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M E R I D O R R E S O U R C E S L T D.

GEOLOGICAL, GEOPHYSICAL AND DIAMOND DRILLING REPORT

ON THE

ISKUT RIVER PROPERTY

LIARD MINING DIVISION

NTS 104B/11E

BY

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MARK MANAGEMENT LTD.

JUNE 1989

CLAIM NAME	UNITS	RECORD NO.	ANNIVERSARY DATE
ISKUT 1	3	1167	JANUARY 7
ISKUT 2	9	1168	JANUARY 7

LATITUDE: 56°42′ N

LONGITUDE: 131°12′ W

OWNER: MERIDOR RESOURCES LTD.

OPERATOR: MERIDOR RESOURCES LTD.

PROJECT GEOLOGIST: L. DANDY, B.Sc., MARK MANAGEMENT LTD.

MERIDOR RESOURCES LTD.
ISKUT RIVER PROPERTY
LIARD MINING DIVISION

SUMMARY

The Iskut River Property is located on the north bank of the Iskut River in an area of much active mineral exploration. No work had been done by Meridor Resources Ltd. on the property prior to 1987, although they have held the ground since 1980. In 1987, a soil sampling grid was established, with samples taken at 25 metre intervals. A large anomalous zone for gold, silver, copper and molybdenum was found. An inconclusive preliminary ground electromagnetometer survey was also run over a small portion of the grid. An airborne geophysical survey was completed which outlined several significant anomalies which were followed up with ground surveys in 1988. Rock outcrops and stream sediments were sampled during the course of soil sampling, and some extremely high gold values were obtained.

A major exploration programme was conducted in 1988 on the Iskut River Property. Detailed ground geophysics (including induced polarization, proton magnetometer, and VLF-electromagnetometer surveys), and detailed soil sampling surveys were carried out over the entire property. The encouraging results obtained led to a small trenching programme, followed by a two-phase, 6,438 metre diamond drill programme. These programmes outlined two significant but independent types of gold mineralization on the property. The first type consists of high-grade gold values within or adjacent to quartz-carbonate and massive sulphide veins. The second type is a copper-molybdenum porphyry deposit with lower grade gold values. Both types of mineralization found on the property have economic potential.

From January to March 1989, additional diamond drilling was conducted to better assess the potential of this property based on the encouraging results obtained to date. Detailed proton magnetometer and VLF-electromagnetometer surveys were carried out on 25 metre spaced east-west lines in the northwest corner and the central portion of the property, with readings taken at 5 metre intervals. Detailed magnetometer and electromagnetometer surveys were also run on north-south lines in the northwest corner of the property to form a box grid. Drilling concentrated on the northwest corner of the property where the previously outlined mineralized structures were pattern drilled. Other holes were placed over electromagnetic conductors outlined in the central and southern portions of the property.

Surrounding properties, with similar geological settings are obtaining very high results both from surface sampling and in drill core. The best known property in this area is held by Skyline Resources Ltd., and hosts the Stonehouse deposit which went into production in June 1988. To the southeast of Meridor's property is the Snip deposit, jointly held by Cominco Ltd. and Delaware Resources Ltd., which is expected to go into production in late 1989. Surrounding Meridor's property, are the Hemlo West claims held jointly by Delaware Resources, Golden Band Resources and American Ore, upon which diamond drill programmes were conducted in both 1987 and 1988 over areas with anomalous gold values in soils and eutcrops. The structures hosting these anomalous zones trend onto Meridor's claims.

1. INTRODUCTION

The Iskut River property is a lode gold, copper and molybdenum prospect located on the north bank of the Iskut River in northwestern British Columbia (Figure 1). The claims were staked in 1980, and are owned 100% by Meridor Resources Ltd. of Vancouver, B.C. No work had been done on the property until 1987.

In 1987, a small-scale exploration programme was conducted on the claims. Soil, stream sediment and rock chip sampling was carried out on a flagged line grid. An incomplete ground VLF-electromagnetometer survey was run over a portion of the grid. An airborne geophysical survey was completed, which outlined several anomalies which warranted follow up work in 1988.

In 1988, a two phase exploration programme, carried out by Mark Management Ltd., was conducted on the Iskut River property. Encouraging results were obtained from the 1988 exploration programme. Geophysical surveys (including induced polarization, proton magnetometer and VLF-electromagnetometer) showed numerous magnetic and conductive zones which were later proved to be related to subsurface sulphide mineralization, some of which contained significant amounts of gold, copper and molybdenum. A detailed soil sampling survey helped to extend and better define the large anomalous zones outlined by the 1987 survey. Both hand and blast trenching were conducted on the property to determine if the high gold values obtained in the soil samples had originated locally. Results were inconclusive due to intense weathering found in the surface bedrock samples, however, results indicate that the source material appears to be local.

2,950 metres of diamond drilling was completed during the initial phase of the 1988 programme. Drilling concentrated on the zones represented by the highest gold values obtained from the soil sampling surveys. Although a terrific number of samples contained significant gold values, no large or continuous zones of high-grade material were outlined. The second phase of exploration consisted of an additional 3,488 metres of drilling. This phase concentrated on testing narrow linear zones which had coincident or adjacent geophysical and geochemical anomalies. Higher grade gold values were obtained from this second phase of drilling.

In early 1989, an additional 3127 metres of diamond drilling was completed. Detailed proton magnetometer and VLF-electromagnetometer surveys were conducted over previously defined areas of interest. The work programme was carried out by a four man crew working out of a camp

located at the Bronson Creek Airstrip. Daily access to the property was by helicopter. The programme was supervised by Mark Management Ltd. Project Geologist, L. Dandy.

This drill programme confirmed the presence of high grade gold mineralization in the northwest corner of the property, however, it appears to cross the claim boundary and will have to be worked jointly in the future to fully assess the grade and extent of the mineralization. The porphyry zone in the southern portion of the property has excellent potential to become an economic deposit in the future when roads provide better access to this area. Several smaller zones which were drilled in the programme retain their economic potential, however, additional work is required to fully assess these zones.

1.1 LOCATION AND ACCESS

The Iskut River property represents a lode gold prospect located along the Iskut River, in the Liard Mining Division of northwestern British Columbia. The claims are located on the north bank of the Iskut River, approximately 40 kilometres upstream (to the east) of the confluence of the Stikine and Iskut Rivers.

The Iskut River Property is located approximately 115 kilometres northwest of Stewart, British Columbia, and 95 kilometres east-northeast of Wrangell, Alaska. The claims are centred at latitude 56°42'N and longitude 131°12'W on NTS Mapsheet 104B/11E (Figure 1).

The nearest road, the Stewart-Cassiar Highway, lies 70 kilometres to the east. Access to the property is by fixed wing aircraft from Smithers, Terrace or Stewart, B.C., or Wrangell, Alaska to an airstrip at the mouth of Bronson Creek. The Bronson Airstrip, located on the south side of the Iskut River approximately 2.5 kilometres from Meridor's property, was built by Cominco Ltd. in 1987. This airstrip was extended in 1988 to accommodate Hercules-size aircraft. Helicopters based at the Bronson airstrip are available for flights to the property.

The logging and hydro power potential of the Iskut River has recently been recognized, and logging north of the mouth of the river may move upstream a few miles in the near future. The claims are also located just downstream from one of the best potential damsites on the Iskut, and any further development of these resources will invite road construction along this river. With the production decisions of two new mines (the Stonehouse and the Snip), and the potential for several more, the Alaskan and British Columbian governments are currently studying the feasibility of constructing road access into the Iskut area. The

results of these studies should be known during 1989 and are expected to be favourable.

1.2 PHYSIOGRAPHY, VEGETATION AND CLIMATE

The Iskut River property is located on the north bank of the Iskut River in northwestern British Columbia. The area consists of dense rain-forest on lower portions with extremely steep, rugged mountains and numerous glaciers at higher elevations. In the Iskut River valley the elevation of the property is 100 metres, but climbs toward the north to an elevation of 460 metres. Many mountains in this area reach an elevation of 1500 metres or more.

Due to its relatively low elevation, the property is thick with dense undergrowth including willows, alders, and devil's club. Large trees are present, and consist predominantly of hemlock and spruce.

The property experiences north-coastal climate, with wet summers and heavy snowfalls in winter. A compacted snow depth of 3.5 to 4.5 metres in April-May at 1000 metres elevation is normal. The main river valleys are usually snow free around the end of May or early June. Temperatures in the summer are usually around 20^{o}C and in the winter average -10^{o}C.

1.3 CLAIM INFORMATION

The Iskut 1 and 2 claims are owned 100% by Meridor Resources Ltd. of Vancouver, B.C. The property is located in the Liard Mining Division and consists of two contiguous modified grid mineral claims totalling 12 units. Claim information is listed in Table I.

TABLE I
CLAIM STATUS

Claim Name	Units	Record Number	Anniversary Date
ISKUT 1	3	1167	JANUARY 7
ISKUT 2	9	1168	JANUARY 7

1.4 HISTORY

The Stikine River valley was travelled by prospectors heading for the Cassiar Gold Fields in the 1873 rush, and again in 1896-98 during the Klondike Gold Rush, but little prospecting was done at the time. In 1906, the Iskut Mining Co. staked some claims, which were later Crown Granted, in

the Bronson Creek area about 6 kilometres southeast of the property now held by Meridor. In the early 1950's, after the discovery of the Granduc showings, helicopter-borne prospecting increased. The Stikine Copper deposits were discovered on a tributary of the Scud River and subsequently more detailed prospecting was carried out in the area. In 1965, there was considerable activity in the Lower Iskut River area with claims being staked over the various mineral belts.

Cominco staked claims in the area in 1929 and again in 1964; each time the claims were allowed to lapse. Several other major companies have also been active in the area: Kennco Explorations in 1949, Hudson's Bay Mining and Smelting from 1955 to 1963, Noranda Exploration in 1962, and Texas Gulf from 1974 to 1978. In 1978, Skyline Explorations aquired the area centred on Johnny Mountain to cover gold occurrences that had been previously staked by others. Skyline optioned its property to Placer Development in 1982 and Anaconda in 1984, but each of these major companies eventually dropped its option. In 1985, Skyline implemented an advanced exploration programme on its Stonehouse gold zones, and in 1986, initiated an underground exploration programme. Skyline went into production in June 1988, with an initial rate of 200 tons per day.

The Snip claims were staked by Cominco Ltd. in 1980 to cover a gold occurrence discovered by a company geologist in 1964. Little work was done until 1986, when Delaware Resources optioned the property from Cominco. Cominco is the operator of the property, which is expected to go into production in late 1989.

Iskut Silver Mines Ltd. staked their claims over a geochemical anomaly. Further geochemical surveys and hand trenching were carried out in eight locations in 1965. This work was partially done on the ground now held by Meridor. Meridor's claims were staked in 1980, and except for the Crown Granted claims along Bronson Creek and a few claims on Johnny Mountain to the south, Meridor's were the only claims in the area.

A soil sampling survey was carried out on the property by Meridor Resources Ltd. in 1987. Rock and stream sediment samples were taken during the course of the soil sampling. An airborne geophysical survey was completed and a partial ground VLF-electromagnetometer survey was conducted.

In 1988, a two phase exploration programme, was conducted on the Iskut River property. Geophysical surveys (including induced polarization, proton magnetometer and VLF-electromagnetometer) showed numerous magnetic and conductive zones which were later proved to be related to subsurface sulphide mineralization, some of which contained

significant amounts of gold, copper and molybdenum. A detailed soil sampling survey helped to extend and better define the large anomalous zones outlined by the 1987 survey. Both hand and blast trenching were conducted on the property to determine if the high gold values obtained in the seil samples had originated locally. 2,950 metres of diamond drilling was completed during the initial phase of the 1988 programme. Drilling concentrated on the zones represented by the highest gold values obtained from the soil sampling surveys. The second phase of exploration consisted of an additional 3,488 metres of drilling. This phase concentrated on testing narrow linear zones which had coincident or adjacent geophysical and geochemical anomalies.

1.5 WORK DONE BY MERIDOR RESOURCES LTD. IN 1989

The following field work was completed on the Iskut River property by Meridor Resources Ltd. during the period January 10 to March 25, 1989:

1) Two detailed flagged line grids (the northwest and central grids) were placed over previously defined areas of interest with 25 metre spaced east-west lines. Over the northwest grid, a second grid using 25 metre spaced north-south lines was also run to form a box grid in this area. Stations along these lines are at 10 metre intervals.

2) Proton magnetometer surveys were conducted over all three grids with readings taken at 5 metre intervals. The surveys were done by P.E. Walcott and Associates of Vancouver, B.C. A total of 26.55 line kilometres were surveyed.

3) A VLF-electromagnetometer survey was run using station 'NLK' (Washington) over the east-west flagged lines, and using station 'NAA' (Maine) over the north-south lines. Readings were taken at 5 metre intervals along the lines. A total of 26.55 line kilometres were surveyed.

4) A diamond drilling programme which totalled 3127 metres in 33 holes was completed. The entire core was logged and split with 2140 drill core samples being sent to the lab for analysis.

2. GEOLOGY

2.1 REGIONAL GEOLOGY

The Iskut River area was mapped by F.A. Kerr for the Geological Survey of Canada (G.S.C.) in the 1920's (Memoir 246, 1948) and by Operation Stikine in 1956 (Map 9-1957). In 1966-68, J.W.H. Monger, also of the G.S.C., selectively mapped the Atlin Terrane and published his findings in G.S.C. Paper 74-47. Geological mapping of this area was again undertaken in 1974 by J.G. Souther and A.V. Okulitch of the G.S.C., and compiled as Map 1418A (Figure 2). In 1988, the Bronson Creek open file mapping project was conducted by D. Lefebure, concentrating on the area to the south of the Iskut River, with only preliminary maps being available to the public at this time.

The Iskut River lies in the Intermontane Belt in northwestern British Columbia. The Intermontane Belt is subdivided from north to south into Atlin Terrane, Whitehorse Belt, Quesnel Belt, Stikine Arch and Iskut Belt. Meridor's Iskut River property lies in the Iskut Belt, immediately to the south of the Stikine Arch.

The structure of the Intermontane Belt is dominated by the Stikine Arch, which became a relatively positive tectonic element in the late middle Triassic and by Atlin Terrane which was uplifted in the late Jurassic. The oldest dated rocks on the Stikine Arch are Mississippian, but still older gneiss and amphibolite are exposed. Permo-Carboniferous sedimentary and volcanic rocks in the arch are tightly folded along north-south axes in contrast with the west-northwesterly trend of Permo-Carboniferous strata in Atlin Terrane and with the northwesterly trend of younger rocks. Stikine Arch and early uplifted elements of the Coast Plutonic Complex influenced subsequent clastic deposition. Upper Triassic to Middle Jurassic volcanic and sedimentary rocks on the flanks of the arch and in the adjacent Whitehorse, Quesnel and Iskut Belts are either unmetamorphosed or of low greenschist grade. Proximal facies, including granite boulder conglomerate, occur on both the southeast and northeast flanks of Stikine Arch, the latter grading into a distal, deep water flysch in Central Whitehorse Belt. The succession is repeated by the southerly directed, low angle, King Salmon Thrust and is truncated by the steeply dipping Nahline Fault which forms the southwest boundary of Atlin Terrane. In Atlin Terrane late Paleezoic, deep water sediments and basic volcanics are associated with diabase and serpentinized peridotite. Large alpine ultramafic bodies have been tectonically emplaced along the bounding faults. Southeast of the Stikine Arch, Middle Jurassic sedimentary and volcanic rocks of Iskut Belt are disconformably overlain by symmetrically folded marine

and non-marine, coal-bearing clastic rocks of the Jura-Cretaceous and Tertiary easterly-derived, non-marine clastics and westerly-derived, airborne volcanic ash that were deposited in the Sustut Successor Basin to the east.

The lower Iskut Valley crosses the northwest trending east flank of the Coast Batholith in an area where strong north-south trends diverge from it. These trends are followed by granitic intrusives, by strong fault zones and, further to the north, by Tertiary volcanics which appear to have originated at intersecting fault trends. Minor Tertiary volcanics occur as far south as the lower Iskut area.

Correlations and ages of formations are still subject to further refinements, especially in the distinction between Permian and Triassic. The oldest non-metamorphic formations are Permian limestones, followed by a thick sequence of Permian or Triassic volcanics with various sedimentary zones. These, in turn, are overlain by Triassic sediments, mainly clastics with minor limestone.

The volcanic and sedimentary rocks are intruded by, and essentially bounded by, Cretaceous to Tertiary age batholithic bodies. The intrusions are usually quartz monzonite; granodiorite and granite occur locally.

The most significant potential mineralizing agents are syenite porphyries, derivatives of which appear to have a distinct relationship to ore in the Stikine Copper area. They consist of barren orthoclase porphyries and any mineralization is usually related to fracturing or brecciation near their contacts. Both strong folding and faulting of the immediately surrounding rocks are significant factors.

In the lower Iskut River area, the Bronson Creek and Iskut River intrusions, south of Meridor's property, have the most significant associated mineralization; those to the south and west have essentially barren surrounding rocks.

A striking feature is a northwest trending, very rusty shatter-zone, possibly a thrust fault with a south dip, trending from the southeast toward Meridor's property for a length of at least 30 kilometres. Since the maximum number of mineral occurrences of interest lies within a band about 3 kilometres wide along the northeast side of this zone, it is a reasonable assumption that the mineralization is directly related to this zone.

2.2 PROPERTY GEOLOGY

Outcrop exposure accounts for less than 10 percent of the surface area on the property, with limited rock exposures making geologic interpretation difficult. The property lies in an intensely gullied terrain with occasional glacial overburden.

Stratigraphically (taken from GSC Map 1418A), the oldest units on the property are Carboniferous and Permian greenstone, limestone, shale and clastic sedimentary rocks. These are overlain by Upper Triassic, Hazelton Group undifferentiated andesitic volcanic and clastic sedimentary rocks, and are intruded by Jurassic and Cretaceous diorite and hornblende diorite. In the northern portion of the property, Recent basalt, cinders and ash can be found.

The Hazelton Group sediments appear to be strongly hornfelsed in the southeastern corner of the property, where they are intruded by a syenite porphyry body. The hornfelsed zone censists of dark grey to black, hard, fine-grained, magnetite-rich argillite within which bedding is obscured. Farther to the west, away from the syenite porphyry, the rocks grade into pyrite-rich greywackes which exhibit typical porphyry type zoning as they become increasingly farther away from the intrusive heat source. The greywackes are intensely biotite and sericite altered with varying degrees of feldspathization also being present. In the far north and west portions of the property are predominantly unaltered (although sections of biotite, chlorite and garnet alteration have been observed), well-bedded siltstones and argillites, with minor chert and limestone. The very different appearance of these rocks indicate that they may be unaltered versions of the Hazelton Group sedimentary rocks or may be representatives of the older Permian/Cretaceous sedimentary package. Figure 3 shows a generalized property geology map.

A strong north-northwest trending fault bisects the property and is visible as a steep sided gully. Several northeast trending right lateral faults are present, as well as cross shearing nearly perpendicular to these faults. Evidence for these faults can be seen on airphotos which show a strong pattern of west-northwest and east-northeast lineaments on the property. Bedding in the sediments appears to have a west-southwest strike and dip steeply to the south.

2.3 MINERALIZATION

Two types of economically significant mineralization are found on the Iskut River property. The first is gold bearing, sulphide-rich veins emplaced along shears, faults and fractures in altered siltstones. The second type of mineralization is a porphyry-type, copper-molybdenum-gold zone found within pyrite-rich and hornfelsed greywackes and siltstones surrounding a syenite porphyry intrusive. Both types of mineralization were encountered by the diamond drill programme which tested the most significant geochemical and geophysical anomalies previously found on the property.

Mineralization in the sulphide-rich veins consists of calcite, pyrite and pyrrhotite, with minor quartz, chalcopyrite, magnetite, biotite, chlorite, galena, sphalerite and arsenopyrite. Gold and silver values are high grade but spotty within these sulphide zones. Table II outlines some of the better gold bearing intersections obtained from drill core. Localized showings on the western claim boundary of Meridor's property have significant amounts of sulphide mineralization, both disseminated in the bedding and as cross-cutting fracture fillings. These showings have an economically important gold content.

The most significant zone of this type was found in the northwest corner of the property. This mineralized zone appears to trend across the claim border and be on both Meridor's and the adjacent property held by Delaware Resources, Golden Band Resources and American Ore. Meridor's drill holes MR088-48, 57, 59, 60 and MR089-1, 2 and 3 intersected significant gold bearing zones, and Delaware, Golden Band and American Ore's holes I-88-6, 7 and 8 intersected the same zones. Several sub-parallel zones of gold mineralization are apparent from the drill intersections. Dips appear to be nearly vertical, although additional work is required to confirm these orientations. The grade and widths of these intersections indicate the presence of an important structure.

Porphyry-type, copper-molybdenum-gold mineralization is found in the south-central portion of the property. The southeast corner of the property contains a large syenite porphyry intrusive body, surrounded by a hornfelsed zone with a pyrite-rich halo. In this hornfelsed and pyritic zone, the copper-molybdenum-gold potential has not been fully tested, although drill holes have tested the higher grade gold geochemical values in this area. Intersections for porphyry mineralization returned values of 0.15% Cu, 0.025% Mo and 0.014 oz/T Au over entire holes with lengths of greater than 100 metres.

Other mineralization encountered on the property includes: bands of massive magnetite scarn within hornfelsed sediments adjacent to the syenite porphyry intrusive; massive sulphide (pyrite, chalcopyrite, sphalerite and galena) scarn mineralization within localized limestone beds; barite veining in the hornfelsed sediments; and silicified sediments containing bands of pyrite and chalcopyrite. Although these types of mineralization contain significant gold, silver and base metal values, they are not believed to be as important as the previously described zones.

3. GEOCHEMISTRY

3.1 DIAMOND DRILL CORE SAMPLES

3.1.1 SAMPLING AND SAMPLE TREATMENT

In 1989, 3127 metres of diamond drilling in 33 holes was completed on the property. A total of 2140 diamond drill core samples were collected. All of the core was sampled, using an average sampling width of 1.5 metres, with smaller samples being taken where mineralization or veining was present. The core was flown by helicopter from the drill site to the camp where it was logged and split, with samples of approximately two kilograms being sent to Chemex Labs Ltd. for analysis.

In the laboratory, the samples were crushed to minus 100 mesh, fire assayed for gold and analyzed for 32 additional elements by the ICP technique. Several of the samples were re-assayed for gold using a metallics assay technique in order to pick up particulate gold which may have been missed in the original fire assaying. On average, the re-assaying gave slightly higher gold values than the original fire assay.

3.1.2 PRESENTATION AND DISCUSSION OF RESULTS

Sample intervals and results can be found in the Diamond Drill Logs (Appendix A), and the Chemex Labs Ltd. Certificates of Analysis (Appendix B). Core samples which returned highly anomalous gold values are outlined in Table II. These anomalous samples tend to have an average width of one metre, with the higher gold values from heavily disseminated to massive sulphides usually containing significant amounts of pyrrhotite, chalcopyrite and occasionally sphalerite as well as the usual pyrite.

TABLE II

GOLD MINERALIZATION

HOLE #	INTERVAL (m)	WIDTH (m)	AU (oz/T)	AG (oz/T)	CU (%)	DESCRIPTION
MRO89-1	59.2-60.6	1.4	1.300	0.21		cc/chl/py stringers
	73.4-74.2	0.8	0.679	0.33	0.29	qtz/cc/chl/ py zone
MRO89-2	32.1-38.3	7.2	0.259	0.79	0.51	massive
	including	1.2	0.474			sulphide
	including	0.9	0.592			py/po/cpy
	79.0-82.0	3.0	0.350	0.10		cc/py bands
	including	1.6	0.453			
	129.7-130.5	0.8	0.503		0.11	cc/chl vein w tr py
MRO89-3	50.1-52.9	2.8	0.082	0.21	0.18	50% sus, py/po
MRO89-4	73.2-74.8	1.6	0.083			qtz/cc stringers
MRO89-11	30.3-30.8	0.5	0.080			cc/py vein
MRO89-12	40.3-40.8	0.5	0.202			cc vein w py and chl
MRO89-14	35.5-36.9	1.4	0.090			cc/py vein
MRO89-18	20.2-21.2	1.0	0.246	0.13		cc/chl vein
MRO89-19	78.6-79.6	1.0	0.090	0.37	0.58	massive sus po/py/cpy/cc
MRO89-21	15.8-16.5	0.7	0.179	0.14	0.19	massive sus py/cy/cc
MRO89-27	90.5-91.2	0.7	0.118	0.46	0.39	65% sus py/po
MRO89-30	56.0-57.5	1.5	0.227			cc/py vein
MRO89-31	49.2-50.0	0.8	0.645	>6.67	>1.00	massive sus py/cpy/mo/ sph/asp/gal
MRO89-32	19.0-20.4	1.4	0.094			30% diss py

Statistical analyses were done for the drill core and surface rock samples taken from the property. Separate sets of data were run for samples from the pyritic greywacke in the porphyry zone, from the northwest corner of the property, and from the property as a whole. Results of the statistical analyses can be seen in Tables III, IV, and V, and correlation matrices for the various elements can be found in Appendix D. In the porphyry zone, high positive correlations were found for silver-arsenic-lead-zinc and gold-silver-arsenic-copper. Gold gave positive correlation with all elements except calcium. In the northwest corner of the property, gold correlated positively with all other elements, with it highest correlations being with silver,

copper, iron and zinc. Other high correlations obtained in the northwest corner of the property include copper-iron-zinc, and silver-molybdenum-copper-lead-zinc. Averaged over the entire property, gold correlated positively with all elements, with its highest correlations being with silver, copper, arsenic and zinc. Other high correlations for the entire property are copper-iron and silver-lead-zinc-copper.

TABLE III

STATISTICAL ANALYSIS FOR DIAMOND DRILL CORE AND ROCK SAMPLES PYRITIC PORPHYRY ZONE 1988 and 1989

ELEMENT	NUMBER OF SAMPLES	MEAN (x)	THRESHOLD (x+2s)	ANOMALOUS (X+3s)
AU	2359	0.011 oz/T	0.051 oz/T	0.071 oz/T
AG	2359	1.12 ppm	12.58 ppm	18.31 ppm
AS	2359	15 ppm	107 ppm	153 ppm
CA	2359	2.35 %	5.65 %	7.30 %
CU	2359	931 ppm	2809 ppm	3748 ppm
FE	2359	6.44 %	11.24 %	13.64 %
MO	2359	30 ppm	140 ppm	195 ppm
PB	2359	14 ppm	222 ppm	326 ppm
ZN	2359	94 ppm	858 ppm	1240 ppm

TABLE IV

STATISTICAL ANALYSIS FOR DIAMOND DRILL CORE NORTHWEST CORNER OF THE PROPERTY 1988 AND 1989

ELEMENT	NUMBER OF SAMPLES	MEAN (x)	THRESHOLD (x+2s)	ANOMALOUS (x+3s)
AU	2477	0.006 oz/T	0.088 oz/T	0.129 oz/T
AG	2477	0.61 ppm	7.31 ppm	10.66 ppm
AS	2477	39 ppm	555 ppm	813 ppm
CA	2477	2.62 %	5.52 %	7.44 %
CU	2477	197 ppm	1207 ppm	1712 ppm
FE	2477	5.01 %	9.53 %	11.79 %
MO	2477	4 ppm	74 ppm	109 ppm
PB	2477	12 ppm	154 ppm	225 ppm
ZN	2477	130 ppm	1082 ppm	1558 ppm

TABLE V

STATISTICAL ANALYSIS FOR DIAMOND DRILL CORE AND ROCK SAMPLES
ENTIRE PROPERTY
1988 and 1989

ELEMENT	NUMBER OF SAMPLES	MEAN (x)	THRESHOLD (x+2s)	ANOMALOUS (x+3s)
AU	7138	0.008 oz/T	0.072 oz/T	0.104 oz/T
AG	7138	1.04 ppm	10.12 ppm	14.66 ppm
AS	7138	32 ppm	470 ppm	689 ppm
CA	7138	2.64 %	6.58 %	8.55 %
CU	7138	528 ppm	2118 ppm	2913 ppm
FE	7138	5.66 %	10.62 %	13.10 %
MO	7138	17 ppm	119 ppm	170 ppm
PB	7138	18 ppm	290 ppm	426 ppm
ZN	7138	129 ppm	1075 ppm	1548 ppm

4. GEOPHYSICS

4.1 PROTON MAGNETOMETER SURVEY

In 1989, a total of 26.55 line kilometres of proton magnetometer survey was conducted by P.E. Walcott and Associates. The results of this survey will be submitted in a separate report, but a summary of the results is given here.

In 1988, the original magnetometer survey was conducted over a 150 metre spaced cut line grid. This survey located a large zone of high magnetometer responses in the south east and south central portion of the property. This "high" trends approximately east-west from L6+00E to L19+50E. Relief in this zone is on the order of 5000 gammas. The extreme southeast corner of the property is known to be underlain by a syenite porphyry intrusive and the area of "high" magnetometer readings represents a fine-grained magnetite-rich hornfelsed margin to this intrusive. Small bands of massive magnetite scarn mineralization have been intersected by drill holes in this area. In the western part of the claims a more detailed flagged line grid using north-south lines was put in. This grid has line spacings of 37.5 metres and runs from L0+00E to L9+00E and from 1+00S to 6+00N. The detailed grid broke up the length of some of these anomalies but better defined their outlines. Areas of interest on this detailed grid are centred at L7+50E, 3+50N; L5+25E, 4+75N; and L8+25E, 1+75N. These magnetometer "highs" tend to relate to the presence of pyrrhotite in sulphide veins, rather than magnetite as in the southern portion of the property. In the Iskut area, pyrrhotite is known to commonly be associated with gold mineralization.

In 1989, detailed proton magnetometer surveys were run over a box grid in the northwest corner of the property. Lines were put in at 25 metre spacings running both east-west and north-south, and readings were taken at 5 metre intervals along these lines. The central grid consists of 25 metre spaced east-west lines, with readings taken at 5 metre intervals. The results of these surveys can be seen on contoured maps Figures 4, 5 and 6. Several zones of higher magnetic responses were outlined which roughly correspond to known sulphide mineralization. The magnetometer surveys are not as useful as the VLF-electromagnetometer surveys for outlining mineralized structures.

4.2 VLF-ELECTROMAGNETOMETER SURVEY

In 1988, a VLF-electromagnetometer survey was originally conducted over the north-south cut line grid. Later, intermediate lines were put in over an area of interest which was coincident with the area covered by the proton magnetometer survey. The original survey outlined numerous east-west trending sub-parallel conductors. The strongest conductor, between L1+50E and L7+50E at 5+50N, gave Fraser filtered values of up to 38.8%. Other conductors with lengths of one kilometre can be found in the southern portion of the property and likely relate to bands of increased sulphides within the pyritic greywacke. The smaller, stronger conductors to the north represent massive sulphide veins. A second grid using east-west lines spaced 200 metres apart was also put in on the property. North-south trending sulphide veins or shear zones would be picked up with this survey. Several wide spaced linear conductors were outlined, but were not followed up in 1988.

In 1989, VLF electromagnetometer surveys were conducted over the same detailed grid areas as the 1989 proton magnetometer surveys. These surveys were conducted by P.E. Walcott and Associates and will be submitted in a separate report, but are summarized here. The detailed box grid put in on the northwest corner of the property outlined two sub-parallel conductive zones which were found to contain semi-massive to massive sulphide veins (see Figures 7 to 10). These sulphide veins contain varying but significant amounts of gold, silver and base metals.

A second area was surveyed in detail in 1989. This central grid was over the largest soil geochemical anomaly in the pyritic porphyry zone. East-west lines were run at 25 metre spacings with readings taken at 5 metre intervals. Several small conductive zones were found, but are not as continuous as those seen in the northwest corner of the property. These conductors seem to represent narrow

discontinuous massive sulphide bands within the pyrite rich greywacke (Figures 11 and 12).

5. DIAMOND DRILLING

Diamond drill hole data can be found in Table VI. A discussion of the drill core sampling techniques and results can be found in section 3.1. Drill logs and histograms can be found in Appendices A and C, respectively.

The 1989 diamond drill programme consisted of 3127 metres of drilling in 33 holes. These angle holes ranged from 31.4 to 203.9 metres in depth. This drill programme followed up encouraging results obtained from the two phases of drilling completed in 1988.

Near the end of the 1988 drill programme, high grade gold mineralization was obtained from massive sulphides in the northwestern corner of the property. Pattern drilling was deemed the most effective method to test the zone. Holes MR089-1, 2 and 3 were drilled toward the north at -45°, -60° and -75° dips respectively. These holes were located about 5 metres from the claim boundary. All three holes intersected significant widths of massive sulphide mineralization, however, higher assays were obtained only from MR089-1 and 2. Holes MR089-5 and 6 were drilled 15 metres to the east of the initial holes and hole MR089-8 was drilled an additional 15 metres to the east. None of these holes encountered any significant gold mineralization. These results led to the abandonment of the original theory that the structure hosting the mineralization trends generally east-west.

As the detailed geophysical surveys were completed over the northwest corner of the property, it became apparent that there are two sub-parallel north-northeast trending zones of conductivity. One of these conductive zones contains high grade mineralization, with values of up to 1.300 oz/T gold, 0.21 oz/T silver over 1.4 metres; while the second zone has sulphide and quartz-carbonate veins with values up to 0.202 oz/T gold over 0.5 metres.

In 1989, 12 holes were drilled into the higher grade anomaly which trends onto the adjoining property to the west. The second lower grade anomaly hosted 15 drill holes. Holes were drilled in various directions as the dip of the structures could not be determined by the geophysical data. Drill intersections later determined that both of the mineralized structures appear to be dipping toward the west (see Figure 13).

Holes MR089-29 and 30 were drilled in the vicinity of holes MR088-24, 27 and 29, where abundant sulphide

mineralization was encountered. The detailed geophysical survey in this area outlined the mineralization as a zone of conductivity. Hole MRO89-30 returned 0.227 oz/T gold over a 1.5 metre width.

Holes MRO89-31 to 33 were drilled in the south central portion of the claim block within the previously outlined pyritic porphyry zone. The detailed geophysical surveys also covered this portion of the property and showed numerous discontinuous zones of conductivity. Three of these were tested by drilling, and the best results obtained came from hole MRO89-31 with 0.645 oz/T gold, >6.7 oz/T silver and >1.00% copper over 0.8 metres. This is a continuation of the sulphide mineralization found in holes MRO88-5, 6 and 7 (see Figure 14).

Where holes were drilled into highly conductive zones, abundant sulphide mineralization, which generally contains elevated gold, silver and base metal values, was encountered.

TABLE VI

HOLE#	AZIMUTH	DIP		LENGTH	LOCATION
		COLLAR	BOTTOM	(M)	
MRO89-1	010	-45	-47	121.9	8+25N, 0+40E
TARGET - Massive sulphides					
MRO89-2	010	-60	-56	136.9	8+25N, 0+40E
TARGET - Massive sulphides					
MRO89-3	010	-75	-75	203.9	8+25N, 0+40E
TARGET - Massive sulphides					
MRO89-4	190	-45	-46	92.0	8+25N, 0+40E
TARGET - Parallel massive sulphide zones					
MRO89-5	000	-45	-42	136.9	8+25N, 0+55E
TARGET - Massive sulphides on strike from MRO89-1					
MRO89-6	000	-60	-60	130.1	8+25N, 0+55E
TARGET - Massive sulphides on strike from MRO89-1					
MRO89-7	100	-45	-43	31.4	8+25N, 0+40E
TARGET - Alternate strike trend for massive sulphides					
MRO89-8	000	-45	-48	139.9	8+25N, 0+80E
TARGET - Massive sulphides on strike from MRO89-1					
MRO89-9	090	-45	-47	56.4	8+10N, 0+40E
TARGET - Massive sulphides on strike from MRO89-1					
MRO89-10	060	-45	-42	91.1	8+75N, 1+30E
TARGET - Parallel mag, VLF, and gold geochem anomalies					
MRO89-11	030	-45	-43	91.1	7+75N, 1+50E
TARGET - Gold geochem anomaly					

HOLE#	AZIMUTH	DIP COLLAR	DIP BOTTOM	LENGTH (M)	LOCATION
MRO89-12	030	-60	-53	60.7	7+75N, 1+50E
TARGET - Gold geochem anomaly					
MRO89-13	070	-45	-45	101.2	7+15N, 0+65E
TARGET - Mag and VLF anomalies					
MRO89-14	040	-45	-45	120.7	6+85N, 0+95E
TARGET - VLF conductor and gold geochem anomaly					
MRO89-15	270	-45	-47	60.7	6+85N, 0+95E
TARGET - VLF conductor					
MRO89-16	065	-45	-45	99.1	6+95N, 1+85E
TARGET - Mag high					
MRO89-17	090	-45	-43	61.0	8+51N, 0+50E
TARGET - Massive sulphides on strike from MRO89-1					
MRO89-18	090	-60	-58	53.9	8+51N, 0+50E
TARGET - Massive sulphides on strike from MRO89-1					
MRO89-19	055	-45	-50	106.4	6+50N, 0+85E
TARGET - Break in VLF conductor					
MRO89-20	100	-45	-42	47.5	6+50N, 0+85E
TARGET - VLF conductor					
MRO89-21	315	-45	-47	45.7	6+50N, 0+85E
TARGET - Gold geochem anomaly					
MRO89-22	270	-45	-46	91.1	7+48N, 2+00E
TARGET - VLF conductor					
MRO89-23	045	-45	-47	127.7	8+25N, 1+35E
TARGET - Fault zone in gorge					
MRO89-24	090	-45	-43	121.6	8+25N, 1+35E
TARGET - Gold geochem anomaly					
MRO89-25	270	-45	-48	106.7	8+25N, 2+40E
TARGET - Gold geochem anomaly					
MRO89-26	090	-45	-41	61.0	8+75N, 0+50E
TARGET - Massive sulphides on strike from MRO89-17					
MRO89-27	135	-45	-46	92.0	7+75N, 1+10E
TARGET - VLF conductor					
MRO89-28	300	-45	-45	73.5	6+70N, 1+50E
TARGET - Break in VLF conductor					
MRO89-29	090	-45	-42	91.1	5+25N, 5+60E
TARGET - VLF conductor					
MRO89-30	090	-45	-42	107.0	4+50N, 4+55E
TARGET - VLF conductor and gold geochem anomaly					
MRO89-31	305	-45	-47	105.5	2+60S, 4+95E
TARGET - VLF conductor					
MRO89-32	280	-45	-42	60.7	3+55S, 5+80E
TARGET - VLF conductor					
MRO89-33	090	-45	-48	91.4	0+75N, 9+80E
TARGET - VLF conductor					

6. CONCLUSIONS

Results of the 1989 exploration programme on the Iskut River property are promising and indicate an excellent potential for either a gold-bearing sulphide vein-type or a gold-copper-molybdenum porphyry-type deposit. Important conclusions of the programme are summarized below:

1) The property is underlain by Hazelton Group sediments and minor volcanics which have been intruded by syenite porphyry bodies. A magnetite rich hornfels zone occurs at the margin of the intrusive, with a pyritic halo extending for up to one kilometre away from this contact. In the unaltered sediments beyond the pyrite zone, fracture filling semi-massive to massive sulphide and quartz-carbonate veins are found. These veins, the most important of which have been outlined in the northwest corner of the property, tend to carry significant amounts of gold, silver and base metals. The pyritic and hornfels zone carries low grade gold values, with elevated copper an molybdenum levels.

2) Detailed ground geophysical surveys (proton magnetometer and VLF-electromagnetometer) were conducted in the northwest and central portions of the property. In the northwest corner of the property, two sub-parallel, north-northeast trending conductive zones were outlined. Drilling showed that these zones related to gold bearing sulphides. The central grid also outlined numerous discontinuous conductors which were found to represent massive sulphide bands within the pyrite rich greywacke. The massive sulphides generally contain elevated levels of gold, silver and base metals.

3) The 1988 and 1989 diamond drill programmes show that gold mineralization is widespread. Four mineralized structures have been outlined within which gold values appear to be concentrated.

ZONE A is located in the extreme northwest corner of the property. This zone is comprised of bands of semi-massive to massive sulphides and quartz-carbonate veins. This zone is more than 100 metres long and is approximately 40 metres wide. Gold values are variable, with grades up to 1.300 oz/T over 1.4 metres.

ZONE B parallels zone A, approximately 100 metres to the east. This zone appears to consist of numerous sub-parallel sulphide and quartz-carbonate veins. It is traceable for 450 metres along strike, but is not as heavily mineralized as zone A. Gold values range up to 0.202 oz/T over 0.5 metres.

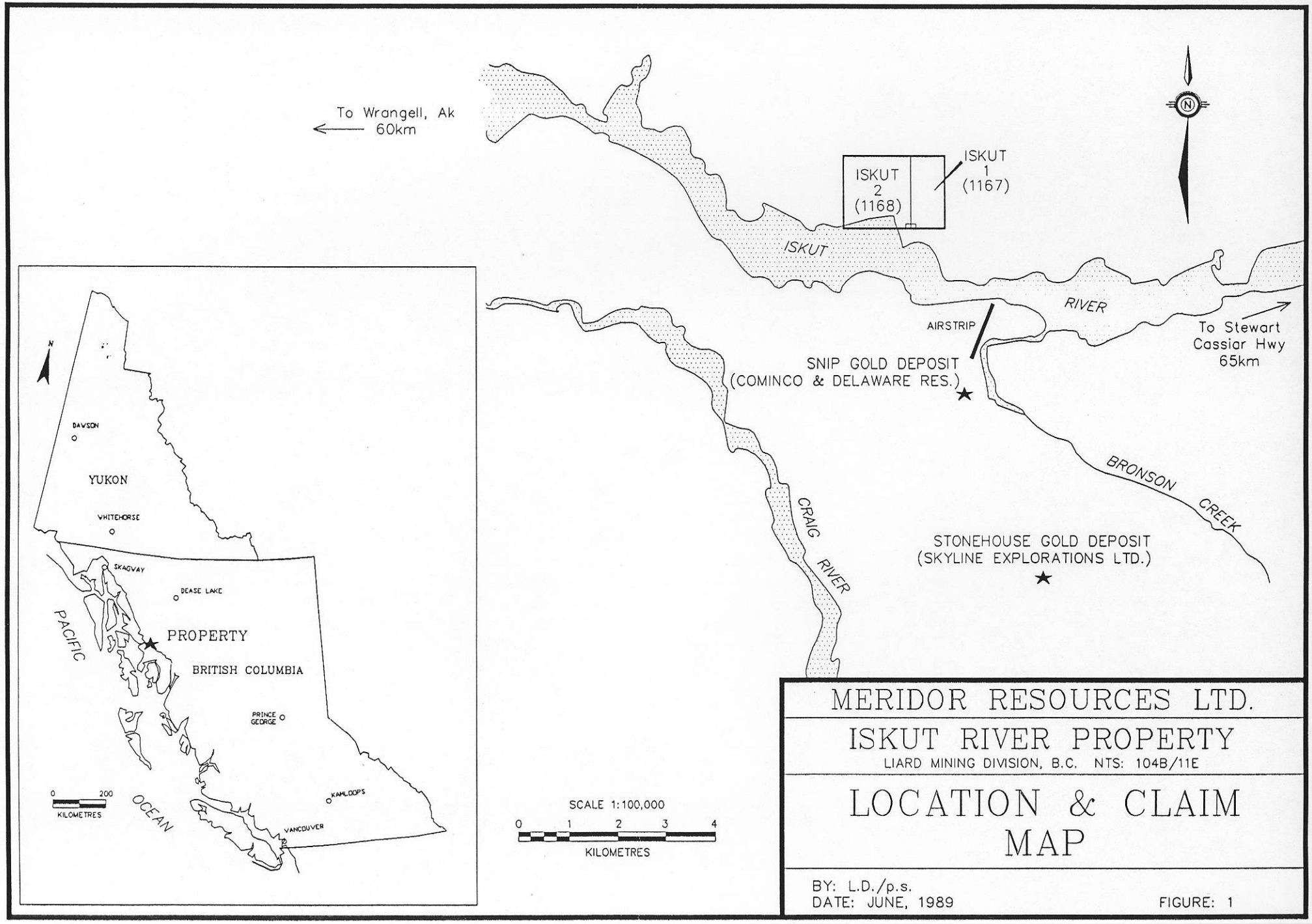
ZONE C is located about 400 metres to the southeast of the first two zones. This zone appears to be striking southwest, but has not been traced along strike. Massive sulphide veins drill tested in this area returned results up to 0.227 oz/T over 1.5 metres.

ZONE D is located in the south central portion of the property. This zone is outlined by a large gold soil geochemical anomaly with dimensions of approximately 600 metres by 100 metres. This zone contains a large area of low grade gold values within heavily disseminated sulphides, with contain massive sulphide bands. These massive sulphide bands give higher gold values of up to 0.645 oz/T over 0.8 metres. The disseminated sulphide mineralization is indicative of a gold-copper-molybdenum porphyry deposit with grades of 0.015 oz/T gold, 0.15% copper and 0.023% molybdenum over lengths of 160 metres or more.

4) Two of the zones discussed above have the potential to become economically feasible deposits. The high grade gold zone which trends onto the adjoining property would have to be worked jointly to outline significant tonnages to warrant underground exploration work. The large low-grade porphyry zone is not feasible at this time due to the remoteness of the property. Upon construction of the much needed road to access this area, as well as the port at Wrangell, this may become an important deposit.

Respectfully submitted,

L. Dandy, B.Sc., F.G.A.C.
Mark Management Ltd.



MERIDOR RESOURCES LTD.

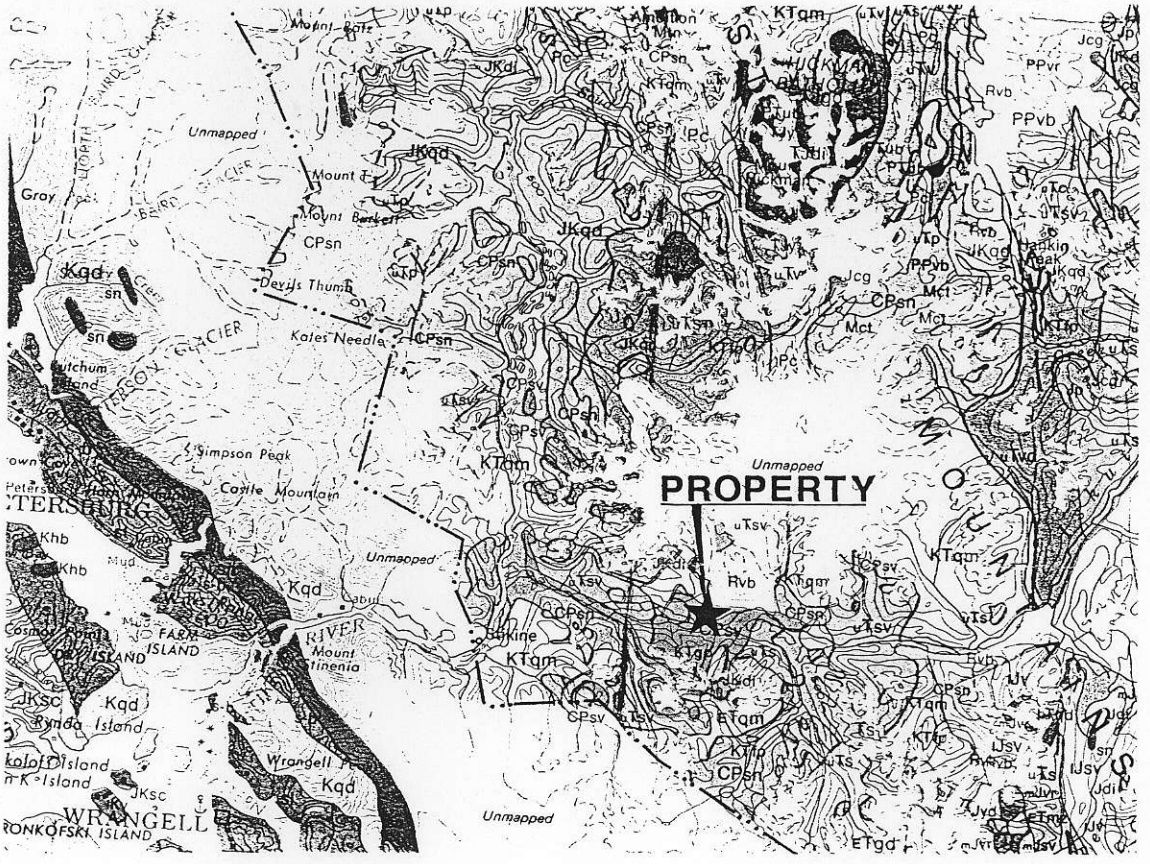
ISKUT RIVER PROPERTY

LIARD MINING DIVISION, B.C. NTS: 104B/11E

LOCATION & CLAIM MAP

BY: L.D./p.s.
DATE: JUNE, 1989

FIGURE: 1



LEGEND:

RECENT

Rvb BASALT, CINDERS, ASH

EARLY TERTIARY

ETqm QUARTZ MONZONITE

JURASSIC AND CRETACEOUS

JKdi DIORITE, HORNBLENDE DIORITE

CARBONIFEROUS AND PERMIAN

CPsv GREENSTONE, LIMESTONE, SHALE, CLASTIC SEDIMENTARY ROCKS
CPsn SCHIST, GNEISS

UPPER TRIASSIC

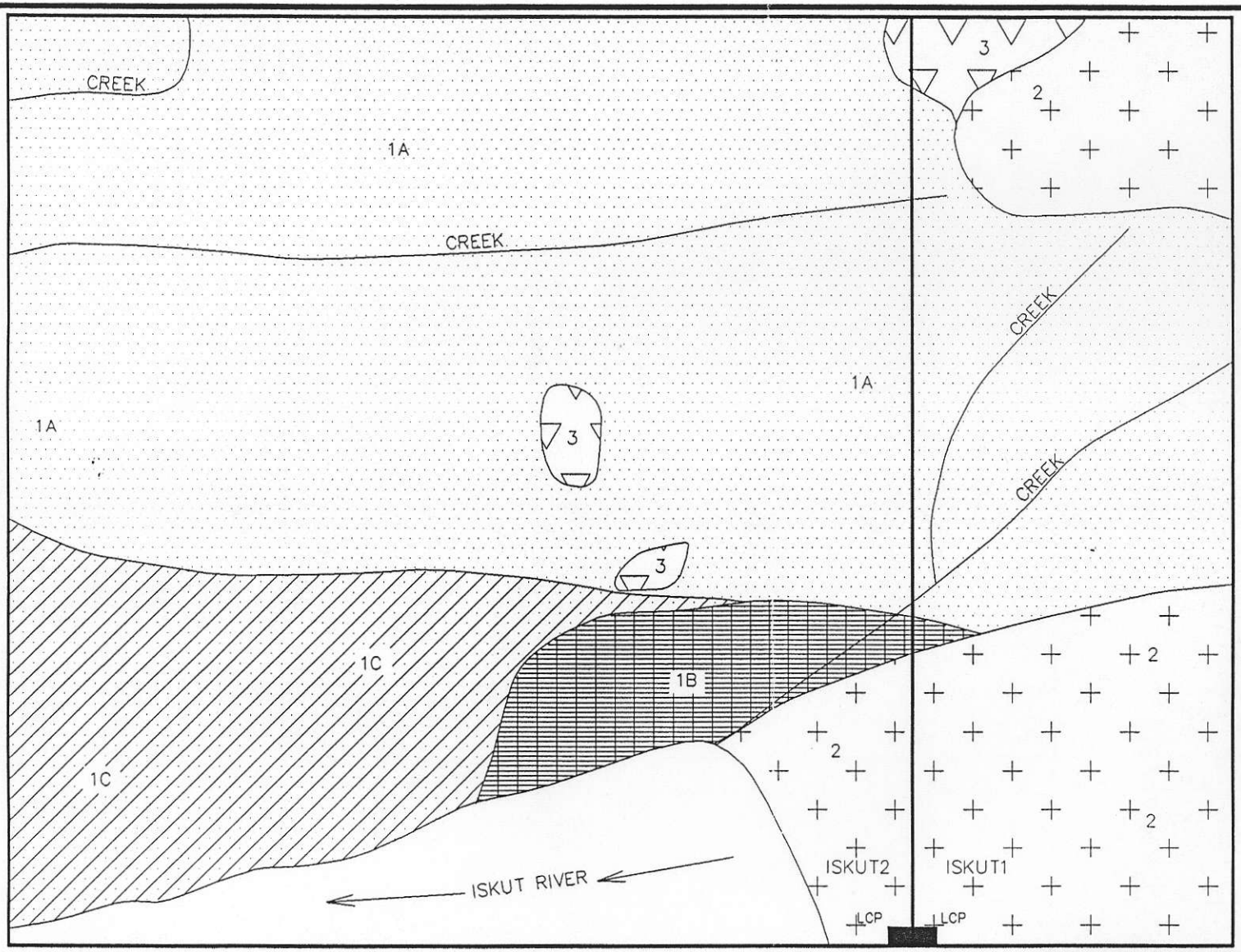
uTs SILTSTONE, CHERT, SANDSTONE, TUFF
uTsv UNDIFFERENTIATED ANDESITIC VOLCANIC AND CLASTIC SEDIMENTARY ROCKS

MERIDOR RESOURCES LTD.

ISKUT RIVER PROPERTY
LIARD MINING DIVISION, B.C. NTS: 104 B/11 E

GEOLOGY MAP

BY: L.D./rwr
DATE: DECEMBER, 1987 FIGURE: 2



LEGEND

- 3 — ANDESITE
- 2 — SYENITE PORPHYRY (PEGMATITIC INTRUSIVE)
- 1C — PYRITE ZONE– GREYWACKE, BLEACHED WITH 10–20% PYRITE
- 1B — HORNFELSED ZONE– FINE GRAINED SEDIMENTS, MAGNETITE ENRICHED
- 1A — UNALTERED HAZELTON GROUP SEDIMENTS– GREYWACKE, SILTSTONE, ARGILLITE, MINOR LIMESTONE

SCALE 1:10,000

0 100 200 300 400 500

METRES

MERIDOR RESOURCES LTD.

ISKUT RIVER PROPERTY

LIARD MINING DIVISION, B.C. NTS: 104B/11E

GEOLOGY MAP

BY: L.D./p.s. | DATE: APRIL, 1989 | FIGURE: 3