Achilles 1 to 4

Geological, Prospecting, Geochemical Report
on the
Hawilson Lake Property
ACHILLES 1 to 4 Mineral Claims
Skeena Mining Division
N.T.S. 104-B/7E
Latitude 56°28′ North
Longitude 130°36′ West
British Columbia

November 6, 1989

on behalf of

BETHLEHEM RESOURCES CORP.

Vancouver, B.C.

by
C. H. Aussant, B.Sc., P.Geol., F.GAC
- and -
D. G. DuPré, B.Sc., P.Geol., F.GAC
KEEWATIN ENGINEERING INC.
#800, 900 West Hastings Street
Vancouver, B.C. V6C 1E5

ABSTRACT

The Hawilson Lake property consists of four contiguous modified-grid claims totalling 80 units located approximately 80 km northwest of Stewart, British Columbia. Access to the property is by fixed-wing aircraft from Terrace, Stewart, or Smithers to various airstrips in the area and then via helicopter to the property.

The property lies within the Intermontaine Tectono-Stratigraphic Belt and occurs near the contact between the Stikine Terrane and the unmetamorphosed sediments of the Bowser Basin. The property is underlain by an assemblage of northeasterly striking interbedded argillite, chert, quartzite, and siltstone of the Upper Triassic Stuhini Group. Volcanics belonging to the Upper Triassic to Lower Jurassic Unuk River Formation underlie the western edge of the claims.

The area has an exploration history dating back to the turn of the century when prospectors passed through the region on their way to the interior. In the 1970's, the porphyry copper boom again brought prospectors and companies into the area. The current gold exploration rush began in 1980 with the option of the Sulphurets property by Esso Minerals Canada and the acquisition of the Johnny Mountain claims by Skyline Exploration Ltd. which was brought into production in mid-1988. The adjacent SNIP property is slated for production in 1990.

At this time, the Eskay Creek prospect, located 20 km northeast of the Hawilson Lake property and currently being explored by Calpine and Consolidated Stikine, is the most significant showing in the area. The prospect comprises at least eight mineralized zones occurring over a strike length of 1800 m within a sequence of felsic volcanics. The mineralization is associated with disseminated sulphides in felsic volcanic breccias and graphitic argillites in contact with overlying intermediate volcanic rocks.

A review of all available information indicates that the entire Unuk River area was subjected to reconnaissance geological mapping and prospecting by Newmont Mines Ltd. in 1959-1962 which led to the discovery of a number of

showings in the vicinity of the Hawilson Lake property. Exploration programs were conducted in this area from 1968 to 1986 by various companies. The exploration work completed did not extend onto the Hawilson Lake property.

In 1987, a limited amount of reconnaissance mapping, prospecting, and geochemical sampling was completed along King Creek, in the northeast corner of the ACHILLES 4 claim. No mineralization was located.

An airborne electromagnetic and magnetic survey was conducted over the property in 1988. Five anomalous resistivity low zones occurring either on the flanks of or coincident with broad, moderate strength magnetic areas and a number of north-northeast trending, weak to moderate strength conductors were delineated.

The 1989 exploration program consisted of helicopter-supported reconnaissance prospecting, geological mapping, and geochemical sampling with the objective of evaluating the property's potential for hosting economic precious metals deposits and for the purpose of fulfilling the assessment requirements.

Fractured and/or brecciated argillite and chert were located in numerous areas within the property boundaries. Lithogeochemical sampling completed in the northeast corner of the ACHILLES 4 claim yielded elevated to anomalous Au, Ag, As, Zn, and/or Pb values, the vest values being 0.127 oz/ton Au and 0.51 oz/ton Ag, from a highly fractured 8 cm wide sandstone bed containing 25% sulphides.

A heavy mineral sample collected from a creek adjacent to this area yielded an anomalous gold value of 3847 ppm. This creek, however, originates beyond the property boundaries; consequently, this value may be due to mineralization located on the adjacent property area. In addition to this area, lithogeochemical sampling yielded elevated gold values ranging from 191 to 596 ppb in three other locations on the property. A total of nine heavy mineral samples were collected from creeks draining the property area. All of the samples yielded elevated silver, arsenic, and/or base metals values.

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INTRODUCTION

Bethlehem Resources Corp. of Vancouver commissioned Keewatin Engineering Inc. to conduct a field exploration program on the Hawilson Lake property located in the Unuk River area of northern British Columbia. Exploration was directed by Keewatin Engineering Inc. with geological support and field supervision provided by Taiga Consultants Ltd. as a sub-contractor to augment the Keewatin crew.

The objective of the program was to evaluate the property's potential for hosting economic precious metal deposits and for the purpose of fulfilling assessment requirements. Exploration consisted of prospecting, geological mapping, and geochemical (lithogeochemical, stream silts, and heavy minerals) sampling.

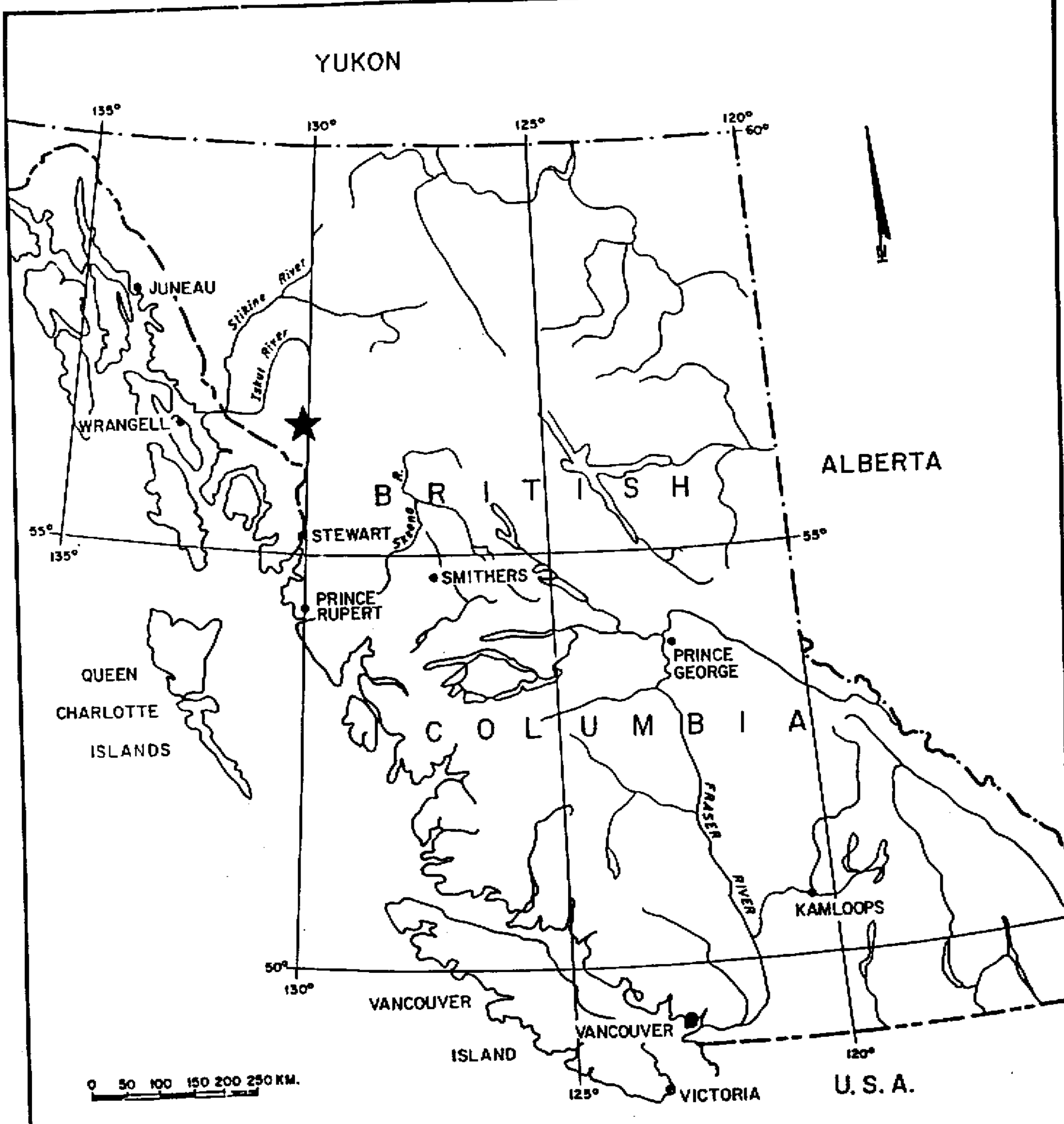
Location and Access

The Hawilson Lake property is located in northwest British Columbia, approximately 80 km northwest of Stewart (Figure 1). The claims are situated within N.T.S. map-sheet 104-B/7E and centered about 56°28′ North latitude and 130°36′ West longitude. Access to the property is by fixed-wing aircraft from Terrace, Stewart, or Smithers to various airstrips in the area, and then via helicopter to the property. The claims can also be directly accessed by helicopter from Stewart.

At some future date, road access to the area from the Stewart-Cassiar Highway could be obtained via the Upper Unuk River and Tiegen Creek valleys.

Property Status and Ownership

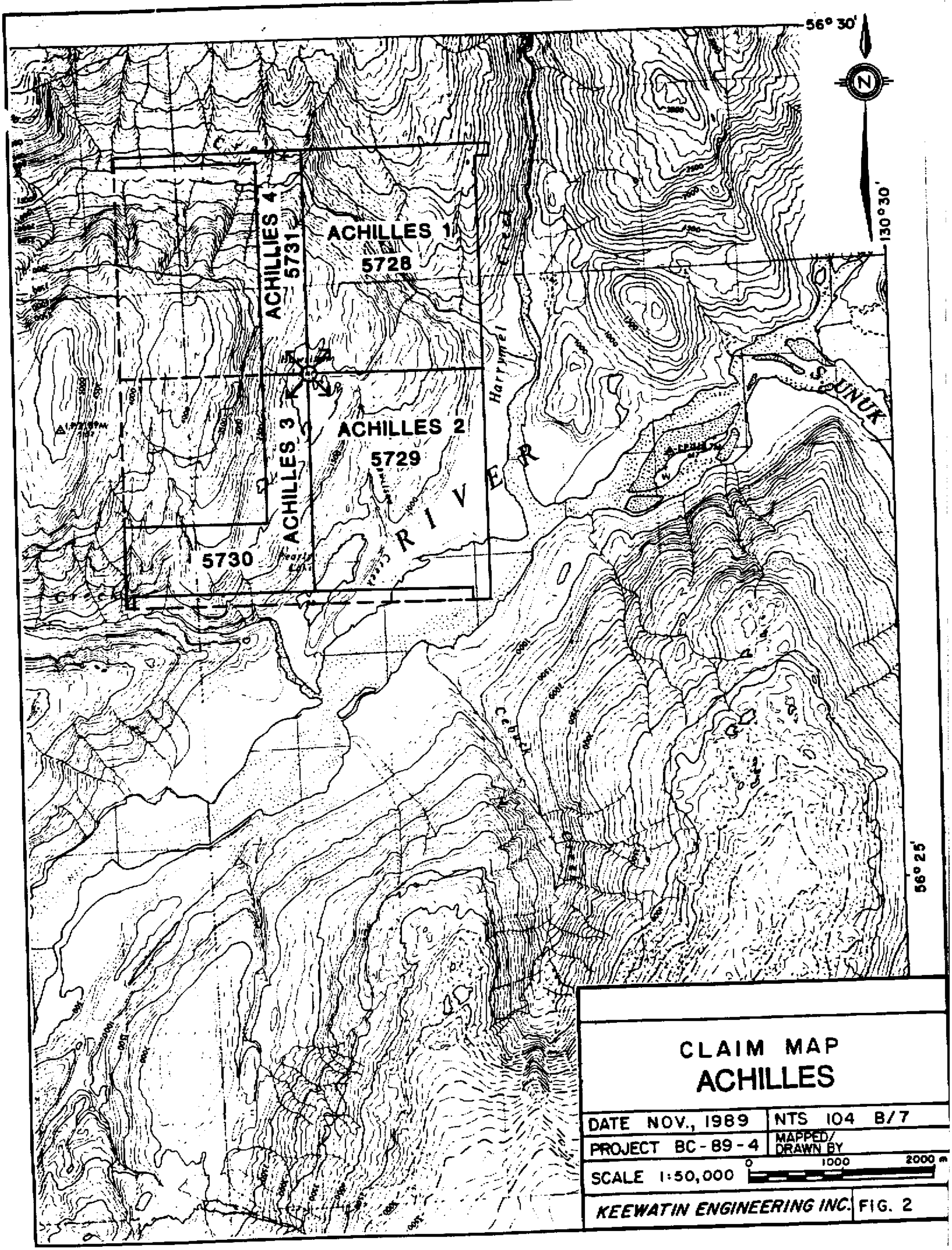
The Hawilson Lake property (Figure 2) consists of four modified-grid claims totalling 80 units located within the Skeena Mining Division. Relevant claims data are tabulated below:



★ PROPERTY LOCATION MAP

Figure I

KEEWATIN ENGINEERING INC.


56° 30'
130° 30'
56° 25'
N
ACHILLES 1
5728
ACHILLIES 4
5731
ACHILLES 3
ACHILLES 2
5729
5730
RIVER
Harrymel
S. UNUK
CLAIM MAP
ACHILLES
DATE NOV., 1989
NTS 104 B/7
PROJECT BC-89-4
MAPPED/ DRAWN BY
SCALE 1:50,000
0
1000
2000 m
KEEWATIN ENGINEERING INC.
FIG. 2

Claim Name	No.of Units	Record Number	Date of Record	Expiry Year
ACHILLES 1	20	5728	Jan.9/87	1990
ACHILLES 2	20	5729	Jan.9/87	1990
ACHILLES 3	20	5730	Jan.9/87	1990
ACHILLES 4	20	5731	Jan.9/87	1990

These claims are apparently the subject of an agreement between the claim holder (Winslow Gold Corp.) and Bethlehem Resources Inc. The claim records and maps show that the property was subsequently overstaked and that most of the ACHILLES 3 and 4 claims encompass pre-existing mineral claims.

Physiography and Climate

The Hawilson Lake property is situated within the Coast Range physiographic division and is characterized by northern rain forest and sub-alpine plateaus. Elevations range from 150 m in the valley of the Unuk River to 1280 m in the western part of the property.

A transitional tree line, characterized by dense sub-alpine scrub, meanders through the property at approximately 915 m elevation. The terrain found above tree line is typified by intermontane alpine flora. Conifers up to 30 m tall are common below tree line, especially within the stream valleys. Water for camp and drilling purposes is generally in good supply from the numerous creeks draining the claim area.

Precipitation is heavy, exceeding 200 cm per annum, with mild short summers but very wet spring and fall periods. Thick accumulations of snow are common during winter. It is seldom possible to begin surface geological work before July and difficult to continue past September.

HISTORY OF EXPLORATION

The area drained by the upper reaches of the Stikine, Iskut, Unuk, Craig, and Bell-Irving Rivers has been explored for gold since the late 1800's when prospectors passed through the region on their way to the interior. In the 1970's, the porphyry copper boom again brought prospectors and companies into the area. The current gold exploration rush began in 1980 with the option of the Sulphurets property by Esso Minerals Canada and the acquisition of the Johnny Mountain claims by Skyline Explorations Ltd. The Johnny Mountain deposit was brought into production in mid-1988 and the adjacent SNIP property is slated for production in 1990.

The mineralization at Eskay Creek was discovered in 1932 and active prospecting has continued sporadically since then. Two adits are the result of limited mining activity on this prospect. In 1988, Calpine Resources Incorporated discovered high-grade gold and silver mineralization on the #21 Zone (*Northern Miner*, November 7, 1988). A number of excellent diamond drill intersections have been obtained to date including hole CA-88-06 which encountered 96 feet of 0.752 oz/ton gold and 1.13 oz/ton silver. Based on the results of 70 drill holes completed to June 1, 1989, a preliminary geological reserve grading 2.8 million tons of 0.23 oz/ton gold and 3.3 oz/ton silver has been calculated for the #21 Zone (Consolidated Stikine Silver Ltd. N.P.L. 1989 Annual Report).

The Unuk River area was covered by regional geological mapping in 1988 as part of the Iskut-Sulphurets project conducted by B.C. Ministry of Energy, Mines and Petroleum Resources (Britton, et al., 1989). The whole of N.T.S. 104-B is currently being mapped by the Geological Survey of Canada (Anderson, 1989).

The results of a regional stream sediment sampling program conducted over this area were released in July 1988 (National Geochemical Reconnaissance, 1988). Britton et al.(1989) reported that almost every known precious metal prospect in the Unuk River area is associated with high stream sediment gold values. Known gold deposits are also associated with high but variable values for such pathfinder elements as silver, arsenic, antimony, and barium. One stream sediment sample was collected from a stream draining the Hawilson Lake property, but did not yield anomalous values for any of the elements.

A review of the material in the government's Assessment Report Archives indicates that the entire Unuk River area was subjected to reconnaissance geological mapping and prospecting by Newmont Mines Ltd. in 1959-1962. This work did not discover any promising showings or prospects on the present-day Hawilson Lake property.

In 1968, Granduc Mines Ltd. undertook an airborne electromagnetic and magnetic survey over McQuillan Ridge. A portion of this survey encompassed the southeast part of the ACHILLES 2 claim.

In 1971, Great Plains Development Company of Canada Ltd. conducted a reconnaissance geochemical program in the Mt.Dunn and neighbouring areas which resulted in the staking of a copper anomaly (Minfile #079), located 1.5 km west of the property. Work in the area in 1974 and 1975 led to additional staking north and south, covering most of the ACHILLES 3 and 4 claims. Exploration completed in this area did not extend onto the Hawilson Lake property.

In 1981, DuPont of Canada Exploration Limited staked the COLE claims in the area immediately north of and covering the northern part of the ACHILLES 4 claim along King Creek, to follow up a heavy mineral survey conducted in 1980 (Minfile #209). Further work was undertaken on the claim group, while under option to Placer Development and Skyline Exploration in 1983, but did not extend onto the ACHILLES claims.

In 1986, Crest Resources Ltd. staked the KING claims to cover the area adjoining the west side of the Hawilson Lake property, and in 1987, staked the CONSORT claim to cover the area immediately north of the ACHILLES 4 claim.

In 1987, a reconnaissance mapping, prospecting, and geochemical (lithogeochemical and stream silt) program was conducted over several claim groups in the Unuk River area by Paul A. Hawkins and Associates Ltd. on behalf of Axiom

Explorations Ltd. Half of one man-day of exploration was completed in the northeast corner of the ACHILLES 4 claim along King Creek, with two rock and three silt samples collected. This sampling did not yield any elevated precious metals values.

In 1988, an airborne electromagnetic and magnetic survey was flown over the Hawilson Lake property. A number of north-northeast trending, weak to moderate strength conductors were delineated on the property. Interpretation of apparent resistivity data outlined the presence of five anomalous resistivity low zones, four coinciding with the conductive zones outlined (along Pearly Lake, north of and through Hawilson Lake, east of Hawilson Lake, and the extreme northwest corner of the ACHILLES 1 claim near King Creek), and the fifth coinciding with the Unuk River cutting across the southeast corner of the property. These zones occur either on the flanks of or coincident with broad moderate strength magnetic areas.

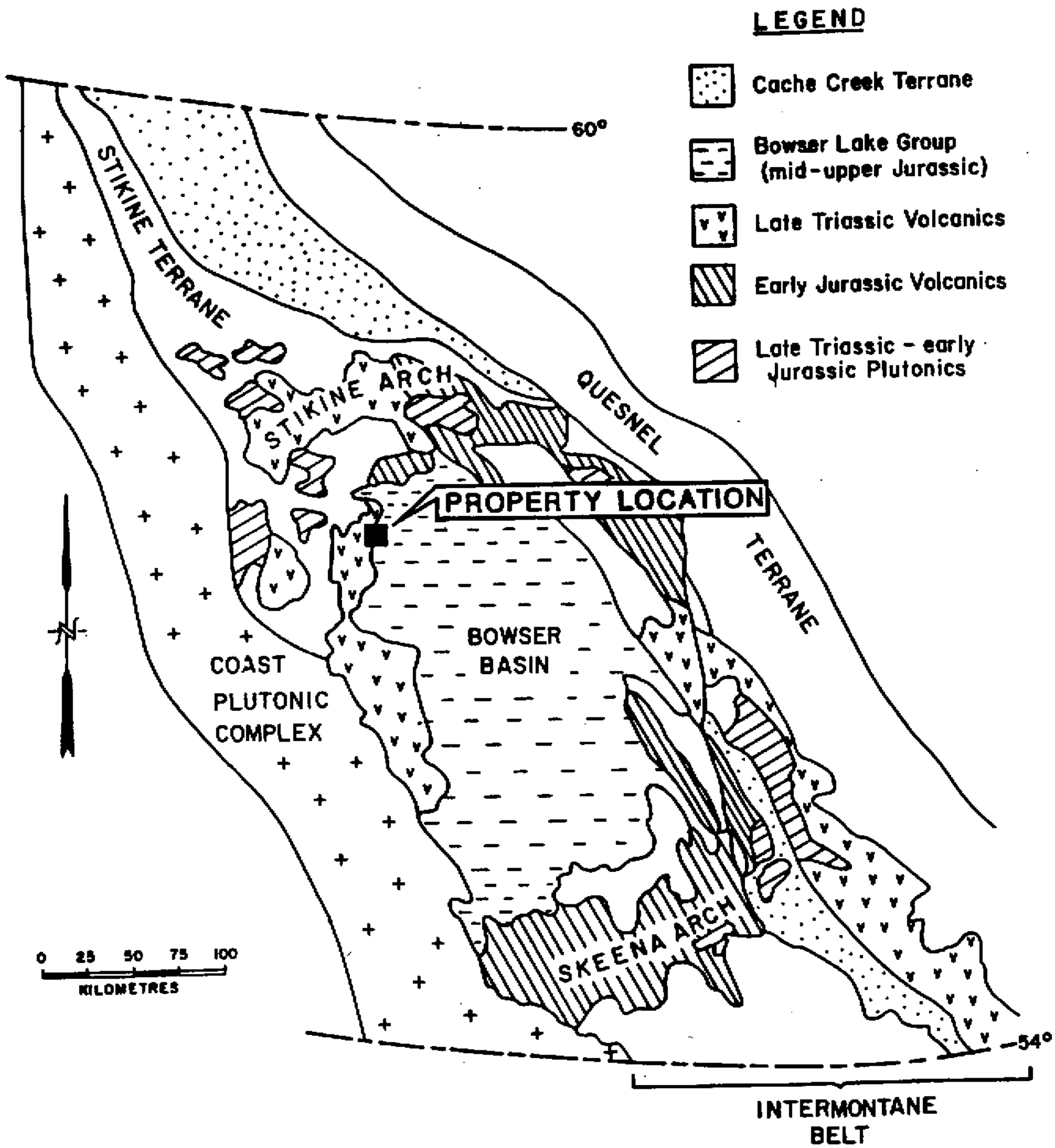
The assessment records also indicate that Duval Corp. conducted a regional heavy-mineral survey in the Unuk River area in 1981 (Korenic, 1982).

REGIONAL GEOLOGY

The property lies within the Intermontane Tectono-Stratigraphic Belt, one of five parallel northwest-southeast trending belts which comprise the Canadian Cordillera (Figure 3). The Hawilson Lake property occurs near the contact between the Stikine Terrane, which makes up most of the western part of the Intermontane Belt, and the unmetamorphosed sediments of the Bowser Basin.

The Unuk River area (see Figure 4) is underlain by a thick succession of Upper Triassic to Lower Jurassic volcano-sedimentary arc complex lithologies capped by Middle Jurassic marine basin lithologies. This package has been intruded by a variety of plutons representing at least four intrusive episodes spanning late Triassic to Tertiary time. These include synvolcanic plugs, small stocks, dyke swarms, isolated dykes and sills, as well as batholiths belonging to the Coast Plutonic Complex.

The stratigraphic sequence has been folded, faulted, and weakly metamorphosed during Cretaceous time but some Triassic strata are polydeformed and may record an earlier deformational event. Remnants of Pleistocene to Recent basaltic flows and tephra are preserved locally.



REGIONAL GEOLOGY
BOWSER BASIN
NW BRITISH COLUMBIA

(Outline of terrane boundaries and major rock groups of the Jurassic and Triassic — modified from Thomson, 1985).

Figure 3

KEEWATIN ENGINEERING INC.

LEGEND

INTRUSIVE ROCKS

- Eocene
  - King Creek Dyke Swarm
  - Coast Plutonic Complex
  - Lee Brant Stock
- Jurassic
  - Lehto Porphyry
- L Jurassic to U Triassic
  - Diorite and Gabbro:
    - Nickel Mountain (nm)
    - John Peaks (jp)
    - Melville (mv)
    - Max (mx)
- U Triassic
  - Meta-quartz-diorite

STRATIFIED ROCKS

- Recent to Pleistocene
  - Basalt Flows and Tephra
- M Jurassic
  - 4 Marine-basin Turbidites
- L Jurassic
  - 3 Felsic Pyroclastics
  - 2 D V S
- U Triassic
  - 1 V S

D = Dacite Marker
V = Andesitic Volcanics (with <40% sediments)
S = Sediments (with <40% volcanics)

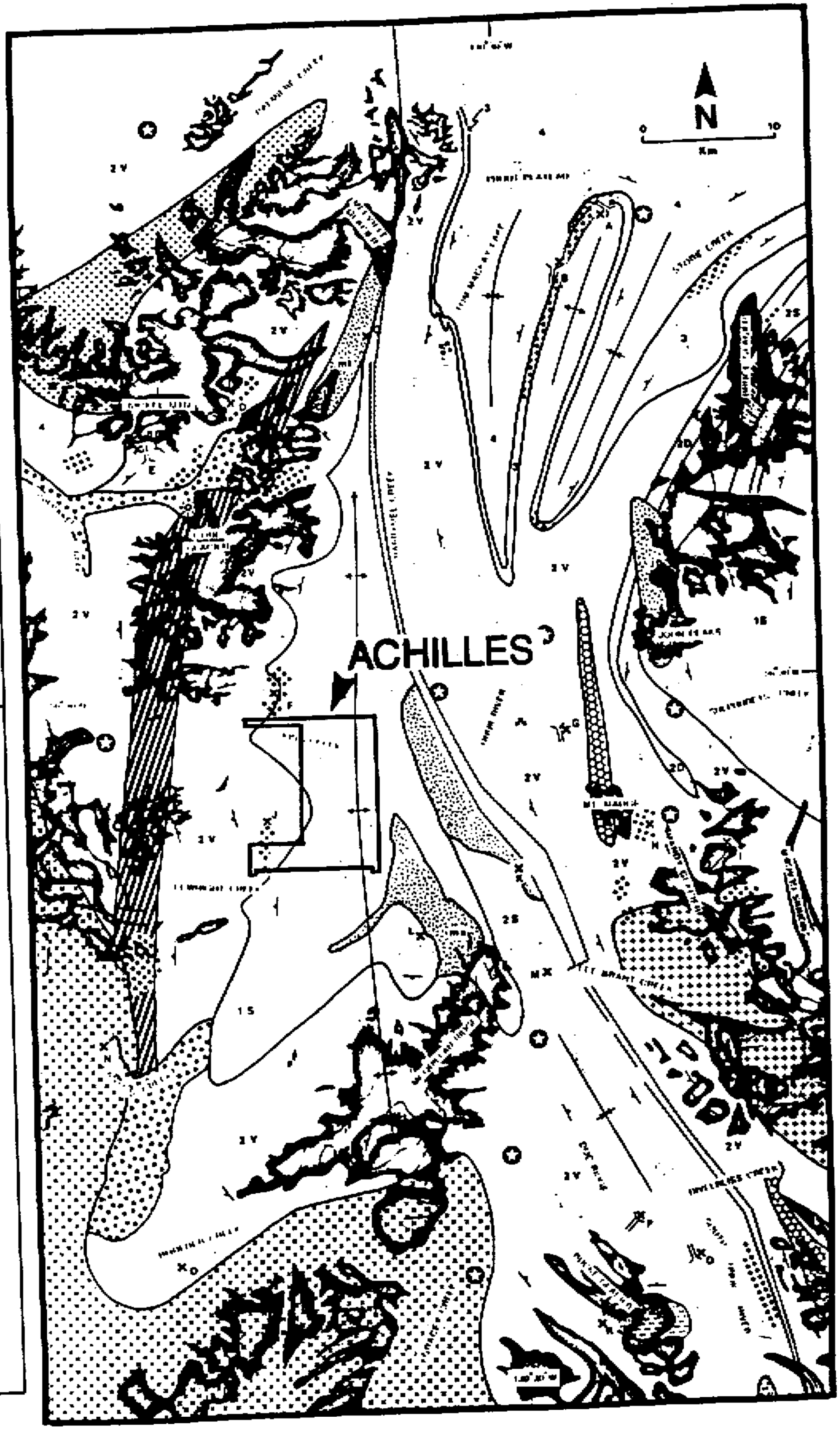
SYMBOLS

- Compositional layering (bedding; foliation)
- Contact
- Anticline, syncline
- Harrymel-South Unuk shear
- Pillow lavas
- Recent volcanic vent
- Gossan
- Adit
- Stream sediment gold values >90th percentile
- Mineral occurrence
- Placer occurrence

MINERAL OCCURENCES

	NAME	COMMODITY
A	Emma	Au,Ag,Pb,Zn,Cu
B	MacKay	Au,Ag,Pb,Zn,Cu
C	Copper King	Cu,Fe
D	Colagh	Cu
E	E&L Nickel	Ni,Cu
F	Cole	Cu,Au,Ag
G	Cumberland/Daly	Au,Ag
H	Mt Madge (C-10)	Au,Ag,Zn
I	Mt Madge (GFJ)	Au,Ag,Cu,Zn
J	VV	Cu,Mo,Au,Ag
K	Chris & Anna	Cu,Fe
L	Max	Fe,Cu
M	Unuk Jumbo	Fe,Cu
N	Black Bear	Au,Pb,Zn
O	Boulder Creek	Pb,Zn,Au,Cu
P	Doc	Au,Ag,Pb,Cu
Q	Globe	Au,Ag,Pb,Cu
R	All	Au,Ag

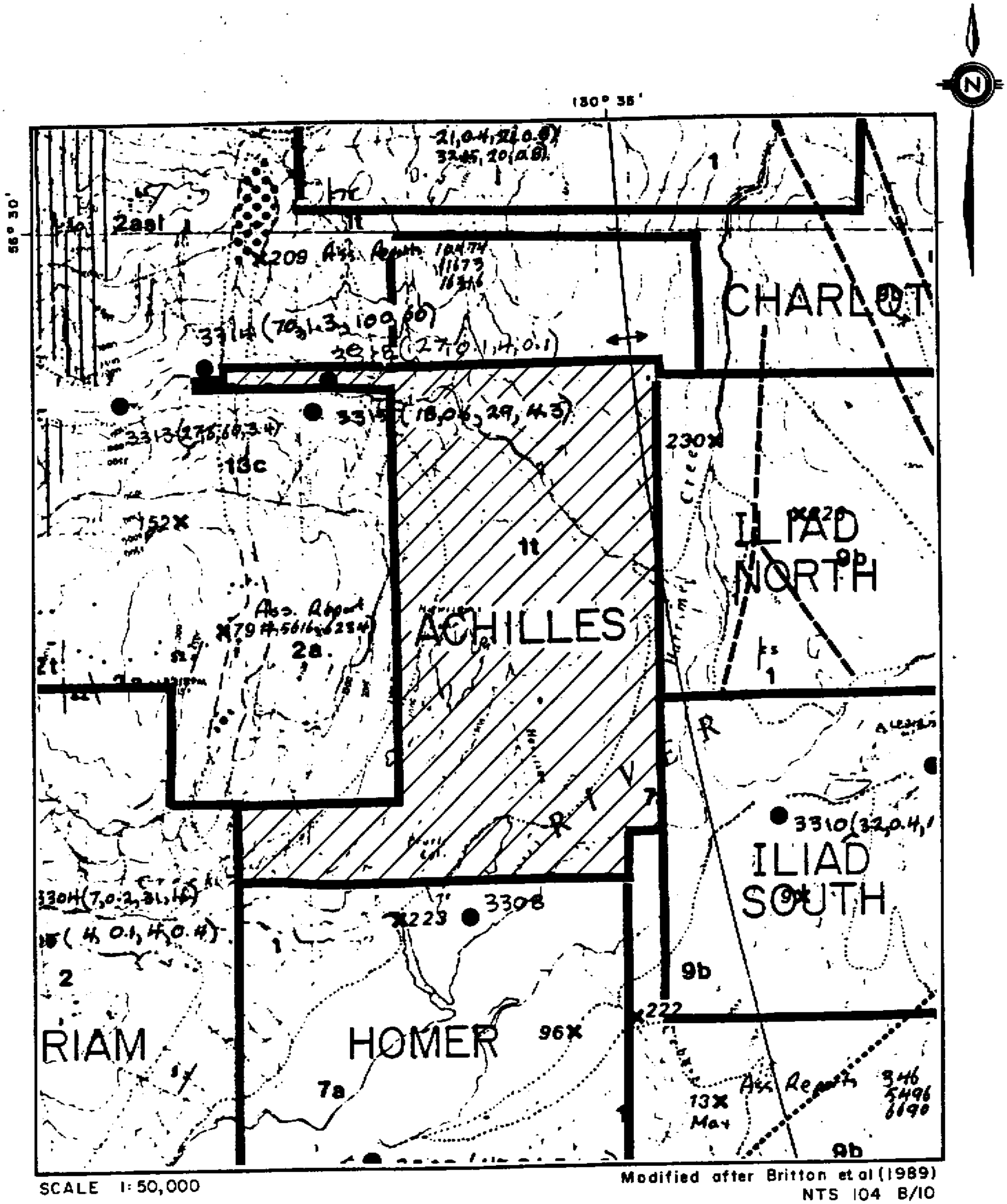
NOTE: Not to scale



Geology and mineral deposits, Unuk map area.
Modified after Britton et. al. (1989)

PROPERTY GEOLOGY

Figure 4



ACHILLES
PROPERTY GEOLOGY

Figure 5

PROPERTY GEOLOGY

Regional geological mapping by Britton et al.(1989) shows that the property is underlain by Upper Triassic to Lower Jurassic supracrustal rocks (Figure 5). Most of the property is underlain by Upper Triassic sediments of the Stuhini Group. The western edge of the property is underlain by the Lower Jurassic Unuk River Formation which consists of andesitic volcanics with lesser sediments.

Upper Triassic Stuhini Group (Unit 1)

The Stuhini Group rocks occupy the nose of a north-plunging anticline, and occur as a wedge between the Unuk-Harrymel Shear Zone and the overlying Unuk River Formation. These rocks underlie most of the property, consisting of thin bedded siltstones, immature fine-grained wackes, chert, impure limestone, and andesitic tuffs that locally attain a considerable thickness. Andesitic tuffs may be laminated to massive, aphanitic or hornblende-feldspathic. Limestones occur as thin beds or discontinuous lenses that show extensive recrystallization and highly disrupted internal structure. Fossil evidence led Britton et al.(1989) to ascribe a Carnian to Norian age to these rocks.

Upper Triassic to Lower Jurassic Unuk River Formation (Unit 2)

Britton et al.(1989) described this sequence as green and grey intermediate to mafic volcaniclastics and flows with locally thick interbeds of fine-grained immature sediments. The volcanics are reported to be dominantly massive to poorly bedded plagioclase (± hornblende) porphyritic andesite. The sediments are predominantly grey, brown, and green, thinly bedded tuffaceous siltstone and fine-grained wacke. These Norian to Sinemurian rocks belong to the Unuk River Formation which is the lowermost unit of the Hazelton Group. The basal contact with Triassic strata appears to be near the top of a thick sequence of clastic sedimentary rocks. Neither an angular unconformity nor a widespread conglomerate marks this lower contact. Regional geological government mapping and mapping completed during the 1989 property exploration program indicates this unit underlies the western edge of the property.

Tertiary Hawilson Monzonite (Unit 13c)

The Jurassic Unuk River Formation volcanics are intruded by an Eocene or older monzonite stock that varies from 150 to 350 m in width and appears to be continuous in a north-south direction for about 6 km. The intrusive is comprised of a light grey, fine- to medium-grained monzonite and is described as a "high level" vertically tabular monzonite body that has apparently been

LEGEND

INTRUSIVE ROCKS

TERTIARY

13	POST-TECTONIC DYKES

- 13a [illegible]
- 13b [illegible]
- 13c [illegible]

12	COAST PLUTONIC COMPLEX

- 12a [illegible]
- 12b [illegible]
- 12c [illegible]

JURASSIC

11	NICKEL MOUNTAIN GABBRO: [illegible]

10	SYN TO POST-VOLCANIC INTRUSIONS: [illegible]

- 10a [illegible]
- 10b [illegible]
- 10c [illegible]

9	[illegible] DIORITE SUITE: [illegible]

- 9a [illegible]
- 9b [illegible]
- 9c [illegible]
- 9d [illegible]

TRIASSIC

8	[illegible] GLACIER STOCK: [illegible]

METAMORPHIC ROCKS

A - F	METAMORPHIC EQUIVALENTS OF UNITS 1, 2 OR 3

- A [illegible]
- B [illegible]
- C [illegible]
- D [illegible]
- E [illegible]
- F [illegible]

GOSSANOUS ALTERATION ZONES

- [illegible]
- [illegible]

VOLCANIC AND SEDIMENTARY ROCKS

[illegible]

QUATERNARY

RECENT

17	UNCONSOLIDATED SEDIMENTS

- 7a [illegible]
- 7b [illegible]

PLEISTOCENE TO RECENT

6	BASALT FLOWS AND TEPHRA

- 6a [illegible]
- 6b [illegible]

TRIASSIC TO JURASSIC

HAZELTON GROUP

MIDDLE JURASSIC (TOARCIAN TO BAJOCIAN)

5	SILTSTONE SEQUENCE [illegible]

- 5a [illegible]
- 5b [illegible]
- 5c [illegible]
- 5d [illegible]

LOWER JURASSIC (TOARCIAN)

4	FELSIC VOLCANIC SEQUENCE [illegible]

- 4a [illegible]
- 4b [illegible]
- 4c [illegible]

LOWER JURASSIC (PLIENSBACHIAN TO TOARCIAN)

3	PYROCLASTIC-EPICLASTIC SEQUENCE [illegible]

- 3a [illegible]
- 3b [illegible]
- 3c [illegible]
- 3d [illegible]
- 3e [illegible]
- 3f [illegible]

UPPER TRIASSIC TO LOWER JURASSIC (NORIAN TO SINEMURIAN)

2	ANDESITE SEQUENCE [illegible]

- 2a [illegible]
- 2b [illegible]
- 2c [illegible]
- 2d [illegible]
- 2e [illegible]
- 2f [illegible]

TRIASSIC

STUHINI GROUP

UPPER TRIASSIC (CARNIAN TO NORIAN)

1	LOWER VOLCANIC-SEDIMENTARY SEQUENCE: [illegible]

- 1f [illegible]
- 1e [illegible]
- 1d [illegible]
- 1c [illegible]
- 1b [illegible]
- 1a [illegible]

SYMBOLS

- Geological boundary [illegible]
- Bedding [illegible]
- Bedding [illegible]
- Bedding [illegible]
- [illegible]
- [illegible]
- Trend line
- [illegible]
- [illegible]
- [illegible]
- Fault [illegible]
- Thrust fault [illegible]
- [illegible]
- Fossil locality
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- Geologic section
- [illegible] sample site: 871365 (0.8, 46, 3.8, 11) Sample No. (Ag ppm, As ppm, Sb ppm, Au ppb)
- [illegible]
- Mineral occurrence; MINFILE number: X82

AGE	GROUPS	FORMATIONS	MEMBERS	LITHOLOGIES
Bathonian	Bowser Lake	Ashman	Main Sequence Basal Conglomerate	Turbidites, wackes, intraformational conglomerates Chert pebble conglomerates
Bajocian to Toarcian	Spatsizi(?)	Salmon River	Pyjama Beds Basal Limestone	Thin bedded, alternating siltstones and mudstones Gritty, fossiliferous limestone
Toarcian	Hazelton	Mount Dilworth	Upper Lapilli Tuff Middle Welded Tuff Lower Dust Tuff	Dacitic lapilli tuff with flow-bandedd clasts Dacitic welded ash flow and lappilli tuff Dacitic dust tuff
Pliensbachian	Hazelton	Betty Creek	Sedimentary Members Volcanic Members	Hematitic volcaniclastic sediments, and turbidites Andesitic to dacitic tuffs and flows
Sinemurian to Hettangian(?)	Hazelton	Unuk River	Premier Porphyry Upper Andesite Upper Siltstone Middle Andesite Lower Siltstone Lower Andesite	Two feldspar + hornblende porphyritic tuffs Massive tuffs with local volcaniclastic sediments Turbidites, minor limestones Massive tuffs and minor volcaniclastic sediments Turbidites Massive to bedded ash tuffs
Norian to Carnian	Stuhini		Volcanic Members Sedimentary Members	Pyroxene porphyry flows and tuffs Turbidites, limestones, conglomerates

TABLE 1. Table of Formations Unuk River Area

block faulted up into the volcanic sequence. This unit cuts across the western portion of the ACHILLES 3 and 4 claims, which is covered by pre-existing mineral claims.

Structure

Actual fault surfaces or zones are rarely seen in the Unuk River area, but they are probably quite common and may have developed concurrently with regional folding. Britton et al.(1989) mapped several assumed faults to the east of the property boundary. These are assumed to be normal faults and are described as megascopic structures with relatively little offset.

ECONOMIC GEOLOGY

Britton et al.(1989) listed 55 mineral occurrences on the Unuk area map sheet. These showings are predominantly gold/silver occurrences and are hosted by a number of various lithologies. Most can be classified into one of four categories: stratabound, vein, skarn, and disseminations. Grove (1986) determined that the age of the mineralizing events is variable, and notably, can be post-Triassic.

Stratabound mineralization consists almost exclusively of pyritic zones and lenses contained within a particular stratum or restricted set of strata. The best example is the Eskay Creek prospect currently being explored by Calpine Resources Incorporated and Consolidated Silver Ltd.

Intrusive contact (skarn) deposits show a close spatial and temporal relationship with igneous intrusions. Three deposits in this category are the E & L nickel/copper deposit (Minfile #006), the Max copper/iron skarn (Minfile #013), and the Chris-Anne copper/iron skarn (Minfile #125). Britton et al. (1989) stated:

> Mineralization at the E & L occurs within two medium- to coarse-grained, olivine-pyroxene gabbro bodies. These roughly triangular plugs are each approximately 1300 square metres in area and are probably connected. They intruded a sequence of argillites, tuffaceous siltstones, and grey dacitic ash tuffs that strike northwesterly with moderate to steep southwesterly dips. Mineralization consists of pyrrhotite, pentlandite, and chalcopyrite, with lesser amounts of pyrite and magnetite. In the northwestern gabbro, mineralization extends up to the contact with the sediments, whereas in the southeastern gabbro, mineralization is confined to the pluton. Diamond drilling has delineated pipe-like pods and disseminations of sulphides to a depth of 120 metres. Drill-indicated reserves are 2.8 million tonnes of 0.7% Ni and 0.6% Cu (Sharp, 1965).
>
> The Max prospect lies on the northwest side of McQuillan Ridge, between the Unuk and South Unuk Rivers, at elevations between 455 and 1500 metres. Massive magnetite with lesser pyrrhotite and chalcopyrite occur in skarn-altered sedimentary rocks adjacent to a diorite stock. Garnet, epidote, actinolite, and diopside characterize the skarn assemblage. Drilling has indicated a reserve of 11 million tonnes at 45% iron (Canadian Mines Handbook 1973-1974, page 432).

The Chris-Anne prospect lies approximately 3 kilometres east of the Max. Skarn mineralization is reported in limestone beds which are up to 10 metres thick and that are interbedded with volcaniclastics. Magnetite and pyrrhotite-rich layers, from 0.5 to 7 metres thick, with minor chalcopyrite, extend over a distance of 1 kilometre. There are minor intrusive bodies reported on the property. Grades range from 0.1% to 0.4% copper (Allan and MacQuarrie, 1981).

The gold potential of these skarn deposits does not appear to have been tested. Based on recent skarn studies (Ettlinger and Ray, 1988), this area has many features that are associated with gold-enriched skarns elsewhere in the province: sequences of calcareous and tuffaceous host rocks; structural deformation; intrusion by dioritic I-type granitoids; and contact metamorphism and recrystallization. Some auriferous skarns are enriched in cobalt, an element that may be a useful pathfinder.

High-grade precious metal quartz veins are the target of exploration programs at Mount Madge (Minfile #240 and #233) by Bighorn Development Corporation, and at the Doc prospect (Minfile #014) by Echo Bay Mines Limited. Britton et al.(1989) reported:

The Mount Madge prospects are located south of Sulphurets Creek near its confluence with Unuk River, on the east and west sides of Mandy Glacier. Two different targets are being evaluated (Kruchkowski and Sinden, 1988). On the west, the C-10 prospect (Minfile #240) is a stockwork of thin quartz veinlets, locally with thicker quartz lenses, in intensely altered, fine-grained tuffaceous andesite or dacite. Quartz veinlets locally form up to 30% of the rock. The alteration assemblage consists of quartz and sericite with up to 10% pyrite. Chalcopyrite and traces of sphalerite are also present. The rocks are strongly foliated to schistose and are very similar to the broad alteration zones seen at Brucejack Plateau 12 kilometres to the northeast (Britton and Alldrick, 1988). Soil samples locally return analyses in excess of 1 ppm gold.

Two kilometres to the east, Ken Konkin discovered a massive pyrite-siderite float boulder with visible gold. Prospecting uphill led to the discovery of the GFJ veins (Minfile #233), apparently flat-lying, zoned siderite-quartz-sulphide veins that returned assays up to 121 grams per tonne gold (Kruchkowski and Sinden, 1988). The veins are poorly exposed. Float blocks seen this year display symmetrical zoning from margin to core across vein widths of 10 to 15 centimetres. Vein margins are 1 to 2 centimetres of thin white quartz layers separated by hairline accumulations of very fine-grained tin-white sulphide, probably arsenopyrite. The core is a very coarse-grained intergrowth of siderite, milky quartz, and cubes and clusters of pyrite, with lesser amounts of sphalerite and chalcopyrite as crystals and irregular masses. Rare tetrahedrite and visible gold have been observed (K.Konkin, personal communication, 1988). The veins cut variably foliated andesitic ash tuffs with thin interbeds of foliated to schistose siltstones.

The Doc prospect (Minfile #014) is located at treeline on a ridge overlooking the South Unuk River, opposite the mouth of Divelbliss Creek. The prospect consists of several west-northwest trending quartz veins up to 2 metres wide that have surface strike lengths of up to 275 metres (Gewargis, 1986). The main veins (Q17, Q22) are massive white quartz with sparse sulphide mineralization (5% to 10%) consisting of galena, pyrite, chalcopyrite, and sphalerite, with associated specular hematite and magnetite. Precious metal values are mostly confined to the sheared edges of veins and immediately adjacent wallrock. Shear zones with very little quartz may also return good values. Seraphim (1948) observed that gold was associated with either specular hematite or with galena and pyrite, but not with chalcopyrite and pyrite assemblages. The veins are a true fissure type, crosscutting folded and metamorphosed andesitic tuffs and thin-bedded sediments, including marble, that have been intruded by irregular dioritic dykes or sills and small monzodioritic plugs. The veins are different from any others seen in the Sulphurets or Unuk map areas. They have very restricted wallrock alteration aureoles, no apparent zoning, and appear to be limited to a few large fluid pathways. In this, they display characteristics of mesothermal veins. Structural control of the vein sets has not been determined but may be due to fractures related to folds in the host rocks. Total mineral inventory of the Q17 and other veins is given as 426,000 tonnes with 9.26 grams per tonne gold and 44.91 grams per tonne silver (*Northern Miner*, November 7, 1988).

Porphyry-type disseminated pyrite, chalcopyrite, and molybdenite mineralization occurs immediately north and south of King Creek, west of Harrymel Creek. Two properties have been worked: the VV to the south and the Cole to the north.

The VV property (Minfile #079) is the site of a heavily weathered monzonitic intrusive body in fault contact, on the east and west, with layered andesitic lapilli tuffs and tuff breccias with minor siltstone and calcareous sandstone interbeds. The stock is 250 metres wide, at least 6 kilometres long, strikes northerly, and dips steeply to the west, parallel to the country rocks. Chalcopyrite occurs in quartz stockworks and as fine disseminations within the monzonite. Molybdenite, sphalerite, malachite, and azurite have also been reported (Winter and McInnis, 1975; Mawer et al., 1977). Representative assays give 0.34% copper, 0.003% molybdenum, 2.1 grams per tonne silver, and 0.8 gram per tonne gold. Maximum gold and silver values obtained were 8.65 grams per tonne gold and 19.54 grams per tonne silver (Mawer et al., 1977).

The Cole prospect (Minfile #209) is situated approximately 4 kilometres north of the VV claims; it appears to be on strike with the same fault system and has similar intrusive and country rocks. Mineralization consists of up to 10% pyrite as disseminations and fracture fillings. Minor chalcopyrite and malachite have been reported but the bedrock source of the gold/silver soil anomalies has not been located (Korenic, 1982; Gareau, 1983). Reported assays range up to 0.43% copper, 7.12 grams per tonne gold, and 13.03 grams per tonne silver. Gold and copper values show a positive correlation on both properties.

At this time, the Eskay Creek prospect, located 20 km northeast of the ACHILLES claims, is the most significant showing in the area. This prospect comprises at least eight mineralized zones occurring over a strike length of 1800 m within a sequence of felsic volcanics (Mount Dilworth Formation). This property is currently being explored by Calpine and Consolidated Stikine Silver. Preliminary drilling on the '21 Zone' intersected 96 feet assaying 0.752 oz/ton gold and 1.13 oz/ton silver including 52.5 feet grading 1.330 oz/ton gold and 1.99 oz/ton silver (*Northern Miner*, November 7, 1988).

The drilling results obtained to date indicate that the '21 Zone' extends over 335 m and is open along strike and at depth. Based on the results of 70 drill holes completed to June 1, 1989, a preliminary geological reserve of 2.8 million tons grading 0.23 oz/ton gold and 3.3 oz/ton silver was calculated for the '21 Zone' (Consolidated Stikine Silver, 1989 Annual Report). These deposits have been variously described as silicified shear zones (Harris, 1985) or as volcanogenic deposits (Donnelly, 1976). The mineralization is associated with disseminated sulphides in felsic volcanic breccias and graphitic argillites in contact with overlying intermediate volcanic rocks.

A review of all the available information (Minfile, assessment reports, geological maps, reports, etc.) indicates that no mineralized occurrences or prospects are known within the area currently covered by the ACHILLES claims.

The 'VV' prospect (Minfile #079) is located 1.5 km west of the property boundary. Widespread copper and lesser molybdenite mineralization is found mostly concentrated in and associated with quartz stockworks within a sericitized monzonite. The best chip sample result from this gossan was 0.87% Cu, 0.06 oz/ton silver, and 0.055 oz/ton gold across 36 feet (Great Plains Development Company Ltd., 1970). Assays of grab samples were reported as high as 1.75 oz/ton silver and 0.25 oz/ton gold.

Sphalerite mineralization (Minfile #152) was found peripheral to the monzonite stock within altered pyroclastic breccia north of the 'VV' prospect. Mineralization consisted of dark brown sphalerite within well crystallized quartz and quartz-calcite veinlets ranging up to a few centimetres in width cutting pyroclastic breccia. Overall grade is less than 0.1% Zn over an area 61 x 30 metres. The sphalerite is present only in quartz ± calcite veinlets.

The Cole-King Creek Cu/Ag/Au showing (Minfile #209) occurs 1 km north of the property, adjacent to the same monzonite stock. In 1983, a grab sample taken from a quartz-pyrite vein of variable width ranging from 5 to 50 cm assayed 5.14 grams/tonne au, 44.57 grams/tonne Ag, and 0.003% Cu. It appears that gold values are associated with quartz-pyrite vein mineralization.

In 1929, two placer claims were located near the mouth of Fewright Creek (Minfile #223). Gravels were reported to carry free gold on the surface to an equivalent amount of approximately 14 grams/tonne Au.

1989 EXPLORATION PROGRAM

The 1989 property exploration program, completed between September 9 and October 16, consisted of helicopter-supported reconnaissance prospecting, geological mapping, and geochemistry (lithogeochemical, stream silt, and heavy mineral sampling). Areas of known mineralization and gossans noted within the area were investigated and sampled.

A total of 46 rock, 4 stream silt, and 9 heavy mineral samples were forwarded to Bondar-Clegg & Company in Vancouver for multi-element analyses; Au by fire assay-AA and the remaining 29 elements by I.C.P. (results are presented in the Appendix, along with rock sample descriptions).

The accompanying map depicts the property geology (modified after Britton et al.,1989), with 1989 prospecting traverses, sample locations, and Au/Ag/As/Sb analytical results. Descriptions of the exploration completed and the results follow.

ROCK GEOCHEMICAL SAMPLING

Reconnaissance prospecting and geochemical sampling were completed over a large portion of the property. The property is underlain by an assemblage of northeasterly striking interbedded argillite, chert, quartzite, and siltstone of the Upper Triassic Stuhini Group. Feldspar porphyry dykes and diorite dykes were found intruding these sediments in the northeast corner of the ACHILLES 4 claim and in the southern part of the ACHILLES 2 and 3 claims. Volcanics belonging to the Upper Triassic to Lower Jurassic Unuk River Formation underlie the western edge of the property. Fractured and/or brecciated argillite and chert were located in numerous areas within the property boundaries.

Brecciated and sheared interbedded sedimentary rocks (argillite, chert, quartz, and siltstone) were located along King Creek in the northeast corner of the ACHILLES 4 claim. Lithogeochemical sampling yielded elevated to anomalous Au, Ag, As, Zn, and/or Pb results, the vest values being 0.127 oz/ton Au and 0.51 oz/ton Ag from a highly fractured 8 cm wide sandstone bed containing up to 25% sulphides. A summary of the elevated to anomalous analytical results obtained from this area follows:

Sample	Au ppb	Ag ppm	As ppm	Zn ppm	Pb ppm	Description
KYR-15	912	4.4	446	-	-	fract qtz, 15% Py
KYR-16	665	1.5	367	529	-	argillite with qtz-calc stringers, 1% Py
KYR-30	211	1.4	-	-	-	fract chert, minor Py
KYR-31	116	-	221	-	-	quartzite, 5% Py
KYR-33	4358 0.127 oz/T	17.5 0.51 oz/T	1478	768	2352	8 cm sandstone bed, fract, 25% sulphides
KYR-34	177	-	94	721	-	chert, 1% Py
KYR-35	477	3.4	370	3596	409	chert, areas 20% sulphide
KYR-45	-	-	119	-	-	siltstone, minor Py
KYR-40	869 ppm Ba					silty quartzite, 1% Py

In addition to this area, lithogeochemical sampling of fractured, rusty weathered black argillite yielded elevated Au, Ag, and As values in three other locations on the property: in the southeast portion of the ACHILLES 3 claim (KPR-85, KPR-86); in the southwest portion of the ACHILLES 2 claim (KYR-14); and in the northeast part of the ACHILLES 2 claim (KZR-82). A summary of these elevated analytical results follows:

Sample	Au ppb	Ag ppm	As ppm	Description
KPR-85	200	3.8	165	fract calcar black argillite
KPR-86	596	2.0	97	fract black argillite
KYR-14	255	-	-	cherty siltstone
KZR-82	191	1.5	93	fract black argillite, 1% Py

A float sample collected from the southeast corner of the ACHILLES 3 claim of a black argillite containing quartz-carbonate stringers yielded 178 ppb Au and 9432 ppm Pb. A grab sample from the south-central part of the ACHILLES 1 claim at a chert/argillite contact yielded elevated values (107 ppm As and 741 ppm Rb).

Reconnaissance prospecting completed along the lower reaches of King Creek did not locate any sulphide mineralization.

As a generalization, only the central sector of the Hawilson Lake property was investigated during the current exploration program. Additional reconnaissance prospecting, geological mapping, and lithogeochemical sampling are required to fully evaluate the remaining property area. Those areas in which lithogeochemical sampling yielded elevated precious metals results should be re-investigated as to the significance of these values, particularly the northeast part of the ACHILLES 4 claim.

STREAM SILT SAMPLING

Stream silt geochemical sampling was conducted on the property as part of the current exploration program. Stream silt samples were collected whenever streams were crossed during reconnaissance prospecting traverses. The designation of anomalous values is based on regional G.S.C. survey results in Open File 1645 combined with a visual observation of data obtained during the 1989 exploration on a number of claim groups in the Unuk River area.

Based on these criteria, there were no anomalous precious metals values detected. Sample KZL-33 yielded an elevated arsenic value (104 ppm) and sample KPL-34 yielded an elevated silver value (1.1 ppm). Sample KZL-33 was collected from the northwestern portion of the ACHILLES 2 claim and sample KPL-34 from the southeast portion of the ACHILLES 3 claim.

HEAVY MINERAL SAMPLING

A heavy mineral stream sediment sampling survey was conducted on the property as part of the current exploration program. Heavy mineral samples were collected in parts of a creek where there is a sudden transition from high to low energy, if present, moss mat was used. Samples were sieved to -20 mesh and a 3 to 5 kg sample of sieved material was collected.

The samples were forwarded to Bondar-Clegg and Company in Vancouver for multi-element analyses: Au by fire assay-AA and the remaining 29 elements by I.C.P. The heavy mineral separation consists of floating off the light (<3.3) minerals using methylene-iodine followed by magnetic separation. A sample weight of 0.5 grams is taken for the I.C.P. and the remainder used for fire assay.

The heavy mineral sampling survey was conducted by Mr. M. Waskett-Myers of Keewatin Engineering Inc. which company has done a considerable amount of work in the Unuk River area, and in the process, has assembled a fairly substantial data base. These data were used to assess the values obtained on the property.

Heavy mineral sampling is a good first-pass tool and should be considered as a micro-prospecting approach to evaluating an area. A total of nine heavy mineral samples were collected from creeks draining the property area.

Sample KWH-32, from a creek located near the northeast corner of the ACHILLES 4 claim, yielded an anomalous gold value of 3847 ppb. This creek originates beyond the property boundary; consequently, the elevated values may be due to mineralization located on the adjacent property. Reconnaissance prospecting completed along King Creek, directly east of this sample site, located brecciated and sheared interbedded sediments from which a number of lithogeochemical samples yielded elevated to anomalous gold values. The lower portions of this drainage occurring within the property area should be prospected, and stream silt samples should be collected at regular intervals.

In addition to this, three other samples yielded weakly elevated gold values (KWH-18B, 180 ppb; KWH-22, 115 ppb; KWH-29, 120 ppb).

Silver, arsenic, and base metals values are elevated to anomalous in all the samples other than KWH-61. Sample KWH-61, collected from a creek paralleling the eastern boundary of the ACHILLES 1 claim, yielded elevated values for some of the more unusual elements (Sn 35 ppm, Te 78 ppm, Nb 34 ppm, Ga 62 ppm, and Bi 30 ppm).

Stream silt samples should be collected at regular intervals along all creeks draining the property area.

SUMMARY AND RECOMMENDATIONS

The 1989 exploration program consisted of helicopter-supported reconnaissance prospecting, geological mapping, and geochemical sampling, with the objective of evaluating the property's potential for hosting economic precious metals deposits and for the purpose of fulfilling the assessment requirements.

The property is underlain by an assemblage of northeasterly striking interbedded argillite, chert, quartzite, and siltstone of the Upper Triassic Stuhini Group, locally intruded by Middle Jurassic or younger dioritic dykes. Fractured and/or brecciated argillite and chert were located in numerous areas within the property boundaries.

Lithogeochemical sampling in the northeast corner of the ACHILLES 4 claim yielded elevated to anomalous Au, Ag, As, Zn, and/or Pb values, with the best results being 0.127 oz/ton Au and 0.51 oz/ton Ag from a highly fractured 8 cm wide sandstone bed containing 25% sulphides.

In addition to this area, lithogeochemical sampling of fractured black argillite yielded elevated gold values ranging from 191 to 596 ppb in three other locations on the property.

A heavy mineral stream sediment sampling survey was completed over the property as part of the 1989 exploration program. One sample, collected from a creek located near the northeast corner of the ACHILLES 4 claim adjacent to the area from which a lithogeochemical sample yielded 0.127 oz/ton Au, assayed an anomalous gold value of 3847 ppb. This creek originates beyond the property boundary; consequently, this anomalous gold value may be due to mineralization located on the adjacent property. In addition to this, three other samples yielded weakly elevated gold values. Silver, arsenic, and base metals values are elevated to anomalous in all the samples.

The 1989 exploration program on the Hawilson Lake property located a number of areas requiring additional exploration. The areas from which lithogeochemical sampling yielded elevated gold values should be re-investigated, particularly the northeast corner of the ACHILLES 4 claim. Reconnaissance prospecting along with the collection of stream silt samples at regular intervals should be completed along all the drainage courses on the property. Reconnaissance prospecting and lithogeochemical sampling (if warranted) should be conducted over those portions of the property not examined during the current exploration program. Those areas in which the 1988 airborne electromagnetic and magnetic survey outlined anomalous resistivity lows and conductive zones should be examined to determine their significance.

CERTIFICATE - C. H.Aussant

I, Claude Henry Aussant, of 31 Templebow Way N.E. in the City of Calgary in the Province of Alberta, do hereby certify that:

1. I am a Consulting Geologist with the firm of Taiga Consultants Ltd. with offices at Suite 400, 534 - 17th Avenue S.W., Calgary, Alberta.

2. I am a graduate of the University of Calgary, B.Sc.Geology (1976), and I have practised my profession continuously since graduation.

3. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta; and I am a Fellow of the Geological Association of Canada.

4. I am the author of the report entitled "Geological, Prospecting, and Geochemical Report on the Hawilson Lake Property, ACHILLES 1 to 4 Claims, Skeena Mining Division, British Columbia", dated November 6, 1989. I personally worked on the property during the program described herein.

5. I do not own or expect to receive any interest (direct, indirect, or contingent) in the property described herein nor in the securities of Winslow Gold Corp. or Bethlehem Resources Corp., in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 6th day of November, A.D. 1989.

Respectfully submitted,

PERMIT TO PRACTICE
TAIGA CONSULTANTS LTD.
Signature
Date January 16, 1990
PERMIT NUMBER: P 2399
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

C. H. Aussant, B.Sc., P.Geol., F.GAC

GEOLOGICAL ASSOCIATION OF CANADA · FELLOW · C. H. AUSSANT

PROFESSIONAL GEOLOGIST ALBERTA · CLAUDE H. AUSSANT

CERTIFICATE

I, DAVID GEORGE DuPRE, of 56 Parkgrove Crescent in the Municipality of Delta in the Province of British Columbia, do hereby certify that:

1) I am a graduate of the University of Calgary, B.Sc. Geology (1969), and have practised my profession continuously since graduation.

2) I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta; and I am a Fellow of the Geological Association of Canada.

3) I am a consulting geologist with the firm of Keewatin Engineering Inc. with offices at Suite 800 - 900 West Hastings Street, Vancouver, British Columbia.

4) I am the co-author of the report entitled "Geological, Prospecting, and Geochemical Report on the **Hawilson Lake Property**, ACHILLES 1 to 4 Claims, Skeena Mining Division, British Columbia", dated November 6, 1989. I personally supervised the Hawilson Lake project and visited the site on two occasions between September 6 and October 15, 1989.

5) I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein nor in the securities of **Winslow Gold Corp.** or **Bethlehem Resources Corp.**, in respect of services rendered in the preparation of this report.

Dated at Vancouver, British Columbia this 6th day of November, A.D. 1989.

Respectfully submitted,

D. G. DuPRE

David G. DuPre, B.Sc., P.Geol., FGAC

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A P P E N D I X

Summary of Personnel
Rock Sample Descriptions
Certificates of Analysis
Analytical Techniques

*

SUMMARY OF PERSONNEL

Name / Address	Position	Dates		Man Days
C. H. Aussant Calgary, Alberta	Project Geologist	Sep.9-Oct.16		1.00
M. Waskett-Myers Vancouver, B,C.	Geochemist	Sep.9-Oct.16		2.50
B. McIntyre Vancouver, B.C.	Senior Prospector	Sep.9-Oct.16		4.50
S. Hardlotte LaRonge, Sask.	Senior Prospector	Sep.9-Oct.16		3.50
Don McLeod LaRonge, Sask.	Senior Prospector	Sep.9-Oct.16		2.50
Dennis McLeod Stanley Mission, Sask.	Junior Prospector	Sep.9-Oct.16		3.50
Irvine Roberts Stanley Mission, Sask.	Junior Prospector	Sep.9-Oct.16		2.50
C. Oevermann Smithers, B.C.	Cook	Sep.9-Oct.16		3.00
			TOTAL	23.00

ROCK SAMPLE DESCRIPTIONS

	Au ppb	
KZR-077	<5	float; pale grey pyrite clots in a dacite dyke
KZR-078	<5	grab o/c; dark grey brecciated chert, 3-10% sulphides
KZR-079	<5	grab o/c; light grey porphyritic dacite, <1% pyrite
KZR-080	<5	grab o/c; light grey chert, pyrite as <1% disseminations and as concentrations along fractures seams
KZR-081	61	subcrop; pale grey brecciated chert, 15% diss pyrite
KZR-082	191	grab o/c; fractured black argillite, drusy quartz intergrowths lining vugs, pyrite as 1% disseminations and as clots
KZR-083	16	grab o/c; black argillite, 3% diss pyrite, occ pyrite concentrations in clots
KZR-084	<5	grab o/c; fractured black argillite, numerous calcite stringers, minor diss pyrite along fracture planes
KZR-085	17	grab o/c; fractured black argillite, numerous calcite stringers, 1% disseminated pyrite
KZR-086	87	grab o/c; highly fractured black argillite, numerous quartz stringers, occ calcite stringers, minor disseminated pyrite, brecciated along quartz stringers
KOR-078	<5	grab o/c; brecciated grey chert, minor pyrite
KOR-079	<5	grab o/c; contact between grey chert (1% diss pyrite) and black argillite
KER-091	<5	grab o/c; grey chert, minor disseminated pyrite
KER-092	<5	grab o/c; grey chert, minor pyrite stringers
KER-093	<5	grab o/c; brecciated grey chert, occ quartz stringers, minor pyrite
KPR-052	<5	float; quartz-carbonate flooding in grey andesite tuff, trace galena, <1% pyrite
KPR-053	178	9432 ppm Pb; float; quartz-carbonate veining (gossaned) in black argillite, 3-5% diss pyrite, pyrite crystals, minor galena, trace sphalerite
KPR-084	15	grab o/c; massive chert, light grey, fractured, disseminated pyrite, occ pods of massive sulphides

KPR-085	200	grab o/c; fractured black argillite, calcareous, minor pyrite
KPR-086	596	grab o/c; rusty black argillite, minor pyrite, 112°/85°SSW
KPR-087	71	grab o/c; intermixed black argillite and beige quartzite, 1-2% disseminated pyrite, 355°/85°E
KPR-088	19	grab o/c; massive black argillite, 5% disseminated pyrite, 350° crenulated foliation, minor quartz stringers
KPR-089	<5	grab o/c; fractured grey chert, massive Py concentrations
KYR-08	<5	grab o/c; pale greyish green quartz diorite, minor diss Py
KYR-09	<5	grab o/c; pale greyish green diorite, 1% diss pyrite
KYR-012	11	grab o/c; grey quartz diorite, fine-grained, extremely fracture, calcite fracture filling, <1% diss pyrite
KYR-013	7	grab o/c; grey quartz diorite, fine-grained
KYR-014	255	grab o/c; pale greyish green siltstone, cherty
KYR-015	912	grab o/c; grey quartz, gossaned, fractured, 15% disseminated pyrite, portions up to 50% pyrite
KYR-016	665	grab o/c; quartz-calcite veining in grey argillite, 1% disseminated pyrite
KYR-029	<5	grab o/c; siltstone, mottled black and grey, crenulated foliations, sheared, 5-7% pyrite
KYR-030	211	grab o/c; grey chert, weakly fractured, minor disseminated pyrite, occ calcite stringers
KYR-031	116	grab o/c; pale grey quartzite, 5% disseminated pyrite
KYR-032	<5	grab o/c; pale to dark grey chert, fractured, moderately laminated, 1% diss pyrite and pyrite concentrations along fractures
KYR-033	4358	17.5 ppm Ag, 1478 ppm As, 2352 ppm Pb; grab o/c; sandstone, 8 cm wide, 2 m exposed, highly fractured, with extensive (25%) disseminated pyrite
KYR-034	177	grab o/c; pale grey chert, <1% disseminated pyrite
KYR-035	477	3596 ppm Zn; grab o/c; pale grey chert, 20% diss pyrite, sulphide concentrations within an area 8 cm wide, 2.5m exposed length
KYR-039	<5	grab o/c; dark green andesite, 2% disseminated pyrite

KYR-040	<5	grab o/c; silty quartzite, 1% pyrite
KYR-041	<5	grab o/c; pale grey chert, fractured, <1% pyrite
KYR-042	<5	grab o/c; fine-grained diorite
KYR-043	<5	grab o/c; chert, mottled pale grey to black, 1% diss pyrite
KYR-044	<5	grab o/c; siltstone, pale grey, occ calcite stringers, minor disseminated pyrite
KYR-045	<5	grab o/c; siltstone, pale grey, 5-10% coarse quartz grains, minor disseminated pyrite

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

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PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 KYR 29	*Bethlehem*	<5	<0.2	46	102	<0.5	7	<1	10	27	75	61
R2 KYR 30		211	1.4	30	199	<0.5	5	<1	<5	5	171	68
R2 KYR 31		116	0.5	221	240	<0.5	21	<1	18	36	115	67
R2 KYR 32		<5	0.3	21	321	<0.5	2	<1	6	6	97	77
R2 KYR 33		4358	17.5	1478	38	<0.5	8	5	<5	6	50	493
R2 KYR 34	*Bethlehem*	177	0.7	94	92	<0.5	5	7	8	4	104	77
R2 89KZ-R 82	*Bethlehem*	191	1.5	93	28	<0.5	7	<1	7	13	76	79
R2 89KZ-R 83		16	0.6	26	65	<0.5	4	<1	17	12	14	66
R2 89KZ-R 84		<5	0.2	25	122	<0.5	7	<1	11	11	35	33
R2 89KZ-R 85		17	0.6	53	53	<0.5	6	<1	13	8	26	32
R2 89KZ-R 86	*Bethlehem*	87	0.3	18	79	<0.5	5	<1	13	3	99	70

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Geochemical
Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 27-OCT-89

REPORT: V89-07572.0

PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2 KYR 29		18	<1	17	4	6	64	<2	<20	10	4	<20
R2 KYR 30		15	<1	5	2	9	25	8	<20	<5	2	<20
R2 KYR 31		84	<1	29	4	58	110	2	<20	33	16	<20
R2 KYR 32		14	<1	9	3	8	16	<2	<20	9	4	<20
R2 KYR 33		12	<1	4	31	10	23	2352	<20	44	2	<20
R2 KYR 34		16	2	6	6	16	12	26	<20	9	2	<20
R2 89KZ-R 82		6	<1	2	6	3	11	49	<20	8	2	<20
R2 89KZ-R 83		8	6	6	4	4	13	14	<20	6	3	<20
R2 89KZ-R 84		16	3	8	2	8	6	5	<20	6	2	<20
R2 89KZ-R 85		10	3	5	4	5	5	43	<20	8	2	<20
R2 89KZ-R 86		7	5	4	4	4	5	15	<20	<5	<1	<20

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 KYR 29		10	<10	<10	34	<10	11	139	1
R2 KYR 30		55	<10	<10	42	<10	5	92	1
R2 KYR 31		106	23	45	179	<10	12	56	3
R2 KYR 32		29	<10	<10	35	<10	9	27	<1
R2 KYR 33		43	<10	<10	25	<10	5	768	1
R2 KYR 34		86	<10	<10	45	<10	11	921	3
R2 89KZ-R 82		8	<10	<10	12	<10	2	22	1
R2 89KZ-R 83		10	<10	<10	27	<10	5	61	1
R2 89KZ-R 84		51	<10	<10	36	<10	8	65	1
R2 89KZ-R 85		20	<10	<10	16	<10	8	55	3
R2 89KZ-R 86		8	<10	<10	8	<10	3	36	1

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PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
[illegible]2 KY-R08		<5	0.2	<5	88	<0.5	<2	<1	21	10	42	41
[illegible]2 KY-R09		<5	<0.2	<5	85	<0.5	<2	<1	33	12	67	20

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PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2 KY-R08		11	14	8	2	8	16	13	71	6	4	<20
R2 KY-R09		13	22	13	2	7	16	<2	87	6	7	<20

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 KY-R08		56	10	<10	45	<10	9	67	6
R2 KY-R09		56	<10	<10	83	<10	11	79	8

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REPORT: V89-07574.0

PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 89KE-R 091	B-Alchem	<5	<0.2	6	51	<0.5	2	<1	24	<1	104	4
R2 89KE-R 092		<5	<0.2	<5	45	<0.5	<2	<1	17	1	61	23
R2 89KE-R 093	Bi-Alchem	<5	<0.2	<5	264	<0.5	<2	<1	11	1	260	9
R2 89KP-R 084	B-Alchem	15	0.2	20	185	<0.5	<2	<1	19	<1	63	2
R2 89KP-R 085		200	3.8	165	48	<0.5	3	<1	<5	11	79	55
R2 89KP-R 086		596	2.0	97	90	<0.5	<2	<1	<5	8	69	115
R2 89KP-R 087		71	2.2	66	49	<0.5	<2	<1	7	2	115	108
R2 89KP-R 088		19	0.4	44	47	<0.5	3	<1	11	9	62	28
R2 89KP-R 089	B-Alchem	<5	<0.2	14	38	<0.5	4	<1	20	7	180	34
R2 89KZ-R 077	B-Alchem	<5	0.4	64	84	<0.5	6	<1	<5	25	46	50
R2 89KZ-R 078		<5	0.3	14	99	<0.5	3	<1	13	3	252	13
R2 89KZ-R 079		<5	<0.2	13	392	<0.5	8	<1	19	26	56	34
R2 89KZ-R 080		<5	0.2	17	76	<0.5	<2	<1	12	2	176	7
R2 89KZ-R 081	B-Alchem	61	0.7	36	38	<0.5	4	<1	9	7	13	26

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R2 89KE-R 091		2	14	2	2	2	1	<2	<20	<5	<1	<20
R2 89KE-R 092		4	8	3	3	2	2	<2	<20	<5	1	<20
R2 89KE-R 093		<2	4	<1	2	1	12	6	<20	<5	<1	<20
R2 89KP-R 084		<2	10	<1	3	2	2	67	<20	<5	<1	<20
R2 89KP-R 085		11	1	6	5	6	34	44	<20	10	2	<20
R2 89KP-R 086		9	2	10	3	4	26	7	<20	<5	3	<20
R2 89KP-R 087		5	3	4	7	2	5	50	<20	<5	2	<20
R2 89KP-R 088		4	4	5	3	2	7	10	<20	5	2	<20
R2 89KP-R 089		2	5	4	9	2	33	8	<20	<5	2	<20
R2 89KZ-R 077		16	<1	9	<1	13	58	4	<20	12	16	<20
R2 89KZ-R 078		6	6	2	1	4	14	7	<20	<5	1	<20
R2 89KZ-R 079		21	9	28	2	10	50	<2	<20	5	10	<20
R2 89KZ-R 080		4	6	1	1	3	5	9	<20	<5	<1	<20
R2 89KZ-R 081		4	1	3	4	3	3	18	<20	17	1	<20

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R2 89KE-R 091		6	<10	<10	1	<10	3	15	3
R2 89KE-R 092		5	<10	<10	4	<10	4	42	3
R2 89KE-R 093		4	<10	<10	3	<10	<1	8	<1
R2 89KP-R 084		4	<10	<10	<1	<10	2	33	2
R2 89KP-R 085		23	<10	<10	29	<10	6	43	2
R2 89KP-R 086		8	<10	<10	67	<10	6	65	2
R2 89KP-R 087		5	<10	<10	27	<10	2	39	1
R2 89KP-R 088		6	<10	<10	26	<10	4	37	1
R2 89KP-R 089		3	<10	<10	23	<10	<1	20	1
R2 89KZ-R 077		119	<10	<10	40	<10	10	47	1
R2 89KZ-R 078		13	<10	<10	5	<10	10	16	1
R2 89KZ-R 079		59	<10	<10	139	<10	10	67	2
R2 89KZ-R 080		11	<10	<10	3	<10	4	168	4
R2 89KZ-R 081		22	<10	<10	12	<10	5	54	5

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PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 KYR 035	Bethlehem	477	3.4	370	27	<0.5	2	31	<5	3	111	290
R2 KYR 039	Bethlehem	<5	<0.2	80	149	<0.5	7	<1	<5	36	154	65
R2 KYR 040		<5	0.2	63	869	<0.5	27	<1	26	43	147	41
R2 KYR 041		<5	0.2	37	271	<0.5	<2	<1	7	9	129	85
R2 KYR 042		<5	0.2	44	108	<0.5	6	<1	19	23	99	42
R2 KYR 043		<5	0.3	28	281	<0.5	3	<1	6	8	135	26
R2 KYR 044		<5	0.3	85	90	<0.5	14	<1	29	31	187	60
R2 KYR 045	Bethlehem	<5	0.5	119	51	<0.5	10	<1	18	57	351	44

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PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2 KYR 035		3	<1	3	87	3	10	[redacted]09	92	28	2	<20
R2 KYR 039		19	<1	20	<1	10	148	<2	26	17	3	<20
R2 KYR 040		42	3	48	4	35	211	11	<20	45	15	<20
R2 KYR 041		8	2	7	2	6	32	3	50	6	3	<20
R2 KYR 042		19	6	10	2	10	67	<2	<20	11	5	<20
R2 KYR 043		11	<1	7	2	10	15	4	36	7	1	<20
R2 KYR 044		27	7	36	<1	25	125	<2	<20	[illegible]	12	<20
R2 KYR 045		20	4	56	<1	30	307	<2	374	32	21	[illegible]

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 KYR 035		36	14	<10	22	28	5	596	1
R2 KYR 039		65	<10	11	82	<10	11	60	7
R2 KYR 040		119	<10	42	183	34	13	76	14
R2 KYR 041		58	<10	<10	16	<10	4	108	1
R2 KYR 042		98	<10	11	89	<10	7	74	9
R2 KYR 043		121	<10	<10	21	<10	5	27	<1
R2 KYR 044		37	<10	57	192	<10	10	120	4
R2 KYR 045		53	32	65	171	<10	10	198	2

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Geochemical Lab Report

DATE PRINTED: 13-OCT-89

REPORT: V89-06886.0

PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 89KF-R042	Bethlehem/...	<5	0.3	22	71	<0.5	<2	<1	6	5	73	40
R2 89KE-R043	Bethlehem/...	<5	<0.2	13	77	<0.5	<2	<1	6	7	71	70
R2 89KP-R52	Bethlehem	<5	<0.2	26	47	<0.5	<2	<1	15	14	62	70
R2 89KP-R53	Bethlehem	178	4.5	241	17	<0.5	<2	<1	<5	<1	95	52

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PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sr PPM	Sn PPM
R2 89KE-R042		<2	2	5	1	<1	9	<2	63	<5	1	<20
R2 89KF-R043		<2	2	8	1	<1	6	2	59	<5	2	<20
R2 89KP-R52		12	6	12	<1	7	14	69	47	<5	6	<20
R2 89KP-R53		<2	<1	2	1	<1	3	[illegible]9432	37	<5	1	<20

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 89KE-R042		6	<10	<10	20	<10	4	46	<1
R2 89KE R043		5	<10	<10	19	<10	2	208	<1
R2 89KP-R52		70	<10	<10	84	<10	10	202	2
R2 89KP-R53		16	<10	<10	12	<10	3	99	1

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PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
3R2 89KO-R 078	Bethlehem	<5	<0.2	11	231	<0.5	4	<1	10	15	75	39
3R2 89KO-R 079	Bethlehem	<5	0.4	107	171	<0.5	33	<1	7	33	34	96

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REPORT: V89-07571.0

PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2 89KO-R 078		8	5	14	2	4	20	<2	<20	4	5	<20
R2 89KO-R 079		68	<1	18	4	46	28	22	341	56	13	<20

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REPORT: V89-07573.0

PROJECT: HNUK

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 89KO-R 078		11	<10	<10	62	<10	10	79	2
R2 89KO-R 079		146	25	39	245	33	11	142	3

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PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 KY-R012	Bethlehem	11	<0.2	<5	158	<0.5	4	<1	19	4	37	7
R2 KY-R013	↑	7	<0.2	<5	136	<0.5	6	1	18	9	22	8
R2 KY-R014		255	<0.2	<5	129	<0.5	<2	<1	12	1	66	10
R2 KY-R015	↓	912	4.4	346	28	<0.5	3	3	<5	2	104	75
R2 KY-R016	Bethlehem	665	1.5	367	76	<0.5	7	6	12	4	80	147

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R2 KY-R012		15	8	7	<1	6	5	14	141	6	2	<20
R2 KY-R013		14	7	10	1	5	6	<2	78	8	4	<20
R2 KY-R014		9	5	4	<1	4	3	7	41	<5	1	<20
R2 KY-R015		<2	<1	2	83	<1	13	49	157	30	<1	<20
R2 KY-R016		11	4	3	24	17	26	67	59	19	1	<20

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PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 KY-R012		94	<10	<10	14	<10	6	87	2
R2 KY-R013		56	<10	<10	41	<10	8	86	1
R2 KY-R014		19	<10	<10	5	<10	4	31	3
R2 KY-R015		6	<10	<10	8	<10	<1	16	<1
R2 KY-R016		129	<10	<10	91	<10	11	529	2

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V7P 2R5
(604) 985-0681 Telex 04-352667

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 27-OCT-89

REPORT: V89-07576.0

PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
T1 89KO-L 080	Bethlehem [illegible]	36	0.3	67	128	<0.5	5	<1	27	22	29	51
T1 89KP-L 034	Bethlehem	19	1.1	45	93	<0.5	6	<1	25	23	33	55
T1 89KZ-L 033	Bethlehem	<5	0.6	104	166	<0.5	3	1	25	31	27	85
T1 89KZ-L 034	Bethlehem	<5	0.4	67	158	<0.5	5	<1	27	30	25	78

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
T1 89KO-L [illegible]		39	<10	<10	63	<10	10	257	3
T1 89KP-L 034		96	<10	<10	69	<10	14	247	16
T1 89KZ-L 033		40	<10	<10	66	<10	9	403	4
T1 89KZ-L 034		55	<10	<10	57	<10	12	353	6

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
T1 89KO-L [illegible]0		17	7	17	5	8	37	13	<20	10	4	<20
T1 89KP-L 034		25	11	17	4	19	40	4	<20	9	6	<20
T1 89KZ-L 033		21	8	15	6	8	44	22	<20	16	5	<20
T1 89KZ-L 034		23	7	16	5	11	45	18	<20	9	4	<20

ACHILLES PROPERTY
HEAVY MINERAL RESULTS

LAB NUMBER	FIELD NUMBER	LOCATI	Au(30g) (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Ga (ppm)	La (ppm)
75770013	89 K WH29	ACH	[redacted]	[redacted]	[redacted]	122	-0.5	8	11	18	64	68	433	4	8
75770014	89 K WH30	ACH	18	[redacted]	[redacted]	353	-0.5	-2	7	17	48	64	190	-2	2
75770015	89 K WH31	ACH	50	[redacted]	[redacted]	80	-0.5	7	14	41	38	57	733	-2	21
75770016	89 K WH32	ACH	[redacted]	[redacted]	[redacted]	211	-0.5	10	5	21	51	80	290	-2	5
75770017	89 K WH33	ACH	22	[redacted]	134	199	-0.5	7	3	37	45	69	350	3	21
75770051	89 K WH61	ACH	14	[redacted]	144	361	-0.5	[redacted]	-1	5	79	119	345	[redacted]	6
75770005	89 K WH22	ACH	[redacted]	[redacted]	149	142	-0.5	-2	2	23	85	78	219	-2	-1
75770006	89 K WH23 ✓	ACH	85	0.6	178	207	-0.5	-2	-1	24	92	99	237	-2	-1

LAB NUMBER	Li (ppm)	Mo (ppm)	Nb (ppm)	Ni (ppm)	Pb (ppm)	Rb (ppm)	Sb (ppm)	Sc (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Te (ppm)	V (ppm)	W (ppm)	Y (ppm)	Zn (ppm)	Zr (ppm)
75770013	5	77	2	194	33	133	41	7	-20	134	-10	-10	101	12	30	1099	9
75770014	6	44	-1	277	-2	177	30	6	-20	55	-10	-10	246	-10	30	562	5
75770015	4	50	7	148	21	162	40	6	-20	218	-10	-10	68	-10	74	1272	5
75770016	5	49	-1	127	10	172	29	5	-20	74	-10	-10	117	-10	20	728	7
75770017	6	22	5	102	14	116	30	7	-20	200	-10	-10	82	-10	47	536	5
75770051	12	8	34	169	89	-20	82	6	[redacted]	58	-10	[redacted]	111	-10	8	242	18
75770005	9	17	-1	179	-2	924	-5	6	-20	37	-10	-10	92	-10	12	[illegible]	19
75770006	7	19	-1	352	-2	959	12	4	35	38	15	-10	59	-10	14	504	15

HEAVY MINERAL RESULTS

LAB NUMBER	FIELD NUMBER	LOCAT1	Au(30g (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Ga (ppm)	La (ppm)	Li (ppm)	Mo (ppm)	Nb (ppm)	Ni (ppm)	Pb (ppm)	Rb (ppm)	Sb (ppm)	Sc (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Te (ppm)	V (ppm)	W (ppm)	Y (ppm)	Zn (ppm)	Zr (ppm)
75770001	89 K WH188	HOM	580	2.8	221	144	-0.5	-2	4	22	90	42	848	-2	12	10	43	-1	248	3	194	38	7	-20	59	-10	-10	81	-10	31	772	8

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V89-06781.0 (COMPLETE)

REFERENCE INFO:

CLIENT: KEEWATIN ENGINEERING INC.
PROJECT: PARADIGM

SUBMITTED BY: TERRAMIN RES. LAB
DATE PRINTED: 4-OCT-89

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold - Fire Assay	93	5 PPB	FIRE-ASSAY	Fire Assay AA
2	Ag	Silver	93	0.2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
3	As	Arsenic	93	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
4	Ba	Barium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
5	Be	Beryllium	93	0.5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
6	Bi	Bismuth	93	2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
7	Cd	Cadmium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
8	Ce	Cerium	93	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
9	Co	Cobalt	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
10	Cr	Chromium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
11	Cu	Copper	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
12	Ga	Gallium	93	2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
13	La	Lanthanum	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
14	Li	Lithium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
15	Mo	Molybdenum	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
16	Nb	Niobium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
17	Ni	Nickel	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
18	Pb	Lead	93	2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
19	Rb	Rubidium	93	20 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
20	Sb	Antimony	93	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
21	Sc	Scandium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
22	Sn	Tin	93	20 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
23	Sr	Strontium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
24	Ta	Tantalum	93	10 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
25	Te	Tellurium	93	10 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
26	V	Vanadium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
27	W	Tungsten	93	10 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
28	Y	Yttrium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
29	Zn	Zinc	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
30	Zr	Zirconium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma

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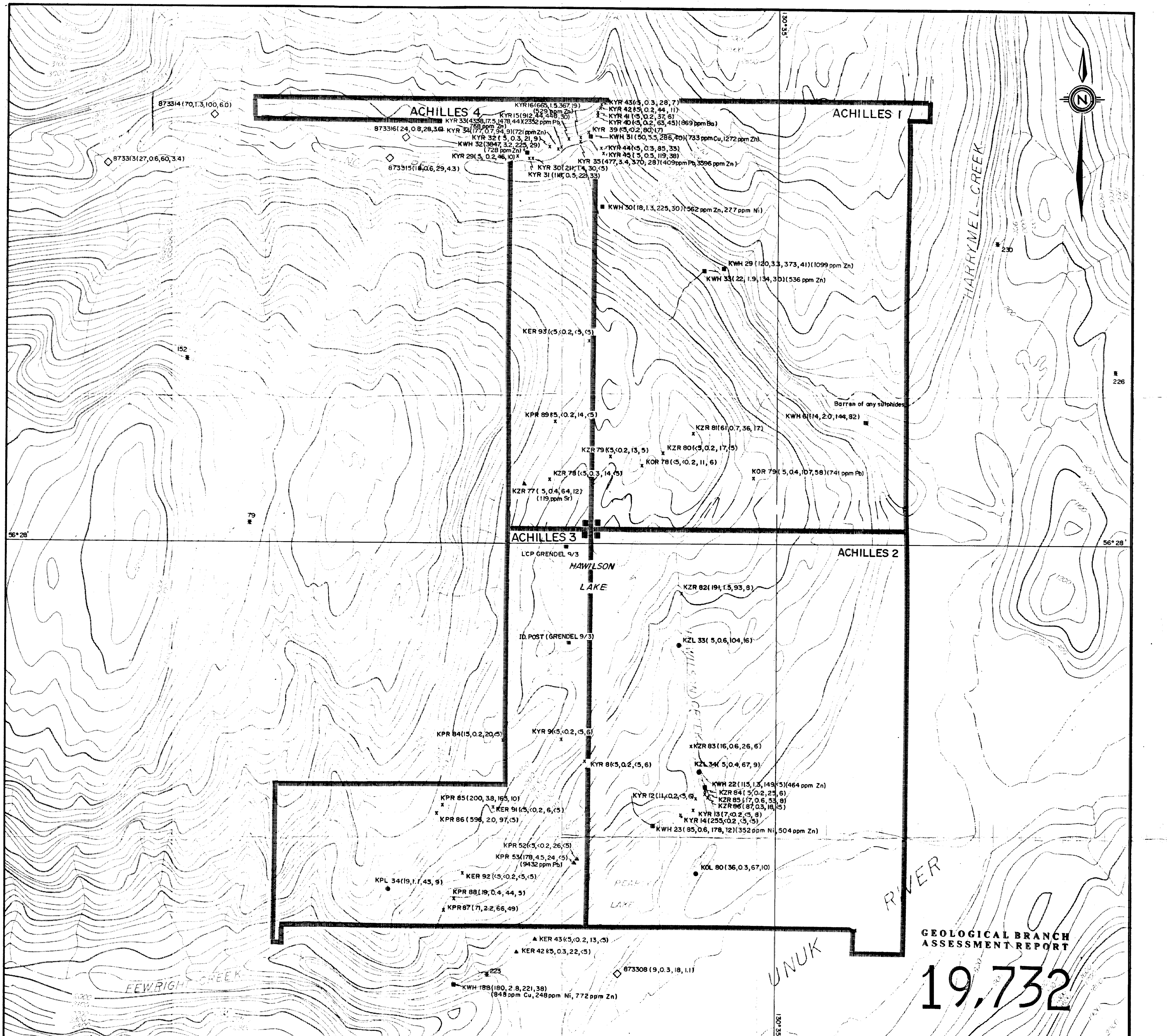
SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
T STREAM SEDIMENT,SILT	41	1 -80	41	DRY, SIEVE -80	41
R ROCK OR BED ROCK	52	2 -150	52	CRUSH,PULVERIZE -150	52

REPORT COPIES TO: KEEWATIN ENGINEERING INC.
TAIGA CONSULTANTS LTD.

INVOICE TO: KEEWATIN ENGINEERING INC.



LEGEND

- ◇ Regional stream silt sample site (Au ppb, Ag ppm, As ppm Sb ppm)
- Minfile mineral occurrence (Cu ppm, Pb ppm, Zn ppm, Au ppb, Ag ppm)
- x Rock sample - outcrop (Au ppb, Ag ppm, As ppm, Sb ppm)
- ▲ Rock sample - float (Au ppb, Ag ppm, As ppm, Sb ppm)
- ● Stream silt sample (Au ppb, Ag ppm, As ppm, Sb ppm)
- ■ Heavy mineral sample (Au ppb, Ag ppm, As ppm, Sb ppm)

GEOLOGICAL ASSOCIATION D. G. DuPRE FELLOW

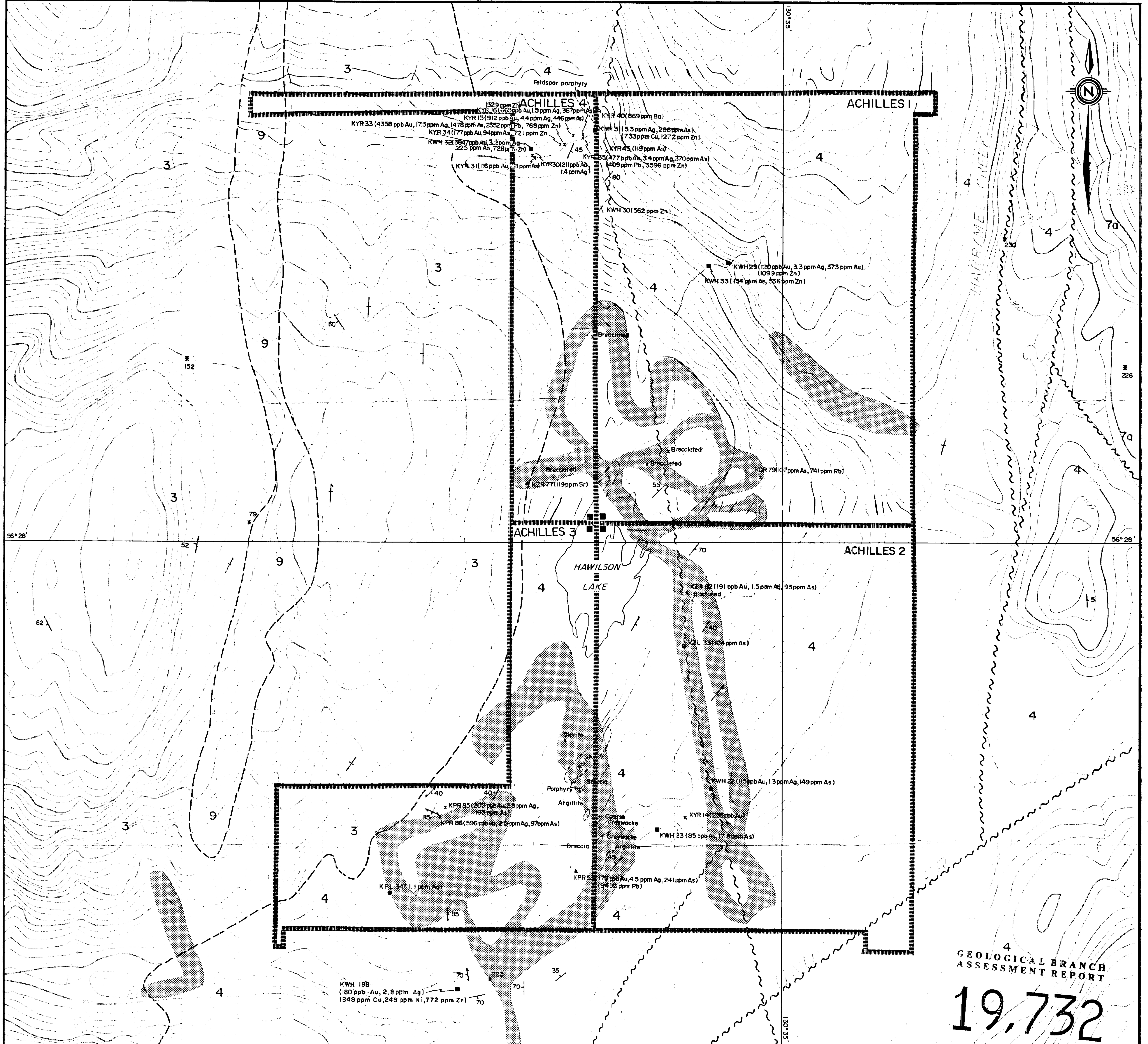
pt 1 of 2

BETHLEHEM RESOURCES CORP.

ACHILLES PROJECT

1989 EXPLORATION SAMPLE LOCATIONS & RESULTS

DATE: OCT. 1989	NTS: 104 B/7
PROJECT: ACHILLES	
SCALE: 1:10,000 (0 100 200 300 400 500 METRES)	
KEEWATIN ENGINEERING INC.	MAP No. 1



LEGEND

Volcanic Sedimentary Rocks

Pleistocene to Recent

[1] Basalt flows and tephra: dark brown to black, minor pillow lavas

Lower Jurassic (Pliensbachian to Toarcian)

[2] Betty Creek Formation: pyroclastic-epiclastic sequence, heterogeneous, grey-green, massive to bedded, pyroclastics and sedimentary rocks (black, thinly bedded siltstone, shale, and argillite)

Upper Triassic to Lower Jurassic (Norian to Sinemurian)

[3] Unuk River Formation: andesite sequence, green and grey, intermediate to mafic volcaniclastics and flows, with locally thick interbeds of fine-grained immature sediments, minor conglomerates, and limestone

Upper Triassic (Carnian to Norian)

[4] Stuhini Group: brown, black, grey; mixed sedimentary rocks (siltstone, shale, argillite, limestone, chert), with minor mafic to intermediate volcanics and volcaniclastic rocks

Intrusive Rocks

Tertiary

[5] Post-Tectonic Dykes

King Creek Dyke Swarm: feldspar porphyry dacite, andesite, diabase, and hornblende to quart diorite; limits of the unit shown indicate where the dykes exceed 50% of the exposed bedrock

[9] Hawilson Monzonite - fine grained monzonite

[6] Coast Plutonic Complex: hornblende-biotite-quartz diorite to granodiorite.

Jurassic

[7] Unuk River Diorite Suite:
- a) Max: biotite-hornblende diorite, quartz diorite, granodiorite
- b) Melville: hornblende-biotite diorite, quartz diorite

Metamorphic Rocks

[8] Metamorphic equivalents of Units 1, 2, or 3
- a) hornblende, mylonite gneiss, mylonite
- b) Unuk-Harrymel Fault Zone, strongly sheared rock within fault zone

AREA OF PROSPECTING COVERAGE

SYMBOLS

- Geological contact (observed, assumed)
- Bedding with dip
- Foliation
- Regional anticline
- Fault (defined, assumed)
- Airphoto lineament
- ◇ Regional stream silt sample site (Au ppb, Ag ppm, As ppm Sb ppm)
- Minfile mineral occurrence (Cu ppm, Pb ppm, Zn ppm, Au ppb, Ag ppm)
- x Rock sample - outcrop (Au ppb, Ag ppm, As ppm, Sb ppm)
- ▲ Rock sample - float (Au ppb, Ag ppm, As ppm, Sb ppm)
- ● Stream silt sample (Au ppb, Ag ppm, As ppm, Sb ppm)
- ■ Heavy mineral sample (Au ppb, Ag ppm, As ppm, Sb ppm)
- Trench

GEOLOGICAL ASSOCIATION OF CANADA · FELLOW · D. G. DuPRE

Pt. 1 of 2

BETHLEHEM RESOURCES CORP.

ACHILLES PROJECT

GEOLOGY & ANOMALOUS VALUES

DATE: OCT. 1989	NTS: 104 B/7
PROJECT ACHILLES	
SCALE: 1:10000	0 100 200 300 400 500
KEEWATIN ENGINEERING INC.	MAP No. 2