

Mikhail Property

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ACTION:
FILE NO:

Geological, Prospecting, and Geochemical Report  
 on the  
**MIKHAIL 1 and 4 Claims**  
 Skeena Mining Division  
 N.T.S. 104-B/10 E  
 Latitude 56°29' North  
 Longitude 130°34' West  
 British Columbia

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 VANCOUVER, B.C.

November 6, 1989

on behalf of  
**SOLOMON RESOURCES LIMITED**  
 Vancouver, B.C.

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

19,678

by

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ABSTRACT

The Mikhail property consists of two contiguous modified-grid claims totalling 36 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 north-south trending Harrymel-South Unuk shear zone transects the property and separates the Upper Triassic to Lower Jurassic rocks in the west half of the property from the Lower Jurassic rocks underlying the east half of the property. The northwest part of the property is underlain by the southern nose of the Melville Diorite stock.

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 10 km northeast of the Mikhail 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 no work has been filed for the specific area now covered by the Mikhail property. The files do,

however, show that the entire Unuk River area was subjected to reconnaissance geological mapping and prospecting by Newmont Mines Ltd. in 1959-1962.

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.

A 6-12 m wide massive magnetite unit, traceable for 900 m, was located along the Melville Diorite contact. This occurrence appears similar to the Max deposit in which massive magnetite with lesser pyrrhotite and chalcopyrite occur in skarn-altered sedimentary rocks adjacent to a diorite stock.

A number of old trenches were found in the southeast corner of the MIKHAIL 4 claim, investigating a well mineralized zone within dark green andesite which hosts 10%-15% pyrrhotite, pyrite, and chalcopyrite. Lithochemical sampling yielded 0.14%-0.20% copper. In the northeast corner of the MIKHAIL 4 claim, a dark green andesite was located, hosting 10% pyrrhotite. These two showings occur along strike of each other, and were probably from the same sulphide-enriched stratigraphic unit which cuts across the entire property.

Stream silt and heavy mineral samples collected from a stream cutting across and draining the northern portion of the MIKHAIL 1 claim yielded elevated to anomalous Ag, Cu, and Zn values. Felsic volcanics were found in the upper reaches of this drainage. Although no mineralization was observed, this area should be re-investigated when taken in the context of the Eskay Creek deposit.

Heavy mineral samples collected from creeks draining the southern portion of the MIKHAIL 1 claim yielded elevated to anomalous Au, Ag, and Zn values.

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## INTRODUCTION

Solomon Resources Limited of Vancouver commissioned Keewatin Engineering Inc. to conduct a field exploration program on the Mikhail 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 this program was to evaluate the property's potential for hosting economic precious metals deposits. Exploration consisted of prospecting, geological mapping, and geochemical sampling. Geochemistry consisted of litho-geochemical, stream silt, and heavy mineral sampling.

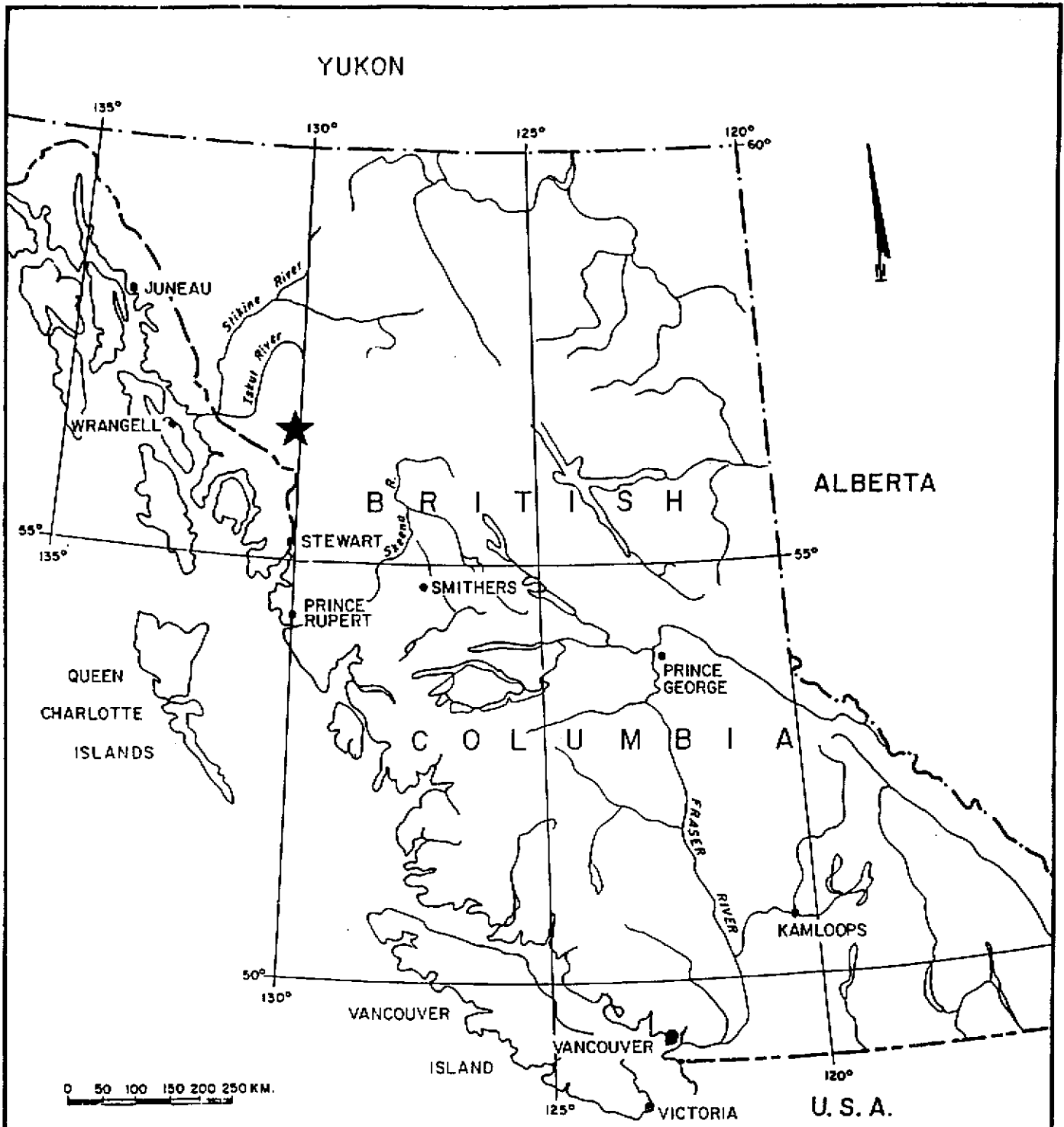
### Location and Access

The Mikhail property is located in northwestern British Columbia, approximately 80 km northwest of Stewart (Figure 1). The claims are situated within N.T.S. map-sheet 104-B/10E and centered about 56°29' North latitude and 130°34' 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.

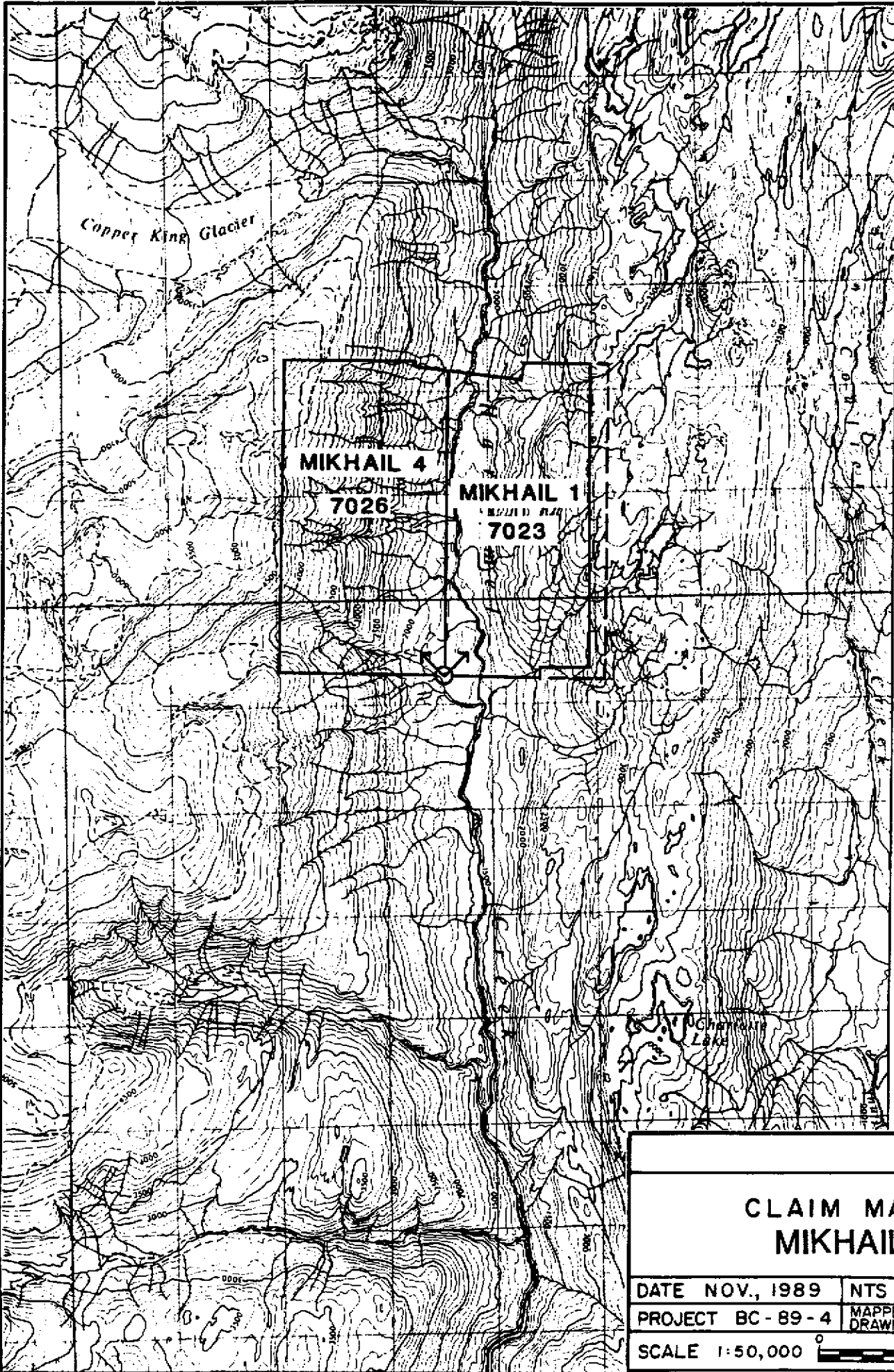
### Property Status and Ownership

The Mikhail property (Figure 2) consists of two modified-grid claims totalling 36 units, located within the Skeena Mining Division. Relevant claims data are tabulated below:



★ PROPERTY LOCATION MAP

Figure 1



56° 30'

**MIKHAIL 4**  
7026

**MIKHAIL 1**  
7023

### CLAIM MAP MIKHAIL

DATE NOV., 1989    NTS 104 B/10

PROJECT BC - 89 - 4    MAPPED/  
DRAWN BY

SCALE 1:50,000    0    1000    2000 m

130° 35'

KEEWATIN ENGINEERING INC. FIG. 2

<u>Claim Name</u>	<u>Record Number</u>	<u>No. of Units</u>	<u>Date of Record</u>	<u>Expiry Date</u>
MIKHAIL 1	7023	18	Dec.05/88	1989
MIKHAIL 4	7026	18	Dec.05/88	1989

These claims are, apparently, the subject of an agreement between the claim holder (Teuton Resources Corp.) and Solomon Resources Limited. The claim records and maps show that the Mikhail property was subsequently overstaked.

### Physiography and Climate

The Mikhail property is situated within the Coast Range Physiographic Division and is characterized by northern rain forests and sub-alpine plateaux. The north-south trending U-shaped Harrymel Creek valley bisects the property. Elevations (see Figure 2) range from 520 m in the valley of Harrymel Creek to 1525 m in the western part of the property. The toes of several glaciers almost reach the western boundary of the property.

A transitional treeline, characterized by dense sub-alpine scrub, meanders through the property at approximately the 915 m elevation. Terrain above treeline is typified by intermontane alpine flora. Conifers up to 30 m tall are common below treeline, especially in 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 short mild 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.



### PREVIOUS 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 drill 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 ore reserve of 2.8 million tons grading 0.23 oz/ton gold and 3.3 oz/ton silver has been calculated for the '21 Zone' (Consolidated Stikine Silver Ltd. - 1989 Annual Report).

The Unuk River area was covered by regional geological mapping in 1988 as part of the Iskut-Sulphurets project carried out 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 R. G. Anderson of 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.) report 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. Three stream

sediment samples were collected from streams draining the Mikhail property. One of these (sample #871365) exhibits elevated to anomalous values in arsenic (48 ppm) and antimony (3.8 ppm). Two other samples (#871368 and #871369) were collected from streams peripheral to the claim boundary, from streams which partially drain the property area. They yielded weakly elevated values in arsenic (41 and 38 ppm) and antimony (2.1 ppm).

A review of the material in the B.C. Ministry of Energy, Mines and Petroleum Resources assessment report archives indicates that no work has been filed for the specific area now covered by the Mikhail property. The files do, however, show that the entire Unuk River area was subjected to reconnaissance geological mapping and prospecting by Newmont Mines Ltd. during the period 1959 to 1962.

The Mikhail property is bisected by a north-south trending cataclastic zone known as the Harrymel-South Unuk Shear Zone. The Harrymel Creek copper showing (Minfile #080) occurs within schists in this cataclastic zone. The Minfile mapping plots this occurrence 2 km south of the Mikhail property. Field investigations located copper mineralization along with trenches in the southeast corner of the MIKHAIL 4 claim. No mineralization was found in the reported location of the Harrymel Creek copper showing. The mineralization located is possibly the Harrymel Creek copper showing.

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

### 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 Mikhail 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 (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.

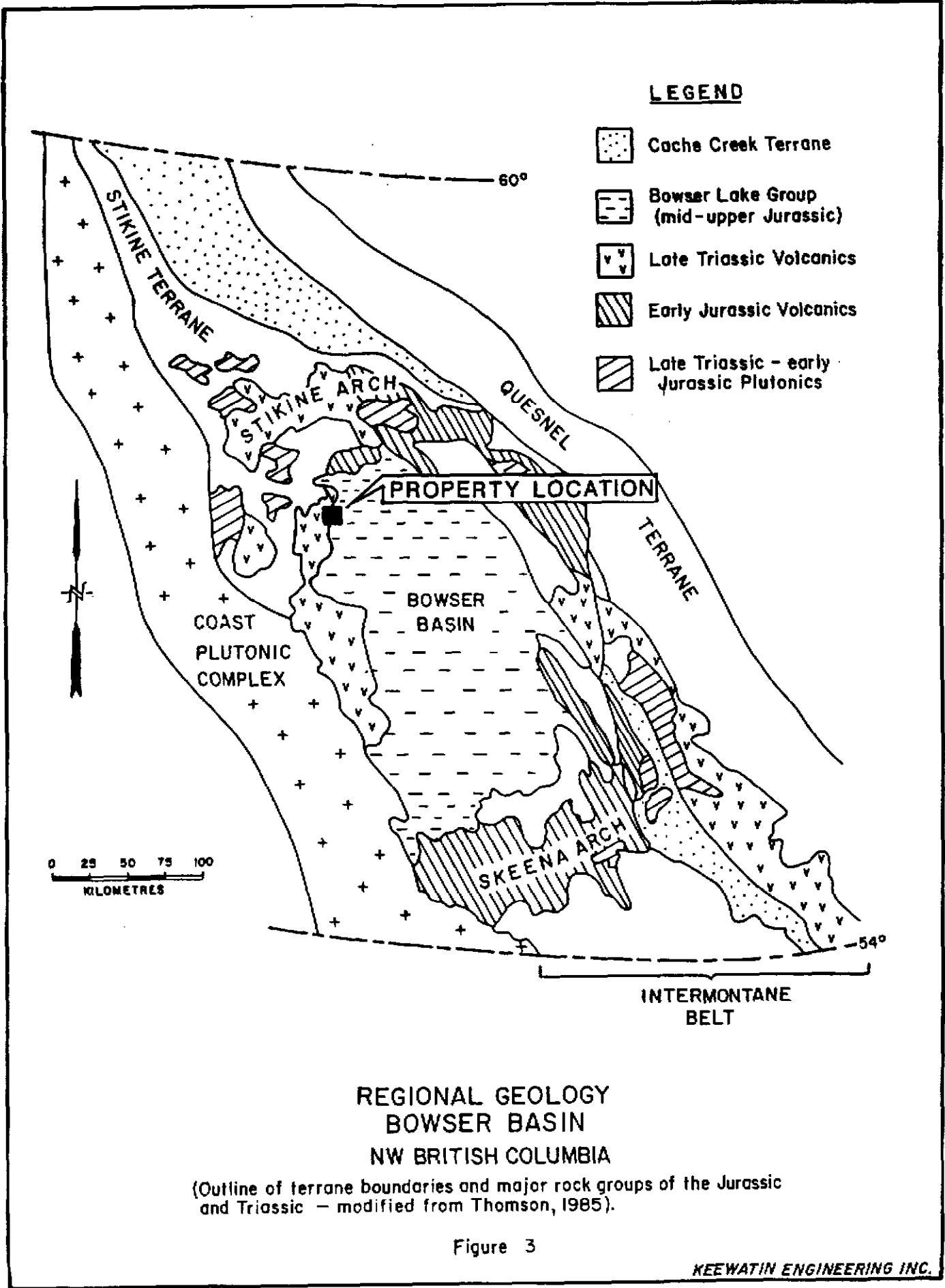
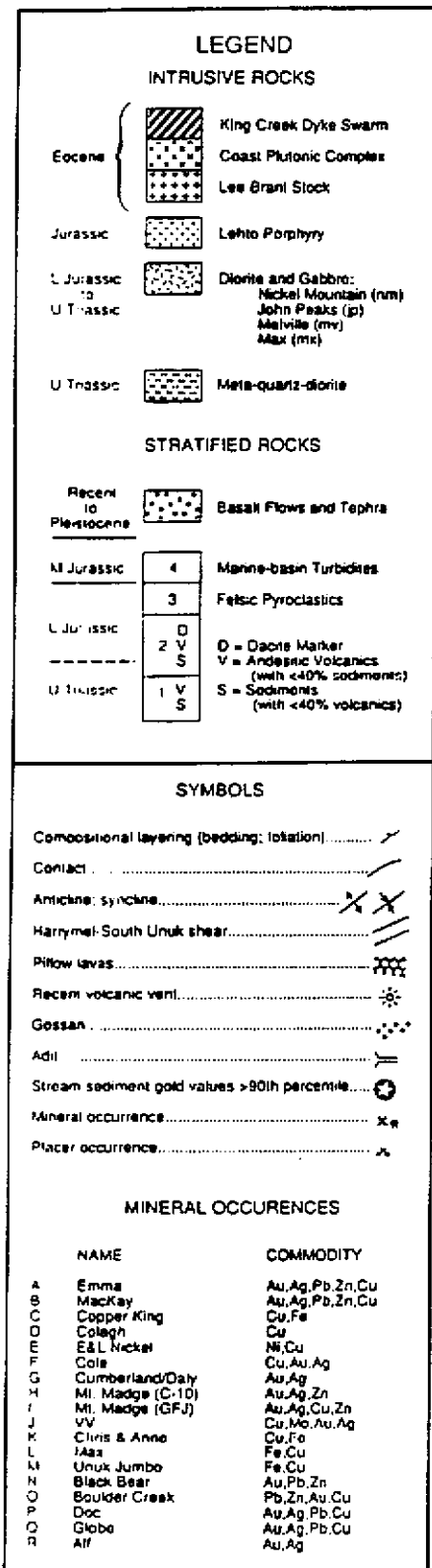
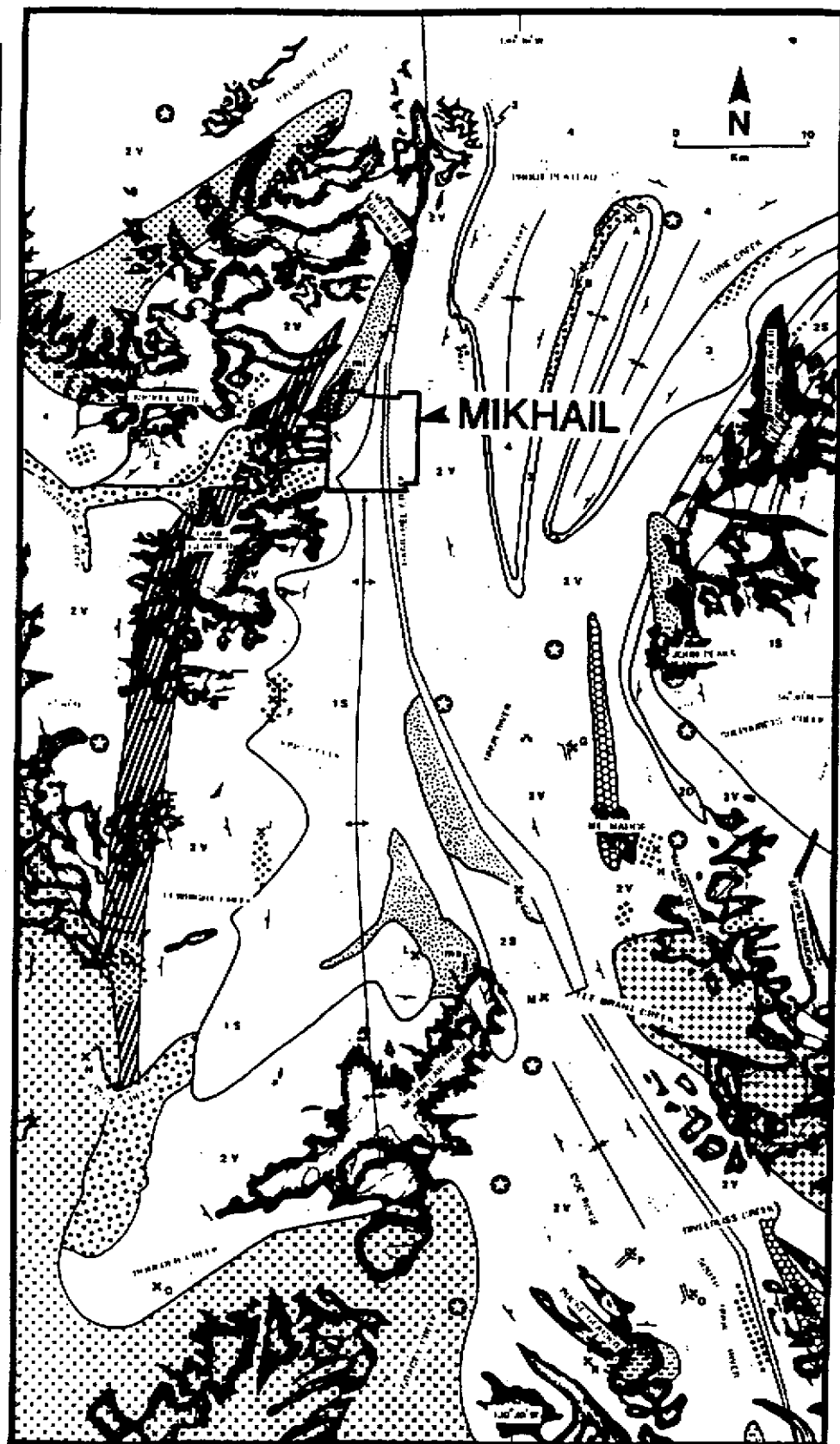


Figure 3



NOTE: Not to scale



Geology and mineral deposits, Unuk map area.

Modified after Britton et. al. (1989)

**PROPERTY GEOLOGY**

Figure 4

### PROPERTY GEOLOGY

Regional geological mapping by Britton et al.(1989) shows that the property is predominantly underlain by Upper Triassic to Lower Jurassic supracrustal rocks (Figure 5). The north-south trending Harrymel-South Unuk shear zone transects the property and separates the Upper Triassic to Lower Jurassic rocks in the western half of the property from the Lower Jurassic rocks which underlie the eastern part of the property. The distribution of map units suggests that the rocks to the west of the major shear zone dip shallowly to the west; units in the eastern part of the property display a moderate easterly dip. The northwestern corner of the property is underlain by the southern nose of the Melville Diorite Stock.

#### Upper Triassic Stuhini Group (Unit 1)

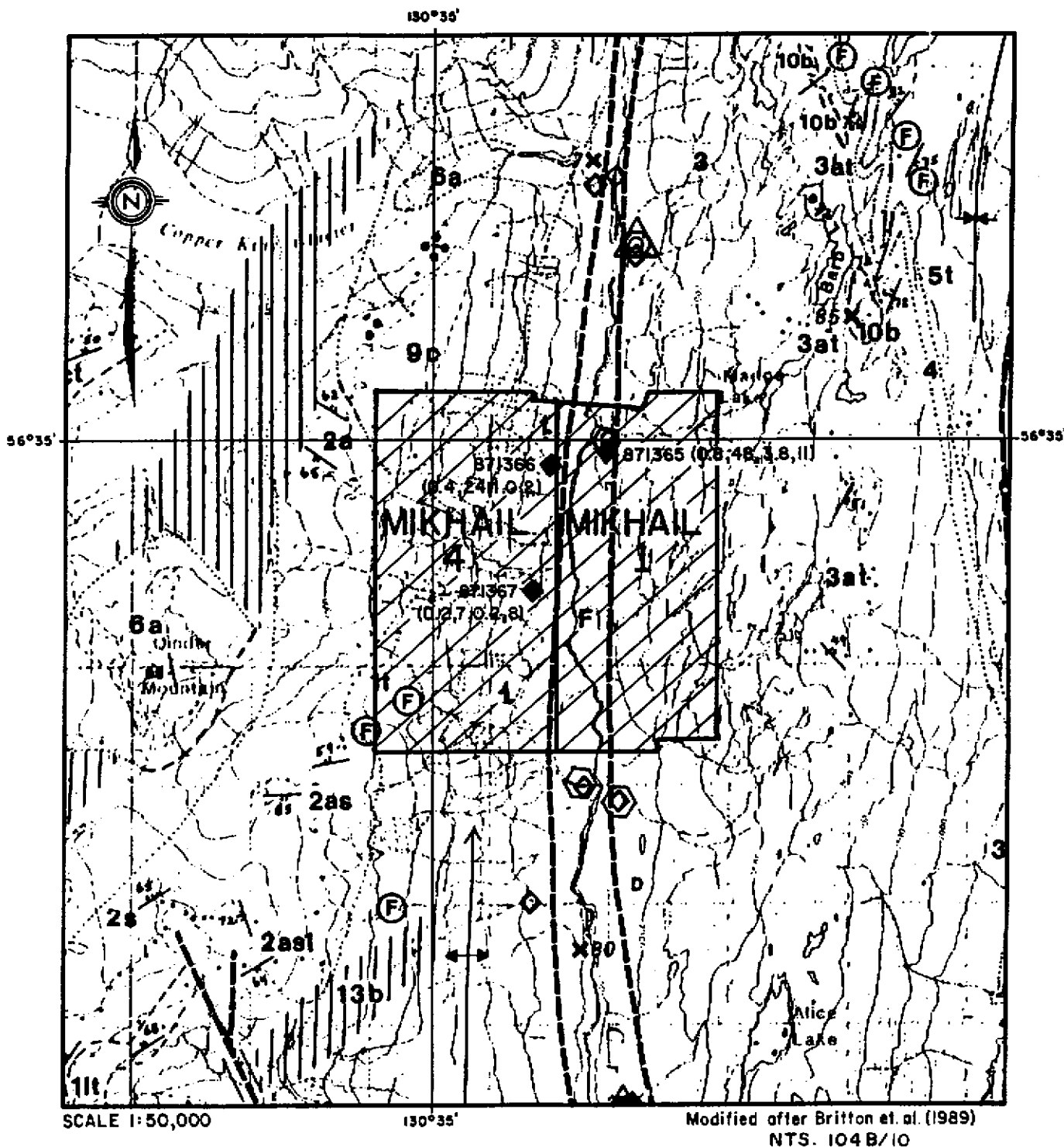
The Stuhini Group rocks occupy the nose of a north-plunging anticline, and occur as a wedge between the Harrymel-Unuk shear zone and the overlying Unuk River Formation. These rocks underlie most of the western portion of the property, consisting of thin bedded siltstones, immature fine-grained wackes, chert, impure limestones, and andesitic tuffs that locally attain a considerable thickness. Andesitic tuffs may be laminated to massive, aphanitic to 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 volcanoclastics and flows with locally thick interbeds of fine-grained immature sediments. The volcanics are reported to be dominantly massive to poorly bedded plagioclase ( $\pm$  hornblende) porphyritic andesite. The sediments are predominantly grey, brown, and green thinly bedded tuffaceous siltstone and fine-grained wacke. These Norian to Sinemurian age rocks of the Unuk River Formation constitute the lowermost unit of the Hazelton Group.

The basal contact with Triassic strata appears to lie near the top of a thick sequence of clastic sedimentary rocks. Neither an angular unconformity nor a widespread conglomerate marks the lower contact.

Government regional geological mapping and mapping completed during the 1989 property exploration program indicate this unit may underlie the southwestern and west-central portions of the property.



PROPERTY GEOLOGY  
MIKHAIL PROPERTY

Figure 5

LEGEND

INTRUSIVE ROCKS

TERTIARY

- 13 POST-TERTIARY DYKES
- 13a Lenticular, angular, diabase (dikes and sills)
  - 13b Ring Crack Dyke Swarm: dike-like porphyry dikes, andesite, diabase, quartz diorite
  - 13c Horizontal elongated fine-grained hornstone

- 12 COAST PLUNGING COMPLEX
- 12a Basalt gneiss
  - 12b Hornblende-andite quartz diorite
  - 12c Low Silica Basalt: feldspar porphyry, hornblende-andite quartz diorite

JURASSIC

- 11 MICHEL MOUNTAIN GABBRO: melanocratic andite-pyroxene gabbro
- 10 SYN TO POST VOLCANIC INTRUSIVE: Porphyry to phenocryst andesite; possibly hybridized mixtures of intrusive rocks
- 10a Lentic Porphyry: K-feldspar-epidote-hornblende porphyry granodiorite to andite
  - 10b Ring Crack Dyke Swarm: dike-like porphyry dikes
  - 10c Andesite-Diorite Complex: melanocratic, fine- to medium-grained diorite with abundant xenoliths of dark green meta-andrite; granodiorite

- 9 LINK RIVER DIORITE SUITE: medium- to coarse-grained, mafic to intermediate andite
- 9a Jute Pass melanocratic hornblende andite
  - 9b Mac Island-hornblende andite; quartz diorite
  - 9c Marvle hornblende-andite andite to quartz diorite
  - 9d Dow Ridge andite monzonite

TRIASSIC

- 8 MICHIE GLACIER STOCK: light grey, granitic to dioritic, medium-grained hornblende-andite quartz diorite

METAMORPHIC ROCKS

- A-F METAMORPHIC EQUIVALENTS OF UNITS 1, 2 OR 3
- A Metapelite: dark grey, calcareous coarse-grained to fine-grained phyllite
  - B Foliated metamorphic: light green, quartz-sillite-andite-andite phyllite; locally with abundant kyanite
  - C Mafic to intermediate metamorphic: dark green, amphibole-andite phyllite
  - D Hornblende-andite phyllite; mylonitic meta-diorite
  - E Hornblende-andite gneiss; amphibole andite
  - F Strongly sheared zone within the Link-Hayward fault zone

GOSSANOUS ALTERATION ZONES

Pyrite ± quartz ± carbonate ± silicate ± clay; locally followed by ochreous  
 Disseminated pyrite in siliceous matrix

VOLCANIC AND SEDIMENTARY ROCKS

(Note: the stratigraphic order is implied within sequences.)

CRETACEOUS

- RECENT
- 17 UNCONSOLIDATED SEDIMENTS
- 7a Alluvium, glaciofluvial deposits, massive siltstone, mudstone
  - 7b Alluvium overlain by Pleistocene to Recent beach

PLEISTOCENE TO RECENT

- 6 SMALL PLUME AND TEPHRA
- 6a Dark grey to black, basalt flows and tephra; minor pillow basalts
  - 6b Basalt tephra

TRIASSIC TO JURASSIC  
HAZELTON GROUP

- 5 MIDDLE JURASSIC (TOARCIAN TO BAJOCIAN)
- 5a SUTTON SEQUENCE (Sutton River Formation): Dark grey, well-bedded siltstone with minor sandstone and conglomerate
- 5a Chest pebble conglomerate and andite
  - 5a Highly bedded siltstone and shale (siltstone)
  - 5a Thinly bedded andite
  - 5a Andesite pillow basalts and pillow breccias with minor siltstone interbeds

LOWER JURASSIC (TOARCIAN)

- 4 PULSIC VOLCANIC SEQUENCE (Mount Oswald Formation): Light weathering, intermediate to dark pyroxene andesite, andesite, dark, and, andite and siltstone, light and, locally siltstone (2 to 12%) and sandstone. Minor conglomerate quartz veins locally.
- 4a Vertically bedded siltstone
  - 4a Andite siltstone
  - 4a Dark and white, carbonaceous siltstone; locally fine bedded and carbonaceous

LOWER JURASSIC (PLEINSBACHIAN TO TOARCIAN)

- 3 PHYLOGENIC-EPICLASTIC SEQUENCE (Slate Creek Formation): Interstratified, grey, green, locally purple or brown, massive to bedded pyroxene and sedimentary rocks; other beds
- 3a Green and grey, massive to poorly bedded andite
  - 3a Grey, green and purple siltstone, siltstone, andite and siltstone; massive to well bedded; siltstone phyllite
  - 3a White weathering, andite siltstone and andite with quartz stringers
  - 3a Andite siltstone with pink siliceous stringers
  - 3a Andite pillow basalts and pillow breccias with minor siltstone interbeds
  - 3a Dark, finely bedded siltstone, shale and argillite (siltstone)

UPPER TRIASSIC TO LOWER JURASSIC (NORIAN TO SINEMURIAN)

- 2 ANDESITE SEQUENCE (Link River Formation): Green and grey, intermediate to mafic melanocratic and basic with locally thin intervals of fine-grained intermediate andesite; minor conglomerate and sandstone
- 2a Grey and green, phyllite; hornblende andite; massive to poorly bedded
  - 2a Grey and green, hornblende-epidote-hornblende porphyry andite; locally andite and siltstone
  - 2a Grey, brown and green, finely bedded, siliceous andite and fine grained mafic
  - 2a Dark, finely bedded siltstone (siltstone); andite
  - 2a Dark grey, mafic-saturated conglomerate with quartz cobbles
  - 2a Grey, vertically bedded andite (completely recrystallized along South Link valley)

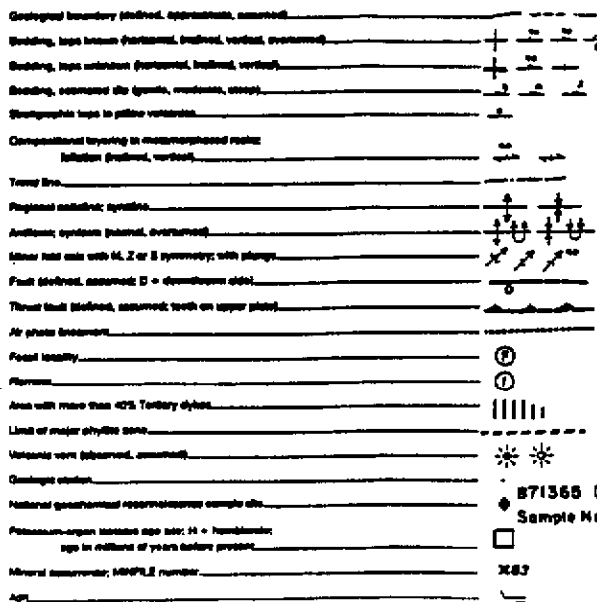
TRIASSIC

STURM GROUP

UPPER TRIASSIC (CARNIAN TO NORIAN)

- 1 LOWER VOLCANIC SEDIMENTARY SEQUENCE: Brown, black and grey, mixed sedimentary rock interbedded with volcanic to dark green, mafic to intermediate volcanic and volcanoclastic rocks
- 1a Grey to black, finely bedded siltstone, shale, argillite (siltstone)
  - 1a Brown and grey, fine grained siliceous mafic; minor siltstone or conglomerate
  - 1a Grey, impure, silty, sandy limestone
  - 1a Green, fine-grained, andite siltstone; siltstone and hornblende phyllite
  - 1a Dark green andite
  - 1a Grey and green, andite breccia with epide-hornblende-andite gabbro and andite matrix

SYMBOLS



B71365 (O, B, 48, 3.8, 11)  
 Sample No. (Ag ppm, As ppm, Sb ppm, Au ppb)



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-banded clasts Dacitic welded ash flow and lapilli tuff Dacitic dust tuff
Pliensbachian		Betty Creek	Sedimentary Members Volcanic Members	Hematitic volcanoclastic sediments, and turbidites Andesitic to dacitic tuffs and flows
Sinemurian to Hettangian(?)		Unuk River	Premier Porphyry Upper Andesite Upper Siltstone Middle Andesite Lower Siltstone Lower Andesite	Two feldspar + hornblende porphyritic tuffs Massive tuffs with local volcanoclastic sediments Turbidites, minor limestones Massive tuffs and minor volcanoclastic 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

### Lower Jurassic Betty Creek Formation (Unit 3)

A Pleinsbachian to Toarcian age is assigned to this unit by Britton et al.(1989). This pyroclastic-epiclastic sequence is comprised of a sequence of westward facing but locally overturned interbedded volcanics and lesser sediments, underlying the eastern part of the property. The volcanics are dominantly grey and green, massive to poorly bedded units, and range in composition from basaltic andesite to dacite. Pillow lavas, breccias, and felsic pyroclastics, including spherulitic rhyolite, have been reported in the John Peaks area, but were not mapped by Britton et al.(1989) within the Mikhail property. The sedimentary rocks are, on the whole, less abundant than the volcanic rocks, and consist of black thinly bedded siltstone, shale, and argillite. Limestones are rare or absent in the Lower Jurassic section.

### Jurassic Melville Diorite Stock (Unit 9c)

The southern extremity of this elongated stock underlies the northwestern corner fo the property along the inferred contact between Triassic and Jurassic strata. This lithotype is medium- to coarse-grained, equigranular, and ranges in composition from hornblende-biotite diorite to quartz diorite.

### 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. These are assumed to be normal faults and are probably megascopic structures with relatively little offset.

The strata in the western part of the property define a broad north-plunging anticline with moderately dipping limbs. In the eastern half of the property, the east-dipping strata of the Betty Creek Formation occur on the western limb of a broad syncline.

The north-south trending Harrymel-South Unuk Shear Zone transects the property and is marked by mainly schistose rock fabrics. Britton et al. (1989) interpret this structure as a major east-dipping shear zone with normal offset, exposing different structural levels and stratigraphic sections.

### ECONOMIC GEOLOGY

Britton et al.(1989) list 55 mineral occurrences in the Unuk 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) has 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 a restricted set of strata. The best example is the Eskay Creek prospect, currently being explored by Calpine Resources Incorporated and Consolidated Stikine 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 (Kruckowski 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 (Kruckowski 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 Divilbliss 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 10 km northeast of the Mikhail 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 Mikhail claims.

### 1989 EXPLORATION PROGRAM

The 1989 property exploration, 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 80 rock, 19 stream silt, and 14 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 selected parts of the property. This work was concentrated in the upland areas and in the drainage courses of the claims where rock exposures were most abundant.

The northwestern portion of the property is underlain by the southern nose of the Melville Diorite stock. A 6-12 m wide massive magnetite unit, traceable for 900 m, was located along this diorite contact. This occurrence appears similar to the Max deposit in which massive magnetite with lesser pyrrhotite and chalcopyrite occur in skarn-altered sedimentary rocks adjacent to a diorite stock.

Additional work is warranted on this skarn occurrence to determine its gold potential. Particular attention should be given to the northern end of

this unit where it appears to be abruptly cut off by a northwest trending cross-fault. A grab sample (KYR-037) collected near this proposed cross-fault, yielded elevated nickel (1142 ppm) and weakly elevated cobalt (125 ppm), chromium (475 ppm), and copper (740 ppm) values.

In the southeast corner of the MIKHAIL 4 claim, a number of old trenches were found which investigated a well mineralized zone within dark green andesite which hosts 10%-15% pyrrhotite, pyrite, and chalcopyrite. Samples collected yielded 0.14%-0.2% copper. In the northeast corner of the MIKHAIL 4 claim, a dark green andesite was located hosting 10% pyrrhotite and pyrite. Samples collected yielded weakly elevated copper (830 ppm) values.

These two showings occur along strike from one another and were probably collected from the same sulphide-enriched stratigraphic unit which cuts across the entire property. They also occur on strike with the Copper King (Cu) showing (Minfile #007), located 2 km north of the property boundary, from which up to 17 grams/tonne gold is reported to accompany the copper/iron sulphide mineralization (Vancouver Stockwatch, Jan.17, 1989). Additional exploration is required to fully evaluate the significance of this sulphide mineralization.

Disseminated to massive sulphides were located in a felsic volcanic adjacent to the quartz-diorite contact at the northwestern edge of the property. A grab sample here yielded weakly elevated gold (159 ppb) and arsenic (1626 ppm) values. This area should be re-investigated as to its significance.

In addition to the above location, felsic volcanics were found in the northeastern corner and the southwestern portion of the property. Although no mineralization was observed in these areas, they should also be re-investigated when taken in the context of the Eskay Creek deposit.

One sample of a dacite agglomerate, collected from the south-central part of the MIKHAIL 1 claim, yielded a weakly elevated (120 ppb) gold value, and a grab sample of limonite-stained limestone from a roof pendant within the diorite stock yielded an elevated (1716 ppm) barium value.



### 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, and at 100 m intervals on selected streams. The designation of anomalous values is based on the 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.

Stream silt samples were collected at regular intervals along a stream cutting across the northern portion of the MIKHAIL 1 claim and yielded weakly elevated values for Ag (1.2 to 2.2 ppm), Zn (258 to 619 ppm), and Cu (110 to 150 ppm in the upper reaches of the creek). There were no anomalous values detected in the rest of the property; however, the remaining area was silt sampled only when creeks were crossed during reconnaissance prospecting. A thorough stream silt sampling program should be completed along all the creek draining the Mikhail property.

### 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 14 heavy mineral samples were collected from creeks draining the property area. Sample PWH-10 was collected south of the claim boundary from a stream which partially drains the southern part of the MIKHAIL 1 claim, and yielded elevated to anomalous values for Au (2238 ppb), Ag (3.7 ppm), As (480 ppm), and Zn (842 ppm). Sample MWH-1 was collected from the same drainage area, and also yielded elevated to anomalous values for Au (220 ppb), Ag (2.8 ppm), and Zn (11,331 ppm). A limited amount of reconnaissance prospecting completed in this drainage area located a dacite agglomerate (a grab sample of which yielded a weakly elevated gold value of 120 ppb) and sheared and folded black argillite.

Sample MWH-7 from a creek adjacent to the above area also yielded elevated to anomalous values for Au (1709 ppb), Ag (1.7 ppm), Ba (861 ppm), Cu (440 ppm), and Zn (524 ppm). MWH-6 was collected from a parallel creek and yielded an elevated barium value of >2000 ppm.

Additional reconnaissance prospecting is required in this area, and stream silt samples should be collected at regular intervals along all the drainage courses.

Four heavy mineral samples were collected from a fairly large creek which cuts across and drains the northern part of the MIKHAIL 1 claim. All of these samples yielded elevated to anomalous Au, Ag, As, Cu, or Zn values:

<u>Sample</u>	<u>Au ppb</u>	<u>Ag ppm</u>	<u>As ppm</u>	<u>Cu ppm</u>	<u>Zn ppm</u>
MWH-4	-	5.0	197	861	2085
MWH-5	-	8.6	270	1287	3463
MWH-8	145	4.8	360	752	2124
MWH-9	-	19.6	350	1601	2975

Keewatin Engineering Inc.

Stream silt samples were collected at regular intervals along this creek and also yielded weakly elevated values for Ag (1.2 to 2.2 ppm), Zn (258 to 619 ppm), and Cu in the upper reaches (110 to 150 ppm). Reconnaissance prospecting completed along this drainage course did not locate any mineralization. Additional work is required to determine the significance of these elevated values.

The remaining six heavy mineral samples were collected from creeks draining the MIKHAIL 4 claim and generally reflect background values in all the elements. Sample MWH-11 yielded a weakly elevated silver value of 1.5 ppm, and samples MWH-10 and 12 yielded weakly elevated barium values of 1151 and 851 ppm respectively.

### 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.

A 6-12 m wide massive magnetite unit, traceable for 900 m, was located along the Melville Diorite contact in the western portion of the MIKHAIL 4 claim. The north end of this unit appears to be abruptly cut off by a northwest trending cross-fault. A grab sample collected near this proposed cross-fault yielded elevated nickel, cobalt, chromium, and copper values. This occurrence appears similar to the Max deposit in which massive magnetite with lesser pyrrhotite and chalcopyrite occur in skarn-altered sedimentary rocks adjacent to a diorite stock. Additional work is warranted to determine the gold potential of this area. This work should consist of additional prospecting and extensive lithochemical sampling.

A number of old trenches were found in the southeast corner of the MIKHAIL 4 claim which investigated a well mineralization zone within dark green andesite hosting 10%-15% pyrrhotite, pyrite, and chalcopyrite. Samples yielded 0.14%-0.20% copper. In the northeast corner of the MIKHAIL 4 claim, a dark green andesite was located, hosting 10% pyrrhotite and pyrite. Lithochemical sampling of this material yielded weakly elevated copper values. These two showings occur along strike of each other and were probably from the same sulphide-enriched stratigraphic unit cutting across the entire property. Extensive prospecting and lithochemical sampling should be completed over the entire strike length of this sulphide-enriched stratigraphic unit to fully evaluate the significance of this sulphide mineralization.

Felsic volcanics were located in the northeast corner, the southwest portion, and at the northwest edge of the property adjacent to the diorite contact. A grab sample of the latter yielded elevated gold and arsenic values. These areas should be re-investigated when taken in the context of the Eskay Creek deposit.

Stream silt geochemical samples were collected whenever streams were crossed during reconnaissance prospecting and at regular intervals along a creek cutting across the northern portion of the MIKHAIL 1 claim. A heavy mineral stream sediment sampling survey was completed over the property.

Stream silt and heavy mineral samples from the stream cutting across and draining the northern portion of the MIKHAIL 1 claim yielded elevated to anomalous Ag, Cu, and Zn values. A limited amount of reconnaissance prospecting, completed along this drainage course, did not locate any mineralization but did locate felsic volcanics in the upper reaches of the drainage. Additional work is required to determine the significance of these elevated values.

Heavy mineral samples from creek draining the southern portion of the MIKHAIL 1 claim yielded elevated to anomalous Au, Ag, and Zn values. A limited amount of reconnaissance prospecting in the drainage area located a dacite agglomerate (from which a grab sample yielded a weakly elevated gold value) and sheared and folded black argillite.

Additional reconnaissance prospecting is required over the entire MIKHAIL 1 mineral claim. Stream silt samples should be collected at regular intervals along all drainage courses within the property boundaries.

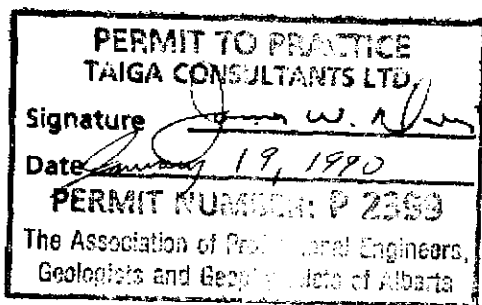
CERTIFICATE - C. H. Aussant

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

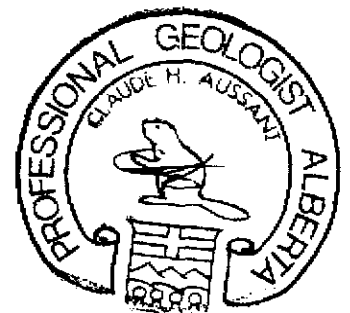
1. I am a Consulting Geologist with the firm of Taiga Consultants Ltd. with offices at Suite 400, 534 - 17th Avenue S.W., Calgary, Alberta.
2. I am a graduate of the University of Calgary, B.Sc. Geology (1976), and I have practised my profession continuously since graduation.
3. I am a member in good 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 Mikhail Property, MIKHAIL 1 and 4 Claims, Skeena Mining Division, British Columbia", dated November 23, 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 Teuton Resources Corp. or Solomon Resources Limited, in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 23rd day of November, A.D. 1989.

Respectfully submitted,



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




**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 **Mikhail Property**, MIKHAIL 1 to 4 Claims, Skeena Mining Division, British Columbia", dated November 23, 1989. I personally supervised the work on the property 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 **Teuton Resources Corp.** or **Solomon Resources Limited**, in respect of services rendered in the preparation of this report.

Dated at Vancouver, British Columbia this 23rd day of November, A.D. 1989.

Respectfully submitted,

  
A circular stamp from the Geological Association of Canada (GAC) is overlaid on the signature. The stamp contains the text "GEOLOGICAL ASSOCIATION OF CANADA" around the top and "FELLOW" at the bottom. The name "D. G. DuPRE" is stamped in the center of the circle.  
\_\_\_\_\_  
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

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SUMMARY OF PERSONNEL

<u>Name / Address</u>	<u>Position</u>	<u>Dates</u>	<u>Man Days</u>
C. H. Aussant Calgary, Alberta	Project Geologist	Sep.9-Oct.16	8.00
B. C. Beattie Calgary, Alberta	Assistant Geologist	Sep.9-Oct.16	5.75
M. Waskett-Myers Vancouver, B.C.	Geochemist	Sep.9-Oct.16	8.00
B. McIntyre Vancouver, B.C.	Senior Prospector	Sep.9-Oct.16	5.75
S. Hardlotte LaRonge, Sask.	Senior Prospector	Sep.9-Oct.16	7.25
Don McLeod LaRonge, Sask.	Senior Prospector	Sep.9-Oct.16	8.25
Dennis McLeod Stanley Mission, Sask.	Junior Prospector	Sep.9-Oct.16	6.25
Irvine Roberts Stanley Mission, Sask.	Junior Prospector	Sep.9-Oct.16	8.25
C. Oevermann Smithers, B.C.	Cook	Sep.9-Oct.16	7.50
		TOTAL	<u>65.00</u>

ROCK SAMPLE DESCRIPTIONS

	<u>Au ppb</u>	
MCR-008	159	grab o/c; disseminated and massive sulphides pyrite > pyrrhotite > magnetite, trace chalcopyrite in felsic volcanics adjacent to quartz diorite contact; amount of sulphides variable 3-5% to massive (a massive sulphide pod exposed over 0.5 m length)
MCR-009	10	grab o/c; diorite, medium grey, massive, fine-grained, rusty weathered, 1% disseminations and blebs pyrrhotite
MCR-010	<5	grab o/c; felsite unit, 7 m wide, light greenish grey, within quartz diorite, 5% very finely disseminated pyrite
MCR-012	<5	grab o/c; felsite phase of quartz diorite, light grey, aphanitic, near argillite/quartz diorite contact, rusty weathered, minor calcite stringers, 3% pyrite/pyrrhotite
MCR-014	<5	grab o/c; chert, medium grey to black, laminated, adjacent to andesite tuff, 055°/70°NW, pyrite as 2-5% disseminations and occ stringers
MVR-013	45	grab o/c; quartz diorite, 4-5 m wide, very rusty and resistant magnetic zone, 2% disseminated pyrrhotite
MVR-014	12	grab o/c; same location and description as MVR-013, trace pyrrhotite
MVR-015	6	grab o/c; dark quartz diorite, numerous pyrite stringers, 50% pyrite in areas (near MPR-017)
MVR-016	10	grab o/c; quartz diorite, 1-2% diss pyrite/pyrrhotite, minor chalcopyrite
MZR-011	7	grab o/c; fragmental chert, light to medium grey, <1% diss pyrite
MZR-012	<5	grab o/c; chert, light to pale grey, <1% diss pyrite
MZR-013	<5	grab o/c; fragmental tuff, pale grey, pockets of 5-7% diss pyrite
MZR-014	9	grab o/c; argillite, black, <1% disseminated pyrite
MZR-015	9	grab o/c; felsic volcanic, pale brown to light grey, pyrite as 3-5% diss and as crystals, calcite-albite flooding
MZR-016	6	grab o/c; fragmental tuff, light to medium grey, weakly calcareous, 1% disseminated pyrite
MZR-017	<5	clay, light grey to brown, kaolinitic

	<u>Au ppb</u>	
MZR-022	<5	grab o/c; andesite tuff, medium grey, rusty stained, siliceous, 1% disseminated pyrite/pyrrhotite
MZR-023	10	grab o/c; andesite, medium grey, aphanitic, 5% diss pyrrhotite/pyrite, minor chalcopyrite
MZR-024	<5	grab o/c; sheared siliceous phase of the quartz diorite, grey, quartz with pyrite stringers, 3% disseminated Po/Py
MZR-025	14	float; siliceous phase of the quartz diorite, mainly quartz, medium to dark grey, pyrite as stringers and 3-5% disseminations, minor chalcopyrite
MZR-026	<5	grab o/c; siliceous aphanitic phase of the quartz diorite, light to medium grey, fractured, limonite stained, minor chalcopyrite, 3% disseminated pyrite/pyrrhotite
MZR-027	<5	grab o/c; sandstone, light grey, very fine-grained, strike 050°, <1% pyrite, minor quartz stringers, limonite stained
MZR-028	<5	grab o/c; aphanitic phase of the quartz diorite, light grey, limonite stained, 1% disseminated pyrite
MZR-029	<5	grab o/c; medium-grained (relative) quartz diorite, trace pyrite and pyrrhotite
MZR-030	<5	grab o/c; aphanitic phase of the quartz diorite, light to medium grey, 1% disseminated pyrite
MZR-031	<5	grab o/c; tuff, light grey, quartz flooding and stringers 10-20 cm wide, limonite stained, pyrite as 1% disseminations and occ crystals
MZR-032	<5	grab o/c; aphanitic phase of the quartz diorite, light greenish grey, pyrrhotite/pyrite as 1-2% disseminations and as stringers
MZR-033	<5	grab o/c; aphanitic phase of the quartz diorite, light to medium grey, weakly foliated, fractured (contact zone), 1-3% pyrite lining fracture planes
MZR-034	<5	grab o/c; andesite, aphanitic, medium grey to green, weakly laminated, pyrite lining foliation planes
MZR-035	<5	grab o/c; aphanitic phase of the quartz diorite (dacite?), light grey, limonite stained, <1% disseminated pyrrhotite/pyrite, pyrrhotite stringers
KZR-090	<5	grab o/c; silty quartzite, light grey, fractured; 5-7% pyrite as disseminations and stringers

	<u>Au ppb</u>	
KZR-091	<5	grab o/c; andesite, green; 10% diss pyrrhotite, <1% chalcopryrite, minor pyrite, as stringers and diss
KZR-092	<5	grab o/c; andesite, green; 15% diss sulphides (pyrrhotite, chalcopryrite, minor pyrite), with pockets of massive sulphide, old trench 1.5 x 5 metres
MOR-018	<5	grab o/c; quartz diorite, 3% disseminated pyrite
MOR-019	10	grab o/c; quartz diorite, grey, 1% disseminated pyrite
MOR-020	36	talus; granodiorite, quartz flooded, 1% diss pyrite
MOR-021	<5	grab o/c; andesite, light grey, pyrite lining fracture planes and as 1-3% disseminations, limonite stained
MOR-022	<5	talus; aphanitic felsic dyke (dacite?), light to pale grey, rusty weathered, 1-3% very finely diss pyrite
MOR-023	<5	talus; aphanitic phase of the quartz diorite (dacite?), light grey, 5-7% disseminated pyrite
MOR-024	<5	talus; medium-grained (relative) quartz diorite, medium grey, 1% pyrite, trace pyrrhotite
MOR-025	6	talus; aphanitic andesite, dark greenish grey, 1% diss Py, trace pyrrhotite
MOR-026	<5	talus; aphanitic phase of the quartz diorite (andesite?), light grey, 3% disseminated pyrite/pyrrhotite
MOR-027	<5	grab o/c; aphanitic phase of the quartz diorite; quartz stringers, <1% disseminated pyrite, trace pyrrhotite
MOR-028	<5	grab o/c; same as above
MOR-029	<5	grab o/c; medium-grained (relative) quartz diorite, 1% diss pyrite, trace pyrrhotite
MOR-030	<5	grab o/c; very fine-grained quartz diorite, minor quartz stringers, 1% pyrite
MOR-031	<5	talus; medium-grained (relative) quartz diorite, 1-3% diss pyrite
MOR-032	<5	grab o/c; very fine-grained quartz diorite, fractured, <1% disseminated pyrite
KOR-085	<5	grab subcrop; andesite, 15% pyrite as disseminations and stringers

	<u>Au ppb</u>	
KOR-087	<5	grab o/c; andesite, 15% disseminated pyrrhotite, <1% chalcopyrite, minor pyrite, massive sulphide pockets; old trench 2 x 4 metres @ 095°
MER-013	<5	float; quartz diorite, <1% pyrite
MER-014	<5	float; diorite, greyish green, <1% pyrite
MER-015	<5	grab o/c; mainly quartz, <1% pyrite, weakly calcareous (probably very siliceous phase of the quartz diorite)
MER-016	<5	grab o/c; cherty tuff, light grey, very fine-grained, minor quartz stringers, <1% disseminated pyrite
MER-017	<5	talus; diorite, <1% disseminated pyrite
MER-018	<5	grab o/c; argillite, black; 50% magnetite; at diorite contact, massive magnetite bed 5-6 m wide, conglomerate underlying magnetite unit and adjoining limestone, irregular contact between the limestone and magnetite and conglomerate, minor limestone in the conglomerate adjacent to the limestone/conglomerate contact
MER-019	<5	grab o/c (same outcrop as MER-018); limestone, beige, trace pyrite
MER-020	<5	grab o/c; quartz diorite, grey, very fine-grained, trace pyrite lining fracture planes
MER-021	<5	float; medium-grained (relative) quartz diorite, epidote stringers, 2% diss pyrite and pyrrhotite
MPR-015	25	grab o/c; fractured chert, pale grey, rusty weathered, 2-4% pyrite
MPR-016	<5	grab o/c; fractured chert, pale grey, rusty weathered, 2% pyrite
MPR-017	<5	grab o/c; highly fractured quartz diorite (mainly feldspar), 10% sulphides (pyrrhotite, pyrite, trace chalcopyrite) as numerous stringers and fracture filling
MPR-018	9	grab o/c; siliceous phase of the granodiorite, medium grey, rusty weathered, sulphides lining fractures, <1% pyrite, trace pyrrhotite
MPR-019	6	grab o/c; felsic tuff (rhyolite?), light grey, 1% pyrite as crystals, blebs, pockets
MPR-020/A	<5	grab o/c; felsic tuff (rhyolite?), light grey; pyrite as crystals, blebs, pockets; 10% Po/Py

	<u>Au ppb</u>	
MPR-020/B		grab; brecciated quartz, 1% pyrite as diss and clots
MPR-021	<5	grab o/c; massive black magnetite, possibly brecciated?
MPR-022	<5	grab o/c; white quartz vein, rusty weathered, limonite stained; 15% pyrite as disseminations and pockets; ~25 m from MPR-021, 2 m wide
MPR-023	<5	grab o/c; tuff, black, very fine-grained, rusty weathered, strongly magnetic, disseminated magnetite throughout, pyrite disseminated along fracture planes
MPR-024	<5	grab o/c; quartz diorite (at contact zone), medium grey, aphanitic to very fine-grained, limonite stained, 3-5% disseminated pyrite
MPR-025	<5	grab o/c; quartz diorite, light to medium grey, 2% pyrite as disseminations and pockets
MPR-026	<5	grab o/c; limestone, limonite stained
MPR-094	<5	grab o/c; diorite, green, brecciated; 1% diss pyrrhotite
MPR-095	<5	grab o/c; andesite, green, 10% pyrrhotite, 1% pyrite, with massive sulphide clots
MYR-01	<u>120</u>	grab o/c; volcanic agglomerate (dacitic?), mainly angular fragments, minor subrounded fragments, minor pyrite
MYR-02	9	grab o/c; sheared argillite, limonite staining, minor small folding
MYR-04	<5	grab o/c; andesite, medium to dark greenish grey, 2% diss pyrite, minor calcite veining, fractured
MYR-05	<5	grab o/c (20 m from MYR-04); andesite, medium to dark green, highly fractured, pyrite lining fracture planes, 080°/50°N
KYR-036	<5	grab o/c (10 m south of granodiorite contact); sandstone, pale to dark grey, silty, 1-2% disseminated pyrite
KYR-037	<5	grab o/c; sandstone, dark grey, minor disseminated pyrite
KYR-038	32	grab o/c; sandstone, pale grey, 3% diss pyrrhotite/pyrite



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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 89MP-1009	Mikhail ↓	<5	<0.2	<5	131	<0.5	<2	<1	13	24	26	43
T1 89MZ-1004		12	0.7	31	167	<0.5	<2	2	19	21	15	78
T1 89MZ-1005		15	0.7	40	173	<0.5	<2	2	19	21	15	52
T1 89MZ-1006		12	1.2	36	259	<0.5	<2	4	20	25	16	86
T1 89MZ-1007		15	1.2	39	185	<0.5	<2	3	18	25	16	89
T1 89MZ-1008		11	1.6	53	230	<0.5	<2	4	18	22	19	150
T1 89MZ-1009		15	3.2	77	180	<0.5	<2	5	14	26	19	140
T1 89MZ-1010		10	1.5	95	235	<0.5	<2	5	15	27	14	110
R2 89MB-8013		<5	<0.2	<5	39	<0.5	<2	<1	8	27	73	57
R2 89MB-8014		<5	<0.2	17	9	<0.5	<2	<1	9	14	22	24
R2 89MB-8015		5	<0.2	<5	50	<0.5	<2	<1	33	6	27	24
R2 89MB-8016		5	0.3	20	70	<0.5	<2	<1	12	47	55	174
R2 89MB-8017		5	<0.2	<5	30	<0.5	<2	<1	5	18	71	22
R2 89MB-8018		5	0.2	20	65	<0.5	<2	<1	<5	27	22	122
R2 89MB-8019		5	<0.2	<5	35	<0.5	5	<1	<5	<1	3	1
R2 89MD-8018		<5	<0.2	<5	50	<0.5	<2	<1	22	9	21	11
R2 89MD-8019		10	<0.2	14	38	<0.5	<2	<1	11	24	22	32
R2 89MD-8020		25	<0.2	<5	30	<0.5	<2	<1	9	20	32	7
R2 89MP-8015		25	2.7	32	43	<0.5	<2	<1	<5	12	42	74
R2 89MP-8016		5	<0.2	30	20	<0.5	<2	<1	<5	19	22	22
R2 89MP-8017		<5	0.3	24	18	<0.5	<2	<1	<5	124	22	222
R2 89MP-8018		5	<0.2	24	33	<0.5	<2	<1	5	12	27	72
R2 89MP-8019		5	<0.2	31	41	<0.5	<2	<1	9	12	71	42
R2 89MP-8021		5	<0.2	11	207	<0.5	3	<1	41	1	103	26
R2 89MD-8022		<5	<0.2	10	73	<0.5	<2	<1	30	1	22	4
R2 89MB-8023		<5	<0.2	27	27	<0.5	<2	<1	<5	15	24	22
R2 89MB-8024		5	0.5	29	74	<0.5	<2	<1	12	9	17	32
R2 89MB-8025		5	<0.2	<5	95	<0.5	<2	<1	9	24	12	72
R2 89MB-8026	Mikhail ↑	6	0.3	<5	133	<0.5	<2	<1	13	15	15	200



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T1 89MZ-L008		2	6	6	1	5	55	16	29	<5	4	<20
T1 89MZ-L004		5	10	17	4	4	34	23	<20	<5	7	<20
T1 89MZ-L003		8	8	16	5	3	38	25	<20	5	1	<20
T1 89MZ-L002		3	10	17	5	2	39	31	<20	<5	9	<20
T1 89MZ-L007		4	9	20	5	3	45	32	<20	5	3	<20
T1 89ME-L002		2	8	21	7	3	52	38	<20	6	13	<20
T1 89MZ-L006		4	7	20	9	3	52	43	<20	6	13	<20
T1 89MZ-L010		<2	7	9	8	2	75	28	<20	9	11	<20
R2 89MD-8012		3	5	3	6	5	37	<2	<20	<5	1	<20
R2 89ME-8014		8	5	4	2	4	34	<2	<20	<5	3	<20
R2 89ME-8015		10	14	3	<1	5	6	<2	<20	<5	1	<20
R2 89ME-8016		10	6	1	1	5	47	13	<20	<5	2	<20
R2 89ME-8017		7	4	2	3	3	37	<2	<20	<5	3	<20
R2 89ME-8018		2	15	2	8	<1	11	<2	<20	<5	4	<20
R2 89ME-8019		<2	9	2	<1	42	3	15	<20	12	1	<20
R2 89MD-8018		9	10	2	1	5	6	<2	<20	<5	2	<20
R2 89MD-8019		8	7	3	2	4	9	<2	<20	<5	3	<20
R2 89MD-8020		7	5	2	4	4	10	4	<20	<5	1	<20
R2 89ME-8015		10	3	10	1	5	7	23	<20	<5	7	<20
R2 89ME-8016		14	<1	10	<1	9	85	<2	<20	<5	2	<20
R2 89MP-8017		10	<1	3	2	8	97	<2	<20	<5	3	<20
R2 89MP-8018		13	2	4	1	5	28	<2	<20	<5	3	<20
R2 89ME-8019		13	3	3	<1	6	30	11	<20	<5	1	<20
R2 89MZ-8011		3	20	1	3	2	4	50	<20	<5	1	<20
R2 89ME-8012		10	13	<1	1	6	3	35	<20	<5	<1	<20
R2 89ME-8013		5	<1	7	1	3	15	8	<20	<5	4	<20
R2 89ME-8014		3	5	2	2	5	32	3	<20	<5	7	<20
R2 89ME-8015		5	1	1	1	9	13	<2	55	<5	12	<20
R2 89ME-8016		<2	7	12	3	23	27	3	74	10	3	<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
T1 89MZ-1008		40	<10	<10	75	<10	5	67	2
T1 89MZ-1004		36	<10	<10	49	<10	13	258	4
T1 89MZ-1005		31	<10	<10	46	<10	11	302	3
T1 89MZ-1006		38	<10	<10	52	<10	13	346	3
T1 89MZ-1007		34	<10	<10	52	<10	12	332	3
T1 89MZ-1008		41	<10	<10	81	<10	15	489	4
T1 89MZ-1009		48	10	<10	80	<10	14	619	3
T1 89MZ-1010		50	<10	<10	47	<10	16	497	3
R2 89MB-2012		28	<10	<10	87	<10	4	13	7
R2 89MB-2014		28	<10	<10	121	<10	7	26	4
R2 89MB-2015		28	<10	<10	66	<10	4	34	3
R2 89MB-2016		15	<10	<10	33	<10	5	28	6
R2 89MB-2017		20	<10	<10	136	<10	4	31	3
R2 89MB-2018		16	<10	<10	35	<10	5	15	14
R2 89MB-2019		311	<10	<10	4	<10	14	3	2
R2 89MB-2018		60	<10	<10	53	<10	9	15	2
R2 89MB-2019		40	<10	<10	144	<10	6	39	3
R2 89MB-2020		14	<10	<10	39	<10	4	48	14
R2 89MB-2018		14	<10	<10	99	<10	6	44	7
R2 89MB-2019		93	<10	<10	38	<10	2	41	1
R2 89MB-2017		24	<10	<10	32	<10	3	18	7
R2 89MB-2018		14	<10	<10	87	<10	3	22	7
R2 89MB-2017		21	<10	<10	57	<10	4	3	6
R2 89MB-2011		9	<10	<10	1	<10	3	10	3
R2 89MB-2012		43	<10	<10	41	<10	4	12	3
R2 89MZ-2013		20	<10	<10	19	<10	7	35	3
R2 89MZ-2014		66	<10	<10	24	<10	11	129	2
R2 89MZ-2015		37	<10	<10	31	<10	3	50	<1
R2 89MZ-2016		282	<10	12	35	<10	13	133	2

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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
<i>probably MVR-014</i> R2 89MV-R014		12	2.1	<5	60	<0.5	<2	<1	14	2	73	31
R2 89MO-R021	<i>mikhail</i>	<5	0.8	18	46	<0.5	<2	<1	<5	67	154	305
R2 89MO-R022	↓	<5	0.2	<5	62	<0.5	<2	<1	24	3	64	2
R2 89MO-R023		<5	0.2	<5	137	<0.5	<2	<1	<5	9	37	15
R2 89MO-R024		<5	<0.2	11	69	<0.5	<2	<1	16	33	63	31
R2 89MO-R025		6	<0.2	<5	43	<0.5	<2	<1	<5	39	91	38
R2 89MO-R026		<5	0.3	14	43	<0.5	<2	<1	6	15	57	146
R2 89MO-R027		<5	<0.2	<5	101	<0.5	<2	<1	16	21	49	9
R2 89MO-R028		<5	<0.2	6	37	<0.5	<2	<1	<5	21	118	33
R2 89MO-R029		<5	<0.2	6	16	<0.5	<2	<1	14	19	26	6
R2 89MO-R030		<5	<0.2	11	15	<0.5	<2	<1	7	17	66	9
R2 89MO-R031		<5	<0.2	16	76	<0.5	<2	<1	<5	43	55	57
R2 89MO-R032		<5	<0.2	10	54	<0.5	<2	<1	<5	15	65	12
R2 89MV-R013		45	0.4	6	20	<0.5	<2	<1	5	10	23	70
R2 89MV-R015		6	0.9	18	14	<0.5	<2	<1	<5	133	81	641
R2 89MV-R016		10	0.4	20	28	<0.5	<2	<1	8	19	54	89
R2 89MY-R01		<u>120</u>	0.3	24	135	<0.5	<2	<1	8	8	46	53
R2 89MY-R02		9	3.0	69	157	<0.5	<2	4	20	3	33	86
R2 89MY-R04		<5	0.9	<5	118	<0.5	<2	<1	<5	30	18	254
R2 89MY-R05	<i>mikhail</i>	<5	0.9	9	7	<0.5	<2	<1	<5	38	41	830



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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
R2 89FV-R014		5	7	1	2	3	6	11	55	<5	3	<20
R2 89M0-R021		12	<1	9	2	5	281	4	<20	<5	4	<20
R2 89M0-R022		<2	14	<1	6	3	4	12	<20	<5	<1	<20
R2 89M0-R023		10	2	7	3	4	10	<2	<20	<5	6	<20
R2 89M0-R024		9	6	10	10	4	10	<2	<20	<5	7	<20
R2 89M0-R025		54	<1	14	5	27	46	23	<20	10	11	<20
R2 89M0-R026		7	2	1	5	4	36	<2	<20	<5	2	<20
R2 89M0-R027		12	7	15	<1	12	25	<2	44	<5	14	<20
R2 89M0-R028		8	2	3	5	4	23	<2	<20	<5	5	<20
R2 89M0-R029		9	6	3	3	6	8	<2	<20	<5	2	<20
R2 89M0-R030		10	2	3	4	4	16	<2	<20	<5	5	<20
R2 89M0-R031		2	<1	2	41	2	7	<2	<20	<5	1	<20
R2 89M0-R032		6	2	1	32	2	3	27	<20	<5	1	<20
R2 89MV-R013		12	2	5	4	11	27	47	26	<5	<1	<20
R2 89MV-R015		11	<1	4	5	8	130	<2	<20	<5	3	<20
R2 89MV-R016		15	3	3	2	7	34	7	<20	<5	2	<20
R2 89MY-R01		7	2	2	4	4	7	26	<20	7	4	<20
R2 89MY-R02		3	7	1	5	2	28	36	<20	8	6	<20
R2 89MY-R04		11	<1	8	1	5	3	<2	<20	<5	5	<20
R2 89MY-R05		11	<1	4	4	6	9	<2	<20	<5	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 89FU-R014		26	<10	<10	39	<10	7	8	4
R2 89NO-R021		28	<10	<10	85	<10	3	87	2
R2 89NO-R022		11	<10	<10	5	<10	4	<1	5
R2 89NO-R023		6	<10	<10	87	<10	6	68	2
R2 89NO-R024		17	<10	<10	100	<10	11	70	<1
R2 89NO-R025		12	18	30	157	<10	12	134	2
R2 89NO-R026		16	<10	<10	21	<10	5	88	3
R2 89NO-R027		69	<10	<10	62	<10	10	48	2
R2 89NO-R028		26	<10	<10	100	<10	4	30	7
R2 89NO-R029		43	<10	<10	64	<10	8	51	2
R2 89NO-R030		45	<10	<10	75	<10	6	26	3
R2 89NO-R031		5	<10	<10	12	<10	4	10	2
R2 89NO-R032		6	<10	<10	16	<10	4	15	2
R2 89NV-R013		55	<10	<10	19	<10	4	70	4
R2 89NV-R015		14	<10	<10	35	<10	3	27	7
R2 89NV-R016		18	<10	<10	48	<10	4	30	6
R2 89NY-R01		40	<10	<10	12	<10	6	37	2
R2 89NY-R02		17	<10	<10	12	<10	21	455	1
R2 89NY-R04		48	<10	<10	144	<10	3	34	2
R2 89NY-R05		32	<10	<10	137	<10	9	51	3

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R2 89MC-R008	<i>Mikhail</i>	159	1.4	<u>1626</u>	6	<0.5	<2	<1	11	291	33	707
R2 89MC-R009	↓	10	0.4	26	100	<0.5	<2	<1	17	23	49	207
R2 89MC-R010		<5	<0.2	16	59	<0.5	<2	<1	5	11	149	22
R2 89MC-R012		<5	0.4	34	40	<0.5	<2	<1	<5	32	337	160
R2 89MC-R014		<5	<0.2	10	134	<0.5	<2	<1	12	17	67	52
R2 89ME-R020		<5	<0.2	<5	12	<0.5	<2	<1	17	13	59	26
R2 89ME-R021		<5	<0.2	<5	13	<0.5	<2	<1	11	42	92	7
R2 89MP-R021		<5	0.4	<5	70	<0.5	<2	1	14	30	<1	138
R2 89MP-R022		<5	0.2	<5	60	<0.5	<2	<1	6	64	99	10
R2 89MP-R023		<5	<0.2	8	26	<0.5	<2	<1	34	91	81	8
R2 89MP-R024		<5	<0.2	13	18	<0.5	<2	<1	16	18	86	4
R2 89MP-R025		<5	<0.2	<5	12	<0.5	<2	<1	21	31	70	47
R2 89MP-R026		<5	<0.2	6	<u>1716</u>	<0.5	<2	<1	17	22	36	26
R2 89MZ-R017		<5	<0.2	7	213	<0.5	<2	<1	<5	19	22	23
R2 89MZ-R022		<5	<0.2	<5	27	<0.5	<2	<1	7	20	77	94
R2 89MZ-R023		10	0.3	<5	32	<0.5	<2	<1	8	18	89	193
R2 89MZ-R024		<5	2.2	<5	495	<0.5	<2	<1	37	47	50	735
R2 89MZ-R025		14	0.6	6	34	<0.5	<2	<1	<5	62	83	592
R2 89MZ-R026		<5	0.4	<5	81	<0.5	<2	<1	20	28	98	229
R2 89MZ-R027		<5	<0.2	8	360	<0.5	<2	<1	15	26	55	101
R2 89MZ-R028		<5	<0.2	<5	98	<0.5	<2	<1	16	17	103	36
R2 89MZ-R029		<5	<0.2	<5	32	<0.5	<2	<1	25	24	77	45
R2 89MZ-R030		<5	0.3	<5	120	<0.5	<2	<1	<5	9	167	92
R2 89MZ-R031		<5	0.3	9	<del>888</del>	<0.5	<2	<1	<5	10	109	17
R2 89MZ-R032		<5	<0.2	5	90	<0.5	<2	<1	<5	18	158	40
R2 89MZ-R033		<5	<0.2	9	26	<0.5	<2	<1	17	40	119	111
R2 89MZ-R034	↑	<5	<0.2	6	57	<0.5	<2	<1	6	16	134	206
R2 89MZ-R035	<i>Mikhail</i>	<5	0.2	5	8	<0.5	<2	<1	16	8	50	184

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PROJECT: MIKHAIL

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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
R2 89MC-R008		<2	6	1	3	2	20	<2	<20	<5	1	<20
R2 89MC-R009		11	8	2	1	6	9	<2	<20	<5	8	<20
R2 89MC-R010		8	2	13	3	3	45	<2	<20	<5	8	<20
R2 89MC-R012		14	2	6	1	7	130	15	<20	<5	6	<20
R2 89MC-R014		15	5	7	2	6	24	<2	<20	<5	8	<20
R2 89ME-R020		6	7	1	2	4	15	2	<20	<5	3	<20
R2 89ME-R021		5	4	2	1	4	25	<2	23	<5	3	<20
R2 89MP-R021		<2	2	2	14	<1	16	<2	25	<5	<1	<20
R2 89MP-R022		<2	<1	2	57	<1	16	<2	<20	<5	3	<20
R2 89MP-R023		<2	24	4	12	<1	80	<2	<20	<5	8	<20
R2 89MP-R024		6	5	4	5	4	17	<2	<20	<5	2	<20
R2 89MP-R025		5	8	4	2	4	35	<2	<20	<5	10	<20
R2 89MP-R026		<2	8	4	3	17	43	<2	<20	<5	11	<20
R2 89MZ-R017		5	<1	2	3	11	21	<2	<20	<5	9	<20
R2 89MZ-R022		10	3	4	1	5	29	<2	<20	<5	4	<20
R2 89MZ-R023		3	2	<1	4	3	63	<2	<20	<5	2	<20
R2 89MZ-R024		8	30	3	2	9	37	19	<20	<5	1	<20
R2 89MZ-R025		5	<1	2	<1	4	135	<2	<20	<5	1	<20
R2 89MZ-R026		6	11	3	2	4	48	<2	<20	<5	3	<20
R2 89MZ-R027		8	5	3	2	17	48	<2	20	<5	12	<20
R2 89MZ-R028		4	6	10	3	4	24	<2	<20	<5	3	<20
R2 89MZ-R029		7	10	2	1	6	11	<2	29	<5	3	<20
R2 89MZ-R030		5	<1	5	1	4	11	<2	<20	<5	6	<20
R2 89MZ-R031		4	<1	2	1	17	10	<2	<20	<5	8	<20
R2 89MZ-R032		9	2	2	1	6	45	<2	<20	<5	5	<20
R2 89MZ-R033		4	8	2	26	4	37	<2	55	<5	4	<20
R2 89MZ-R034		9	2	3	6	5	18	<2	68	<5	10	<20
R2 89MZ-R035		9	9	2	<1	6	10	<2	<20	<5	2	<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 89MC-R008		34	12	<10	11	<10	2	33	5
R2 89MC-R009		143	<10	<10	156	<10	7	46	11
R2 89MC-R010		11	<10	<10	110	<10	4	54	4
R2 89MC-R012		52	<10	<10	86	<10	5	115	9
R2 89MC-R014		35	<10	<10	115	<10	8	96	4
R2 89ME-R020		42	<10	<10	107	<10	10	13	2
R2 89ME-R021		59	<10	<10	53	<10	6	12	6
R2 89MP-R021		123	55	<10	6	<10	2	15	2
R2 89MP-R022		5	<10	<10	25	<10	2	8	7
R2 89MP-R023		33	<10	<10	379	<10	6	21	4
R2 89MP-R024		166	<10	<10	48	<10	7	11	3
R2 89MP-R025		19	<10	<10	60	<10	9	27	2
R2 89MP-R026		39	<10	<10	49	<10	9	48	3
R2 89MZ-R017		50	<10	<10	20	<10	8	25	1
R2 89MZ-R022		44	<10	<10	80	<10	6	35	4
R2 89MZ-R023		9	<10	<10	34	<10	9	7	5
R2 89MZ-R024		265	<10	<10	49	<10	5	97	11
R2 89MZ-R025		19	<10	<10	65	<10	4	26	4
R2 89MZ-R026		32	<10	<10	44	<10	7	16	7
R2 89MZ-R027		56	<10	<10	49	<10	10	47	1
R2 89MZ-R028		50	11	<10	41	<10	7	55	1
R2 89MZ-R029		42	<10	<10	92	<10	9	22	4
R2 89MZ-R030		7	<10	<10	20	<10	9	30	1
R2 89MZ-R031		121	<10	<10	17	<10	8	40	2
R2 89MZ-R032		78	<10	<10	52	<10	6	20	4
R2 89MZ-R033		28	<10	<10	69	<10	10	11	3
R2 89MZ-R034		34	<10	<10	140	<10	10	38	2
R2 89MZ-R035		31	<10	<10	45	<10	6	44	6



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SAMPLE NUMBER	ELEMENT UNITS	As PPM	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 KYR 036 m.khalil		<5	1.4	71	76	<0.5	11	<1	23	45	3	578
R2 KYR 037		<5	2.0	96	17	<0.5	8	<1	<5	125	475	740
R2 KYR 038 m.khalil		32	0.5	78	23	<0.5	<2	<1	<5	24	297	155
R2 89K0-R 085 m.khalil		<5	0.6	101	22	<0.5	3	<1	<5	48	71	1776
R2 89K0-R 087 m.khalil		<5	0.6	61	43	<0.5	3	<1	<5	53	50	2022
R2 89K2-R 090 m.khalil		<5	0.8	123	59	<0.5	28	<1	8	6	57	1546
R2 89K2-R 091		<5	0.6	78	39	<0.5	3	<1	<5	67	39	1579
R2 89K2-R 092		<5	0.4	74	49	<0.5	5	<1	<5	78	43	1396
R2 89NP-R 094		<5	0.4	47	12	<0.5	4	<1	<5	21	24	375
R2 89NP-R 095 m.khalil		<5	0.4	49	56	0.8	2	<1	<5	67	10	748





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SAMPLE NUMBER	ELEMENT UNITS	Ca PPM	La PPM	Ti PPM	Mo PPM	Nb PPM	NI PPM	Pb PPM	Rb PPM	Sb PPM	Sn PPM	Sr PPM	
R2 KYR 036		42	4	18	3	41	26	<2	574	45		1	24
R2 KYR 037		16	<1	10	2	8	1142	2	38	14		3	<20
R2 KYR 038		15	<1	7	1	9	187	<2	36	9		2	<20
R2 89K0-R 085		10	<1	20	5	4	14	<2	36	17		11	<20
R2 89K0-R 087		9	<1	5	4	5	41	<2	52	15		1	<20
R2 89K2-R 090		41	<1	65	6	20	14	15	65	71		12	<20
R2 89K2-R 091		11	<1	7	3	6	24	<2	23	16		1	<20
R2 89K2-R 092		13	<1	6	4	7	33	<2	<20	15		2	<20
R2 89M2-R 094		14	<1	5	<1	6	8	<2	<20	13		3	<20
R2 89M2-R 095		15	<1	5	1	8	7	<2	<20	11		6	<20

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REPORT: V89-07575.0

SAMPLE NUMBER	ELEMENT UNITG	Sr PPM	Ca PPM	Fe PPM	U PPM	U PPM	Y PPM	Zn PPM	Zr PPM
R2 KYR 036		113	36	44	190	<10	12	115	11
R2 KYR 037		24	<10	15	76	<10	2	94	4
R2 KYR 038		89	<10	<10	88	<10	4	42	3
R2 89K0-R 085		8	<10	<10	111	<10	6	45	4
R2 89K0-R 087		28	<10	<10	46	<10	4	53	4
R2 89K2-R 090		36	<10	21	112	<10	8	52	12
R2 89K2-R 091		9	<10	<10	51	<10	5	20	6
R2 89K2-R 092		10	<10	<10	52	<10	5	18	6
R2 89MP-R 094		15	<10	<10	107	<10	5	27	3
R2 89MP-R 095		100	<10	<10	170	<10	9	36	1

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PROJECT: UNUK

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SAMPLE NUMBER	ELEMENT UNITS	Au PPM	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 89MP-R 020 <i>Mikhal</i>		<5	1.1	8	6	<0.5	7	<1	<5	19	82	177

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Ti PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
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R2 89MP-R 020		5	2	2	2	4	45	220	<20	<5	2	<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
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R2 89MP-R 020		24	<10	<10	33	<10	4	79	3
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PROJECT: UNUK

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SAMPLE NUMBER	FILAMENT UNITS	Au PPM	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
T1 89K0-L 086 <i>michael</i>		10	<0.2	152	185	<0.5	4	<1	15	32	141	119
T1 89KP-L 035 <i>michael</i>		10	0.2	48	306	<0.5	5	<1	19	35	166	99
T1 89KP-L 036 <i>michael</i>		<5	<0.2	40	227	<0.5	5	<1	17	28	68	105
T1 89KP-L 037 <i>michael</i>		<5	<0.2	41	192	<0.5	7	<1	18	27	61	90
T1 89KZ-L 037 <i>michael</i>		6	0.2	55	310	<0.5	5	<1	14*	23	78	75

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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
11 89KO-L 086		18	4	12	4	11	114	7	<20	21	7	<20
11 89KP-L 035		19	6	13	5	9	141	15	<20	11	8	<20
11 89KP-L 036		16	5	11	4	8	56	6	<20	10	8	<20
11 89KP-L 037		16	6	15	5	9	60	6	<20	8	7	<20
11 89KZ-L 037		18	3	14	4	10	69	14	<20	9	6	<20



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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	U PPM	W PPM	Y PPM	Zn PPM	Zr PPM
11 89K0-L 086		41	<10	<10	86	<10	9	184	8
11 89KP-L 035		50	<10	<10	101	<10	11	152	2
11 89KP-L 036		62	<10	<10	99	<10	11	108	3
11 89KP-L 037		62	<10	<10	107	<10	11	155	3

11 89KZ-L 037		48	<10	<10	97	<10	8	202	3
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PROJECT: UNUK

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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 89MCL011	} m. Khal ↑ ↓ m. Khal	15	<0.2	<5	157	<0.5	3	<1	18	29	54	53
T1 89MCL013		<5	0.2	<5	143	<0.5	5	2	13	38	113	88
T1 89MCL015		8	<0.2	<5	268	<0.5	5	2	23	36	92	84
T1 89MCL016		<5	<0.2	<5	157	<0.5	6	2	18	27	96	58
T1 89MCL017		9	<0.2	<5	101	<0.5	3	1	17	20	63	34

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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 89MCL011		12	7	7	2	6	42	4	<20	7	7	<20
T1 89MCL013		13	5	9	3	7	102	4	<20	7	7	<20
T1 89MCL015		14	8	12	6	6	75	7	<20	10	9	<20
T1 89MCL016		15	8	11	3	8	66	6	<20	10	8	<20
T1 89MCL017		10	7	8	3	6	46	<2	<20	<5	4	<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
T1 89HCL011		45	<10	<10	74	<10	10	76	7
T1 89HCL013		49	<10	<10	82	<10	8	83	5
T1 89HCL015		46	<10	<10	92	<10	11	162	7
T1 89HCL016		52	<10	<10	98	<10	11	109	6
T1 89HCL017		44	<10	<10	77	<10	7	53	1

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REPORT: V89-06781.D ( COMPLETE )

REFERENCE INFO:

CLIENT: KEEMATIN 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 Fine 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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# Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V89-06781.0 ( COMPLETE )

REFERENCE INFO:

CLIENT: KEENATIN ENGINEERING INC.  
PROJECT: PARADIGM

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

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
F 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: KEENATIN ENGINEERING INC.  
TATGA CONSULTANTS LTD.

INVOICE TO: KEENATIN ENGINEERING INC.

MIKHAIL PROPERTY  
HEAVY MINERAL RESULTS

LAB NUMBER	FIELD NUMBER	Au(30g LOCATI)	Ag (ppb)	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)
67820001	89 M WH 1	MIK 220	2.8	146	318	-0.5	-2	120	15	34	97	401	9	-1	6	17	5	91	325	-20	31	10	-20	63	-10	-10	75	64	16	11331	7
67820002	89 M WH 4	MIK 68	5	197	210	-0.5	-2	21	9	60	119	861	16	-1	15	15	7	76	189	-20	15	11	-20	69	19	-10	153	-10	21	2085	10
67820003	89 M WH 5	MIK 75	8.6	270	101	-0.5	-2	42	-5	72	78	1287	11	-1	16	18	5	76	190	-20	28	9	-20	36	-10	-10	101	12	21	3463	7
67820005	89 M WH 6	MIK 37	0.5	44	2000	-0.5	-2	2	22	35	162	83	23	12	8	7	9	59	16	-20	-5	8	-20	201	-10	-10	176	-10	12	303	12
67820006	89 M WH 7	MIK 1709	1.7	182	861	-0.5	-2	-1	25	84	249	440	34	8	13	26	23	122	94	-20	15	12	34	144	12	42	227	-10	17	524	21
68850013	89 M WH 8	MIK 145	4.8	360	196	-0.5	6	27	18	78	34	752	-2	-1	13	22	6	89	230	60	45	9	-20	50	-10	-10	77	-10	22	2124	7
68850014	89 M WH 9	MIK 40	19.6	350	93	-0.5	-2	22	16	104	131	1601	11	-1	14	31	7	138	206	71	50	14	-20	81	-10	-10	126	11	28	2975	7
68850015	89 M WH10	MIK 11	0.3	42	1151	-0.5	-2	-1	6	29	335	85	6	-1	5	4	4	140	6	69	-5	6	-20	136	-10	-10	90	-10	7	85	6
68850016	89 M WH11	MIK -5	1.5	100	513	-0.5	3	1	9	38	108	472	3	-1	5	11	3	69	14	85	10	10	-20	136	-10	-10	132	-10	14	242	10
68850017	89 M WH12	MIK 7	0.3	79	851	-0.5	-2	-1	8	29	89	123	4	-1	5	9	3	60	3	94	6	7	-20	160	-10	-10	97	-10	9	149	8
68850018	89 M WH13	MIK 6	-0.2	41	168	-0.5	2	-1	19	30	108	61	6	5	4	4	5	51	-2	38	6	7	-20	177	-10	-10	168	-10	11	61	6
68850019	89 M WH14	MIK 85	-0.2	34	194	-0.5	-2	-1	13	30	149	62	6	3	5	4	5	71	-2	-20	7	6	-20	172	-10	-10	165	-10	9	57	6
68850020	89 M WH15	MIK -5	-0.2	36	49	-0.5	-2	-1	9	28	243	39	7	2	6	3	6	102	-2	76	-5	5	-20	160	-10	-10	100	-10	7	108	6

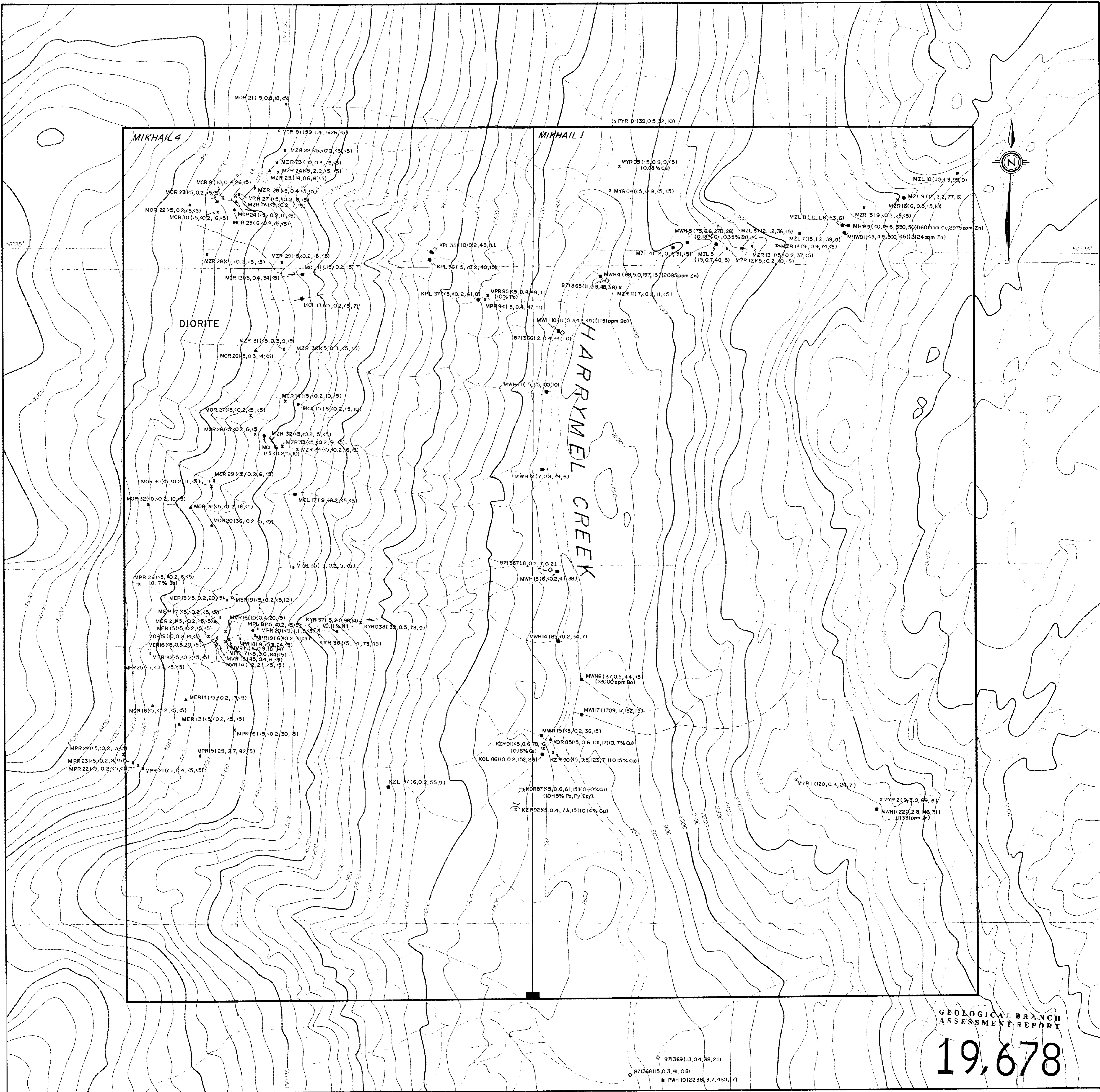
HEAVY MINERAL RESULTS

LAB NUMBER	FIELD NUMBER	Au(30g LOCATI(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)	Ta (ppm)	V (ppm)	U (ppm)	Y (ppm)	Zn (ppm)	Zr (ppm)
67820016	B9 P WH10	LOK 2238	3.7	380	157	-0.5	-2	7	17	57	173	411	18	-1	15	18	10	100	75	-20	17	10	-20	88	-10	-10	141	-10	21	842	16

**SUMMARY OF EXPENDITURES****Mikhail 1 & 4**

<b>Personnel and Crew</b>	<b>\$25,092.13</b>
<b>Transportation</b>	
- helicopter/fixed wing/fuel	<b>12,323.10</b>
<b>Camp</b>	
- food/accommodation	<b>4,860.75</b>
<b>Assay/Report/Drafting/Secretarial</b>	<b><u>11,553.80</u></b>
<b>TOTAL EXPENDITURES:</b>	<b><u>\$53,829.78</u></b>



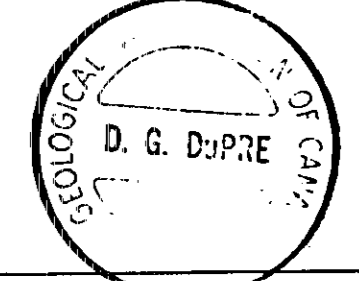


GEOLOGICAL BRANCH  
ASSESSMENT REPORT

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LEGEND

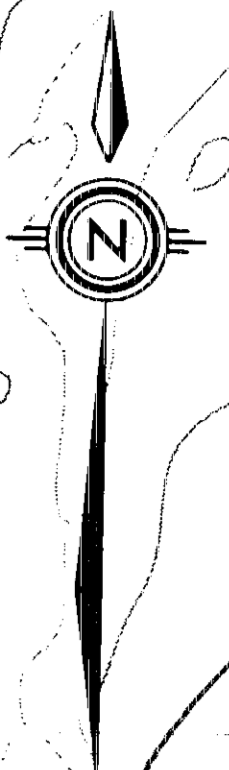
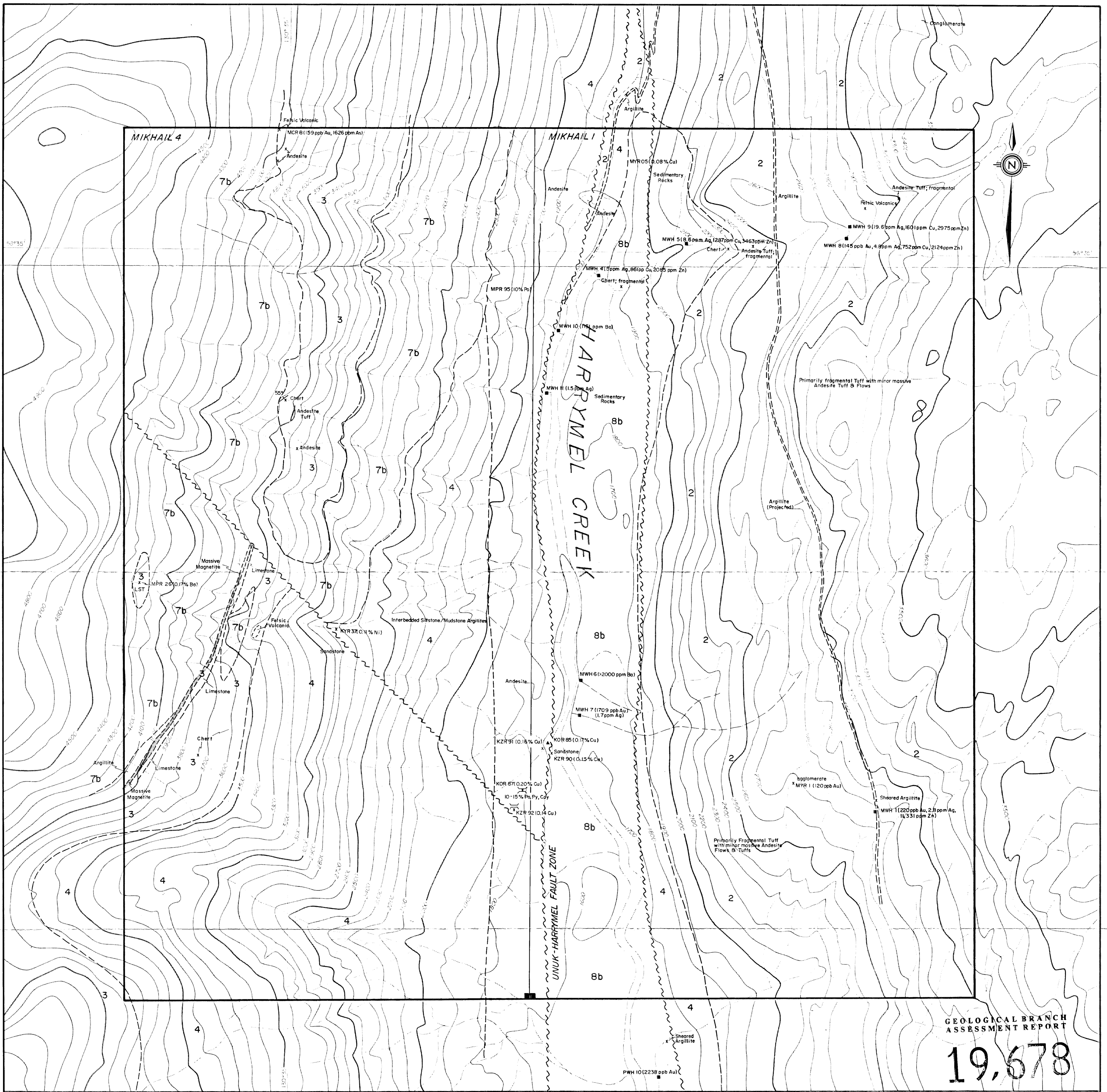
- Regional stream silt sample site (Au ppb, Ag ppm, As ppm, Sb ppm)
- Mafic mineral occurrence (Cu ppm, Pb ppm, Zn ppm, Au ppb, Ag ppm)
- x Rock sample - outcrop (Au ppb, Ag ppm, As ppm, Sb ppm)
- ▲ Rock sample - float (Au ppb, Ag ppm, As ppm, Sb ppm)
- Stream silt sample (Au ppb, Ag ppm, As ppm, Sb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



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MIKHAIL PROJECT  
1989 EXPLORATION SAMPLE  
LOCATIONS & RESULTS

DATE: SEPT. 1989 NTS: 104 B/10E  
PROJECT: MIKHAIL  
SCALE: 1:5000  
KEEWATIN ENGINEERING INC. MAP No. 1



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,678

- |  |  |   |
|--|--|---|
| <p><b>Volcanic Sedimentary Rocks</b></p> <p>1 Pleistocene to Recent<br/>Basalt flows and tephra: dark brown to black, minor pillow lavas</p> <p>2 Lower Jurassic (Pliensbachian to Toarcian)<br/>Tuffaceous Formation: pyroclastic-epithermal sequence, heterogeneous, grey green, massive to bedded, pyroclastics and sedimentary rocks (black, thinly bedded siltstone, shale, and argillite)</p> <p>3 Upper Triassic to Lower Jurassic (Norian to Sinemurian)<br/>Unuk River Formation: andesite sequence, green and grey, intermediate to mafic volcanics and flows, with locally thick interbeds of fine-grained immature sediments, minor conglomerates, and limestone</p> <p>4 Upper Triassic (Carnian to Norian)<br/>Stahini Group: brown, black, grey; mixed sedimentary rocks (siltstone, shale, argillite, limestone, chert), with minor mafic to intermediate volcanics and volcanoclastic rocks</p> | <p><b>Intrusive Rocks</b></p> <p>5 Tertiary<br/>Post-Tectonic Dykes<br/>King Creek Dyke Swarm: feldspar porphyry dacite, andesite, diabase, and hornblende to quartz diorite; limits of the unit shown indicate where the dykes exceed 50% of the exposed bedrock</p> <p>6 Hamilton Monzonite - fine grained monzonite</p> <p>7 Coast Plutonic Complex: hornblende-biotite-quartz diorite to granodiorite.</p> <p>8 Jurassic<br/>Unuk River Diorite Suite:<br/>a) Max: biotite-hornblende diorite, quartz diorite, granodiorite<br/>b) Metville: hornblende-biotite diorite, quartz diorite</p> <p><b>Metamorphic Rocks</b></p> <p>9 Metamorphic equivalents of Units 1, 2, or 3<br/>a) hornblende, mylonitic gneiss, mylonite<br/>b) Unuk-Harpyriel Fault Zone, strongly sheared rock within fault zone</p> | <p><b>SYMBOLS</b></p> <p>--- Geological contact (observed, assumed)</p> <p>--- Bedding with dip</p> <p>--- Foliation</p> <p>--- Regional anticline</p> <p>--- Fault (deformed, assumed)</p> <p>--- Airphoto lineament</p> <p>○ Regional stream all sample site (Au ppb, Ag ppm, As ppm, Sb ppm)</p> <p>■ Minefile mineral occurrence (Cu ppm, Pb ppm, Zn ppm, As ppb, Ag ppm)</p> <p>▲ Rock sample - outcrop (Au ppb, Ag ppm, As ppm, Sb ppm)</p> <p>● Rock sample - float (Au ppb, Ag ppm, As ppm, Sb ppm)</p> <p>● Stream silt sample (Au ppb, Ag ppm, As ppm, Sb ppm)</p> <p>■ Heavy mineral sample (Au ppb, Ag ppm, As ppm, Sb ppm)</p> <p>--- Trench</p> |
|--|--|---|

D. G. DUPRE

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**MIKHAIL PROJECT  
GEOLOGY & ANOMALOUS  
VALUES**

DATE: SEPT. 1989	NTS: 10/48/10E
PROJECT: MIKHAIL	
SCALE: 1:5000	0 10 20 30 40 METRES
KEEWATIN ENGINEERING INC. MAP No. 2	