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GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE JP-3 & 4 AND CAM 9 & 10 CLAIMS

ISKUT RIVER AREA,

LIARD MINING DIVISION

NTS 104B/10W and 104B/10E Latitude 56⁰39'N Longitude 130⁰47'W

FOR

Norman Resources Ltd. 1590 - 609 Granville Street Vancouver, B.C. V7Y 1C6

BY

George R. King, B.Sc., Hi-Tec Resource Management Ltd. 1500 - 609 Granville Street Vancouver, B.C. V7Y 165 GEOLOGICAL BRANCH

ASSESSMENT REPORT



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1.0 SUMMARY

a request by the Directors of Norman Pursuant to exploration program involving Resources Ltd., an geochemical geological mapping, and prospecting, sampling was conducted on the JP-3 & 4 and Cam 9 & 10 mineral claims in June, July and August of 1987. The author was active in this program in the capacity of project geologist.

The property is located in the western Iskut River area of northwestern British Columbia. This area has been the focus of intense mining exploration activity in recent years, which has resulted in several discoveries.

The property lies within the westernmost part of the Intermontane Tectonic Belt, close to the boundary of the Coast Crystalline Tectonic Belt. The JP-3 & 4 and Cam 10 claims are underlain almost entirely by plutonic rocks of granitic to granodioritic composition. A sedimentary sequence of limestones, argillites and arenites with minor volcanic constituents is exposed over most of the Cam 9 claim. This sequence is intruded by several small igneous bodies. Skarn zones containing pods of sulphide mineralization occur near the contacts of some of these intrusives with their limestone country rocks.

Very high copper and zinc values, along with anomalous gold and silver values have been obtained from grab samples of the skarn material. Soil and stream sediment geochemistry results indicate the presence of additional areas of mineralization.

The author recommends that a detailed program of soil geochemistry, along with ground Magnetometer and VLF-EM



surveys, be conducted over those areas of the property where mineralization has been located.

An airborne geophysics program might be considered for the entire property.

2.0 INTRODUCTION

Pursuant to a request by the directors of Norman Resources Ltd., an exploration program involving geological mapping, prospecting and geochemical sampling was carried out on the JP 3-4 and CAM 9-10 claims by Hi-Tec Resource Management Ltd. in June, July and August of 1987. The purpose of the program was to evaluate the precious and/or base metal potential of the property to the fullest extent possible within the given time and budget allowances.

2.1 Property and Ownership

The property is recorded as follows:

Claim <u>Name</u>	Record <u>No.</u>	No. <u>Units</u>	Record Date	Recorded Owner
JP 3	3752	20	Dec. 5, 1986	I. Hagemoen
JP 4	3753	18	Dec. 5, 1986	ii ii
CAM 9	3862	20	Dec. 22, 1986	11
CAM 10	3848	6	Dec. 22, 1986	**

The Norman Resources Ltd.'s claim group consists of 4 contiguous claims totalling 64 units and are located in the Liard Mining Division.

2.2 Location and Access

The JP 3-4 and CAM 9-10 mineral claims are located in the western Iskut River area of northwestern British





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NORMAN R	ESOURCES	LTD.
JP 3,4 & (CAM 9,10 CLA M.D., B.C.	IMS
GENERAL L	OCATION	MAP
	ву :	Date: Nov '87
HI-TEC RESOURCE	N.T.S. 104 B/ 10	Figure:
LIMITED	Scale: see above	1

Columbia. The property is approximately 110 kilometers (70 miles) northwest of Stewart, B.C., 80 kilometers (50 miles) east of Wrangell, Alaska and 20 kilometers (12 miles) east of the Bronson Creek airstrip. The claims are located south of and adjacent to the Iskut River on NTS map areas 104B/10W and 104B/10E at latitude 56⁰39'N and longitude 130⁰46'W.

The area is accessible by air from Smithers, Wrangell, Terrace or Stewart to gravel airstrips at Bronson Creek, Snippaker Creek or Johnny Mountain. The nearest road is Highway 37 at Bob Quinn Lake which is 50 km to the northeast. Access to the property is via helicopter from one of the airstrips. Due to the dense forest growth and extreme topography, convenient landing sites for helicopters are not plentiful. However, access may be achieved at various swampy areas at lower elevations and above tree line at higher elevations.

2.3 Physiography

Topographic relief on the JP and CAM mineral claims ranges from level at the edge of the Iskut River to very steep in the mountains at the southern boundary of the claims. Elevations range from a few hundred meters above sea level to over 1200 meters.

Much of the property supports a mature forest of spruce, fir and hemlock. There are sizeable alder thickets along many of the creeks. The higher elevations support a rather modest undergrowth, which consists mainly of blueberries with occasional patches of devil's club. Alpine flora occurs on the highest parts of the Cam 9 claim. There is a dense undergrowth of devil's club and huckleberry at lower elevations. The western Iskut River region lies within the coastal wet belt. Hence





rainfall and snowfall vary from heavy to extreme. Winter snowpack at higher elevations is commonly several meters deep. Lower elevations may be snowfree for 8 months of the year.

2.4 History and Previous Work

Although the Stikine River served as the access route to the placer deposits of the Cassiar area which were discovered in 1873, there is no record of any prospecting activity in the lower Iskut River area until 1907. Tn that year, F.E. Bronson and Associates of Wrangell, Alaska staked nine claims on the lower reaches of Bronson Creek, to the north of Johnny Mountain. The Iskut Mining Company was incorporated in 1910, and in 1911 it undertook a program of trenching and drifting on the Iskoot and Red Bluff claims. A report from that program states that a ton of ore from one cut yielded \$1.20 in gold, 44.2 ounces of silver and 12.45% of copper.

The Iskut Mining Company's claims were subsequently crown granted in 1914 and 1915 and by 1920, numerous trenches had been dug on these claims, along with a 30 foot adit. The latter revealed a number of veins and stringers hosting galena and gold-silver mineralization.

In 1929, Consolidated Mining and Smelting staked 48 claims on Johnny Mountain. There is no record of any further work on these properties until 1954. In that year, prospectors from Hudson's Bay Mining and Smelting located the Pickaxe showing, and found high grade goldsilver-lead-zinc float on the open, upper slopes of Johnny Mountain. Today, these showings are part of Skyline Exploration's Reg property. Hudson's Bay Mining



and Smelting allowed these claims to lapse after performing exploration work on them in the mid-1950's.

In the 1960's a number of major mining companies conducted helicopter borne reconnaissance surveys for potential porphyry copper-molybdenum deposits. Several new claims were staked on Johnny Mountain and along Sulphurets Creek in that period, while Kennco and Noranda investigated the original showings on Johnny Mountain. The original crown grants and surrounding claims were explored by a consortium of Cominco, Copper Soo Mining Ltd., and Tuksi Mining and Development Ltd. in 1965. Some 1,800 feet of diamond drilling in 10 holes was completed by this group. Further geological work was done on these properties in 1968.

Texus Gulf Inc. investigated the porphyry copper potential of Johnny Mountain in 1974. Numerous mining companies conducted exploration work elsewhere in the Iskut River area in the 1960's and 1970's. Among these were Iskut Silver Mines, which conducted programs involving geological and geochemical surveys, trenching and packsack drilling on a property located north of the Iskut River and between the Twin and Verrett Rivers.

On various occasions between 1962 and 1972, Newmont Exploration of Canada Ltd. conducted exploration programs involving geological mapping, geophysics and limited diamond drilling on several prospects in an area near the headwaters of Forrest Kerr Creek.

In 1965, Silver Standard Mines commenced work on the E & L prospect, a nickel-copper deposit on Nickel Mountain near the headwaters of Snippaker Creek. This prospect was later optioned by Sumitomo Metal Mining, and by the end of 1971, 1,500 feet of underground work had been



completed in addition to intensive trenching, and surface and underground drilling programs.

In 1969, Skyline Explorations Ltd. restaked the Inel property, after having discovered massive sulphide float originating from the head of Bronson Glacier. The Reg property was restaked by Skyline in 1980, and in 1981, a program of trenching and limited diamond drilling was carried out on this property. The Reg property was optioned to Placer Developments Ltd. in 1982, which formed a joint venture program with Anaconda Canada Ltd. to carry out various surveys in addition to trenching and diamond drilling in 1983. Exploration was continued on the property by Anaconda in 1984, after which season it reverted to Skyline Explorations Ltd.

By the end of 1986, Skyline had completed 1,500 feet of underground cross-cutting and drifting in addition to extensive drilling on the Stonehouse Gold Zone. This work confirmed the presence of high grade gold mineralization in addition to silver and copper with good lateral and depth continuity over mineable widths.

Further exploration and development work has been carried out in 1987, as Skyline prepares to bring the Reg Deposit into production. The success of Skyline's program has provided the impetus for an extremely active mining exploration scene in the Iskut River area over In 1987, companies such as Western the past few years. Canadian Mining Corporation, Gulf International Minerals Ltd., Tungco Resources, and Newhawk Gold Mines among others, have carried out extensive drilling programs in the area. Delaware Resources Corporation, in joint venture with Cominco, has carried out a major drilling program on the Snip Property near Bronson Creek, and a production decision is believed to be imminent.



There is no record of past exploration work on the area within the present JP 3-4 and Cam 9-10 claim boundaries.

The area now occupied by the Cam 9 claim was formerly within the May 1 claim, which was held by Gulf International Minerals Ltd. In July and August of 1983, a brief investigation of this claim was undertaken by T. Cameron Scott et al for Gulf International Minerals Ltd. There is record of some stream sediment samples having been taken within this claim (Scott, 1983).

3.0 GEOLOGY

3.1 Regional Geology and Mineraliation

The subject property lies within the western most part of the Intermontane Tectonic Belt, close to the boundary of the Coastal Crystalline Tectonic Belt. As a result of the proximity of this area to a regional tectonic boundary, geologic relationships tend to be quite complex. The geology of this area has been studied by Kerr (1930, 1948), and by Grove (1986), and is represented in Geological Survey of Canada Maps 9-1957, 1418A and 1505A. Figure 3 in this report is a generalized map of regional geology for the area.

The oldest rocks in the area are complexly folded and metamorphosed schists and gneisses of probable mid-Paleozoic age. The metamorphism occurs within and adjacent to a plutonic system. The metamorphic rock is commonly overlain by a white to grey crystalline limestone which is believed to belong to a Late Paleozoic sedimentary sequence that includes some minor greenstone units. This oceanic assemblage is part of the Stewart Complex,



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	SEDIMENTARY and VOLCANIC ROCKS	INTRUSIVE BOCKS
	QUATERNARY RECENT	
İ	20 Unconsolidated glacial and fluvial clay, silt, sand, gravely till; peat, muskeg.	A Felsite, felsite porphyry B Mainly quartz monzonite, granodiorite, granite
	18 Olivine basalt, ash, cinders	C Mainly diorite; minor gabbro
	UPPER JURASSIC and LOWER CRETACEOUS 12 Argillite, greywacke, conglomerate, coal.	D Granite porphyry, granophyre, syenite and related rocks
	JURASSIC and/or EARLIER PRE-UPPER JURASSIC	METAMORPHIC ROCKS PERMIAN and/or EARLIER PRE MIDDLE PERMIAN
	9 Mainty volcanic rocks; minor conglomerate; greywacke, argillite.	G limestone, highly altered and sheared greywacke and volcanic rock.
	RIASSIC	
	Volcanic and sedimentary rocks undivided;	
	7b) mainly greywacke, siltstone, conglomerate	0 5 10 15
-	PERMIAN and (7) EARLIER	kilometres
-	6 greywacke; meta-andesite and meta-diorite locally abundant near ultramatic bodies. May include younger greenstone.	NORMAN RESOURCES LTD.
	Geological boundary (defined,approximate,assumed)	JP3,4 & CAM9,10 CLAIMS
	y Bedding (inclined)	LIARD M.D.; B.C.
-	Heavy mineral concentrate	REGIONAL GEOLOGY
	© Mineral occurrence	By: Date: a tag
	from GSC map 9-1957 w	HI-TEC RESOURCE MANAGEMENT LIMITED HI-TEC RESOURCE MANAGEMENT LIMITED HI-TEC RESOURCE LIMITED HI-TEC RESOURCE LIMITED HI-TEC RESOURCE LIMITED HI-TEC RESOURCE LIMITED HI-TEC RESOURCE LIMITED HI-TEC RESOURCE LIMITED HI-TEC RESOURCE LIMITED HI-TEC RESOURCE HI-TEC RESOURCE LIMITED HI-TEC RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE HI-TEC RESOURCE RESOURCE HI-TEC RESOU

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from GSC map 9-1957 w

a tectonic unit which has been correlated with the Cache Creek Group.

The principal component of the Intermontane Tectonic Belt in the Iskut River area is Mesozoic volcanic and sedimentary sequence. This was originally regarded as a Late Triassic sequence, relative with the time equivalent Stuhini Volcanics; a theory which is supported by the presence of Monotis fossils on the north slope of Snippaker Peak and to the west of Newmont Lake. Grove (1986), however, correlates this unit with the Middle Jurassic Unuk River Formation of the Stewart Complex.

On the north slopes of Johnny Mountain and Snippaker Peak, Paleozoic metasedimentary rocks are found to overlie the Mesozoic sequence. These apparently represent the upper plate of a regional, east-west trending thrust fault, which pushed up and over to the south in a manner similar to that of the King Salmon Thrust Fault.

In the Coast Crystalline Tectonic Belt, Paleozoic and Mesozoic sequences are commonly intruded by plutonic rocks of quartz monzonite to quartz diorite composition. These intrusions are Late Cretaceous to Early Tertiary in age. To the east of the main intrusive complex, smaller granitic plugs and stocks are prevalent.

Quaternary flows and ash deposits of olivine basalt are the youngest rocks in the area. Hoodoo Mountain is underlain by this unit, which also occurs in parts of the valleys of the Iskut River and Snippaker Creek.

The first mineral showing to be discovered in the western Iskut River area was located on Bronson Creek, two miles upstream from its confluence with the Iskut River. This is in the vicinity of the property cur-



rently being explored by the Delaware Resources-Cominco The original showing was marked by a joint venture. extensive alteration gossan and zone of prominent peripheral to an orthoclase porphyry intrusion. In this vicinity, there is a zone of sheared and altered volcanic and sedimentary rocks which is 3.2 kilometers long by 330 to 660 meters wide. In this alteration zone, pyrite abundances vary from fracture fillings and disseminations to nearly massive pyrite. Other sulfides which occur in lesser abundance include arsenopyrite, sphalerite, tetrahedrite and galena, chalcopyrite, molybdenite in fractures and quartz veinlets within and Significant values of gold, adjacent to the intrusion. copper and silver were revealed by early work on this zone.

Numerous quartz-sulfide veins and skarn deposits have been reported from various locations along the Iskut River. Low gold values, and good grades of silver, copper, lead and zinc have been reported from these. Mineralized float has been observed below several glaciers in the area.

Near the headwaters of Snippaker Creek, Silver Standard Mines Ltd. and later Sumitomo Metal Mining did extensive surface and underground work on a copper and nickel bearing gabbro intrusion. A total of 3.2 million tons of 0.80% nickel and 0.60% copper have been confirmed in this deposit. However, this has been a low priority target over the past several years, as a result of depressed base metal prices and the relative remoteness of the location.

The two most significant mineral deposits subject to current investigation in the Iskut River area are the Skyline Explorations Ltd. Reg property on the north



slope of Johnny Mountain and the Delaware Resources-Cominco Ltd. joint venture Snip property near Bronson Creek. These properties are only five kilometers apart and appear to be quite similar in nature.

At least seven auriferous, mineral rich quartz veins are known to occur on Skyline's Reg property. These are collectively known as the Stonehouse Gold Zone. This zone is hosted in an east-west striking, northerly dipping sequence of Jurassic volcaniclastics and porphyritic flows. A sequence of Middle Jurassic volcanic breccias and well stratified volcanic tuffs and sediments unconformably overlie the mineralized unit. Steeply dipping northeast trending fractures are the only known mineralization environment in the Stonehouse These are developed in a zone some 4,700 Gold Zone. feet long and 900 feet wide. The mineralized zones consist of pods, lenses and quartz veins which contain a variety of sulfide and sulfosalt mineralization in addition to native gold and electrum. Adjacent to the zones, extensive K-feldspar alteration occurs in the wallrock.

In addition to gold, copper and silver also occur in significant quantities. Grove (1986) estimated the known reserves at that time to be 938,446 tons grading 0.73 oz Au/ton, 0.85 oz Ag/ton and 0.76% Cu.

On the Delaware-Cominco joint venture's Snip property, four quartz-carbonate-pyrite shear veins with high gold values have been discovered. These strike 110° to 120° and dip 65° to the southwest, and occur in Mesozoic tuffs and arenites that have been intruded by a dikelike orthoclase porphyry. Extensive K-feldspar, silica, and pyrite alteration is associated with these zones.



3.2 Property Geology

The lithology encountered on the JP-3 and 4, and Cam 10 claims is comprised almost exclusively of medium to coarse grained plutonic material of granitic to granodioritic composition. This is the material which forms the series of low ridges and knolls which run sub-parallel to the Iskut River. Localized zones of intense epidotization occur occasionally in the plutonic complex, but aside from this, alteration is generally not well developed. Some very minor doleritic and aplitic dykes were found intruding the plutonic material. With the exception of these, however, the lithology of this area of the property is quite homogenous.

In those areas of the JP-3 and JP-4 claims which lie immediately adjacent to the Iskut River, there are outcroppings of a Quaternary olivine basalt. These occur as the sixty meter high vertical cliffs which rise above the river. The basalt is a dark grey, homogenous material with some small olivine phenocrysts. Columnar jointing is commonly well developed in this material.

Most of the Cam 9 claim is underlain by a sedimentary sequence which has been intruded by at least three small igneous bodies of variable composition and texture. There is a prominent, massive layer of grey-white crystalline limestone which appears to occur as a regional marker horizon across the claim. Within the Cam 9 claim area, this unit was generally found to be striking approximately east-west, and dipping at 40° to 50° to the north.

A moderately to intensely altered sequence of argillites, cherts and minor andesites occupies much of the remainder of the claim. Propylitization and silici-



fication are pervasive throughout much of the unit, and pyritization is ubiquitous in the southwest corner of the claim. Actinolite-garnet skarns are commonly well developed in limestones adjacent to intrusives, especially within the valley which transects the southcentral portion of the claim from north to south. Magnetitie skarn has also been located in this area, and in one instance, a two meter thick layer of massive magnetite was discovered in outcrop.

Medium grained arkosic to arenaceous sediments occur in the southeastern corner of the Cam 9 claim. These appear to be in gradational contact with argillites.

Several small intrusions occur within the Cam 9 claim. The most significant of these is a distinct hornblende granodiorite which is spatially associated with most of the significant occurrences of skarn-hosted mineralization on the property. Similar plutonic material was found associated with sulphide mineralization elsewhere in the region. This granodiorite has a distinctly inequigranular texture, which suggests a protracted cooling history.

At least two minor intrusions of quartz monzonite to granodioritic composition occur in the southwestern part of the Cam 9 claim. There is also a fine grained felsic intrusion which outcrops near the southwest corner of the claim. Small dykes of doleritic to basaltic composition occur sporadically in the southern part of the Cam 9 claim.

A great deal of structural complexity may be inferred from the geology of the Cam 9 claim, although structural relations are far from obvious. Repeated thrusting events which were centered over the Iskut River probably



represent the dominant structural control for the area in which this property lies.

3.3 Mineralization

The most significant occurrences of sulphide mineralization on the property are found in the valley which transects the south central area of the Cam 9 claim from north to south. Here, semi-massive to massive occurrences of pyrite, chalcopyrite and sphalerite are found within skarn horizons in limestone. Pyrite cubes of over 1 centimeter across were found on one occasion. Sphalerite occurences were generally fine-grained, massive and brown in color.

Sulphide mineralization generally occurs in small, localized pods of irregular shape. These average about one meter in diameter. The most common environment for sulphide mineralization appears to be within argillaceous horizons in the skarn.

Very high assay values of up to ten percent copper and sixteen percent zinc were recorded from rock grab samples taken from some of these zones, along with anomalous values in gold, silver, arsenic and antimony.

Elsewhere in the property, sulphide mineralization is generally confined to minor developments of pyrite in shear zones and fractures. However, in the southeast corner of the Cam 9 claim, there are a series of quartz veins which occur near a contact between granodiorite and arkosic sediments. Pyrite occurs in all of these, and chalcopyrite, galena and molybdenite are found in some. Rock grab samples taken from these veins yielded dissappointingly low assay values in gold and silver, but anomolous values in copper and lead were recorded.



There veins vary from 3 to 10 centimeters in width and generally strike in an easterly direction, with steep to near vertical dips of variable direction.

4.0 PROPERTY GEOCHEMISTRY

The objective of the 1987 program was to identify areas of interest on the property on which to focus future exploration efforts. A total of 120 rock grab samples, 101 soil samples and 32 stream sediment samples were taken on the JP 3 and 4, and Cam 9 and 10 mineral properties.

The soil sampling program involved the establishment of 4 contour soil lines on the west side of the valley which transects the Cam 9 claim from north to south. Samples 87GGS 076-095 were taken on 2200 foot level, and samples 87GGS 133-150 were taken on that same level to the north. On the 2600 foot level, samples 87GGS 040-075 were taken, and samples 87GGS 110-132 were taken on the 2900 foot level.

All sample locations were flagged and labelled, and samples of reddish-brown B horizon soil were obtained wherever possible.

An effort was made during the 1987 field season to collect stream sediment samples from all drainages on the property. These samples generally consisted of silt and/or fine sand taken from stream beds. Pan concentrates were taken in situations where sediment volume was sufficient to make panning practical.

Rock grab samples were taken in the course of the prospecting and geological mapping program. These



samples generally contained sulphide mineralization and a majority of them were procured from quartz veins and stringers.

All samples collected were analyzed for gold, copper, lead, zinc, silver, arsenic and antimony at Min-En Laboratories Ltd. of 705 West 15th Street, North Vancouver, B.C.

All geochemistry results are presented in Appendix I. Sample locations and assay values are shown in Figures 4, 5 and 6.

4.1 Discussion of Geochemical Results

4.1.1 Rock Geochemistry

Anomalous precious and base metal assay values were recorded in many of the rock grab samples taken on the property. Results for each analyzed element are discussed below:

Gold: Twenty rock grab samples yielded gold assay values in excess of 20 ppb. An exceptionally anomalous value of 1700 ppb was recorded in sample 87-NSR-017.

Silver: Silver values exceeding 4 ppm were recorded in twenty-two of the rock grab samples. The highest silver value was 187.5 ppm (5.95 oz/ton), which was recorded in sample 87-NKR-057.

Arsenic: Fifteen of the rock grab samples yielded arsenic values in excess of 25 ppm. The highest value was 101 ppm arsenic, recorded in sample 87-NKR-022.



Antimony: Anomalous antimony values exceeding 8 ppm were recorded in five samples. The highest antimony value was 147 ppm, which was recorded in sample 87-NKR-057.

Copper: Thirty-six of the rock grab samples yielded copper values in excess of 300 ppm. Four of these were over 10,000 ppm (1 percent) copper. The highest recorded copper values was 109,934 ppm (almost 11 percent) in sample 87-NKR-057, which was a polymetallic anomaly.

Zinc: Twenty-one of the rock grab samples yielded anomalous values in zinc exceeding 300 ppm. Four of these were in excess of one percent zinc, and the highest value was 163,011 ppm (16.3 percent zinc) was recorded in sample 87-NSR-016.

4.1.2 Soil Geochemistry

Anomalous precious and base metal values were recorded in several of the soil samples. Results for each analyzed element are discussed below:

Gold: Twenty-five soil samples yielded assay values in excess of 20 ppb. Seven of these were very anomalous: sample 87-NGS-066, 130 ppb; sample 87-NGS-078, 415 ppb; sample 87-NGS-083, 605 ppb; sample 87-NGS-087, 510 ppb; sample 87-NGS-093, 135 ppb; sample 87-NGS-117, 240 ppb; sample 87-NGS-138, 250 ppb.

Silver: Five of the samples yielded anomalous assay values in silver. These were: 87-NGS-048, 3.9 ppm; 87-NGS-076, 5.1 ppm; 87-NGS-127, 4.9 ppm; 87-NGS-143, 3.8 ppm; 87-NGS-147, 4.2 ppm.



Arsenic: A highly anomalous arsenic value of 147 ppm was recorded in sample 87-NMS-003.

Antimony: A slightly anomalous antimony value of 9 ppm was recorded in sample 87-NGS-131.

Copper: Five of the samples yielded anomalous copper values. These were: 87-NMS-1, 494 ppm; 87-NGS-117, 411 ppm; 87-NGS-122, 416 ppm; 87-NGS-127, 403 ppm, 87-NGS-131, 336 ppm.

Lead: A highly anomalous lead value of 610 ppm was recorded in sample 87-NMS-003.

Zinc: Anomalous assay values exceeding 600 ppm zinc were recorded from six of the soil samples. These were: 87-NGS-117, 1011 ppm; 87-NGS-122, 1120 ppm; 87-NGS-126, 603 ppm; 87-NGS-127, 2748 ppm; 87-NGS-129, 769 ppm; 87-NGS-131, 697 ppm.

4.1.3 Stream Sediment Geochemistry

A few of the stream sediment samples taken on the property yielded anomalous values in base and precious metals. Results for each analyzed element are discussed below:

Gold: Six of the stream sediment samples taken yielded assay values over 100 ppb gold. The highest value was 285 ppb in sample 87-NML-1.

silver: There was one slightly anomalous silver value recorded: 2.9 ppm in sample 87-NML-014.

Arsenic: There were no significant arsenic anomalies recorded in the stream sediment samples from the



property. The highest arsenic value was 23 ppm in sample 87-NKR-048.

Antimony: There was one slightly anomalous antimony value: 7 ppm in sample 87-NKR-048.

Copper: There were no significant copper anomalies. The highest copper value 144 ppm, was recorded in sample 87-NML-012.

Lead: Three samples yielded anomalous lead assay values: 87-NML-012, 73 ppm; 87-NML-013, 59 ppm; and 87-NML-014, 50 ppm.

Zinc: There was one highly anomalous zinc assay value recorded: 965 ppm in sample 87-NSL-019.

5.0 CONCLUSIONS

The JP-3 & 4 and Cam 10 claims appear to be underlain almost entirely by plutonic rock of granitic to granodioritic composition. No significant mineralization occurrences were discovered on any of these claims during the 1987 exploration program.

The Cam 9 claim is underlain by a sedimentary sequence with some minor volcanic constituents. This sequence is intruded by at least three small igneous bodies, the most important of which is a distinct inequigranular hornblende granodiorite which is commonly found in proximity with occurrences of skarn-hosted mineralization. These mineralized skarns commonly contain pods of semi-massive to massive pyrite, chalcopyrite and sphalerite. Values of up to eleven percent copper and sixteen percent zinc, along with anomalous precious



metal values have been recorded in samples of this material.

The author recommends that further exploration work be undertaken on the property, with special emphasis on the Cam 9 claim in order to further evaluate the extent of the base and precious metal occurrences.

6.0 RECOMMENDATIONS

In light of the obvious potential for skarn-hosted base and precious metal deposits on the Cam 9 claim, а thorough geochemical and geophysical examination of selected areas of this claim should be undertaken. The author recommends that a program of soil geochemistry be conducted on either side of the valley that transects the south central part of the Cam 9 claim from north to south wherever topographic conditions allow for accessibility. Ground Mag and EM surveys should also be undertaken here.

Soil geochemistry and ground geophysics should also be conducted over the entire area of the claim which lies to the west of the major valley, as there is virtually no outcrop in this area, but encouraging results have been obtained stream sediment geochemistry.

Some further reconnaissance mapping and prospecting might be considered in the western part of the JP-3 claim, and the eastern part of the Cam 10 claim, as these areas did not receive comprehensive coverage during the 1987 program.

A program of airborne geophysics might be considered for the entire property.



Respectfully submitted,

HI-TEC RESOURCE MANAGEMENT LTD.

George R. King, B.Sc., J Geologist ____



APPENDIX I

References



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APPENDIX II

Statement of Qualifications



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STATEMENT OF QUALIFICATIONS

I, GEORGE R. KING, of Suite 5, 736 West 14th Avenue, Vancouver, British Columbia, do hereby certify:

- 1. That I am a geologist in the employment of Hi-Tec Resource Management Ltd., with offices at Suite 1500 -609 Granville Street, Vancouver, British Columbia.
- 2. That I am a graduate from the University of Saskatchewan in Saskatoon (1985) with a Bachelor of Science Degree in Geology.
- 3. That my primary employment since 1981 has been in the field of mineral exploration.
- 4. That my experience has encompassed a wide range of geologic environments, and has allowed considerable familiarization with geological mapping, prospecting, geochemical and geophysical techniques.
- 5. That I have no interest in the property described herein, nor in securities of any company associated with the property, nor do I expect to receive any such interest.
- 6) That I hereby grant permission to Norman Resources Ltd. for the use of this report in any prospectus or other documentation required for any regulatory authority.

Dated at Vancouver, British Columbia this 3rd day of December, 1987.

ye R. King George R. King, B.Sc

Geologist



APPENDIX III

Geochem Results and Laboratory Analytical Methods



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GEOCHEM RESULTS AND LABORATORY ANALYTICAL METHODS

After intial preparation, all samples were analyzed by the Inductively Coupled Plasma (ICP) method for Ag, As, Cu, Pb, Sb and Zn. Gold was determined by the fire assay and atomic absorption method.

After drying soil and stream sediment samples at 95°C, they were screened with an 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. For some of the silt samples, 40 mesh or 20 mesh sieves were used. Rock samples were put through a jaw crusher and a ceramic-plotted pulverizer.

For ICP analyses, 1.0 gram of sample material was digested for 6 hours with a hot $HNO_3 - HCIO_4$ mixture. After cooling, samples were diluted to a standard volume. The solutions were then analyzed by a computer-operated Jarrell Ash ICP Analyzer. Reports are formated by a route computer dotline printout.

For Au analyses, a suitable sample weight of 15 or 30 grams was fire assay preconcentrated. Samples were then digested with an Aqua Regia solution and then taken up to suitable volume by adding a 25% HCl solution. Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with methyl isobutyl ketone. Gold is analyzed by Atomic Absorption instruments using a suitable standard solution. The detection limit is 1 ppb.



(VALUES IN PPH)	AG	AS	CU	P8	\$8	ZN	AU-PPB	
87N6R1	.7	3	3	6	1	36	5	
87NGR2	.3	8	2	8.	2	35	3	
87N6R5	.6	10	2	5	1	26	2	
87NGR6	.5	12	8	11	• 2	45	4	
87N6R7	1.1	12	7	8	2	24	3	
87NGR10	.5	6	3	3	ł	14	2	*************
B7NGR11	1.3	10	8	6	i	21	4	
87NGR16	1.9	19	72	21	3	50	3	
87NGR17	.8	8	3	10	2	39	2	
87N6R18	.7	10	56	4	2	34	3	
87NGR19	1.1	8	34	5	2	8	3	*****
87N6R21	.7	8	19	10	1	31	2	
87NGR24	.9	9	6	5	2	45	4	
87N6R25	1.4	10	15	9	1	53	3	
87N6826	2.3	10	10	7	3	34	2	
87N6R27	.4	9	5	3	2	24	2	
87N6R28	3.0	11	1414	11	t	98	84	·
87x6R96	2.3	2	1359	4	5	36	45	
B7N6R97	1.3	9	70	2	1	28	2	
87W8R98	1.7	6	551	1	4	33	5.	
87NGR99	1.3	16	90	2	2	36	1	
87NGR100	1.4	12	89	3	4	36	1	
87N6R101	.7	8	102	2	1	74	2	
B7N6R102	1.6	2	101	8	2	66	2	*******************
87N0R103	1.5	10	90	2	. 2	• 78	1	
B7NGR104	1.5	13	161	10	2	32	2	
87NGR105	1.8	1	369	7	3	44	3	
87N6R106	2.2	13	515	13	4	82	2	
87WGR107	2.3	3	988	26	1	48	12	
07400100	4.8	4	558	27	1	63	48	
6/NOKIV6		10	101 .	,	5	07	4	

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	(VALUES IN PPN)	AG	AS	CU	PB	SB	ZN	AU-PPB	
	87NKR1	3.2	14	259	49	3	1158	7	· 프 프 수 방국 등을 부적 사용은 및 단역 해석 수상 위를 위 및 문을 위우 등을 위 등을 수 있는 · · · ·
	87NKR2	1.8	12	157	13	3	20	4	
	87NKR3	1.0	14	7	11	3	45	3	
	R7NKR4	1.0	<u>-</u> 6	13	10	?		···	
•	R7NKR5	1.0		38	14		136	י ז	
	87NYRA	7	54	75	.,	, ,	100	, g	
	R7NYR7	р. р	. 7 5	5	5	1	77 {}	4	
	074400	••	0		5		13	۲	
	078400							<u>4</u> 	
	071/010	1.1	10		7	1 2	7	ა ე	
	0786011	1.5	30	ר זי	0	4	11	í 7	
	07110131	1+0	7	75	3	3	10	J 7	
	0744013	.0	12	ა ი	19	1	70	ა 5	
	DTAVDIA	1 . 1		77			10		****
	0/86014 0780015	1.0	13	37	,	3	113	9	
	0/NR313	· · ·	1	0 (E	3	1		2	
	0/85510 0744017	(.0 4 D	11 0C	202	13	1	111	1	
	8/ML51/ 0788000	9. 3	18	207	34	2	31	340	
	0735610	2.1	15	33 07	1/	3	89 700	3	
	8/WARU17	. 4.3	18	17	11	1	277	4 17	
	07#KKV20			102	13	·	713	20	
	0/MKK21 07NK000	0,0	34	10//	160	8 7	037 87966	1V 07	
	8/#KK22 0705007	43.9	101	D/74	124		33733	73	
	8/86K23	4.2	25	39		5	182		
· . • .	8/RKK29	3812 1	41	1920	144	1	21110	20	
	B/NKKZ6		18		18		124		
	B/NKK2/	1.5	10	54	3	2	400	2	
	87MKR28	2.6	10	268	· /	1	21	5	
	8/NKR29	25.2	63	1220	206	1	427	8	
	B7NKR30	1.1	6	115	1	3	21	4	
	87NKR31	1.0		<u> </u>			29		****
	87NKR32	3.1	30	494	• 29	6	101	3	
	87NKR33	3.5	31	2067	19	8	47	30	
	87NKR34	26.5	14	12729	30	12	94	25	
	BINKRSS	.6	14	127	4	1	15	8	
	87NKR36		12	69		·	9	4	*****
	87NKR37	1,1	8	23	9	3	66	3	
	87NKR38	1.0	2	131	9	7	41	2	
	87NKR40	1.1	14	79	2	8	43	2	
	87NKR41	1.0	16	15	·• 3.	1	22	1	
	87NKR42	8.7	7	12581	50	12	478	50	
	87¥KR43	.2	15	128	3	3	69	4	
	87NKR44	.7	5	65	13	3	85		
	87WKR45	.6	24	151	7	2	77	6	
	87NKR46	.2	14	53	10	2	101	3	
	87NKR47	1.0	7	8	2	1	82	2	
	87NKR48	.7	8	10	22	2	152	2	
	87NKR49	1.4	5		13			<u>}</u>	
	87NKR50	.6	1	18	2	1	64	4	
	87NKR51	4.2	14	. 589	16	2	111	11	
	87NKR52	1.5	8	24	7	2	27	3	
	87NKR53	1.3	9	1014	10	1	42	3	
	87NKR54	1.3	18	427	28	2 ر	1116	10	
	87NKR55	1.5	11	311	16	1	294	59	
	0711/05/			71000	110		5/15	57	
	B/NKK3D	100.2	66	64728	119		2013	JI	
	87NKR55	100.2	66 9	64928 109934	226	147	2694	110	

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· (VALUES IN PPN)	AB	AS	CU	P8	SB	ZN	AU-PPB	***************************************
B7NMRI	1.9	7	310	9	3	17	4	
87WMR2	1.2	12	8	7	2	88	3	
87NHR3	1.5	18	141	4	2	38	2	
87NHR4	1.4	7	97	7	2	17	4	
87NHR5	1.6	10	144	7	4	87	5	*******
87NNR6	1.8	, 11	84	5	1	45	3	
87NMR7	1.5	17	26	11	1	29	105	
87NNR8	1.7	18	34	15	3	198	6	
87NMR9	40.8	62	809	168	7	2162	78	
87NMR10	2.4	13	10	46	8	60	5	****
87NHR11	1.4	15	13	13	3	83	4	
B7NHR012	.7	20	80	10	i	39	3	
87NHR013	.9	10	36	8	-1	20	3	
87NHR014	2.4	8	52	7	4	40	2	
87NHR015	2.5	9	40	8	1	10	4	
87NNR016	2.9	8	127	9	5	25	3	
87NNR017	2.1	7	95	20	1	7	4	
87NNR018	2.9	10	67	5	4	48	i.	
B7NMR019	3.2	13	41	3	1	24	8	
87NNR020	2.5	12	40	21 -	4	30	6	
87NNR021	2.5	9	39	6	3	34	3	
87NNR022	2.8	11	49	15	1	15	2	
87NHR023	2.6	7	57 · ·	8.	3	26	2	
87NHR024	1.7	5	21	25	1	8	4	
87NHR025	1.2	7	11	7	3	2	3	
B7NHR026	2.6	9	531	4	1	15	2	
87 NHR027	4.1	20	935	13	[54	15	
87NHR028	5.4	70	687	21	1	76	3	
87NHR029	3.4	64	178	11	1	22	3	
B7NNR031	6.1	25	* 179	47	2	22	25	
87NNR35	1.9	2	7739	. 14	8	39	14	
B7NNR39	2.7		393	18	8	104	10	****
87NNR41	.8	19	51	14	2	80	4V 5	
87NMR 42	1.8	2	132 -	28	5	2599		
87NNR 43	•2	8	40	4	1	68		
87NMR 44	2.8	12	163	26	5	1020		
87NHR 45	4.2	8	217	46	4	6609		
B7NHR 46	2.4	_2	311	25	1	897		×
87NHR 47	1.5		10	13		42		****
(VALUES IN PPM) A6	AS	CU	PB	SB	7N	※ 상 은 한 수 수수 것 은 상태 것 같 것 같 것 같 것 같 것 수 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가	
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87NKR 59	.2	2	36	11	1		* * * * * * * * * * * * * * * * * * * *	
B7NKR 60	1.4	6	229	4584	· 🔒	το,		
B7NKR 61	.2	5	42	144	1	40		
87NKR 62	.1	1	11	19	2	7		
87NKR 63	.3	16	5	·····			. 또한 것 참 정신 옷 옷 가 것 같 수 있 것 도 방산 도 수 것 두 것도 무 한 것 수 것 수 있 것 수 것 이 수 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가	
87NKR 64	.4	9	7	, 9	1	2.5 E		
87NKR 65	.4	1	50	í		5		
87NKR 66	1.3	3	1428	0	1	3		
87NKR 67	2.8	3	193	25	े ग र	10		
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4 1	(VALUES IN PPH)	AG	AS	CU	PB	SB	ZN	AU-PPB	
1	87NSR001	2.2	11	208	10	3	36	5	
	B7NSR002	11.2	60	2103	15	1	1035	2	
•	87NSR003	.7	4	14	6	1	29	4	
	87NSR004	2.5	12	92	10	1	35	4	
	87NSR005	1.3	9	34	10	1	32	8	
	87NSR006	1.4	15	123	19	5	86	3	
	87NSR007	1.3	9	24	14	2	108	4	· · · ·
•	87N5R008	1.4	6	137	9	1	19	7	
:	87NSR009	21.1	54	3205	156	5	48422	83	
	87NSR11	.9	10	- 19	4	3	19	2	우리 우 수 수 수 해야 하는 수 한 수 모두 우 수 가 나 가 우 수 수 수 수 수 수 수 수 수 수 수 수 수 수 수 수 수 수
	87NSR13	7.6	12	112	39	6	136	80	
	87NSR14	1.9	4	3581	· 6	3	17	5	
•	87NSR15	1.4	5	62	17	2	142	8	
:	B7NSR16	58.4	10	8207	379	30	163011	100	
:	87NSR17	1.4	12	70	32	2	1361	1700	

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B7	NMR	42			.01	0.001				
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37	NKR	59	••		.02	0.001				
87	NKR	60			.01	0.001				
37	NKR	61			.09	0.003				
37	NKR	62			.03	0.001				
87	NKR	63			- 02	0-001	*****	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		ب ب ب ب ب ب ب ب ب ب ب ب ب ب ب ب ب ب ب
37	NKR	64			.01	0.001				
87	NKR	65			.01	0.001		•		
37	NKR	66		· ·	.02	0.001				
37	NKR	67			.18	0.005				
87	NKR	68			. 14	0.004	*		******	****
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MIN-EN LABORATORIES LTD. Specialists in Mineral Environments

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Certificate GEOCHEM OF. Company: GALVESTON EXFLORATIONS/HI-TEC RESOURCE File:7-710/F1 Project: ISKUT R. 878C016 Date:JULY 7/87 Attention: CHET IDZISZEK/P.SORBARA Type: PAN CONC. We hereby certify the following results for samples submitted. Sample AU-FIRE Number PPB 87NGP3 7 87NGP9 2 87NGP12 1 2 87N6P20 87NGP22 • 23 Certified by MIN-FN LARORATORIES ITD

	(VALUES IN PPN)	AG	AS	CU	PB	58	ZN	AU-PPB	
	87N6L4 40M	.6	7	26	16	2	110	5	
	87N6L13 40M	.7	8	47	8	3	109	5	
	87NGL14	.9	6	66	24	2	113	165	
	87NGL15	1.0	10	79	16	2	104	40	
•	87N6L23	1.2	9	63	16	2	99	40	
	87NKL1	1.4	10	63	26	2	94	10	
	87NKL025	, 1	8	60	6	2	106	4	
ł	B7NHL1	.8	6	56	19	2	94	285	
	87NHL2 40M	1.3	11	90	27	2	318	130	
	87NHL3 20M	1.1	11	92	14	1	199	5	
	B7NHL4	1.5	10	62	29	2	98	120	
	B7NHL5 40K	.7	5	26	7	2	77	5	************
	87NHL6 20H	.4	8	71	10	2	202	5	
	87NHL7 20H	1.0	17	40	9	3	253	5	
:	87NML8 20M	.6	3	_ 14	4	2	101	5	
	B7NHL9	1.5	9	100	39	2	216	10	
	87NHL10 40M	1.0	10	22	B	1	110	5	
	87NHL11	1.1	12	72	29	2	176	20	
	B7NHL12	2.8	20	144	73	3	255	45	
	87NHL13	2.6	20	124	59	3	222	175	
	B7NML14	2.9	19	123	59	1	223	170	
1	B7NHL40 40M	5.5	- 12	102	42	2	295	30	
-	87NKL4629K	1.3	23	10	18	7	35	5	
	B7KSL 18	.7	11	103	28	2	445	10	***************************************
	87KSL 19	2.5	3	136	38	3	965	5	
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ZN AU-PPB	534 5	168 5	127 10	236 5	393 5	202 5	218 10	
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28	31	14	15	6	• 22	10	12	
CU	108	84	62	73	- 73	69	66	
AS	15	21	1	8	. 10	8	1	
AG	.8	.9	1.0	.8	1.3	1.6	1.2	
(PPH)	87NKL 39	87NSL 10	87NSL 12	87NHL 34	87NHL 36	87NML 37	87NHL 38	***

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• .	(VALUES IN PPH)	AG	AS	CU	P8	SB	ZN AU-PP	>8
	87N658	.7	12	84	13	3 1	45 6	5
	87N65 040	.7	12	104	30	1 1	22	5
	87N69 041	.5	11	63	24	2 1	07	5
	87NGS 042	.8	7	26	18	1	48	5
	87N65 043 40M	.8	10	21	22	.1	45	5
	87N6S 044	1.0		15			39	5
	8/NGS 043	.4	4	1/	1	-2	/4 1 [·]	
	0/803 V90 97N20 A47	1.7	10	37	7	1	15 91 15	U R
	97NCS 047	τ τ.ο	22	10 Q1	<u>р</u> , 5	1 1 2	70 61 \$1	
	87865 049	1.9	11	19	15	1	29 I	0
	87N6S 050	1.5	13	27			36	5
	87NGS 051	2.8	13	87	8	1 2	20	5
	87NGS 052	.9	13	238	. 6	1 1	41	5
	87N6S 053	1.9	15	91	14	1 5	13 1	5
	87NGS 054		12	31	9	1	71 1	5
	87N65 055 40M	1.0	10	25	13	1	66 3	5
	87N65 056	.8	8	18	14	1	54 1	0
	87N6S 057	3.0	12 -	. 27	11	1	33	5
	8/N65 058	1.2	7	24	12			5
	8/N05 V37	1.7		<u></u>	19	1	32 1	V
	GTHCS VOU	1.5	10	+ 14 77	20	4	5U 17	
	87865 062	1.2	10	16	- 7	• •	10 i	Δ
	87NES 063	1.4	10	21	5	1 1	40 I. Ka I	5
	87NGS 064	2.5	13	21	11	1	10	5
	87N6S 065	1.7	12	30	13	i	74	5
	87N65 066	3.4	33	124	59	1 30)5 13(0
	87N65 067	2.3	18	58	48	1 2	10 3	5
	87NGS 068	.9	15	67	42	1 17	19 60	D
	87NG5 069	.9	16	54	. 41	1 1	70 19	0
	87NGS 070	1.1	13	55	36	1 1	56 10	0
	87N65 071	1.3	16	100	49	2 24	10 45	5
	8/N65 072	2.9	17	113	67	2 2	57 40	0
	8/885 V/3 87865 A74	3.9	11	98	45 57	2 1	6 8	3
	87NGS 074	2.0		14				U
	87N65 676	5.1	20 71	107	77 00	7 5	50 II 10 II	
	87NGS 077	1.5	13	62	26	1 1	57 3.	5 .
	87N65 078	1.4	14	76	35	1 26	6 415	5
	87NGS 079	1.2	9	60	25	1 1	11 30	0
	87NGS 080	1.3	11	68	26	1 1	54 10	}
	87N65 081	1.8	16	116	37	1 32	2 85	5
	87NGS 082	1.7	18	138	45	1 33	6 55	5
	87N6S 083	1.3	10	44	28	1 11	4 605	i
	87NGS 084	1.7	14	48	30	1 13	iB 20)
	87NGS 085	1.3	13	92	28	2 21	.0 25	5
	87NGS 086	1.3	11	81	31	1 23	2 10	
	87NG5 087	1.4	13	45	25	1 12	14 510)
	B/N55 088	.9	11	44	29	1 11	1 40) •
	87N85 089	1.4		4/	26		1	}
	87N05 070	•1	14 1.e	. JZ	[]]	¢ 1 ا	17 E	
	07NCC 007	1.0	13 1€	8V 67	40 21	1 JJ	-s ∃ { ■	5
	0/1103 V72 07NCC A01	7 • 7 1 0	12	31 LL	21 40	1*	ा। उ .र (रद	5
	87N65 073	2.6	26	137	67	1 29	0 5	
	87N65 095	2.1	15	108	38	1 17	3 3	
					**			-

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(VALUES IN PPK)	AS .	 65	Cil	FB	S	8	IN AU-PPR	
87N3S 110	2.1	23	38	15	·ī	68	5	
87N55 111	1.8	18	33	- 19	3	187	5	
87865 112	2.3	32	91	11	2	121	5	
87425 117	0	22	5,5		Ť	147	20	
87NGS 114	1 6	21	10	8	Š	117	10	
87KGR 115	1 5					71	ς	
67265 114	5 T	12	107	30	5	745	20 1	
R7865 110	2 1	77	611	105		1011	240	
67K65 115		37	111	25	ד ד	1011	10	
97855 119	1 7	21	10 40	23	Ę	150	5	
87N58 120	1 2	· <u>41</u>	177	<u></u>		122		
67 <i>866</i> 120	2.2	7	50	7	2	170	16	
67268 100	2.0		414	47	2	1150	10	
07N05 122 27N25 127	·· · · · · · · · · · · · · · · · · · ·	10 77	110	77	۲ ت	1120	2	
STNR 174 108	./	1	112	71	4 1	277	ु इ.	
67N05 123	//8	\$2	٤V د د د		4	210	2	
8/R03 126	1/1.2	4	147	36 . (E	2	603	5	
87865 127	//4.9	25	405	115 -	4	2748	30	
·· 8/865 128	1 1.5 /	6	93	5/	1	461	5	
E7K65 129	1.8					767	<u>5</u>	
87N65 130	.8	20	105	28	6	178	5	
87N65 131	14	19	336	. 114	Ŷ	697	10	
87865 132			242	135	4	373 -		
87N65133	-8	1	132	64	1	271 -	5 -	
87¥65134	.9	13	74	33	3	197	5	
87×65135	1.10	5	125	33	-4	231	10	
87N65136	1.1%	8	83	. 29	2	139	5	
87NGS137	1,5	10	106	32	4	237	5	
87#65138	1.5	2	103	33	4	205	250	
87N6S139	1.3	13	188	73	5	405	60	
871165140	1.5	5	125	· 26	5	209	5	
87NES141	1.8	26	141	50	5	219	15	
87NSS142	2.6		26	23	6	62	10	
B7N65143	3.8	5	44	31	4	161	.5	
87NGS144	1.5	26	78	16	6	125	20	
87NGS145	1.5	5	64	22	5	98	10	
87NES146	1.4	5.	· 25	4	7	62	20	
87N65147	4.2	· 2	29	24	7	77	5	
87NGS14B	1.4	2	9	13	8	29	10	***************************************
87NG5149	1.0	8	- 13	10	7	39	5	
B7N95150	1.2	10	7	16	8	15	5	
B7NMS1	1.6	15	494	18	2	97	40	· · · · · · · · · · · · · · · · · · ·
87NHS2	.8	11	49	18	1	96	10	
87NHS 003	2.2	147	192	610	3	488	10	

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APPENDIX IV-A

Statistical Analysis of Data for Soil Geochem Survey



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MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS 705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

CORRELATION COEFFICIENTS

COMPANY:HI-TEC RESOURCES ATTN:GEORGE KING PROJECT:878C016 FILE**#:** DATE:NOV 13/87 SAMPLE TYPE:SOIL ANALYSIS TYPE:ICP

THE TABLE BELOW REPRESENTS THE PEARSON CORRELATION MATRIX, SHOWING THE INTER-ELEMENT CORRELATION COEFFICIENTS. THOSE VALUES THAT EXCEED THEIR CRITICAL VALUE FOR .01 LEVEL OF SIGNIFICANCE ARE SHOWN IN DARKER PRINT AND UNDERLINED.

	AG	AS	CU	PB	SB	ZN	ΆU	
AG	1.000	,156	.211	.188	.077	.389	009	
AS		1.000	.308	.846	016	<u>.264</u>	011	
Cυ			1.000	.360	.226	.700	.053	
PB				1.000	.106	.336	.021	
SB					1.000	.165	171	
ZN						1.000	.046	
' AU							1.000	
i	1							

	SPECIA	LISTS IN	MINERAL ENVIRONMENTS
	705 WEST	15TH STREET NOR	TH VANCOUVER, B.C. CANADA V7M 1T2
میر در با این است. بین از میراندان استان این از این	TELEX: 0	4-352828 PHC	INE: (604)980-5814 UR (604)988-4524
		CAL	SUMMARY UN AG
UTTHN: CODOCE VI	NCOUUNCEO NC		CAMPLE TYPE, COT
DATECT.OVECAL	(40) 4		OMUTLE LITE: OUL ANALVELE TYPE: TOD
NUJECI:0/DUUI TI E#*	0		MNMLISIS (IFEIICH
L L l i+ +			
NUMBER OF S	AMPLES: 101		5 HIGHEST AG VALUES:
MAXIMUM VAL	.UE: 5.1	O PPM	87NGS 076 5.1 PPM
MINIMUM VAL	.UE: .4	O PPM	87NGS 127 4.9 PPM
MEAN:	1.6	2 PPM	87NGS147 4.2 PPM
STD. DEVIAT	ION: .8	8 PPM	87NGS 048 3.9 PPM
COEFF. OF V	ARIATION: .5	ζį	87NGS143 3.8 PPM
HISTAGRAM FO			NTERVAL - 17
	01 CTV		
MID CLASS	CLASS		
<u>rrn</u>	/6		
< .80	7.92		
.89	15.84		
1.06	5.94		
	15.84		
1.23		1	
1.23 1.40	6.93		
1.23 1.40 1.57	6.93 11.88		
1.23 1.40 1.57 1.74	6.93 11.88 7.92		
1.23 1.40 1.57 1.74 1.91	6.93 11.88 7.92 5.94		SARAMERAKAN KABUNAN KAB Kabunan Kabunan br>Kabunan Kabunan
1.23 1.40 1.57 1.74 1.91 2.08	6.93 11.88 7.92 5.94 5.94		
1.23 1.40 1.57 1.74 1.91 2.08 2.25	6.93 11.88 7.92 5.94 5.94 3.96		SAAMERAKANA AKAN METERBETU NATARA METERBETU METERBETU NATARA METERBETU METERBETU NATARA METERBETU NATARA NATARI NATARI
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42	6.93 11.88 7.92 5.94 5.94 3.96 1.98		SARAMERAKAN MERUPAKAN NAKARAMERAN NAKARAMERAN NAKARAMERAN NAKARAMERAN NAKARAMERAN NAKARAMERAN NAKARAMERAN NAKARAMERAN NAKARAMERAN
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59	6.93 11.88 7.92 5.94 5.94 3.96 1.98 1.98		SAMPLARAAN ARAKA MARAKANA SAMPLARAAN ARAKANA SAMPLARAAN ARAKANA SAMPLARAAN ARAKANA SAMPLARAAN SAMPLAN SAMPLARAAN SAMPLARAAN SAMPLARAAN SAMPLARA
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76	6.93 11.88 7.92 5.94 5.94 3.96 1.98 1.98 .99		SAAMARAMAA MARAANA MARAANA Manaka maraana Manaka maraana Manaka maraana Manaka maraana Manaka maraana Manaka
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93	6.93 11.88 7.92 5.94 5.94 3.96 1.98 1.98 .99 .99		SARAFRANKARAN Nakaran Nakaran Nakaran Nakaran Nakaran Nakaran Nakaran
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93 3.10	6.93 11.88 7.92 5.94 5.94 3.96 1.98 1.98 .99 .99 0.00	ENERGY IN THE INFORMATION INTERVALUE INTERVALUE INTERVALUE INTERVALUE INTERVALUE INTERVALUE INTERVALUE INTERVALUE INTERVALUE	SAAMARAMAA MARAANA MARA Maraana maraana br>Maraana maraana br>Maraana
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93 3.10 3.27	6.93 11.88 7.92 5.94 5.94 3.96 1.98 1.98 1.98 .99 .99 0.00 .99	ENERGY IN THE INFORMATION	SARAFRANKARKARKARKARAN HINARAMARKARKARKARAN Karamarkarkarkarkarkarkarkarkarkarkar HINARAMARKARKARKARKARKARKARKAR HINARAMARKARKARKARKARKARKARKARKARKARKARKARKARKA
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93 3.10 3.27 3.44	6.93 11.88 7.92 5.94 3.96 1.98 1.98 .99 .99 0.00 .99 .99		SARAFRANKARAN Markan Ma
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93 3.10 3.27 3.44 3.61	6.93 11.88 7.92 5.94 5.94 3.96 1.98 1.98 .99 .99 0.00 .99 0.00	LEUUS ALLEUN br>Alleun Alleun br>Alleun Alleun br>Alleun Alleun br>Alleun Alleun br>Alleun Alleun br>Alleun Alleun br>Alleun Alleun br>Alleun Alleun All	Samaran Kanadan Kanadan Kanadan Kanadan Kanada Kanadan Kanadan Kanada Kanada Kanada Kanada Kanada Kanada Kanada Kanada
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93 3.10 3.27 3.44 3.61 3.78	6.93 11.88 7.92 5.94 5.94 3.96 1.98 1.98 .99 .99 0.00 .99 .99 .99		Sama Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93 3.10 3.27 3.44 3.61 3.78 3.95	6.93 11.88 7.92 5.94 5.94 3.96 1.98 1.98 .99 .99 0.00 .99 .99 0.00 .99 .99		SARAKARAKARAKARAKARAKAN MARKARAKARAKARAKARAKARAKAR MARKARAKARAKARAKARAKAR MARKARAKARAKARAKARAKAR MARKARAKARAKARAKARAKAR MARKARAKARAKARAKARAKARAKARAKARAKARAKARAK
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93 3.10 3.27 3.44 3.61 3.78 3.95 4.12	6.93 11.88 7.92 5.94 3.96 1.98 1.98 .99 0.00 0.00		Sama Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan Kanakan
<pre>1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93 3.10 3.27 3.44 3.61 3.78 3.95 4.12 > 4.20</pre>	6.93 11.88 7.92 5.94 3.96 1.98 1.98 .99 0.00 .99 0.00 .99 0.00 .99 0.00 .99 0.00 .99 0.00 .238		
1.23 1.40 1.57 1.74 1.91 2.08 2.25 2.42 2.59 2.76 2.93 3.10 3.27 3.44 3.61 3.78 3.95 4.12 > 4.20	6.93 11.88 7.92 5.94 5.94 3.96 1.98 .99 .99 0.00 .99 0.00 .99 0.00 .99 0.00 .99 0.00 .99 0.00 .399 0.00 .399 0.00 .399 0.00 .399 0.00 .399 .399 0.00 .399 .399 .399 .399 .399 .399 .999 .399 .990 .900 .9		



MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

705 WEST 15TH STREET NORTH VANCOUVER. B.C. CANADA V7N 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

STA	TI	ST	ICP	NL S	:UMM	1ARY	ON	AS

COMPANY:HI-TEC RESOURCES ATTN:GEORGE KING PROJECT:87BC016 FILE#: DATE:NOV 13/87 SAMPLE TYPE:SOIL ANALYSIS TYPE:ICP

NUMBER OF SAMPLES	: 101	5 HIGHEST AS	VALUES:
MAXIMUM VALUE:	147.00 PPM	87NMS 003	147 PPM
MINIMUM VALUE:	1.00 PPM	87NGS 122	46 PPM
MEAN:	15.51 PPM	87NGS 117	37 PPM
STD. DEVIATION:	15.37 PPM	87NGS 066	33 PPM
COEFF. OF VARIATI	ON: .99	87NGS 112	32 PPM

HIS	ISTOGRAM FOR AS		CLASS INTERVAL = 1.8							
MID	CLASS	CLASS								
	<u>PPM</u>	%								
<	1.00	.99								
	1.90	4.95								
	3.70	.99								
	5.50	6.93								
	7.30	6.93	జిప్ప 法考虑支援 网络拉莱斯 化水杨基 法实际 化合成 化合成 化合成 化合成 化合成 化合成 化合成 化合成 化合成 化合成							
	9.10	2.97								
	10.90	16.83								
	12.70	16.83								
	14.50	11.88								
	16.30	6.93								
	18.10	3.96								
	19.90	2.97								
	21.70	3.96								
	23.50	1.98	瞬時期期間							
	25.30	3.96								
	27.10	. 99								
	28.90	. 99	調理							
	30.70	0.00								
	32.50	2.97	制度保持进作的保存性的保存							
	34.30	0.00								
	36.10	0.00								
	37.00	2.38								
			0.00% 8.42% 16.83%							
			FREQUENCY (%)							



	MIN-E	N LABO	RATORIES	LTD.
	36 UC 1 705 UC	MLISIS IN MI		
	/VJ #E Telev.	01 1010 010CC1 NUMIN V 06-350000 000NC-7	(MAGUVVER, D.C. CANADA V/A IIZ) (206/900-5016 AD //06/900-4596	
<u>~</u>			WHZEV (004)700-4324	<u>^11</u>
OMPANY:HI-TE	RESOURCES			DATE: NOV 13/87
TTN: GEORGE K	NG			SAMPLE TYPE:SOIL
ROJECT:878CO	. 6			ANALYSIS TYPE:ICP
ILE#:				
NUMBER OF :	AMPLES: 101		5 HIGHEST (OU VALUES:
MAXIMUM VAL	UE: 494.	OO PPM	87NMS1	494 PPM
MINIMUM VAL	.UE: 7.	OO PPM	87N6S 122	416 PPM
MEAN:	92.	19 PPM	87NGS 117	411 PPM
STD. DEVIA	'ION: 90.	66 PPM	87NGS 127	403 PPM
COEFF. OF V	ARIATION: .	98	87NGS 131	336 PPM
HISTOGRAM F	IR CU	CLASS INTE	ERVAL = 20.2	
MID CLASS	CLASS			
PPM				
< 7.00	.99			
17.10	21.78			
37.30	12.87			
57.50	15.84			
77.70	10.89			
97.90	12.87			
118.10	7.92			
138.30	3.96			
158.50	2.97			
178.70	.99			
198,90	1.98			
219.10	.99			
239.30	1.98			
259.50	0.00			
279.70	0.00			
299.90	0.00			
320.10	0.00			
340.30	.99			
····· 7 ···· 45 ····· ···	0.00			
360.50	0 00			
360.50 380.70	0.00	1		
360.50 380.70 400.90	.99			
360.50 380.70 400.90 > 411.00	.99 2.38			
360.50 380.70 400.90 > 411.00	.99 2.38		10.89%	+



MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS 705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

5	TATISTI	CAL SU	JMMARY ON PB
COMPANY: HI-TE	C RESOURCES		DATE:NOV 13/87
ATTN: GEORGE K	ING		SAMPLE TYPE: SOI
PROJECT:87BCO	16		ANALYSIS TYPE: I
FILE#:			
NUMBER OF :	SAMPLES: 101		5 HIGHEST PB VALUES:
MAXIMUM VA	UE: 610.00	PPM	87NMS 003 610 PPM
MINIMUM VA	_UE: 3.00	PPM	87NGS 132 135 PPM
MEAN:	36.83	E P P M	87NGS 127 115 PPM
STD. DEVIA	FION: 62.68	PPM	87NGS 131 114 PPM
COEFF. OF V	VARIATION: 1.70)	87NGS 117 109 PPM
HISTOGRAM F	JR PB	CLASS INTE	RVAL = 3.5
	C1 200		
PDM	vunuu */		
			₽₽₽₩₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽
< 3.00	.99		
4.75	5.94		
8.25	9.90		
		1	
11.75	9.90		
11.75 15.25	9.90 5.94		
11.75 15.25 18.75	9.90 5.94 5.94		SERVICE WARRANT br>Warrant Warrant Warrant Warrant Warrant Warrant Warrant Warrant Warrant
11.75 15.25 18.75 22.25	9.90 5.94 5.94 6.93		ALERNIG MENTALIKA MENTALIKA SARAHAN KARAMAN KARAMAN KARAMAN KARAMAN KARAMAN KARAMAN KARAMAN KARAMAN Mentali anakat karaman karaman karaman Mentali karaman karaman karaman karaman Mentali karaman karaman karaman karaman
11.75 15.25 18.75 22.25 25.75	9.90 5.94 5.94 6.93 8.91		
11.75 15.25 18.75 22.25 25.75 29.25	9.90 5.94 5.94 6.93 8.91 9.90		
11.75 15.25 18.75 22.25 25.75 29.25 32.75	9.90 5.94 5.94 6.93 8.91 9.90 5.94		
11.75 15.25 18.75 22.25 25.75 29.25 32.75 36.25	9.90 5.94 5.94 6.93 8.91 9.90 5.94 5.94		
11.75 15.25 18.75 22.25 25.75 29.25 32.75 36.25 39.75	9.90 5.94 5.94 6.93 8.91 9.90 5.94 5.94		
11.75 15.25 18.75 22.25 25.75 29.25 32.75 36.25 39.75 43.25	9.90 5.94 5.94 6.93 8.91 9.90 5.94 5.94 1.98 1.98		
11.75 15.25 18.75 22.25 25.75 29.25 32.75 36.25 39.75 43.25 46.75	9.90 5.94 5.94 6.93 8.91 9.90 5.94 5.94 1.98 1.98 3.96		
11.75 15.25 18.75 22.25 25.75 32.75 36.25 39.75 43.25 46.75 50.25	9.90 5.94 5.94 6.93 8.91 9.90 5.94 5.94 1.98 1.98 3.96 1.98		
$ \begin{array}{r} 11.75\\ 15.25\\ 18.75\\ 22.25\\ 25.75\\ 29.25\\ 32.75\\ 36.25\\ 39.75\\ 43.25\\ 46.75\\ 50.25\\ 53.75\\ \end{array} $	9.90 5.94 5.94 6.93 8.91 9.90 5.94 5.94 1.98 1.98 3.96 1.98 0.00		
$ \begin{array}{r} 11.75\\ 15.25\\ 18.75\\ 22.25\\ 25.75\\ 29.25\\ 32.75\\ 36.25\\ 39.75\\ 43.25\\ 46.75\\ 50.25\\ 53.75\\ 57.25\\ \end{array} $	9.90 5.94 5.94 6.93 8.91 9.90 5.94 5.94 1.98 1.98 3.96 1.98 0.00 2.97		
$ \begin{array}{r} 11.75\\ 15.25\\ 18.75\\ 22.25\\ 25.75\\ 29.25\\ 32.75\\ 36.25\\ 39.75\\ 43.25\\ 44.75\\ 50.25\\ 53.75\\ 57.25\\ 60.75\\ \end{array} $	9.90 5.94 5.94 6.93 8.91 9.90 5.94 1.98 1.98 3.96 1.98 0.00 2.97 0.00		
$ \begin{array}{r} 11.75\\ 15.25\\ 18.75\\ 22.25\\ 25.75\\ 29.25\\ 32.75\\ 32.75\\ 34.25\\ 43.25\\ 44.25\\ 57.25\\ 60.75\\ 64.25\\ \end{array} $	9.90 5.94 5.94 6.93 8.91 9.90 5.94 1.98 1.98 3.96 1.98 0.00 2.97 0.00 2.97		
$ \begin{array}{r} 11.75\\ 15.25\\ 18.75\\ 22.25\\ 25.75\\ 29.25\\ 32.75\\ 36.25\\ 39.75\\ 43.25\\ 46.75\\ 50.25\\ 53.75\\ 57.25\\ 60.75\\ 64.25\\ 67.75\\ \end{array} $	9.90 5.94 5.94 6.93 8.91 9.90 5.94 1.98 3.96 1.98 3.96 1.98 0.00 2.97 0.00 2.97 1.98		
11.75 15.25 18.75 22.25 25.75 29.25 32.75 36.25 39.75 43.25 46.75 50.25 53.75 57.25 60.75 64.25 67.75 71.25	9.90 5.94 6.93 8.91 9.90 5.94 1.98 1.98 3.96 1.98 0.00 2.97 0.00 2.97 1.98 .99		

FREQUENCY (%)

		SPECIALIS 705 WEST 15TH TELEX: 04-3520	TS IN MINERAL ENVIRONME STREET NORTH VANCOUVER, B.C. CANADA V7M 328 PHONE:(604)980-5814 DR (604)988-	NTS 1T2 4524
	CUMM	ULATIVE	PROBABILITY	PLOT ON PB
COMPAN	IY:HI-TEC P	RESOURCES		DATE:NOV 13/87
ATTN: 6	EORGE KING	â		SAMPLE TYPE:SOIL
PROJEC	T:878C016			ANALYSIS TYPE:ICP
=ILE#:				
UPPER	CUMMUL.			
LIMIT	FREQ.			
(PPM)	(X)			
108.92	4.95	+		
99.34	4.95	+		
90.60	4.95	+		
82.63	4.95	+ +		
75.36	4.95	+- -+-		
68.73	6.93			
62.68	11.88	+		
57.17	12.87	+		
52.13	14.85	+ +		
47.55	17.82	+- -+		
43.36	21.78		-#- 	
39.55	24.75			
36.07	28.71		* *	
32.89	35.64		-#- -#-	
30.00	38.61		-4- - 1 -	
27.36	46.53		+ +	
24.95	55.45		-#- [+-	
22.76	58.42			
20.75	62.38		-4- -4-	
18.93	65.35		+. +.	
17.26	68.32		-+- -+-	
15.74	71.29		- 4 -	+
14.36	72.28			-#- -#-
13.09	74.26			- ∔ - -∤
11.94	80.20			+ +
10.89	84.16			** **
9.93	86.14			* *
9.06	86.14			+ +
8.26	88.12			+ +
7.54	91.09			+ +
6.87	94.06			- 4 -
6.27	94.06			+ +
5.71	95.05			+ +
5.21	95.05			+ +
4.76	97.03			+ .+
4.33	97.03			-+- +
3.95	99.01			4-
3.61	99.01		2	
3.29	99.01			
3,00	99.01			
	L			· · · · · · · · · · · · · · · · · · ·

		SPE	CIALISTS IN MIN	ERAL ENVIRONMENT	6
		705	VEST 15TH STREET NORTH VA	NCOUVER, B.C. CANADA V7M 1T2	
	میں میں چین میں	TELI	X: 04-352828 PHONE: (6	604)980-5814 OR (604)988-4524	
ጠክፈጥ እ		IAILS DECOUDED	LICAL SU	JMMARY ON	
UNE AI TTN • 6	AT:HITIEU Senbae ki	NG NESUURCE	"		CAMPIC TVPC.COTI
RAIEC	CONCE N1	A			ANALVOIO TVDE.ICO
IL F#:		1.21			MINMETOLO ITTERLOT
* 1 1 17 •	•				
NUF	18ER OF S	AMPLES: 1	>1	5 HIGHEST	SB VALUES:
MA)	KIMUM VAL	UE: ·	9.00 PPM	87NGS 131	9 PPM
MIM	VIMUM VAL	UE: 0	0.00 PPM	87NGS148	8 PPM
ME7	AN:	:	2.39 PPM	87NGS150	8 PPM
STO	DEVIAT	ION:	2.25 PPM	87NGS 129	7 PPM
COE	EFF. OF V	ARIATION:	.94	87NGS146	7 PPM
uren		0 00	CI XCC INTE		
1 + 4 - 54 - 1		• • • • • • • • • • • •			
MID	CLASS	CLASS			
	<u> </u>	<u> </u>	****		
<	1.00	18.81			
	1.17	32.67			
	1.52	0.00			
	1.87	13.86			
	2.22	0.00			
	2.57	0.00			
	2.92	6.93			
	3.27	0.00			
	3.62	0.00			
	3.97	8.91			
	4.32	0.00			
	4.67	0.00			
	5.02	/.92			
	0.0/ E 75	0.00			
	0.7Z	0.00			
	6.U/ / /o	4.70			
	6.42	0.00			
	t.//	0.00 7 64	MILTING STATES		
	/ • 4 Z	5.76 5.55			
	7.4/	0.00			
•	7.82	0.00			
	R.OO	2.38			•••• [·······
			0.00%	16.34%	32.67%

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	SPECIAL	ISTS IN	MINERAL	ENVIRON	MENT	S	
	705 WEST 1	STH STREET I	NURIH VANCUUVER, DUDNE- ((A())000 E0	B.C. CANADA	9/8 112 99.4534		
CTA-		332828 I				1 7 N	
MOANV.UT_TEC DES			00111			DATE: NOV	13787
TRANTIAL IEG REG Thi-Acobac VINA	0011060					SAMPLE T	YPE:SOIL
THEOROGE NING						ANALYSTS	TYPE ICP
						F F1 T4 Ffrag F 'ma' dy 'ma'	F F T Gun HE de 'o' I
L 17 #							
	CC. 101	******		5 HTG	JECT		
MONDER OF SANFL MXYTMUM V&LUE:	2748 00	PPM		87NGS	127	2748	PPM
MINIMUM VALUE.	15 00	POM		87NGS	122	1120	PPM
MEAN:	2020	PPM		87NGS	117	1011	PPM
STO DEVIATION.	X14 41	PPM		87NGS	129	769	PPM
COFFE. OF VARIA	ATTON: 1.42	1 1 2 7		87NGS	131	697	PPM
oguanutin kitati venitate	та алтан 1998 да № °° Гайл			an s s tana an'	126	tani e d	
HISTOGRAM FOR 7N	1	CLASS	INTERVAL	= 29.4			
	T						
MID CLASS C	LASS						
<u> </u>	*,			,			
(15.00	.99						
29.70	9.90						
59 10 1	2.87						
ి సిని కి. మీ							(HEI-HEI
88.50	9.90						ngaran
88.50 117.90	9.90 7.92						1 <u>15(1747</u>)
88.50 117.90 147.30 1	9.90 7.92 12.87						
88.50 117.90 147.30 176.70	9.90 7.92 12.87 10.89						
88.50 117.90 147.30 176.70 206.10	9.90 7.92 12.87 10.89 8.91		INA MARKATRAK KANANA KANANA KANANA Unita di Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana Kanana				
88.50 117.90 147.30 176.70 206.10 235.50	9.90 7.92 12.87 10.89 8.91 4.95						
88.50 117.90 147.30 176.70 206.10 235.50 264.90	9.90 7.92 12.87 10.89 8.91 4.95 2.97					RANA BARDAR ANA ANA ANA ANA ANA ANA ANA ANA ANA A	
88.50 117.90 147.30 176.70 206.10 235.50 264.90 294.30	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97					RAINA JIMANUMPINING ANALAWA IMANUSZIZARI	
88.50 117.90 147.30 176.70 206.10 235.50 264.90 294.30 323.70	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96					ALE	
88.50 117.90 147.30 176.70 206.10 235.50 264.90 294.30 323.70 353.10	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00					KAINA JIRANUPANNAKAINANY INGREMENTIK	
88.50 117.90 147.30 176.70 206.10 235.50 264.90 294.30 323.70 353.10 382.50	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00 .99						
88.50 117.90 147.30 147.30 176.70 206.10 235.50 264.90 294.30 323.70 353.10 382.50 411.90	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00 .99		IN MARKAN KALANA MARKANA KALANA MARKANA KALANA MARKANA Canada ang ang ang ang ang ang ang ang ang an				
88.50 117.90 147.30 176.70 206.10 235.50 264.90 294.30 323.70 353.10 382.50 411.90 441.30	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00 .99 0.00					RAINA JIMARANGI KANGARANGA ING KANGSERERKI	
88.50 117.90 147.30 147.30 176.70 206.10 235.50 264.90 294.30 323.70 353.10 382.50 411.90 441.30 470.70	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00 .99 0.00 .99						
88.50 117.90 147.30 147.30 176.70 206.10 235.50 264.90 294.30 323.70 353.10 382.50 411.90 441.30 470.70 500.10	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00 .99 0.00 .99 1.98						
88.50 117.90 147.30 1 176.70 1 206.10 2 235.50 2 294.30 3 353.10 3 382.50 4 441.30 4 500.10 5 500.10 5	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00 .99 0.00 .99 1.98 0.00						
88.50 117.90 147.30 147.30 176.70 206.10 235.50 264.90 294.30 323.70 353.10 382.50 411.90 441.30 470.70 500.10 529.50 558.90	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00 .99 0.00 .99 1.98 0.00 .99						
88.50 117.90 147.30 147.30 176.70 206.10 235.50 264.90 294.30 323.70 353.10 382.50 411.90 441.30 470.70 500.10 529.50 558.90 588.30	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00 .99 0.00 .99 1.98 0.00 .99 0.00 .99						
88.50 117.90 147.30 147.30 176.70 206.10 235.50 264.90 294.30 323.70 353.10 382.50 411.90 441.30 470.70 500.10 529.50 558.90 588.30 > 603.00	9.90 7.92 12.87 10.89 8.91 4.95 2.97 2.97 3.96 0.00 .99 0.00 .99 1.98 0.00 .99 0.00 5.94						

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	SPECI	ALISTS IN MI	NERAL ENVIRONMENTS	
	705 ¥ES	T 15TH STREET NORTH V	VANCOUVER, B.C. CANADA V7H 1T2	
	TELEX:	04-352828 PHONE:	(604)980-5814 OR (604)988-4524	
	TALISI DECOMPOSE	ICAL S	UMMARY ON	AU ATTANOV 17/07
MPANY:HI-IEC	J RESUURCES INC		1. 	MPLE TYPE.com
IN:GEORGE N.	LNG			ANFLE FIFE:SUIL
UJEC1:0/800 16#•	10			AMETOTO LILETOL
			Maatalanuu (1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	
NUMBER OF S	SAMPLES: 101	antinan galar	5 HIGHEST A	J VALUES:
MAXIMUM VAL	UE: 605.0	00 PPB	87NGS 083	605 PPB
MINIMUM VAL	_UE: 5.0	DO PPB	87NGS 087	510 PPB
MEAN:	37.3	28 PP8	87NGS 078	415 PPB
STD. DEVIA	FION: 93.0	D2 PPB	87N6S138	250 PPB
COEFF. OF V	VARIATION:2.	50	87NGS 117	240 PPB
			$= \frac{1}{281/21} = 6.5$	
HISTOGRAA FO				
MID CLASS	CLASS			
PPB				
< 5.00	.99	1		
8.25	64.36			
14.75	3.96			
21.25	5.94			
27.75	3.96			
34.25	3.96			
40.75	3.96			
47.25	.99	I		
53.75	.99			
60.25	1.98			
66.75	" 3 .ð			
73.25	0.00	}		
79.75	0.00			
86.25	1.98			
92.75	0.00			
99.25	0.00			
105.75	0.00			
112.25	0.00			
118.75	0.00			
125.25	0.00			
131.75	. 99	H		
> 135.00	5.94		<u></u>	
		0.00%	32.18%	64.36%
			······································	

APPENDIX IV-B

Statistical Analysis

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MIN-EN LABORATORIES	LTD.
SPECIALISTS IN MINERAL ENVIRONMENTS	
705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2	
TELEX: 04-352828 PHONE: (604)980-5814 DR (604)988-4524	
CORRELATION COEFFICIEN	ITS
COMPANY:HI-TEC RESOURCES	DATE:NOV 12/87
WATTN: GEORGE KING	SAMPLE TYPE:SILT
PROJECT: 87BC016 7	ANALYSIS TYPE:ICP
FILE#:7-710 7-746 7-1026 7-1138	ł

THE TABLE BELOW REPRESENTS THE PEARSON CORRELATION MATRIX, SHOWING THE INTER-ELEMENT CORRELATION COEFFICIENTS. THOSE VALUES THAT EXCEED THEIR CRITICAL VALUE FOR .01 LEVEL OF SIGNIFICANCE ARE SHOWN IN DARKER PRINT AND UNDERLINED.

	AG	AS	CU	PB	SB	ZN	AU	
AG	1.000	<u>. 427</u>	.640	<u>.833</u>	.154	.349	.310	
AS		1.000	.286	<u>. 491</u>	.208	038	.121	
CU			1.000	<u>.782</u>	204	<u>.626</u>	.216	
				1.000	071	.342	<u>.398</u>	
SB					1.000	013	209	
ZN						1.000	141	
AU							1.000	

		MIN-E	TALISTS IN MIN	RAL ENVIRONMENTS
		705 1	IST 15TH STREET NORTH VAL	NCOUVER. B.C. CANADA V7M 1T2
		TELE	: 04-352828 PHONE: (6)	04)980-5814 OR (604)988-4524
	ST	ATIST	TICAL SU	MMARY ON AG
OMPANY	HI-TEC	RESOURCES		DATE:NOV 12/87
TTN:GE	ORGE KIN	٩G		SAMPLE TYPE:SILT
ROJECI	:878C016	Э		ANALYSIS TYPE: ICP
ILE#:7	7-710 7-7	746 7-1026	7-1138	
				1
NUME	FR OF SZ	MPI ES. 32		5 HIGHEST AG VALUES.
MAXI	MUM VALL	/F: 2	.90 PPM	87NMI 14 7 9 PPM
MINI	MUM VALL	/E: 0	.00 PPM	87NML12 2.2 PPM
MEAN			.22 PPM	87NML13 2.6 PPM
STD.	DEVIATI	nN:	.67 PPM	87NSI 19 2 5 PPM
COEF	F. OF VA	RIATION:		87NML 37 1.6 PPM
HISTO	IGRAM FOR	à àg	CLASS INTER	$V\Delta I = 11$
	1 7.55	01 X CO		
mio c	LASS	ULASS		
	F'F'M	74		
<	.60	9.38		
	.66	15.63		
	.77	9.38		
	.88	6.25		
	.99	12.50		
	1.10	6.25		
	1.21	6.25		
	1.32	6.25		
	1.43	3.13		
	1.54			HAVENUELEN (ADDREN BAUDEN BAUDEN DE ADDREN DE ADDRE
		12.50		
	1.65	12.50		
	1.65	12.50 3.13 0.00	ADBUTTELEN UM AND UN UM AND	
	1.65 1.76 1.87	12.50 3.13 0.00 0.00		
	1.65 1.76 1.87 1.98	12.50 3.13 0.00 0.00 0.00	A BERTIFICARE IN A MARKAN AND A M	
	1.65 1.76 1.87 1.98 2.09	12.50 3.13 0.00 0.00 0.00 0.00	ABBUTTELEN UM ANDER KUNNEN KUNNEN	
	1.65 1.76 1.87 1.98 2.09 2.20	12.50 3.13 0.00 0.00 0.00 0.00 0.00	ABBUTTELEN UTVERHER UTVERHER UTVERHER UTVERHER Hommen utverher utverh	
	1.65 1.76 1.87 1.98 2.09 2.20 2.31	12.50 3.13 0.00 0.00 0.00 0.00 0.00 0.00	ABBUTTELEN IN DER KEINEN KE	
	1.65 1.76 1.87 1.98 2.09 2.20 2.31 2.42	$ \begin{array}{c} 12.50 \\ 3.13 \\ 0.00 \\ $		
	1.65 1.76 1.87 1.98 2.09 2.20 2.31 2.42 2.53 2.44	$ \begin{array}{c} 12.50 \\ 3.13 \\ 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 3.13 \\ 3.13 \\ 3.17 \\ \end{array} $		
	1.65 1.76 1.87 1.98 2.09 2.20 2.31 2.42 2.53 2.64 2.75	12.50 3.13 0.00 0.00 0.00 0.00 0.00 0.00 3.13 3.13 0.00	A BATTI KALEMA TATA AKA KALEMA KA Homman kalema br>Kalema kalema br>Kalema kalema	
	1.65 1.76 1.87 1.98 2.09 2.20 2.31 2.42 2.53 2.64 2.75 2.80	12.50 3.13 0.00 0.00 0.00 0.00 0.00 0.00 3.13 3.13		
>	1.65 1.76 1.87 1.98 2.09 2.20 2.31 2.42 2.53 2.64 2.75 2.80	12.50 3.13 0.00 0.00 0.00 0.00 0.00 0.00 3.13 3.13		
>	1.65 1.76 1.87 1.98 2.09 2.20 2.31 2.42 2.53 2.64 2.75 2.80	12.50 3.13 0.00 0.00 0.00 0.00 0.00 0.00 3.13 3.13		

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		M				BO	RZ			<u>XIE</u>			<u>D.</u>			
			SPI		515 I 1. 670557		NER		ENV	TRUN	TEN	15				
			/0	5 WEST 151	H SIREE		ANCOU	WER,	8.0.	CANADA	V/∏ 1] 00./⊡	2				
	<u>~</u>	-		LEA: 04-35	2828	THUNE:	.604)9	80-58	14 06	(604)?	88-452	4		<u> </u>	1 794	
пмран	<u>ере</u> Гтытт					RUI]	<u>Y</u>				<u>4 A6</u>	
TTM×6	SEABGE	KING	SOURCE									CAMO		12/8	/ T (T	
BUJE	T•9780	016											Vete	TVDC	11 - 1.00	
TIF±:	:7-710	7-746	7-102	06 7-1	138							F714F71	1.21.2.52	1100	ă L C.f.	
			·		1											
UPPER	CUMMUL.				**********							******				
LIMIT	FREQ.															
(PPH)	(%)															
2.52	9.38			+ .												
2.43	12.50			+												
2.34	12.50			+												
2.26	12.50			+++++++++++++++++++++++++++++++++++++++												
2.18	12.50			+ + -												
2.10	12.50			+												
2.02	12.50			+												
1.95	12.50			+ +												
1.88	12.50			+ +			i.									
1.81	12.50			÷ +												
1.75	12.50			+++++++++++++++++++++++++++++++++++++++												
1.68	12.50			+++++++++++++++++++++++++++++++++++++++												
1,62	12.50			+ +												
1.56	15.63			+++												
1.51	15.63			+		+										
1.45	28.13					++										
1.40	31.25					++										
1.30	31.25					+										
1.00	31.23					+	+									
1.20	37.50						+									
1.21	43 75						4	+								
1.12	43.75							+								
1.08	50.00							+	j							
1.04	50.00								++++							
1.00	50.00								÷ +							
.97	62.50								•	++						
.93	62.50									+ +						
.90	62.50									+ +						
.87	68.75										+ +					
.84	68.75										+					
.81	68.75										+					
.78	78.13											+				
.75	78.13											+ +				
.72	78.13											+- +-				
.70	87.50											-+-	+			
.67	87.50												+ +			
.65	87.50												+			
.62	87.50												+			
.60	90.63													+		

		M	IIN-	- <u>E</u> t	V	LA	60	<u>3</u>	TOF	<u> </u>	ES_	LT	D_	_		
			SPE	ECIZ	AL IS	STS I	IN MIN	IERAL	. ENV	IRON	MENT	S				
			70	5 WEST	15TH	STREET	NORTH V	ANCOUVE	R, B.C.	CANADA	V7N 1T	2				
******			TE	LEX: 0)4-352	828	PHONE: (604)980	-5814 OR	(604)	988-452	4				
	<u>c</u> u	JMMU	LAT	<u> </u>	JE	P	RO	376	BIL	<u> </u>	ΓY_	PL	OT	Or	V AS	2
COMP7	ANY:HI	-TEC RE	ESOURCE	28								DATE	:NOV	12/8	17	
ATTN:	GEORG	E KING										SAMP	LE T	YPE:S	ILT	
-ROJE	ECT:87	BCO16	····									ANAL	YSIS	TYPE	:ICP	
-ILE‡	\$:7-71	0 7-746	> 7-102	26 7	-11	38 I										
HDDCC		T												****		
11817	EREO	•														
(PPN)	(K)															
21.03	3.13	+														
20.27	6.25		+													
19.54	12.50		•	+												
18.84	15.63			÷	.+.											
18.16	15.63				+ +											
17.49	15.63	l			+ +											
16.87	18.75				÷	+										
16.25	18.75					++++										
15.66	18.75					+ +										
15.10	18.75					+ +										
14.55	21.88					+ +										
14.02	21.88					++										
13.52	21.88					++										
13.03	21.88					++										
12.56	21.88					++										
12.10	21.88					+ +										
11.66	28.13	1					+ +									
11.25	28.13						++									
10.84	37.50						+	- f -								
10.45	37.50							+ +								
10.07	37.50							++								
9.70	53.13								++							
9.36	53.13								++							
9.02	53.13								+. +							
8.69	59.38									+ +						
8.38	59.38									+- +-						
8.07	59.38									++						
7.78	75.00											+				
7.50	75.00											+				
7.22	75.00											+++++++++++++++++++++++++++++++++++++++				
6.96	78.13											+				
6.71	78.13											+- +-				
6.47	78.13															
6.23	78.13											+ +				
6.01	78.13											-+- -+-				
5.79	84.38												+ +			
5.58	84.38										نو		+- +-			
5.38	84.38												⊶⊷ ∽⊱			
5.19	84.38												·+·			
	84 38												+ +			

	SPEC	TALISTS IN MIN	IERAL ENVIRONMENTS					
	705 ¥	EST 15TH STREET NORTH VI	ANCOUVER. B.C. CANADA V7M 1T2					
	TELEX	: 04-352828 PHONE: (6	504)980-5814 OR (604)988-4524					
<u>S1</u>	ATIST	TICAL SU	JMMARY ON	<u>cu</u>				
MPANY: HI-TEC	RESOURCES		1	DATE:NOV 12/87				
TN:GEORGE KI	NG		:	SAMPLE TYPE:SILT				
DJECT:87BC010	5		i	ANALYSIS TYPE: ICP				
E#:7-710 7-1	746 7-1026	7-1138	1					
		****	1					
	MDIEC. 70		E UTOUTOT (
MAYTMUM VALL	IF. 144	AA DOM	07NML10	177 DDM				
MINIMUM VAL	JE: 10	00 FFN		174 FFN 174 DDM				
MEZNIK	сын 1.02 	.VV FCD 49 PPM	OZNOL 17 OZNML 17	100 FFN 104 DDM				
	/ ニ 「 つん! ・ マ 小	- 02 FER 01 PPM		107 PPM				
COLLE DEATHIN		• VI 1 ГП 47		140 FFN 108 88M				
vunatina UE°V1	n varra Ela MANA	* **	C7 19156	and the				
	> CII	CLASS INTE	$P(\Delta) = 4.9$					
	\ \\\							
MID CLASS	CLASS							
PPM	%							
40.00	18.75							
42.40	3.13							
47.20	3.13							
52.00	0.00							
56.80	3.13							
61.60	15.63							
66.40	6.25							
71.20	15.63							
76.00	0.00	1						
80.80	3.13							
85.60	3.13							
90.40	6.25							
95.20	0.00							
100.00	6.25							
104.80	3.13							
109.60	3.13							
114.40	0.00							
119.20	0.00	1						
124.00	6.25							
128.80	0.00							
133.60	0.00							
> 136.00	3.75							
		L						
		0.00%	9.38%	18.75%				

	MIN-EL SPECIA 705 VEST	ALISTS IN MINERA	TORIES LTC LENVIRONMENTS ER. B.C. CANADA V7M 1T2)
	TELEX: ()4-352828 PHONE: (604) 98	0-5814 OR (604)988-4524	
sī	ATIST	ICAL SUM	MARY ON PE	3
MPANY: HI-TEC	RESOURCES		DATE:	- NOV 12/87
TN:GEORGE KI	NG		SAMPLI	E TYPE:SILT
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	705 WE	ST 15TH STREET NORT	H VANCOUVER, B.C. CANADA V7M 1T2	
	TELEX	04-352828 PHON	E:(604)980-5814 OR (604)988-4524	
5	TATIST	ICAL S	SUMMARY ON	ZN
1HANY:HI-TEC	RESOURCES		C	DATE:NOV 12/87
IN:GEURGE KI	NG 4			SAMPLE TYPE:SILT
JJEC1:878C01 544.7-710 7-	5 746 7-1036	71170	4	NALYSIS TYPE:ICP
/ / / / / / / / / / / / / / / / /	746 7-1026	/-1130	ŧ	
NUMBER OF S	AMPLES: 32		5 HIGHEST Z	IN VALUES:
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MEAN:	215.	56 PPM	87NSL 18	446 FPM
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134.13	3.13			
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202.68	9.38			
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408.33	0.00			
431.18	0.00			
454.03	3.13			
476.88	0.00			
499.73	0.00			
522.58	0.00			
534.00	3.75			
		0.00%	10.94%	21.88%
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MPANY:HI-TEC RESOURCES DATE:NOV 12/87								
	~7		04-352828 PHONE	:(604)980-5814 DR (604)988-4524	211			
		705 VC0	. (STU CTOCCT MODTU					



APPENDIX V

Description of Rock Grab Samples



DESCRIPTION OF ROCK GRAB SAMPLES

- 87NGR-1 o/c grenish rock with minor pyrite
- 87NGR-2 o/c rusty wx. greenish rock with minor pyrite
- 87NGR-6 o/c rusty wx. with pyrite
- 87NGR-7 o/c rusty wx. with pyrite
- 87NGR-10 o/c rock with pyrite
- 87NGR-11 o/c disseminated pyrite
- 87NGR-16 o/c argillite with pyrite
- 87NGR-17 o/c feldspar, pyrite, po, molybdenite
- 87NGR-18 o/c argillite with disseminated pyrite
- 87NGR-19 float rounded, rusty with pyrite
- 87NGR-21 o/c heavy rusty wx., pyrite
- 87NGR-24 o/c rusty wx., pyrite
- 87NGR-25 float intr. with disseminated pyrite
- 87NGR-26 o/c green rock with pyrite
- 87NGR-27 o/c argillite with disseminated pyrite, ars(?)
- 87NGR-96 Outcrop, argillite with disseminated pyrite
- 87NGR-97 Subcrop, saliceous rock (chert?) with good disseminated pyrite and epidote
- 87NGR-98 Outcrop, argillite with pyrite along contact with guartzite
- 87NGR-99 Outcrop, argillite with disseminated pyrite along fractures
- 87NGR-100 Outcrop, disseminated pyrite in argillite and quartz vein
- 87NGR-101 Outcrop, disseminated pyrite and arsenopyrite in quartzite
- 87NGR-102 Outcrop; disseminated pyrite in argillite rock in area with limestone and quartzite

87NGR-103 Outcrop, disseminated pyrite in argillite



- 87NGR-104 Outcrop, limestone marbled with pyrite and arsenopyrite
- 87NGR-105 Outcrop, argillite with disseminated pyrite and massive pyrite
- 87NGR-106 Outcrop, massive pyrite in quartzy rock
- 87NGR-107 Outcrop, pyrite with a bit of argillite
- 87NKR-1 Float, pyrite bearing monzonite
- 87NKR-2 Float, pyrite in siliceous argillite
- 87NKR-3 Outcrop, pyrite "stringers" in siliceous argillite, associated with shear zone
- 87NKR-4 Similar to KR-3
- 87NKR-5 Outcrop, gossaned siliceous argillite with abundant pyrite
- 87NKR-6 Pyrite mineralization in shear zone in argillite outcrop
- 87NKR-7 Outcrop, pyrite in granite
- 87NKR-8 Magnetite and epidote associated with aplite dyke in granite outcrop
- 87NKR-9 Outcrop, pyrite and arsenopyrite from shear zone in granite
- 87NKR-10 Outcrop, pyritiferous granite
- 87NKR-11 Outcrop, pyrite in fracture in monzonite
- 87NKR-12 Calcareous argillite from outcrop
- 87NKR-13 From altered limestone outcrop
- 87NKR-14 Outcrop, pyrite and magnetite bearing hornfels on edge of monzonite
- 87NKR-15 Outcrop, near monzonite-limestone contact, pyriteferous and siliceous
- 87NKR-16 Outcrop, pyritiferous gossan in monzonite
- 87NKR-17 Float, pyrite in quartz vein material in monzonite
- 87NKR-18 Outcrop, pyritiferous(?) lamprophyre dyke



- 87NKR-19 Outcrop, quartz-carbonate vein in monzonite
- 87NKR-20 Argillite, outcrop with much pyrite
- 87NKR-21 Outcrop, from argillite near limestone contact, many large cubes of pyrite
- 87NKR-22 Outcrop, argillite near limestone contact, sphalerite, chalcopyrite, pyrite
- 87NKR-23 Outcrop, greenish, siliceous argillite with potassic alteration
- 87NKR-24 Outcrop, pyritiferous contact between monzonite and limestone
- 87NKR-25 Outcrop, siliceous argillite with pyrite
- 87NKR-26 Outcrop, pyritiferous gossan in siliceous argillite
- 87NKR-27 Outcrop, pyritiferous argillite
- 87NKR-28 Outcrop, pyritiferous argillite
- 87NKR-29 Strongly gossaned argillite
- 87NKR-30 Pyrite in epidotized, siliceous argillite
- 87NKR-31 Garrnet bearing skarn, outcrop
- 87NKR-32 ARgillite with pyrite, minor chalcopyrite, and malachite and azurite staining
- 87NKR-33 Garnetiferous skarn in o/c
- 87NKR-34 Very similar to KR-32
- 87NKR-35 Outcrop, strongly gossaned calcareous argillite with pyrite
- 87NKR-36 Outcrop, calcareous argillite with roughly 5% pyrite
- 87NKR-37 Outcrop, siliceous argillite with pyrite, tourmaline and quartz in shear zone
- 87NKR-38 Quartz vein (with terminated crystals) in argillite
- 87NKR-40 A siliceous, K-spar, epidote altered sample with disseminated pyrite



- 87NKR-41 Disseminated pyrite and molybdenite in skarn
- 87NKR-42 Pyrite, chalcopyrite and sphalerite mineralization at limestone-argillite contact.
- 87NKR-43 Argillite containing a minor amount of pyrrhotite.
- 87NKR-44 Pyrite-bearing argillite
- 87NKR-45 Semi-massive pyrite in argillite near limestone contact
- 87NKR-46 Sample from syenite-limestone contact, with abundant magnetite in this limestone
- 87NKR-47 Skarn from outcrop at soil anomaly
- 87NKR-48 Skarn with minor galena and sphalerite
- 87NKR-49 Pyrite bearing calc-cilicate
- 87NKR-50 Pyritiferous skarn
- 87NKR-51 Quartz vein material with pyrite (float)
- 87NKR-52 Pyrite from siliceous argillite
- 87NKR-53 Chalcopyrite in calcite vein in argillite
- 87NKR-54 Pyrite bearing skarn
- 87NKR-55 Pyrite-magnetite bearing skarn
- 87NKR-56 Pyrite-magnetite bearing skarn
- 87NKR-57 Pyrite-magnetite bearing skarn
- 87NKR-58 Pyrite-bearing skarn
- 87NKR-59 1 cm wide, pyrite bearing, quartz veinlet in arkosic wacke
- 87NKR-60 A sample from a 2-3 cm wide, molybdenite bearing quartz vein
- 87NKR-61 A brecciated, quartz-calcite vein with pyrite
- 87NKR-62 A 10 cm wide quartz vein, with vugs, and minor pyrite, in arkose outcrop
- 87NKR-63 8 cm wide quartz vein in arkose
- 87NKR-64 15 cm wide quartz vein in arkose



- 87NKR-65 5 cm wide quartz vein in arkose
- 87NKR-66 5 cm wide quartz vein in felsic intrusive-chalcopyrite mineralization
- 87NKR-67 Pyrite bearing, 12 cm wide quartz vein in felsic intrusive
- 87NKR-68 Pyritized zone in granite
- 87NMR-1 Float, cherty with arsenopyrite, pyrite, magnetite and chalcopyrite
- 87NMR-2 Float, pyrite, minor chalcopyrite on fractures
- 87NMR-3 Float, intrusive, quartz with molybdenite, chalcopyrite, pyrite
- 87NMR-4 Float, intrusive with disseminated pyrite, arsenopyrite
- 87NMR-5 Float, siliceous, cherty, good chalcopyrite and pyrite
- 87NMR-6 Float, banded argillite(?) with quartz, pyrite
- 87NMR-7 Float, quartz and pyrite
- 87NMR-8 o/c small shear approximately 1 m wide, strike 240° pyrite
- 87NMR-9 o/c wx. cap on limestone
- 87NMR-10 o/c mag. skarn, 3 m thick in places, massive magnetite
- 87NMR-11 Float, alt. intr. with arsenopyrite, chalcopyrite
- 87NMR-12 o/c vein, strike 220⁰ > 2 m thick, pyrite, arsenopyrite, trace chalcopyrite
- 87NMR-13 Float, quartz with pyrite, subangular
- 87NMR-14 o/c argillite, pyrite, arsenopyrite, with sulphides >125 m, strike 280°, thickness >2 m
- 87NMR-15 o/c argillite, pyrite, arsenopyrite
- 87NMR-16 o/c grab good pyrite, occasional chalcopyrite
- 87NMR-17 o/c pyrite, occasional chalchopyrite and quartz stringers



- 87NMR-18 o/c grab, siliceous argillite, pyrite, chalcopyrite, shear zone area
- 87NMR-19 o/c grab, siliceous argillite, pyrite, chalcopyrite, shear zone area
- 87NMR-20 o/c random grab, sehar zone, chalcopyrite, pyrite, argillite
- 87NMR-21 o/c random grab, shear zone, chalcopyrite, pyrite, argillite
- 87NMR-22 o/c shear zone, siliceous, good chalcopyrite and pyrite with weathered white powder on faces and fractured planes, argillite.
- 87NMR-23 o/c good siliceous, min.. ___ chalcopyrite, pyrite >10 m argillite
- 87NMR-24 o/c argillite contact <u>c</u> int., blude grey "clay" type excellent chalcopyrite, pyrite with good weathering
- 87NMR-25 o/c poss. skarn breccia, approx. .5 m wide, chalcopyrite, pyrite taken from R-16 area.
- 87NMR-26 o/c altered argillite, contact >8 m wide, massive pyrite, and chalcopyrite
- 87NMR-27 Same as 26, strike approx. 290°
- 87NMR-28 Same as above, random grab
- 87NMR-29 o/c small pods in altered argillite, shear on north side, pyrite.
- 87NMR-30 o/c same as above, almost cherty, pyrite grab
- 87NMR-31 o/c Pyrite and occasional chalcopyrite in quartz stringers along limestone contact and argilite N.E. side Creek shear zone
- 87NMR-32 o/c same as above, random grab
- 87NMR-33 o/c high grade grab, chalcopyrite, pyrite in quartz
- 87NMR-35 Float, pyrite, chalcopyrite, bornite, malachite, magnetite, hematite, possible skarn
- 87NMR-39 o/c cherty argillite with pyrite
- 87NMR-41 Float, intrusive with pyrite and arsenopyrite



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- 87NMR-42 o/c shear zone with pyritic mineralization in vein material over 10 m wide
- 87NMR-42 o/c chip sample over 37 cm, quartz with pyrite
- 87NMR-43 o/c quartz filled grab with pyrite, chalcopyrite, tetrahedrite? possible fine Pb, Zn
- 87NMR-44 o/c quartz in altered intrusive, pyrite, chalcopyrite, covellite? tetrahedrite?
- 87NMR-45 o/c grab, massive pyrite
- 87NMR-46 Float, quartz vein material with pyrite, chalcopyrite, malachite, MOS₂? or Dess. Pbs: 75' below above showing
- 87NMR-47 o/c quartz with pyrite
- 87NSR-1 o/c rusty wx. siliceous argillite with disseminated pyrite
- 87NSR-2 o/c rusty wx. argillite with disseminated and clots of pyrite. Possible shear zone (slickensides)
- 87NSR-3 o/c green, siliceous, fractured dyke approx. 6 m wide, prophyry in places with epidote alteration contains dissemined pyrite. Dyke appears to be related to magnetite skarn.
- 87NSR-4 o/c siliceous argillite with chalcopyrite, pyrite, on fractures - rusty wx. possible shear zone.
- 87NSR-5 o/c same location as R4, felsic porphyry intrusive possible dyke with pyrite, chalcopyrite, disseminated on fractures
- 87NSR-6 o/c ravine appears to be N.E. shear zone. ARgillite is highly fractured and rusty wx. siliceous zones contain pyrite, chalcopyrite
- 87NSR-7 o/c felsic dyke with disseminated pyrite
- 87NSR-8 o/c siliceous argillite with up to 10% pyrite, minor chalcopyrite
- 87NSR-9 o/c rusty shear zone 2 m wide containing pods 20 cm x 60 cm of 75% sulphides - pyrite, chalcopyrite, sphalerite. Shear is in siliceous argillite. Strike approx. S.E.



87NSR-11 O/c felsic intrusive with pyrite and chalcopyrite

- 87NSR-13 o/c 10 cm quartz vein 5% coarse pyrite. In medium grained intermediate hornblende intrusive
- 87NSR-14 o/c 2-3 cm quartz vein in siliceous intrusive. Contains minor pyrite anc chalcopyrite
- 87NSR-15 o/c small shear in intrusive. Contains stringers of pyrite
- 87NSR-16 o/c sulphide pod in limestone. 50% pyrite, sphalerite
- 87NSR-17 o/c contact between hornblende intrusive and limestone - argillite. Rusty wx. shear with disseminated pyrite. Possibly some malachite.



APPENDIX VI

Statement of Costs



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STATEMENT OF COSTS

Norman Resources Ltd. - Project 87BC016

Personnel - Field Days A. Smallwood, Project Manager 12.0 days @ \$250.00/day \$3,000.00 G. King, Project Geologist 12.0 days @ \$375.00/day 4,500.00 J. McCaffrey, Prospector 12.0 days @ \$250.00/day 3,000.00 G. Mowatt, Technican 12.0 days @ \$175.00/day 2,100.00 G. Gormley, Cook 12.0 days @ \$200.00/day 2,400.00 \$15,000.00 Supervision J.P. Sorbara 2.0 days @ \$400.00/day 800.00 Project Preparation 2,000.00 Mobilization/Demobilization 5,317.40 Geochemistry 141 rocks 6 element ICP FA Au @ \$14.25 \$2,009.25 106 soils 6 element ICP AA Au @ \$ 9.90 1,049.40 1 silt 6 element ICP FA Au @ \$12.15 12.15 5 pan concentrates 6 element ICP FA Au @ \$12.15 60.75 Freight 81.00 3,242.55 Statistical Analysis 69.00 Camp Costs Food - 5 men x 12.0 days @ \$ 25.00/day \$1,500.00 Camp Rental 12.0 days @ \$175.00/day 2,100.00 Supplies, Fuel 1,108.00 Freight 108.00 Expediting and Communications 760.00 Radio Rental 653.00 6,229.00 Air Support - Helicopter - 12.5 hours \$7,997.00 - Fixed Wing 270.00 8,267.00 Office Overhead 1,476.00 Report Compilation and Drafting 4,000.00 Stand-by and Camp Days - 2 days @ \$1,550.00/day 3,100.00 TOTAL: \$49,500.00







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122		80	46	/33	
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38	GS 110	38	16	68	
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220	GS 115	39	13	16	
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513		411	709	1011	
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166		74	33	197	WR240/45
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