 by 245 m) and from regional-scale soil and silt traverses across the property. Sample splits from these were reanalyzed for Au by the same method during the spring of 1984, following recording of the Piglet 1-32 claims.

Arsenic geochemistry is shown at 1:5000 scale (Figure 6) and at 1:2000 scale (Figure 7). Background values regionally range between trace (<1 ppm) and 25 ppm while elevated backgrounds up to 100 ppm occur in the area of the Piglet claims. Anomalous areas on the property range from 100 ppm As to >500 ppm As, the upper limit of detection for the 1973-75 analyses. The most prominent anomaly coincides with Zone A where elongate NNE-trending belts of elevated As response parallel prominent airphoto linears. Highest values correspond well with known areas of pervasive silicification. The east and west limits of the anomalous trend coincide with the two major N-trending linears that form the boundaries of Zone A. The northern end of the major anomaly terminates abruptly against a thick terrane of glacio-fluvial material that rims that end of the property.

Zone B is represented by a narrow N-trending discontinuous belt of 100 to 500 ppm As response. Very large but only moderately anomalous areas occur downslope to the SE of the moderate to strong N-trending anomalies. This trend is coincident with the dominant SE direction of local glacial transport and probably represents down-ice dispersion of Zone B or Zone A arsenopyrite-bearing till.

Zone C and D are smaller areas that are not well represented by the 1973-75 widespread soil sample spacing. The available data suggests that elevated background to weakly anomalous As soil sample values (50 - 100 ppm) are representative of these areas.

Gold geochemistry is shown at 1:5000 scale (Figure 8) and at 1:2000 scale for Zone A (Figure 7). Results of both reanalysis of the 1973-75 -80 mesh samples splits and the 1984 -100 mesh pulverized soil samples are given

and they are differentiated by the map symbols used. The two sets of sample data are not directly comparable since only a restricted part (Zone A) of the 1973-75 grid was resampled in 1984. Results of Au analyses from both sample sets are compared on Figure 10 on the following page. The distribution of gold values are nearly identical with the exception of a slight tendency for a higher percentile of elevated gold values in the -80 mesh fractions vs the -100 mesh grind of the whole sample. However, the difference between the two populations is statistically insignificant and the data can be compared directly.

Approximately 244 soil samples were analyzed for Au within Zone A. The plots of percentile vs Au content suggest a background of about 10 ppb Au against a regional background of trace to 5 ppb Au. Lower to moderately anomalous values (10 to 160 ppb Au) comprise 33% of the samples and strongly anomalous values (161 ppb Au to a maximum value of 1937 ppb Au) comprise 6% of the population.

Gold distribution in scattered soil samples (28 in total) taken from Zone B is similar although there is a shift to slightly lower values than those for Zone A (Figure 10).

Zones C and D are not represented well enough by the 1973-75 sample density to establish the presence or absence of mineralization by gold values in soil. No moderate or strong anomalies are suggested by the available data.

Rock samples were collected from most natural bedrock exposures encountered during soil sampling. Composite chip samples were taken over as large an area as possible up to 5 m2. Representative chip samples of float and talus were also taken. A total of 83 samples were taken and analyzed for gold. Results are plotted on Figures 8 and 9 while a statistical summary of data is given on the following page (Figure 11).

Figure 10

DISTRIBUTION OF GOLD IN SOILS

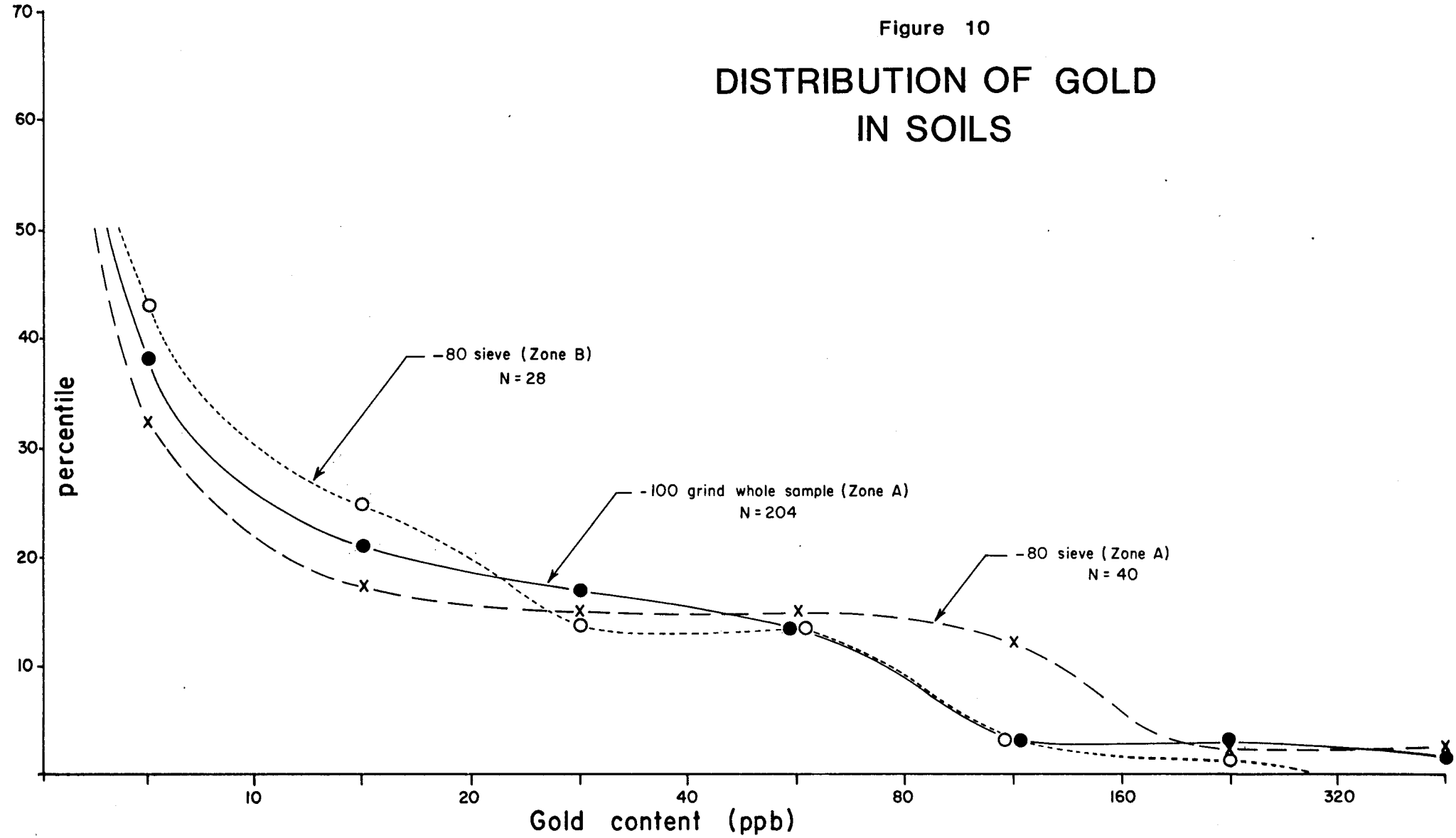
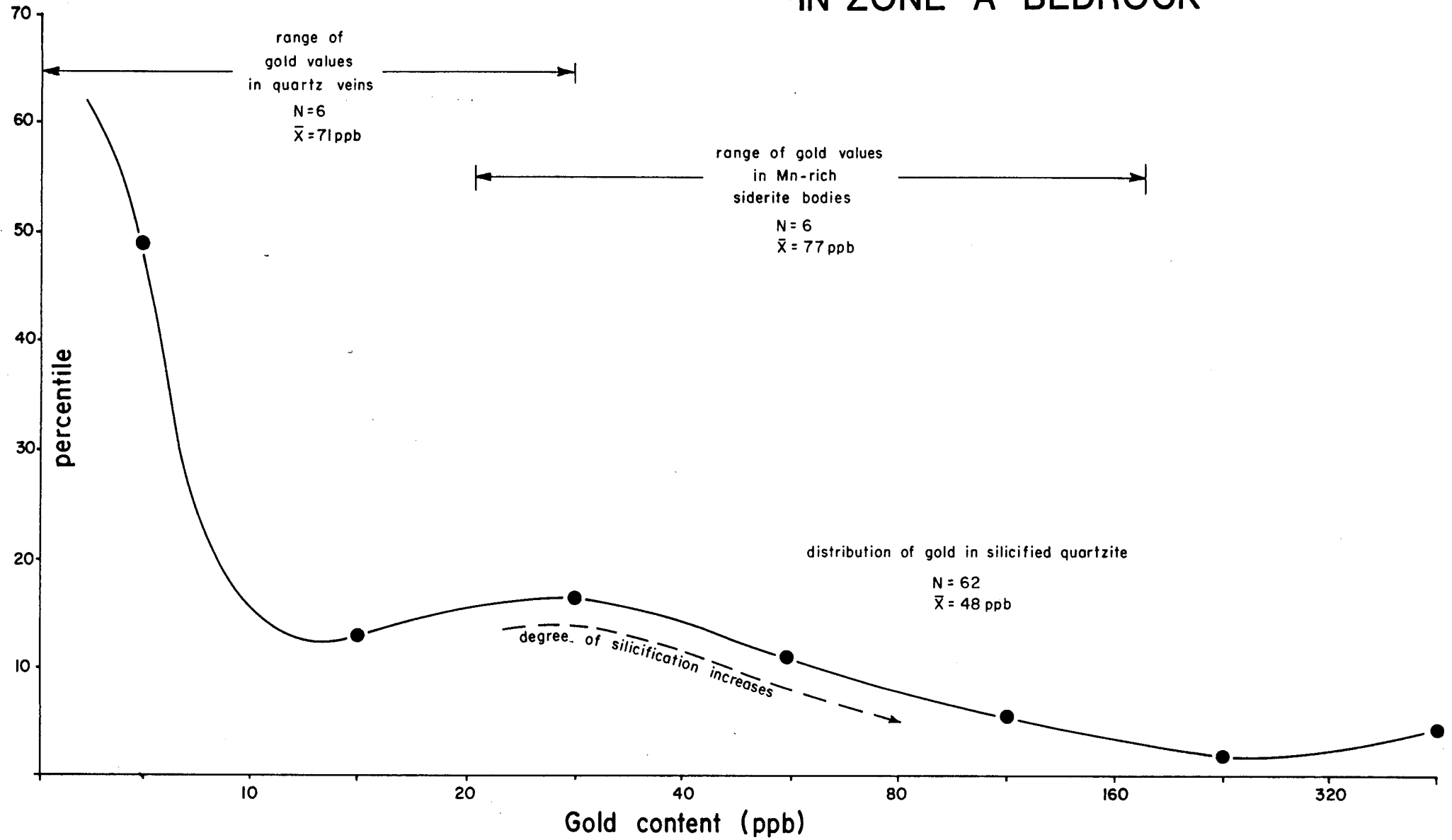


Figure 11

DISTRIBUTION OF GOLD IN ZONE 'A' BEDROCK



A total of 74 rock samples were taken from Zone A. Quartzite (Unit Hqu) was sampled in 62 locations. The plot of percentile vs Au content reveals a tri-model distribution. Non-silicified to weakly silicified quartzite carried from trace Au (<1 ppb) to about 12 ppb Au (48% of Zone A quartzite samples). Quartzite with moderate to extreme silicification contains up to 80 ppb Au (about 40% of Zone A quartzite samples). Approximately 12% of the Zone A quartzite sampled exhibit strong silicification expressed as a green-coloured chalcedonic quartz flooding. These contain greater than 80 ppb Au, up to a maximum value of 18,300 ppb Au (0.53 oz/ton Au). Extent of arsenopyrite dissemination is proportional to the degree of quartz flooding.

Quartz veins do not commonly occur within Zone A and are not notably mineralized in contrast with the scattered occurrences of base-metal sulphide and sulfosalt Au- and Ag-bearing quartz veins found in Zones D and E. Gold values in quartz veins from Zone A range between trace (<1 ppb) to 29 ppb and average 11 ppb for the 6 samples analyzed.

Manganiferous siderite bodies occur along or in the immediate hanging wall of normal fault zones crosscutting Zone A. The banded siderite masses may either occur as open space fillings, replacement of fault breccia or replacement of quartzite, limestone or phyllite country rock. Gold values range from 21 to 182 ppb and average 77 ppb Au for the six samples taken.

Limestone beds (Hls) within Zone A were only sampled in three localities. These carry only trace values of Au (<1 ppb) despite the fact that one of the sampled areas was found as an interbed or cap rock to brecciated and silicified, mildly auriferous quartzite adjacent to a major fault zone.

REMARKS SECTION

REMARKS

The association of Late Proterozoic or Lower Paleozoic sedimentary rocks with widespread arsenic soil geochemical anomalies in an area of suspected high level intrusive activity prompted Archer, Cathro to explore the Piglet 1-32 claims for micron-sized disseminated gold. Recent DIAND-supported research into genesis of the adjoining McMillan deposit reinforced this approach. This work suggests that although grossly stratiform in nature, the McMillan pyritic massive sulphide mineralization was probably derived from Tertiary low to moderate temperature hydrothermal fluids ascending along fracture zones. These reacted with limestone and calcareous quartzite interbeds in argillite, either replacing these units or filling in voids after leaching calcareous matrix from the quartzite.

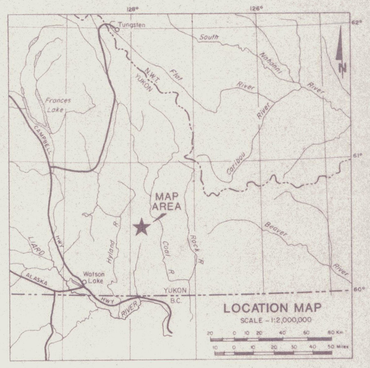
A comparison between results of preliminary exploration for gold on the Piglet property and published descriptions of sediment-hosted, micron-gold deposits of the western United States is given on the following page. These include the Northumberland, Carlin, Cortez, Gold Acres, Horse Canyon, Jarritt Canyon, Mercur and Windfall deposits.

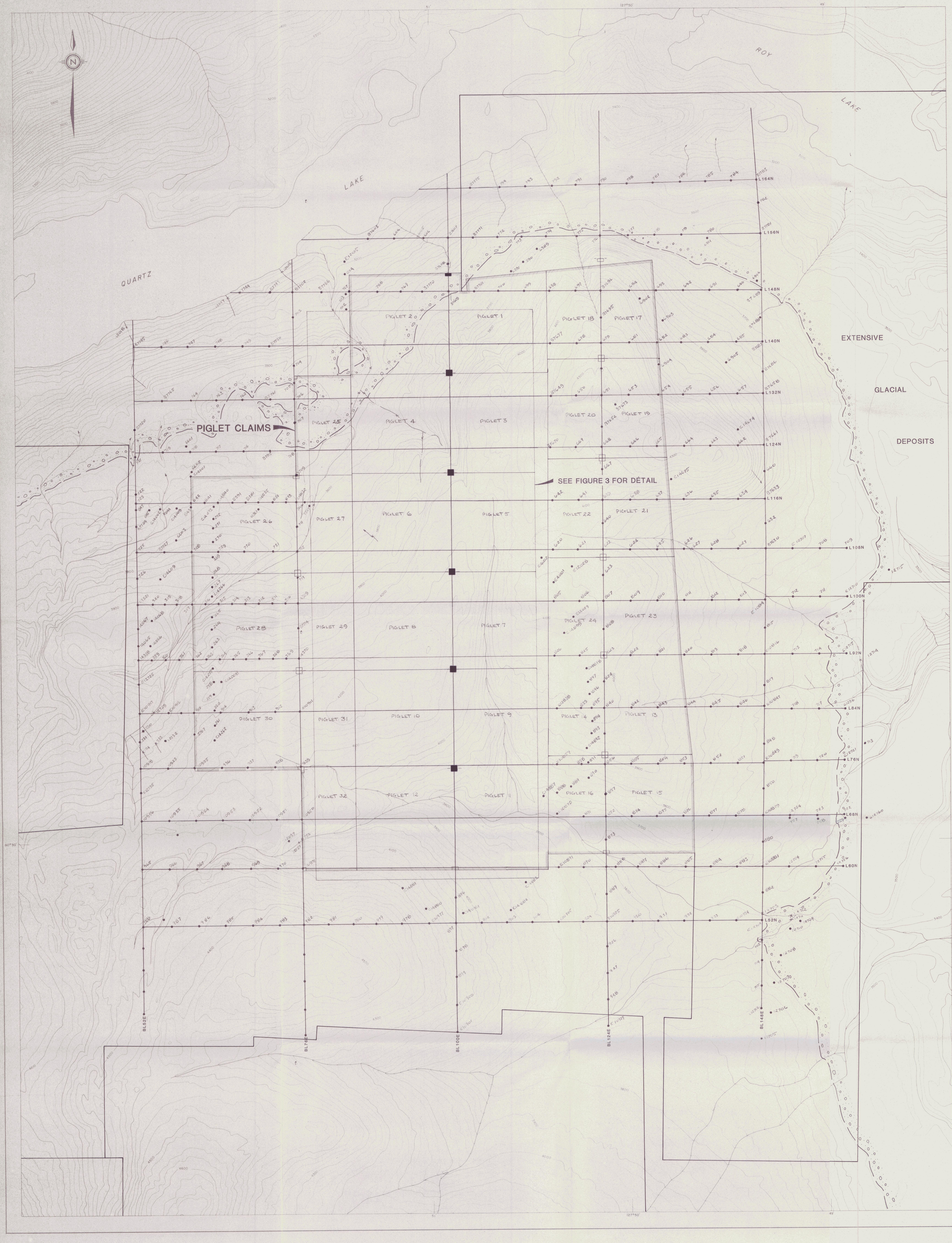
The geological similarities between the Piglet target and well known sediment-hosted disseminated gold deposits of western United States are striking. Unlike its U.S. counterparts, the Piglet target is poorly exposed and relatively heavily vegetated. U.S. exploration efforts rely on detailed rock-chip sampling within larger targets defined by Au and As (Sb,Hg) soil geochemistry. Initial exploration of the Piglet target will require the additional effort of hand or bulldozer trenching to adequately expose auriferous bedrock zones defined by close-spaced soil geochemical surveys.

TABLE II

COMPARISON BETWEEN THE PIGLET TARGET AND U.S. SEDIMENT HOSTED GOLD DEPOSITS

CHARACTERISTIC	U.S.	PIGLET
anomalous Au,As	yes - direct correlation	yes
anomalous Sb,Hg	yes	not known but anomalous Hg and Sb are known to be present at McMillan deposit
anomalous Ba	yes	not known
Au as micron-sized particles associated with arsenopyrite	yes	yes
widespread silica flooding	yes	yes
iron metasomatism	yes - jasperoid alteration	yes - Mn-rich siderite replacement
host rocks	Lower to Middle Paleozoic limestone, quartzite	Lower Paleozoic quartzite, limestone, chert, arkose
associated with high-level intrusive activity	yes - felsic dyke swarms	suspected (thermal domes)
controlled by normal faulting	yes	yes





LEGEND

- 1973-1975 silt sample location
- 1973-1975 soil sample location
- 1984 soil sample location
- 1973-1975 rock sample location
- 1984 rock sample location
- claim post (located from staker's sketch)
- claim post (located during 1984 exploration program)

091639

Figure 2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SAMPLE LOCATIONS

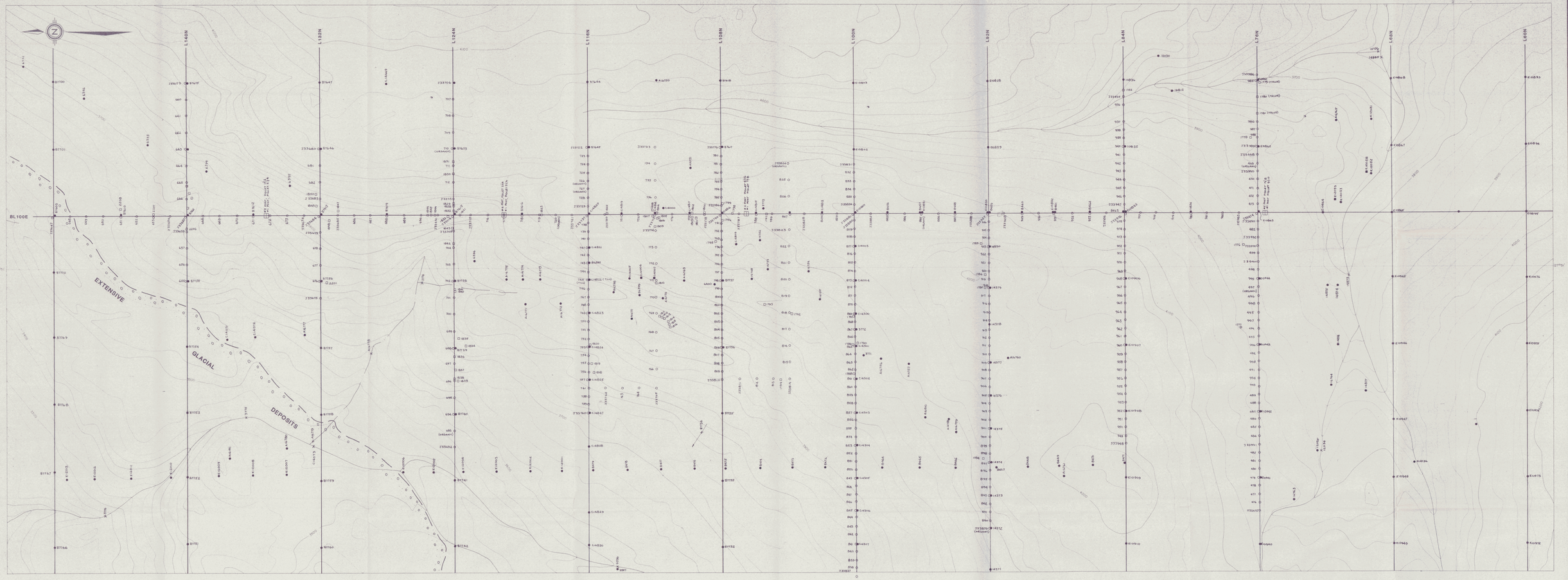
PIGLET CLAIMS

SCALE - 1:5,000

100 50 0 50 100 200 300 400 Metres

100 50 0 50 100 200 300 400 Yards

To accompany report dated May, 1985



LEGEND

- X 1973-1975 silt sample location
- ● 1973-1975 soil sample location
- ○ 1984 soil sample location
- ■ 1973-1975 rock sample location
- □ 1984 rock sample location

091639

Figure 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

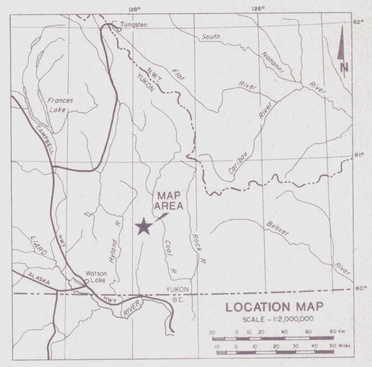
SAMPLE LOCATIONS

PIGLET CLAIMS

SCALE 1:2000

50 25 0 25 50 75 100 Metres

To accompany report dated May, 1985



ROY LAKE

QUARTZ LAKE

EXTENSIVE GLACIAL DEPOSITS

ZONE D

ZONE C

ZONE A

ZONE B

PIGLET CLAIMS

SEE FIGURE 5 FOR DETAIL

galena, jamesonite, sphalerite in float boulders (not assayed)

jamesonite-galena stockwork

TABLE OF FORMATIONS

Banded to massive, manganiferous iron-oxide after siderite (?)

Silicified, brecciated, accasionally pyritized and arsenified quartzite (Hqc) - degree of alteration indicated by relative density of stipple.

CAMBRIAN (?) AND HADRYNIAN ("Phyllite Unit")

- Hls — Dark grey, thin bedded and platy, fetid limestone
- Hpl — Dark grey to black phyllite
- Hqu — Medium to coarse-grained, grey quartzite

(Hls, Hpl, Hqu: interlayered sequence)

Fault contact

- Hqb — Partly calcareous, massive to thick bedded white quartzite
- Hph — Thin bedded grey to green, partly calcareous phyllite
- Hqc — Massive to platy, grey to white, sericitic and calcareous quartzite and greywacke. Intervals of greenish calcareous phyllite and argillaceous limestone (Hla)

HADRYNIAN ("Grit Unit")

- Hgr — Weakly foliated grey-green quartzite, grit and quartz-pebble conglomerate with kaolinized feldspar clasts.

LEGEND

- Galena
- Sulfosalt
- Sphalerite
- Arsenopyrite
- Scorodite (As) stain
- Attitude of bedding
- Attitude of cleavage
- Attitude of quartz vein
- Fault (assumed)
- Photolinear
- Asarco 1954 EM conductor axis

Rock assay: Pb, Zn, Cu, Sb, As — % unless indicated otherwise; Au, Ag — g/t

GEOLOGY COMPILED FROM 1954, 1973, 1974, 1979 AND 1984 MAPPING

091639

Figure 4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOLOGY

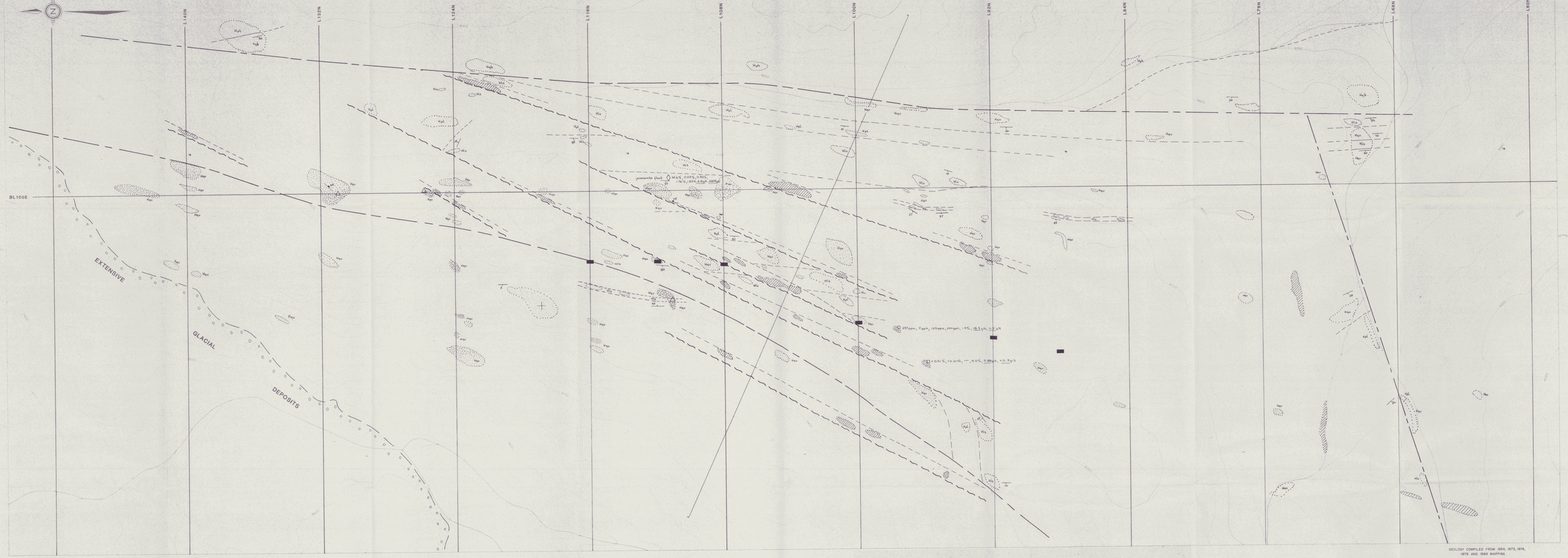
PIGLET CLAIMS

SCALE — 1:5,000

100 50 0 50 100 200 300 400 Metres

100 50 0 50 100 200 300 400 Yards

To accompany report dated May, 1985



GEOLOGY COMPILED FROM 1954, 1973, 1974, 1979 AND 1984 MAPPING

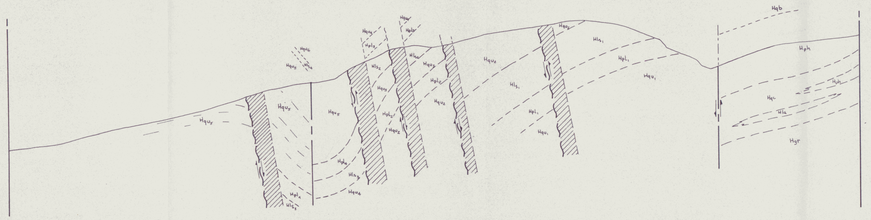


TABLE OF FORMATIONS

Banded to massive, manganiferous iron-oxide after siderite (?)

Silicified, brecciated, occasionally pyritized and arsenified quartzite (Hqz)- degree of alteration indicated by relative density of stipple.

CAMBRIAN (?) AND HADRYNIAN ("Phyllite Unit")

- Hls — Dark grey, thin bedded and platy, felsic limestone
- Hpl — Dark grey to black phyllite
- Hqz — Medium to coarse-grained, grey quartzite

(Hls, Hpl, Hqz: interlayered sequence)

Fault contact

- Hqb — Partly calcareous, massive to thick bedded white quartzite
- Hph — Thin bedded grey to green, partly calcareous phyllite
- Hqc — Massive to platy, grey to white, sericitic and calcareous quartzite and greywacke, intervals of greenish calcareous phyllite and argillaceous limestone (Hls)

HADRYNIAN ("Grit Unit")

- Hgr — Weakly foliated grey-green quartzite, grit and quartz-pebble conglomerate with saccharoid feldspar clasts.

LEGEND

- Galena
- Sulfosalt
- Sphalerite
- Arsenopyrite
- Scorodite (As) stain
- Attitude of bedding
- Attitude of cleavage
- Attitude of quartz vein
- Fault (assumed)
- Photolineair
- Assoro 1954 EM conductor axis

Rock assay:

- Pb, Zn, Cu, Sb, As — %, unless indicated otherwise
- Au, Ag — g/t

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Figure 5

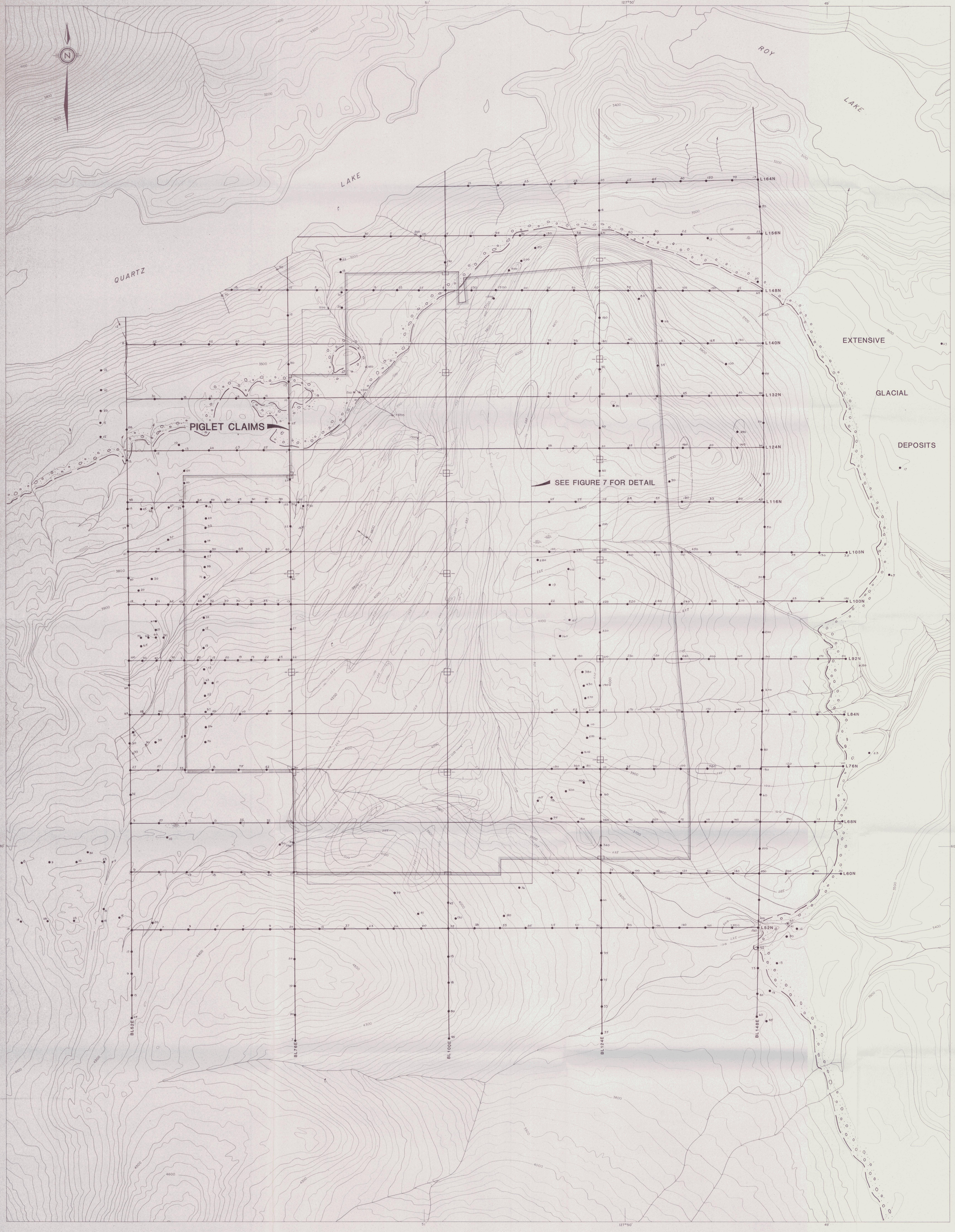
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

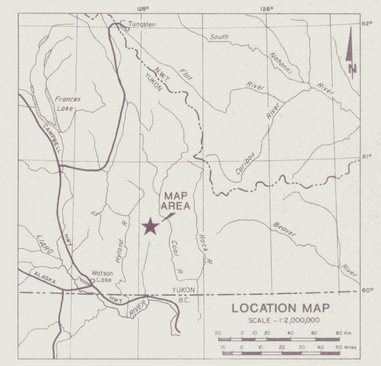
GEOLOGY – ZONE 'A'

PIGLET CLAIMS

SCALE 1:2000

May, 1985





LEGEND

- X 1973-1975 silt sample location
- ● 1973-1975 soil sample location
- ○ 1984 soil sample location
- ■ 1973-1975 rock sample location
- □ 1984 rock sample location

values in ppm As

091639

091639

Figure 6

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

ARSENIC GEOCHEMISTRY

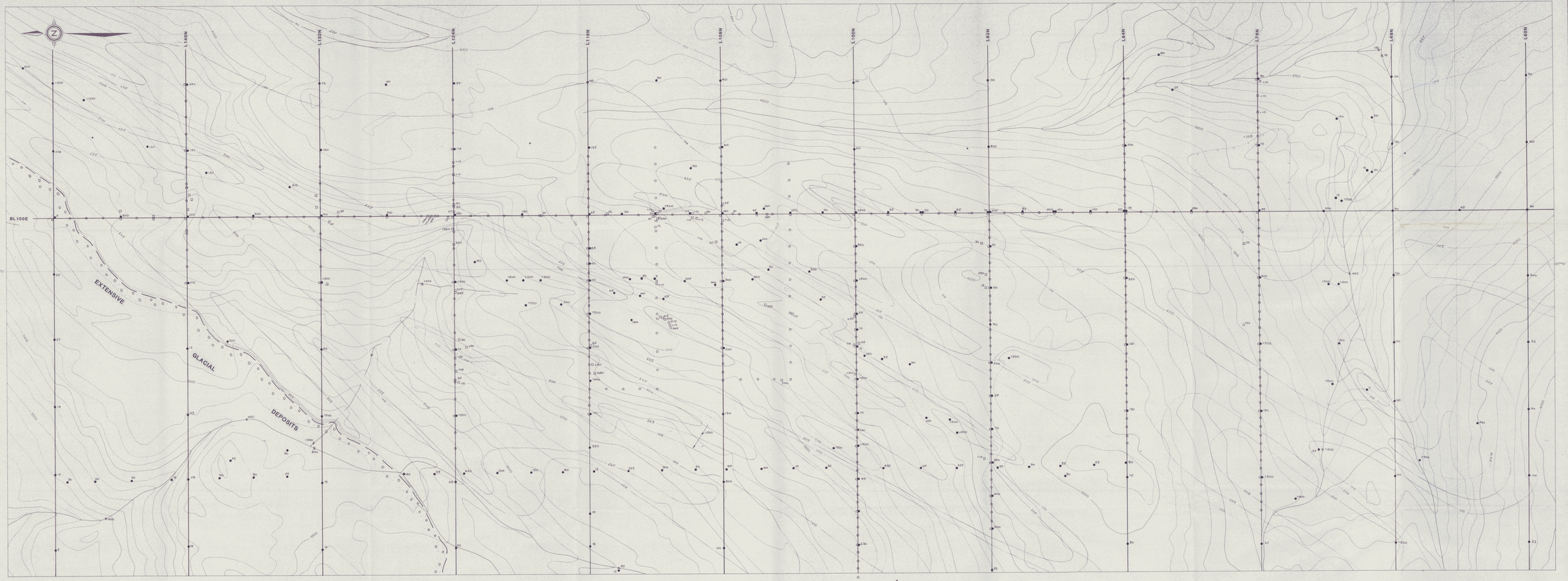
PIGLET CLAIMS

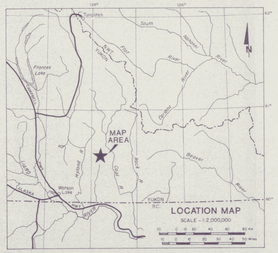
SCALE – 1:5,000

100 50 0 50 100 200 300 400 Metres

100 50 0 50 100 200 300 400 Yards

To accompany report dated May, 1985





LEGEND

- X 1973-1975 silt sample location
- ● 1973-1975 soil sample location
- ○ 1984 soil sample location
- ■ 1973-1975 rock sample location
- □ 1984 rock sample location

values in ppm As

091699

Figure 7

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

ARSENIC GEOCHEMISTRY

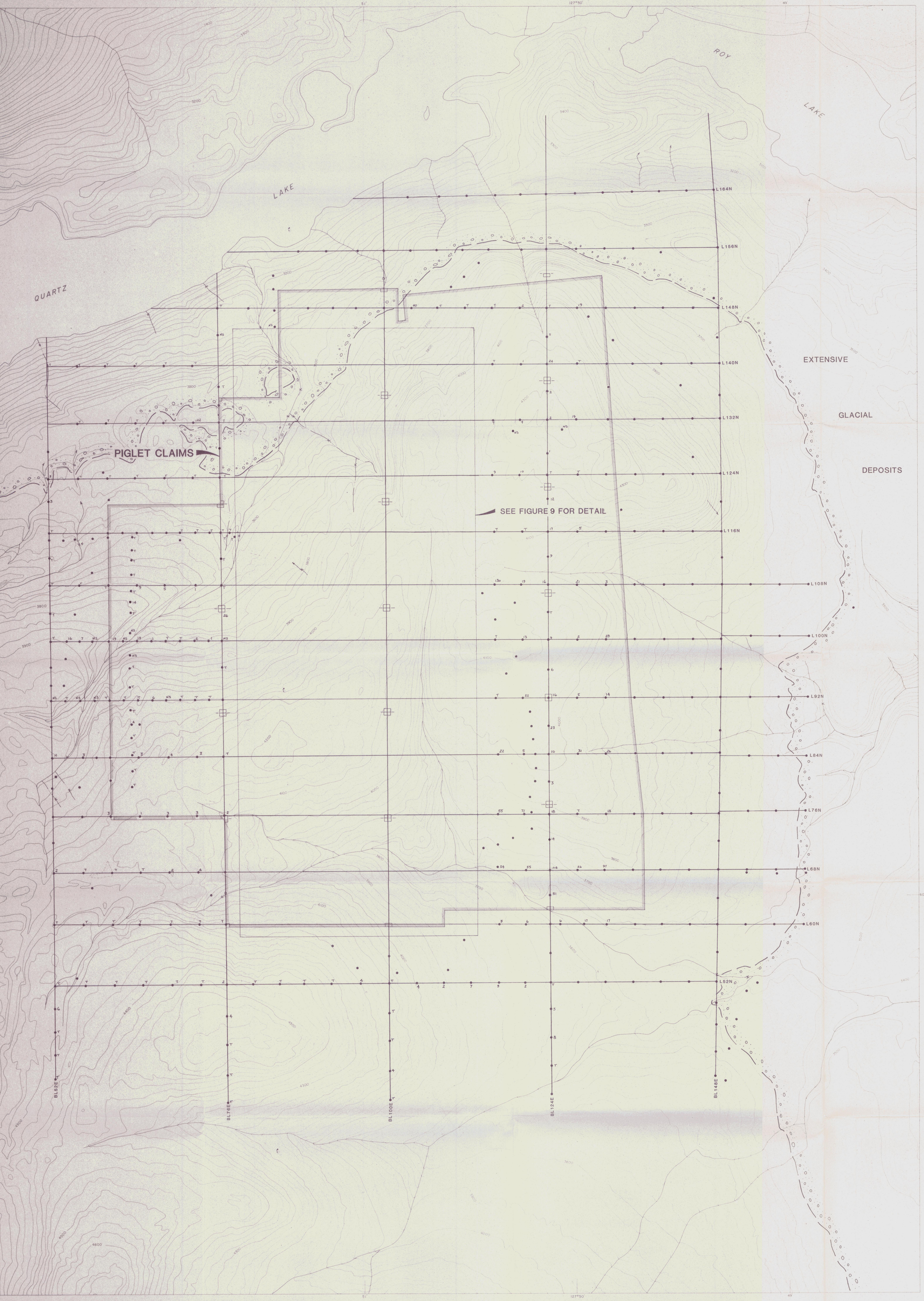
ZONE A

PIGLET CLAIMS

SCALE 1:2000

50 25 0 50 75 100 Metres

To accompany report dated May, 1985



LEGEND

- 1973-1975 silt sample location
- 1973-1975 soil sample location
- 1984 soil sample location
- 1973-1975 rock sample location
- 1984 rock sample location

values in ppb Au

091639

Figure 8

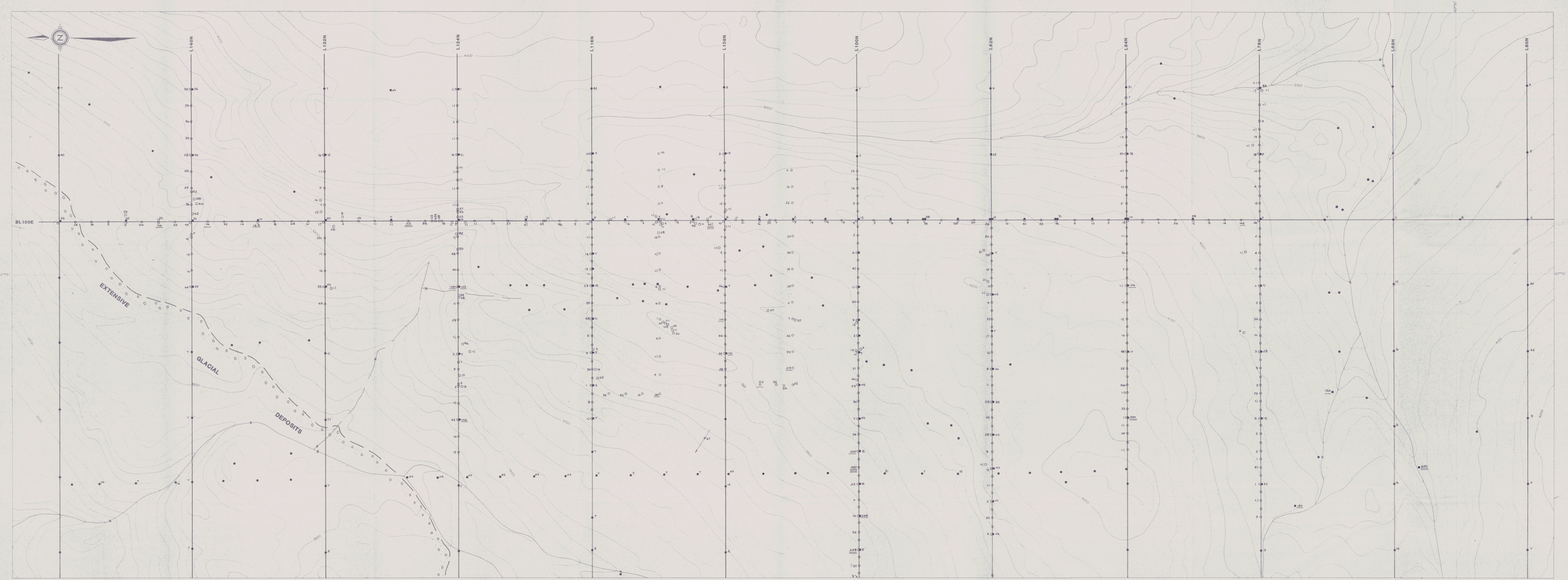
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GOLD GEOCHEMISTRY

PIGLET CLAIMS

SCALE - 1:5,000

For Company Report Dated: May, 1985



LEGEND

- X 1973-1975 silt sample location
- ● 1973-1975 soil sample location
- ○ 1984 soil sample location
- ■ 1973-1975 rock sample location
- □ 1984 rock sample location

values in ppb Au

091639

Figure 9

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GOLD GEOCHEMISTRY

ZONE A

PIGLET CLAIMS

SCALE 1:2000

To accompany report dated May, 1985

APPENDIX I

LIST OF CLAIMS

APPENDIX I

LIST OF CLAIMS

Claim	Grant Numbers	Record Date	Expiry Date
Piglet 1-32	YA70992-YA70933	March 13, 1984	March 13, 1988*

*pending acceptance of assessment work filed with this report

APPENDIX II

ASSAY RECORDS

AND

ROCK SAMPLE DESCRIPTIONS

Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

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

Telephone: (604) 984-0221
Telex: 043-52597

CERTIFICATE OF ANALYSIS

TO : ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
VANCOUVER, B.C.
V6B 1L8

CERT. # : A8414018-002-A
INVOICE # : I8414018
DATE : 7-AUG-84
P.O. # : NONE
" P "

Sample description	Prep code	Au NAA ppb	Rock Description	Rock Unit	Degree of Silicification	Zone
1816	205	30	rusty QZTE	Hqu	W	A
1817	205	38	brecciated, rusty QZTE	Hqu	M	A
1818	205	65	rusty QZTE, yellowish stain	Hqu	S	A
1819	205	14	yellow & green stain QZTE float	Hqu	M	A
1820	205	2	rusty QZTE	Hqu	W	A
1821	205	<1	sheared, brecciated QZTE	Hqu	N	A
1822	205	<1	QZTE cut by rusty Qz veins	Hqu	W	A
1823	205	<1	as above	Hqu	W	A
1824	205	7	30 cm wide Qz vein	—	—	A
1825	205	5	leached, rusty QZTE	Hqu	W	A
1826	205	<1	rusty, sheared QZTE	Hqu	N	A
1827	205	6	QZTE cut by vuggy Qz veins	Hqu	W	A
1828	205	36	as above	Hqu	M	A
1829	205	37	rusty QZTE, py boxwork	Hqu	E	A
1830	205	<1	platy grey LISN	Hls	N	A
1831	205	10	QZTE cut by banded Qz veins	Hqu	W	A
1832	205	23	vuggy Qz vein float	—	—	A
1833	205	<1	1m wide Qz vein float	—	—	A
1834	205	<1	brecciated rusty QZTE	Hqu	N	A
1835	205	46	QZTE with boxwork	Hqu	N	A
1836	205	1	grey QZTE	Hqu	W	A
1837	205	10	QZTE breccia	Hqu	M	A
1838	205	4	bleached, sheared QZTE	Hqu	W	A
1839	205	8	as above	Hqu	W	A
1840	205	28	brecciated QZTE	Hqu	M	A
1841	205	29	Qz vein with pyrite stringers	—	—	A
1842	205	30	rusty, sheared QZTE	Hqu	W	A
1843	205	182	sheared MNSD	—	—	A
1844	205	58	MNSD with arsenopyrite veinlets	—	—	A
1845	205	639	~5% arsenopyrite dissem in QZTE	Hqu	E	A
1846	205	133	1-3% arsenopyrite dissem in QZTE	Hqu	V	A
1847	205	8	arsenopyrite in QZTE	Hqu	M	A
1848	205	28	QZTE	Hqu	V	A
1849	205	22	rusty QZTE	Hqu	W	A
1850	205	16	rusty QZTE with Qz veinlets	Hqu	W	A
2201	205	<1	QZTE with 1cm Qz veinlets	Hqu	W	A
2202	205	410	brecciated QZTE, py boxwork	Hqu	V	A
2203	205	62	grey QZTE	Hqu	M	A
2204	205	128	grey QZTE	Hqu	M	A
2205	205	53	brecciated QZTE	Hqu	M	A

CTA

Certified by ..... Hart Bichler

Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

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

Telephone: (604) 984-0221
Telex: 043-52597

CERTIFICATE OF ANALYSIS

TO : ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
VANCOUVER, B.C.
V6B 1L8

CERT. # : A8414018-001-A
INVOICE # : I8414018
DATE : 7-AUG-84
P.O. # : NONE
" P "

Sample description	Prep code	Au NAA ppb	Rock Description	Rock Unit	Degree of Silicification	Zone
1776	205	<1	grey QZTE	Hqu	N	A
1777	205	6	grey QZTE	Hqu	N	A
1778	205	<1	white QZTE	Hqb	N	—
1779	205	<1	white QZTE	Hqb	N	—
1780	205	<1	white QZTE	Hqb	N	—
1781	205	3	white QZTE	Hqb	N	—
1782	205	7	grey-green & blk PHYL	Hph	N	—
1783	205	51	grey QZTE	Hqu	W	A
1784	205	<1	thin bedded, platy LISN	Hls	N	A
1785	205	<1	brown QZTE	Hqu	N	A
1786	205	21	composite float MNSD	—	I	A
1787	205	<1	brown QZTE	Hqu	N	A
1788	205	60	composite float MNSD	—	I	A
1789	205	14	brown QZTE	Hqu	M	A
1790	205	4	grey QZTE	Hqu	V	A
1791	205	13	brown QZTE	Hqu	S	A
1792	205	35	composite float MNSD	—	I	A
1793	205	107	composite float MNSD (main gossan)	—	I	A
1794	205	310	brecciated QZTE	Hqu	V	A
1795	205	<1	rusty, vuggy QZTE	Hqu	W	A
1796	205	<1	white Qz vein float	—	I	A
1797	205	30	rusty, brecciated QZTE	Hqu	S	A
1798	205	<1	QZTE cut by Qz veins	Hqu	M	A
1799	205	<1	grey QZTE	Hqu	N	A
1800	205	15	QZTE cut by rusty Qz veins	Hqu	M	A
1801	205	<1	QZTE cut by white Qz veins	Hqu	W	A
1802	205	14	completely silicified QZTE	Hqu	E	A
1803	205	36	as above, yellow & red oxides	Hqu	E	A
1804	205	<1	grey QZTE cut by Qz veins	Hqu	W	A
1805	205	9	5 cm Qz vein, rusty boxwork	—	I	A
1806	205	<1	sheared QZTE, rusty Qz stringers	Hqu	N	A
1807	205	<1	vuggy QZTE	Hqu	W	A
1808	205	<1	QZTE, Mn & Fe oxides in fractures	Hqu	W	A
1809	205	28	QZTE with yellow-green oxide in vugs	Hqu	SW	A
1810	205	<1	QZTE with narrow quartz veins	Hqu	SW	A
1811	205	20	brecciated QZTE, boxworks	Hqu	SE	A
1812	205	101	reddish weathering QZTE, boxworks	Hqu	E	A
1813	205	108	as above, greenish stain	Hqu	E	A
1814	205	44	as above, strong green stain	Hqu	EN	A
1815	205	<1	platy limestone, green stain	Hls	N	A

Certified by Hart Bichler .....

CTA

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CERTIFICATE OF ANALYSIS

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1016 - 510 W. HASTINGS ST.
VANCOUVER, B.C.
V6B 1L8

CERT. # : A8414018-003-A
INVOICE # : I8414018
DATE : 7-AUG-84
P.O. # : NONE
" P "

	Sample description	Prep code	Au NAA ppb	Rock Description	Rock Unit	Degree of Silicification	Zone
	2206	205	7	brecciated & sheared QZTE	Hqu	W	A
	2207	205	20	grey QZTE	Hqu	W	A
	2208	205	59	brecciated QZTE	Hqu	M	A
pre-1984 M	5007		2	brecciated QZTE	Hqu	N	A
pre-1984 M	5008		6	brecciated QZTE	Hqu	N	A
pre-1984 M	3980		6	limonitic QZTE	Hqu	M	A
pre-1984 M	3981		341	green chalcedony in QZTE	Hqu	M	A
pre-1984 M	3982		18,300	altered quartzite, silicified	Hqu	M	A
pre-1984 M	3980A		60	MNSD with PY, AP	—	—	A
pre-1984 M	3980B		22	MNSD	—	—	A
pre-1984 M	3980C		68	MNSD	—	—	A

QZTE - quartzite
MNSD - manganiferous siderite
LISN - limestone
PHYL - phyllite

QZ - quartz
PY - pyrite
AP - arsenopyrite
N - non-silicified
W - weak silicification

Certified by ..... Ian Bichler

APPENDIX III

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Robert C. Carne, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in Burnaby, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 1974 with a B.Sc. and in 1979 with an M.Sc. majoring in Geological Sciences.
2. I am a member of the Geological Association of Canada.
3. From 1974 to the present, I have been actively engaged as a geologist in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981 became a partner of Archer, Cathro & Associates (1981) Limited.
4. I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.

Robert C. Carne, B.Sc., M.Sc.