

083681

DEPARTMENT OF INDIAN AND
NORTHERN AFFAIRS

JUL 15 1996

MINING RECORDER

YELLOWKNIFE, N.W.T.

GEOCHEMICAL ASSESSMENT REPORT

on the

HT CLAIM GROUP

of

**BENACHEE RESOURCES INC.
SNOWPIPE RESOURCES LTD.**

and

INUKSHUK CAPITAL LTD.

April 14, 1995 - April 13, 1996

**JAMES RIVER - KUNES/TORP LAKE AREA,
NTS: 76M/1, /2, 76N/4
67° 15' N, 110° 21' W
DISTRICT OF MACKENZIE,
NORTHWEST TERRITORIES**

by

Rodney W. Arnold, P. Geo.

CANAMERA GEOLOGICAL LTD.

*540 - 220 Cambie Street
Vancouver, B.C.*

July 12, 1996

Volume 1 of 1

THIS REPORT HAS BEEN EXAMINED AND
APPROVED AS TO TECHNICAL CONTENT UNDER
SECTIONS 6 & 7 OF SCHEDULE II OF THE
CANADA MINING REGULATIONS AND
VALUED IN THE AMOUNT OF \$ *76,700.00*

DATE

Aug 9/96

ENGINEER OF MINE'S FOR
CHIEF, NORTH. NON-RENEW
RESOURCES BRANCH

TABLE OF CONTENTS

	Page
SUMMARY.....	1
INTRODUCTION	2
Location And Access	2
Topography And Climate	5
Claim Status.....	5
GEOLOGY.....	6
Introduction	6
Archean Geology	6
Early Pre-Yellowknife Supergroup Assemblage	6
Yellowknife Supergroup.....	8
Subvolcanic Rocks	8
Metavolcanic Rocks.....	8
Metasedimentary Rocks	8
Post-Yellowknife Supergroup Assemblage.....	9
Proterozoic Geology	9
Structural Geology	10
Economic Geology.....	11
Property Geology	13
Pleistocene Geology	15
Previous Exploration.....	16
CURRENT EXPLORATION (1995-1996).....	16
Overview	16
GEOCHEMISTRY.....	16
Introduction	16
Field collection	17
Sample Processing.....	17
Results and Interpretation.....	18
CONCLUSIONS AND RECOMMENDATIONS	19

REPORT VOLUME INDEX

VOLUME 1 REPORT AND GEOCHEMICAL MAPS

LIST OF FIGURES

	Page
Figure 1 HT Claims - Location Map	3
Figure 2 HT Claims - Property Position within Slave Province	4
Figure 3 HT Claims - Regional Geology	7
Figure 4 HT Claims - Mineral Occurrences	12
Figure 5 HT Claims - Property Geology	14

LIST OF APPENDICES

Appendix 1	Statement of Costs
Appendix 2	Application of Expenditures
Appendix 3	Claim Data
Appendix 4	Statement of Qualifications
Appendix 5	Selected Bibliography
Appendix 6	Geochemical Data
Appendix 7	Special Laboratory Analyses Results
Appendix 7A	Abrasion Summary
Appendix 7B	Electron Microprobe Summary and Data
Appendix 8	List of Assessment Reports
Appendix 9	List of Personnel

LIST OF DRAWINGS

Drawing 1	HT Claims - Sampling Coverage and Results (1:100,000)	pocket
Drawing 2	HT Claims - Claim Map (1:100,000)	pocket

083681

REPORT VOLUME INDEX

VOLUME 1 REPORT AND GEOCHEMICAL MAPS

LIST OF FIGURES

	Page
Figure 1 HT Claims - Location Map	3
Figure 2 HT Claims - Property Position within Slave Province	4
Figure 3 HT Claims - Regional Geology	7
Figure 4 HT Claims - Mineral Occurrences	12
Figure 5 HT Claims - Property Geology	14

LIST OF APPENDICES

Appendix 1	Statement of Costs
Appendix 2	Application of Expenditures
Appendix 3	Claim Data
Appendix 4	Statement of Qualifications
Appendix 5	Selected Bibliography
Appendix 6	Geochemical Data
Appendix 7	Special Laboratory Analyses Results
Appendix 7A	Abrasion Summary
Appendix 8	List of Assessment Reports
Appendix 9	List of Personnel

LIST OF DRAWINGS

Drawing 1	HT Claims - Sampling Coverage and Results (1:100,000)	pocket
Drawing 2	HT Claims - Claim Map (1:100,000)	pocket

SUMMARY

The HT claims, located in the northern portion of the Slave Structural Province, Northwest Territories, encompass approximately 178,000 acres has been the focus of diamond exploration since 1993.

To date a total of 623 till samples have been collected and processed. A detailed airborne geophysical program consisting of 1988.4 line kilometers was carried out by Geoterrex Limited, Ottawa, Ontario. These activities and expenditures were detailed in the 1995 assessment report on the HT claims by Canamera Geological Ltd. The 1995 exploration activities included the collection and processing of an additional 62 glacial till samples.

No kimberlite pipes have been discovered on the property to date, however based on reconnaissance sampling two undeveloped kimberlitic heavy mineral indicator trains may be developing. A number of geophysical anomalies having kimberlitic characteristics; one anomaly typifies massive sulphide mineralization occurring within the volcanic and sedimentary units of the Yellowknife Assemblage. These anomalies have not been investigated but should be the focus of exploration in the near future.

Further till sampling in the up-ice direction of minor and significant anomalous samples may result in developing and refining additional dispersion trains. Existing geophysical anomalies should be investigated for their kimberlite and base metal and/or gold potential.

This report consists of one volume detailing the geochemical sampling program, including maps, figures and results, for the work completed during this time period.

INTRODUCTION

The Slave Structural Province of the Northwest Territories is an Archean segment of the North American Craton. It is underlain by metasedimentary and metavolcanic rocks of the Yellowknife Supergroup and by Archean granites and gneisses. The discovery of diamonds at Lac de Gras, through the use of geochemical tracking of kimberlitic indicator minerals, has fueled the exploration activities within the region. Many junior companies staked out large land positions and carried out detailed geochemical exploration programs. Benachee Resources Inc. and Snowpipe Resources Ltd. were among the early participants in this activity by the staking of several properties including the HT claims.

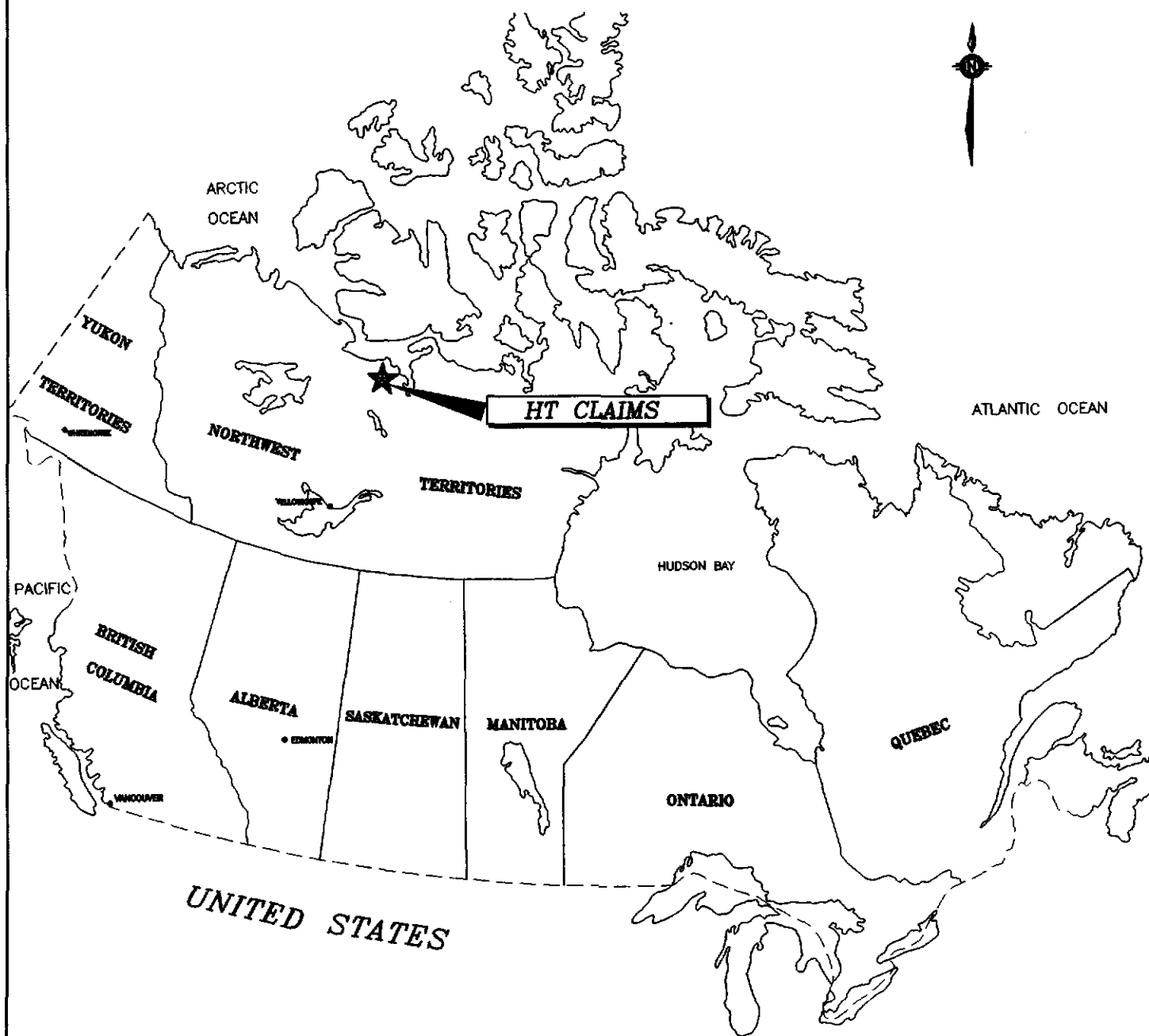
The property has undergone at least two major episodes of glaciation that scoured the terrain and deposited a layer of till. Exploration for kimberlite pipes has consisted primarily of glacial till sampling in search of a specific assemblage of minerals associated with kimberlites. These samples are processed and examined for traces of these minerals whose chemical composition distinguishes them as being unique to an upper mantle origin. The geographical positions of these indicator minerals in the glacial dispersion train are noted and followed "up-ice" to the kimberlite source. Airborne magnetics and EM surveys are used, in conjunction with sampling, to pinpoint various geophysical responses associated with weathered pipe structures.

Location and Access

The HT claims are located in the Mackenzie District of the Northwest Territories (Figure 1 & 2). The center of the HT claims is located at 67° 15' N; 110° 21' W and lies about 83 kilometers north of the Arctic Circle. The center of the property lies 565 kilometers N21°E of Yellowknife. The claim blocks are roughly located between High Lake to the west; Kunes/Torp lakes to the east; the southern arm of the Wentzel River to the north; and south beyond the James River. The James River transects the claim blocks.

During the winter the area is accessible by ski-equipped aircraft. In the summer, there is a window of approximately two to two and a half months (early July to mid-September) in which lakes suitable for float-equipped aircraft can be used to transport men and supplies to the property. Larger aircraft can land on the 6000 foot gravel airstrip at the Lupin mine site, 118 kilometers S12°W from the center of the claim block. During freeze-up and break-up, September and June respectively, access to the property is by helicopter only.

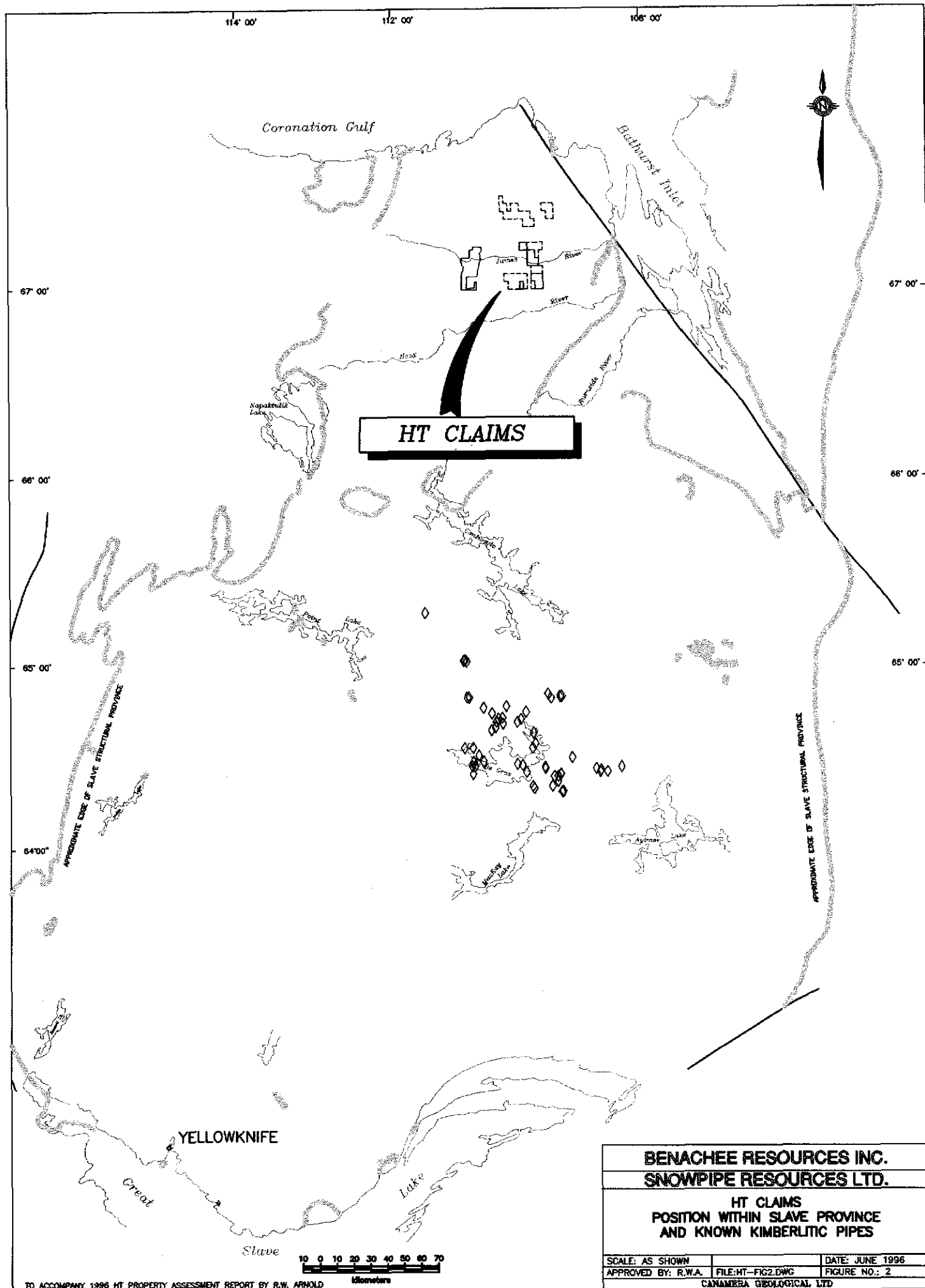
The Echo Bay Mines' winter road, which links Yellowknife to the Lupin mine site on Contwoyto Lake, passes within 115 kilometers on a S11°W bearing from the center of the property.



BENACHEE RESOURCES INC.
SNOWPIPE RESOURCES LTD.

HT CLAIMS
LOCATION MAP

SCALE:	DATE: JUNE 1996	FIGURE NO.1
APPROVED BY: R.W.A.	FILE : HT-FG1.DWG	
CANAMERA GEOLOGICAL LTD		



TO ACCOMPANY 1996 HT PROPERTY ASSESSMENT REPORT BY R.W. ARNOLD

BENACHEE RESOURCES INC.
SNOWPIPE RESOURCES LTD.

HT CLAIMS
POSITION WITHIN SLAVE PROVINCE
AND KNOWN KIMBERLITIC PIPES

SCALE: AS SHOWN	FILE: HT-FIG2.DWG	DATE: JUNE 1996
APPROVED BY: R.W.A.	FIGURE NO.: 2	
CANAMERA GEOLOGICAL LTD		

GEOLOGY

Introduction

The HT property is located in the northern portion of the Slave Structural Province stretching between the James River area and the Coronation Gulf. The Slave Structural Province (Figure 3) is an Archean granite-greenstone terrain containing belts of 2.70 to 2.67 Ga metasedimentary and metavolcanic rocks that were intruded extensively by syn- to post-volcanic granitic plutons between ca. 2.70 and 2.58 Ga (Relf, 1992).

Archean Geology

Archean rocks within the Slave Structural Province are located between Great Slave Lake to the south and Coronation Gulf to the north. The Archean rocks are overlain by Proterozoic strata of the Wopmay Orogen on the west. The eastern side of the province can be roughly delineated by: the early Proterozoic Thelon deformation and metamorphic zone which occurs along its southeastern edge, the western edge of the Proterozoic deformation between the Bathurst and McDonald faults, and the eastern limit of Archean migmatites to the northeast (Fyson and Padgham, 1993).

Rocks within the Slave Structural Province are assigned to three lithotectonic assemblages identified as: an early assemblage of gneisses, granitic rocks and quartz arenites; Yellowknife Supergroup greywackes, mudstones, volcanic rocks and synvolcanic intrusions; and a younger sedimentary-plutonic assemblage of clastic sediments and granitic rocks. Approximately two-thirds of the province is underlain by post-Yellowknife Supergroup granitic rocks. Deformation and greenschist to amphibolite facies metamorphism affect all volcanic and sedimentary rocks (Fyson and Padgham, 1993).

Early Pre-Yellowknife Supergroup Assemblage

The early assemblage of pre-Yellowknife Supergroup rocks generally occurs west of 112° west, along the western edge of the Yellowknife supracrustal domain and between Point Lake and Coronation Gulf. It contains two groups: granites and gneisses of variable composition (tonalitic gneiss to potash granite), and a quartz arenite-felsic volcanic group. The quartz arenite-felsic volcanic association also includes distinctive magnetite iron formations and ultramafics and appear to be intimately tied to granitic basement rocks (Fyson and Padgham, 1993).

Yellowknife Supergroup

The Yellowknife supracrustal-plutonic assemblage consists of three distinct assemblages: granite and gneisses; volcanic and metasediments; and interbedded turbidites. In the Point Lake - Contwoyto Lake area, the Yellowknife Supergroup is comprised of five formations: two distinct belts of metavolcanic rocks known as the Point Lake Formation and the Central Volcanic Belt; metaturbidites of the Contwoyto and Itchen formations; and conglomerates and related clastic sedimentary rocks of the Keskarrah Formation.

Subvolcanic Rocks

This subdivision consists of foliated gabbroic, granitic and gneissic rocks and have a field relationship which infers that older rocks may be included within this group. There are however, radiogenic ages (2.7 - 2.65 Ga) suggesting that part of the group is synvolcanic with supracrustal rocks included with the Yellowknife Supergroup (Fyson and Padgham, 1993).

Metavolcanic Rocks

Volcanic belts within the Yellowknife Supergroup display a wide variation in composition - basaltic to rhyolitic, and appear in most volcanic belts within the assemblage. Dikes, sills and larger bodies (gabbroic and felsic) have intruded the volcanics. Volcanogenic sandstones, conglomerates, and iron formations occur as thin sedimentary units within the volcanics (Fyson and Padgham, 1993).

In the Point Lake - Contwoyto Lake region, a dominantly mafic metavolcanic and related intrusion referred to as the Point Lake Formation have mid-ocean-ridge basaltic affinities. Intermediate volcanoclastic rocks similar to those found in modern island arc settings are assigned to the Central Volcanic Belt. In this area plutonic rocks, of which the Wishbone monzogranite is the largest body, intruded between 2,667 and 2,650 million years ago. The Wishbone intrusive, outcropping approximately 20 kilometers southwest of the Lupin mine, has been interpreted as a synvolcanic intrusion related to the Central Volcanic Belt (Relf, 1992).

Metasedimentary Rocks

Interbedded greywackes, siltstones and mudstones, which have been interpreted as turbidites, make up the largest aerial extent of supracrustal rocks in the province. Included within this group of turbidites are two formations located between Contwoyto Lake and Point Lake which are distinguished by the presence

of interbedded iron formation (Contwoyto Formation) and the absence of iron formation (Itchen Formation) (Bostock, 1980).

Other sedimentary rocks within this sequence include locally prominent conglomerates which have been derived from nearby volcanic rocks or from older granitic rocks (Point Lake area). A synvolcanic association is inferred in areas where greywackes and mudstones are interlayered with thin felsic and mafic volcanics. This assemblage also includes auriferous iron formations interbedded with fine grained siltstones and mudstones. Thinly bedded carbonates are associated with felsic volcanics in the Back River area (Fyson and Padgham, 1993).

Post-Yellowknife Supergroup Assemblage

Post-Yellowknife Supergroup granitic rocks of varying composition (diorite, tonalite, granodiorite, K-rich granite) underlie a large part of the province. Conglomerates and feldspathic sandstones within or adjacent to volcanic belts also contain clasts of post-volcanic granites (Fyson and Padgham, 1993).

In the Point Lake area, polymictic conglomerates and other clastic sedimentary rocks of the Keskarrah Formation represent the youngest Archean rocks. These rocks outcrop at Keskarrah Bay, on Point Lake, and unconformably overlie both the Point Lake Formation and the pre-Yellowknife assemblage. Between 2,608 and 2,585 Ga, calc-alkaline rocks of diorite to granodiorite composition and peraluminous granites were emplaced (Relf, 1992). Rocks of this suite underlie approximately half of the Point Lake - Contwoyto Lake region.

Proterozoic Geology

Proterozoic metasedimentary cover rocks, having limited aerial extent in the Slave Structural Province, are located near Rockinghorse Lake and northeast of Contwoyto Lake, straddling the Burnside River, and extending to Bathurst Inlet. These rocks comprise the Goulburn and Epworth groups and represent cratonic and marginal geosynclinal environments and lie unconformably on Archean basement (Bostock, 1980).

Regionally, four swarms of Proterozoic diabase dikes are recognized; two belts of diabase dikes belonging to the Mackenzie dike swarm occur in the Point Lake - Contwoyto Lake region. One belt occurs north of Contwoyto Lake; the second belt is located 60 kilometers to the west between Point Lake and Itchen Lake. The dikes are up to 150 meters thick, generally steeply dipping and strike north-northwesterly. The rocks are coarse grained, dark grey to green in color (Bostock, 1980) and form areas of local positive

relief where they intrude easily eroded lithologies such as the metaturbidites and negative relief in areas where they are juxtaposed with granites and gneisses.

Structural Geology

Several structural elements are noted in the Slave Structural Province. Folding is most evident in sedimentary sequence, while narrow volcanic belts along the margins of these sedimentary domains appear as steep homoclines dipping towards the sediments. In the southern part of the map area where the volcanics are marginal to or located within wider sedimentary domains. Felsic centers (Back River area) are relatively broad and tend to have shallower dips. Folds tend to be steeply inclined and align parallel to contacts with volcanic and granitic rocks. They are truncated and deformed by younger intrusions indicating a syndeformational association. The last generation of large scale folds trend northward (Fyson and Padgham, 1993).

The alignment of volcanic belts or belt segments illustrate the structural trends. Lineaments formed by the volcanic belts and at the granite margins change from northwestward in the eastern part of the province to north-northwest and northeast in the area north of 66° N. Sharp contrasts in the structural trend occurs in the southwestern part of the province where volcanic belts and intrusion margins which trend northwest, northeast, and north are juxtaposed and develop an angular pattern. This angular orientation of volcanic belts suggests control of volcanism and structure by an underlying system of crustal-scale fractures (Padgham and Fyson, 1992).

Foliation in migmatitic metasediments tend to parallel bedding and along tight fold lines in weakly metamorphosed rocks. Foliation in granites is variable. Cleavage/schistosity is steeply inclined and generally oblique to the axial traces of large scale earlier folds. South of 66° N, cleavage is usually oriented north to northeast postdating cleavage that strike northwest. This suggests a reorientation of regional stresses.

Major shear zones are recognized as zones of high strain ductile deformation restricted to rock boundaries of contrasting competency. Movement along the McDonald and Bathurst faults occurred mainly during the Proterozoic. Most faults within the province are Proterozoic brittle fracture zones, some of which produce prominent topographic lineaments.

Economic Geology

The claims area is underlain by Archean volcanic and sedimentary rocks of the Yellowknife Assemblage and younger granitic rocks. This felsic/mafic volcanic package forms a linear belt extending from Izok lake to High Lake and beyond. The HT claims are characterized by auriferous iron formations hosted by turbidites and/or gold in quartz veins within intrusions (Padgham and Fyson, 1992).

The deposit, at Izok Lake, is a cluster of zinc-copper-lead-silver volcanogenic massive sulphide lenses occurring near the top of a sequence of pyroclastic, felsic metavolcanic rocks of the Point Lake Formation. This deposit is located approximately 215 kilometers southwest of the center of the HT claims area and is currently held by Inmet Mining Corporation. Estimated minable reserve of the deposit are 16.5 million tonnes grading 11.4% Zn, 2.2% Cu, 1.1% Pb and 60g/t Ag. (published by Department of Energy, Mines and Petroleum Resources, 1995).

The Ulu occurrence, located south of the most westerly HT claim block, is host to precious metal vein mineralization. Two types of occurrences within Archean volcanics are noted: polymetallic quartz veins contain pyrite, pyrrhotite, minor sphalerite and arsenopyrite; and quartz veins with acicular arsenopyrite. The best values obtained to date are: 54.94 g/t Au over 0.95 meters which included visible gold within pyrite-filled fractures. This intersection occurs at the sediment / volcanic contact.

The High Lake copper-zinc massive sulphide deposit of Kennecott Canada Inc. is about 25 kilometers north-northwest of the center of the HT claim blocks. Estimated reserves are 5.3 million tonnes grading 4.05% Cu, 2.36% Zn, 31.73 g/t Ag and 1.76 g/t Au. This deposit and numerous other mineral showings are located within the Anialik River-High Lake greenstone belt. The Canuc/Orofino (Arcadia) gold deposit is located 70 kilometers northwest of the HT claims on Coronation Gulf. Estimated reserves are 780,000 tons grading 7.5 g/t Au.

The Turner Lake showing is located approximately 65 kilometers east of the center of the HT claims. The showing is an arsenopyrite-pyrrhotite-gold bearing quartz stockwork that cuts a metamorphosed gabbro sill which intrudes Archean metasediments. Reserves of the deposit are estimated at 1,180,000 tonnes grading 5.35 g/t Au. (published by Department of Energy, Mines and Petroleum Resources, 1995).

The Pistol Lake gold deposit, which is located about 70 kilometers east-southeast of the center of the HT claim blocks, occurs in Archean metasediments. The occurrence is in a well-banded silicate facies iron formation, containing greater than 10% sulphides, within an amphibolite grade quartz biotite schist. The deposit consists of several mineralized zones of heavily disseminated pyrrhotite-pyrite-arsenopyrite with

assemblage occur to the east of this arcuate shaped volcanic package. The southern claim areas and most of the remaining HT claim blocks are underlain by younger assemblage granitic rocks. Claim blocks geology is detailed in Figure 5.

Foliation, noted within some of the granitics, is oriented predominantly north-south to northeast-southwest. Near the north end of southwestern block, the northwest-southeast trending foliation in the granitics suggest possible structural overprinting? Foliation in the metasediments in this southwest block consistently trend northeast-southwest.

Pleistocene Geology

Reconnaissance mapping of surficial deposits and ice direction indicators was carried out by M. J. Millard of the Saskatchewan Research Council using airphoto interpretation and field investigations as part of the BK project (Millard, 1993). The HT claims are included as part of that project area. In addition, Ms. Shirley McCuaig conducted detailed glacial studies, for Canamera Geological, on several areas including the Hood River area which lies south of the HT claims (McCuaig, 1995).

Till is the most abundant quaternary deposit, occurring as a thin veneer (less than 2-3 meters thick) or as till blanket (>3 meters thick). It is generally very poorly sorted, from boulder size clasts of widely varying size to granules, with a coarse sand to silt size matrix (McCuaig, 1995). There are two genetically different types of till deposits that have been recognized: basal or subglacial till which is deposited primarily from active ice and generally contains more locally revired material and ablation or englacial till which occurs as a product of gentle release during the ablation processes from stagnant ice (Millard, 1993).

There are six flow directions in the Hood River area, depicting early westward flow which gradually shifted to a northerly flow. Of the six flow directions the latest, and most northerly trending (number 6), is the weakest. Flow direction 2, oriented at 276°-289°, is the strongest, followed by flow direction 5 (335°-348°). Since evidence of the later flow paths does not tend to obliterate evidence of earlier ones, it appears that none of the six glacial events was particularly erosive. Proterozoic erratics from the east, southeast and south, are consistent with the flow directions identified, and may indicate that Early Wisconsinian ice was able to move debris over long distances (McCuaig, 1995).

Bedrock outcrops are generally covered with erratic boulders that are often stacked or perched - englacial load. The lack of stacked and perched boulders in areas of till blanket or till veneer may suggest that pervasive frost heave and mud boil activity mixed the englacial load with the subglacial load. It is thus

very difficult to selectively sample the subglacial material in this region. It is also possible that far-traveled clasts from earlier events have been incorporate into till of later events.

Glaciofluvial complexes are common throughout the area. Eskers are generally related only to late flow events, but in the Hood River area they reflect at least three directions of flow: west, northwest and north (McCuaig, 1995).

Previous Exploration

Previous diamond exploration on the claim group includes till sampling and airborne geophysics. Since 1993, a total of 623 geochemical till samples have been collected and analyzed for heavy mineral indicators. In addition, a 250 meter spaced airborne magnetic and EM survey, totaling 1988.4 line-kilometers, was flown by Geoterrex in 1994.

CURRENT EXPLORATION (1995-1996)

Overview

The focus of initial exploration efforts on the HT property was reconnaissance level sampling of esker and glacial till material. An extensive airborne geophysical survey was carried out in conjunction with the sampling. Between 1993 and 1995, a total of 561 geochemical samples have been collected and 1988.4 line-kilometers of airborne magnetics and EM had been flown by Geoterrex Limited (see previous assessment report - PSHC PROPERTY). The 1995 exploration program included the collection of an additional 62 till samples.

GEOCHEMISTRY

Introduction

During previous exploration programs on the HT property, 561 till samples were collected by Canamera Geological Ltd. for Benachee Resources Inc., Snowpipe Resources Ltd. and Inukshuk Capital Ltd.. These programs included initial and some follow-up sampling in areas of geochemical anomalies.

The samples were processed for kimberlitic indicator minerals, pyrope and eclogitic garnet, chrome diopside, picro-ilmenite, chromite, and olivine, in the North Vancouver laboratory of Canamera Geological Ltd. The results derived from these samples form the body of this report (Drawing 2, Appendix 6).

The sampling crew is a 13 man crew consisting of eight samplers, camp manager, assistant manager, camp maintenance man and helicopter support crew.

The camp was mobilized from Yellowknife via fixed wing Twin Otter aircraft. Helicopter support was Bell Jet Ranger 206 B and A-Star. Fuel and supplies were transported periodically from Yellowknife and samples back-hauled.

Field Collection

Frost-boils are the ideal sampling material. Frost-boils are quite numerous and easy to locate and represent underlying till material that has been reworked by fluid movement to produce a higher concentrations of sand-sized particles. The next best sample medium is glacial till.

Once a site has been located and the sample collected, sample material is passed through a 6 or 10 mesh wire screen (3.36 to 1.70 mm) into a collection basin. This screening process is carried out with the aid of water. The oversize is examined for kimberlite fragments and discarded if none are found. The material collected in the basin is submerged in water and agitated to liberate the majority of the fine clay and silt particles. The water, with the suspended particles, is then poured off leaving behind only the granular material. This screening and washing process is continued until approximately 15 kilograms of screened and washed material remains. The residual material is transferred to a 15 liter plastic bucket with sealable lids for transport.

For detailed follow-up, sample lines are selected to provide fill-in information where needed. These samples are usually taken dry, then washed and screened at a water source prior to shipment to the lab for processing. The sample density in an area is somewhat dependent on surficial features, i.e. rock outcrops, boulder fields, bogs, eskers, etc., and material availability.

Sample Processing

Till samples, collected from the HT property, were processed in the Canamera's lab facilities located in North Vancouver. Gravity concentration methods and procedures were used in handling initial stages of mineral processing.

Producing a heavy mineral concentrate

- Stage 1: Screening of sample material into 4 size fractions using a vibratory Sweco unit. Size categories are: 10 mesh (1.7 mm), 20 mesh (0.85 mm), 40 mesh (0.425 mm), and 60 mesh (0.250 mm)
- Stage 2: Simple gravity separation of the -20 to +40 fraction using Wilfley tables to produce two products: low density material and high density material. Only the high density product is processed further
- Stage 3: Heavy density product is magnetically separated at two settings to produce three distinct products; an ilmenite rich magnetic concentrate and a garnet-chrome diopside rich concentrate. The remaining material is the non-magnetic fraction.
- Stage 4: Both the ilmenite and garnet-chrome diopside concentrates are further refined using a Magstream dense magnetic media separation.
- Stage 5: Trained mineral sorters examine each final concentrate for kimberlitic pyrope garnet, chrome diopside, eclogitic garnet, ilmenite, chromite and olivine grains using binocular microscopes. Questionable grains are examined by the senior mineralogist and / or sent out for microprobe analysis.

At each stage of screening, separation, and concentration, a record of weights is maintained for all fractions. All sample splits are repackaged separately and kept in archives.

Additional analyses (Special Laboratory Requests) were conducted on 30 samples from the HT claims. These analyses included: 26 samples raised to complete sort category; 3 samples raised to full sort category; and one extra sort. This work resulted in no anomalous sample being generated. Results are recorded in Appendix 7.

Abrasion summary analyses on 4 samples is included in Appendix 7A.

Results and Interpretation

Interpretation is based on all the sampling programs completed on the claim group. Reference to anomalous samples may be from previous representation work report (see PSHC Report - Appendix 8).

Based on reconnaissance and minor follow-up sampling two undeveloped kimberlitic train have been identified. The two trains are very close together and may actually be one widely dispersed train; although the chemistry is somewhat different. The more northerly train is characterized by three anomalous

samples consisting of two single count kimberlitic chromite samples and one possibly kimberlitic single count chrome diopside sample. These samples are about one kilometer apart. Three barren samples which may cut-off the train, are located one kilometer up-ice from these anomalous samples.

The more southerly train is identified by one kimberlitic, single count chrome diopside sample and an eight count anomalous olivine sample. These samples are separated by six kilometers with few samples collected between these anomalous samples.

Ten isolated anomalous samples were also identified: nine samples were kimberlitic and one was not probed. Six kimberlitic sample locations were re-sampled intensely; all were found to be non-kimberlitic.

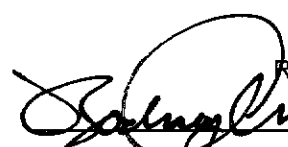
CONCLUSIONS AND RECOMMENDATIONS

The sampling programs on the HT claims have developed one possibly two closely associated weak indicator mineral trains and several scattered isolated sample anomalies. Most of these isolated anomalies may have been cut off and may be of no interest. The one or two trains require additional attention. This train(s) may be directing attention south of the HT claims.

Follow-up sampling is recommended to develop these indicator mineral trains and on selected isolated anomalous kimberlitic samples which have not been duplicated. Double density sampling is also recommended in specific areas of the property where anomalous sample trends may have been identified.

Additional processing on approximately 60% of the barren samples could be done to raise those samples to the C sort category. In addition, all samples should be sorted for the complete suite of indicator minerals and microprobed. These procedures may be useful in defining and developing additional mineral trains.

Most of the geophysical anomalies (4) with kimberlitic signatures have been correlated with sample results and may be related to other phenomenon. However, further ground proofing is suggested. With respect to the base metal anomaly located in the southwest corner, it is suggested that ground proofing of this anomaly be undertaken prior to lapsing the ground.


Report by ARNOLD
PROFESSIONAL
OF
BRITISH
COLUMBIA
GEOLOGICAL
SCIENTIST

Rodney W. Arnold, P. Geo.

dated: July 12th, 1996

APPENDIX 1
STATEMENT OF COSTS

HT CLAIMS
EXPLORATION EXPENDITURES
FOR PERIOD: APRIL 14, 1995 - APRIL 13, 1996

	TOTAL
	\$
<u>SAMPLE COLLECTION</u>	
<u>PROJECT PREPARATION</u>	\$1,122
<u>PERSONNEL</u>	
Camp Geologist, Assistant, Cook and 8 samplers (11 man camps) approximately 22 man-days in total	\$5,316
<u>CAMP BUILDING AND MOBILIZATION</u>	\$2,429
<u>DEMOBILIZATION AND CLEANUP</u>	\$681
<u>FIELD SUPPLIES</u>	\$654
<u>PERSONNEL BOARD</u>	\$1,036
<u>PERSONNEL ROOM</u>	\$1,943
<u>COMMUNICATIONS</u>	\$213
<u>SAMPLING EQUIP RENTAL</u>	\$1,036
<u>SAMPLING SUPPLIES</u>	\$278
Fuel Caching	\$533
Twin Otter	\$7,994
Helicopter (DRY)	\$18,905
<u>FUEL CONSUMPTION</u>	
HELICOPTER Fuel Jet B	\$3,114
CAMP Fuel p-50 stove	\$530
p-40 diesel	\$101
CAMP Fuel Propane	\$234
<u>SAFETY EQUIPMENT</u>	\$370
<u>SAMPLE SHIPPING</u>	\$3,110
<u>TOTAL FIELD COLLECTION EXPENDITURES</u>	\$49,600
<u>SAMPLE PROCESSING EXPENDITURES</u>	
**cost of probe work and abrasion summary included **	
62 samples @ \$300/sample (including screening, tabling, magnetic separation, magstream, and mineral sorting)	\$18,600
<u>TOTAL SAMPLE EXPLORATION COSTS</u>	
samples collected	<u>62</u>
average cost per sample	\$1,100 (average winter and summer)
	\$68,200

SPECIAL LABORATORY SAMPLE COSTS

Special lab work - 30 samples @ \$200/sample

\$6,000

Coarse Grain	0	\$200	
Excess -20+40	26	\$200	\$5,200
Fine Grain -40 / +50		\$200	
Fine Grain -50 / +60	0	\$200	
Half Sort Raised to Full	3	\$200	\$600
Quality Resort		\$200	
Resort	1	\$200	\$200
O/B -20 / +40	0	\$300	
	30		\$6,000

TOTAL GEOCHEMICAL ANALYSES EXPENDITURES

\$74,200**REPORT WRITING**

\$2,500**TOTAL EXPLORATION EXPEDITURES**

\$76,700

APPENDIX 2

APPLICATION OF EXPENDITURES

BREAKDOWN OF EXPENDITURES

EXPENDITURES

Total Exploration Expenditures for HT CLAIMS = \$76,700 (Appendix 1)
Consisting of detailed till sampling and processing

ACREAGE

Total applied HT CLAIMS reduced acreage = 33,572.5 (Appendix 3)

REQUIRED WORK

Required value of work = \$2/acre/year
Value per year = \$67,145.00

APPLIED YEARS OF WORK CREDIT

Application of one year (1) credit = \$67,145.00
on
HT 6, HT 10, HT 28, HT 29, HT 44, HT 45, HT 48,
HT 49, HT 109, HT 110, HT 125, HT 126, HT 130

Exploration expenditures = \$67,145.00

EXCESS CREDIT

Excess credit of \$9,555 to be credited
toward the next year of work credit

APPENDIX 3

CLAIM DATA



HT PROPERTY - FORM 9 ATTACHMENT

04-Jul-96

CLAIM NUMBER	CLAIM NAME	OWNER(S)	NTS SHEET(S)	AREA (ACRES)	NEW WORK	EXCESS:	CASH	SURPLUS	YEARS APPLIED	RECORDED	NEW ANNIVERSARY
F30641	HT 81	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30643	HT 83	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30644	HT 84	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30645	HT 85	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30646	HT 86	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30647	HT 87	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30648	HT 88	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30649	HT 89	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30651	HT 91	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30652	HT 92	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30654	HT 94	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30655	HT 95	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30668	HT 108	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-M-08 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30669	HT 109	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F30670	HT 110	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F30685	HT 125	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F30686	HT 126	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F30687	HT 127	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996

CLAIM NUMBER	CLAIM NAME	OWNER(S)	NTS SHEET(S)	AREA (ACRES)	NEW WORK	EXCESS:	CASH	SURPLUS	YEARS APPLIED	RECORDED	NEW ANNIVERSARY
F30688	HT 128	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30690	HT 130	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
F30691	HT 131	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30693	HT 133	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30694	HT 134	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-04 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30979	HT 166	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-05 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30980	HT 167	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-05 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30986	HT 173	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-05 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30987	HT 174	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-05 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F30988	HT 175	BENACHEE RESOURCES INC. / SNOWPIPE RESOURCES LTD.	076-N-05 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
F44883	HT 203	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	439	0	\$0	0	0	0	11/17/1993	11/17/1996
F44884	HT 204	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	1393.1	0	\$0	0	0	0	11/17/1993	11/17/1996
F44885	HT 205	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2242.8	0	\$0	0	0	0	11/17/1993	11/17/1996
F44886	HT 206	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	1365.8	0	\$0	0	0	0	11/17/1993	11/17/1996
F44887	HT 207	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2582.5	0	\$0	0	0	0	11/17/1993	11/17/1996
F44888	HT 208	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	346.8	0	\$0	0	0	0	11/17/1993	11/17/1996
F44889	HT 209	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2153.5	0	\$0	0	0	0	11/17/1993	11/17/1996
F44890	HT 210	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	350.8	0	\$0	0	0	0	11/17/1993	11/17/1996
F44891	HT 211	INUKSHUK CAPITAL LTD. /	076-M-02 / 076-M-03 / - / -	717	0	\$0	0	0	0	11/17/1993	11/17/1996
F44892	HT 212	INUKSHUK CAPITAL LTD. /	076-M-02 / 076-M-03 / - / -	2237.6	0	\$0	0	0	0	11/17/1993	11/17/1996

CLAIM NUMBER	CLAIM NAME	OWNER(S)	NTS SHEET(S)	AREA (ACRES)	NEW WORK	EXCESS:	CASH	SURPLUS	YEARS APPLIED	RECORDED	NEW ANNIVERSARY
F44893	HT 213	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2582.5	0	\$0	0	0	0	11/17/1993	11/17/1996
F44894	HT 214	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2582.5	0	\$0	0	0	0	11/17/1993	11/17/1996
F44895	HT 215	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2582.5	0	\$0	0	0	0	11/17/1993	11/17/1996
F44896	HT 216	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2037.9	0	\$0	0	0	0	11/17/1993	11/17/1996
F44897	HT 217	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	916.6	0	\$0	0	0	0	11/17/1993	11/17/1996
F44898	HT 218	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	127.86	0	\$0	0	0	0	11/17/1993	11/17/1996
F44899	HT 219	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2582.5	0	\$0	0	0	0	11/17/1993	11/17/1996
F44900	HT 220	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	680	0	\$0	0	0	0	11/17/1993	11/17/1996
F44901	HT 221	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2582.5	0	\$0	0	0	0	11/17/1993	11/17/1996
F44902	HT 222	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	680	0	\$0	0	0	0	11/17/1993	11/17/1996
F44903	HT 223	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	2582.5	0	\$0	0	0	0	11/17/1993	11/17/1996
F44904	HT 224	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	1268.9	0	\$0	0	0	0	11/17/1993	11/17/1996
F44905	HT 225	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	1423.4	0	\$0	0	0	0	11/17/1993	11/17/1996
F44906	HT 226	INUKSHUK CAPITAL LTD. /	076-M-02 / 076-M-03 / - / -	2324.1	0	\$0	0	0	0	11/17/1993	11/17/1996
F44907	HT 227	INUKSHUK CAPITAL LTD. /	076-M-02 / 076-M-03 / - / -	2332.5	0	\$0	0	0	0	11/17/1993	11/17/1996
F44908	HT 228	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	943.77	0	\$0	0	0	0	11/17/1993	11/17/1996
F44909	HT 229	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	451.1	0	\$0	0	0	0	11/17/1993	11/17/1996
F44910	HT 230	INUKSHUK CAPITAL LTD. /	076-M-02 / - / - / -	1543.9	0	\$0	0	0	0	11/17/1993	11/17/1996
Z01923	HT 3	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01924	HT 4	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996

CLAIM NUMBER	CLAIM NAME	OWNER(S)	NTS SHEET(S)	AREA (ACRES)	NEW WORK	EXCESS:	CASH	SURPLUS	YEARS APPLIED	RECORDED	NEW ANNIVERSARY
Z01925	HT 5	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01926	HT 6	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
Z01927	HT 7	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01929	HT 9	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01930	HT 10	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
Z01932	HT 12	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01933	HT 13	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01934	HT 14	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01935	HT 15	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01936	HT 16	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01937	HT 17	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01947	HT 27	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01948	HT 28	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
Z01949	HT 29	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
Z01964	HT 44	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
Z01965	HT 45	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
Z01966	HT 46	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01967	HT 47	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z01968	HT 48	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997
Z01969	HT 49	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-01 / - / - / -	2582.5	5165	\$0	0	0	1	4/14/1993	4/14/1997

CLAIM NUMBER	CLAIM NAME	OWNER(S)	NTS SHEET(S)	AREA (ACRES)	NEW WORK	EXCESS:	CASH	SURPLUS	YEARS APPLIED	RECORDED	NEW ANNIVERSARY
Z01999	HT 79	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-08 / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996
Z02000	HT 80	SNOWPIPE RESOURCES LTD. / BENACHEE RESOURCES INC.	076-M-08 / - / -	2582.5	0	\$0	0	0	0	4/14/1993	4/14/1996

total # of acres = 178343.93

total amount of new work = 67145

total amount of excess = 0

total # of claims 80

total amount of cash = 0

total amount of surplus = 0

APPENDIX 4

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Rodney W. Arnold, resident at 41751 Yarrow Central Road, Chilliwack, British Columbia, V2R 5G3, hereby certify that:

I am a consulting geologist and have worked in the mineral exploration and mining industry since 1979.

I received a Bachelor of Science degree in Geology from the University of Calgary in 1974.

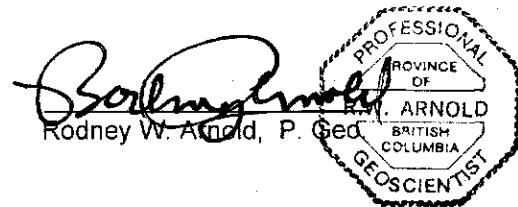
I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (1993).

I have been involved with exploration on the HT claims since 1995 and am familiar with the current state of exploration.

I have no direct or indirect interest in the HT claims or in the shares of Benachee Resources Inc., Snowpipe Resources Ltd. or Inukshuk Capital Ltd. nor do I expect any.

Permission is hereby granted for the use of this report, or excerpts thereof, for any legal purposes normal to the business of Benachee Resources Inc., Snowpipe Resources Ltd. and Inukshuk Capital Ltd.. The author reserves the right to approve any summaries or alterations.

Dated at Vancouver, British Columbia, this 12th day of July, 1996.



APPENDIX 5

SELECTED BIBLIOGRAPHY

BIBLIOGRAPHY

Bostock, H. H.

1980. Geology of the Itchen Lake area, District of Mackenzie. Geological Survey of Canada, Memoir 391.

Fyson, W.K. and Padgham, W. A.

1993. Geology of The Slave Structural Province, 1 Map. EGS 1993-08.

McCuaig, S.

1995. Final report, glacial geology and ice flow directions, Hood River area (PG SE). Internal company report.

Milliard, M. J.

1993. Reconnaissance surficial geology of the 'BK' Project, District of Mackenzie, Northwest Territories report. Saskatchewan research Council. SRC No. R-1210-13-C-93.

Padgham, W. A., and Fyson, W.K.

1992. The Slave Province: a distinct Archean craton. Canadian Journal of Earth Science. 29: p. 2072-2086.

Relf, C.

1992. Two Distinct Shortening Events During Late Archean Orogeny in the West-Central Slave Province, Northwest Territories, Canada, Canadian Journal of Earth Science, v 29.

1995. Significant mineral deposits of the Northwest Territories. Published by: Department of Energy, Mines and Petroleum Resources, Mineral Resources Division, Government of the Northwest Territories.

APPENDIX 6
GEOCHEMICAL DATA

CANAMERA GEOLOGICAL LTD.

Sample Processing Summary For The HT Claims

7/5/1996

COLLECTION			CONCENTRATION		SORTING										
Sample #:	NTS:	Claim:	Tabling Wt/gm:	Conc. Wt/gm:	Sort Wt/gm	Result Class:	Status:	PY	EG	Indicator Recovery Totals:				CR	OL
										CD	ILM				
051062	76M1	HT 6	3800	162	29	ANOMALOUS	C	0	0	0	1	0	0		
1 ANOMALOUS Samples															
050024	76M8	HT 84	5000	360	85	BARREN	I	0	0	0	0	0	0	0	0
050025	76M8	HT 84	4500	380	36	BARREN	C	0	0	0	0	0	0	0	0
050026	76M8	HT 84	5100	360	42	BARREN	C	0	0	0	0	0	0	0	0
050027	76M8	HT 84	5000	342	41	BARREN	I	0	0	0	0	0	0	0	0
050028	76M8	HT 84	4600	662	88	BARREN	C	0	0	0	0	0	0	0	0
050266	76M2	HT 209	4000	114	16	BARREN	C	0	0	0	0	0	0	0	0
050267	76M2	HT 207	4700	160	16	BARREN	C	0	0	0	0	0	0	0	0
050268	76M2	HT 207	3400	210	22	BARREN	C	0	0	0	0	0	0	0	0
050269	76M2	HT 205	3500	386	19	BARREN	C	0	0	0	0	0	0	0	0
050270	76M2	HT 205	5000	442	28	BARREN	I	0	0	0	0	0	0	0	0
050271	76M2	HT 203	4800	980	38	BARREN	C	0	0	0	0	0	0	0	0
050319	76M2	HT 218	5500	410	50	BARREN	C	0	0	0	0	0	0	0	0
050320	76M2	HT 218	4800	356	53	BARREN	C	0	0	0	0	0	0	0	0
050321	76M2	HT 189	5000	332	32	BARREN	I	0	0	0	0	0	0	0	0
050322	76M2	HT 181	4800	426	40	BARREN	C	0	0	0	0	0	0	0	0
050323	76M2	HT 181	5100	222	37	BARREN	C	0	0	0	0	0	0	0	0
050324	76M2	HT 181	5000	692	76	BARREN	I	0	0	0	0	0	0	0	0
050325	76M2	HT 192	5500	866	65	BARREN	C	0	0	0	0	0	0	0	0
050326	76M2	HT 192	5400	344	41	BARREN	C	0	0	0	0	0	0	0	0
050327	76M2	HT 192	5400	272	33	BARREN	C	0	0	0	0	0	0	0	0
050386	76M2	HT 214	5500	476	51	BARREN	C	0	0	0	0	0	0	0	0
050387	76M2	HT 214	4700	280	40	BARREN	C	0	0	0	0	0	0	0	0
050388	76M2	HT 221	5400	246	35	BARREN	C	0	0	0	0	0	0	0	0
050389	76M2	HT 223	4900	360	30	BARREN	C	0	0	0	0	0	0	0	0
050390	76M2	HT 223	4400	1056	113	BARREN	C	0	0	0	0	0	0	0	0
050391	76M2	HT 224	4600	592	99	BARREN	C	0	0	0	0	0	0	0	0
050392	76M2	HT 224	3900	512	57	BARREN	C	0	0	0	0	0	0	0	0
050518	76M2	HT 209	5000	172	26	BARREN	I	0	0	0	0	0	0	0	0
050519	76M2	HT 209	5000	710	59	BARREN	I	0	0	0	0	0	0	0	0
050520	76M2	HT 209	5500	450	29	BARREN	C	0	0	0	0	0	0	0	0
050521	76M2	HT 206	5000	316	27	BARREN	I	0	0	0	0	0	0	0	0
050522	76M2	HT 206	4900	174	26	BARREN	C	0	0	0	0	0	0	0	0
050523	76M2	HT 203	5000	250	12	BARREN	I	0	0	0	0	0	0	0	0
050531	76M2	HT 230	5000	940	81	BARREN	I	0	0	0	0	0	0	0	0
050532	76M2	HT 230	3900	650	71	BARREN	C	0	0	0	0	0	0	0	0
050640	76M1	HT 14	4100	186	29	BARREN	C	0	0	0	0	0	0	0	0
050642	76M1	HT 195	5100	504	64	BARREN	C	0	0	0	0	0	0	0	0

Status Legend: I=initial sort, H=half sort, Q=quarter sort, F=final result, C=complete

COLLECTION			CONCENTRATION		SORTING								
Sample #	NTS	Claim	Tabling Wt/gm	Conc. Wt/gm	Sort Wt/gm	Result Class	Status	PY	EG	CD	Indicator Recovery Totals		
											ILM	CR	OL
050683	76M1	HT 13	3400	194	23	BARREN	C	0	0	0	0	0	0
050684	76M1	HT 13	3400	116	22	BARREN	C	0	0	0	0	0	0
050685	76M1	HT 13	3100	122	21	BARREN	C	0	0	0	0	0	0
050686	76M1	HT 13	4500	170	23	BARREN	C	0	0	0	0	0	0
050691	76N4	HT 127	3900	298	29	BARREN	C	0	0	0	0	0	0
050692	76N4	HT 127	5500	630	51	BARREN	C	0	0	0	0	0	0
050693	76N4	HT 127	3500	240	28	BARREN	C	0	0	0	0	0	0
050694	76N4	HT 127	5000	66	16	BARREN	C	0	0	0	0	0	0
050695	76N12	HT 27	4700	384	43	BARREN	C	0	0	0	0	0	0
050715	76M2	HT 190	4400	580	73	BARREN	C	0	0	0	0	0	0
050716	76M2	HT 188	4300	196	23	BARREN	C	0	0	0	0	0	0
050717	76M2	HT 188	5400	82	9	BARREN	C	0	0	0	0	0	0
051016	76M8	HT 89	5200	656	68	BARREN	C	0	0	0	0	0	0
051017	76M8	HT 90	4500	302	36	BARREN	C	0	0	0	0	0	0
051018	76M8	HT 89	4700	264	45	BARREN	C	0	0	0	0	0	0
051019	76M8	HT 89	5000	344	58	BARREN	C	0	0	0	0	0	0
051053	76M2	HT 203	3600	616	9	BARREN	C	0	0	0	0	0	0
051060	76M1	HT 6	4800	306	38	BARREN	C	0	0	0	0	0	0
051061	76M1	HT 6	4100	384	50	BARREN	C	0	0	0	0	0	0
051123	76N4	HT 133	5300	750	90	BARREN	C	0	0	0	0	0	0
051124	76N4	HT 133	4600	356	54	BARREN	C	0	0	0	0	0	0
051125	76N4	HT 133	4000	254	53	BARREN	C	0	0	0	0	0	0
051126	76N4	HT 132	4700	388	72	BARREN	C	0	0	0	0	0	0
051127	76N4	HT 133	4100	148	34	BARREN	C	0	0	0	0	0	0
61 BARREN Samples													
Total Samples Processed:													
62													

Status Legend: I=initial sort, H=half sort, Q=quarter sort, F=final result, C=complete

APPENDIX 7

SPECIAL LABORATORY ANALYSES RESULTS



CANAMERA GEOLOGICAL LTD.

Special Lab Request and Resort Sample Summary for The HT Claim

7/5/1996

COLLECTION				CONCENTRATION		SORTING							
Sample #:	Status/Request:	NTS:	Claim:	Tabling Wt/gm:	Conc. Wt/gm:	Sort Wt/gm	Result Class:	PY	EG	Indicator Recovery Totals:			
										CD	ILM	CR	OL
012847	RC	76N5	HT 167	350		42	BARREN	0	0	0	0	0	0
012911	RC	76N5	HT 173	4000	174	18	BARREN	0	0	0	0	0	0
013041	RC	76N4	HT 133	5600	432	36	BARREN	0	0	0	0	0	0
013100	RC	76M1	HT 13	6000	554	69	BARREN	0	0	0	0	0	0
013136	RC	76M1	HT 17	4500	84	55	BARREN	0	0	0	0	0	0
013180	RC	76N4	HT 115	5800	262	35	BARREN	0	0	0	0	0	0
013207	RC	76N4	HT 125	5400	292	17	BARREN	0	0	0	0	0	0
013208	RC	76N4	HT 125	7700	512	28	BARREN	0	0	0	0	0	0
016778	RC	76M1	HT 3	4600	350	63	BARREN	0	0	0	0	0	0
016860	RC	76N4	HT 110	4900	196	43	BARREN	0	0	0	0	0	0
016907	RC	76M8	HT 90	5000	274	80	BARREN	0	0	0	0	0	0
017071	RC	76M2	HT 210	5300	622	112	BARREN	0	0	0	0	0	0
017131	RC	76N6M8	HT 94	8700	996	163	BARREN	0	0	0	0	0	0
017134	RC	76M1	HT 29	5700	528	71	BARREN	0	0	0	0	0	0
017135	RC	76M1	HT 29	5200	514	45	BARREN	0	0	0	0	0	0
017136	RC	76M1	HT 29	7300	616	60	BARREN	0	0	0	0	0	0
017148	RC	76N4	HT 121	6800	234	42	BARREN	0	0	0	0	0	0
017159	RC	76M8	HT 80	7500	484	44	BARREN	0	0	0	0	0	0
019576	RC	76M2	HT 215	4200	210	71	BARREN	0	0	0	0	0	0
019788	RC	76M2	HT 213	7200	626	78	BARREN	0	0	0	0	0	0
019789	RC	76M2	HT 213	5500	456	40	BARREN	0	0	0	0	0	0
019790	RC	76M2	HT 213	7200	430	34	BARREN	0	0	0	0	0	0
040074	RC	76N5	HT 173	5100	568	72	BARREN	0	0	0	0	0	0
040195	F	76M1	HT 27	6700	522	24	BARREN	0	0	0	0	0	0
040241	F	76N4	HT 129	5000	412	15	BARREN	0	0	0	0	0	0
040244	F	76M8	HT 91	4200	316	13	BARREN	0	0	0	0	0	0
041216	RC	76M8	HT 86	5000	483	165	BARREN	0	0	0	0	0	0
041216	X	76M8	HT 86	5000	483	7	BARREN	0	0	0	0	0	0
041218	RC	76M8	HT 86	5100	312	56	BARREN	0	0	0	0	0	0
041220	RC	76M8	HT 94	17000	2482	263	BARREN	0	0	0	0	0	0

30 BARREN Samples

Total Samples Processed

30

APPENDIX 7A

ABRASION SUMMARY

CANAMERA GEOLOGICAL LTD.

Abrasion Summary for The HT Claims

7/5/1996

COLLECTION			SORTING							ABRASION				ABRASION				ABRASION			
Sample #	NTS	Claim	Status	Indicator Recovery Totals						Pyrope Abrasion Evaluation				Chrome Diopside Abrasion Evaluation				Ilmenite Abrasion Evaluation			
				PY	EG	CD	ILM	CR	OLV	KPI1	KPI2	KPI3	KPI4	#Grains	Abr_Eval	KPI1	KPI2	KPI3	KPI4	#Grains	Abr_Grd
013100	76M1	HT 13	C	0	0	1	0	0	0					1	5						THE CD WAS SENT TO PROBE.
013136	76M1	HT 17	C	0	0	1	0	0	0					1	2						THE -40+80 CD WAS SENT TO PROBE.
017131	76N8	HT 94	C	0	0	1	0	0	0					1	5						THE CD WAS SENT TO PROBE.
051062	76M1	HT 6	C	0	0	0	1	0	0					0					1	4	

4 ANOMALOUS Samples

Total Samples Examined:

4

Abrasion - Legend of Abrasion

Pyropes:

Pyropes are routinely evaluated for kelyphite preservation, and are given a kelyphite preservation index (KPI) grade of 1 to 4 based on the degree of kelyphite preservation.

KPI 1 = very good kelyphite preservation, in which thick kelyphite occurs over most of the unbroken grain surface. The radial texture of the kelyphite is usually visible.

KPI 2 = good kelyphite preservation, in which a thin coat of kelyphite occurs over most or all of the grain surface.

KPI 3 = any trace to small patches of kelyphite.

KPI 4 = no kelyphite preserved at all.

Chrome diopsides:

Chrome diopsides are rated on a scale of increasing abrasion from 1 to 8, with 1 including the freshest and 8 comprising the most abraded and worn grains.

CD Abrasion Grade #1 = very fresh (on all surfaces suitable for evaluation, surface features are fresh without evidence of abrasion)

CD Abrasion Grade #2 = Fresh to slightly abraded

CD Abrasion Grade #3 = slightly abraded (some fresh surface features, but most abraded)

CD Abrasion Grade #4 =

CD Abrasion Grade #5 = moderately abraded (some fresh surface feature, but none without evidence of abrasion)

CD Abrasion Grade #6 =

CD Abrasion Grade #7 = very abraded

CD Abrasion Grade #8 = entirely worn and abraded

The CD abrasion grade is a single digit evaluation covering the entire sample, thus a sample with several clearly very fresh grains is rated #1, despite the occurrence of numerous more worn or indeterminate grains.

Ilmenites

Routine Ilmenite evaluation results in a grade from 1 to 4 (1 is very fresh, 4 is abraded) for the entire sample in a manner analogous to the CD abrasion grade system described above.

APPENDIX 8

LIST OF ASSESSMENT REPORTS

List Of Assessment Reports

Geochemical And Geophysical Assessment Report on the Benachee Resources Inc/ Snowpipe Resources Ltd PSHC Property; March , 1993 - March , 1995; 10 volumes; Ken Hicks; June 20, 1995; NTS 76K, 76M, 76N, 86P; DIAND #083499

Geochemical And Geophysical Assessment Report on the Benachee Resources Inc/ Snowpipe Resources Ltd WOOSUP (IL Claims) Property; March 18, 1993 - March 17, 1995; 12 volumes; Ken Hicks; June 12, 1995; NTS 76E, 86H, 86I; DIAND #083539

APPENDIX 9

LIST OF PERSONNEL

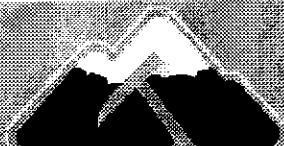
List of Personnel - 1995 HT Claims

Rodney Arnold	41751 Yarrow Central Road, Chilliwack, B. C. V2R 5G3
Tom Atkinson	c/o 540 - 220 Cambie St., Vancouver, B. C. V6B 2M9
Gradon Card	7109 Nancy Greene, Whistler, B. C. V0N 1B0
Paul deFoiard	301 - 242 E. 14th Ave., Vancouver, B. C. V5T 2M6
Ron Groom	RR 1, Ponoka, Alta. T4J 1R1
Thomas Hill	Monksgrange Rathnure, Co. Wexford, Ireland
Neil Labreche	RR#1, Site 10C-Comp 24, Merritt, B. C. V0K 2B0
Jason Roy	1891 E. 41st St., Vancouver, B. C. V5P 1L1
Sandy Smeeton	#406 - 2085 Bellevue Ave., West Vancouver, B. C. V7V 1C1
Paul Stevenson	56 St. Tropez Circle, Kirkland, Quebec
Mary Whelen-Grey	458 E. 19th Ave., Vancouver, B. C. V5V 1J7
Philip Winters	14210 - Sugar Creek Rd., Fort Wayne, IND., U.S.A. 46804

APPENDIX 7B
ELECTRON MICROPROBE SUMMARY
AND DATA

Key index for Microprobe data
on the
HT Claims
of
Benachee Resources Inc./ Snow pipe Resources Ltd.
and Inukshuk Capital Ltd.

A	- A fraction (-20+35)	MOD	- Moderate
ABR	- Abraded	NEG	- Negative
B	- B fraction (-35+40)	NOD	- Nodular
CPX	- Clinopyroxene	OL, OLV	- Olivine
CR	- Chromite	OLS	- Olivines
DEF	- Definitely	OPX	- Orthopyroxene
DIOP	- Diopside	PCD-H	- Pyrope chrome diopside heavies
EG	- Eclogitic garnet	POSS, POS	- Possible
EN	- Enstatite	PROB.	- Probably
EXT	- Extensive	PY, PYR	- Pyrope
F9	- Typo should read G9	PYS	- Pyropes
Fe#	- Calculated Fe quotient	QTZ	- Quartz
FRAG	- Fragment	RK	- Rock
G1,G3,G9,G10	- Pyrope garnet classifications	ROS	- Remaining original surface
G2CD	- G2 Class Chrome Diopside	SL	- Slightly
GRN #25-L10	- Grain #25-L10	ST	- Staurolite
GN	- Garnet	SURF	- Surface
GTS	- Garnets	TW	- Tray wash
Il-Fe	- Iron Ilmenite	UN ABR	- Unabraded
Il-Mg	- Magnesium Ilmenite	V	- Very
K, K'LITIC	- Kimberlite, kimberlitic	V.SL	- Very slight
KEL	- Kelyphite	WJ	- William Jarvis
Mg#	- Calculated Mg quotient		



Canamera Geological Ltd.

7/15/199

CANAMERA GEOLOGICAL LTD.

Electron Microprobe Summary For All HT Claims

Sample #:	Grain #	Claim:	Sent As:	Mineral:	Kimberlitic:	Sorting Remarks:
012373						
	55-B7	HT 182	IL	IL-FE	NK	1 ILM PROBED WAS NON-K (FE-ILM).
012545						
	12-G4	HT 157	IL	IL-FE	NK	SORTED FOR PY & CD ONLY. PROBE RESULTS NEG.
012847						
	9-F10	HT 167	OG	EG (G3/4)	K	GNA. GARNET PROBED WAS G4/G3 EG.
012850						
	14-I5	HT 156	GN	ST	NK	SORTED FOR PY & CD ONLY. PROBE RESULTS NEG.
012911						
	4-H13	HT 173	OL	EPIDOTE	NK	ONE CHR AS PER PROBE RESULTS.
	4-H12	HT 173	CR	CR		ONE CHR AS PER PROBE RESULTS.
012945						
	4-A11	HT 177	OX	Fe IL	NK	NOT SORTED FOR OL. 2 ILM. PROBE RESULTS NEGATIVE.
	4-A10	HT 177	OX	Fe IL	NK	NOT SORTED FOR OL. 2 ILM. PROBE RESULTS NEGATIVE.
012874						
	103-A05	HT 84	CD	CPx	PNK	1 CD PROB. NON-K AS PER WJ & PROBE RESULT WAS PROB. NON-K CPX.
012985						
	5-B4	HT 147	OX	IL	NK	PROBE RESULTS 1 POS. ILM. IS NEG. = IL-FE
013001						
	57-F1	HT 185	IL	Fe IL	NK	SORTED FOR PY & CD ONLY. ILM PROBED WAS NON-K (FE-ILM).
013003						
	54-B4	HT 186	IL	IL-FE	NK	SORTED FOR PY & CD ONLY. ILM PROBED WAS NON-K (FE-ILM).
013041						
	46-L5	HT 133	EG	GN	NK	GNA. 3 GARNET PROBED: 2 NON-K & 2 POSS. K'LITIC G5 EG.
	46-L3	HT 133	EG	GN	NK	GNA. 3 GARNET PROBED: 2 NON-K & 2 POSS. K'LITIC G5 EG.
	46-L1	HT 133	EG	EG (G5)	PK	GNA. 3 GARNET PROBED: 2 NON-K & 2 POSS. K'LITIC G5 EG.
	46-L7	HT 133	EG	EG (G5)	PK	GNA. 3 GARNET PROBED: 2 NON-K & 2 POSS. K'LITIC G5 EG.
013062						
	8-A7	HT 48	IL	IL-FE	NK	GNA. NOT SORTED FOR OL. ILM PROBED WAS NON-K.
013078						
	8-B6	HT 79	GN	GN	NK	NOT SORTED FOR OL. PROBE RESULTS NEG. ON 2 EG'S
	8-B5	HT 79	GN	GN	NK	NOT SORTED FOR OL. PROBE RESULTS NEG. ON 2 EG'S
013087						
	8-B1	HT 52	GN	GN	NK	NOT SORTED FOR OL.
013089						
	9-G1	HT 52	OG	GROSS	NK	SORTED FOR PY & CD ONLY. PROBE RESULTS NEG. ON EG.
013091						
	3-C5	HT 54	CR	RUTILE	NK	NOT SORTED FOR OL. PROBE RESULTS OF CHR IS NEG.
013100						
	103-A07	HT 13	CD	CD G5	K	1 CD PROBED WAS K (G5).
013118						
	17-B5	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL. ARE NEG.
	17-B4	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL. ARE NEG.
	17-B3	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL. ARE NEG.
	17-B2	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL. ARE NEG.
	17-B1	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL. ARE NEG.

Sample #:	Grain #:	Claim:	Sent As:	Mineral:	Kimberlitic:	Sorting Remarks:
	17-B6	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL ARE NEG.
	17-B7	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL ARE NEG.
	4-L9	HT 109	OX	Fe IL	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL ARE NEG.
	4-L10	HT 109	OX	Fe IL	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL ARE NEG.
	4-L11	HT 109	OX	Fe IL	NK	NOT SORTED FOR OL. PROBE RESULTS OF 3 ILM ARE NEG. PROBE RESULTS OF 6 OL ARE NEG.
013128						
	17-A10	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS ON THE 5 OLV ARE ALL EPIDOTE.
	17-A12	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS ON THE 5 OLV ARE ALL EPIDOTE.
	17-A9	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS ON THE 5 OLV ARE ALL EPIDOTE.
	17-A11	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS ON THE 5 OLV ARE ALL EPIDOTE.
	17-A8	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OL. PROBE RESULTS ON THE 5 OLV ARE ALL EPIDOTE.
013128						
	8-A9	HT 98	GN	GN	NK	NOT SORTED FOR OL. PROBE RESULTS NEG.
013135						
	103-A03	HT 17	CD	CD G5	K	1 CD IN -40 +60. 1 CD PROBED WAS K (G5).
013206						
	4-A12	HT 124	OX	Fe IL	NK	NOT SORTED FOR OL. PROBE RESULTS OF ILM IS NEG.
013216						
	8-A6	HT 62	OL	QTZ	NK	NOT SORTED FOR OL. PROBE RESULTS NEG. ON OLV.
013243						
	9-B8	HT 19	OG	GN	NK	PROBE RESULTS NEG.
016791						
	9-H10	HT 27	OG	GN	PK	SORTED FOR PY & CD ONLY. GARNET PROBED IS POSSIBLY K.
016793						
	9-E3	HT 27	OL	EPIDOTE	NK	NOT SORTED FOR OLV. 2 GRAINS PROBED WERE EPIDOTES = NEG. RESULTS
	9-E2	HT 27	OL	EPIDOTE	NK	NOT SORTED FOR OLV. 2 GRAINS PROBED WERE EPIDOTES = NEG. RESULTS
016824						
	3-L6	HT 15	OX	Fe IL	NK	PROBE RESULTS OF 1 POSS. ILM. IS NEG.
016840						
	14-H3	HT 8	OL	EPIDOTE	K	PROBE RESULTS NEG.
	14-H4	HT 8	OL	?	NK	PROBE RESULTS NEG.
016841						
	17-H10	HT 8	GN	GN	NK	SORTED FOR PY & CD ONLY. PROBE RESULTS ON 1 POSS. EG. IS NEG.
016844						
	15-E8	HT 10	CD	CD	K	NOT SORTED FOR OLV. CD K'LITC AS PER PROBE. OLV PROBED WAS GROSSULAR. CD LOOKS OKAY MOD. ABR. POS. SURFACE
	20-I8	HT 10	OL	GROSS	NK	NOT SORTED FOR OLV. CD K'LITC AS PER PROBE. OLV PROBED WAS GROSSULAR. CD LOOKS OKAY MOD. ABR. POS. SURFACE
016868						
	17-A6	HT 95	OL	CALCITE	NK	NOT SORTED FOR OLV. GRAIN REPORTED IS NOT A K-OL. GRAIN PROBED IS CALCITE.
016906						
	4-E13	HT 90	GN	GN	NK	NOT SORTED FOR OLV. PROBE RESULTS OF 3 ILM = NEG. PROBE RESULTS OF 1 EG. = NEG.
	15-C10	HT 90	OXIDE	MAGNET	NK	NOT SORTED FOR OLV. PROBE RESULTS OF 3 ILM = NEG. PROBE RESULTS OF 1 EG. = NEG.
	15-C11	HT 90	OXIDE	MAGNETI	NK	NOT SORTED FOR OLV. PROBE RESULTS OF 3 ILM = NEG. PROBE RESULTS OF 1 EG. = NEG.
	4-E12	HT 90	OX	MAGNETI	NK	NOT SORTED FOR OLV. PROBE RESULTS OF 3 ILM = NEG. PROBE RESULTS OF 1 EG. = NEG.
016907						
	108-D12	HT 90	EG	GN	NK	1 EG PROBED WAS NON-K.
016923						
	15-B7	HT 39	GN	GN	NK	SORTED FOR PY & CD ONLY. PROBE RESULTS OF POSS. EG. IS NEG.
016926						
	15-F12	HT 19	OL	EPIDOTE	NK	NOT SORTED FOR OLV. PROBE RESULTS OF OLV. IS NEG.
017128						
	57-F3	HT 88	IL	Fe IL	NK	SORTED FOR PY & CD ONLY. ILM PROBED WAS NON-K (FE-ILM).
017131						
	103-A08	HT 94	CD	CD (G3)	K	1 CD PROBED WAS K (G3).

Sample #	Grain #	Claim	Sent As	Mineral	Kimberlitic	Sorting Remarks
017148	17-A7	HT 109	OL	EPIDOTE	NK	NOT SORTED FOR OLV. PROBE RESULTS NEG.
017152	4-F1	HT 113	GN	ST	NK	NOT SORTED FOR OLV. 1 EG. PROBE RESULT NEG.
017154	17-I1	HT 77	GN	GN	NK	SORTED FOR PY & CD ONLY. GARNET PROBED IS POSSIBLY K.
017159	15-F6	HT 80	GN	GN	NK	CR PROBE RESULT WAS PROB. KLITIC. 1 ORANGE GARNET PROBE RESULT WAS NON-K.
	15-F5	HT 80	CHR	CHR	K	CR PROBE RESULT WAS PROB. KLITIC. 1 ORANGE GARNET PROBE RESULT WAS NON-K.
017238	9-I6	HT 37	OG	GN	NK	SORTED FOR PY & CD ONLY. PROBE RESULTS NEG.
019525	46-A10	HT 190	OL	GROSS?	NK	BOTH OLV. PROBED HAD LOW TOTAL.
	46-A9	HT 190	OL	GROSS	NK	BOTH OLV. PROBED HAD LOW TOTAL.
019757	35-L5	HT 188	OL	GROSS	NK	A SORTED. 1 OLV PROBED RESULTS NEGATIVE.
019788	15-B2	HT 213	OL	EPIDOTE	NK	PROBE RESULTS ON OLV. IS NEG.
019803	35-K9	HT 187	OL	GROSS	NK	A SORTED. OLV PROBE RESULTS NEGATIVE.
019850	15-F4	HT 228	OL	OL	NK	PROBE RESULTS ON OLV. IS NEG.
019973	21-C1	HT 222	GN	GN	NK	SORTED FOR PY & CD ONLY. ILM HALF SORTED. PROBE RESULTS: GARNET NEG. 2 OLV. WERE EPIDOTE AND GROSSULAR.
	21-C2	HT 222	OL	GROSS	NK	SORTED FOR PY & CD ONLY. ILM HALF SORTED. PROBE RESULTS: GARNET NEG. 2 OLV. WERE EPIDOTE AND GROSSULAR.
	21-C3	HT 222	OL	EPIDOTE	NK	SORTED FOR PY & CD ONLY. ILM HALF SORTED. PROBE RESULTS: GARNET NEG. 2 OLV. WERE EPIDOTE AND GROSSULAR.
040072	75-I14	HT 173	IL-3	Fe IL	NK	3 ILM PROBED WERE ALL NON-K.
	75-I12	HT 173	IL-1	Fe IL	NK	3 ILM PROBED WERE ALL NON-K.
	75-I13	HT 173	IL-2	Fe IL	NK	3 ILM PROBED WERE ALL NON-K.
040088	75-I11	HT 81	CR	Fe IL	NK	1 CR PROBED WAS NON-K.
040091	75-D2	HT 80	EG	GN	NK	1 EG PROBED WAS NON-K.
040152	75-G6	HT 166	IL	Fe IL	NK	1 ILM PROBED WAS NON-K.
040156	78-A13	HT 166	ENS-2	APATITE	NK	2 ENST PROBED WERE BOTH NON-K. 1 ILM PROBED WAS NON-K.
	78-A12	HT 166	ENS-1	GROSS	NK	2 ENST PROBED WERE BOTH NON-K. 1 ILM PROBED WAS NON-K.
	75-G14	HT 166	IL	Fe IL	NK	2 ENST PROBED WERE BOTH NON-K. 1 ILM PROBED WAS NON-K.
040195	54-D6	HT 27	CD	G2 CD/C	PK	-40+50 ALSO SORTED. CD PROBED WAS POSSIBLY KLITIC. G2 CD/CPX.
040195	103-M04	HT 27	CR	CR	K	GNA. 1 SL ABR K-CR & PROBE RESULT WAS K.
040241	66-C1	HT 129	CR	CR	K	0.90 KG EXCESS. -40+50 ALSO SORTED. 1 CR PROBED WAS KLITIC.
040244	66-A14	HT 91	OL	OL	K	GNA. -40+50 ALSO SORTED. 1 OLV PROBED WAS KLITIC.
041027	79-E12	HT 129	EG	GN	NK	1 EG PROBED WAS NON-K.
050258	107-C02	HT 207	EG	GN	NK	1 EG PROBED WAS NON-K.
050287						

Sample #:	Grain #	Claim:	Sent As:	Mineral:	Kimberlitic:	Sorting Remarks:
050683	107-K05	HT 214	IL	Fe IL	NK	1 ILM PROBED WAS NON-K.
050684	108-I16	HT 13	PY	GN	NK	
050695	107-K12	HT 13	IL	Fe IL	NK	1 ILM PROBED WAS NON-K.
050716	107-J03	HT 27	IL	Fe IL	NK	1 ILM PROBED WAS NON-K.
	107-K17	HT 188	IL	Fe IL	NK	1 ILM PROBED WAS NON-K.

Total Grains Probed: 5

LEGEND:
 PK= Possibly Kimberlitic, NK=Not Kimberlitic, KE=Kimberlitic Eclogitic,
 K=Kimberlitic, KDI=Kimberlitic Diamond Inclusion Composition

HT CLAIMS
Electron Microprobe Data

Sample#	Grain#	Claim Name	FeO Total	Al2O3	CaO	Na2O	MnO	SiO2	TiO2	Cr2O3	MgO	V2O5	ZnO	NiO	TOTAL	Sent As	Min	K	RSUM	Recalc FeO	Recalc Fe2O3	Mg#	Cr#	Fe#
040156	78-A12	HT 166	2.581	21.978	36.275	0.008	0.213	38.644	0.412	0.000	0.041	0.000	0.000	0.000	100.153	ENS-1	GROSS	NK	100.467	-0.237	3.131	2.784	-6.482	0.053
040156	78-A13	HT 166	0.387	0.000	53.523	0.116	0.669	0.000	0.327	0.000	0.048	0.000	0.000	0.000	55.070	ENS-2	APATITE	NK				11.047		
041027	79-E12	HT 129	16.592	20.259	0.361	0.007	11.382	35.430	0.062	0.034	0.441	0.000	0.000	0.000	84.567	EG	GN	NK	83.118	29.600	-14.457	4.524	-3.264	0.973
040091	75-D2	HT 80	7.346	20.310	33.645	0.003	0.185	38.454	0.000	0.012	0.000	0.000	0.000	0.000	99.953	EG	GN	NK	100.473	2.676	5.190	0.000	-6.317	0.146
040244	66-A14	HT 91	7.812	0.009	0.035	0.007	0.127	40.691	0.000	0.054	51.390	0.000	0.000	0.000	100.124	OL	OL	K				86.805		
040195	54-D6	HT 27	4.320	1.534	22.069	0.520	0.111	53.295	0.167	0.455	16.972	0.000	0.000	0.000	99.444	CD	G2 CD/CPX	PK				79.711		
019526	46-A9	HT 190	3.432	17.542	35.706	0.094	0.456	35.637	0.405	0.012	1.421	0.000	0.000	0.000	94.705	OL	GROSS	NK	95.802	-6.414	10.943	42.463	-5.815	0.070
019526	46-A10	HT 190	2.626	17.413	35.962	0.073	0.633	35.885	0.138	0.000	1.925	0.000	0.000	0.000	94.656	OL	GROSS?	NK	95.796	-7.613	11.379	56.652	-5.858	0.054
013041	46-L1	HT 133	31.027	21.963	1.128	0.018	0.336	37.234	0.569	0.034	8.194	0.000	0.000	0.000	100.501	EG	EG (G5)	PK	100.780	28.528	2.777	32.005	-5.887	0.956
013041	46-L3	HT 133	20.244	20.707	0.498	0.023	20.493	35.607	0.000	0.051	1.559	0.000	0.000	0.000	99.182	EG	GN	NK	99.404	18.251	2.215	12.068	-4.645	0.989
013041	46-L5	HT 133	21.964	20.306	0.147	0.011	20.435	35.260	0.000	0.025	1.015	0.000	0.000	0.000	99.163	EG	GN	NK	99.449	19.399	2.851	7.609	-4.117	0.992
013041	46-L7	HT 133	31.506	21.803	1.214	0.015	0.553	37.392	0.220	0.054	7.976	0.000	0.000	0.000	100.733	EG	EG (G5)	PK	101.070	28.479	3.364	31.094	-5.771	0.953
019803	35-K9	HT 187	3.093	21.323	32.384	0.015	3.680	38.116	0.000	0.000	0.143	0.000	0.000	0.000	98.753	OL	GROSS	NK	99.096	0.007	3.429	7.595	-6.220	0.069
019757	35-L5	HT 188	3.501	19.851	36.141	0.013	0.996	37.651	0.652	0.000	0.078	0.000	0.000	0.000	98.883	OL	GROSS	NK	99.487	-1.931	6.036	3.817	-6.253	0.070
016844	20-I8	HT 10	3.147	17.636	36.744	0.063	0.272	35.843	0.294	0.012	1.997	0.000	0.000	0.000	96.007	OL	GROSS	NK	97.273	-8.224	12.636	53.072	-6.019	0.063
019973	21-C1	HT 222	6.712	19.475	32.419	0.012	3.011	37.643	0.272	0.009	0.020	0.000	0.000	0.000	99.572	GN	GN	NK	100.257	0.556	6.841	0.526	-6.202	0.139
019973	21-C2	HT 222	2.789	21.170	36.565	0.000	0.945	38.317	0.260	0.006	0.083	0.000	0.000	0.000	100.135	OL	GROSS	NK	100.656	-1.895	5.206	5.032	-8.453	0.056
019973	21-C3	HT 222	10.478	25.054	23.844	0.000	0.154	37.264	0.000	0.025	0.025	0.000	0.000	0.000	96.844	OL	EPIDOTE	NK				0.237		
016923	15-B7	HT 39	9.878	15.533	34.585	0.000	1.442	35.922	0.000	0.028	0.083	0.000	0.000	0.000	97.471	GN	GN	NK	98.900	-2.960	14.287	1.474	-5.866	0.182
017159	15-F6	HT 80	11.581	19.915	0.215	0.023	31.511	35.177	0.701	0.000	0.035	0.000	0.000	0.000	99.158	GN	GN	NK	99.302	10.286	1.440	0.533	-5.285	0.977
016825	15-F12	HT 19	3.872	17.974	36.091	0.092	0.287	35.695	0.037	0.000	1.605	0.000	0.000	0.000	95.653	OL	EPIDOTE	NK	96.897	-7.308	12.425	42.492	-5.956	0.077
017140	17-A7	HT 109	4.018	17.290	36.117	0.046	0.358	36.029	0.387	0.006	1.932	0.000	0.000	0.000	96.182	OL	EPIDOTE	NK	97.405	-6.963	12.203	46.152	-6.002	0.080
013120	17-A8	HT 109	3.305	18.396	35.835	0.097	0.426	36.078	0.000	0.000	1.565	0.000	0.000	0.000	95.702	OL	EPIDOTE	NK	96.812	-6.682	11.077	45.778	-5.976	0.067
013120	17-A9	HT 109	3.794	17.557	35.842	0.081	0.373	35.821	0.344	0.000	1.856	0.000	0.000	0.000	95.667	OL	EPIDOTE	NK	96.871	-7.021	12.019	46.576	-5.951	0.076
013120	17-A10	HT 109	3.870	17.372	36.060	0.063	0.261	36.114	0.122	0.026	1.970	0.000	0.000	0.000	95.858	OL	EPIDOTE	NK	97.081	-7.117	12.210	47.573	-5.976	0.077
013120	17-A11	HT 109	3.030	20.807	36.204	0.005	0.824	38.921	0.000	0.000	0.131	0.000	0.000	0.000	99.921	OL	EPIDOTE	NK	100.364	-0.945	4.417	7.156	-8.428	0.061
013120	17-A12	HT 109	3.675	17.714	35.937	0.061	0.545	35.847	0.727	0.018	1.814	0.000	0.000	0.000	96.337	OL	EPIDOTE	NK	97.496	-6.726	11.560	46.802	-6.012	0.074
013118	17-B6	HT 109	4.342	16.310	35.648	0.066	0.322	35.477	1.353	0.000	1.982	0.000	0.000	0.000	95.499	OL	EPIDOTE	NK	96.689	-6.347	11.879	44.858	-5.871	0.087
016841	17-H10	HT 8	37.358	21.236	2.940	0.013	0.147	36.427	0.000	0.000	2.562	0.000	0.000	0.000	100.683	GN	GN	NK	100.947	34.987	2.635	10.892	-5.745	0.908
017154	17-I1	HT 77	33.172	21.808	0.852	0.016	0.404	37.238	0.415	0.064	6.514	0.000	0.000	0.000	100.482	GN	GN	NK	100.648	31.683	1.655	25.926	-5.376	0.968
019788	15-B2	HT 213	9.405	25.753	23.855	0.015	0.085	36.992	0.000	0.000	0.010	0.000	0.000	0.000	96.116	OL	EPIDOTE	NK				0.106		
016844	15-E8	HT 10	3.993	1.351	22.449	0.496	0.114	52.422	0.000	0.684	17.319	0.000	0.000	0.000	98.827	CD	CD	K				81.263		
019860	15-F4	HT 228	7.123	0.240	24.349	0.082	6.190	51.114	0.000	0.000	9.789	0.000	0.000	0.000	98.867	OL	OL	NK				57.831		
016868	17-A6	HT 95	0.751	0.019	53.173	0.088	0.997	0.017	0.510	0.026	0.090	0.000	0.000	0.000	55.671	OL	CALCITE	NK				10.650		
013118	17-B1	HT 109	9.784	25.438	23.877	0.003	0.210	36.926	0.544	0.000	0.056	0.000	0.000	0.000	96.838	OL	EPIDOTE	NK				0.573		
013118	17-B2	HT 109	11.878	23.735	23.543	0.007	0.080	36.924	0.110	0.045	0.020	0.000	0.000	0.000	96.342	OL	EPIDOTE	NK				0.167		
013118	17-B3	HT 109	9.719	25.833	23.872	0.008	0.222	37.183	0.264	0.012	0.033	0.000	0.000	0.000	97.145	OL	EPIDOTE	NK				0.340		
013118	17-B4	HT 109	9.966	25.030	23.533	0.004	0.235	37.242	0.329	0.000	0.046	0.000	0.000	0.000	96.386	OL	EPIDOTE	NK				0.464		
013118	17-B5	HT 109	9.897	25.513	23.971	0.008	0.070	37.058	0.489	0.037	0.028	0.000	0.000	0.000	97.071	OL	EPIDOTE	NK				0.284		
013118	17-B7	HT 109	9.582	25.640	23.971	0.003	0.049	37.161	0.417	0.025	0.050	0.000	0.000	0.000	96.897	OL	EPIDOTE	NK				0.517		
016840	14-H3	HT 8	10.119	25.411	24.311	0.005	0.074	37.540	0.407	0.000	0.007	0.000	0.000	0.000	97.874	OL	EPIDOTE	K				0.066		
016840	14-H4	HT 8	8.787	26.564	24.037	0.004	0.145	37.694	0.394	0.000	0.065	0.000	0.000	0.000	97.688	OL	?	NK				0.731		
012850	14-I5	HT 156	12.905	55.097	0.000	0.016	0.436	27.594	0.864	0.082	1.594	0.000	0.000	0.000	98.587	GN	ST	NK				10.992		
013243	9-B8	HT 19	7.011	18.162	35.283	0.007	0.363	37.270	0.142	0.000	0.134	0.000	0.000	0.000	98.372	OG	GN	NK	99.282	-1.160	9.081	3.302	-6.113	0.134
012847	9-F10	HT 167	20.669	22.231	8.153	0.066	0.487	38.469	0.616	0.098	9.419	0.000	0.000	0.000	100.207	OG	EG (G3/4)	K	100.463	18.372	2.553	44.821	-6.335	0.864
013089	9-G1	HT 52	5.949	19.359	33.832	0.008	1.614	37.696	0.390	0.003	0.041	0.000	0.000	0.000	98.894	OG	GROSS	NK	99.520	0.321	6.254	1.227	-6.171	0.121
017230	9-I6	HT 37	36.101	20.686	6.653	0.018	0.284	35.678	0.100	0.058	0.960	0.000	0.000	0.000	100.538	OG	GN	NK	100.983	32.112	4.433	4.526	-5.599	0.809
016791	9-I10	HT 27	23.108	21.810	9.563	0.008	0.856	37.516	0.000	0.091	6.870	0.000	0.000	0.000	99.823	OG	GN	PK	100.231	19.444	4.071	34.638	-6.131	0.653

HT CLAIMS
Electron Microprobe Data

016793	9-E2	HT 27	4.490	17.090	35.843	0.070	0.316	35.468	0.437	0.015	1.909	0.000	0.000	0.000	95.638	OL	EPIDOTE	NK							29.830		
016793	9-E3	HT 27	3.978	17.325	36.082	0.066	0.322	35.190	0.202	0.000	1.890	0.000	0.000	0.000	95.054	OL	EPIDOTE	NK							32.215		
013128	8-A9	HT 98	11.771	19.545	0.541	0.027	30.701	35.209	0.726	0.010	0.718	0.000	0.000	0.000	99.249	GN	GN	NK	99.501	9.503	2.521	9.806	-5.186	0.944			
013087	8-B1	HT 52	6.072	19.964	34.381	0.005	0.555	37.713	1.131	0.000	0.046	0.000	0.000	0.000	99.868	GN	GN	NK	100.390	1.387	5.207	1.345	-6.298	0.121			
013078	8-B5	HT 79	11.180	20.529	0.193	0.015	31.457	34.980	0.000	0.000	0.000	0.000	0.000	0.000	98.353	GN	GN	NK	98.527	9.622	1.731	0.000	-5.230	0.978			
013216	8-A6	HT 62	0.071	0.002	0.003	0.004	0.023	99.506	0.132	0.000	0.000	0.000	0.000	0.000	99.740	OL	QTZ	NK					0.000				
013078	8-B6	HT 79	7.721	20.312	0.603	0.031	34.720	33.779	0.000	0.000	0.002	0.000	0.000	0.000	97.168	GN	GN	NK					0.021				
016906	4-E13	HT 90	6.903	19.110	35.090	0.028	0.692	37.915	0.415	0.000	0.035	0.000	0.000	0.000	100.189	GN	GN	NK	100.980	-0.202	7.896	0.891	-6.328	0.133			
012911	4-H13	HT 173	1.000	22.789	36.992	0.007	0.185	38.912	0.005	0.000	0.138	0.000	0.000	0.000	100.026	OL	EPIDOTE	NK	100.286	-1.334	2.593	19.706	-6.538	0.021			
017152	4-F1	HT 113	12.065	55.136	0.000	0.027	0.378	27.142	0.507	0.000	1.932	0.000	0.000	0.000	97.187	GN	ST	NK					13.803				
013136	103-A03	HT 17	2.601	1.168	20.256	0.993	0.065	53.077	0.000	1.374	18.443	0.000	0.000	0.000	97.977	CD	CD G5	K					87.639				
012974	103-A05	HT 84	2.825	0.342	23.502	0.376	0.089	53.274	0.000	0.367	17.807	0.000	0.000	0.000	98.582	CD	CPx	PNK					86.307				
013100	103-A07	HT 13	2.480	1.345	21.200	1.190	0.089	51.091	0.000	1.160	17.714	0.000	0.000	0.000	96.270	CD	CD G5	K					87.717				
017131	103-A08	HT 94	2.327	1.136	21.700	1.357	0.059	52.377	0.599	1.549	16.800	0.000	0.000	0.000	97.905	CD	CD (G3)	K					87.833				
050268	107-C02	HT 207	28.541	20.714	0.357	0.018	14.081	35.580	0.000	0.010	0.869	0.000	0.000	0.000	100.149	EG	GN	NK	100.417	26.137	2.671	5.147	-5.237	0.984			
018907	108-D12	HT 90	20.433	20.331	0.229	0.012	21.270	35.175	0.000	0.006	1.156	0.000	0.000	0.000	98.612	EG	GN	NK	98.874	18.084	2.611	9.159	-5.120	0.986			
050683	108-H16	HT 13	37.964	20.402	1.773	0.009	1.243	35.534	0.000	0.000	2.292	0.000	0.000	0.000	99.218	PY	GN	NK	99.569	34.815	3.500	9.715	-5.500	0.944			
040088	75-H11	HT 81	47.814	0.006	0.027	0.000	0.434	0.021	52.168	0.000	0.307	0.612	0.000	0.019	101.512	Fe IL	Fe IL	NK	101.512	46.866	1.053	1.153	0.000	0.020			
040072	75-H12	HT 173	47.704	0.032	0.000	0.000	0.640	0.034	51.816	0.000	0.138	0.493	0.106	0.023	100.985	IL-1	Fe IL	NK	101.130	46.405	1.444	0.526	0.000	0.028			
040072	75-H13	HT 173	47.983	0.028	0.000	0.000	0.531	0.032	51.884	0.000	0.101	0.400	0.026	0.006	100.992	IL-2	Fe IL	NK	101.148	46.580	1.560	0.386	0.000	0.030			
040072	75-H14	HT 173	47.965	0.004	0.000	0.000	0.442	0.000	51.514	0.015	0.146	0.387	0.098	0.019	100.591	IL-3	Fe IL	NK	100.795	46.123	2.047	0.561	0.032	0.040			
040152	75-G6	HT 166	48.152	0.094	0.011	0.000	0.394	0.045	51.267	0.034	0.420	0.493	0.000	0.069	100.977	IL	Fe IL	NK	101.250	45.707	2.717	1.610	0.079	0.053			
040156	75-G14	HT 166	48.389	0.036	0.011	0.000	0.594	0.043	50.598	0.013	0.161	0.436	0.032	0.000	100.312	IL	Fe IL	NK	100.655	45.309	3.423	0.629	0.022	0.068			
040241	66-C1	HT 129	26.647	10.024	0.017	0.000	0.731	0.165	0.726	53.893	7.116	0.221	0.110	0.168	99.815	CR	CR	K	100.225	22.978	4.077	35.565	0.783	0.053			
013003	54-B4	HT 186	48.593	0.053	0.038	0.000	0.505	0.026	49.492	0.038	0.260	0.411	0.036	0.003	99.452	IL	IL-FE	NK	99.950	44.129	4.961	1.041	0.070	0.101			
012373	55-B7	HT 182	48.969	0.032	0.000	0.000	0.528	0.000	50.425	0.000	0.172	0.468	0.046	0.028	100.667	IL	IL-FE	NK	101.090	45.173	4.218	0.676	0.000	0.084			
013001	57-F1	HT 185	48.102	0.000	0.000	0.000	0.746	0.015	50.728	0.000	0.085	0.191	0.005	0.045	99.917	IL	Fe IL	NK	100.284	44.983	3.466	0.334	0.000	0.089			
017128	57-F3	HT 88	47.578	0.043	0.000	0.000	0.430	0.030	50.737	0.000	0.313	0.280	0.031	0.050	99.492	IL	Fe IL	NK	99.776	45.034	2.827	1.225	0.000	0.056			
016906	15-C10	HT 90	91.241	1.869	0.007	0.000	0.027	0.090	0.485	0.212	0.028	1.114	0.000	0.000	95.073	OXIDE	Magnetite	NK	101.438	34.079	63.527	0.147	0.071	0.953			
016906	15-C11	HT 90	91.244	1.797	0.007	0.000	0.061	0.039	0.947	0.031	0.151	1.069	0.075	0.045	95.463	OXIDE	Magnetite	NK	101.823	34.138	63.464	0.782	0.011	0.957			
017159	15-F5	HT 80	34.204	9.389	0.021	0.000	1.113	0.146	0.966	50.131	0.516	0.102	1.702	0.087	98.373	CHR	CHR	K	98.760	30.747	3.842	2.903	0.782	0.054			
012545	12-G4	HT 157	48.319	0.019	0.000	0.000	0.478	0.000	51.440	0.000	0.123	0.371	0.119	0.045	100.913	IL	IL-FE	NK	101.173	45.994	2.585	0.473	0.000	0.051			
013062	8-A7	HT 46	48.329	0.025	0.000	0.000	0.476	0.026	50.548	0.004	0.244	0.325	0.000	0.000	99.977	IL	IL-FE	NK	100.339	45.082	3.609	0.955	0.009	0.072			
012985	5-B4	HT 147	48.319	0.043	0.000	0.000	0.514	0.000	51.429	0.022	0.167	0.052	0.056	0.302	101.010	OX	IL	NK	101.255	45.171	3.499	0.657	0.041	0.070			
013091	3-C5	HT 54	2.192	0.087	0.017	0.000	0.000	0.000	93.510	0.118	0.008	0.000	0.000	0.000	95.936	CR	RUTILE	NK	86.818	84.052	-90.975	0.018	1.000	0.974			
016824	3-L6	HT 15	46.389	0.008	0.000	0.000	0.671	0.000	52.671	0.092	0.675	0.000	0.000	0.000	100.508	OX	Fe IL	NK	100.608	45.482	1.009	2.577	0.121	0.020			
012946	4-A10	HT 177	48.890	0.036	0.018	0.000	0.628	0.002	51.200	0.000	0.085	0.000	0.000	0.000	100.858	OX	Fe IL	NK	101.266	45.235	4.063	0.332	0.000	0.081			
012946	4-A11	HT 177	48.293	0.062	0.000	0.000	0.514	0.047	50.863	0.004	0.415	0.000	0.000	0.000	100.208	OX	Fe IL	NK	100.617	44.536	4.176	1.632	0.008	0.084			
013206	4-A12	HT 124	47.231	0.038	0.000	0.000	0.616	0.019	52.079	0.227	0.295	0.000	0.000	0.000	100.513	OX	Fe IL	NK	100.675	45.705	1.695	1.138	0.269	0.033			
013118	4-L9	HT 109	44.811	0.000	0.007	0.000	0.624	0.015	53.144	0.134	1.536	0.000	0.000	0.000	100.313	OX	Fe IL	NK	100.313	44.430	0.424	5.803	0.177	0.009			
013118	4-L10	HT 109	48.718	0.057	0.015	0.000	0.540	0.026	51.177	0.061	0.196	0.000	0.000	0.000	100.793	OX	Fe IL	NK	101.188	45.136	3.980	0.767	0.102	0.079			
013118	4-L11	HT 109	47.093	0.094	0.000	0.000	0.989	0.034	51.561	0.576	0.196	0.000	0.000	0.000	100.549	OX	Fe IL	NK	100.770	45.056	2.264	0.768	0.368	0.045			
016906	4-E12	HT 90	91.764	1.610	0.000	0.000	0.021	0.030	0.684	0.191	0.113	0.000	0.000	0.000	94.412	OX	Magnetite	NK	101.053	32.124	66.280	0.622	0.074	0.961			
012911	4-H12	HT 173	23.435	10.957	0.011	0.000	0.354	0.184	0.822	53.215	9.391	0.000	0.000	0.000	98.367	CR	CR		98.796	19.599	4.263	46.064	0.765	0.055			
040196	103-M04	HT 27	21.452	9.215	0.000	0.000	0.176	0.163	0.991	55.671	10.588	0.261	0.113	0.000	98.601	CR	CR	K	98.993	18.183	3.634	50.931	0.802	0.047			
050695	107-J03	HT 27	48.468	0.049	0.000	0.000	0.527	0.011	50.285	0.015	0.282	0.012	0.324	0.140	100.244	IL	Fe IL	NK	100.633	43.794	5.194	1.134	0.027	0.107			
050387	107-K05	HT 214	49.018	0.040	0.000	0.000	0.470	0.036	49.941	0.045	0.206	0.000	0.334	0.052	100.284	IL	Fe IL	NK	100.726	43.766	5.837	0.830	0.088	0.120			
050684	107-K12	HT 13	45.935	0.009	0.000	0.000	1.597	0.013	51.170	0.004	0.529	0.004	0.220	0.000	99.577	IL	Fe IL	NK	99.778	43.281	2.950	2.132	0.003	0.081			</